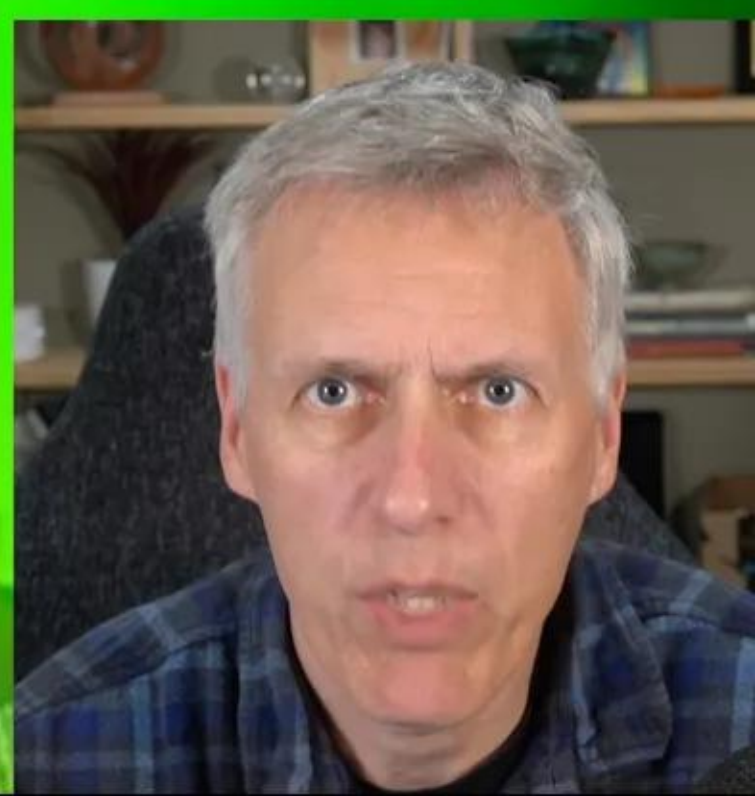
HYPERSPECTRAL MOTHERSHIP?



1
00:00:04,950 --> 00:00:02,629
hello uh so this video isn't something i

2
00:00:06,789 --> 00:00:04,960
normally spend a lot of time on it's a

3
00:00:08,790 --> 00:00:06,799
zoomed in flickering light that's had

4
00:00:10,709 --> 00:00:08,800
some filters applied to it that boost

5
00:00:13,430 --> 00:00:10,719
the colors and bring out the square

6
00:00:14,870 --> 00:00:13,440
video compression artifacts

7
00:00:16,390 --> 00:00:14,880
what made this different was that the

8
00:00:18,790 --> 00:00:16,400
person who made the video frederick

9
00:00:20,710 --> 00:00:18,800
portugal claimed to have credentials in

10
00:00:22,710 --> 00:00:20,720
hyperspectral imaging and to have worked

11
00:00:25,589 --> 00:00:22,720
for the government and to have invented

12
00:00:26,950 --> 00:00:25,599
some alien hunting binoculars

13
00:00:29,109 --> 00:00:26,960

some of that seems to check out on

14
00:00:31,109 --> 00:00:29,119
linkedin so when he said this video

15
00:00:33,350 --> 00:00:31,119
showed an alien plasma mothership

16
00:00:35,430 --> 00:00:33,360
releasing cargo or other little ships

17
00:00:37,430 --> 00:00:35,440
then some people listened

18
00:00:39,510 --> 00:00:37,440
when i first saw the video i recognized

19
00:00:41,670 --> 00:00:39,520
it looked just like a flickering star

20
00:00:43,670 --> 00:00:41,680
some stars flicker more than others and

21
00:00:45,670 --> 00:00:43,680
they show more color when zoomed in with

22
00:00:47,270 --> 00:00:45,680
a cheap camera so i suggested this to

23
00:00:49,110 --> 00:00:47,280
portugal on twitter

24
00:00:51,110 --> 00:00:49,120
and he rejected this and said there was

25
00:00:53,029 --> 00:00:51,120
no star there i was directed to a

26
00:00:54,709 --> 00:00:53,039
document he wrote where he shows how he

27
00:00:55,990 --> 00:00:54,719
determined that in the document there's

28
00:00:58,790 --> 00:00:56,000
a photo of the light with the

29
00:01:00,869 --> 00:00:58,800
constellation ursa minor above it and uh

30
00:01:02,709 --> 00:01:00,879
indeed if we boot up stellarium there's

31
00:01:04,229 --> 00:01:02,719
no star in that location looking north

32
00:01:05,830 --> 00:01:04,239
west

33
00:01:08,149 --> 00:01:05,840
the problem is some other stars were not

34
00:01:09,990 --> 00:01:08,159
there either and what he said was ursa

35
00:01:11,670 --> 00:01:10,000
miner looked like the wrong shape i

36
00:01:13,429 --> 00:01:11,680
suspected these were different stars so

37
00:01:15,350 --> 00:01:13,439
i looked around for a while

38
00:01:16,870 --> 00:01:15,360

it took a long while because these stars

39
00:01:19,109 --> 00:01:16,880
were all the way on the other side of

40
00:01:20,710 --> 00:01:19,119
the sky but i lined them up and then it

41
00:01:23,190 --> 00:01:20,720
was obvious that the light he had zoomed

42
00:01:26,149 --> 00:01:23,200
in on was the star antares

43
00:01:28,870 --> 00:01:26,159
the 15th brightest star in the sky he'd

44
00:01:29,990 --> 00:01:28,880
been looking in the wrong direction

45
00:01:32,149 --> 00:01:30,000
but

46
00:01:33,670 --> 00:01:32,159
isn't this still hyperspectral video

47
00:01:35,030 --> 00:01:33,680
showing things invisible to the naked

48
00:01:37,109 --> 00:01:35,040
eye no

49
00:01:38,710 --> 00:01:37,119
hyperspectral cameras are very expensive

50
00:01:40,710 --> 00:01:38,720
and they give essentially a full

51
00:01:43,109 --> 00:01:40,720
spectrum graph for every pixel that's

52
00:01:45,510 --> 00:01:43,119
not what we have here

53
00:01:47,910 --> 00:01:45,520
portugal explained the equipment he used

54
00:01:51,190 --> 00:01:47,920
a regular telescope and a camera called

55
00:01:52,950 --> 00:01:51,200
a philips 2 cam this is a old very low

56
00:01:55,350 --> 00:01:52,960
resolution camera that was popular back

57
00:01:56,630 --> 00:01:55,360
in the 2000s as a cheap telescope camera

58
00:01:59,190 --> 00:01:56,640
because of its good low light

59
00:02:00,550 --> 00:01:59,200
sensitivity but it's not really a great

60
00:02:02,149 --> 00:02:00,560
camera and it's certainly not

61
00:02:03,910 --> 00:02:02,159
hyperspectral

62
00:02:05,910 --> 00:02:03,920
he also explains the processing he did

63
00:02:07,910 --> 00:02:05,920

with the video the luminosity was

64
00:02:09,749 --> 00:02:07,920
increased to offset the low gain camera

65
00:02:11,510 --> 00:02:09,759
setting the saturation was increased to

66
00:02:14,550 --> 00:02:11,520
the maximum setting and then the hue

67
00:02:16,229 --> 00:02:14,560
adjusted to optimize the color contrast

68
00:02:17,589 --> 00:02:16,239
so that's basically just boosting all

69
00:02:19,910 --> 00:02:17,599
the adjustments to the max to make

70
00:02:21,589 --> 00:02:19,920
things stand out but next comes the

71
00:02:23,110 --> 00:02:21,599
magic

72
00:02:24,229 --> 00:02:23,120
the next processing stage was

73
00:02:25,350 --> 00:02:24,239
principally responsible for the

74
00:02:28,309 --> 00:02:25,360
discovery

75
00:02:30,309 --> 00:02:28,319
a bump map algorithm is included in the

76
00:02:32,070 --> 00:02:30,319
sony vegas software

77
00:02:34,470 --> 00:02:32,080
revealing high resolution detail

78
00:02:36,710 --> 00:02:34,480
structures within the star

79
00:02:39,110 --> 00:02:36,720
the focus ambience shininess and bump

80
00:02:41,830 --> 00:02:39,120
map height were selected so as to

81
00:02:43,670 --> 00:02:41,840
maximize the definition of the objects

82
00:02:45,430 --> 00:02:43,680
the final step was to apply a high

83
00:02:50,150 --> 00:02:45,440
frequency filter to further sharpen the

84
00:02:56,710 --> 00:02:52,949
now sony vegas is just a cheap consumer

85
00:02:58,550 --> 00:02:56,720
video editing program and a bump map

86
00:03:00,390 --> 00:02:58,560
takes an image and changes it into a

87
00:03:02,070 --> 00:03:00,400
height map which you can then shine a

88
00:03:04,550 --> 00:03:02,080

light at and get areas of light and

89
00:03:06,869 --> 00:03:04,560
shadow it is low resolution like here

90
00:03:08,390 --> 00:03:06,879
and you set the light at an angle you

91
00:03:11,270 --> 00:03:08,400
get shadows and the lines where the

92
00:03:13,030 --> 00:03:11,280
pixels change color

93
00:03:15,110 --> 00:03:13,040
so all he did was fiddle around with the

94
00:03:16,550 --> 00:03:15,120
bump back effect and other filters to

95
00:03:18,070 --> 00:03:16,560
highlight the contours which of course

96
00:03:20,149 --> 00:03:18,080
ended up highlighting the compression

97
00:03:21,670 --> 00:03:20,159
artifacts and created a lot of random

98
00:03:23,110 --> 00:03:21,680
shapes as the light from the star

99
00:03:24,789 --> 00:03:23,120
flickered

100
00:03:26,630 --> 00:03:24,799
i tried discussing this with portugal

101
00:03:28,710 --> 00:03:26,640
but he responded with a series of mean

102
00:03:30,309 --> 00:03:28,720
tweets which really were not necessary

103
00:03:33,190 --> 00:03:30,319
and then he blocked me just before i

104
00:03:34,869 --> 00:03:33,200
identified the star

105
00:03:37,270 --> 00:03:34,879
so i think the lesson here is that

106
00:03:38,309 --> 00:03:37,280
credentials don't make you infallible

107
00:03:40,630 --> 00:03:38,319
especially if you're making

108
00:03:43,350 --> 00:03:40,640
extraordinary claims like these but also

109
00:03:45,430 --> 00:03:43,360
in other claims if you made a claim

110
00:03:47,670 --> 00:03:45,440
then you can't just say because i said

111
00:03:49,589 --> 00:03:47,680
so because you're an expert you have to

112
00:03:51,110 --> 00:03:49,599
actually demonstrate why you think it's

113
00:03:54,789 --> 00:03:51,120

true so others can check it for

114
00:03:59,270 --> 00:03:56,949
on a more general note people often ask

115
00:04:01,589 --> 00:03:59,280
me why i waste my time on obvious

116
00:04:03,589 --> 00:04:01,599
nonsense like this and the answer is

117
00:04:04,869 --> 00:04:03,599
twofold firstly it's just interesting to

118
00:04:07,750 --> 00:04:04,879
me it's fun

119
00:04:09,670 --> 00:04:07,760
secondly it's not obvious to everyone

120
00:04:11,509 --> 00:04:09,680
if some people believe odd things like

121
00:04:13,830 --> 00:04:11,519
this then they're gonna believe less odd

122
00:04:15,670 --> 00:04:13,840
things so if i can help people see this

123
00:04:19,110 --> 00:04:15,680
is nonsense then they're less likely to

124
00:04:21,110 --> 00:04:19,120
fall for other things every little helps

125
00:04:22,790 --> 00:04:21,120
and that's it if you enjoyed this video