

1
00:00:09,890 --> 00:00:14,179
how do you know that an alien

2
00:00:11,990 --> 00:00:17,719
civilization would like to use a radio

3
00:00:14,179 --> 00:00:20,059
signal to communicate actually the

4
00:00:17,719 --> 00:00:21,769
universe has made it so that radio is

5
00:00:20,059 --> 00:00:24,409
the preferred method for interstellar

6
00:00:21,769 --> 00:00:27,320
communication and the reason for that is

7
00:00:24,410 --> 00:00:29,469
that in the space there are natural SOI

8
00:00:27,320 --> 00:00:32,210
sources of what we call noise or static

9
00:00:29,469 --> 00:00:35,359
which interfere with our communication

10
00:00:32,210 --> 00:00:37,549
systems and when that noise and Static

11
00:00:35,359 --> 00:00:39,289
is very intense it takes a much more

12
00:00:37,549 --> 00:00:42,198
powerful a large and more expensive

13
00:00:39,289 --> 00:00:44,600
telescope to create a communication link

14
00:00:42,198 --> 00:00:47,390
well it turns out the universe is

15
00:00:44,600 --> 00:00:50,539
darkest and quietest at the radio

16
00:00:47,390 --> 00:00:52,518
wavelengths we call microwaves we know

17
00:00:50,539 --> 00:00:55,039
that the extraterrestrials will know

18
00:00:52,518 --> 00:00:57,768
that it's not hard to know this and they

19
00:00:55,039 --> 00:01:00,980
like us will exploit these frequencies

20
00:00:57,768 --> 00:01:03,198
for very long distance communication all

21
00:01:00,979 --> 00:01:06,200
of our communications to spacecraft for

22
00:01:03,198 --> 00:01:08,060
instance are you done using microwave

23
00:01:06,200 --> 00:01:09,680
wavelengths the transmission of

24
00:01:08,060 --> 00:01:12,969
television programs to people's homes

25
00:01:09,680 --> 00:01:16,460
from satellites are set on these same

26
00:01:12,969 --> 00:01:18,798
wavelengths because the you can get the

27
00:01:16,459 --> 00:01:20,390
signals with a small dish on your house

28
00:01:18,799 --> 00:01:23,329
and that doesn't take much power from

29

00:01:20,390 --> 00:01:27,049
the satellite to send the transmission

30
00:01:23,328 --> 00:01:31,938
to television programs to you so that's

31
00:01:27,049 --> 00:01:36,680
why we favor searching for signals at

32
00:01:31,938 --> 00:01:39,529
the microwave wavelengths first we can

33
00:01:36,680 --> 00:01:41,960
detect the messages they use for their

34
00:01:39,530 --> 00:01:43,340
own purposes more easily there because

35
00:01:41,959 --> 00:01:45,169
the universe is dark and doesn't

36
00:01:43,340 --> 00:01:47,299
interfere secondly if they are

37
00:01:45,170 --> 00:01:49,579
intentionally sending us signals they

38
00:01:47,299 --> 00:01:53,030
will use these frequency bands because

39
00:01:49,578 --> 00:01:54,679
they will know that that's those are the

40
00:01:53,030 --> 00:01:57,109
bands where their signals will be most

41
00:01:54,680 --> 00:02:01,159
detectable and where we're likely to be

42
00:01:57,109 --> 00:02:02,390
searching now there are some people who

43
00:02:01,159 --> 00:02:04,580

say that

44

00:02:02,390 --> 00:02:07,519

the answer to the Arecibo message might

45

00:02:04,579 --> 00:02:10,490

have already actually come back to her I

46

00:02:07,519 --> 00:02:16,969

don't know if you've heard of this this

47

00:02:10,490 --> 00:02:20,480

is a formation of X that that appeared

48

00:02:16,969 --> 00:02:24,379

in 2001 near radio telescope in England

49

00:02:20,479 --> 00:02:31,310

and there is well there is a more detail

50

00:02:24,379 --> 00:02:37,370

of one year and also this is this is

51

00:02:31,310 --> 00:02:39,560

some private researcher who you see in

52

00:02:37,370 --> 00:02:42,980

the camera let's compare that now that

53

00:02:39,560 --> 00:02:47,300

it's really interesting to note that if

54

00:02:42,979 --> 00:02:50,299

you if you see the red you see the the

55

00:02:47,300 --> 00:02:52,189

figure man they're great what do you

56

00:02:50,300 --> 00:02:55,430

think of that is it like an homage to

57

00:02:52,189 --> 00:02:57,229

Europe or do you do you think it's

58

00:02:55,430 --> 00:03:01,010

possible that this is this could

59

00:02:57,229 --> 00:03:03,439

possibly be the message the answer to

60

00:03:01,009 --> 00:03:05,599

your message I think there is no chance

61

00:03:03,439 --> 00:03:08,689

whatsoever this is a legitimate message

62

00:03:05,599 --> 00:03:11,689

it's some kind of joke or a fun thing or

63

00:03:08,689 --> 00:03:16,250

maybe a challenge that somebody made to

64

00:03:11,689 --> 00:03:18,590

one another to somebody to do and their

65

00:03:16,250 --> 00:03:21,439

reasons two reasons for this good

66

00:03:18,590 --> 00:03:23,509

reasons one is the version of the

67

00:03:21,439 --> 00:03:29,269

message they have here which I'm about

68

00:03:23,509 --> 00:03:31,159

to hold up here that contains in it

69

00:03:29,269 --> 00:03:32,870

information that's clearly wrong

70

00:03:31,159 --> 00:03:36,019

such as the structure of the DNA

71

00:03:32,870 --> 00:03:38,509

molecule and some of the other parts of

72
00:03:36,019 --> 00:03:43,280
this message make no sense whatsoever or

73
00:03:38,509 --> 00:03:46,060
are chemically impossible the other is

74
00:03:43,280 --> 00:03:49,759
that as we saw in the original picture

75
00:03:46,060 --> 00:03:53,090
this message appeared about 100 metres

76
00:03:49,759 --> 00:03:55,929
away from a radio telescope now if you

77
00:03:53,090 --> 00:03:58,310
had come to earth to deliver a message

78
00:03:55,930 --> 00:03:59,930
you would have gone to the door of the

79
00:03:58,310 --> 00:04:00,430
radio telescope and knocked on the door

80
00:03:59,930 --> 00:04:02,560
and

81
00:04:00,430 --> 00:04:04,510
one of your books or something you

82
00:04:02,560 --> 00:04:06,549
wouldn't have gone out in the cornfield

83
00:04:04,509 --> 00:04:14,469
and spent a great deal of effort cutting

84
00:04:06,549 --> 00:04:16,509
down stalks of corn right you know well

85
00:04:14,469 --> 00:04:18,370
I what I do know is that they're

86

00:04:16,509 --> 00:04:20,979
intelligent yeah because they somehow

87
00:04:18,370 --> 00:04:23,439
got to earth if this is really from an

88
00:04:20,978 --> 00:04:25,810
alien and they will know better than to

89
00:04:23,439 --> 00:04:28,649
try to communicate with humans in this

90
00:04:25,810 --> 00:04:28,649
ridiculous way

91
00:04:34,889 --> 00:04:36,949
you