

1
00:00:05,950 --> 00:00:13,679
welcome to the skeptic zone the podcast

2
00:00:09,099 --> 00:00:13,679
from Australia for science and reason

3
00:00:22,079 --> 00:00:28,899
hello and welcome to the skeptic zone

4
00:00:24,879 --> 00:00:32,618
episode number 214 for the 24th of

5
00:00:28,899 --> 00:00:35,979
November 2012 Richard Saunders here with

6
00:00:32,618 --> 00:00:39,238
you from a wonderfully beautifully sunny

7
00:00:35,979 --> 00:00:41,649
Sydney Australia summer is on the way

8
00:00:39,238 --> 00:00:44,289
might be time to go to the beach eyeing

9
00:00:41,649 --> 00:00:47,588
it might be time for a barbecue at least

10
00:00:44,289 --> 00:00:51,159
anyway on today's show a man who I have

11
00:00:47,588 --> 00:00:53,859
a barbecue with any time dr. Phil Plait

12
00:00:51,159 --> 00:00:57,128
the bad astronomer what a wonderful man

13
00:00:53,859 --> 00:01:00,128
Phil is what a great advocate for

14
00:00:57,128 --> 00:01:03,250
science and reason Phil played the bad

15
00:01:00,128 --> 00:01:04,899
astronomer his website bad astronomy

16
00:01:03,250 --> 00:01:08,799
which I'm sure you're all familiar with

17
00:01:04,900 --> 00:01:11,020
has just moved location move to another

18
00:01:08,799 --> 00:01:13,650
server Phil plates here in a few moments

19
00:01:11,019 --> 00:01:17,349
to tell us all about that and other

20
00:01:13,650 --> 00:01:20,320
wonders of the universe and following

21
00:01:17,349 --> 00:01:23,079
that maynards back again I don't think

22
00:01:20,319 --> 00:01:25,508
he ever really went away Maynard catches

23
00:01:23,079 --> 00:01:28,408
up with Ross blocher from the oh no Ross

24
00:01:25,509 --> 00:01:31,269
and Carrie podcast and they have a very

25
00:01:28,409 --> 00:01:36,368
very deep and meaningful discussion

26
00:01:31,269 --> 00:01:38,769
about colonic irrigation yes they really

27
00:01:36,368 --> 00:01:41,170
get to the bottom of this one oh he had

28
00:01:38,769 --> 00:01:44,170
to say it that's coming up after our

29

00:01:41,170 --> 00:01:47,228
interview with her Phil Plait Maynard

30
00:01:44,170 --> 00:01:49,060
back at tam back in Las Vegas still

31
00:01:47,228 --> 00:01:51,879
giving the goods with the interviews

32
00:01:49,060 --> 00:01:55,748
it's just amazing but before all that a

33
00:01:51,879 --> 00:01:57,519
couple of messages wow it's finally here

34
00:01:55,748 --> 00:01:58,839
it's finally here in a couple of days

35
00:01:57,519 --> 00:02:00,640
I'll be boarding that flight with

36
00:01:58,840 --> 00:02:04,420
Maynard heading down to Melbourne to

37
00:02:00,640 --> 00:02:06,728
enjoy the skeptics convention and I hear

38
00:02:04,420 --> 00:02:09,250
there are now some one day tickets

39
00:02:06,728 --> 00:02:11,050
available so if you just want to go for

40
00:02:09,250 --> 00:02:13,330
one day you want to see James Randi or

41
00:02:11,050 --> 00:02:15,490
rebecca watson on the one day or some

42
00:02:13,330 --> 00:02:17,680
other people on the other day however it

43
00:02:15,490 --> 00:02:22,870

works out you can get one day tickets

44

00:02:17,680 --> 00:02:26,050

check it out w WV skeptics wordpress com

45

00:02:22,870 --> 00:02:27,909

be really quick now as in right now as

46

00:02:26,050 --> 00:02:29,800

soon as you hear me say this run to your

47

00:02:27,909 --> 00:02:32,049

computer grab up those tickets snap up

48

00:02:29,800 --> 00:02:33,850

those dinner tickets as well it's all

49

00:02:32,050 --> 00:02:36,250

happening it's really exciting

50

00:02:33,849 --> 00:02:38,379

and I'm really excited to say that as I

51

00:02:36,250 --> 00:02:40,840

mentioned on last week's show there's a

52

00:02:38,379 --> 00:02:43,449

possibility that would be a sort of a an

53

00:02:40,840 --> 00:02:46,450

informal meet up before the convention

54

00:02:43,449 --> 00:02:49,089

well it's all happening yes maynard's no

55

00:02:46,449 --> 00:02:52,119

agenda skeptic zone dirty disbeliever

56

00:02:49,090 --> 00:02:54,759

malaise ha it's all happening on the

57

00:02:52,120 --> 00:02:56,530

night of the 28th of November that's

58
00:02:54,759 --> 00:03:00,579
Wednesday coming this coming wednesday

59
00:02:56,530 --> 00:03:03,909
at six thirty at the penny black the

60
00:03:00,580 --> 00:03:05,950
penny black which is at 420 sydney road

61
00:03:03,909 --> 00:03:09,520
brunswick and you can check out more

62
00:03:05,949 --> 00:03:11,709
details about that on facebook i'll put

63
00:03:09,520 --> 00:03:14,500
a link on the skeptics own page or you

64
00:03:11,710 --> 00:03:16,450
can just google maynards no agenda

65
00:03:14,500 --> 00:03:21,009
skeptics own dirty disbeliever malaise

66
00:03:16,449 --> 00:03:24,099
or just turn up at the penny black 420

67
00:03:21,009 --> 00:03:26,649
sydney road in brunswick in melbourne

68
00:03:24,099 --> 00:03:28,840
and we'll get together fantastic can't

69
00:03:26,650 --> 00:03:30,640
wait to meet you turn up anybody can

70
00:03:28,840 --> 00:03:32,710
turn up may not it'll be running around

71
00:03:30,639 --> 00:03:34,809
with his microphone you can have a chat

72
00:03:32,710 --> 00:03:36,250
with me have a chat with Maynard and

73
00:03:34,810 --> 00:03:38,319
other great people who will be turning

74
00:03:36,250 --> 00:03:40,180
up including postie Lindley a good

75
00:03:38,319 --> 00:03:41,799
friend postal in lee and steve roberts

76
00:03:40,180 --> 00:03:43,379
from the australian skeptics and lots of

77
00:03:41,800 --> 00:03:47,020
other people i can't even imagine

78
00:03:43,379 --> 00:03:48,849
melbourne people i'll see you there now

79
00:03:47,020 --> 00:03:52,390
i was a little bit saddened during the

80
00:03:48,849 --> 00:03:54,219
past week to hear that larry hagman has

81
00:03:52,389 --> 00:03:56,859
died larry hagman from I Dream of

82
00:03:54,219 --> 00:03:58,840
Jeannie and a Dallas of course now the

83
00:03:56,860 --> 00:04:01,150
reason I was a little bit sad to hear

84
00:03:58,840 --> 00:04:05,770
this was our Maynard and I met Larry

85
00:04:01,150 --> 00:04:07,840
Hagman in 2011 just last year at the

86

00:04:05,770 --> 00:04:09,700
supernova science fiction convention in

87
00:04:07,840 --> 00:04:13,060
Sydney in fact there's an interview if

88
00:04:09,699 --> 00:04:14,500
you google may nod at supernova and look

89
00:04:13,060 --> 00:04:16,480
down the list you'll see a little

90
00:04:14,500 --> 00:04:19,540
picture of Maynard with Larry Hagman

91
00:04:16,480 --> 00:04:22,629
having an interview what a really nice

92
00:04:19,540 --> 00:04:24,220
guy and brief moment I met him and he

93
00:04:22,629 --> 00:04:25,810
didn't shake my hand because he had a

94
00:04:24,220 --> 00:04:28,780
sort of a thing about shaking hands so

95
00:04:25,810 --> 00:04:31,209
he sort of touched fist it was very nice

96
00:04:28,779 --> 00:04:32,979
sad to know Larry Hagman is no longer

97
00:04:31,209 --> 00:04:36,250
with us but you can check out maynards

98
00:04:32,980 --> 00:04:38,439
interview of larry hagman a little

99
00:04:36,250 --> 00:04:40,689
report I produced if you search for

100
00:04:38,439 --> 00:04:42,668

Maine our debt supernova and while

101

00:04:40,689 --> 00:04:47,379

you're on the internet looking at things

102

00:04:42,668 --> 00:04:48,879

on YouTube check out death valley grove

103

00:04:47,379 --> 00:04:51,730

now I know many of you have seen this

104

00:04:48,879 --> 00:04:54,540

before but I'm quite amazed to see how

105

00:04:51,730 --> 00:04:57,280

many hits it's been getting lately and

106

00:04:54,540 --> 00:04:59,770

it's also a little bit of source of

107

00:04:57,279 --> 00:05:01,899

revenue for Brian nanning sceptile

108

00:04:59,769 --> 00:05:03,699

podcast and the skeptic zone podcast

109

00:05:01,899 --> 00:05:05,919

we're sort of splitting the profits it's

110

00:05:03,699 --> 00:05:07,839

not a huge amount but every little scent

111

00:05:05,920 --> 00:05:10,180

count so if you want to check out Death

112

00:05:07,839 --> 00:05:11,709

Valley gravity google that have a look

113

00:05:10,180 --> 00:05:14,410

at the video pass it on to your friend's

114

00:05:11,709 --> 00:05:16,930

blog it tweet it let's get more people

115
00:05:14,410 --> 00:05:19,210
looking it's only goes for about a

116
00:05:16,930 --> 00:05:22,060
minute it's great fun and a little bit

117
00:05:19,209 --> 00:05:25,120
of profit goes to help the skeptic zone

118
00:05:22,060 --> 00:05:27,639
and the Skip toyed podcast and of course

119
00:05:25,120 --> 00:05:29,949
my undying gratitude goes out to those

120
00:05:27,639 --> 00:05:32,560
people who subscribe to the skeptic zone

121
00:05:29,949 --> 00:05:37,329
less than a dollar a week and there's a

122
00:05:32,560 --> 00:05:40,449
link at ww skeptics own TV and some

123
00:05:37,329 --> 00:05:42,339
people even our chip in by buying US

124
00:05:40,449 --> 00:05:43,689
drinks well it's sort of giving us a

125
00:05:42,339 --> 00:05:45,219
little bit of a donation but on the

126
00:05:43,689 --> 00:05:47,469
website it's called buying us a drink

127
00:05:45,220 --> 00:05:50,260
and I really do thank those people it's

128
00:05:47,470 --> 00:05:52,750
those donations that make the skeptic

129
00:05:50,259 --> 00:05:55,539
zone possible well that's enough for me

130
00:05:52,750 --> 00:05:59,800
I'm going to run downstairs open the

131
00:05:55,540 --> 00:06:02,620
fridge and have another slice of the

132
00:05:59,800 --> 00:06:06,069
wonderful chocolate cake with pink icing

133
00:06:02,620 --> 00:06:09,250
my mother made for my niece's party just

134
00:06:06,069 --> 00:06:12,670
the other day mother's chocolate cake

135
00:06:09,250 --> 00:06:14,230
folks I tell you what mmm why I do that

136
00:06:12,670 --> 00:06:17,970
and stack on the calories I'll let you

137
00:06:14,230 --> 00:06:17,970
listen to the skeptic zone

138
00:06:33,029 --> 00:06:39,159
and joining me now from sunny the

139
00:06:36,040 --> 00:06:42,160
sun-drenched shores of beautiful Boulder

140
00:06:39,160 --> 00:06:44,439
Colorado is bad astronomer dr. Phil

141
00:06:42,160 --> 00:06:48,340
Plait hi Phil hey Richard I don't know

142
00:06:44,439 --> 00:06:49,899
what what atlas you're looking at we we

143

00:06:48,339 --> 00:06:51,969
kind of a but the mountains here we're

144
00:06:49,899 --> 00:06:53,829
right up against the Rockies that's true

145
00:06:51,970 --> 00:06:55,930
well maybe once upon a time it was the

146
00:06:53,829 --> 00:06:57,339
shoreline there somewhere how is Boulder

147
00:06:55,930 --> 00:06:59,530
these days I haven't been there for a

148
00:06:57,339 --> 00:07:01,689
few years it has been a while since

149
00:06:59,529 --> 00:07:03,189
you've been here and in fact uh this did

150
00:07:01,689 --> 00:07:04,629
used to be a shoreline it's why we have

151
00:07:03,189 --> 00:07:08,319
so much sandstone here this used to be

152
00:07:04,629 --> 00:07:11,050
underwater a long time ago um everything

153
00:07:08,319 --> 00:07:13,060
here is great in fact if it's anything

154
00:07:11,050 --> 00:07:16,150
it's too sunny we are not getting much

155
00:07:13,060 --> 00:07:19,780
rain and it's been very warm it's it's

156
00:07:16,149 --> 00:07:21,159
november and i know it's uh edgmont

157
00:07:19,779 --> 00:07:22,839

towards somewhere where you guys are

158

00:07:21,160 --> 00:07:25,060

standing on your heads yeah but up here

159

00:07:22,839 --> 00:07:27,369

in the real hemisphere it's uh it

160

00:07:25,060 --> 00:07:28,689

shouldn't be this warm and it means like

161

00:07:27,370 --> 00:07:30,100

room temperature outside and it should

162

00:07:28,689 --> 00:07:32,769

be really cold out right now so it's

163

00:07:30,100 --> 00:07:35,260

crazy I see but I know one thing for

164

00:07:32,769 --> 00:07:38,199

sure that in your neck of the woods you

165

00:07:35,259 --> 00:07:39,550

get the most incredible skylscapes if I

166

00:07:38,199 --> 00:07:43,240

may put it that way with the most

167

00:07:39,550 --> 00:07:46,720

amazing Thunder cloud cells coming

168

00:07:43,240 --> 00:07:48,280

through occasionally I wish yeah when

169

00:07:46,720 --> 00:07:51,640

you were here yeah it was amazing you

170

00:07:48,279 --> 00:07:53,409

know every every afternoon the air blown

171

00:07:51,639 --> 00:07:55,779

over the mountains with with moisture in

172
00:07:53,410 --> 00:07:57,130
it builds up and you get huge thunder

173
00:07:55,779 --> 00:07:59,799
clouds blowing through here and it's at

174
00:07:57,129 --> 00:08:02,649
sunset so you get fantastic rainbows and

175
00:07:59,800 --> 00:08:04,600
orange clouds and it's gorgeous but you

176
00:08:02,649 --> 00:08:07,479
know not that there's any global warming

177
00:08:04,600 --> 00:08:09,250
of course but yeah it's really messed up

178
00:08:07,480 --> 00:08:10,509
on our weather here this this mountains

179
00:08:09,250 --> 00:08:13,209
don't even have snow on them right now

180
00:08:10,509 --> 00:08:14,920
it's crazy really look yeah so people

181
00:08:13,209 --> 00:08:16,120
are sitting here denying global warming

182
00:08:14,920 --> 00:08:19,060
and I'm like you know I look out my

183
00:08:16,120 --> 00:08:20,470
window and I kind of see it the one of

184
00:08:19,060 --> 00:08:23,530
the things that struck me once when I

185
00:08:20,470 --> 00:08:25,660
flew into Denver and I walked outside

186
00:08:23,529 --> 00:08:27,129
the airport to go to your car in fact

187
00:08:25,660 --> 00:08:30,580
and I looked up in the sky and I thought

188
00:08:27,129 --> 00:08:32,559
wow look at that sky those clouds it's

189
00:08:30,579 --> 00:08:34,840
quite someone isn't it when we had those

190
00:08:32,559 --> 00:08:36,619
two mushroom clouds yep yeah and they

191
00:08:34,840 --> 00:08:38,479
look like nuclear bombs had gone off and

192
00:08:36,620 --> 00:08:42,740
ever yeah yeah that was awesome for a

193
00:08:38,479 --> 00:08:45,080
second now of course apart from staring

194
00:08:42,740 --> 00:08:46,580
at the clouds in Boulder Colorado you've

195
00:08:45,080 --> 00:08:49,430
been very busy lately and you've got

196
00:08:46,580 --> 00:08:52,490
some big news about a movie of done with

197
00:08:49,429 --> 00:08:56,349
the bad astronomy site yeah I've been

198
00:08:52,490 --> 00:09:00,139
crazy busy and it's a it's been fun I

199
00:08:56,350 --> 00:09:03,200
after four and a half years of writing

200

00:09:00,139 --> 00:09:05,689
for discover magazine I got an offer

201
00:09:03,200 --> 00:09:08,028
from slate magazine which is run by The

202
00:09:05,690 --> 00:09:09,620
Washington Post which is a newspaper

203
00:09:08,028 --> 00:09:11,240
that's been around forever I used to

204
00:09:09,620 --> 00:09:13,879
deliver the Washington Post when I was

205
00:09:11,240 --> 00:09:16,220
in high school and yeah and it's it's

206
00:09:13,879 --> 00:09:17,778
all online there's no print version or

207
00:09:16,220 --> 00:09:20,899
anything like that it is it is

208
00:09:17,778 --> 00:09:24,080
specifically an online entity they have

209
00:09:20,899 --> 00:09:26,929
a handful of blogs no science blog they

210
00:09:24,080 --> 00:09:28,220
cover science but not specifically you

211
00:09:26,929 --> 00:09:31,459
know when it's news they cover it

212
00:09:28,220 --> 00:09:33,500
there's a lot of news and economics

213
00:09:31,460 --> 00:09:35,839
politics that sort of thing but they

214
00:09:33,500 --> 00:09:37,909

wanted someone to write more dedicated

215

00:09:35,839 --> 00:09:40,100

science and they contacted me and made

216

00:09:37,909 --> 00:09:45,439

me an offer I really couldn't refuse Wow

217

00:09:40,100 --> 00:09:47,089

so I accepted and it's been nine days as

218

00:09:45,440 --> 00:09:50,500

I look at my calendar it was on Monday

219

00:09:47,089 --> 00:09:53,320

November twelfth uh-huh and it's been um

220

00:09:50,500 --> 00:09:55,639

moving a blog is always a little bit

221

00:09:53,320 --> 00:09:57,440

well it's terrifying for one thing but

222

00:09:55,639 --> 00:09:59,809

it's also there are a lot of bumps in a

223

00:09:57,440 --> 00:10:01,220

road and we're smoothing them out it's

224

00:09:59,809 --> 00:10:03,588

the point now where it's much much

225

00:10:01,220 --> 00:10:06,170

easier than it was a week ago just a

226

00:10:03,589 --> 00:10:12,200

learning curve yeah that's right now I

227

00:10:06,169 --> 00:10:14,479

have 7100 posts and and we had to copy

228

00:10:12,200 --> 00:10:15,770

that database over from discover and so

229
00:10:14,480 --> 00:10:18,528
we're still in the middle of doing that

230
00:10:15,769 --> 00:10:21,799
it just it turns out it just simply

231
00:10:18,528 --> 00:10:23,000
takes a long time it's not just hey grab

232
00:10:21,799 --> 00:10:26,269
them and move them over and up they go

233
00:10:23,000 --> 00:10:27,620
as no it's it's actually yeah it's quite

234
00:10:26,269 --> 00:10:29,629
complicated so though hopefully those

235
00:10:27,620 --> 00:10:31,669
will be up soon and once that's up you

236
00:10:29,629 --> 00:10:33,500
know that's it will be off and running I

237
00:10:31,669 --> 00:10:35,599
guess you in the process you're

238
00:10:33,500 --> 00:10:39,649
revisiting a lot of blog posts you wrote

239
00:10:35,600 --> 00:10:41,180
years ago yeah it's funny I II I've

240
00:10:39,649 --> 00:10:42,799
written about everything when you've

241
00:10:41,179 --> 00:10:44,419
written seven thousand blog posts you

242
00:10:42,799 --> 00:10:46,278
know you pretty much covered every topic

243
00:10:44,419 --> 00:10:47,299
in astronomy and there's a

244
00:10:46,278 --> 00:10:49,399
handful I have and I've been thinking

245
00:10:47,299 --> 00:10:52,578
about covering those two and it's it's

246
00:10:49,399 --> 00:10:54,470
so easy especially when I was at

247
00:10:52,578 --> 00:10:56,059
discover it was just a matter of you

248
00:10:54,470 --> 00:10:58,430
know search for what I wrote about I

249
00:10:56,059 --> 00:11:00,768
don't know solar flares find the best

250
00:10:58,429 --> 00:11:01,399
one and link to it as an explanation is

251
00:11:00,769 --> 00:11:03,769
that way I don't have to explain

252
00:11:01,399 --> 00:11:05,240
everything over and over again now it's

253
00:11:03,769 --> 00:11:07,669
a little bit tougher but hopefully that

254
00:11:05,240 --> 00:11:09,499
will that like I said that will smooth

255
00:11:07,669 --> 00:11:11,360
out over the next couple of weeks but as

256
00:11:09,499 --> 00:11:12,680
it is you know I'm often running i'm

257

00:11:11,360 --> 00:11:14,120
writing I've already written a couple of

258
00:11:12,679 --> 00:11:16,399
political posts that have gotten a hate

259
00:11:14,120 --> 00:11:17,959
mail which is awesome and you know

260
00:11:16,399 --> 00:11:20,078
there's some vaccines stuff coming up

261
00:11:17,958 --> 00:11:23,359
some global warming stuff coming up so

262
00:11:20,078 --> 00:11:26,328
besides the usual astronomy and gorgeous

263
00:11:23,360 --> 00:11:29,120
pictures and space news and all that the

264
00:11:26,328 --> 00:11:30,799
did nothing will have changed my voice

265
00:11:29,120 --> 00:11:32,539
is still the same I'm still posting the

266
00:11:30,799 --> 00:11:34,639
same sort of thing I posted Doctor Who

267
00:11:32,539 --> 00:11:36,169
stuff the other day so I had a couple

268
00:11:34,639 --> 00:11:38,299
emails from people really worried I was

269
00:11:36,169 --> 00:11:40,188
going to be you know towing some sort of

270
00:11:38,299 --> 00:11:42,469
party line it's like no why would you

271
00:11:40,188 --> 00:11:44,328

even think that I wouldn't accept a job

272

00:11:42,470 --> 00:11:46,550

where they made me talk about different

273

00:11:44,328 --> 00:11:48,498

things or things I didn't want to do so

274

00:11:46,549 --> 00:11:50,208

I'm pretty happy now I think you've

275

00:11:48,499 --> 00:11:52,250

probably come in for sir como no

276

00:11:50,208 --> 00:11:54,500

criticism in the past because for an

277

00:11:52,250 --> 00:11:58,100

astronomy site which is primarily what

278

00:11:54,500 --> 00:11:59,870

it is which is really great you do dip

279

00:11:58,100 --> 00:12:01,490

your toe into skepticism which is

280

00:11:59,870 --> 00:12:05,209

natural enough of given your background

281

00:12:01,490 --> 00:12:07,100

and especially your promotion of the

282

00:12:05,208 --> 00:12:09,258

good cause which is vaccination and your

283

00:12:07,100 --> 00:12:12,589

fight against the anti-vaxxers has that

284

00:12:09,259 --> 00:12:14,778

caused you much much trouble over the

285

00:12:12,589 --> 00:12:18,829

years that people really can't get the

286

00:12:14,778 --> 00:12:20,990

fact that you're Pro vaccinations well

287

00:12:18,828 --> 00:12:23,419

for a sufficient definition of trouble I

288

00:12:20,990 --> 00:12:24,829

mean when you write about anything where

289

00:12:23,419 --> 00:12:26,958

there's a controversy you're going to

290

00:12:24,828 --> 00:12:29,719

get a lot of noise in the comments

291

00:12:26,958 --> 00:12:31,278

section for example as well as email and

292

00:12:29,720 --> 00:12:33,110

and on the social networks where people

293

00:12:31,278 --> 00:12:34,458

make funny ax and it doesn't matter what

294

00:12:33,110 --> 00:12:37,428

you say it doesn't matter if you're pro

295

00:12:34,458 --> 00:12:40,338

or anti vax a climate change denier or

296

00:12:37,428 --> 00:12:41,750

climate change acceptor I suppose would

297

00:12:40,339 --> 00:12:43,639

be the word you know take any issue

298

00:12:41,750 --> 00:12:46,610

where there are quote unquote two sides

299

00:12:43,639 --> 00:12:48,499

by a real side and a fantasy side if you

300
00:12:46,610 --> 00:12:51,199
wish and you're just gonna get hate mail

301
00:12:48,499 --> 00:12:52,759
no matter what you say uh so I decided

302
00:12:51,198 --> 00:12:54,740
long ago if I'm gonna get hate mail and

303
00:12:52,759 --> 00:12:57,188
if I'm gonna get people yelling at me

304
00:12:54,740 --> 00:12:59,879
I'm gonna do it for the right reasons so

305
00:12:57,188 --> 00:13:02,459
writing about vaccine

306
00:12:59,879 --> 00:13:06,570
patient's is is something I do because

307
00:13:02,460 --> 00:13:10,530
it's important and it saves lives so you

308
00:13:06,570 --> 00:13:11,970
know you can you can deny the benefits

309
00:13:10,529 --> 00:13:14,370
of vaccination all you want you can say

310
00:13:11,970 --> 00:13:15,899
they are related autism they have toxins

311
00:13:14,370 --> 00:13:18,539
in them all this ridiculous stuff that's

312
00:13:15,899 --> 00:13:20,459
just totally made up and wrong but

313
00:13:18,539 --> 00:13:22,019
you're wrong and I'm gonna call you on

314

00:13:20,460 --> 00:13:24,090
it and you can go in my comments and

315
00:13:22,019 --> 00:13:26,069
yell at me but you know be prepared to

316
00:13:24,090 --> 00:13:29,280
have your head handed to you with facts

317
00:13:26,070 --> 00:13:30,920
when it's all done so it's not trouble

318
00:13:29,279 --> 00:13:32,669
it's not like anybody said you know

319
00:13:30,919 --> 00:13:34,349
we're not going to invite you to our

320
00:13:32,669 --> 00:13:36,719
party because you vaccinated your kid or

321
00:13:34,350 --> 00:13:39,120
anything like that and in fact the

322
00:13:36,720 --> 00:13:41,970
support you get from people who are

323
00:13:39,120 --> 00:13:44,340
fighting the good fight all by itself is

324
00:13:41,970 --> 00:13:46,830
worth the trouble but of course what's

325
00:13:44,340 --> 00:13:50,490
really worth the trouble is doing this

326
00:13:46,830 --> 00:13:52,139
on on its own merits getting people to

327
00:13:50,490 --> 00:13:55,049
talk to their doctors about vaccinations

328
00:13:52,139 --> 00:13:56,850

getting people to understand about the

329

00:13:55,049 --> 00:13:58,169

forces of anti reality and government

330

00:13:56,850 --> 00:14:02,250

and religion and all of these other

331

00:13:58,169 --> 00:14:05,519

places is critical and doing that is why

332

00:14:02,250 --> 00:14:08,399

I do it that's fantastic and I've just

333

00:14:05,519 --> 00:14:10,049

been looking at you and new well I guess

334

00:14:08,399 --> 00:14:12,090

you could say it's a new site it's and

335

00:14:10,049 --> 00:14:14,939

you look for your site and it is a new

336

00:14:12,090 --> 00:14:18,230

look indeed it's somewhat it's almost

337

00:14:14,940 --> 00:14:22,590

like it's been made aerodynamic Phil

338

00:14:18,230 --> 00:14:25,879

it's it's a different layout my if I had

339

00:14:22,590 --> 00:14:28,800

one complaint it would be that the

340

00:14:25,879 --> 00:14:30,779

content in the middle of the blog the

341

00:14:28,799 --> 00:14:34,169

content column is a little bit narrower

342

00:14:30,779 --> 00:14:36,389

but it's so is such a small percentage

343
00:14:34,169 --> 00:14:37,919
it hardly matters and it's easy enough

344
00:14:36,389 --> 00:14:40,169
to click a picture and make it big so

345
00:14:37,919 --> 00:14:42,120
that's you know that's not a big deal

346
00:14:40,169 --> 00:14:45,479
and if that's my only complaint come on

347
00:14:42,120 --> 00:14:47,700
so it's nice it's it's a little bit more

348
00:14:45,480 --> 00:14:52,680
minimalistic and easier to read and I

349
00:14:47,700 --> 00:14:56,670
think they're very supportive and it's

350
00:14:52,679 --> 00:14:59,399
just great to be in a new community

351
00:14:56,669 --> 00:15:03,179
sometimes you need to shake things up a

352
00:14:59,399 --> 00:15:04,470
little bit to knock yourself out of a

353
00:15:03,179 --> 00:15:06,149
rut I mean it's not that I was in a rut

354
00:15:04,470 --> 00:15:07,500
but it's just that well I'm just really

355
00:15:06,149 --> 00:15:10,079
talking myself into a corner here Oh

356
00:15:07,500 --> 00:15:11,208
everything was terrible and I sucked no

357
00:15:10,080 --> 00:15:13,910
it's not like that it's just every now

358
00:15:11,208 --> 00:15:15,618
again you need you need to shake

359
00:15:13,909 --> 00:15:18,919
yourself a little bit too to achieve

360
00:15:15,619 --> 00:15:21,290
more and to try different things that's

361
00:15:18,919 --> 00:15:24,289
what I've done here I think and we'll

362
00:15:21,289 --> 00:15:26,240
see how this goes and one of the things

363
00:15:24,289 --> 00:15:28,368
that impressed me I would always

364
00:15:26,240 --> 00:15:29,329
impresses me to visit bad astronomy of

365
00:15:28,369 --> 00:15:31,879
course there's always something

366
00:15:29,328 --> 00:15:33,799
interesting to see there but this video

367
00:15:31,879 --> 00:15:35,629
which is currently on your front page

368
00:15:33,799 --> 00:15:37,758
and I suspect will be there by the time

369
00:15:35,629 --> 00:15:40,519
this interview goes out is quite

370
00:15:37,759 --> 00:15:44,300
hypnotic it's quite hypnotic moon phases

371

00:15:40,519 --> 00:15:47,049
for 2013 every phase of the Moon of the

372
00:15:44,299 --> 00:15:50,118
Moon in one video that's something else

373
00:15:47,049 --> 00:15:52,490
in NASA Goddard Space Flight Center is a

374
00:15:50,119 --> 00:15:55,369
research center with NASA I used to work

375
00:15:52,490 --> 00:15:57,769
there actually they have a visualization

376
00:15:55,369 --> 00:15:59,660
studio where they put together images

377
00:15:57,769 --> 00:16:02,539
and videos and what they did and this is

378
00:15:59,659 --> 00:16:03,948
phenomenal they took imagery from two

379
00:16:02,539 --> 00:16:06,409
different missions the Clementine

380
00:16:03,948 --> 00:16:09,409
mission which was in the 1990s a joint

381
00:16:06,409 --> 00:16:10,879
NASA military mission and the lunar

382
00:16:09,409 --> 00:16:12,289
reconnaissance orbiter which is still

383
00:16:10,879 --> 00:16:14,509
orbiting the moon and taking phenomenal

384
00:16:12,289 --> 00:16:16,969
data and they took images from those two

385
00:16:14,509 --> 00:16:18,558

missions and combine them with altimeter

386

00:16:16,970 --> 00:16:20,839

data this this Lunar Reconnaissance

387

00:16:18,558 --> 00:16:23,028

Orbiter has a laser altimeter it it

388

00:16:20,839 --> 00:16:25,069

shoots down little pulses of laser light

389

00:16:23,028 --> 00:16:27,678

and times how long it takes them to go

390

00:16:25,068 --> 00:16:30,169

down and come back and that way it can

391

00:16:27,678 --> 00:16:31,909

basically measure the elevation of

392

00:16:30,169 --> 00:16:33,889

features below it mountains craters

393

00:16:31,909 --> 00:16:36,708

whatever and they put these two things

394

00:16:33,889 --> 00:16:38,928

together and using the elevation data

395

00:16:36,708 --> 00:16:40,758

they can create realistic shadows on the

396

00:16:38,928 --> 00:16:42,350

images so if there's a mountain in the

397

00:16:40,759 --> 00:16:44,720

image and they know where it is then a

398

00:16:42,350 --> 00:16:47,149

how tall it is they can add a shadow to

399

00:16:44,720 --> 00:16:50,928

it so knowing where the sun's position

400
00:16:47,149 --> 00:16:53,720
is you can accurately recreate what the

401
00:16:50,928 --> 00:16:56,298
landscape the moonscape is so what they

402
00:16:53,720 --> 00:16:58,850
did knowing the Earth Moon Sun geometry

403
00:16:56,298 --> 00:17:02,720
is they calculated it every hour 24

404
00:16:58,850 --> 00:17:04,370
hours a day for 365 days for 2013 and

405
00:17:02,720 --> 00:17:08,028
then calculated what the moon would look

406
00:17:04,369 --> 00:17:09,318
like its phase the shadows and and also

407
00:17:08,028 --> 00:17:12,259
because the moon's orbit is elliptical

408
00:17:09,318 --> 00:17:14,688
and tilted we actually see a little bit

409
00:17:12,259 --> 00:17:16,730
more than half and it's sort of we see a

410
00:17:14,689 --> 00:17:19,009
little bit past one side and the other

411
00:17:16,730 --> 00:17:22,099
side and it tips and nods and as you

412
00:17:19,009 --> 00:17:23,959
watch this video you can see that motion

413
00:17:22,099 --> 00:17:26,119
the moon is sort of coming towards you

414
00:17:23,959 --> 00:17:29,750
and moving away and tipping and and and

415
00:17:26,119 --> 00:17:31,369
and panning it's really really cool so I

416
00:17:29,750 --> 00:17:32,798
added some music to it and explained a

417
00:17:31,369 --> 00:17:36,739
little bit about what you were seeing

418
00:17:32,798 --> 00:17:38,599
they did this last year 24 2012 and it's

419
00:17:36,740 --> 00:17:41,230
it's fascinating to watch it it's just

420
00:17:38,599 --> 00:17:43,819
like four and a half minutes of oh

421
00:17:41,230 --> 00:17:46,579
really there's just something about it

422
00:17:43,819 --> 00:17:48,710
and what I've done is I've I've hit the

423
00:17:46,579 --> 00:17:50,359
button on the YouTube there which makes

424
00:17:48,710 --> 00:17:52,038
it go fullscreen and you can see all the

425
00:17:50,359 --> 00:17:53,658
data and the fact I'll just do it again

426
00:17:52,038 --> 00:17:55,339
while we're speaking there we go now

427
00:17:53,659 --> 00:17:58,159
it's on my full screen and I can see the

428

00:17:55,339 --> 00:18:00,888
time and the phase and the diameter of

429
00:17:58,159 --> 00:18:03,440
the distance position it goes on and on

430
00:18:00,888 --> 00:18:04,729
and of course you then you can go scroll

431
00:18:03,440 --> 00:18:06,320
straight to your birthday and see

432
00:18:04,730 --> 00:18:09,829
exactly how the moon will look on that

433
00:18:06,319 --> 00:18:12,589
day right and there's a link to the NASA

434
00:18:09,829 --> 00:18:14,210
website where this is all hosted you can

435
00:18:12,589 --> 00:18:16,009
download a much higher resolution

436
00:18:14,210 --> 00:18:17,929
version if you want and also there's a

437
00:18:16,009 --> 00:18:20,808
picture at the top of that web page of

438
00:18:17,929 --> 00:18:22,788
the phase of the moon that will be

439
00:18:20,808 --> 00:18:25,460
updated in real time starting January

440
00:18:22,788 --> 00:18:27,648
first right now it's got a waxing

441
00:18:25,460 --> 00:18:29,028
gibbous moon I believe I'd have to look

442
00:18:27,648 --> 00:18:33,079

at it again it might be waning but it's

443

00:18:29,028 --> 00:18:35,569

a give us moon and it's um uh for

444

00:18:33,079 --> 00:18:37,548

january first at midnight UTC for

445

00:18:35,569 --> 00:18:39,168

greenwich time but it will be updated

446

00:18:37,548 --> 00:18:40,429

every hour so when you go to the page it

447

00:18:39,169 --> 00:18:42,080

will show you the current phase of the

448

00:18:40,429 --> 00:18:44,059

moon which is pretty cool and in

449

00:18:42,079 --> 00:18:46,879

stunning detail i'm just looking at that

450

00:18:44,058 --> 00:18:49,700

picture right now well of course let's

451

00:18:46,880 --> 00:18:51,169

talk about space and stars and things

452

00:18:49,700 --> 00:18:54,288

for a moment and one of the reasons that

453

00:18:51,169 --> 00:18:56,000

I've certainly first became aware of you

454

00:18:54,288 --> 00:18:58,908

when you wrote your book bad astronomy

455

00:18:56,000 --> 00:19:00,079

and I think it's interesting how these

456

00:18:58,909 --> 00:19:02,960

things come around and come around

457
00:19:00,079 --> 00:19:04,490
because right now we're heading headlong

458
00:19:02,960 --> 00:19:07,850
into the end of the world of course in

459
00:19:04,490 --> 00:19:09,679
december this year december 2012 but one

460
00:19:07,849 --> 00:19:11,418
thing i must say that surprises me feel

461
00:19:09,679 --> 00:19:14,179
i thought by now there would be a lot

462
00:19:11,419 --> 00:19:16,159
more hoopla about it but you know what

463
00:19:14,179 --> 00:19:18,320
you you really don't hear much about the

464
00:19:16,159 --> 00:19:20,299
end of the world all mysterious planets

465
00:19:18,319 --> 00:19:21,710
heading our way although i did meet a

466
00:19:20,298 --> 00:19:23,388
man the other day who said there was a

467
00:19:21,710 --> 00:19:25,399
mysterious planet heading our way are

468
00:19:23,388 --> 00:19:28,148
there any mysterious planets new ones

469
00:19:25,398 --> 00:19:31,819
feel that we should be looking out for

470
00:19:28,148 --> 00:19:33,918
well let me freeze this carefully there

471
00:19:31,819 --> 00:19:36,529
are made-up nonsense ones that don't

472
00:19:33,919 --> 00:19:36,920
exist and then there are real planets

473
00:19:36,529 --> 00:19:38,539
orbiting

474
00:19:36,920 --> 00:19:42,220
they're stars that we're seeing which is

475
00:19:38,539 --> 00:19:44,720
awesome so you know as far as the

476
00:19:42,220 --> 00:19:47,900
quote/unquote Mayan apocalypse on

477
00:19:44,720 --> 00:19:49,670
December 21st that's all nonsense it

478
00:19:47,900 --> 00:19:52,430
you're right it's kind of funny I'm not

479
00:19:49,670 --> 00:19:54,410
seeing it as much as I thought I would

480
00:19:52,430 --> 00:19:56,330
right now I'm not getting the emails

481
00:19:54,410 --> 00:19:59,150
every day I'm not seeing it all over the

482
00:19:56,329 --> 00:20:01,939
web when I am seeing it people are

483
00:19:59,150 --> 00:20:04,310
making fun of it it's it's a line in a

484
00:20:01,940 --> 00:20:07,580
TV show or somebody's using it as in an

485

00:20:04,309 --> 00:20:10,879
ad and that's about it I was expecting

486
00:20:07,579 --> 00:20:12,649
it to be much more popular which is

487
00:20:10,880 --> 00:20:14,630
great you know oh it's nice to see that

488
00:20:12,650 --> 00:20:16,130
this is not getting the traction I

489
00:20:14,630 --> 00:20:18,530
thought I wish I weren't getting any I

490
00:20:16,130 --> 00:20:19,940
dunno some astronomers who are getting

491
00:20:18,529 --> 00:20:22,220
emails all the time from people who were

492
00:20:19,940 --> 00:20:24,860
scared usually kids yeah I get those two

493
00:20:22,220 --> 00:20:26,420
just not as often as I thought so it is

494
00:20:24,859 --> 00:20:28,729
kind of nice that that that's not

495
00:20:26,420 --> 00:20:30,680
happening and one of the things you know

496
00:20:28,730 --> 00:20:32,450
this is all based on the fact you know

497
00:20:30,680 --> 00:20:34,160
what let me back up a little bit what is

498
00:20:32,450 --> 00:20:36,319
all based on it's not a fact it's based

499
00:20:34,160 --> 00:20:39,650

on a gross misinterpretation of Mayan

500

00:20:36,319 --> 00:20:42,289

calendar it's the idea that the Mayan

501

00:20:39,650 --> 00:20:44,750

calendar end on December 21st 2012 and

502

00:20:42,289 --> 00:20:46,369

that's nonsense just like we do they

503

00:20:44,750 --> 00:20:48,319

have cycles to their calendar they had

504

00:20:46,369 --> 00:20:52,159

something like a week something like a

505

00:20:48,319 --> 00:20:54,289

year 360 days and they had bigger units

506

00:20:52,160 --> 00:20:57,170

and one of them is about 400 years and

507

00:20:54,289 --> 00:20:59,329

that one does apparently end on december

508

00:20:57,170 --> 00:21:00,500

twenty first of this year but what's

509

00:20:59,329 --> 00:21:02,329

going to happen is the same thing that

510

00:21:00,500 --> 00:21:04,910

happens every time a cycle ends you know

511

00:21:02,329 --> 00:21:07,159

it goes back to zero the next cycle tix

512

00:21:04,910 --> 00:21:09,500

up by one and you start over again so

513

00:21:07,160 --> 00:21:11,600

there's nothing about the calendar the

514
00:21:09,500 --> 00:21:13,579
Mayans themselves had no mythology's

515
00:21:11,599 --> 00:21:16,609
about the end of the world this was just

516
00:21:13,579 --> 00:21:19,689
totally made up from scratch but a lot

517
00:21:16,609 --> 00:21:22,549
of people have been sort of pushing

518
00:21:19,690 --> 00:21:24,410
astronomical events as some sort of

519
00:21:22,549 --> 00:21:26,869
doomsday thing that the Mayans could

520
00:21:24,410 --> 00:21:29,840
have predicted like an asteroid impact

521
00:21:26,869 --> 00:21:31,369
solar flares a gigantic planet on its

522
00:21:29,839 --> 00:21:34,039
way to the earth and the thing is you

523
00:21:31,369 --> 00:21:35,569
know Mayans didn't have telescopes so

524
00:21:34,039 --> 00:21:37,819
they couldn't have known about it if

525
00:21:35,569 --> 00:21:40,909
this stuff anyway and the fact of the

526
00:21:37,819 --> 00:21:42,649
matter is you know there any planet that

527
00:21:40,910 --> 00:21:45,259
would be headed towards the Earth that

528
00:21:42,650 --> 00:21:47,019
would be here in time to do anything to

529
00:21:45,259 --> 00:21:49,309
us by december twenty first would be

530
00:21:47,019 --> 00:21:52,039
brighter than the full moon in the sky

531
00:21:49,309 --> 00:21:55,039
right now Jupiter is hundreds of

532
00:21:52,039 --> 00:21:56,930
millions of miles away and it's one of

533
00:21:55,039 --> 00:21:58,339
the brightest objects in the sky so if

534
00:21:56,930 --> 00:21:59,960
there were something two million miles

535
00:21:58,339 --> 00:22:01,609
away it would be intensely bright and

536
00:21:59,960 --> 00:22:04,490
there's nothing there so that's all just

537
00:22:01,609 --> 00:22:07,339
nonsense yeah I think I think we would

538
00:22:04,490 --> 00:22:09,559
have noticed it by now but I'm glad too

539
00:22:07,339 --> 00:22:12,259
that this hasn't caused the big stir

540
00:22:09,559 --> 00:22:14,359
that maybe it's we can thank someone

541
00:22:12,259 --> 00:22:16,460
like Harold Camping who was it last year

542

00:22:14,359 --> 00:22:18,079
or the year before was making a lot

543
00:22:16,460 --> 00:22:20,150
who'll are about the the end of the

544
00:22:18,079 --> 00:22:21,889
world which didn't come and maybe it's

545
00:22:20,150 --> 00:22:23,780
like the the boy who cried wolf maybe

546
00:22:21,890 --> 00:22:27,470
finally people are just sick of hearing

547
00:22:23,779 --> 00:22:30,079
about the end of the world maybe that

548
00:22:27,470 --> 00:22:32,839
would be nice I guess um I wouldn't put

549
00:22:30,079 --> 00:22:35,779
too much faith in that idea though this

550
00:22:32,839 --> 00:22:37,759
is not the first end of the world and I

551
00:22:35,779 --> 00:22:39,490
don't think it's going to be the last we

552
00:22:37,759 --> 00:22:43,640
see this over and over again in fact in

553
00:22:39,490 --> 00:22:47,210
2003 there was this idea that that got

554
00:22:43,640 --> 00:22:49,700
widespread coverage for biz give reasons

555
00:22:47,210 --> 00:22:51,319
the bizarre I have no idea but there was

556
00:22:49,700 --> 00:22:53,870

a giant planet on its way to earth

557

00:22:51,319 --> 00:22:56,599

Nibiru and this was actually back in

558

00:22:53,869 --> 00:22:59,299

2003 the third time something like this

559

00:22:56,599 --> 00:23:01,279

had come up and it was shown not to

560

00:22:59,299 --> 00:23:04,279

happen of course we're still here and it

561

00:23:01,279 --> 00:23:06,670

got cycled for 2012 so you know who

562

00:23:04,279 --> 00:23:09,410

knows what's going to happen in

563

00:23:06,670 --> 00:23:11,750

2014-2020 I don't know somebody will

564

00:23:09,410 --> 00:23:13,040

come up with something you know there's

565

00:23:11,750 --> 00:23:14,509

a comet that's going to pass by the

566

00:23:13,039 --> 00:23:15,740

earth next year people are already

567

00:23:14,509 --> 00:23:17,240

saying that that's going to hit us and

568

00:23:15,740 --> 00:23:19,099

it's not it's not even to come within 10

569

00:23:17,240 --> 00:23:21,650

million kilometers of the earth so it's

570

00:23:19,099 --> 00:23:23,359

it's it's you know head banging against

571
00:23:21,650 --> 00:23:25,880
the wall constantly for people like me

572
00:23:23,359 --> 00:23:28,819
trying to debunk this stuff it is it is

573
00:23:25,880 --> 00:23:31,880
but I'm again it's interesting that

574
00:23:28,819 --> 00:23:33,230
people like you are keeping score so to

575
00:23:31,880 --> 00:23:35,150
speak because that's yeah that's about

576
00:23:33,230 --> 00:23:38,089
the time I first got to know you was in

577
00:23:35,150 --> 00:23:40,040
about two thousand three when all this

578
00:23:38,089 --> 00:23:42,139
was going on and of course with the book

579
00:23:40,039 --> 00:23:44,359
bad astronomy and subsequently you wrote

580
00:23:42,140 --> 00:23:46,190
that great book of course death from the

581
00:23:44,359 --> 00:23:49,369
skies which really does talk about the

582
00:23:46,190 --> 00:23:53,150
end of the world yeah thanks for the

583
00:23:49,369 --> 00:23:54,799
plug um it's yeah I got so tired of

584
00:23:53,150 --> 00:23:56,810
doomsday scenarios and people making

585
00:23:54,799 --> 00:23:58,339
stuff up I decided to write about the

586
00:23:56,809 --> 00:24:00,859
real ways astronomical events could

587
00:23:58,339 --> 00:24:02,839
destroy the earth and the whole point of

588
00:24:00,859 --> 00:24:05,359
the book is that

589
00:24:02,839 --> 00:24:08,179
to most likely ones which would be an

590
00:24:05,359 --> 00:24:09,799
asteroid impact or a huge solar storm

591
00:24:08,180 --> 00:24:11,810
which by the way the latter cannot

592
00:24:09,799 --> 00:24:14,419
destroy the earth but it can damage our

593
00:24:11,809 --> 00:24:17,480
technology wipe out satellites and cause

594
00:24:14,420 --> 00:24:20,300
blackouts both of those are our if not

595
00:24:17,480 --> 00:24:24,710
preventable at least they are something

596
00:24:20,299 --> 00:24:28,460
we can mitigate by launching rockets to

597
00:24:24,710 --> 00:24:30,200
push asteroids out of the way or protect

598
00:24:28,460 --> 00:24:32,180
our satellites in our power grid from

599

00:24:30,200 --> 00:24:34,340
big solar flare so that they don't they

600
00:24:32,180 --> 00:24:36,950
don't hurt us everything else is just so

601
00:24:34,339 --> 00:24:38,839
low statistics a black hole passing by

602
00:24:36,950 --> 00:24:40,670
the earth or a nearby supernova there's

603
00:24:38,839 --> 00:24:41,959
basically zero chance of them happening

604
00:24:40,670 --> 00:24:43,789
so it's kind of fun to talk about them

605
00:24:41,960 --> 00:24:45,079
the point being that you know

606
00:24:43,789 --> 00:24:47,329
realistically speaking they're not

607
00:24:45,079 --> 00:24:49,429
anything we have to worry about yes yes

608
00:24:47,329 --> 00:24:52,609
I I agree and it's a good way I've found

609
00:24:49,430 --> 00:24:53,840
to when I'm talking to students and they

610
00:24:52,609 --> 00:24:56,240
say do you think the world is going to

611
00:24:53,839 --> 00:24:58,429
end in this year earlier in the year

612
00:24:56,240 --> 00:24:59,900
they were asking me this and I said well

613
00:24:58,430 --> 00:25:01,940

no and then I asked them how do you

614

00:24:59,900 --> 00:25:04,880

think that could possibly happen and of

615

00:25:01,940 --> 00:25:06,500

course and fair enough they're still you

616

00:25:04,880 --> 00:25:08,300

know finding their feet they hadn't got

617

00:25:06,500 --> 00:25:10,099

that far as to actually think how the

618

00:25:08,299 --> 00:25:11,809

world could possibly end but it's a nice

619

00:25:10,099 --> 00:25:15,859

catch phrases and it the world's going

620

00:25:11,809 --> 00:25:18,740

to end right and it turns out it's hard

621

00:25:15,859 --> 00:25:20,000

to do you know if you if you were to

622

00:25:18,740 --> 00:25:23,089

talk about wiping out life on Earth

623

00:25:20,000 --> 00:25:24,619

that's that's not easy but it can be

624

00:25:23,089 --> 00:25:25,939

done with a large enough you know

625

00:25:24,619 --> 00:25:28,369

asteroid impact or something like that

626

00:25:25,940 --> 00:25:30,110

but actually destroying a planet is

627

00:25:28,369 --> 00:25:33,289

really hard it turns out the earth has a

628
00:25:30,109 --> 00:25:34,759
lot of gravity and even taking the moon

629
00:25:33,289 --> 00:25:36,680
and smacking it into the earth that

630
00:25:34,759 --> 00:25:39,829
would wipe out all life but the planet

631
00:25:36,680 --> 00:25:41,480
itself would survive so even the phrase

632
00:25:39,829 --> 00:25:43,970
end of the world are destroying the

633
00:25:41,480 --> 00:25:46,870
earth or whatever is a little vague

634
00:25:43,970 --> 00:25:49,579
booth and I and even then it's like well

635
00:25:46,869 --> 00:25:51,169
maybe maybe it wipes out humans which

636
00:25:49,579 --> 00:25:54,139
would suck I don't want that to happen

637
00:25:51,170 --> 00:25:57,259
but even even destroying life on this

638
00:25:54,140 --> 00:25:58,520
planet would be really hard to do so in

639
00:25:57,259 --> 00:26:00,170
a sense at least that's kind of

640
00:25:58,519 --> 00:26:01,879
uplifting you know yeah all the animals

641
00:26:00,170 --> 00:26:04,190
are dead but you know something on 30

642
00:26:01,880 --> 00:26:06,380
million years you'd never know yeah them

643
00:26:04,190 --> 00:26:08,390
all again there will be another odd

644
00:26:06,380 --> 00:26:10,160
group of creatures evolved probably in

645
00:26:08,390 --> 00:26:13,100
the in the time that this planet

646
00:26:10,160 --> 00:26:14,900
certainly has to to go to carry on now

647
00:26:13,099 --> 00:26:16,668
before we wrap it up Phil let's let's

648
00:26:14,900 --> 00:26:19,548
turn our gaze away from the steer

649
00:26:16,669 --> 00:26:21,830
planets and back to real ones I'm sure

650
00:26:19,548 --> 00:26:23,808
you've been excited as I have and I'm

651
00:26:21,829 --> 00:26:26,509
sure our listeners have to of all the

652
00:26:23,808 --> 00:26:30,558
wonderful information images coming back

653
00:26:26,509 --> 00:26:33,788
from curiosity oh yeah it's been

654
00:26:30,558 --> 00:26:38,210
fantastic that's uh that's been a

655
00:26:33,788 --> 00:26:40,908
culmination of oh my gosh close to 35

656

00:26:38,210 --> 00:26:43,329
years of sending probes to Mars and it's

657
00:26:40,909 --> 00:26:46,850
it's the largest and most sophisticated

658
00:26:43,329 --> 00:26:49,368
probe ever to land on Mars and and

659
00:26:46,849 --> 00:26:52,668
certainly of the rover's it's the most

660
00:26:49,368 --> 00:26:53,749
functional and it's it just incredibly

661
00:26:52,669 --> 00:26:58,038
capable it takes high-resolution

662
00:26:53,749 --> 00:26:59,659
pictures it has a chemistry set on it so

663
00:26:58,038 --> 00:27:02,028
to speak so that it can actually sample

664
00:26:59,659 --> 00:27:04,340
the soil and see what's in it it's got

665
00:27:02,028 --> 00:27:06,108
that that really way cool laser that it

666
00:27:04,339 --> 00:27:08,118
can zap rocks with and yeah it makes

667
00:27:06,108 --> 00:27:09,980
them mum sorry yeah that you're

668
00:27:08,118 --> 00:27:12,230
absolutely right that I love watching

669
00:27:09,980 --> 00:27:13,639
the images coming back from this is

670
00:27:12,230 --> 00:27:16,308

where we've just shut the laser that's

671

00:27:13,638 --> 00:27:17,959

fantastic it's a very powerful laser it

672

00:27:16,308 --> 00:27:20,089

only shoots for a tiny tiny fraction of

673

00:27:17,960 --> 00:27:23,419

a second but it vaporizes The Rock The

674

00:27:20,089 --> 00:27:25,488

Rock glows and the the specific colors

675

00:27:23,419 --> 00:27:27,590

you break that that glow up into its

676

00:27:25,489 --> 00:27:29,450

colors like a rainbow except much more

677

00:27:27,589 --> 00:27:31,878

detail and you can actually determine

678

00:27:29,450 --> 00:27:33,679

what elements are in it so silicon

679

00:27:31,878 --> 00:27:36,138

oxygen carbon all of those things can be

680

00:27:33,679 --> 00:27:39,109

seen in the rocks they can sample them

681

00:27:36,138 --> 00:27:41,269

that way so it's an amazing thing that

682

00:27:39,108 --> 00:27:44,210

it's doing and it's it's landed in this

683

00:27:41,269 --> 00:27:47,419

gigantic crater gale crater which is

684

00:27:44,210 --> 00:27:48,919

close to 100 kilometres across and

685
00:27:47,419 --> 00:27:50,778
that's cool because when the asteroid

686
00:27:48,919 --> 00:27:53,419
impact hit their billions of years ago

687
00:27:50,778 --> 00:27:55,548
it basically exposed all these layers of

688
00:27:53,419 --> 00:27:57,590
Martian history so it doesn't have to

689
00:27:55,548 --> 00:27:59,558
dig very far it can just roll over this

690
00:27:57,589 --> 00:28:02,178
landscape it's kind of like walking down

691
00:27:59,558 --> 00:28:04,519
into a canyon it's then all the work is

692
00:28:02,179 --> 00:28:06,409
done for you so it's learning a huge

693
00:28:04,519 --> 00:28:08,089
amount about Mars and that of course the

694
00:28:06,409 --> 00:28:09,649
pictures have been fantastic the

695
00:28:08,089 --> 00:28:11,449
pictures are fantastic there's one on

696
00:28:09,648 --> 00:28:14,988
your website now which I'm looking at is

697
00:28:11,450 --> 00:28:19,700
leaving a little alien in there yeah as

698
00:28:14,989 --> 00:28:21,259
we're recording this yesterday a media

699
00:28:19,700 --> 00:28:22,669
organization interviewed one of the

700
00:28:21,259 --> 00:28:24,889
scientists the project scientist

701
00:28:22,669 --> 00:28:26,749
actually for curiosity and he said they

702
00:28:24,888 --> 00:28:30,199
found something that's really exciting

703
00:28:26,749 --> 00:28:31,490
and of course everybody's speculating

704
00:28:30,200 --> 00:28:33,650
what it is people are saying its life

705
00:28:31,490 --> 00:28:35,900
it's organics it's this it's that it's

706
00:28:33,650 --> 00:28:38,690
like we don't know what it is and he

707
00:28:35,900 --> 00:28:40,130
won't even say so I'm guessing it's

708
00:28:38,690 --> 00:28:41,870
something scientifically very

709
00:28:40,130 --> 00:28:43,580
interesting yeah they need to wait to

710
00:28:41,869 --> 00:28:46,339
confirm it and then they'll announce it

711
00:28:43,579 --> 00:28:48,829
I don't think it's aliens it could it

712
00:28:46,339 --> 00:28:51,439
will even know if it's biology they

713

00:28:48,829 --> 00:28:53,509
could have found evidence of you know

714
00:28:51,440 --> 00:28:54,740
warm water standing in this place two

715
00:28:53,509 --> 00:28:57,019
billion years ago it could be some

716
00:28:54,740 --> 00:28:58,370
interesting geology it there's we don't

717
00:28:57,019 --> 00:29:01,879
even know what field of science he's

718
00:28:58,369 --> 00:29:03,019
talking about so speculating on what

719
00:29:01,880 --> 00:29:06,080
they found which is of course what

720
00:29:03,019 --> 00:29:09,079
everybody's doing I think is just a

721
00:29:06,079 --> 00:29:11,899
little bit premature oh well it's but

722
00:29:09,079 --> 00:29:13,939
it's a lot of fun to wonder oh yeah I

723
00:29:11,900 --> 00:29:15,980
mean I'm wondering too but I you know

724
00:29:13,940 --> 00:29:18,230
I'm not gonna go out and write a big

725
00:29:15,980 --> 00:29:20,630
newspaper article or whatever online

726
00:29:18,230 --> 00:29:22,279
saying you know we think it's organics

727
00:29:20,630 --> 00:29:23,300

and it's like you don't know crap you

728

00:29:22,279 --> 00:29:26,119

don't know what you're talking I mean

729

00:29:23,299 --> 00:29:27,399

you could be anything come on so we've

730

00:29:26,119 --> 00:29:29,750

been through this before NASA's

731

00:29:27,400 --> 00:29:32,120

sometimes will make a will have an

732

00:29:29,750 --> 00:29:33,500

announcement in a few days and they'll

733

00:29:32,119 --> 00:29:35,509

put out a press release to journalists

734

00:29:33,500 --> 00:29:37,400

saying we're going to announce something

735

00:29:35,509 --> 00:29:39,829

that has impact on the field of

736

00:29:37,400 --> 00:29:41,990

astrobiology and then everybody thinks

737

00:29:39,829 --> 00:29:43,429

aliens it's like really yet you really

738

00:29:41,990 --> 00:29:46,579

think that's how NASA would announce

739

00:29:43,430 --> 00:29:49,940

this so it's speculations gonna run no

740

00:29:46,579 --> 00:29:51,319

matter what you do hopefully when this

741

00:29:49,940 --> 00:29:52,519

comes out it will still be pretty

742
00:29:51,319 --> 00:29:54,109
interesting I think it will be

743
00:29:52,519 --> 00:29:57,650
everything curiosities finding on Mars

744
00:29:54,109 --> 00:29:59,539
it's interesting it's on Mars yes that's

745
00:29:57,650 --> 00:30:02,150
absolutely right it's hard to go wrong

746
00:29:59,539 --> 00:30:04,549
when you're getting back these wonderful

747
00:30:02,150 --> 00:30:06,769
photographs they are absolutely stunning

748
00:30:04,549 --> 00:30:10,669
that the high detail of them and that

749
00:30:06,769 --> 00:30:12,559
video that was produced of the curiosity

750
00:30:10,670 --> 00:30:15,440
landing on Mars is something I use in my

751
00:30:12,559 --> 00:30:16,909
talks it's just just breathtaking I've

752
00:30:15,440 --> 00:30:19,549
used that as well the seven minutes of

753
00:30:16,910 --> 00:30:23,120
Terror talk well yeah and there's the

754
00:30:19,549 --> 00:30:25,909
actual um images that the curiosity was

755
00:30:23,119 --> 00:30:28,309
taking as it was making it's right down

756
00:30:25,910 --> 00:30:29,480
on the parachute right it had cameras

757
00:30:28,309 --> 00:30:31,429
pointing down you can see the heat

758
00:30:29,480 --> 00:30:33,140
shield yep flying away and the

759
00:30:31,430 --> 00:30:35,029
parachutes and then as it lands and that

760
00:30:33,140 --> 00:30:37,759
had been remixed a bunch of times people

761
00:30:35,029 --> 00:30:40,039
kept making better and better videos

762
00:30:37,759 --> 00:30:41,960
doing interpolation between frames to

763
00:30:40,039 --> 00:30:43,148
make it smoother with the high def

764
00:30:41,960 --> 00:30:45,009
pictures and so the

765
00:30:43,148 --> 00:30:47,378
videos that that are out there now or if

766
00:30:45,009 --> 00:30:48,788
you haven't seen them folks down you can

767
00:30:47,378 --> 00:30:51,668
find them easily they're all there on my

768
00:30:48,788 --> 00:30:54,398
blog and they're stunning really

769
00:30:51,669 --> 00:30:55,989
something to look at it is because when

770

00:30:54,398 --> 00:30:57,668
I've been showing these especially the

771
00:30:55,989 --> 00:31:00,460
students I can tell them point blank

772
00:30:57,669 --> 00:31:03,339
this is not a Hollywood special-effects

773
00:31:00,460 --> 00:31:05,769
this isn't done in in computers it's not

774
00:31:03,338 --> 00:31:08,739
CGI although its computer assisted one

775
00:31:05,769 --> 00:31:10,778
could say it's an actual movie of a real

776
00:31:08,739 --> 00:31:13,088
spaceship landing on another planet and

777
00:31:10,778 --> 00:31:14,558
even every time I see it my heart skips

778
00:31:13,088 --> 00:31:17,499
a beat i think it's just it's just

779
00:31:14,558 --> 00:31:20,739
astounding yeah and I you know how

780
00:31:17,499 --> 00:31:23,769
spoiled we are now I a Voyager going

781
00:31:20,739 --> 00:31:25,899
past the outer giant planets and you

782
00:31:23,769 --> 00:31:28,269
have to wait and wait and wait for that

783
00:31:25,898 --> 00:31:30,338
data to come back you know line by line

784
00:31:28,269 --> 00:31:31,899

it was writing stuff and we didn't have

785

00:31:30,338 --> 00:31:34,450

the internet it was just being covered

786

00:31:31,898 --> 00:31:37,329

by the news if they covered it and even

787

00:31:34,450 --> 00:31:39,219

then typically it was the magazines that

788

00:31:37,329 --> 00:31:40,449

could print the color pictures where

789

00:31:39,219 --> 00:31:42,639

you'd have to exceed be waiting two

790

00:31:40,450 --> 00:31:44,440

months in a Voyager had past Neptune or

791

00:31:42,638 --> 00:31:46,838

something like that and then it was a

792

00:31:44,440 --> 00:31:48,669

long time later before we even saw the

793

00:31:46,838 --> 00:31:50,710

images now we're getting what's

794

00:31:48,669 --> 00:31:53,528

essentially video from other planets in

795

00:31:50,710 --> 00:31:56,588

color in high definition you know if not

796

00:31:53,528 --> 00:31:58,058

within days if not even even more

797

00:31:56,588 --> 00:32:01,509

quickly than that it's astonishing

798

00:31:58,058 --> 00:32:04,628

wasn't it an episode of cosmos with Carl

799
00:32:01,509 --> 00:32:06,190
Sagan where he was probably at NASA

800
00:32:04,628 --> 00:32:07,778
somewhere by a machine that was

801
00:32:06,190 --> 00:32:09,788
producing an image and he was saying

802
00:32:07,778 --> 00:32:11,200
this is coming through right now as

803
00:32:09,788 --> 00:32:14,588
we're filming and I think it was from

804
00:32:11,200 --> 00:32:15,940
from one of the voyagers the timing for

805
00:32:14,588 --> 00:32:18,638
that would have been about right yeah

806
00:32:15,940 --> 00:32:20,528
late 70s early 80s when cosmos was done

807
00:32:18,638 --> 00:32:23,588
late 70s I think so yeah that'd be about

808
00:32:20,528 --> 00:32:26,528
right to see the first close-up images

809
00:32:23,588 --> 00:32:28,569
of a world never before known this

810
00:32:26,528 --> 00:32:31,298
moment is one of the greatest joys in

811
00:32:28,569 --> 00:32:32,798
the life of a planetary scientist in the

812
00:32:31,298 --> 00:32:35,319
early morning hours of July nine

813
00:32:32,798 --> 00:32:36,999
nineteen seventy nine on the real-time

814
00:32:35,319 --> 00:32:39,249
television monitors at the Jet

815
00:32:36,999 --> 00:32:42,339
Propulsion Laboratory we began to learn

816
00:32:39,249 --> 00:32:45,230
about a world called europa

817
00:32:42,339 --> 00:32:49,649
finally the end product of this

818
00:32:45,230 --> 00:32:51,690
remarkable set of links and relays

819
00:32:49,650 --> 00:32:56,100
is a hard copy which comes out of this

820
00:32:51,690 --> 00:32:58,500
machine showing in this case the wonders

821
00:32:56,099 --> 00:33:02,240
of Europa which were recorded for the

822
00:32:58,500 --> 00:33:05,819
first time in human history today is

823
00:33:02,240 --> 00:33:08,220
absolutely astonishing that's exciting

824
00:33:05,819 --> 00:33:10,950
stuff now before we wrap it up Phil if

825
00:33:08,220 --> 00:33:12,360
people can't wait to visit your new site

826
00:33:10,950 --> 00:33:15,450
and I hope they have done already but if

827

00:33:12,359 --> 00:33:17,479
they haven't is the URL still the same

828
00:33:15,450 --> 00:33:19,680
or should they book make a new bookmark

829
00:33:17,480 --> 00:33:24,210
well you should make a new bookmark uh

830
00:33:19,680 --> 00:33:27,779
it's just slate com s la te like the

831
00:33:24,210 --> 00:33:29,250
blue black sedimentary rock it is

832
00:33:27,779 --> 00:33:31,589
sedimentary isn't it's not metamorphic

833
00:33:29,250 --> 00:33:35,670
oh my gosh I'm not a Jew I don't know

834
00:33:31,589 --> 00:33:39,689
okay just go to slate com and you'll see

835
00:33:35,670 --> 00:33:41,880
the link for blogs mine's there the old

836
00:33:39,690 --> 00:33:44,940
website bad astronomy com is still up

837
00:33:41,880 --> 00:33:46,980
and that's where i am and i'm on twitter

838
00:33:44,940 --> 00:33:49,309
at bad astronomer and google+ and

839
00:33:46,980 --> 00:33:52,410
facebook and all the usual haunts that

840
00:33:49,309 --> 00:33:54,720
socially media savvy people waste their

841
00:33:52,410 --> 00:34:00,509

time on that's right so there it is

842

00:33:54,720 --> 00:34:02,460

folks go to ww 8s lati com follow the

843

00:34:00,509 --> 00:34:04,140

links to bad astronomy I think you'll

844

00:34:02,460 --> 00:34:06,960

agree with me it looks slick it looks

845

00:34:04,140 --> 00:34:09,419

fast it's more like a newspaper sort of

846

00:34:06,960 --> 00:34:10,889

look but all the information that you

847

00:34:09,418 --> 00:34:12,898

know and love from bad astronomy and

848

00:34:10,889 --> 00:34:14,759

Phil Plait is all still there feel

849

00:34:12,898 --> 00:34:17,759

wonderful to talk with you again I'm

850

00:34:14,760 --> 00:34:20,490

going to try and rally myself in 2013 to

851

00:34:17,760 --> 00:34:23,040

visit Boulder and just walk up at the

852

00:34:20,489 --> 00:34:25,918

sky and in one wonderment and amazement

853

00:34:23,039 --> 00:34:27,389

and maybe see a comment or two but under

854

00:34:25,918 --> 00:34:29,639

then it's wonderful to catch up with you

855

00:34:27,389 --> 00:34:34,099

and thanks very much for being on the

856
00:34:29,639 --> 00:34:34,099
skeptic zone thanks Richard

857
00:34:42,449 --> 00:34:48,460
the skeptic magazine the journal from

858
00:34:45,309 --> 00:34:50,679
Australian skeptics subscribe online to

859
00:34:48,460 --> 00:34:55,990
the world's second oldest skeptical

860
00:34:50,679 --> 00:34:58,749
magazine visit w WC apx com au and click

861
00:34:55,989 --> 00:35:02,548
the publication's League you can also

862
00:34:58,748 --> 00:35:06,038
find their over 30 years of back issues

863
00:35:02,548 --> 00:35:19,858
free to download the skeptic magazine

864
00:35:06,039 --> 00:35:24,960
from Australian skeptics here's may not

865
00:35:19,858 --> 00:35:24,960
spooky action at a distance

866
00:35:26,670 --> 00:35:31,570
we know there's a lot of podcasts out

867
00:35:28,929 --> 00:35:33,969
there and when I listen to things in my

868
00:35:31,570 --> 00:35:35,590
ear very closely with earbuds I want to

869
00:35:33,969 --> 00:35:36,969
hear about people's bowels and we're

870
00:35:35,590 --> 00:35:38,620
about to talk to a man right now who's

871
00:35:36,969 --> 00:35:41,109
been doing look who work lately who we

872
00:35:38,619 --> 00:35:43,809
got here oh boy this is ross Blocher of

873
00:35:41,110 --> 00:35:45,430
oh no Ross and Carrie and boy do we

874
00:35:43,809 --> 00:35:46,719
deliver on the bowel movements that

875
00:35:45,429 --> 00:35:47,949
that's what you're interested in yeah

876
00:35:46,719 --> 00:35:49,539
well I'll be you've been going to places

877
00:35:47,949 --> 00:35:51,399
that we wouldn't normally go to but I

878
00:35:49,539 --> 00:35:53,650
actually have had a colonic irrigation

879
00:35:51,400 --> 00:35:55,750
twice oh hey all right we're part of the

880
00:35:53,650 --> 00:35:57,280
the same club then only once here Wow

881
00:35:55,750 --> 00:35:58,780
okay yeah well because I went back again

882
00:35:57,280 --> 00:36:00,519
because the first time it didn't do

883
00:35:58,780 --> 00:36:01,750
anything surprise and they were all

884

00:36:00,519 --> 00:36:04,119
maybe you have to have a couple of times

885
00:36:01,750 --> 00:36:05,349
before you realize what might happen it

886
00:36:04,119 --> 00:36:06,670
might just be a bit of a springing this

887
00:36:05,349 --> 00:36:08,019
step that will improve or something I

888
00:36:06,670 --> 00:36:09,579
thought that's good fake well I was

889
00:36:08,019 --> 00:36:10,929
gonna say if that's your yardstick you

890
00:36:09,579 --> 00:36:12,819
know it doing something you might be

891
00:36:10,929 --> 00:36:14,589
going for the rest of your life I mean

892
00:36:12,820 --> 00:36:18,490
certainly it's doing something they're

893
00:36:14,590 --> 00:36:20,470
putting water into your colon yeah I the

894
00:36:18,489 --> 00:36:22,239
fancy when I was lying down and it was a

895
00:36:20,469 --> 00:36:24,609
lovely room it was a very medical kind

896
00:36:22,239 --> 00:36:26,199
of grade sort of looking nicely centered

897
00:36:24,610 --> 00:36:28,480
all that sort of stuff what did you have

898
00:36:26,199 --> 00:36:30,399

like be like a shovel at a pint of water

899

00:36:28,480 --> 00:36:32,440

was almost well you know they have this

900

00:36:30,400 --> 00:36:34,389

plastic bed and it was kind of this

901

00:36:32,440 --> 00:36:36,039

curved shape and so there's padding for

902

00:36:34,389 --> 00:36:37,900

your head and there's kind of almost

903

00:36:36,039 --> 00:36:40,539

like plastic stirrups for your feet and

904

00:36:37,900 --> 00:36:42,340

this goalie that runs under your butt to

905

00:36:40,539 --> 00:36:44,500

collect everything can i say but unless

906

00:36:42,340 --> 00:36:45,730

y'all yeah yeah and so could you see

907

00:36:44,500 --> 00:36:47,230

what was coming at you oh absolutely

908

00:36:45,730 --> 00:36:49,269

yeah they're in mind couldn't i was

909

00:36:47,230 --> 00:36:50,500

lying down you see I couldn't see it but

910

00:36:49,269 --> 00:36:52,869

did they give you like a clear plastic

911

00:36:50,500 --> 00:36:54,579

tube so you could no no at no stage did

912

00:36:52,869 --> 00:36:56,139

I see what was going on whatsoever oh

913
00:36:54,579 --> 00:36:57,610
they want they were gave me a full

914
00:36:56,139 --> 00:36:58,960
viewing gallery they really wanted to

915
00:36:57,610 --> 00:37:00,519
make sure I could see everything coming

916
00:36:58,960 --> 00:37:02,409
out of me so so yeah I'm lying down

917
00:37:00,519 --> 00:37:04,210
horizontally and this tube is running

918
00:37:02,409 --> 00:37:06,819
parallel to me essentially and I can

919
00:37:04,210 --> 00:37:10,990
watch it and that would have to be

920
00:37:06,820 --> 00:37:12,610
disturbing okay indeed I mean I'm under

921
00:37:10,989 --> 00:37:15,339
no illusions about what's inside of me

922
00:37:12,610 --> 00:37:16,990
so I don't that I I suppose I'm a

923
00:37:15,340 --> 00:37:18,850
realist enough not to be grossed out by

924
00:37:16,989 --> 00:37:21,849
but the best part was they had this

925
00:37:18,849 --> 00:37:22,989
poster right in front of me that said

926
00:37:21,849 --> 00:37:26,170
all these little inspirational phrases

927

00:37:22,989 --> 00:37:28,000

like be happy try new things you know

928

00:37:26,170 --> 00:37:30,130

experiment poop their floor and that

929

00:37:28,000 --> 00:37:32,650

kind of thing right inspirational

930

00:37:30,130 --> 00:37:35,079

phrases I make every moment count what's

931

00:37:32,650 --> 00:37:36,700

the last one and I thought oh okay I

932

00:37:35,079 --> 00:37:38,559

guess that's what I'm doing yeah you got

933

00:37:36,699 --> 00:37:39,039

you so on my here if that's the case why

934

00:37:38,559 --> 00:37:40,659

am i doing

935

00:37:39,039 --> 00:37:42,699

is with him one every moment scouting

936

00:37:40,659 --> 00:37:45,579

why am i lying here pooping right so I

937

00:37:42,699 --> 00:37:48,069

got to insert the tube myself really yes

938

00:37:45,579 --> 00:37:50,019

see that I did that for me at 10 they

939

00:37:48,070 --> 00:37:52,180

did offer if I you know was having a

940

00:37:50,019 --> 00:37:54,610

difficult time the the woman helping us

941

00:37:52,179 --> 00:37:56,859
did check under the you know I had this

942
00:37:54,610 --> 00:37:58,000
discreet white town so she checked under

943
00:37:56,860 --> 00:38:00,970
to make sure it was inserted properly

944
00:37:58,000 --> 00:38:02,289
yes apparently it was and yeah and then

945
00:38:00,969 --> 00:38:04,029
the water started and there were three

946
00:38:02,289 --> 00:38:06,909
pressure levels there's the low medium

947
00:38:04,030 --> 00:38:08,950
and high so I you know I started as also

948
00:38:06,909 --> 00:38:11,379
the Alec Baldwin level as well but that

949
00:38:08,949 --> 00:38:14,079
Sonny was at the him right indeed yeah

950
00:38:11,380 --> 00:38:15,940
that was prohibited and covered in red

951
00:38:14,079 --> 00:38:17,500
tape but until what would I promising

952
00:38:15,940 --> 00:38:18,789
what was their big what did I promise

953
00:38:17,500 --> 00:38:20,650
you I was a big claim that you would

954
00:38:18,789 --> 00:38:23,170
definitely get out of this sure well

955
00:38:20,650 --> 00:38:25,420

there's the weight loss aspect of it and

956

00:38:23,170 --> 00:38:27,099

then there's detoxification and that's

957

00:38:25,420 --> 00:38:28,300

really the extraordinary claim that

958

00:38:27,099 --> 00:38:30,880

we're going for it then it then again

959

00:38:28,300 --> 00:38:35,530

that as a weight loss method I would say

960

00:38:30,880 --> 00:38:37,150

is also spurious because certainly you

961

00:38:35,530 --> 00:38:39,490

know when you flush a a bunch of stuff

962

00:38:37,150 --> 00:38:42,340

out of your innards you're losing weight

963

00:38:39,489 --> 00:38:43,899

because that's wait that's material but

964

00:38:42,340 --> 00:38:45,730

other than that I don't see it as a

965

00:38:43,900 --> 00:38:47,530

dietary plan and I don't think medical

966

00:38:45,730 --> 00:38:49,150

science would back that up but but the

967

00:38:47,530 --> 00:38:51,700

main claim there was that it detoxifies

968

00:38:49,150 --> 00:38:53,380

that somehow it's removing something

969

00:38:51,699 --> 00:38:55,480

that the body is not removing on its own

970
00:38:53,380 --> 00:38:57,550
and that the substance is dangerous to

971
00:38:55,480 --> 00:39:00,070
you and that is the part that there's no

972
00:38:57,550 --> 00:39:01,810
empirical claims to demonstrate you know

973
00:39:00,070 --> 00:39:03,670
and we even asked we have this woman

974
00:39:01,809 --> 00:39:05,500
helping us we said so what are these

975
00:39:03,670 --> 00:39:08,289
toxins and the first she said well you

976
00:39:05,500 --> 00:39:09,579
know if you smoke or you drink you know

977
00:39:08,289 --> 00:39:11,529
those are the sort of bad things to

978
00:39:09,579 --> 00:39:14,409
build up I said oh well I don't I don't

979
00:39:11,530 --> 00:39:17,350
smoke I rarely drink said you know a lot

980
00:39:14,409 --> 00:39:19,239
of eat eating meat as I don't eat too

981
00:39:17,349 --> 00:39:21,219
much meat and said well you know there's

982
00:39:19,239 --> 00:39:22,479
other toxins we said well what are those

983
00:39:21,219 --> 00:39:24,759
what are they made out of what did they

984
00:39:22,480 --> 00:39:26,679
look like and she kind of paused a

985
00:39:24,760 --> 00:39:28,240
little awkwardly for a second said you

986
00:39:26,679 --> 00:39:30,039
know I know there's an answer to this

987
00:39:28,239 --> 00:39:31,539
but I can't really remember I'll have to

988
00:39:30,039 --> 00:39:34,119
look that up for you have you ever

989
00:39:31,539 --> 00:39:35,259
secretly recorded audio with some of

990
00:39:34,119 --> 00:39:36,549
these encounters you've had I guess you

991
00:39:35,260 --> 00:39:39,700
probably could but I guess it's maybe

992
00:39:36,550 --> 00:39:43,810
unethical and illegal official answer no

993
00:39:39,699 --> 00:39:45,519
wink we we have at times recorded audio

994
00:39:43,809 --> 00:39:47,199
for our own reference purposes which

995
00:39:45,519 --> 00:39:49,239
could be tempted because some of the

996
00:39:47,199 --> 00:39:50,469
stuff is people are going to go no they

997
00:39:49,239 --> 00:39:54,699
didn't really say that

998

00:39:50,469 --> 00:39:57,098
right a yes certainly there are laws in

999
00:39:54,699 --> 00:39:59,379
in each state really it's on a per state

1000
00:39:57,099 --> 00:40:01,030
basis about what you can do in the u.s.

1001
00:39:59,380 --> 00:40:03,820
in terms of recording your conversation

1002
00:40:01,030 --> 00:40:05,200
we do take photos you know we'll get

1003
00:40:03,820 --> 00:40:06,490
that kind of reference just to prove as

1004
00:40:05,199 --> 00:40:08,769
you say you know that we were actually

1005
00:40:06,489 --> 00:40:10,299
there and doing what we say look when i

1006
00:40:08,769 --> 00:40:12,489
went to have my colonic irrigation it

1007
00:40:10,300 --> 00:40:13,930
was bibin folklore going around and even

1008
00:40:12,489 --> 00:40:15,729
the people didn't claim this themselves

1009
00:40:13,929 --> 00:40:17,858
that were doing it in that all the

1010
00:40:15,730 --> 00:40:19,630
recreational drugs you've had he is a

1011
00:40:17,858 --> 00:40:21,549
sort of in your colon there somewhere

1012
00:40:19,630 --> 00:40:23,430

and if you flush them all out you get

1013

00:40:21,550 --> 00:40:26,410
this effect of it coming on again

1014

00:40:23,429 --> 00:40:27,608
interesting never happened okay never

1015

00:40:26,409 --> 00:40:29,199
happen and I can't imagine how would

1016

00:40:27,608 --> 00:40:30,759
because if you had all them in your

1017

00:40:29,199 --> 00:40:32,618
column that means all the medicine you

1018

00:40:30,760 --> 00:40:34,090
taken all over these years would also be

1019

00:40:32,619 --> 00:40:35,380
there so you get another hit of

1020

00:40:34,090 --> 00:40:37,660
antibiotics or what I you know what you

1021

00:40:35,380 --> 00:40:41,079
know indeed right yeah that there would

1022

00:40:37,659 --> 00:40:43,269
be a lot of you know conclusions to draw

1023

00:40:41,079 --> 00:40:45,279
from that but yeah I don't see any of

1024

00:40:43,269 --> 00:40:46,239
them playing out if that that's

1025

00:40:45,280 --> 00:40:47,710
interesting she hadn't mentioned

1026

00:40:46,239 --> 00:40:49,179
anything like that I guess they couldn't

1027
00:40:47,710 --> 00:40:50,470
officially say hey you got a drug the

1028
00:40:49,179 --> 00:40:52,419
high from all the stuff you used to have

1029
00:40:50,469 --> 00:40:54,399
again even that would be bit much even

1030
00:40:52,420 --> 00:40:55,990
for people who make spurious claims no

1031
00:40:54,400 --> 00:40:58,420
instead they warned that i may have the

1032
00:40:55,989 --> 00:41:00,969
urge to vomit which I you know I did

1033
00:40:58,420 --> 00:41:03,490
almost feel there Wow and in after a

1034
00:41:00,969 --> 00:41:05,439
while I did go up to the medium strength

1035
00:41:03,489 --> 00:41:07,209
of the water but I think that was about

1036
00:41:05,440 --> 00:41:10,088
as much as I could handle and this came

1037
00:41:07,210 --> 00:41:12,159
with a massage as well so yes this young

1038
00:41:10,088 --> 00:41:13,900
lady offered to give me a massage and

1039
00:41:12,159 --> 00:41:16,299
I'm wearing only a towel on my lower

1040
00:41:13,900 --> 00:41:17,950
half and so she's massaging my belly and

1041
00:41:16,300 --> 00:41:19,780
she's going to lathered up her hands

1042
00:41:17,949 --> 00:41:21,549
with something and it was good you know

1043
00:41:19,780 --> 00:41:22,720
seven and to be right up there would one

1044
00:41:21,550 --> 00:41:25,780
of the strangest things you've ever done

1045
00:41:22,719 --> 00:41:27,399
Ross wouldn't it Hey yes and but you've

1046
00:41:25,780 --> 00:41:29,230
done it here so you know I know oh yeah

1047
00:41:27,400 --> 00:41:32,349
it is really odd it's not something i'd

1048
00:41:29,230 --> 00:41:34,900
recommend I mean no no well you know the

1049
00:41:32,349 --> 00:41:37,030
whole motto of our podcast is we show up

1050
00:41:34,900 --> 00:41:38,650
see you don't have to so where do you go

1051
00:41:37,030 --> 00:41:40,720
to from here but you like you've done

1052
00:41:38,650 --> 00:41:43,030
the Mormon thing you've done the colonic

1053
00:41:40,719 --> 00:41:45,368
irrigation the the weird diet stuff

1054
00:41:43,030 --> 00:41:48,130
what's next oh well there's no shortage

1055

00:41:45,369 --> 00:41:51,608
certainly of religions that go door to

1056
00:41:48,130 --> 00:41:54,820
door or you know dangerous cold sore

1057
00:41:51,608 --> 00:41:56,289
secret societies alternative medicine

1058
00:41:54,820 --> 00:41:58,240
practices there's a lot of stuff out

1059
00:41:56,289 --> 00:42:00,730
there for us to do so we certainly have

1060
00:41:58,239 --> 00:42:02,500
no shortage we've actually plotted out a

1061
00:42:00,730 --> 00:42:03,940
list of things that we'd like to do and

1062
00:42:02,500 --> 00:42:06,309
that could carry us on for

1063
00:42:03,940 --> 00:42:07,780
six years plus what do you think is the

1064
00:42:06,309 --> 00:42:09,610
biggest challenge to the skeptic

1065
00:42:07,780 --> 00:42:11,800
movement I always think part of the

1066
00:42:09,610 --> 00:42:13,120
challenge is explaining what it is to

1067
00:42:11,800 --> 00:42:14,800
people half the time because a lot of

1068
00:42:13,119 --> 00:42:17,259
people skeptic it doesn't really mean a

1069
00:42:14,800 --> 00:42:19,060

lot to most people well I mean I think

1070

00:42:17,260 --> 00:42:20,740

the biggest challenge is just to impart

1071

00:42:19,059 --> 00:42:21,820

these ways of thinking to everybody else

1072

00:42:20,739 --> 00:42:23,709

that's really what we're trying to do

1073

00:42:21,820 --> 00:42:26,769

give them tools to critically evaluate

1074

00:42:23,710 --> 00:42:29,380

and just kind of save themselves from a

1075

00:42:26,769 --> 00:42:33,610

lot of inconvenience and wasted money

1076

00:42:29,380 --> 00:42:36,130

and imperiled health I mean skeptical

1077

00:42:33,610 --> 00:42:38,230

thinking is you know just takes away a

1078

00:42:36,130 --> 00:42:40,720

lot of bad and overly simplistic

1079

00:42:38,230 --> 00:42:42,909

solutions to life and leaves you with

1080

00:42:40,719 --> 00:42:45,369

you know life which is difficult enough

1081

00:42:42,909 --> 00:42:46,509

on its own and so hopefully you know

1082

00:42:45,369 --> 00:42:47,469

that's just spreading the message I

1083

00:42:46,510 --> 00:42:49,330

think that's the most difficult thing

1084
00:42:47,469 --> 00:42:51,099
and we've got to find ways to do it

1085
00:42:49,329 --> 00:42:53,199
however we can see you're challenging

1086
00:42:51,099 --> 00:42:56,589
people to think and that often isn't

1087
00:42:53,199 --> 00:42:58,179
much fun really I beg to differ i think

1088
00:42:56,590 --> 00:43:00,250
it's funny from the bank oh but it is

1089
00:42:58,179 --> 00:43:01,539
much easier if someone says he's the

1090
00:43:00,250 --> 00:43:03,159
thing that's going to do it all for you

1091
00:43:01,539 --> 00:43:05,739
like what you do is get the bowel

1092
00:43:03,159 --> 00:43:07,539
cleansing done no more dieting no more

1093
00:43:05,739 --> 00:43:09,819
exercise just go get your poo washed out

1094
00:43:07,539 --> 00:43:11,409
yeah there's certainly an appeal to easy

1095
00:43:09,820 --> 00:43:12,789
answers and I think that's why a lot of

1096
00:43:11,409 --> 00:43:14,170
people go for a lot of these things oh I

1097
00:43:12,789 --> 00:43:15,730
want to lose weight but I want to do it

1098
00:43:14,170 --> 00:43:18,639
quickly I don't want to have to you know

1099
00:43:15,730 --> 00:43:21,400
eat healthy and workout constantly and

1100
00:43:18,639 --> 00:43:23,049
you know I want to feel loved and feel

1101
00:43:21,400 --> 00:43:24,610
like I purpose in life but jeez I don't

1102
00:43:23,050 --> 00:43:25,930
want to have to like find it on my own I

1103
00:43:24,610 --> 00:43:27,670
want someone to just kind of hand it to

1104
00:43:25,929 --> 00:43:30,099
me I'm actually wearing my Spanx today

1105
00:43:27,670 --> 00:43:31,809
these eggs wonderful Spanx things that

1106
00:43:30,099 --> 00:43:33,759
give you the Shatner gap they pull you

1107
00:43:31,809 --> 00:43:36,849
in there and I think it's a nice bit of

1108
00:43:33,760 --> 00:43:39,160
whoo okay so you do the same kind of

1109
00:43:36,849 --> 00:43:40,690
investigations we do clearly I'm wearing

1110
00:43:39,159 --> 00:43:42,429
it there for no apparent reason now

1111
00:43:40,690 --> 00:43:43,929
where can we find your podcast and you

1112

00:43:42,429 --> 00:43:46,480
have a bit of a forum where you go back

1113
00:43:43,929 --> 00:43:49,029
and forth with people well the the

1114
00:43:46,480 --> 00:43:52,329
website is oh no podcast com that's

1115
00:43:49,030 --> 00:43:54,640
ohnoo podcast calm and then we have a

1116
00:43:52,329 --> 00:43:57,730
facebook presence at facebook.com slash

1117
00:43:54,639 --> 00:43:59,019
on rack Oh in RAC and that is where

1118
00:43:57,730 --> 00:44:00,760
we're really involved we do a lot of

1119
00:43:59,019 --> 00:44:02,920
back and forth and so we encourage

1120
00:44:00,760 --> 00:44:04,810
people to come there like us see extra

1121
00:44:02,920 --> 00:44:06,789
comments videos pictures and who are the

1122
00:44:04,809 --> 00:44:08,199
most feisty people you've taken on sofa

1123
00:44:06,789 --> 00:44:09,730
who are the people that came coming back

1124
00:44:08,199 --> 00:44:12,099
on facebook and going you guys

1125
00:44:09,730 --> 00:44:13,389
misrepresented us you ninny in you

1126
00:44:12,099 --> 00:44:15,579

that's the noise they make us at typing

1127

00:44:13,389 --> 00:44:17,529

eenie meenie yeah I don't know if we've

1128

00:44:15,579 --> 00:44:19,539

so much had that as we've had

1129

00:44:17,530 --> 00:44:21,850

well certainly i'd say the Raelians

1130

00:44:19,539 --> 00:44:23,590

would be the feistiest that was a UFO

1131

00:44:21,849 --> 00:44:25,089

cult that we joined look they have a

1132

00:44:23,590 --> 00:44:27,280

great float in the sydney gay and

1133

00:44:25,090 --> 00:44:29,320

lesbian mardi gras every year fantastic

1134

00:44:27,280 --> 00:44:30,970

float great looking Bunch yeah and they

1135

00:44:29,320 --> 00:44:33,400

break great looking Bunch to take care

1136

00:44:30,969 --> 00:44:35,949

of themselves very friendly when you

1137

00:44:33,400 --> 00:44:39,160

meet them and they advance a lot of

1138

00:44:35,949 --> 00:44:42,460

great social issues and so we applaud a

1139

00:44:39,159 --> 00:44:45,339

lot of that but it's based on this you

1140

00:44:42,460 --> 00:44:47,380

know quite a fantastical explanation of

1141
00:44:45,340 --> 00:44:49,809
how life was seated on the planet by

1142
00:44:47,380 --> 00:44:52,599
aliens from another planet and so after

1143
00:44:49,809 --> 00:44:54,009
we recorded our podcasts two of them on

1144
00:44:52,599 --> 00:44:56,739
that subject they sent us a cease and

1145
00:44:54,010 --> 00:44:58,510
desist notice upset that we'd mentioned

1146
00:44:56,739 --> 00:45:01,659
a few things that they didn't want

1147
00:44:58,510 --> 00:45:04,180
talked about so so I would then classify

1148
00:45:01,659 --> 00:45:05,649
them as the feistiest mmm okay well I'm

1149
00:45:04,179 --> 00:45:08,500
sure you got a few battles ahead of you

1150
00:45:05,650 --> 00:45:10,900
yet Oh indeed oh you know we'll take

1151
00:45:08,500 --> 00:45:12,789
them as they come but we're not worried

1152
00:45:10,900 --> 00:45:13,930
we're having a good time now you're

1153
00:45:12,789 --> 00:45:17,139
gonna bring you a show down to Australia

1154
00:45:13,929 --> 00:45:18,489
sometime Oh hold love to absolutely i'm

1155
00:45:17,139 --> 00:45:20,699
sure there's all kinds of were down

1156
00:45:18,489 --> 00:45:20,699
there

1157
00:45:35,309 --> 00:45:41,199
good eye I'm Steve you can call me Steve

1158
00:45:38,860 --> 00:45:42,910
I don't know how things are down under

1159
00:45:41,199 --> 00:45:44,739
but here in North America science is

1160
00:45:42,909 --> 00:45:46,599
falling off the radar if you're a

1161
00:45:44,739 --> 00:45:48,159
skeptical and I assume you are if you're

1162
00:45:46,599 --> 00:45:50,380
listening to this podcast you're

1163
00:45:48,159 --> 00:45:52,029
probably a saddened as I am to see logic

1164
00:45:50,380 --> 00:45:54,160
and reason swept aside by mindless

1165
00:45:52,030 --> 00:45:56,140
drivel I'm going to step up and try to

1166
00:45:54,159 --> 00:45:58,210
change that I've decided to become the

1167
00:45:56,139 --> 00:46:00,069
next bill nye or Carl Sagan and I've

1168
00:45:58,210 --> 00:46:01,869
started an IndieGoGo campaign to fund a

1169

00:46:00,070 --> 00:46:04,210
series of youtube videos called science

1170
00:46:01,869 --> 00:46:06,940
isn't scary you can check out our site

1171
00:46:04,210 --> 00:46:08,829
at science isn't scary webs com you look

1172
00:46:06,940 --> 00:46:11,170
for us on facebook twitter and indiegogo

1173
00:46:08,829 --> 00:46:14,130
com or you can contact us directly at

1174
00:46:11,170 --> 00:46:16,450
science is not scary onward at gmail com

1175
00:46:14,130 --> 00:46:20,130
chip in or just spread the word and help

1176
00:46:16,449 --> 00:46:20,129
get science back into the public eye

1177
00:46:33,588 --> 00:46:38,250
thank you for listening to the skeptic

1178
00:46:35,969 --> 00:46:42,209
zone well that's it that's it let me see

1179
00:46:38,250 --> 00:46:45,179
ah trousers what papers are going to

1180
00:46:42,210 --> 00:46:47,159
need those what's this ipad case and

1181
00:46:45,179 --> 00:46:50,250
spare glasses it's all getting together

1182
00:46:47,159 --> 00:46:52,858
or tripod better better take that one

1183
00:46:50,250 --> 00:46:54,389

I'm all i'm getting ready I mean all my

1184

00:46:52,858 --> 00:46:56,369

little ducks in a line so to speak

1185

00:46:54,389 --> 00:46:58,108

packing my bags getting ready to fly

1186

00:46:56,369 --> 00:47:03,000

down to Melbourne for the Australian

1187

00:46:58,108 --> 00:47:04,650

skeptics National Convention now I'm not

1188

00:47:03,000 --> 00:47:06,690

sure what that means for the skeptic

1189

00:47:04,650 --> 00:47:09,539

zone i'm going to endeavor to have the

1190

00:47:06,690 --> 00:47:11,460

show out on time or at least within a

1191

00:47:09,539 --> 00:47:13,529

window of time down there in melbourne

1192

00:47:11,460 --> 00:47:16,050

during the convention always a bit of a

1193

00:47:13,530 --> 00:47:18,690

challenge why not I line for that but if

1194

00:47:16,050 --> 00:47:21,480

the skeptic zone is a day late next week

1195

00:47:18,690 --> 00:47:23,068

you probably understand I'll be quite

1196

00:47:21,480 --> 00:47:26,068

busy at the convention which is a good

1197

00:47:23,068 --> 00:47:27,568

thing which is a very good thing if you

1198
00:47:26,068 --> 00:47:30,568
come to the convention please come up

1199
00:47:27,568 --> 00:47:32,250
and say hi to me hi to Maynard and other

1200
00:47:30,568 --> 00:47:34,650
members of the skeptic zone who will be

1201
00:47:32,250 --> 00:47:36,960
there r answer give dr. Rachel Joe Ben

1202
00:47:34,650 --> 00:47:39,568
amoud they'll all be there come up and

1203
00:47:36,960 --> 00:47:41,849
say hi that would be really great angle

1204
00:47:39,568 --> 00:47:44,429
then and my first report and maynards

1205
00:47:41,849 --> 00:47:46,470
report from the Australian skeptics

1206
00:47:44,429 --> 00:47:48,389
national convention with James Randi and

1207
00:47:46,469 --> 00:47:50,279
lots of other people this is Richard

1208
00:47:48,389 --> 00:47:56,219
Saunders signing off from Sydney

1209
00:47:50,280 --> 00:47:57,980
Australia you've been listening to the

1210
00:47:56,219 --> 00:48:02,779
skeptic zone

1211
00:47:57,980 --> 00:48:05,809
visit our website at www.skeptics.org on TV

1212
00:48:02,780 --> 00:48:08,470
for comments contacts and extra video

1213
00:48:05,809 --> 00:48:08,469
reports

1214
00:48:11,530 --> 00:48:13,590
you