



1
00:00:23,049 --> 00:00:16,080

[Music]

2
00:00:24,760 --> 00:00:23,059

so this is a kind of a narrow

3
00:00:28,120 --> 00:00:24,770

presentation from those stuff we're into

4
00:00:30,190 --> 00:00:28,130

at heart math related to the global

5
00:00:32,350 --> 00:00:30,200

coherence initiative work I think I

6
00:00:37,049 --> 00:00:32,360

spoke was it three years ago and was a

7
00:00:39,010 --> 00:00:37,059

three years ago we were in Boulder yeah

8
00:00:42,250 --> 00:00:39,020

some of our collaborators on this

9
00:00:44,160 --> 00:00:42,260

particular work Mike Atkinson who's our

10
00:00:48,069 --> 00:00:44,170

lab manager at the in-situ heart math

11
00:00:50,080 --> 00:00:48,079

Heather Connery a dr abdullah al Bueller

12
00:00:53,770 --> 00:00:50,090

who's a head of our cardiac Hospital in

13
00:00:54,970 --> 00:00:53,780

Saudi Arabia and New York which we all

14

00:00:58,420 --> 00:00:54,980

know from here is one of our

15

00:01:01,000 --> 00:00:58,430

collaborators on this as well helping us

16

00:01:03,340 --> 00:01:01,010

with a lot of the analysis just kind of

17

00:01:05,649 --> 00:01:03,350

a high-level background of what this

18

00:01:09,100 --> 00:01:05,659

project is about our kind of guiding

19

00:01:11,800 --> 00:01:09,110

hypotheses are first of all that human

20

00:01:13,800 --> 00:01:11,810

and animal health our cognitive

21

00:01:16,749 --> 00:01:13,810

functions mental capacities and so on

22

00:01:19,270 --> 00:01:16,759

emotionality and behaviors are affected

23

00:01:22,690 --> 00:01:19,280

by different changes in the planetary

24

00:01:24,129 --> 00:01:22,700

magnetic energetic fields that's a sure

25

00:01:27,849 --> 00:01:24,139

that's really a hypothesis that's quite

26
00:01:30,039 --> 00:01:27,859
well established actually and number two

27
00:01:32,050 --> 00:01:30,049
the Earth's magnetic fields act as

28
00:01:34,569 --> 00:01:32,060
carriers of biologically relevant

29
00:01:36,399 --> 00:01:34,579
information that interconnects all

30
00:01:40,359 --> 00:01:36,409
living systems kind of a you know

31
00:01:41,999 --> 00:01:40,369
connects the ecosystem and it would thus

32
00:01:45,629 --> 00:01:42,009
we're all coupled to and affect the

33
00:01:48,309 --> 00:01:45,639
system of the global field environment

34
00:01:50,529 --> 00:01:48,319
some support for that I've shown this

35
00:01:52,749 --> 00:01:50,539
before but I think it's a rather

36
00:01:55,690 --> 00:01:52,759
profound set of data this was from

37
00:01:58,959 --> 00:01:55,700
Alexander Tchaikovsky a fairly famous

38
00:02:01,959 --> 00:01:58,969

Russian astrophysicist who after World

39

00:02:03,370 --> 00:02:01,969

War one noticed that what during World

40

00:02:06,519 --> 00:02:03,380

War none when he was drafted into the

41

00:02:09,730 --> 00:02:06,529

war that it seemed that during high

42

00:02:12,030 --> 00:02:09,740

solar activity that people just were do

43

00:02:17,130 --> 00:02:12,040

did more stupid things

44

00:02:19,319 --> 00:02:17,140

uh-huh basically and we're so after that

45

00:02:21,660 --> 00:02:19,329

he did an exhaustive study of human

46

00:02:23,100 --> 00:02:21,670

history quite impressive actually what

47

00:02:25,380 --> 00:02:23,110

these guys did before we had Internet's

48

00:02:27,470 --> 00:02:25,390

right I thought he was offered a Nobel

49

00:02:29,699 --> 00:02:27,480

Prize for this work but it was not

50

00:02:32,759 --> 00:02:29,709

couldn't get out of Siberia to do it but

51
00:02:36,030 --> 00:02:32,769
anyway long story short what we started

52
00:02:37,680 --> 00:02:36,040
at 1749 on the left side of the top

53
00:02:40,289 --> 00:02:37,690
graph and blue and then wrap around the

54
00:02:42,750 --> 00:02:40,299
1926 when this was published what's

55
00:02:44,729 --> 00:02:42,760
being plotted or shown in the blue it's

56
00:02:47,729 --> 00:02:44,739
just a dot for each year the number of

57
00:02:50,129 --> 00:02:47,739
major human events that occurred a

58
00:02:52,500 --> 00:02:50,139
globally important major human events

59
00:02:57,180 --> 00:02:52,510
that's lost being plotted there from

60
00:02:59,789 --> 00:02:57,190
1749 to 1926 okay revolution start of a

61
00:03:02,339 --> 00:02:59,799
war you know big major things new

62
00:03:04,319 --> 00:03:02,349
discoveries global impact type things

63
00:03:11,729 --> 00:03:04,329

the red line on the bottom is the solar

64

00:03:13,800 --> 00:03:11,739

cycle during the same period okay so I

65

00:03:15,930 --> 00:03:13,810

think we have a and this is been a force

66

00:03:18,270 --> 00:03:15,940

confirmed and extended into modern times

67

00:03:21,330 --> 00:03:18,280

by many different offers and it's a very

68

00:03:23,490 --> 00:03:21,340

real very strong kind of relationship so

69

00:03:25,710 --> 00:03:23,500

since then many this is just a very

70

00:03:29,280 --> 00:03:25,720

brief summary a lot of different studies

71

00:03:31,500 --> 00:03:29,290

hundreds actually have shown that there

72

00:03:33,809 --> 00:03:31,510

are many correlations some are actually

73

00:03:36,059 --> 00:03:33,819

that are looking at causes causality as

74

00:03:37,379 --> 00:03:36,069

well involved in it between changes and

75

00:03:39,449 --> 00:03:37,389

the rhythms and the frequencies in the

76

00:03:41,159 --> 00:03:39,459

Earth's magnetic field things like our

77

00:03:43,699 --> 00:03:41,169

brain and nervous system activity you

78

00:03:45,530 --> 00:03:43,709

know EEG measures these kinds of things

79

00:03:49,039 --> 00:03:45,540

performance of tasks

80

00:03:51,809 --> 00:03:49,049

it's everything from bowling scores to

81

00:03:54,119 --> 00:03:51,819

size studies to remote viewing studies

82

00:03:55,680 --> 00:03:54,129

have all been shown to be less effective

83

00:03:58,399 --> 00:03:55,690

when though basically the Earth's field

84

00:04:02,550 --> 00:03:58,409

is disturbed or we've reformed us well

85

00:04:04,619 --> 00:04:02,560

blood pressure heart rate hormones dr.

86

00:04:07,170 --> 00:04:04,629

Franz Hallberg done a lot on this guy

87

00:04:08,430 --> 00:04:07,180

who coined the term circadian rhythm in

88

00:04:09,719 --> 00:04:08,440

fact our heart rate and blood pressure

89

00:04:12,330 --> 00:04:09,729

rhythms can actually literally

90

00:04:14,640 --> 00:04:12,340

synchronize to some of the the rhythms

91

00:04:18,240 --> 00:04:14,650

in the planetary fields at certain times

92

00:04:19,560 --> 00:04:18,250

certain cases traffic number of traffic

93

00:04:22,610 --> 00:04:19,570

violations number of tickets that are

94

00:04:24,200 --> 00:04:22,620

written by cops

95

00:04:26,600 --> 00:04:24,210

number of actually accidents that happen

96

00:04:29,540 --> 00:04:26,610

all kind of ride this same frequency and

97

00:04:31,820 --> 00:04:29,550

rhythm hospital missions a lot of works

98

00:04:33,560 --> 00:04:31,830

been done on this it's not just heart

99

00:04:37,730 --> 00:04:33,570

disease and strokes it's a really quite

100

00:04:40,070 --> 00:04:37,740

a wide range of health issues in fact

101
00:04:41,719 --> 00:04:40,080
just hearted heart attack admissions to

102
00:04:43,850 --> 00:04:41,729
hospitals at least in North America

103
00:04:47,000 --> 00:04:43,860
increased by about eight percent during

104
00:04:48,170 --> 00:04:47,010
magnetic field storm disturbance is the

105
00:04:51,550 --> 00:04:48,180
magnetic field it's quite a bit eight

106
00:04:54,969 --> 00:04:51,560
percent it's not a trivial number right

107
00:04:57,080 --> 00:04:54,979
okay anyway criminal activity the bottom

108
00:04:59,810 --> 00:04:57,090
comment there this is actually from dr.

109
00:05:03,969 --> 00:04:59,820
hall Berg's work I originally found that

110
00:05:06,080 --> 00:05:03,979
of all these in things we can measure

111
00:05:09,430 --> 00:05:06,090
physiologically the most sensitive that

112
00:05:12,469 --> 00:05:09,440
appears to reflecting least human

113
00:05:13,909 --> 00:05:12,479

responses to these changing magnetic

114

00:05:17,180 --> 00:05:13,919

field just actually heart rate

115

00:05:18,710 --> 00:05:17,190

variability I'll just play a little bit

116

00:05:20,960 --> 00:05:18,720

more about if you don't know what that

117

00:05:22,460 --> 00:05:20,970

is in a second so if we're gonna do

118

00:05:24,409 --> 00:05:22,470

science around this the science of

119

00:05:28,879 --> 00:05:24,419

interconnectivity get a major things

120

00:05:31,820 --> 00:05:28,889

obviously so we're measuring the Earth's

121

00:05:33,620 --> 00:05:31,830

magnetic fields and to do that we're

122

00:05:36,080 --> 00:05:33,630

installing and what we call the global

123

00:05:37,700 --> 00:05:36,090

coherence monitoring system and

124

00:05:40,400 --> 00:05:37,710

unfortunately we have to do with this

125

00:05:41,960 --> 00:05:40,410

ourselves because the NOAA and the other

126
00:05:43,700 --> 00:05:41,970
type magnetometers are out there do not

127
00:05:46,969 --> 00:05:43,710
measure the things that we think are

128
00:05:48,620 --> 00:05:46,979
important they're currently out of this

129
00:05:50,690 --> 00:05:48,630
global map that we would like to see

130
00:05:53,360 --> 00:05:50,700
there are five current monitoring

131
00:05:54,710 --> 00:05:53,370
systems installed here in California

132
00:05:56,420 --> 00:05:54,720
about an hour and house south of here

133
00:06:02,540 --> 00:05:56,430
actually in Boulder Creek area at our

134
00:06:04,520 --> 00:06:02,550
facility Canada Lithuania Saudi Arabia

135
00:06:06,710 --> 00:06:04,530
and New Zealand are the ones that are

136
00:06:10,010 --> 00:06:06,720
installed and currently operating and

137
00:06:11,390 --> 00:06:10,020
hopefully will fill the map out more so

138
00:06:14,480 --> 00:06:11,400

what the site looks like in Boulder

139

00:06:15,350 --> 00:06:14,490

Creek and the magnetometers themselves

140

00:06:17,600 --> 00:06:15,360

these are extremely sensitive

141

00:06:20,000 --> 00:06:17,610

magnetometers or about the most

142

00:06:21,560 --> 00:06:20,010

sensitive we can find they're three or

143

00:06:23,960 --> 00:06:21,570

three axes you know north-south

144

00:06:27,290 --> 00:06:23,970

east-west and vertical a very long to

145

00:06:29,300 --> 00:06:27,300

you know device is buried about a meter

146

00:06:32,659 --> 00:06:29,310

underground it's the one in Saudi Arabia

147

00:06:33,800 --> 00:06:32,669

it's projector something do very well -

148

00:06:36,080 --> 00:06:33,810

dr. Abdullah

149

00:06:38,060 --> 00:06:36,090

there so what are we measuring anyway

150

00:06:41,360 --> 00:06:38,070

and why do we have to create our own

151
00:06:45,260 --> 00:06:41,370
systems to do this this GPS time lock

152
00:06:48,140 --> 00:06:45,270
systems so when we look at the

153
00:06:50,810 --> 00:06:48,150
geomagnetic field that's a static or a

154
00:06:52,280 --> 00:06:50,820
stationary field right I mean it's if in

155
00:06:55,550 --> 00:06:52,290
terms of our day-to-day life it really

156
00:06:56,900 --> 00:06:55,560
isn't changing it is you know it

157
00:06:59,120 --> 00:06:56,910
reported to be decreasing in magnitude

158
00:07:01,670 --> 00:06:59,130
by about 15 percent over the last 200

159
00:07:06,320 --> 00:07:01,680
years but for our day-to-day lives it's

160
00:07:09,290 --> 00:07:06,330
really pretty stationary so what is

161
00:07:10,430 --> 00:07:09,300
relevant though the geomagnetic field of

162
00:07:13,520 --> 00:07:10,440
course that's what our compasses tune

163
00:07:15,890 --> 00:07:13,530

into your anchor is that if you think of

164

00:07:17,629 --> 00:07:15,900

these flux lines and they're really our

165

00:07:19,100 --> 00:07:17,639

flux lines and they get heightened each

166

00:07:24,080 --> 00:07:19,110

particle spinning them around them and

167

00:07:25,730 --> 00:07:24,090

all these things like guitar strings all

168

00:07:29,060 --> 00:07:25,740

right and when you pluck a guitar string

169

00:07:30,530 --> 00:07:29,070

what hey obviously it vibrates right and

170

00:07:32,300 --> 00:07:30,540

dependent upon the tension of the string

171

00:07:34,700 --> 00:07:32,310

it vibrates at a different frequency

172

00:07:36,290 --> 00:07:34,710

so what's plucking the strings of

173

00:07:39,740 --> 00:07:36,300

Earth's net geomagnetic field as the

174

00:07:41,950 --> 00:07:39,750

solar wind the solar wind on average

175

00:07:44,300 --> 00:07:41,960

travels about a million miles per hour

176

00:07:46,070 --> 00:07:44,310

during a coronal mass ejection or a

177

00:07:48,740 --> 00:07:46,080

solar flare can actually jump up to

178

00:07:50,659 --> 00:07:48,750

about five million miles per hour pretty

179

00:07:52,700 --> 00:07:50,669

dramatic changes so the beginning here

180

00:07:54,680 --> 00:07:52,710

the earth is turning right in the solar

181

00:07:56,390 --> 00:07:54,690

wind which is strong enough pressure it

182

00:07:58,430 --> 00:07:56,400

pushes in the magnetic field on a

183

00:08:00,800 --> 00:07:58,440

daytime side and stretches out the tail

184

00:08:03,650 --> 00:08:00,810

right I mean this is all basic high

185

00:08:05,060 --> 00:08:03,660

school stuff but well we didn't learn at

186

00:08:07,129 --> 00:08:05,070

least I didn't learn back then is that

187

00:08:08,600 --> 00:08:07,139

the solar wind is plucking the strings

188

00:08:11,240 --> 00:08:08,610

of the earth of the Earth's magnetic

189

00:08:13,100 --> 00:08:11,250

field and the technical term is called

190

00:08:17,420 --> 00:08:13,110

structural field line resonances for

191

00:08:19,190 --> 00:08:17,430

that and when we measure them this is

192

00:08:23,150 --> 00:08:19,200

what the frequency range they tend to be

193

00:08:24,350 --> 00:08:23,160

and they're fairly strong in terms of

194

00:08:25,640 --> 00:08:24,360

magnetic field strengths are quite

195

00:08:27,050 --> 00:08:25,650

strong and are much stronger than the

196

00:08:30,080 --> 00:08:27,060

Schumann resonances which we'll talk

197

00:08:31,909 --> 00:08:30,090

about in a second and so one of the

198

00:08:36,140 --> 00:08:31,919

common modes we'll see here is this

199

00:08:38,060 --> 00:08:36,150

around 0.1 Hertz 10-second rhythm as it

200

00:08:39,920 --> 00:08:38,070

turns out that's exactly the same rhythm

201
00:08:44,480 --> 00:08:39,930
as the resonant frequency of the human

202
00:08:45,890 --> 00:08:44,490
cardiovascular system like other

203
00:08:47,390 --> 00:08:45,900
presentations I talked about heart

204
00:08:50,750 --> 00:08:47,400
coherence and all that

205
00:08:53,660 --> 00:08:50,760
exactly a point 1 Hertz rhythm so earth

206
00:08:56,990 --> 00:08:53,670
is basically vibrating away at the same

207
00:08:59,810 --> 00:08:57,000
resonant frequency as our core resonant

208
00:09:02,780 --> 00:08:59,820
cardiovascular system frequency all

209
00:09:05,090 --> 00:09:02,790
these frequencies in this range overlap

210
00:09:08,150 --> 00:09:05,100
human and animal cardiovascular system

211
00:09:09,860 --> 00:09:08,160
frequencies and rhythms okay

212
00:09:11,990 --> 00:09:09,870
then we also have the Schumann

213
00:09:15,320 --> 00:09:12,000

resonances which well I'm most of you

214

00:09:18,980 --> 00:09:15,330

here are probably familiar with eight

215

00:09:21,290 --> 00:09:18,990

primary Schumann frequencies and these

216

00:09:22,520 --> 00:09:21,300

are the magnetic wave that gets created

217

00:09:25,940 --> 00:09:22,530

that's resonate with the earth

218

00:09:30,470 --> 00:09:25,950

ionospheric chamber and when we measure

219

00:09:32,330 --> 00:09:30,480

those 7.8 Hertz is the fundamental one

220

00:09:34,040 --> 00:09:32,340

and we can say it's seven point eight

221

00:09:35,990 --> 00:09:34,050

two but in reality there's a half Hertz

222

00:09:38,990 --> 00:09:36,000

variation every day you know so it's

223

00:09:41,180 --> 00:09:39,000

around that all of these overlap human

224

00:09:45,080 --> 00:09:41,190

brainwave rhythms and frequencies as

225

00:09:47,530 --> 00:09:45,090

well alright is why we think this is

226

00:09:49,840 --> 00:09:47,540

important we've got two different

227

00:09:51,410 --> 00:09:49,850

resonant frequencies occurring

228

00:09:55,010 --> 00:09:51,420

consistently in the Earth's field

229

00:09:58,040 --> 00:09:55,020

environment that overlap us our core

230

00:09:59,360 --> 00:09:58,050

biological rhythms so the magnetometers

231

00:10:01,640 --> 00:09:59,370

that know and different ones have around

232

00:10:03,730 --> 00:10:01,650

you report KP and all that then I'll

233

00:10:05,990 --> 00:10:03,740

measure this stuff I don't see it

234

00:10:06,650 --> 00:10:06,000

alright so I wish we didn't have to do

235

00:10:08,930 --> 00:10:06,660

this ourselves

236

00:10:11,210 --> 00:10:08,940

so our perspective is is that the

237

00:10:13,460 --> 00:10:11,220

interface that explains so many of those

238

00:10:15,830 --> 00:10:13,470

other studies I kind of summarized at

239

00:10:18,710 --> 00:10:15,840

the beginning is because we are resonant

240

00:10:20,960 --> 00:10:18,720

with these frequencies and that the

241

00:10:23,120 --> 00:10:20,970

nervous system actually is the interface

242

00:10:25,580 --> 00:10:23,130

like Freedman you kind of alluded to

243

00:10:29,900 --> 00:10:25,590

that as well oh it's right I tend to

244

00:10:33,140 --> 00:10:29,910

agree with this is what some of the

245

00:10:37,010 --> 00:10:33,150

rhythms look like why this dejected is

246

00:10:38,960 --> 00:10:37,020

not very good one of the line of work

247

00:10:40,730 --> 00:10:38,970

got done on human resonances an

248

00:10:44,270 --> 00:10:40,740

ionospheric modeling and all this back

249

00:10:45,680 --> 00:10:44,280

in between 1960 and 70 so the Schumann

250

00:10:48,620 --> 00:10:45,690

resonances weren't first experimentally

251
00:10:50,240 --> 00:10:48,630
measured until about 1960 and there was

252
00:10:53,300 --> 00:10:50,250
a lot of funding for ten years and boom

253
00:10:55,790 --> 00:10:53,310
it right up nothing since right and one

254
00:10:57,820 --> 00:10:55,800
of the we have a lot better equipment

255
00:11:00,040 --> 00:10:57,830
now than they had in 1960 obvious

256
00:11:01,900 --> 00:11:00,050
right the but one of the perspectives

257
00:11:04,870 --> 00:11:01,910
back then was that if you have one of

258
00:11:06,370 --> 00:11:04,880
these magnetic monitoring sites it's

259
00:11:09,430 --> 00:11:06,380
gonna be the same everywhere it's a

260
00:11:14,640 --> 00:11:09,440
global wave right so you got one site

261
00:11:18,490 --> 00:11:14,650
same everywhere well I don't think so

262
00:11:20,100 --> 00:11:18,500
this is looking here at here in

263
00:11:22,630 --> 00:11:20,110

California and New Zealand and Canada

264

00:11:25,510 --> 00:11:22,640

pretty obviously different signals from

265

00:11:29,340 --> 00:11:25,520

those different sites there are global

266

00:11:33,790 --> 00:11:29,350

there is a global coherence if you will

267

00:11:36,310 --> 00:11:33,800

but significant local differences in

268

00:11:37,570 --> 00:11:36,320

fact what we see from the the other

269

00:11:40,120 --> 00:11:37,580

study I'm not going to talk about today

270

00:11:42,280 --> 00:11:40,130

but is that the populations that we look

271

00:11:43,960 --> 00:11:42,290

at it around a certain local site we get

272

00:11:45,880 --> 00:11:43,970

significant correlations but not to the

273

00:11:47,590 --> 00:11:45,890

other sites so these local differences

274

00:11:51,460 --> 00:11:47,600

are clearly important in terms of how

275

00:11:55,450 --> 00:11:51,470

they affect us and humanity alright this

276

00:11:57,430 --> 00:11:55,460

is just another look this or the Fremmen

277

00:11:59,650 --> 00:11:57,440

also referred to PC ones this is what

278

00:12:03,220 --> 00:11:59,660

they actually look like so this is a

279

00:12:04,690 --> 00:12:03,230

lower low frequency rhythm with the

280

00:12:07,080 --> 00:12:04,700

period of about one and a half seconds

281

00:12:09,460 --> 00:12:07,090

they're pretty fast rhythms but still

282

00:12:12,280 --> 00:12:09,470

not what caught up well what I would

283

00:12:14,380 --> 00:12:12,290

call ultra low but very low rhythms and

284

00:12:17,080 --> 00:12:14,390

then we have lower of the pcs that go on

285

00:12:21,730 --> 00:12:17,090

down now here's a bit of a mystery to me

286

00:12:25,240 --> 00:12:21,740

I hope you can see these we have always

287

00:12:28,480 --> 00:12:25,250

observed these very rapid high magnitude

288

00:12:30,010 --> 00:12:28,490

pulses and the data these are like less

289

00:12:34,330 --> 00:12:30,020

than a quarter of a second wide they're

290

00:12:36,970 --> 00:12:34,340

really fast the so we you know when you

291

00:12:40,420 --> 00:12:36,980

only have one site you can kind of go

292

00:12:42,790 --> 00:12:40,430

okay this might be some noisy source an

293

00:12:45,700 --> 00:12:42,800

airplane flew over or something we

294

00:12:48,480 --> 00:12:45,710

really don't know now that we have time

295

00:12:52,660 --> 00:12:48,490

linked multiple sites around the planet

296

00:12:57,280 --> 00:12:52,670

lo and behold these things are global

297

00:12:58,720 --> 00:12:57,290

and they're exactly in time right it's

298

00:13:00,100 --> 00:12:58,730

not like you have a wave going around

299

00:13:02,500 --> 00:13:00,110

the planet where you would expect the

300

00:13:06,100 --> 00:13:02,510

light delays that you can measure their

301

00:13:09,150 --> 00:13:06,110

exact and their global so the local

302

00:13:11,350 --> 00:13:09,160

noise hypothesis is out the window

303

00:13:14,199 --> 00:13:11,360

hopefully somebody in this room can

304

00:13:15,670 --> 00:13:14,209

me what these are I don't know I really

305

00:13:16,930 --> 00:13:15,680

don't know and I've looked I've done a

306

00:13:18,819 --> 00:13:16,940

lot of searching in the litter and I've

307

00:13:22,060 --> 00:13:18,829

asked a lot of people about this that

308

00:13:24,310 --> 00:13:22,070

are supposed to be experts just a fun

309

00:13:26,160 --> 00:13:24,320

story true story I tracked down the

310

00:13:28,870 --> 00:13:26,170

person that no and Boulder Colorado who

311

00:13:31,360 --> 00:13:28,880

monitors the data that calculates kpe

312

00:13:33,610 --> 00:13:31,370

what's called KP index and all that who

313

00:13:35,680 --> 00:13:33,620

confirm oh yeah we see these and I

314

00:13:38,170 --> 00:13:35,690

literally talk to the person to the lady

315

00:13:44,949 --> 00:13:38,180

whose full-time job is removing these

316

00:13:47,019 --> 00:13:44,959

from the data absolute truth story if we

317

00:13:52,420 --> 00:13:47,029

don't know what they are that we got it

318

00:13:54,160 --> 00:13:52,430

you know I swear to god we are paying

319

00:13:57,430 --> 00:13:54,170

for how this removes them potato I

320

00:14:00,250 --> 00:13:57,440

suspect they're important the fact that

321

00:14:02,530 --> 00:14:00,260

they're global it's really interesting

322

00:14:04,210 --> 00:14:02,540

so I'm just I'm serious if anybody in

323

00:14:06,670 --> 00:14:04,220

here might know what these things are

324

00:14:10,150 --> 00:14:06,680

the real source or know somebody who

325

00:14:11,380 --> 00:14:10,160

might know I'd love to talk to you ok so

326

00:14:13,350 --> 00:14:11,390

the study I wanted to tell you about

327

00:14:15,670 --> 00:14:13,360

today that's kind of got our attention

328

00:14:17,400 --> 00:14:15,680

we have a couple of different projects

329

00:14:21,130 --> 00:14:17,410

going on that are very similar to this

330

00:14:23,350 --> 00:14:21,140

I'm at this one I want to share the data

331

00:14:28,720 --> 00:14:23,360

with you today some of the data is from

332

00:14:32,610 --> 00:14:28,730

10 people working adults you know in

333

00:14:34,960 --> 00:14:32,620

there so you mean angels 53 we basically

334

00:14:37,569 --> 00:14:34,970

have these little recorders that record

335

00:14:38,949 --> 00:14:37,579

heart rate variability kind of really

336

00:14:41,410 --> 00:14:38,959

lightweight little things you forget

337

00:14:44,530 --> 00:14:41,420

you've got them on that allow us to do

338

00:14:46,900 --> 00:14:44,540

long-term recording so we're doing 24

339

00:14:50,650 --> 00:14:46,910

hour a day recording for 30 consecutive

340

00:14:53,680 --> 00:14:50,660

days so we have a continuous hrb record

341

00:14:56,590 --> 00:14:53,690

for 30 days from 10 people it's pretty

342

00:14:58,660 --> 00:14:56,600

unique data and like dr. harburg study

343

00:15:00,130 --> 00:14:58,670

as I mentioned his longest studies were

344

00:15:02,860 --> 00:15:00,140

like a week you know with some very

345

00:15:04,449 --> 00:15:02,870

small groups of people another data set

346

00:15:08,800 --> 00:15:04,459

that York's been working with us not us

347

00:15:12,910 --> 00:15:08,810

five months worth of data but so we're

348

00:15:15,639 --> 00:15:12,920

looking at the the correlations if you

349

00:15:18,160 --> 00:15:15,649

will between the HRV and the geomagnetic

350

00:15:20,309 --> 00:15:18,170

solar to your magnetic measures so I

351

00:15:23,290 --> 00:15:20,319

don't have time to go through all these

352

00:15:25,210 --> 00:15:23,300

KP index if you're not familiar that's

353

00:15:28,059 --> 00:15:25,220

what you know or the Space Agency know

354

00:15:30,610 --> 00:15:28,069

reports as a measure of magnetic field

355

00:15:33,490 --> 00:15:30,620

disturbance it's basically the ripple on

356

00:15:35,829 --> 00:15:33,500

the DC think of it that way we could hit

357

00:15:37,179 --> 00:15:35,839

with a solar flare criminal mass

358

00:15:41,769 --> 00:15:37,189

ejection it causes more ripple and

359

00:15:43,569 --> 00:15:41,779

that's what KP measures F 10-7 is a

360

00:15:45,730 --> 00:15:43,579

measure of solar radio flux I'll talk a

361

00:15:47,350 --> 00:15:45,740

bit more about that one in a second so a

362

00:15:51,540 --> 00:15:47,360

wind speed is one of the ones I'm going

363

00:15:53,740 --> 00:15:51,550

to talk about and the GCI magnetometers

364

00:15:57,069 --> 00:15:53,750

okay okay five minutes I'm probably good

365

00:15:58,749 --> 00:15:57,079

so that's basically the time varying

366

00:16:02,590 --> 00:15:58,759

magnetic field that includes the

367

00:16:06,100 --> 00:16:02,600

Schumann resonances you know and all the

368

00:16:08,170 --> 00:16:06,110

other stuff in between there that enough

369

00:16:09,670 --> 00:16:08,180

to stay there okay heart rate

370

00:16:11,499 --> 00:16:09,680

variability for those of you aren't

371

00:16:14,019 --> 00:16:11,509

familiar with it it is basically a major

372

00:16:15,400 --> 00:16:14,029

a non-invasive major that allows us to

373

00:16:19,540 --> 00:16:15,410

measure autonomic nervous system

374

00:16:21,369 --> 00:16:19,550

function okay so it's kind of produced

375

00:16:23,319 --> 00:16:21,379

by the activity in the autonomic nervous

376
00:16:28,199 --> 00:16:23,329
system sympathetic parasympathetic and

377
00:16:31,150 --> 00:16:28,209
all that it's fairly robust measure I

378
00:16:33,280 --> 00:16:31,160
can't just do time these are the hrb

379
00:16:35,379 --> 00:16:33,290
measures we're using for the study these

380
00:16:38,049 --> 00:16:35,389
are again these are twenty-four hours a

381
00:16:40,179 --> 00:16:38,059
day for a month so they're we're using

382
00:16:43,449 --> 00:16:40,189
the averages of five-minute segments of

383
00:16:45,939 --> 00:16:43,459
the HRV then the we average those two

384
00:16:48,699 --> 00:16:45,949
hourly measures cuz that's what most of

385
00:16:50,889 --> 00:16:48,709
our environmental measures are okay so

386
00:16:52,749 --> 00:16:50,899
these different HRV things measure

387
00:16:54,730 --> 00:16:52,759
different aspects of nervous system

388
00:17:00,009 --> 00:16:54,740

activity parasympathetic or sympathetic

389

00:17:01,749 --> 00:17:00,019

or these kinds of things okay so the way

390

00:17:04,649 --> 00:17:01,759

the data I'm going to show you was done

391

00:17:06,819 --> 00:17:04,659

so the time series across the 30 days

392

00:17:09,760 --> 00:17:06,829

was all synchronized so all their

393

00:17:11,949 --> 00:17:09,770

subjects was linked synced in time so we

394

00:17:15,669 --> 00:17:11,959

know everybody's lined up well then each

395

00:17:17,590 --> 00:17:15,679

of our subject data was normalized okay

396

00:17:19,720 --> 00:17:17,600

to have a mean of zero and then a plus

397

00:17:22,659 --> 00:17:19,730

mine a little range that gray between

398

00:17:25,149 --> 00:17:22,669

plus and minus one then we averaged all

399

00:17:28,329 --> 00:17:25,159

the data together for nine in this case

400

00:17:30,130 --> 00:17:28,339

nine subjects and so circadian rhythms

401
00:17:34,200 --> 00:17:30,140
were removed so on

402
00:17:36,340 --> 00:17:34,210
now here's what is really surprising

403
00:17:38,529 --> 00:17:36,350
okay so this is

404
00:17:41,710 --> 00:17:38,539
nine people's - twenty four-hour-a-day

405
00:17:43,659 --> 00:17:41,720
hrb data in in there they live within

406
00:17:44,799 --> 00:17:43,669
about a 50-mile radius one of the

407
00:17:48,700 --> 00:17:44,809
subjects was actually in Southern

408
00:17:52,240 --> 00:17:48,710
California right so what we're seeing

409
00:17:58,140 --> 00:17:52,250
here is synchronized activity across our

410
00:18:03,130 --> 00:17:58,150
nine subjects we should not be seen this

411
00:18:05,799 --> 00:18:03,140
this should be kind of noise not only

412
00:18:08,220 --> 00:18:05,809
are we seeing synchronized activity

413
00:18:13,570 --> 00:18:08,230

it's got around a two point three day

414

00:18:16,330 --> 00:18:13,580

rhythm this implies they must all be

415

00:18:20,710 --> 00:18:16,340

synchronizing to some environmental

416

00:18:22,960 --> 00:18:20,720

something or other right this this was

417

00:18:25,870 --> 00:18:22,970

totally unexpected we did not expect to

418

00:18:30,840 --> 00:18:25,880

see this now something over here disturb

419

00:18:33,549 --> 00:18:30,850

it then it sort of came back over here

420

00:18:36,430 --> 00:18:33,559

towards the end of the 30 days well lo

421

00:18:40,870 --> 00:18:36,440

and behold what it is across the 30-day

422

00:18:43,270 --> 00:18:40,880

period that HIV data is significantly

423

00:18:48,250 --> 00:18:43,280

correlated to the time varying magnetic

424

00:18:52,690 --> 00:18:48,260

field which has the same rhythm but got

425

00:18:54,430 --> 00:18:52,700

disturbed right in here and you saw you

426

00:18:56,799 --> 00:18:54,440

see the rhythm get disturbed at two and

427

00:18:58,630 --> 00:18:56,809

a half day rhythm a magnetic field get

428

00:19:00,070 --> 00:18:58,640

disturbed and then it kind of settles to

429

00:19:01,750 --> 00:19:00,080

out settles out and starts coming back

430

00:19:06,430 --> 00:19:01,760

and then we see the HIV sorry

431

00:19:09,340 --> 00:19:06,440

synchronizing so it turns out right

432

00:19:13,210 --> 00:19:09,350

about here was a solar flare a coronal

433

00:19:15,520 --> 00:19:13,220

mass ejection and one of the measures of

434

00:19:17,470 --> 00:19:15,530

that is the F what's called the F 10 7

435

00:19:18,850 --> 00:19:17,480

which is a measure of the two points

436

00:19:22,390 --> 00:19:18,860

basically two point eight gigahertz

437

00:19:23,740 --> 00:19:22,400

radio wave frequency the Sun emits okay

438

00:19:29,470 --> 00:19:23,750

I'm gonna have to go minute overs I'm

439

00:19:34,450 --> 00:19:29,480

sorry and that's preceding this increase

440

00:19:36,520 --> 00:19:34,460

in a NH RV and it's a positive

441

00:19:38,230 --> 00:19:36,530

correlation which in another study we

442

00:19:40,510 --> 00:19:38,240

did a couple of years ago we found when

443

00:19:43,899 --> 00:19:40,520

F 10-7 increases people feel better

444

00:19:46,960 --> 00:19:43,909

they're more cognitively clear less

445

00:19:49,450 --> 00:19:46,970

mental confusion and all that so lo and

446

00:19:51,039 --> 00:19:49,460

behold in the the f10 sevens light is

447

00:19:53,590 --> 00:19:51,049

speed of light it gets here in eight

448

00:19:55,539 --> 00:19:53,600

minutes after a solar flare right the

449

00:19:59,440 --> 00:19:55,549

plasma the solar wind stuff it takes a

450

00:20:02,260 --> 00:19:59,450

few days and here's the solar wind speed

451
00:20:07,810 --> 00:20:02,270
now that we had that showing up a couple

452
00:20:11,049 --> 00:20:07,820
days later okay what a beautiful kind of

453
00:20:12,669 --> 00:20:11,059
I wish we could have I was good as good

454
00:20:14,169 --> 00:20:12,679
as a predicting the results as what we

455
00:20:15,399 --> 00:20:14,179
actually find sometimes you know it

456
00:20:17,320 --> 00:20:15,409
would never could have never guessed

457
00:20:20,620 --> 00:20:17,330
that we would be seen this kind of

458
00:20:23,169 --> 00:20:20,630
correlation so long as I'm out of time

459
00:20:26,159 --> 00:20:23,179
but basically what my summary would be

460
00:20:28,480 --> 00:20:26,169
is that we are far more interconnected

461
00:20:31,269 --> 00:20:28,490
with the Earth's field environment the

462
00:20:34,659 --> 00:20:31,279
magnetic fields then we we even thought

463
00:20:36,720 --> 00:20:34,669

or would have projected so we're it's a

464

00:20:40,500 --> 00:20:36,730

far more interconnected world than what

465

00:20:42,639 --> 00:20:40,510

we might have previously conceived of

466

00:20:44,470 --> 00:20:42,649

anyway then we have some cool new

467

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

studies that this is going to generate I

468

00:20:48,310 --> 00:20:46,490

think some some of the things we'll do

469

00:20:49,460 --> 00:20:48,320

thank you rolling I guess we have time

470

00:20:55,010 --> 00:20:49,470

for questions

471

00:20:59,639 --> 00:20:55,020

[Applause]

472

00:21:02,549 --> 00:20:59,649

Garret okay if that strange magnetic

473

00:21:05,070 --> 00:21:02,559

pulse is genuinely simultaneous

474

00:21:07,260 --> 00:21:05,080

everywhere there's only one choice in

475

00:21:08,430 --> 00:21:07,270

terms of its origin it seems and that

476
00:21:11,130 --> 00:21:08,440
would be from the center of the earth

477
00:21:13,260 --> 00:21:11,140
and so it seems like it may be a good

478
00:21:15,110 --> 00:21:13,270
way to study what's happening at the

479
00:21:18,269 --> 00:21:15,120
earth Center is that being investigated

480
00:21:21,870 --> 00:21:18,279
I don't know buddy but I mean no one's

481
00:21:23,700 --> 00:21:21,880
getting rid of the data right we're here

482
00:21:26,159 --> 00:21:23,710
we have the only system I know of other

483
00:21:27,980 --> 00:21:26,169
than quake finders who dis could care

484
00:21:29,730 --> 00:21:27,990
less about this kind of stuff probably I

485
00:21:31,710 --> 00:21:29,740
actually agree with you

486
00:21:33,510 --> 00:21:31,720
I just didn't want to go there but you

487
00:21:35,279 --> 00:21:33,520
know yeah I do go there it's the only

488
00:21:37,860 --> 00:21:35,289

possible source is center of the earth

489

00:21:39,600 --> 00:21:37,870

to come out like this I agree what the

490

00:21:41,519 --> 00:21:39,610

source of that is there's still got to

491

00:21:43,440 --> 00:21:41,529

be a mechanism somewhere that's creating

492

00:21:45,510 --> 00:21:43,450

these pulses and they're pretty regular

493

00:21:46,740 --> 00:21:45,520

and we're actually creating some

494

00:21:48,840 --> 00:21:46,750

algorithms right now

495

00:21:50,580 --> 00:21:48,850

yeah we have massive amounts of data

496

00:21:52,710 --> 00:21:50,590

from all these sites come in three

497

00:21:55,200 --> 00:21:52,720

accesses so it's not you can't sit there

498

00:21:57,720 --> 00:21:55,210

and go through this stuff by by hand so

499

00:21:59,130 --> 00:21:57,730

we're creating in MATLAB some wavelet

500

00:22:02,100 --> 00:21:59,140

routines to add edit to identify these

501
00:22:04,889 --> 00:22:02,110
pulses so we can start licking it Lexi

502
00:22:07,409 --> 00:22:04,899
looks like they have their own rhythm so

503
00:22:13,230 --> 00:22:07,419
to speak but maybe next year or so we'll

504
00:22:14,820 --> 00:22:13,240
be able to report on the pulses did I

505
00:22:17,510 --> 00:22:14,830
understand you correctly to say that

506
00:22:23,279 --> 00:22:17,520
when you get a CME then it generates

507
00:22:26,399 --> 00:22:23,289
peace and well-being then before the

508
00:22:28,230 --> 00:22:26,409
plasma wave hits right but then how does

509
00:22:30,029 --> 00:22:28,240
that relate or does it relate then to

510
00:22:31,950 --> 00:22:30,039
your first slide that's did this

511
00:22:35,279 --> 00:22:31,960
historical information that seemed to

512
00:22:38,120 --> 00:22:35,289
say that when there was a lot of solar

513
00:22:41,370 --> 00:22:38,130

activity we all did stupid things yeah

514

00:22:42,570 --> 00:22:41,380

yeah there's a I had to truncate so much

515

00:22:45,029 --> 00:22:42,580

of what I would like to have said

516

00:22:47,549 --> 00:22:45,039

because there it is actually is true

517

00:22:49,560 --> 00:22:47,559

what Jeff's oscar's data showed it's

518

00:22:51,630 --> 00:22:49,570

been verified however what I need to add

519

00:22:53,430 --> 00:22:51,640

to it the greatest periods in human

520

00:22:57,990 --> 00:22:53,440

flourishing also correlate with those

521

00:23:01,590 --> 00:22:58,000

same periods okay so in other words it's

522

00:23:03,600 --> 00:23:01,600

an energetic influx right that comes in

523

00:23:06,030 --> 00:23:03,610

wherever it comes from cosmic solar

524

00:23:08,440 --> 00:23:06,040

sources yeah and

525

00:23:09,850 --> 00:23:08,450

yeah it's stupid and smart at the same

526

00:23:12,580 --> 00:23:09,860

time it really gets down to how

527

00:23:15,310 --> 00:23:12,590

self-regulated are we how do we use that

528

00:23:17,470 --> 00:23:15,320

energy we can either use it to create

529

00:23:20,410 --> 00:23:17,480

new collaborations solve problems or we

530

00:23:21,880 --> 00:23:20,420

can use it to go start squabbles and you

531

00:23:23,520 --> 00:23:21,890

know I actually gave a longer

532

00:23:25,900 --> 00:23:23,530

presentation of this in Saudi Arabia

533

00:23:27,580 --> 00:23:25,910

while back I'm one of the guys raises

534

00:23:29,350 --> 00:23:27,590

hands can't we just lock up all the

535

00:23:36,640 --> 00:23:29,360

politicians for that two year period

536

00:23:38,980 --> 00:23:36,650

around that yeah they're just quick

537

00:23:43,320 --> 00:23:38,990

combat there's another time synchronized

538

00:23:46,300 --> 00:23:43,330

event that Simon showed Russian

539

00:23:49,030 --> 00:23:46,310

researchers showed that in Rado

540

00:23:51,520 --> 00:23:49,040

activities and enzymatic reactions

541

00:23:54,640 --> 00:23:51,530

chemical reactions there's a periodic

542

00:23:56,200 --> 00:23:54,650

thing that occurs repeats normally when

543

00:23:59,320 --> 00:23:56,210

you look at data there's scatters of

544

00:24:01,990 --> 00:23:59,330

data and the scatter of data is

545

00:24:03,340 --> 00:24:02,000

reproducible anywhere in the world if

546

00:24:07,810 --> 00:24:03,350

the experiments are done at the same

547

00:24:10,240 --> 00:24:07,820

time and like radioactivity even the

548

00:24:14,700 --> 00:24:10,250

scatter is not random and it has a

549

00:24:18,640 --> 00:24:14,710

periodic occurrence about 24 hours and

550

00:24:21,100 --> 00:24:18,650

about a month and about a year and he's

551
00:24:22,510 --> 00:24:21,110
about 40 years of research and I'm when

552
00:24:24,760 --> 00:24:22,520
I look at your data I'm just wondering

553
00:24:27,160 --> 00:24:24,770
is there any correlation with regard to

554
00:24:30,460 --> 00:24:27,170
that but it's just an observation that

555
00:24:34,930 --> 00:24:30,470
some smells work has this periodic thing

556
00:24:38,080 --> 00:24:34,940
associated worldwide interesting I'm not

557
00:24:41,170 --> 00:24:38,090
I love maybe we can talk afterwards the

558
00:24:42,640 --> 00:24:41,180
researchers Simon snow lost all his work

559
00:24:45,580 --> 00:24:42,650
yeah actually Dean turned me on to him

560
00:24:49,870 --> 00:24:45,590
yeah some it's I think related but

561
00:24:51,880 --> 00:24:49,880
different different me some commonality

562
00:24:53,320 --> 00:24:51,890
that's right yeah the other data set

563
00:24:54,910 --> 00:24:53,330

that York's been working with on has a

564

00:24:56,740 --> 00:24:54,920

whole other kind of neat pitch of it

565

00:24:58,030 --> 00:24:56,750

adds to this but cosmic rays and

566

00:25:01,840 --> 00:24:58,040

different different things too but

567

00:25:04,680 --> 00:25:01,850

that's alright I think it's time to get

568

00:25:08,310 --> 00:25:04,690

onto the next presentation