



# CHASING SPRITES

1  
00:00:06,950 --> 00:00:03,789

[Music]

2  
00:00:09,470 --> 00:00:06,960

Sprites I saw them on a documentary once

3  
00:00:11,330 --> 00:00:09,480

and I kind of became fascinated with

4  
00:00:16,609 --> 00:00:11,340

them

5  
00:00:21,320 --> 00:00:16,619

while so it's kind of all snowballed in

6  
00:00:21,330 --> 00:00:29,470

[Music]

7  
00:00:35,530 --> 00:00:32,229

I saw that one too

8  
00:00:39,350 --> 00:00:35,540

you saw that red one yeah

9  
00:00:42,110 --> 00:00:39,360

I can't wait to look at that one again

10  
00:00:44,090 --> 00:00:42,120

my name is Paul Smith and I'm a Sprite

11  
00:00:47,270 --> 00:00:44,100

Chaser which means I like to photograph

12  
00:00:49,490 --> 00:00:47,280

the night sky and Sprites in particular

13  
00:00:51,350 --> 00:00:49,500

they look like to the naked eye you

14  
00:00:54,110 --> 00:00:51,360  
would probably see them as flashes above

15  
00:00:57,189 --> 00:00:54,120  
thunderstorms and then the camera picks

16  
00:00:59,869 --> 00:00:57,199  
up more of the colors nice red orange

17  
00:01:01,970 --> 00:00:59,879  
sometimes Purple colors

18  
00:01:03,889 --> 00:01:01,980  
I would say the region of space about

19  
00:01:06,410 --> 00:01:03,899  
the thunderstorms is almost like an

20  
00:01:08,870 --> 00:01:06,420  
electrical zoo we have these collection

21  
00:01:12,350 --> 00:01:08,880  
of electrical activity we have blue jets

22  
00:01:14,929 --> 00:01:12,360  
gigantic Jets trolls Halos it's almost

23  
00:01:17,450 --> 00:01:14,939  
like an electric fairy tale Sprites is

24  
00:01:19,850 --> 00:01:17,460  
just one of many collectively we call

25  
00:01:23,090 --> 00:01:19,860  
these transient luminous events

26

00:01:25,490 --> 00:01:23,100

Sprites are like snowflakes they come in

27

00:01:28,370 --> 00:01:25,500

various shapes and sizes so we call them

28

00:01:30,170 --> 00:01:28,380

Angel Sprites carrots Sprites columns

29

00:01:32,270 --> 00:01:30,180

Sprites

30

00:01:34,550 --> 00:01:32,280

they're just beautiful to look at and

31

00:01:36,710 --> 00:01:34,560

just the fact that no Sprite is

32

00:01:38,990 --> 00:01:36,720

identical to the other is good enough

33

00:01:40,310 --> 00:01:39,000

reason to study them and look at them

34

00:01:41,510 --> 00:01:40,320

all day long you're never going to get

35

00:01:44,030 --> 00:01:41,520

bored

36

00:01:47,149 --> 00:01:44,040

so Sprites are very large scale events

37

00:01:49,310 --> 00:01:47,159

their wits is usually up to 5 to 10

38

00:01:52,010 --> 00:01:49,320

kilometers and their vertical extent is

39

00:01:54,770 --> 00:01:52,020

about 40 or 50 kilometers you can almost

40

00:01:56,870 --> 00:01:54,780

fit a small town in there because these

41

00:01:59,510 --> 00:01:56,880

Sprites are very large scale events they

42

00:02:01,429 --> 00:01:59,520

change their atmospheric composition and

43

00:02:05,510 --> 00:02:01,439

we don't know the extent of this effect

44

00:02:07,670 --> 00:02:05,520

so it's important to study them in the

45

00:02:09,770 --> 00:02:07,680

long run

46

00:02:12,470 --> 00:02:09,780

it's just a real cool thing to be able

47

00:02:14,809 --> 00:02:12,480

to shoot and see these things that uh

48

00:02:16,190 --> 00:02:14,819

nobody else is is really getting on a

49

00:02:19,250 --> 00:02:16,200

regular basis

50

00:02:21,110 --> 00:02:19,260

I saw their phenomenal images and I

51  
00:02:24,589 --> 00:02:21,120  
wanted to work with them and leverage

52  
00:02:27,410 --> 00:02:24,599  
their images and data collection and it

53  
00:02:30,050 --> 00:02:27,420  
sparked this idea in my head what if I

54  
00:02:31,970 --> 00:02:30,060  
created a citizen science project that I

55  
00:02:34,850 --> 00:02:31,980  
can connect the public with the

56  
00:02:37,990 --> 00:02:34,860  
scientific community so we can further

57  
00:02:40,790 --> 00:02:38,000  
our understanding together

58  
00:02:44,089 --> 00:02:40,800  
with this new citizen science project

59  
00:02:47,089 --> 00:02:44,099  
our goal is to create the first ever

60  
00:02:49,190 --> 00:02:47,099  
comprehensive database of Sprites I'm

61  
00:02:50,690 --> 00:02:49,200  
very excited about this I know there are

62  
00:02:53,690 --> 00:02:50,700  
a lot of people out there who are

63  
00:02:56,210 --> 00:02:53,700

naturally chasing Sprites so I'm asking

64

00:02:58,790 --> 00:02:56,220

all Sprite Chasers to submit their

65

00:03:00,890 --> 00:02:58,800

images to us it's like a puzzle they

66

00:03:05,170 --> 00:03:00,900

provide one piece we provide the other

67

00:03:10,190 --> 00:03:07,910

with this citizen science project I'm

68

00:03:13,550 --> 00:03:10,200

just really excited to think that

69

00:03:16,009 --> 00:03:13,560

finally we'll have a connection because

70

00:03:17,690 --> 00:03:16,019

I've been getting these Sprites for so

71

00:03:20,170 --> 00:03:17,700

long and I got a bunch sitting on my

72

00:03:22,729 --> 00:03:20,180

hard drive that nobody's really

73

00:03:26,570 --> 00:03:22,739

dissected or looked up so I think this

74

00:03:38,040 --> 00:03:29,690

so the chance for storms so and Sprite

75

00:03:38,050 --> 00:03:42,530

[Music]

76

00:03:47,869 --> 00:03:45,350

I've been studying Sprite for 15 years

77

00:03:50,509 --> 00:03:47,879

and I have not seen them in person I am

78

00:03:52,850 --> 00:03:50,519

super excited about the opportunity to

79

00:03:54,649 --> 00:03:52,860

go chasing with Paul I haven't met him

80

00:03:56,630 --> 00:03:54,659

before and I'm going to be meeting him

81

00:03:57,890 --> 00:03:56,640

soon so we're gonna go capture some

82

00:04:01,070 --> 00:03:57,900

Sprites

83

00:04:03,430 --> 00:04:01,080

hello oh hi it's so nice to meet you how

84

00:04:06,110 --> 00:04:03,440

are you I'm doing great awesome

85

00:04:08,390 --> 00:04:06,120

so what's our plan today where are we

86

00:04:11,149 --> 00:04:08,400

heading well we got some storms over in

87

00:04:12,350 --> 00:04:11,159

Arkansas and Mississippi that will be in

88

00:04:14,809 --> 00:04:12,360

range if we head down to Southeast

89

00:04:21,289 --> 00:04:14,819

Oklahoma okay let's go Sprite chasing

90

00:04:26,170 --> 00:04:23,810

the best places to catch Sprites are

91

00:04:30,170 --> 00:04:26,180

where you've got big lightning strikes

92

00:04:32,570 --> 00:04:30,180

we're heading to a lake in a dark sky

93

00:04:34,790 --> 00:04:32,580

area of Southeast Oklahoma

94

00:04:37,490 --> 00:04:34,800

so when you look at the radar we are

95

00:04:41,330 --> 00:04:37,500

mostly looking for those regions that

96

00:04:43,310 --> 00:04:41,340

have red cells and the system was

97

00:04:45,890 --> 00:04:43,320

evolving to be able to form some

98

00:04:50,749 --> 00:04:45,900

powerful flashes which we need for the

99

00:04:55,370 --> 00:04:53,450

um hey Paul so what other tips you have

100

00:04:57,409 --> 00:04:55,380

for spread chasing

101  
00:05:00,110 --> 00:04:57,419  
I always try to look for really dark

102  
00:05:03,070 --> 00:05:00,120  
skies maybe a first look on Google Maps

103  
00:05:05,689 --> 00:05:03,080  
and just see find areas without any

104  
00:05:07,670 --> 00:05:05,699  
development nearby

105  
00:05:10,909 --> 00:05:07,680  
left at the fork the fork follow signs

106  
00:05:14,930 --> 00:05:13,010  
okay yeah it is it looks pretty open

107  
00:05:20,810 --> 00:05:14,940  
here yeah that's the direction we're

108  
00:05:26,330 --> 00:05:23,930  
where the storm was on the map I'm just

109  
00:05:28,129 --> 00:05:26,340  
I just lined us up on Google Earth to

110  
00:05:30,890 --> 00:05:28,139  
like a landmark I could see the point

111  
00:05:32,810 --> 00:05:30,900  
this point of the bridge here so yeah we

112  
00:05:34,310 --> 00:05:32,820  
are right now here in Oklahoma but the

113  
00:05:37,010 --> 00:05:34,320

storm we're looking at is over

114

00:05:38,510 --> 00:05:37,020

Mississippi Alabama state border and

115

00:05:42,650 --> 00:05:38,520

that's pretty far out we are looking

116

00:05:44,629 --> 00:05:42,660

we're talking about 375 miles so it's

117

00:05:47,570 --> 00:05:44,639

pretty far out when I look at the screen

118

00:05:49,610 --> 00:05:47,580

I'm pretty much scanning The Horizon

119

00:05:51,409 --> 00:05:49,620

here because the storms are pretty far

120

00:05:53,749 --> 00:05:51,419

out and I will be able to just see the

121

00:05:56,150 --> 00:05:53,759

lightning Flash the top or the cloud

122

00:05:58,670 --> 00:05:56,160

tops pretty much that light and then

123

00:06:01,249 --> 00:05:58,680

that's my clue to trigger and that's

124

00:06:04,370 --> 00:06:01,259

when I press the button and I don't see

125

00:06:06,909 --> 00:06:04,380

the Sprite until I actually Replay that

126

00:06:09,710 --> 00:06:06,919

little capture

127

00:06:25,909 --> 00:06:09,720

and I'm hoping that I actually captured

128

00:06:30,290 --> 00:06:28,370

I mean I'm I'm kind of thinking because

129

00:06:32,930 --> 00:06:30,300

if you don't if I don't see something

130

00:06:36,129 --> 00:06:32,940

and oh there was a Sprite

131

00:06:43,370 --> 00:06:39,830

right guys yeah let's see

132

00:06:46,430 --> 00:06:43,380

I hope I caught it oh my gosh

133

00:06:51,290 --> 00:06:48,710

oh my God that's awesome and that was

134

00:06:55,430 --> 00:06:51,300

actually pretty close pretty close high

135

00:06:56,570 --> 00:06:55,440

fives high fives we did it

136

00:06:59,270 --> 00:06:56,580

oh

137

00:07:02,270 --> 00:06:59,280

perfect I think I think we got one

138

00:07:05,570 --> 00:07:02,280

awesome and I think that was a column

139

00:07:08,809 --> 00:07:05,580

Sprite it's right there we actually

140

00:07:11,390 --> 00:07:08,819

captured some rides so I keep replaying

141

00:07:12,950 --> 00:07:11,400

this this is amazing yeah that's why now

142

00:07:15,409 --> 00:07:12,960

I understand why you don't want to leave

143

00:07:17,629 --> 00:07:15,419

once you have one capture

144

00:07:19,189 --> 00:07:17,639

this is all what science is about it's

145

00:07:22,370 --> 00:07:19,199

just this excitement and trying to

146

00:07:24,110 --> 00:07:22,380

understand how they are formed and what

147

00:07:27,170 --> 00:07:24,120

makes them look the way they are it's

148

00:07:30,050 --> 00:07:27,180

just it's just amazing and a highlight

149

00:07:34,670 --> 00:07:33,170

the citizen science project I think that

150

00:07:36,290 --> 00:07:34,680

it's going to be our best bet for

151

00:07:38,809 --> 00:07:36,300

figuring out actually what's going on

152

00:07:40,010 --> 00:07:38,819

with these Sprites and that's exciting

153

00:07:43,370 --> 00:07:40,020

to think that might happen in my

154

00:07:47,689 --> 00:07:43,380

lifetime and if it doesn't I'd be