



Inception Radio Network

UFO Headline News Thursday June
22nd, 2017



1
00:00:07,789 --> 00:00:05,210
hello it's Thursday June 22nd 2017 you

2
00:00:10,580 --> 00:00:07,799
are listening to inception Radio Network

3
00:00:14,650 --> 00:00:10,590
voice of the fringe majority this is

4
00:00:17,180 --> 00:00:14,660
Carol Karl with UFO headline news

5
00:00:20,179 --> 00:00:17,190
tonight there's a Treat in the sky

6
00:00:23,300 --> 00:00:20,189
according to the folks at earth sky org

7
00:00:25,250 --> 00:00:23,310
if we've got dark skies we ought to be

8
00:00:28,339 --> 00:00:25,260
able to pick out the constellation Draco

9
00:00:31,580 --> 00:00:28,349
the dragon as it winds around the North

10
00:00:33,260 --> 00:00:31,590
Star Polaris and how to do this well

11
00:00:35,240 --> 00:00:33,270
first find the Big Dipper

12
00:00:37,549 --> 00:00:35,250
it's going to be high in the North on

13
00:00:39,619 --> 00:00:37,559

these June evenings and the two outer

14

00:00:42,020 --> 00:00:39,629

stars of the dippers Bowl point to

15

00:00:43,940 --> 00:00:42,030

Polaris the North Star which this

16

00:00:46,160 --> 00:00:43,950

broadcaster was lucky enough to see last

17

00:00:49,520 --> 00:00:46,170

night with binoculars and it marks the

18

00:00:52,279 --> 00:00:49,530

end of the Little Dippers handle yep the

19

00:00:54,799 --> 00:00:52,289

Little Dipper is relatively faint if you

20

00:00:57,139 --> 00:00:54,809

can find both dippers than your sky is

21

00:00:59,240 --> 00:00:57,149

indeed pretty dark and you're going to

22

00:01:01,819 --> 00:00:59,250

need that to see Draco you'll have to

23

00:01:04,189 --> 00:01:01,829

let your eyes and imagination drift a

24

00:01:06,740 --> 00:01:04,199

bit to see the entire winding shape of

25

00:01:08,690 --> 00:01:06,750

the dragon in the northern heavens but

26

00:01:10,789 --> 00:01:08,700

if you can find both of those dippers

27

00:01:13,310 --> 00:01:10,799

it's going to be fairly easy then to

28

00:01:16,130 --> 00:01:13,320

pick out another noteworthy star in

29

00:01:20,240 --> 00:01:16,140

Draco it's a star called Toobin or a

30

00:01:22,640 --> 00:01:20,250

Thuban it spelled th uban and the way to

31

00:01:24,499 --> 00:01:22,650

find Toobin is by remembering it's

32

00:01:27,289 --> 00:01:24,509

between the big and little dippers

33

00:01:30,590 --> 00:01:27,299

that's a famous star famous for having

34

00:01:34,670 --> 00:01:30,600

served as a pole star back in the day of

35

00:01:36,200 --> 00:01:34,680

3000 BC that is this date coincides with

36

00:01:39,289 --> 00:01:36,210

the beginning of the building of the

37

00:01:41,390 --> 00:01:39,299

pyramids in Egypt it said that the

38

00:01:44,120 --> 00:01:41,400

descending passage of the Great Pyramid

39

00:01:47,600 --> 00:01:44,130
of Khufu at Giza was built to point

40

00:01:50,990 --> 00:01:47,610
directly at the pond so our ancestors

41

00:01:53,510 --> 00:01:51,000
knew and celebrated this star and also

42

00:01:56,539 --> 00:01:53,520
two more stars Elton --an and rusty bong

43

00:01:59,600 --> 00:01:56,549
lie ahead of Draco they serve to

44

00:02:01,819 --> 00:01:59,610
represent the dragon's eyes so here's

45

00:02:04,880 --> 00:02:01,829
the bottom line you'll have to let your

46

00:02:07,550 --> 00:02:04,890
eyes and imagination drift a bit to see

47

00:02:10,580 --> 00:02:07,560
the entire winding shape of Draco the

48

00:02:11,170 --> 00:02:10,590
dragon in tonight's northern sky good

49

00:02:13,490 --> 00:02:11,180
luck

50

00:02:17,180 --> 00:02:13,500
here's something that's been making the

51
00:02:19,340 --> 00:02:17,190
of the internet it's a photo yep this is

52
00:02:22,280 --> 00:02:19,350
radio but you can find links to that

53
00:02:26,210 --> 00:02:22,290
photo later at UFO headline news calm

54
00:02:29,930 --> 00:02:26,220
here is the headline Mars orbiting space

55
00:02:32,270 --> 00:02:29,940
camera captures Rover on surface this

56
00:02:34,100 --> 00:02:32,280
gets a byline for Elana glow watts who

57
00:02:37,130 --> 00:02:34,110
writes it for the International Business

58
00:02:40,280 --> 00:02:37,140
Times nASA released a photo this week

59
00:02:42,920 --> 00:02:40,290
that could be the most meta thing that's

60
00:02:45,350 --> 00:02:42,930
ever happened on Mars the spacecraft

61
00:02:48,740 --> 00:02:45,360
orbiting the planet snapped a picture of

62
00:02:50,780 --> 00:02:48,750
the rover exploring the surface the Mars

63
00:02:53,180 --> 00:02:50,790

Reconnaissance Orbiter used its powerful

64

00:02:55,580 --> 00:02:53,190

telescope from the high-resolution

65

00:02:58,310 --> 00:02:55,590

imaging science experiment otherwise

66

00:03:00,650 --> 00:02:58,320

known as high rise it captured the image

67

00:03:03,500 --> 00:03:00,660

of the Curiosity rover handling the

68

00:03:05,900 --> 00:03:03,510

rough terrain of Mount sharp the blue

69

00:03:08,030 --> 00:03:05,910

dot of curiosity stands out against the

70

00:03:10,400 --> 00:03:08,040

reds and tans of the area's rocks and

71

00:03:12,500 --> 00:03:10,410

sand it wasn't the first time the

72

00:03:15,229 --> 00:03:12,510

orbiters high-rise camera captured

73

00:03:17,180 --> 00:03:15,239

curiosity down below NASA said this has

74

00:03:18,920 --> 00:03:17,190

happened a few times a year since the

75

00:03:22,520 --> 00:03:18,930

rover landed near Mount sharp almost

76

00:03:25,490 --> 00:03:22,530

five years ago curiosity scale-wise

77

00:03:27,800 --> 00:03:25,500

about the size of a car is ascending

78

00:03:30,020 --> 00:03:27,810

Mount sharp as it investigates the soil

79

00:03:32,810 --> 00:03:30,030

on Mars for clues about the environment

80

00:03:34,930 --> 00:03:32,820

it once hosted and whether or not it

81

00:03:36,590 --> 00:03:34,940

could have supported alien life

82

00:03:38,810 --> 00:03:36,600

scientists have already started

83

00:03:40,940 --> 00:03:38,820

analyzing samples taken from the lower

84

00:03:43,130 --> 00:03:40,950

levels of Mount sharp they show a

85

00:03:45,920 --> 00:03:43,140

diverse environment that evolved over

86

00:03:48,050 --> 00:03:45,930

time the lowest levels of Mount sharp

87

00:03:50,240 --> 00:03:48,060

are made of sediment which accumulated

88

00:03:51,890 --> 00:03:50,250

in the earliest of the mountains history

89

00:03:54,680 --> 00:03:51,900

while the area was under water

90

00:03:57,229 --> 00:03:54,690

the rover sampled soil from there that

91

00:03:59,750 --> 00:03:57,239

had lots of iron and magnesium rock that

92

00:04:02,509 --> 00:03:59,760

similar to the volcanic kind like we'd

93

00:04:05,569 --> 00:04:02,519

find in Hawaii today and that suggests a

94

00:04:07,310 --> 00:04:05,579

similar source at higher elevations of

95

00:04:08,900 --> 00:04:07,320

Mount sharp there were some minerals

96

00:04:11,360 --> 00:04:08,910

that would have accumulated in more

97

00:04:13,699 --> 00:04:11,370

acidic water and others that would have

98

00:04:15,470 --> 00:04:13,709

built up in water with a more neutral pH

99

00:04:17,960 --> 00:04:15,480

level an example of the way the

100

00:04:21,020 --> 00:04:17,970

environment changed in this location

101
00:04:23,089 --> 00:04:21,030
over time the water with the more

102
00:04:25,190 --> 00:04:23,099
natural pH would have been most

103
00:04:25,570 --> 00:04:25,200
comfortable for alien life to form and

104
00:04:27,279 --> 00:04:25,580
throw

105
00:04:30,279 --> 00:04:27,289
five since it's similar to what we'd

106
00:04:32,589 --> 00:04:30,289
find on earth today although more acidic

107
00:04:34,570 --> 00:04:32,599
water doesn't rule out extraterrestrials

108
00:04:36,850 --> 00:04:34,580
in fact recent research has shown that

109
00:04:39,610 --> 00:04:36,860
early life on earth could have evolved

110
00:04:41,860 --> 00:04:39,620
in more acidic oceans before it began

111
00:04:44,469 --> 00:04:41,870
its trek up Mount sharp curiosity

112
00:04:45,459 --> 00:04:44,479
examined the sand dunes in that area to

113
00:04:48,700 --> 00:04:45,469

learn more about environmental

114

00:04:50,860 --> 00:04:48,710

conditions on Mars such as wind the

115

00:04:52,809 --> 00:04:50,870

rover rock took soil samples to see how

116

00:04:55,270 --> 00:04:52,819

the grains and minerals had been

117

00:04:56,800 --> 00:04:55,280

organized by the blowing wind and took a

118

00:04:58,480 --> 00:04:56,810

closer look at the physical

119

00:05:02,350 --> 00:04:58,490

characteristics of these sand dunes

120

00:05:04,390 --> 00:05:02,360

which vary from spot to spot last month

121

00:05:07,360 --> 00:05:04,400

curiosity passed through an area with

122

00:05:10,450 --> 00:05:07,370

linear sand dunes where the peaks in the

123

00:05:12,939 --> 00:05:10,460

sand run in lines but shortly before

124

00:05:13,959 --> 00:05:12,949

that and slightly farther away from the

125

00:05:15,909 --> 00:05:13,969

base of Mount sharp

126

00:05:18,480 --> 00:05:15,919

it rolled through a place where the

127

00:05:20,709 --> 00:05:18,490

dunes were shaped like crescents

128

00:05:22,629 --> 00:05:20,719

scientists are hoping to use data the

129

00:05:24,519 --> 00:05:22,639

rover collected to learn more about the

130

00:05:26,920 --> 00:05:24,529

complex wind patterns that would create

131

00:05:28,929 --> 00:05:26,930

such varying conditions the data

132

00:05:32,010 --> 00:05:28,939

includes photos of the landscape taken

133

00:05:34,540 --> 00:05:32,020

over time as the winds move soil along

134

00:05:36,550 --> 00:05:34,550

curiosity does have a wind detection

135

00:05:40,570 --> 00:05:36,560

device as part of its onboard weather

136

00:05:43,420 --> 00:05:40,580

instruments but it doesn't work hmm I'm

137

00:05:46,839 --> 00:05:43,430

moving forward here's a headline Newhall

138

00:05:49,689 --> 00:05:46,849

of distant worlds casts doubt on planet

139

00:05:52,540 --> 00:05:49,699

9 it grieves us to read this headline

140

00:05:55,600 --> 00:05:52,550

it's a byline for Joshua Sokol who

141

00:05:57,969 --> 00:05:55,610

writes it for science mad org and here

142

00:06:00,490 --> 00:05:57,979

we go in early 2016

143

00:06:03,519 --> 00:06:00,500

astronomers made a stunning claim a

144

00:06:06,640 --> 00:06:03,529

giant planet was patrolling the farthest

145

00:06:09,129 --> 00:06:06,650

reaches of our solar system planet 9 as

146

00:06:12,519 --> 00:06:09,139

they called it was too far away to see

147

00:06:14,920 --> 00:06:12,529

directly so its existence was inferred

148

00:06:18,089 --> 00:06:14,930

from the way its gravity had herded six

149

00:06:21,339 --> 00:06:18,099

distant icy worlds into clustered orbits

150

00:06:23,649 --> 00:06:21,349

since then the case for planet nine has

151

00:06:26,409 --> 00:06:23,659

been bolstered by other evidence such as

152

00:06:28,719 --> 00:06:26,419

a peculiar tilt to the Sun spin axis

153

00:06:31,719 --> 00:06:28,729

along with a few more of these strange

154

00:06:34,269 --> 00:06:31,729

objects they have elongated orbits of

155

00:06:37,449 --> 00:06:34,279

more than 4000 years and they never come

156

00:06:39,340 --> 00:06:37,459

closer to the Sun than Neptune now a

157

00:06:42,940 --> 00:06:39,350

survey has found for more

158

00:06:45,460 --> 00:06:42,950

of these extreme bodies the problem they

159

00:06:48,040 --> 00:06:45,470

don't display the tell-tale clustering

160

00:06:51,190 --> 00:06:48,050

and that's a substantial blow for Planet

161

00:06:52,990 --> 00:06:51,200

nine enthusiasts says Cory Shankman an

162

00:06:55,540 --> 00:06:53,000

astronomer at the University of Victoria

163

00:06:57,250 --> 00:06:55,550

in Canada and a member of something

164

00:07:01,210 --> 00:06:57,260

called the outer solar system

165

00:07:03,820 --> 00:07:01,220

origins survey he said quote we find no

166

00:07:06,160 --> 00:07:03,830

evidence of the orbit clustering needed

167

00:07:09,940 --> 00:07:06,170

for the planet nine hypothesis in our

168

00:07:12,430 --> 00:07:09,950

fully independent survey and quotes this

169

00:07:14,410 --> 00:07:12,440

survey which since 2013 has found more

170

00:07:17,050 --> 00:07:14,420

than eight hundred objects out near

171

00:07:19,480 --> 00:07:17,060

Neptune using the Canada French Hawaii

172

00:07:21,400 --> 00:07:19,490

telescope in Hawaii here's a quote from

173

00:07:23,260 --> 00:07:21,410

Scott Shepard an astronomer at the

174

00:07:25,870 --> 00:07:23,270

Carnegie Institution for science in

175

00:07:28,120 --> 00:07:25,880

Washington DC quote I think it's great

176

00:07:30,730 --> 00:07:28,130

work and it's exciting to keep finding

177

00:07:33,400 --> 00:07:30,740

these end quotes shepard was among the

178

00:07:35,950 --> 00:07:33,410

first to suspect a large planet in the

179

00:07:38,110 --> 00:07:35,960

distant solar system but he says three

180

00:07:40,150 --> 00:07:38,120

of the four new objects do have

181

00:07:44,140 --> 00:07:40,160

clustered orbits consistent with a

182

00:07:48,100 --> 00:07:44,150

planet 9 and so the debate continues the

183

00:07:51,310 --> 00:07:48,110

fourth an object called 2015 GT 5-0

184

00:07:54,190 --> 00:07:51,320

seems to skew this entire set of worlds

185

00:07:57,040 --> 00:07:54,200

toward a random distribution but that

186

00:07:59,620 --> 00:07:57,050

isn't necessarily a knockout blow says

187

00:08:01,360 --> 00:07:59,630

Shepard quote we always expected that

188

00:08:04,570 --> 00:08:01,370

there would be some that don't fit in

189

00:08:06,430 --> 00:08:04,580

and quotes the team says any apparent

190

00:08:09,100 --> 00:08:06,440

clustering in their new objects is

191

00:08:12,220 --> 00:08:09,110

likely to be the result of bias in the

192

00:08:14,590 --> 00:08:12,230

survey weather patterns and the location

193

00:08:16,660 --> 00:08:14,600

of this telescope for instance determine

194

00:08:19,900 --> 00:08:16,670

what areas of the sky it can look at and

195

00:08:22,210 --> 00:08:19,910

when it's also harder to see fate solar

196

00:08:25,060 --> 00:08:22,220

system objects in bright areas on the

197

00:08:28,300 --> 00:08:25,070

sky such as the galactic center such

198

00:08:30,940 --> 00:08:28,310

biases make the outer solar system

199

00:08:32,920 --> 00:08:30,950

origins survey more likely to find

200

00:08:34,900 --> 00:08:32,930

objects in regions that support the

201
00:08:36,310 --> 00:08:34,910
planet nine hypotheses and that's

202
00:08:37,120 --> 00:08:36,320
according to team member Michelle

203
00:08:38,589 --> 00:08:37,130
Bannister

204
00:08:40,950 --> 00:08:38,599
she's an astronomer at Queen's

205
00:08:44,020 --> 00:08:40,960
University Belfast in the United Kingdom

206
00:08:47,470 --> 00:08:44,030
when the team corrects this effect the

207
00:08:49,990 --> 00:08:47,480
apparent clustering vanishes by contrast

208
00:08:51,790 --> 00:08:50,000
as another team member many details of

209
00:08:53,139 --> 00:08:51,800
the surveys behind the original six

210
00:08:54,939 --> 00:08:53,149
objects are on

211
00:08:58,299 --> 00:08:54,949
and that makes it impossible to

212
00:09:00,519 --> 00:08:58,309
understand these biases that argument

213
00:09:02,290 --> 00:09:00,529

doesn't impress Mike Brown a familiar

214

00:09:04,600 --> 00:09:02,300

name he's an astronomer at the

215

00:09:08,230 --> 00:09:04,610

California Institute of Technology in

216

00:09:11,079 --> 00:09:08,240

Pasadena Calif Caltech colleague

217

00:09:14,049 --> 00:09:11,089

konstantin batygin they catapulted to

218

00:09:17,439 --> 00:09:14,059

Planet 9 into the mainstream with their

219

00:09:19,840 --> 00:09:17,449

bold claim which was quote their main

220

00:09:23,230 --> 00:09:19,850

conclusion is that their observations

221

00:09:26,139 --> 00:09:23,240

are hopelessly biased and it's true he

222

00:09:28,059 --> 00:09:26,149

says end quote but by then they make a

223

00:09:32,110 --> 00:09:28,069

leap of faith that everybody else's must

224

00:09:34,780 --> 00:09:32,120

be biased too and quotes for Brown any

225

00:09:36,879 --> 00:09:34,790

basis in the hodgepodge of surveys that

226

00:09:39,100 --> 00:09:36,889

found the earlier objects ought to

227

00:09:41,619 --> 00:09:39,110

average out that would make the

228

00:09:44,769 --> 00:09:41,629

clustering real whether caused by Planet

229

00:09:47,110 --> 00:09:44,779

9 or not so far astronomers have found

230

00:09:49,769 --> 00:09:47,120

only a dozen of the most distant probes

231

00:09:52,660 --> 00:09:49,779

of Planet 9 supposed sphere of influence

232

00:09:55,179 --> 00:09:52,670

finding more objects could help settle

233

00:09:58,030 --> 00:09:55,189

this question and so could the most

234

00:10:01,329 --> 00:09:58,040

direct kind of evidence an actual image

235

00:10:03,669 --> 00:10:01,339

of Planet 9 which other surveys are

236

00:10:05,619 --> 00:10:03,679

hoping to capture it says konstantin

237

00:10:07,689 --> 00:10:05,629

batygin quote perhaps the most

238

00:10:11,009 --> 00:10:07,699

attractive thing about planet 9

239

00:10:13,629 --> 00:10:11,019

hypothesis is that it has a well-defined

240

00:10:17,860 --> 00:10:13,639

observational resolution it's either

241

00:10:20,499 --> 00:10:17,870

there or it's not end quotes hmm to be

242

00:10:22,840 --> 00:10:20,509

continued and here at UFO headline news

243

00:10:25,900 --> 00:10:22,850

on inception radio network we will keep

244

00:10:29,079 --> 00:10:25,910

you in the loop from mysteries in space

245

00:10:32,319 --> 00:10:29,089

to well yet more mysteries in space

246

00:10:34,919 --> 00:10:32,329

here's this headline by Joshua Sokol who

247

00:10:38,559 --> 00:10:34,929

writes it for New Scientist comm

248

00:10:43,090 --> 00:10:38,569

buckyballs mysteriously show up in cold

249

00:10:46,929 --> 00:10:43,100

space and warp starlight greedy black

250

00:10:49,960 --> 00:10:46,939

holes giant lava lakes stars too big to

251
00:10:52,179 --> 00:10:49,970
exist even the comparatively small stuff

252
00:10:54,189 --> 00:10:52,189
in outer space like asteroids or

253
00:10:56,949 --> 00:10:54,199
geologic features on a world surface

254
00:10:58,470 --> 00:10:56,959
would effortlessly dwarf you if you

255
00:11:01,389 --> 00:10:58,480
stood in front of them in a spacesuit

256
00:11:03,789 --> 00:11:01,399
but on a scale far below the cosmic

257
00:11:06,700 --> 00:11:03,799
megafauna is a different world

258
00:11:09,820 --> 00:11:06,710
one of tiny carbon molecules Mick

259
00:11:10,300 --> 00:11:09,830
singing changing in the void its poster

260
00:11:13,740 --> 00:11:10,310
child

261
00:11:16,230 --> 00:11:13,750
the charming buckyball a curious round

262
00:11:18,940 --> 00:11:16,240
agglomeration of carbon atoms

263
00:11:21,040 --> 00:11:18,950

this chemical ecosystem can be a

264

00:11:23,290 --> 00:11:21,050

nuisance for astronomers because the

265

00:11:25,090 --> 00:11:23,300

little black molecules block out parts

266

00:11:27,850 --> 00:11:25,100

of the light we see from stars and

267

00:11:30,490 --> 00:11:27,860

galaxies but it's also important on its

268

00:11:32,770 --> 00:11:30,500

own recent discoveries have shown that

269

00:11:34,870 --> 00:11:32,780

the chemical reaction between stars can

270

00:11:37,500 --> 00:11:34,880

build the constituents of biological

271

00:11:41,590 --> 00:11:37,510

molecules such as amino acids and sugars

272

00:11:43,810 --> 00:11:41,600

these substances raining from space may

273

00:11:46,300 --> 00:11:43,820

have contributed to the origin of life

274

00:11:48,610 --> 00:11:46,310

on Earth but these reactions are

275

00:11:50,940 --> 00:11:48,620

intricate they're hard to track which

276

00:11:53,500 --> 00:11:50,950

leaves us searching for beacons a

277

00:11:56,170 --> 00:11:53,510

molecule we understand that could help

278

00:11:58,750 --> 00:11:56,180

us navigate through this fog and this is

279

00:12:02,410 --> 00:11:58,760

where the small stuff becomes a big deal

280

00:12:05,680 --> 00:12:02,420

so as Joshua Sokol writes hang on as we

281

00:12:08,590 --> 00:12:05,690

zoom down to envision a bucky ball

282

00:12:11,680 --> 00:12:08,600

bouncing around in outer space picture

283

00:12:15,280 --> 00:12:11,690

it as a little football sixty atoms of

284

00:12:17,380 --> 00:12:15,290

carbon arranged in a rough sphere by mid

285

00:12:19,810 --> 00:12:17,390

twentieth century architect Buckminster

286

00:12:23,020 --> 00:12:19,820

Fuller also called Bucky

287

00:12:24,940 --> 00:12:23,030

hence bucky balls and others had figured

288

00:12:27,640 --> 00:12:24,950

out that a network of Pentagon's and

289

00:12:30,460 --> 00:12:27,650

hexagons would fold into a stable

290

00:12:32,740 --> 00:12:30,470

geodesic structure as it turned out

291

00:12:36,190 --> 00:12:32,750

Nature had already come to that same

292

00:12:38,950 --> 00:12:36,200

realization in 1985 earthbound

293

00:12:41,710 --> 00:12:38,960

researchers cooked a disk of graphite a

294

00:12:43,900 --> 00:12:41,720

carbon mineral in a plasma chamber to

295

00:12:47,080 --> 00:12:43,910

recreate the conditions that they would

296

00:12:49,390 --> 00:12:47,090

find around a red giant star to their

297

00:12:52,630 --> 00:12:49,400

surprise they discovered they'd made

298

00:12:55,360 --> 00:12:52,640

weird new forms of carbon bucky balls

299

00:12:58,020 --> 00:12:55,370

and other examples of even larger

300

00:13:01,360 --> 00:12:58,030

molecules that looked like carbon cages

301
00:13:04,000 --> 00:13:01,370
they chose to nod to fuller by calling

302
00:13:06,310 --> 00:13:04,010
them fullerenes thankfully after first

303
00:13:10,150 --> 00:13:06,320
considering names like balance fearing

304
00:13:11,620 --> 00:13:10,160
Sakharine and carbo soccer but even

305
00:13:14,110 --> 00:13:11,630
after astronomers began to look for

306
00:13:17,380 --> 00:13:14,120
fullerenes in space they took

307
00:13:20,590 --> 00:13:17,390
two-and-a-half decades to find it wasn't

308
00:13:22,900 --> 00:13:20,600
until 2010 that a team led by Jan

309
00:13:25,510 --> 00:13:22,910
at the University of Western Ontario in

310
00:13:28,710 --> 00:13:25,520
Canada found their spectral signatures

311
00:13:30,130 --> 00:13:28,720
in the colorful gas around a dying star

312
00:13:32,410 --> 00:13:30,140
since then

313
00:13:34,240 --> 00:13:32,420

traces of fullerenes have popped up

314

00:13:37,840 --> 00:13:34,250

again and again in many different

315

00:13:40,120 --> 00:13:37,850

environments a 2015 paper argued that

316

00:13:42,760 --> 00:13:40,130

their presence in the Milky Way might

317

00:13:45,010 --> 00:13:42,770

even explain weird spectral features of

318

00:13:47,140 --> 00:13:45,020

interstellar space those certain

319

00:13:49,570 --> 00:13:47,150

wavelengths of light from distant stars

320

00:13:51,940 --> 00:13:49,580

that are being mysteriously absorbed on

321

00:13:53,850 --> 00:13:51,950

their way to us these features have been

322

00:13:56,890 --> 00:13:53,860

unexplained for over a century and

323

00:13:59,770 --> 00:13:56,900

that's not to say that we understand now

324

00:14:01,930 --> 00:13:59,780

where fullerenes are coming from there's

325

00:14:04,270 --> 00:14:01,940

plenty of carbon in space and a heated

326

00:14:06,520 --> 00:14:04,280

carbon rich gas will produce buckyballs

327

00:14:07,270 --> 00:14:06,530

and similar molecules because they're

328

00:14:09,730 --> 00:14:07,280

closed

329

00:14:13,030 --> 00:14:09,740

cages well those are incredibly stable

330

00:14:16,840 --> 00:14:13,040

and resilient but colder regions of

331

00:14:19,390 --> 00:14:16,850

space should instead make flat soda ring

332

00:14:21,910 --> 00:14:19,400

structures of carbon with hydrogen atoms

333

00:14:24,190 --> 00:14:21,920

around the outside to get those

334

00:14:26,740 --> 00:14:24,200

structures to fold into a cage you'd

335

00:14:28,540 --> 00:14:26,750

need to get rid of the hydrogen and this

336

00:14:31,840 --> 00:14:28,550

could happen either because there were

337

00:14:34,620 --> 00:14:31,850

no hydrogen's around to begin with or if

338

00:14:37,420 --> 00:14:34,630

those molecules were exposed somehow to

339

00:14:40,180 --> 00:14:37,430

ultraviolet light that could bake those

340

00:14:42,610 --> 00:14:40,190

hydrogens away how these processes

341

00:14:45,240 --> 00:14:42,620

interact to explain the full spread of

342

00:14:48,040 --> 00:14:45,250

interstellar fullerenes isn't clear but

343

00:14:50,230 --> 00:14:48,050

said cami but I've been scratching my

344

00:14:52,990 --> 00:14:50,240

head about this for a long time and

345

00:14:55,630 --> 00:14:53,000

quotes solving the mystery of this

346

00:14:57,880 --> 00:14:55,640

little molecule could have a big payoff

347

00:14:59,650 --> 00:14:57,890

most of our spectral measurements of

348

00:15:02,260 --> 00:14:59,660

carbon molecules floating around in

349

00:15:04,270 --> 00:15:02,270

space are a garbled mess too many

350

00:15:06,100 --> 00:15:04,280

different kinds of other molecules are

351
00:15:09,070 --> 00:15:06,110
overlapping and that makes it hard to

352
00:15:11,560 --> 00:15:09,080
understand what's going on so enter

353
00:15:14,470 --> 00:15:11,570
fullerenes with their clear and unique

354
00:15:16,390 --> 00:15:14,480
signals showing us at least one part of

355
00:15:18,850 --> 00:15:16,400
the rhythms and reactions of

356
00:15:20,860 --> 00:15:18,860
interstellar carbon and eventually

357
00:15:24,010 --> 00:15:20,870
perhaps we can use them as tracers to

358
00:15:26,440 --> 00:15:24,020
understand how prebiotic molecules form

359
00:15:28,360 --> 00:15:26,450
in space that's going to give us lots of

360
00:15:31,350 --> 00:15:28,370
hints about our own existence

361
00:15:34,240 --> 00:15:31,360
like soil bacteria in the Savannah

362
00:15:36,220 --> 00:15:34,250
buckyballs might not be as eye-catching

363
00:15:38,950 --> 00:15:36,230

the astronomical Titans the tower over

364

00:15:42,070 --> 00:15:38,960

them but try taking them and their

365

00:15:44,800 --> 00:15:42,080

relatives away and we might not be here

366

00:15:46,360 --> 00:15:44,810

to appreciate the cosmos in the first

367

00:15:49,510 --> 00:15:46,370

place hmm

368

00:15:52,180 --> 00:15:49,520

a possible point to ponder speaking of

369

00:15:55,240 --> 00:15:52,190

pondering let's ponder a black triangle

370

00:15:56,440 --> 00:15:55,250

sighting in Marbella Andalusia Spain

371

00:15:59,920 --> 00:15:56,450

shall we

372

00:16:02,230 --> 00:15:59,930

courtesy of UFO stalker calm it's got a

373

00:16:04,750 --> 00:16:02,240

MUFON case number eight four four zero

374

00:16:08,140 --> 00:16:04,760

five four those tracking and

375

00:16:10,810 --> 00:16:08,150

identification purposes hopefully the

376

00:16:14,170 --> 00:16:10,820

date of the sighting is June 15 2017

377

00:16:18,280 --> 00:16:14,180

they got a next day report here's the

378

00:16:20,710 --> 00:16:18,290

summary at around 12:40 a.m. I saw three

379

00:16:25,270 --> 00:16:20,720

lights changing pattern and direction

380

00:16:27,430 --> 00:16:25,280

forming a triangle above the sea citing

381

00:16:30,190 --> 00:16:27,440

specifics offer a witness reported

382

00:16:33,250 --> 00:16:30,200

viewing distance unknown the altitude

383

00:16:36,130 --> 00:16:33,260

500 feet or less the duration of this

384

00:16:37,360 --> 00:16:36,140

sighting was 20 minutes and in spite of

385

00:16:39,579 --> 00:16:37,370

that length of time

386

00:16:43,300 --> 00:16:39,589

the object features are reported as

387

00:16:46,329 --> 00:16:43,310

unknown its flight path a path and then

388

00:16:48,940 --> 00:16:46,339

hovering and this object obviously was

389

00:16:52,480 --> 00:16:48,950
shaped like a triangle here's the

390

00:16:55,780 --> 00:16:52,490
account on the 15th of June at about

391

00:16:58,420 --> 00:16:55,790
12:40 a.m. at night I looked outside my

392

00:17:02,050 --> 00:16:58,430
window to the sea and saw the light

393

00:17:04,600 --> 00:17:02,060
blinking every two seconds at first I

394

00:17:07,720 --> 00:17:04,610
thought it was an airplane so I opened

395

00:17:10,569 --> 00:17:07,730
my app it's called flight trader 24 app

396

00:17:13,689 --> 00:17:10,579
and tracked planes but there were no

397

00:17:16,540 --> 00:17:13,699
planes above this area alright I thought

398

00:17:19,179 --> 00:17:16,550
and I grabbed my binoculars to look at

399

00:17:22,120 --> 00:17:19,189
these lights I was shocked when I saw

400

00:17:23,380 --> 00:17:22,130
actually not one but three of these

401

00:17:26,710 --> 00:17:23,390

lights through binoculars

402

00:17:28,720 --> 00:17:26,720

they formed a triangle one of these

403

00:17:31,600 --> 00:17:28,730

lights was yellow the other two were

404

00:17:34,120 --> 00:17:31,610

reddish or greenish color and they kept

405

00:17:36,670 --> 00:17:34,130

moving to the left and then back to the

406

00:17:39,430 --> 00:17:36,680

right sometimes this object would just

407

00:17:42,340 --> 00:17:39,440

sit in the sky at one spot for about a

408

00:17:45,160 --> 00:17:42,350

minute I watched these lights this thing

409

00:17:48,200 --> 00:17:45,170

flying for about 20 minutes or so and

410

00:17:52,130 --> 00:17:48,210

then they disappeared interest

411

00:17:55,909 --> 00:17:52,140

again a large body of water and a UFO

412

00:17:59,240 --> 00:17:55,919

hmm our next sighting back in the US of

413

00:18:02,210 --> 00:17:59,250

A Pinehurst North Carolina and this

414

00:18:04,880 --> 00:18:02,220

sighting comes by way of UFOs Northwest

415

00:18:05,899 --> 00:18:04,890

that most excellent site maintained by

416

00:18:08,690 --> 00:18:05,909

William puckett

417

00:18:12,049 --> 00:18:08,700

here's a headline very bright light

418

00:18:15,320 --> 00:18:12,059

falls from the sky the date of this

419

00:18:18,519 --> 00:18:15,330

sighting is June 18 2017 it took place

420

00:18:20,690 --> 00:18:18,529

at 11:30 p.m. Eastern Daylight Time

421

00:18:22,310 --> 00:18:20,700

according to the Google map that

422

00:18:24,769 --> 00:18:22,320

accompanies this sighting report it

423

00:18:28,130 --> 00:18:24,779

looks as though Pinehurst North Carolina

424

00:18:31,279 --> 00:18:28,140

is north and to the west of the city of

425

00:18:34,070 --> 00:18:31,289

Fayetteville North Carolina so here's

426

00:18:35,330 --> 00:18:34,080

the account I was beginning my shift as

427

00:18:39,139 --> 00:18:35,340

security officer

428

00:18:42,200 --> 00:18:39,149

it was June 18 2017 at approximately 23

429

00:18:45,080 --> 00:18:42,210

30 hours as I was driving down Carolina

430

00:18:47,990 --> 00:18:45,090

Vista Drive away from the Carolina hotel

431

00:18:50,779 --> 00:18:48,000

I saw a bright light at a very far

432

00:18:54,470 --> 00:18:50,789

distance away this light seemed to be

433

00:18:57,169 --> 00:18:54,480

coming down at an acute angle it was

434

00:19:00,260 --> 00:18:57,179

kind of free-falling at about a 45

435

00:19:02,690 --> 00:19:00,270

degree angle it kept its level of light

436

00:19:05,539 --> 00:19:02,700

intensity constant during this fall

437

00:19:08,330 --> 00:19:05,549

it wasn't twinkling it wasn't fading as

438

00:19:11,960 --> 00:19:08,340

a meteor would and this object had no

439

00:19:15,049 --> 00:19:11,970

light tail I'm 58 years old and I've

440

00:19:18,560 --> 00:19:15,059

seen many meteors in my life so I know

441

00:19:20,810 --> 00:19:18,570

that this was not any meteor it looked

442

00:19:22,760 --> 00:19:20,820

like an aircraft of some kind and I

443

00:19:24,490 --> 00:19:22,770

immediately thought to myself he's got

444

00:19:27,560 --> 00:19:24,500

to pull out quick or he's going to crash

445

00:19:30,289 --> 00:19:27,570

since I was in my vehicle I heard no

446

00:19:32,810 --> 00:19:30,299

sound after this object fell over the

447

00:19:37,159 --> 00:19:32,820

horizon I've never seen anything like

448

00:19:39,740 --> 00:19:37,169

this ever good news it wasn't an

449

00:19:43,220 --> 00:19:39,750

airplane there was no crash but there

450

00:19:45,980 --> 00:19:43,230

was no sound and no tail like a meteor

451

00:19:48,590 --> 00:19:45,990

let's zip up to Philadelphia

452

00:19:51,560 --> 00:19:48,600

Pennsylvania for this reporting of a

453

00:19:55,610 --> 00:19:51,570

black triangle sighting move on case

454

00:20:01,789 --> 00:19:55,620

number 8 4 5 3 3 date of this sighting 6

455

00:20:04,100 --> 00:20:01,799

21 2017 date submitted 6 22 2017

456

00:20:06,470 --> 00:20:04,110

here's the summary lights I observed

457

00:20:09,799 --> 00:20:06,480

from my porch and then I moved to a

458

00:20:11,330 --> 00:20:09,809

better vantage point there's video with

459

00:20:13,669 --> 00:20:11,340

this you're probably going to want to

460

00:20:16,159 --> 00:20:13,679

check that out gentle listeners you can

461

00:20:19,009 --> 00:20:16,169

find links later at UFO headline news

462

00:20:22,039 --> 00:20:19,019

calm and oh yeah we're available on

463

00:20:25,220 --> 00:20:22,049

YouTube these days back to the sighting

464

00:20:28,220 --> 00:20:25,230

specifics viewing distance 501 feet to

465

00:20:31,009 --> 00:20:28,230

one mile eventually out over one mile

466

00:20:33,889 --> 00:20:31,019

the altitude was over five hundred feet

467

00:20:36,320 --> 00:20:33,899

no cloud cover this sighting duration

468

00:20:39,259 --> 00:20:36,330

lasted 10 minutes and the object

469

00:20:41,810 --> 00:20:39,269

featured wings its flight path featured

470

00:20:45,560 --> 00:20:41,820

hovering and then a straight path and

471

00:20:48,289 --> 00:20:45,570

yep shaped like a triangle it was and

472

00:20:49,099 --> 00:20:48,299

the sighting seemed to go something like

473

00:20:51,950 --> 00:20:49,109

this

474

00:20:56,149 --> 00:20:51,960

I was sitting on my porch around 10:20

475

00:20:57,739 --> 00:20:56,159

p.m. when I saw two strange lights these

476

00:21:01,340 --> 00:20:57,749

lights were stationary they weren't

477

00:21:04,879 --> 00:21:01,350

moving I began videotaping them and then

478

00:21:06,799 --> 00:21:04,889

one appeared to move a little I decided

479

00:21:09,379 --> 00:21:06,809

to move to a clearing down the street

480

00:21:11,930 --> 00:21:09,389

and realized there were three of these

481

00:21:15,049 --> 00:21:11,940

lights then and I again began filming

482

00:21:17,649 --> 00:21:15,059

the furthest light to the right appeared

483

00:21:19,789 --> 00:21:17,659

to start moving up and to the right I

484

00:21:21,649 --> 00:21:19,799

managed to get a short video from

485

00:21:23,810 --> 00:21:21,659

beneath this object but I sort of

486

00:21:26,029 --> 00:21:23,820

fumbled it first and so I ended up

487

00:21:28,609 --> 00:21:26,039

taking a picture instead of a recorded

488

00:21:30,499 --> 00:21:28,619

video but then I went back to these

489

00:21:33,590 --> 00:21:30,509

other two lights they remained

490

00:21:35,899 --> 00:21:33,600

stationary for some time the light on

491

00:21:38,299 --> 00:21:35,909

the left began moving to the left moving

492

00:21:41,450 --> 00:21:38,309

in a straight line and then it flew

493

00:21:46,279 --> 00:21:41,460

almost over my head and I managed to get

494

00:21:48,619 --> 00:21:46,289

a brief video of that as well video some

495

00:21:51,139 --> 00:21:48,629

sort of evidence even evidence on a

496

00:21:54,440 --> 00:21:51,149

personal level you know you saw that

497

00:21:57,769 --> 00:21:54,450

because here's the footage not too far

498

00:21:59,570 --> 00:21:57,779

away from Edgewater New Jersey so let's

499

00:22:03,289 --> 00:21:59,580

look at this sighting shall we it's

500

00:22:05,359 --> 00:22:03,299

MUFON Case number 8 for 5 to 8 it

501
00:22:07,909 --> 00:22:05,369
happened on the 18th of June this year

502
00:22:10,460 --> 00:22:07,919
didn't get reported till the 21st of

503
00:22:13,389 --> 00:22:10,470
June our reporting witness has a summary

504
00:22:15,769 --> 00:22:13,399
that's just one word long that word

505
00:22:18,080 --> 00:22:15,779
fascinating the

506
00:22:20,810 --> 00:22:18,090
our photos submitted with this account

507
00:22:23,119 --> 00:22:20,820
under sighting specifics the viewing

508
00:22:26,539 --> 00:22:23,129
distance is listed as over one mile

509
00:22:29,570 --> 00:22:26,549
initially eventually unknown the

510
00:22:32,509 --> 00:22:29,580
altitude over 500 feet and there was

511
00:22:35,869 --> 00:22:32,519
cloud cover the sighting duration one

512
00:22:38,690 --> 00:22:35,879
hour the object features other and

513
00:22:41,570 --> 00:22:38,700

unknown its flight path was stationary

514

00:22:44,839 --> 00:22:41,580

and then a straight line path and this

515

00:22:47,119 --> 00:22:44,849

object was shaped like a disc at the

516

00:22:49,669 --> 00:22:47,129

time of this sighting over Edgewater New

517

00:22:52,190 --> 00:22:49,679

Jersey the maximum temperature on the

518

00:22:54,829 --> 00:22:52,200

ground was 85 degrees Fahrenheit

519

00:22:57,709 --> 00:22:54,839

29 degrees Celsius the minimum

520

00:23:00,139 --> 00:22:57,719

temperatures 70 degrees Fahrenheit 21

521

00:23:03,320 --> 00:23:00,149

degrees Celsius the maximum visibility

522

00:23:05,839 --> 00:23:03,330

at this point was 10 miles 16 kilometers

523

00:23:08,629 --> 00:23:05,849

dropping down to a two mile two

524

00:23:11,779 --> 00:23:08,639

kilometer minimum here's the account

525

00:23:14,959 --> 00:23:11,789

it's in points one through six so here

526

00:23:17,419 --> 00:23:14,969

we go point one I was home at the time

527

00:23:18,159 --> 00:23:17,429

and went out to my balcony to get some

528

00:23:22,219 --> 00:23:18,169

fresh air

529

00:23:26,119 --> 00:23:22,229

point two this thing would move side to

530

00:23:30,769 --> 00:23:26,129

side or front to back also the sky was

531

00:23:33,680 --> 00:23:30,779

clear clean 0.3 at first I thought this

532

00:23:36,139 --> 00:23:33,690

was an airplane or a helicopter but

533

00:23:38,570 --> 00:23:36,149

seconds later that possibility went out

534

00:23:41,659 --> 00:23:38,580

the window and then I thought I could

535

00:23:44,329 --> 00:23:41,669

possibly be seeing a drone or a star but

536

00:23:47,299 --> 00:23:44,339

that weird pattern of movement made it

537

00:23:49,700 --> 00:23:47,309

clear that it wasn't those objects point

538

00:23:52,070 --> 00:23:49,710

for at first this object was hovering

539

00:23:55,489 --> 00:23:52,080

for a few minutes and it looked like

540

00:23:57,979 --> 00:23:55,499

that classic flying saucer disc but

541

00:24:00,649 --> 00:23:57,989

while hovering it started to move in a

542

00:24:04,070 --> 00:24:00,659

circle motion which made this then look

543

00:24:06,739 --> 00:24:04,080

like a portal or some quite whole last

544

00:24:09,829 --> 00:24:06,749

but not least in point for its minor

545

00:24:13,099 --> 00:24:09,839

movement would take it west and north or

546

00:24:16,430 --> 00:24:13,109

in other words descent and ascent point

547

00:24:20,299 --> 00:24:16,440

5 while watching the object I got goose

548

00:24:23,749 --> 00:24:20,309

bumps and also quite randomly my three

549

00:24:26,210 --> 00:24:23,759

cats came to me at that same time the

550

00:24:29,600 --> 00:24:26,220

birds began singing and flying in the

551

00:24:31,789 --> 00:24:29,610

yard point six I went inside for some

552

00:24:35,000 --> 00:24:31,799

orange juice and when I went outside

553

00:24:38,120 --> 00:24:35,010

again this was already gone it left no

554

00:24:40,880 --> 00:24:38,130

trail and here's the point where we sing

555

00:24:43,310 --> 00:24:40,890

happy trails to you gentle listeners at

556

00:24:44,690 --> 00:24:43,320

least for today we've got a gallop out

557

00:24:50,410 --> 00:24:44,700

of here now because