



Small, or
Far
Away

1
00:00:06,309 --> 00:00:03,590
hello so on january the 9th 2019 a video

2
00:00:08,070 --> 00:00:06,319
of a ufo showed up on youtube it's shot

3
00:00:10,709 --> 00:00:08,080
from a drone flying over the utah

4
00:00:13,110 --> 00:00:10,719
landscape near beaver and at one point a

5
00:00:14,789 --> 00:00:13,120
white object zips by the camera

6
00:00:16,710 --> 00:00:14,799
four days after the video dropped it was

7
00:00:19,910 --> 00:00:16,720
posted on my metabunk forum that same

8
00:00:22,550 --> 00:00:19,920
day ivan horn suggested it's just a bug

9
00:00:25,670 --> 00:00:22,560
and created a simple 3d recreation of a

10
00:00:27,509 --> 00:00:25,680
one centimeter wide object moving slowly

11
00:00:29,509 --> 00:00:27,519
across the field of view it seemed to

12
00:00:32,069 --> 00:00:29,519
fit and initially i thought this was

13
00:00:34,470 --> 00:00:32,079

fine case closed but then additional

14

00:00:36,950 --> 00:00:34,480

analysis commenced the next day january

15

00:00:39,030 --> 00:00:36,960

the 14th somebody posted a video that

16

00:00:41,190 --> 00:00:39,040

claimed the object passed behind the

17

00:00:44,389 --> 00:00:41,200

distant ridgeline that meant it traveled

18

00:00:46,790 --> 00:00:44,399

over three miles in two seconds

19

00:00:49,270 --> 00:00:46,800

the day after that january the 15th rob

20

00:00:50,950 --> 00:00:49,280

woodus who posts as propellerhead

21

00:00:53,029 --> 00:00:50,960

published a video that repeated the

22

00:00:54,709 --> 00:00:53,039

ridgeline claim he did some more

23

00:00:57,029 --> 00:00:54,719

analysis that his head shows that

24

00:01:00,069 --> 00:00:57,039

parallax proved it was far away at the

25

00:01:02,630 --> 00:01:00,079

start and as it moved with the distant

26
00:01:03,910 --> 00:01:02,640
mountains but not with the nearby trees

27
00:01:06,550 --> 00:01:03,920
he said

28
00:01:09,510 --> 00:01:06,560
i believe i've proven it can't be a bug

29
00:01:12,149 --> 00:01:09,520
and that it's a sizable craft traveling

30
00:01:14,789 --> 00:01:12,159
over 9000 miles per hour and parallax

31
00:01:17,990 --> 00:01:15,990
a lot of people found this rather

32
00:01:20,070 --> 00:01:18,000
compelling other people weighed in on

33
00:01:22,550 --> 00:01:20,080
february the 18th point consciousness

34
00:01:24,630 --> 00:01:22,560
did some fancy motion tracking analysis

35
00:01:26,230 --> 00:01:24,640
but didn't really use it for anything he

36
00:01:28,469 --> 00:01:26,240
generally agreed with the ridgeline and

37
00:01:30,950 --> 00:01:28,479
parallax arguments and uh he calculated

38
00:01:34,390 --> 00:01:30,960

the likely size and speed his conclusion

39

00:01:36,469 --> 00:01:34,400

was indeterminate but he went 60 percent

40

00:01:39,190 --> 00:01:36,479

for it being some amazing technology

41

00:01:41,830 --> 00:01:39,200

super fast craft and more likely an

42

00:01:44,230 --> 00:01:41,840

alien craft

43

00:01:46,789 --> 00:01:44,240

back on metabunk i pointed out that the

44

00:01:48,230 --> 00:01:46,799

object only vanishes for one frame and

45

00:01:50,230 --> 00:01:48,240

with the noise in the video this was

46

00:01:51,830 --> 00:01:50,240

probably just video compression it also

47

00:01:53,350 --> 00:01:51,840

dropped out earlier

48

00:01:55,109 --> 00:01:53,360

meanwhile people started to discuss if

49

00:01:58,310 --> 00:01:55,119

it was a bird

50

00:02:01,190 --> 00:01:58,320

we found a bunch of other similar videos

51
00:02:03,749 --> 00:02:01,200
on february the 18th truth serum

52
00:02:05,429 --> 00:02:03,759
published a very long video the most

53
00:02:07,190 --> 00:02:05,439
important part of which was calculating

54
00:02:09,350 --> 00:02:07,200
distance and speed from an assumed

55
00:02:10,229 --> 00:02:09,360
object's size which seemed to rule out a

56
00:02:13,190 --> 00:02:10,239
bird

57
00:02:15,750 --> 00:02:13,200
then on february 22nd jay lamb raised

58
00:02:18,150 --> 00:02:15,760
some objections why didn't a 9 000 mile

59
00:02:21,670 --> 00:02:18,160
per hour craft ruffle the trees a bit he

60
00:02:23,510 --> 00:02:21,680
suggested a bird might be a better fit

61
00:02:25,270 --> 00:02:23,520
that day on metabunk

62
00:02:27,670 --> 00:02:25,280
truth serum's video had prompted a

63
00:02:29,670 --> 00:02:27,680

discussion about the field of view and

64

00:02:31,990 --> 00:02:29,680

the frame rate and the calculated size

65

00:02:34,070 --> 00:02:32,000

and speed and we mostly moved towards it

66

00:02:36,150 --> 00:02:34,080

being smaller than a bird

67

00:02:38,070 --> 00:02:36,160

on march the 8th i agreed a bug was

68

00:02:40,070 --> 00:02:38,080

likely but might also be something

69

00:02:43,030 --> 00:02:40,080

blowing in the wind like a seed or a bit

70

00:02:45,509 --> 00:02:43,040

of paper next month on march the 23rd

71

00:02:48,470 --> 00:02:45,519

propellerhead robotis updated his

72

00:02:50,630 --> 00:02:48,480

analysis with a video called beaver utah

73

00:02:53,110 --> 00:02:50,640

another way to see it where he now

74

00:02:55,750 --> 00:02:53,120

realized his parallax argument is not

75

00:02:59,430 --> 00:02:55,760

conclusive because the object is moving

76

00:03:04,229 --> 00:03:01,830

rob starts to look at things i feel the

77

00:03:05,990 --> 00:03:04,239

view and how quickly things of different

78

00:03:07,910 --> 00:03:06,000

sides approach the camera he doesn't do

79

00:03:10,149 --> 00:03:07,920

too much math but he does do a lot of

80

00:03:12,390 --> 00:03:10,159

practical experiments and eventually he

81

00:03:14,949 --> 00:03:12,400

concludes that something small floating

82

00:03:16,630 --> 00:03:14,959

in the air can't be ruled out

83

00:03:18,309 --> 00:03:16,640

you know it just floats in the air now

84

00:03:20,309 --> 00:03:18,319

am i saying that's what it is i just

85

00:03:23,270 --> 00:03:20,319

think that it's neat that we've looked

86

00:03:26,470 --> 00:03:23,280

at this another way and we found another

87

00:03:28,789 --> 00:03:26,480

possible explanation back on metabunk

88

00:03:30,630 --> 00:03:28,799

the bug or something small hypothesis

89

00:03:32,949 --> 00:03:30,640

remains strong we also find a few more

90

00:03:35,030 --> 00:03:32,959

examples in july and later in october

91

00:03:36,949 --> 00:03:35,040

that seemed to support it on september

92

00:03:39,670 --> 00:03:36,959

the 18th the discovery channel featured

93

00:03:41,190 --> 00:03:39,680

the video on episode 7 of contact but

94

00:03:43,350 --> 00:03:41,200

they didn't really add anything new with

95

00:03:44,229 --> 00:03:43,360

their analysis

96

00:03:47,910 --> 00:03:44,239

then

97

00:03:49,509 --> 00:03:47,920

on november 2019 rob woods took a trip

98

00:03:51,830 --> 00:03:49,519

to the side of the video and noticed how

99

00:03:53,990 --> 00:03:51,840

much stuff was floating in the air

100

00:03:55,990 --> 00:03:54,000

bugs seeds etc some of which you can see

101

00:03:57,429 --> 00:03:56,000

in this video we seem to make him move a

102

00:03:59,990 --> 00:03:57,439

lot closer to the small object

103

00:04:01,670 --> 00:04:00,000

hypothesis because it is a wild natural

104

00:04:03,030 --> 00:04:01,680

place you know there's a lot of stuff in

105

00:04:05,990 --> 00:04:03,040

the air

106

00:04:07,830 --> 00:04:06,000

i really think it's possible that the

107

00:04:09,270 --> 00:04:07,840

utah video was something that was in the

108

00:04:11,830 --> 00:04:09,280

air

109

00:04:17,590 --> 00:04:13,190

don't have a way to prove that of course

110

00:04:21,749 --> 00:04:18,949

i'm glad i came out here to take a look

111

00:04:23,909 --> 00:04:21,759

at it myself and now two years later i'm

112

00:04:25,110 --> 00:04:23,919

starting to make this video and i asked

113

00:04:27,350 --> 00:04:25,120

rob

114

00:04:29,590 --> 00:04:27,360

what's your current thinking on what

115

00:04:31,270 --> 00:04:29,600

this is you seem pretty open to being

116

00:04:33,590 --> 00:04:31,280

something in the air like a burger or

117

00:04:35,270 --> 00:04:33,600

seeds during this trip what do you think

118

00:04:36,230 --> 00:04:35,280

now you've had more time to reflect on

119

00:04:38,150 --> 00:04:36,240

it

120

00:04:41,030 --> 00:04:38,160

and he replied

121

00:04:42,629 --> 00:04:41,040

hey mick i think it's poplar fluff

122

00:04:44,629 --> 00:04:42,639

and he also noted his mistake with a

123

00:04:45,430 --> 00:04:44,639

parallax argument

124

00:04:47,510 --> 00:04:45,440

so

125

00:04:50,070 --> 00:04:47,520

it seems like ivan's original estimate

126
00:04:52,629 --> 00:04:50,080
was correct it was just a small object

127
00:04:53,510 --> 00:04:52,639
close to the camera a bug or a maybe a

128
00:04:54,710 --> 00:04:53,520
seed

129
00:04:59,030 --> 00:04:54,720
and now he's shaking out all the

130
00:05:00,390 --> 00:04:59,040
objections its case finally closed

131
00:05:02,550 --> 00:05:00,400
but why do people still think this is

132
00:05:04,950 --> 00:05:02,560
something well yeah look at the view

133
00:05:06,870 --> 00:05:04,960
count on the videos the first video is

134
00:05:08,950 --> 00:05:06,880
released by brian hanley and he got over

135
00:05:10,790 --> 00:05:08,960
a million views i see the next one which

136
00:05:12,469 --> 00:05:10,800
was just the raw footage

137
00:05:14,390 --> 00:05:12,479
brian then went on to promote rob's

138
00:05:16,790 --> 00:05:14,400

first two videos with stunning new

139

00:05:19,270 --> 00:05:16,800

analysis debunks claim the utah ufo was

140

00:05:21,189 --> 00:05:19,280

a bug it reached 9 000 miles per hour

141

00:05:23,029 --> 00:05:21,199

which was just rob's first video with a

142

00:05:24,469 --> 00:05:23,039

voiceover by brian

143

00:05:26,790 --> 00:05:24,479

that got over a

144

00:05:28,629 --> 00:05:26,800

quarter of a million views

145

00:05:29,510 --> 00:05:28,639

and rob's video itself got another 60

146

00:05:31,270 --> 00:05:29,520

000.

147

00:05:34,070 --> 00:05:31,280

brian did this with rob's second video

148

00:05:36,070 --> 00:05:34,080

and he got 132 000 videos and he posted

149

00:05:38,629 --> 00:05:36,080

some more videos which were just mostly

150

00:05:40,950 --> 00:05:38,639

irrelevant points and ridiculously

151

00:05:42,950 --> 00:05:40,960

enhanced videos but even those got

152

00:05:44,870 --> 00:05:42,960

thousands of views

153

00:05:46,469 --> 00:05:44,880

ryan didn't publish rob's third video

154

00:05:48,710 --> 00:05:46,479

where he acknowledged his mistakes and

155

00:05:49,990 --> 00:05:48,720

embraced the small object hypothesis but

156

00:05:51,749 --> 00:05:50,000

he does have an hour and a half

157

00:05:53,510 --> 00:05:51,759

discussion with rob where they show the

158

00:05:55,270 --> 00:05:53,520

fourth one and discuss the topic kind of

159

00:05:57,270 --> 00:05:55,280

dancing around a bit keeping the door

160

00:06:01,430 --> 00:05:57,280

open but yeah that's really irrelevant

161

00:06:03,909 --> 00:06:01,440

because it only got 1 700 views and

162

00:06:06,070 --> 00:06:03,919

rob's last two videos the correct ones

163

00:06:07,590 --> 00:06:06,080

got around 10 000 views combined less

164

00:06:09,189 --> 00:06:07,600

than two percent

165

00:06:11,590 --> 00:06:09,199

of the views of the first two the

166

00:06:12,870 --> 00:06:11,600

incorrect videos

167

00:06:14,950 --> 00:06:12,880

so basically

168

00:06:16,870 --> 00:06:14,960

lots of people have seen the video

169

00:06:18,950 --> 00:06:16,880

and the original supposed proof that it

170

00:06:21,350 --> 00:06:18,960

was a large fast-moving craft but hardly

171

00:06:23,029 --> 00:06:21,360

anyone has seen their attractions

172

00:06:24,950 --> 00:06:23,039

hardly anyone has seen the better

173

00:06:27,749 --> 00:06:24,960

analysis that shows it's just a small

174

00:06:29,510 --> 00:06:27,759

slow object the fun theory beats the

175

00:06:33,270 --> 00:06:29,520

boring theory even when the boring

176

00:06:36,230 --> 00:06:34,469

so let's finish up with a quick

177

00:06:38,390 --> 00:06:36,240

explanation of how you can replicate the

178

00:06:41,430 --> 00:06:38,400

analysis yourself first of all get the

179

00:06:43,909 --> 00:06:41,440

raw footage the original video is a 1.3

180

00:06:45,350 --> 00:06:43,919

gigabyte file it's 1080p resolution it's

181

00:06:46,870 --> 00:06:45,360

60 frames per second and if you're

182

00:06:48,469 --> 00:06:46,880

looking at anything else you're going

183

00:06:50,309 --> 00:06:48,479

gonna have problems with the ridgeline

184

00:06:53,270 --> 00:06:50,319

obscuration and possibly the speed

185

00:06:55,110 --> 00:06:53,280

analysis from counting frames

186

00:06:56,950 --> 00:06:55,120

first the ridgeline issue

187

00:06:59,589 --> 00:06:56,960

zoom in and increase the contrast a bit

188

00:07:01,670 --> 00:06:59,599

then go through one frame at a time the

189

00:07:03,270 --> 00:07:01,680

important thing to note is that it only

190

00:07:05,589 --> 00:07:03,280

vanishes for one frame under the

191

00:07:07,350 --> 00:07:05,599

ridgeline it's small and there's a lot

192

00:07:09,510 --> 00:07:07,360

of noise so it's quite possible it's

193

00:07:11,110 --> 00:07:09,520

just compression dropout especially as

194

00:07:13,350 --> 00:07:11,120

it's just one frame and especially as it

195

00:07:15,110 --> 00:07:13,360

drops out earlier

196

00:07:16,629 --> 00:07:15,120

the parallax argument we don't really

197

00:07:19,350 --> 00:07:16,639

need to address as it assumes a

198

00:07:20,790 --> 00:07:19,360

stationary object and this is moving rob

199

00:07:24,070 --> 00:07:20,800

made the argument and then quickly

200

00:07:24,870 --> 00:07:24,080

dropped it with this third video

201
00:07:26,790 --> 00:07:24,880
then

202
00:07:28,950 --> 00:07:26,800
size and speed we know the field of view

203
00:07:30,629 --> 00:07:28,960
is about 40 degrees so that's the angle

204
00:07:33,110 --> 00:07:30,639
that you can replicate the video with in

205
00:07:34,909 --> 00:07:33,120
google earth we know the width of the

206
00:07:38,230 --> 00:07:34,919
video is

207
00:07:40,270 --> 00:07:38,240
1920 pixels which means the focal length

208
00:07:44,550 --> 00:07:40,280
of the camera is

209
00:07:46,629 --> 00:07:44,560
 $1920 \div 2 \div \tan(40)$

210
00:07:51,189 --> 00:07:46,639
over 2 degrees is

211
00:07:53,110 --> 00:07:51,199
2 638 pixels we'll use this in a second

212
00:07:54,950 --> 00:07:53,120
then we take 10 frames of the video

213
00:07:56,790 --> 00:07:54,960

where we can see the object clearly fly

214

00:07:59,029 --> 00:07:56,800

in a straight line towards the camera we

215

00:08:00,869 --> 00:07:59,039

measure the height in pixels at the

216

00:08:03,909 --> 00:08:00,879

start and the end of the section when it

217

00:08:05,830 --> 00:08:03,919

goes from six pixels to 20 pixels

218

00:08:07,350 --> 00:08:05,840

now if we knew the actual height we

219

00:08:09,189 --> 00:08:07,360

could use these pixel heights to

220

00:08:11,029 --> 00:08:09,199

calculate the distance to the object

221

00:08:13,270 --> 00:08:11,039

it's just the height times the focal

222

00:08:14,950 --> 00:08:13,280

length of pixels divided by the height

223

00:08:16,629 --> 00:08:14,960

in pixels

224

00:08:18,390 --> 00:08:16,639

we can do this for both points and get

225

00:08:19,830 --> 00:08:18,400

the distance traveled divide that by the

226

00:08:21,589 --> 00:08:19,840

time uh 10

227

00:08:23,189 --> 00:08:21,599

10 frames being a sixth of a second and

228

00:08:24,950 --> 00:08:23,199

you get the speed

229

00:08:26,869 --> 00:08:24,960

since we don't know the height i made a

230

00:08:28,869 --> 00:08:26,879

spreadsheet letting me put in different

231

00:08:30,790 --> 00:08:28,879

heights and calculating the speed

232

00:08:32,230 --> 00:08:30,800

uh we want something that's flying or

233

00:08:34,469 --> 00:08:32,240

blowing in the wind and we know the

234

00:08:36,230 --> 00:08:34,479

drone is moving maybe 30 miles per hour

235

00:08:38,070 --> 00:08:36,240

so around that speed works and it turns

236

00:08:39,909 --> 00:08:38,080

out something

237

00:08:42,550 --> 00:08:39,919

under one centimeter around a third of

238

00:08:45,430 --> 00:08:42,560

an inch gives us a speed of around 30

239

00:08:47,030 --> 00:08:45,440

miles per hour so that fits very well

240

00:08:49,350 --> 00:08:47,040

with something small

241

00:08:51,110 --> 00:08:49,360

a bird would probably be well over 200

242

00:08:55,269 --> 00:08:51,120

miles per hour which seems unlikely so

243

00:08:56,550 --> 00:08:55,279

i'd go with a bug or a seed

244

00:08:58,230 --> 00:08:56,560

we could also do similar math to

245

00:08:59,509 --> 00:08:58,240

calculate the motion perpendicular to

246

00:09:01,110 --> 00:08:59,519

the camera's line of sight and that

247

00:09:03,350 --> 00:09:01,120

comes out to be about five miles per

248

00:09:05,350 --> 00:09:03,360

hour like breeze speed

249

00:09:06,710 --> 00:09:05,360

and that's really all there is to it

250

00:09:08,949 --> 00:09:06,720

is it possible

251

00:09:10,949 --> 00:09:08,959

that it was a 4 000 mile per hour craft

252

00:09:12,070 --> 00:09:10,959

that made no sonic boom and nobody

253

00:09:13,350 --> 00:09:12,080

noticed it

254

00:09:15,670 --> 00:09:13,360

sure

255

00:09:17,990 --> 00:09:15,680

but a bug fits best and it's the

256

00:09:19,910 --> 00:09:18,000

simplest explanation by far so let's go

257

00:09:22,710 --> 00:09:19,920

with that one first especially as rob

258

00:09:23,509 --> 00:09:22,720

noted there's a lot of stuff in the air

259

00:09:25,110 --> 00:09:23,519

well

260

00:09:27,509 --> 00:09:25,120

thanks for watching if you want to see