

1

00:00:00,000 --> 00:00:19,920

UFOs, if we do finally make contact with aliens, how will it happen?

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00:00:19,920 --> 00:00:25,160

Will they arrive in fantastic spacecraft, like the UFOs glimpsed recently above Mexico

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00:00:25,160 --> 00:00:30,920

City? Will we pick up a faint signal from their corner of the universe? Or will we

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00:00:30,920 --> 00:00:37,040

arrive too late and find the ruins of an ancient alien civilization? Making contact

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00:00:37,040 --> 00:00:41,400

with aliens and UFOs next.

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00:00:43,400 --> 00:00:49,600

Even from a distance of 93 million miles, the Sun is the source of all our bounty.

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00:00:49,600 --> 00:00:54,120

Without its warming rays, the Earth would be a lifeless hunk of rock,

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00:00:54,120 --> 00:01:01,480

orbiting silently in the vacuum of space. The ancients were well aware of the Sun's

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00:01:01,480 --> 00:01:08,040

importance. When the sky suddenly darkened during a solar eclipse, they thought it might be the end of the world.

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00:01:08,040 --> 00:01:18,560

Eclipses are a fine example of how the ancient person responded to an unexpected astronomical

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00:01:18,560 --> 00:01:22,120

phenomenon because eclipses were not predictable to the ancients. They didn't know what it was.

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00:01:22,120 --> 00:01:26,280

They didn't know that it was the moon passing in front of the Sun. They thought the Sun was

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00:01:26,280 --> 00:01:32,240

being devoured by some evil god. So throughout the world, people were frightened by this.

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00:01:32,240 --> 00:01:42,480

Gradually science replaced superstition. In 1540, the Polish astronomer Nicholas Copernicus

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00:01:42,480 --> 00:01:49,200

published his revolutionary theory that the Sun, not the Earth, was the center of the solar system.

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00:01:50,200 --> 00:01:55,920

In the early 1600s, Galileo improved the new scientific marvel, the telescope,

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00:01:55,920 --> 00:02:04,040

enough to prove the Copernican theory was fact. In modern times, the rhythms of Sun,

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00:02:04,040 --> 00:02:11,360

moon and Earth are well understood so that a solar eclipse is the occasion for excitement rather than fear.

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00:02:12,360 --> 00:02:20,960

And so it was that on July 11, 1991, families around Mexico City gathered on street corners to

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00:02:20,960 --> 00:02:26,960

witness one of the longest solar eclipses of the century. They brought telescopes and video cameras,

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00:02:26,960 --> 00:02:35,360

but when they looked skyward, a surprise awaited. The people were recording the eclipse when they

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00:02:35,360 --> 00:02:41,640

saw UFOs in the sky, and they were able to record at least in three different cities,

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00:02:41,640 --> 00:02:50,840

exactly at the same time, the same kind of UFOs. By 1.25 pm, the sky had darkened,

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00:02:50,840 --> 00:02:56,840

temperatures dropped, and something extraordinary still appeared in the skies above Mexico City.

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00:02:57,840 --> 00:03:06,560

Jaime Mausán, producer of Mexico's equivalent of 60 minutes, played some of the UFO videos on his

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00:03:06,560 --> 00:03:14,040

program. They were taken at the same time from three different cities. The tapes ignited an

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00:03:14,040 --> 00:03:20,000

immediate controversy. Critics charged that the purported UFO was nothing more than the

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00:03:20,000 --> 00:03:30,440

planet Venus, which became visible during the total eclipse. In late July 1991, Mausán made

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00:03:30,440 --> 00:03:37,680

an on-air request for more UFO videos. His viewers formed groups known as Los Vigilantes del Cielo,

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00:03:37,680 --> 00:03:44,920

the Sky Watchers. There are many dozens of these Vigilantes all around the country,

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00:03:45,360 --> 00:03:53,800

and that way we can survey the sky of Mexico very effectively. We have at least from 8,000 to 10,000

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00:03:53,800 --> 00:04:00,080

videos in Mexico. It's the largest collection ever. Probably not all of them are UFOs. Probably

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00:04:00,080 --> 00:04:09,920

some of them are balloons, some others are airplanes, but many of them, probably 10 to 15% of them,

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00:04:10,680 --> 00:04:17,160

are really good, mysterious objects, something that cannot be explained easily.

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00:04:17,160 --> 00:04:26,600

The object in this video moves in reverse, stops and hovers, patterns of flight not associated with

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00:04:26,600 --> 00:04:42,160

airplanes, birds or weather balloons. On September 16, 1993, Mexico's Independence Day, a shimmering

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00:04:42,160 --> 00:04:48,640

silver object seems to fly near a squadron of military helicopters that appeared in formation

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00:04:48,680 --> 00:05:02,000

over the capital. Several UFOs have been reported near Popocatepetal, an active volcano that looms

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00:05:02,000 --> 00:05:08,320

some 50 miles from Mexico City. The government keeps this camera permanently trained on the

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00:05:08,320 --> 00:05:15,800

volcano, watching for eruptions. In June of 1999, it snapped this picture of a UFO.

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00:05:16,800 --> 00:05:24,920

Some of the Mexico videos show large clusters of objects hovering in the sky. These formations

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00:05:24,920 --> 00:05:32,440

resemble those filmed in the United States during July of 1952. However, no scientific comparison has

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00:05:32,440 --> 00:05:40,320

yet been made. We have basically a massive, seemingly good evidence that has yet to be

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00:05:40,320 --> 00:05:46,920

sifted through by UFO investigators. It's too soon to tell whether or not videos were taken of actual

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00:05:46,920 --> 00:05:52,320

UFOs, whatever they are, or whether some of these things are just hoaxes or, you know, things showing

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00:05:52,320 --> 00:05:57,120

planets or airplanes flying by. We need more research into these particular sightings.

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00:05:57,120 --> 00:06:06,000

Some of the Mexican videos seem to be unexplainable at this time, but I won't go so far as to say

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00:06:06,000 --> 00:06:10,480

that proves they're flying saucers. There's a difference between, I don't know what it was,

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00:06:10,480 --> 00:06:16,920

and oh, it's an alien spacecraft. I never jump, make that leap. It's inappropriate to make that.

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00:06:16,920 --> 00:06:22,400

What were its characteristics that ruled out conventional explanations, even if you don't know

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00:06:22,400 --> 00:06:30,320

what it was? Of all the UFO episodes in Mexico, few caused the pervasive excitement shown in this

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00:06:30,400 --> 00:06:38,040

video. The tape was made during an unprecedented multiple sighting, perhaps the most widely

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00:06:38,040 --> 00:06:50,920

witnessed UFO incident in history. In January 1st, 1994, Mexico City, the whole city stopped. I mean,

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00:06:51,520 --> 00:07:03,440

people were driving cars, they stopped the car to look to the sky, and millions saw UFOs. This was

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00:07:03,440 --> 00:07:11,440

in every newscast in the television, in the radio. This news was reported in every single newspaper

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00:07:11,440 --> 00:07:18,880

in Mexico City. An incredible event, an event that would demonstrate the presence of these

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00:07:18,960 --> 00:07:25,880

objects, especially in this country. What is amazing for all the Mexicans is that nobody else

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00:07:25,880 --> 00:07:36,560

around the world knew what happened in Mexico. The wave of sightings ongoing since 1991 is notable

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00:07:36,560 --> 00:07:42,000

for both the astonishing number of videos it has produced and the willingness of Jaime Maussan

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00:07:42,200 --> 00:07:45,400

and other journalists to treat the matter seriously.

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00:07:45,400 --> 00:07:54,360

I thought about it in 1991. If I wanted to do this, if I wanted to get involved with something so

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00:07:54,360 --> 00:08:00,280

controversial as UFOs, but the truth is the truth. And if you like the truth, you will be

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00:08:00,280 --> 00:08:07,040

handed truth. It doesn't matter how risky it is. And as a journalist, I want to have the

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00:08:07,040 --> 00:08:13,360

biggest scoop of all time. And this is the biggest scoop of all time. It's risky. Yes,

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00:08:13,360 --> 00:08:18,360

you have to take, you have to have courage. Yes, you have. But I think it's worth it.

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00:08:18,360 --> 00:08:26,400

However, according to at least one researcher, Mexico's UFOs are not the ultimate journalistic

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00:08:26,400 --> 00:08:31,000

scoop, but byproducts of geological forces as old as time.

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00:08:37,040 --> 00:08:46,880

UFOs have been playing hide and seek with earthlings for decades. Even as we open the door

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00:08:46,880 --> 00:08:53,440

to the 21st century, no one has proven where UFOs come from and just what it is they want.

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00:08:53,440 --> 00:09:00,120

If cave paintings, biblical accounts, and Renaissance artworks can be taken at face value,

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00:09:00,640 --> 00:09:07,800

the guessing game has actually gone on for thousands of years. But some investigators

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00:09:07,800 --> 00:09:14,360

have advanced a fresh theory to explain UFOs. Simply put, they are not objects from outer space,

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00:09:14,360 --> 00:09:20,840

but a whole spectrum of luminous phenomena that originate within the core of the earth itself.

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00:09:20,840 --> 00:09:28,640

The earth is a massively complex laboratory, an infinite number of forces that are interacting.

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00:09:29,160 --> 00:09:36,160

And we really don't understand those as yet in any great depth. And the earth does produce

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00:09:36,160 --> 00:09:42,960

lights. It has its light show. And I think they're older than the human race. They belong to the very body of the earth.

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00:09:46,240 --> 00:09:51,520

Among these exotic natural wonders are earthquake lights and ball lightning.

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00:09:52,400 --> 00:09:58,720

Scientists believe that earthquake lights occur both before and after tremors, when gas,

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00:09:58,720 --> 00:10:04,480

released from within the earth, suddenly ignites and shoots sparks into the atmosphere.

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00:10:06,000 --> 00:10:12,240

Ball lightning is believed to be an accumulation of static electricity that not only becomes visible,

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00:10:12,240 --> 00:10:16,880

but is also capable of moving in the air and along hard surfaces.

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00:10:17,440 --> 00:10:27,440

To those who have studied UFOs, however, even the most spectacular natural phenomenon can only explain a few unidentified flying objects.

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00:10:27,440 --> 00:10:33,440

When you look at a range of UFO reports that have been made over the years and thousands and thousands,

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00:10:33,440 --> 00:10:37,440

presumably some small fraction of them, if they're under the right conditions,

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00:10:37,440 --> 00:10:43,440

in the right place at the right time, some of these kinds of phenomena have to be considered.

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00:10:44,000 --> 00:10:48,400

But by and large, what I've read and what I've seen, they don't really fit.

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00:10:50,640 --> 00:10:56,960

In this ongoing debate, another type of naturally occurring luminous display is often cited to

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00:10:56,960 --> 00:11:05,280

explain UFOs. They are known as earth lights. The characteristics that probably distinguish

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00:11:05,520 --> 00:11:10,720

earth lights from earthquake lights or ball lightning are that they tend to last for longer.

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00:11:13,200 --> 00:11:17,360

They often haunt particular areas like a valley, like a mountain.

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00:11:19,120 --> 00:11:26,560

In China, for example, Mount Wutai Shan and Mount Oumai, there are temples that have been built

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00:11:26,560 --> 00:11:34,320

specifically because light phenomena occur there. The people who built the temple thought these

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00:11:34,400 --> 00:11:40,720

lights were an expression of the dharma, but that indicates to you how long lights were seen in that

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00:11:40,720 --> 00:11:48,480

area, centuries. Despite such ancient traditions, no one can explain exactly how earth lights are

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00:11:48,480 --> 00:11:57,280

created. We are testing theories and one of the strongest contenders is that tectonic stresses

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00:11:57,280 --> 00:12:02,480

in the earth through the earth's geology, not necessarily related actually to an earthquake,

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00:12:02,480 --> 00:12:10,000

though it can be, that these stresses produce tremendous force fields and that through whatever

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00:12:10,000 --> 00:12:19,760

mechanisms we don't really understand yet, plasmas are produced. Proponents of this naturalistic

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00:12:19,760 --> 00:12:26,800

theory suggest that plasmas, luminous clusters of charged particles, explain even the most well-known

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00:12:26,800 --> 00:12:35,840

UFO sightings. I should also say if we go back to Kenneth Arnold's flight over the Cascade Mountains,

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00:12:36,400 --> 00:12:44,240

you saw nine objects of light and at that time the Cascade Mountains, which we know

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00:12:44,240 --> 00:12:51,680

are tectonically volatile, they were building up to their largest earthquake ever recorded at that time.

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00:12:52,080 --> 00:12:59,600

On April 4th, 1949, Seattle, Washington crumbled under the impact of that earthquake. However,

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00:12:59,600 --> 00:13:05,280

it hit more than 18 months after Kenneth Arnold's sighting. Could there have been a link?

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00:13:07,280 --> 00:13:14,080

Sounds good. Yes, luminous phenomena produced by earthquakes. Yes, people see sometimes luminous

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00:13:14,080 --> 00:13:19,360

phenomena around flying saucers. Fine, that doesn't make a cause and effect connection.

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00:13:19,440 --> 00:13:25,360

Yet according to the Earth-Lights theory, masses of plasma do exhibit some of the distinctive

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00:13:25,360 --> 00:13:32,560

qualities of UFOs. The interesting thing about these plasmas is that at night they will shine,

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00:13:33,200 --> 00:13:41,600

they will be your lights in the sky, but in daylight a plasma can seem to reflect light and look metallic.

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00:13:42,000 --> 00:13:48,960

But are qualities of reflectivity and a metallic appearance enough to equate plasmas with UFOs?

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00:13:51,040 --> 00:13:56,880

If they're going to talk natural phenomena, what is there out there that has the capability to

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00:13:56,880 --> 00:14:03,440

hover and then shots off and then the object zooms straight up out of sight? There's no

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00:14:03,440 --> 00:14:07,840

type of plasma that can be used to detect a phenomenon.

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00:14:07,920 --> 00:14:12,560

Shots off and then the object zooms straight up out of sight. There's no technology like that,

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00:14:12,560 --> 00:14:16,960

that we know about. And there's certainly no natural phenomenon that does this kind of thing.

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00:14:17,520 --> 00:14:20,560

This ain't nothing we're familiar with. This is something very strange.

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00:14:24,640 --> 00:14:30,640

In order to be mistaken for UFOs, these natural Earth-Light plasmas would have to display some

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00:14:30,640 --> 00:14:38,720

extraordinary capabilities, like those witnessed in 1980 at Bentwater's air base, or in 1967

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00:14:38,720 --> 00:14:45,120

near the Canadian town of Shag Harbor. Well, some of them can sit on the water and have been observed

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00:14:45,120 --> 00:14:50,640

going underneath water as well. Some just come out of the ground, that's where they come from

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00:14:50,640 --> 00:14:56,640

initially, and some of them will just sit there, or some will flash off over the hill and come down

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00:14:56,640 --> 00:15:04,400

again, Earth themselves again. According to its proponents, the Earth-Light phenomenon is the best

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00:15:04,400 --> 00:15:12,160

and the only explanation for UFOs. I think if we understand Earth-Light and all the range of

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00:15:12,160 --> 00:15:20,960

phenomena associated with them, quantum physics and plasma physics will literally take a quantum

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00:15:21,200 --> 00:15:25,600

leap. They will literally move ahead a decade, probably one fell swoop.

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00:15:28,160 --> 00:15:34,960

Still, UFO researchers point out what they see as a fatal flaw in the plasma Earth-Light theory.

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00:15:36,800 --> 00:15:40,080

We have to look at the characteristics of the earthquake lights, or the plasmas or

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00:15:40,080 --> 00:15:44,880

ball lightning, or any of these things. How do they move? What color are they? What size are they?

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00:15:45,680 --> 00:15:48,800

These are important considerations. Then look at the same data for UFOs.

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00:15:49,360 --> 00:15:55,840

The typical even-landed saucer is 10 to 30 feet in diameter. These plasma phenomena are literally

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00:15:55,840 --> 00:16:01,600

this big. So it's the careful consideration of what are the characteristics. If you're trying to

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00:16:01,600 --> 00:16:09,680

explain this with this, they have to match. Perhaps not surprisingly, the ongoing wave of

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00:16:09,680 --> 00:16:18,240

Mexico City UFOs has been swept up in this controversy. Many of the mysterious lights

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00:16:18,240 --> 00:16:24,160

appeared in the vicinity of the nearby volcano, Papacatapital. It is a matter of record that

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00:16:24,160 --> 00:16:30,480

the long-dormant volcano suddenly became active, precisely at the time the sightings began.

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00:16:32,640 --> 00:16:39,600

During a research trip to Mexico in August of 1999, Paul Devereux visited the ancient city of

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00:16:39,600 --> 00:16:45,120

Teotihuacan, some 50 miles from the volcano, and theorized about the connection.

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00:16:45,600 --> 00:16:53,280

This place is very active and volatile in a tectonic fashion. What we found that these

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00:16:53,280 --> 00:17:00,480

these earth lights do frequent areas where there are active surface tectonic geological faults.

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00:17:00,480 --> 00:17:09,200

This is a prime location for that phenomenon to occur. I think it's one of the elements bound

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00:17:09,760 --> 00:17:20,080

up into the whole Mexican UFO wave. The questions of whether UFOs are real or if life exists elsewhere

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00:17:20,080 --> 00:17:26,320

in the universe may not be resolved by earthbound debate. There is however another approach.

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00:17:26,320 --> 00:17:39,040

Build a rocket, blast off, and see for ourselves.

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00:17:39,600 --> 00:17:45,520

Ancient civilizations who weren't yet blessed by the invention of electricity enjoyed at least one

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00:17:45,520 --> 00:17:53,360

compensation. Their pristine night sky sparkled with a million stars.

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00:17:55,440 --> 00:18:01,040

Early astronomers soon noticed that a handful of heavenly bodies traveled freely in the sky,

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00:18:01,680 --> 00:18:10,320

unbound by the stars' slow methodical rotation. The Greeks called them planets, a word meaning

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00:18:10,320 --> 00:18:18,240

wanderer. In modern times when earthlings began to ponder the question of UFOs and alien civilization,

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00:18:18,240 --> 00:18:24,480

it was the planet Mars that became the focus of attention. If there truly were flying saucers,

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00:18:24,480 --> 00:18:27,680

it was thought they would come from the mysterious red planet.

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00:18:28,320 --> 00:18:37,760

In part, this belief stemmed from observations made by astronomer Giovanni Ciapparelli in 1877.

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00:18:39,040 --> 00:18:43,760

He claimed that Mars was laced with channels, canale in Italian,

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00:18:43,760 --> 00:18:50,160

that linked the planet's polar ice caps. Ciapparelli's canale became known as canals,

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00:18:50,160 --> 00:18:53,360

and some said they were not simply natural waterways.

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00:18:53,920 --> 00:18:59,040

An American astronomer named Lowell thought that these were canals that were artificially

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00:18:59,040 --> 00:19:04,000

created by an alien civilization, and he began studying Mars extensively and writing books about

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00:19:04,000 --> 00:19:08,800

the civilization on Mars that created these structures. And so a lot of people began thinking

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00:19:08,800 --> 00:19:15,200

then about how you would communicate with the Martians. The widespread public belief that

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00:19:15,200 --> 00:19:22,000

Martians were real became clear when 32 million people gathered around their radios in October

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00:19:22,080 --> 00:19:27,280

of 1938. We interrupt our program of dance music to bring you a special bulletin from the

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00:19:27,280 --> 00:19:31,680

Intercontinental Radio News. At least 40 people, including six state troopers,

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00:19:31,680 --> 00:19:39,440

lie dead. Millions believed that the H. G. Wells radio drama War of the Worlds was a real report

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00:19:39,440 --> 00:19:48,000

of a Martian invasion. The result was widespread panic. The director, Orson Wells, was unaware

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00:19:48,640 --> 00:19:56,640

that his production would strike a nerve. I'm, of course, surprised that the H. G. Wells classic,

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00:19:57,600 --> 00:20:07,280

which is the original for many fantasies about invasions by mythical monsters from the planet Mars,

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00:20:08,240 --> 00:20:11,680

had such an immediate and profound effect upon radio listeners.

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00:20:11,760 --> 00:20:20,960

While the public was captivated by stories about Mars, a lone American pioneer named Robert Goddard

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00:20:20,960 --> 00:20:29,440

was experimenting with ways of actually getting there. Goddard had come up with ingenious designs

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00:20:29,440 --> 00:20:33,360

for getting rockets from the surface of the earth up into the high atmosphere, but this was widely

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00:20:33,360 --> 00:20:41,440

regarded as a bunch of silly nonsense by American scientists. However, in Germany, he had some fans,

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00:20:41,440 --> 00:20:48,480

people like Werner von Braun, who were reading his research and they then were inspired to implement

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00:20:48,480 --> 00:20:53,920

his designs and improve upon them in Germany, and this led during World War II to the development

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00:20:53,920 --> 00:20:58,880

of the V2 rocket, which is the predecessor for basically the American and Russian space programs.

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00:21:03,040 --> 00:21:10,000

With the launch of America's Viking space probe in June of 1975, the age-old dream of exploring

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00:21:10,000 --> 00:21:17,440

Mars finally became a reality, a vehicle known as a lander actually touched down on the surface of

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00:21:17,440 --> 00:21:27,920

Mars, July 20th, 1976. The Viking mission showed that the surface of Mars is pockmarked with craters,

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00:21:27,920 --> 00:21:34,160

like those on Earth's moon. There were also some indications that life may have existed on Mars in

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00:21:34,160 --> 00:21:42,400

distant times. My personal feeling is that, yes, Mars had a very substantial atmosphere early on with

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00:21:42,400 --> 00:21:47,280

a lot of liquid water on the surface and perhaps enough to form these river channels and river

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00:21:47,280 --> 00:21:52,160

valleys that we see that are quite ancient, that are perhaps older than three billion years old.

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00:21:53,200 --> 00:21:59,200

So the issue of the ancient climate of Mars is an important one for the issue of whether life could

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00:21:59,200 --> 00:22:07,280

evolve. I think you can start to persuade yourself that the possibility of life could be somewhat

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00:22:07,280 --> 00:22:12,240

reasonable actually, and particularly if you accept the postulate that if life can't exist it will exist.

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00:22:14,640 --> 00:22:19,440

The life on Mars debate heated up again with the release of this picture,

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00:22:19,440 --> 00:22:28,000

taken by Viking on July 25th, 1976. It appears to show a giant monument, a mile-long structure

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00:22:28,000 --> 00:22:36,320

that resembles a human head. It became known as the Face on Mars. NASA has no official position on

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00:22:36,320 --> 00:22:42,480

whether the face is a natural feature or a colossal sculpture. Still, those who worked on the Viking

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00:22:42,480 --> 00:22:46,960

mission have been accused of hiding the discovery of a Martian civilization.

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00:22:49,360 --> 00:22:56,240

I can't think of a group that would publicize that possibility, that discovery more than those of us

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00:22:56,240 --> 00:23:00,240

who were looking at the pictures. We were looking for stuff like that. Our careers would have been

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00:23:00,240 --> 00:23:04,560

made. We would have loved if trumpeted to the world that we found evidence of an ancient Martian

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00:23:04,560 --> 00:23:10,720

civilization. Who the heck wouldn't? And after somebody pointed that out, those of us on the

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00:23:10,720 --> 00:23:15,680

lander team looked at one of the boulders on the surface nearby the lander and we decided we could

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00:23:15,680 --> 00:23:20,560

see the initials of every team member in the boulder that was about 10 feet away from the lander.

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00:23:20,960 --> 00:23:26,320

NASA is currently building vehicles that will orbit and land on Mars in the next decade,

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00:23:26,320 --> 00:23:32,320

in preparation for a daring attempt to send astronauts to the planet in 2018.

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00:23:34,320 --> 00:23:39,280

But recent discoveries have allowed scientists to study Mars right here at home.

198

00:23:41,280 --> 00:23:47,840

During the 1980s and 90s, NASA plucked a dozen meteorites from the icy expanse of Antarctica

199

00:23:48,000 --> 00:23:53,040

and then made the remarkable announcement that they were nothing less than small fragments of the

200

00:23:53,040 --> 00:23:59,200

planet Mars. You might reasonably wonder how do we know that a particular rock that we find on

201

00:23:59,200 --> 00:24:04,480

the Earth is from Mars? The reason is we've been to Mars with the Viking landers, so we have actual

202

00:24:04,480 --> 00:24:10,720

measurements of the chemical composition of the Martian atmosphere and we find that in these

203

00:24:10,800 --> 00:24:17,600

dozen rocks that there are the chemical signature of the atmosphere of Mars. It's not quite like

204

00:24:17,600 --> 00:24:21,440

Earth air, it's just like Martian air and that's how we know they really are from Mars.

205

00:24:23,840 --> 00:24:29,520

Scientists believe the rocks were blasted off Mars 16 million years ago when an asteroid

206

00:24:29,520 --> 00:24:35,520

collided with the planet. The meteorites made their way here, finally landing on Earth about

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00:24:35,600 --> 00:24:43,600

13,000 years later. After gathering and analyzing these otherworldly stones, researchers released

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00:24:43,600 --> 00:24:51,520

some astonishing results. One of those rocks was the Martian meteorite that some scientists claimed

209

00:24:51,520 --> 00:24:57,760

had evidence of Martian microbes on it. This has been greatly debated among scientists and I would

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00:24:57,760 --> 00:25:02,160

say today the consensus is moving in the direction of skepticism that is most scientists who've

211

00:25:02,480 --> 00:25:07,520

looked at the question think that the little objects that are seen under the microscope are

212

00:25:07,520 --> 00:25:12,640

probably not from living things were produced by some non-biological process, but there are

213

00:25:12,640 --> 00:25:18,160

still a few scientists who find evidence in the chemistry and in the structure that maybe these

214

00:25:18,160 --> 00:25:23,600

were microbes after all, so it's still an open question. And the important thing out of all of

215

00:25:23,600 --> 00:25:29,360

this is not so much whether these particular meteorites have actual biological material in them,

216

00:25:29,520 --> 00:25:34,640

but it's opened people's minds to at least accept the possibility that this may be something that

217

00:25:34,640 --> 00:25:42,960

could occur and has opened this area for legitimate study. Jupiter's frozen moon Europa may also be

218

00:25:42,960 --> 00:25:50,880

able to support life. In 1996 images transmitted by the spacecraft Galileo showed that Europa has

219

00:25:50,880 --> 00:25:57,440

an ocean containing more water than all of the Earth's oceans combined. And according to scientists

220

00:25:57,680 --> 00:26:05,840

where there is water there can be life. There could be volcanic activity down under a liquid

221

00:26:05,840 --> 00:26:10,240

water ocean and it's possible even if that volcanic activity is helping to keep that liquid water

222

00:26:10,240 --> 00:26:17,760

layer there. If that's true then you can start to think about biological systems that relate to

223

00:26:17,760 --> 00:26:22,080

the kinds of systems we have on the Earth. It's all highly speculative of course, but it's the kind

224

00:26:22,160 --> 00:26:27,600

of thing that drives us as scientists to want to know more about a place like Europa.

225

00:26:31,680 --> 00:26:37,840

Ultimately these interplanetary missions bolster the theory that life is not unique to Earth,

226

00:26:38,400 --> 00:26:42,640

a fundamental assumption if UFOs are to be taken seriously.

227

00:26:45,360 --> 00:26:49,280

I think it strengthens the hand of the people who believe that life is fairly commonplace

228

00:26:49,280 --> 00:26:52,960

within the galaxy, within the universe, because now we don't have just one example,

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00:26:52,960 --> 00:26:57,440

we've got two or more examples nearby. So that's why this becomes a profound

230

00:26:57,440 --> 00:27:00,800

importance perhaps one of the most profoundly important things that man has ever done.

231

00:27:03,200 --> 00:27:07,120

Despite the promise of discovering life in distant galaxies,

232

00:27:07,120 --> 00:27:11,920

current rocket technology may put the brakes on expeditions into deep space.

233

00:27:12,640 --> 00:27:15,120

It would simply take too long to get there.

234

00:27:17,120 --> 00:27:22,080

The Voyager 2 spacecraft was the fastest vehicle ever built by humans,

235

00:27:22,080 --> 00:27:25,600

but it still took nine years to reach the planet Uranus,

236

00:27:25,600 --> 00:27:28,480

merely halfway to the edge of the solar system.

237

00:27:31,280 --> 00:27:35,120

To reach stars where life-supporting planets might be found,

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00:27:35,120 --> 00:27:39,520

even Voyager would require a journey of 100,000 years.

239

00:27:42,880 --> 00:27:46,000

In the face of such daunting realities,

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00:27:46,000 --> 00:27:49,680

science has come up with another way of reaching out to alien civilizations,

241

00:27:50,320 --> 00:27:53,840

aim a hypersensitive radio antenna to the heavens,

242

00:27:53,840 --> 00:27:57,040

and hope to strike up a long-distance conversation.

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00:28:04,480 --> 00:28:11,680

It was in 1896 that an Italian engineer named Guglielmo Marconi hooked up some electrical parts

244

00:28:11,680 --> 00:28:16,640

in an inspired combination. Then he sent a signal roughly one mile,

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00:28:17,200 --> 00:28:20,560

not over wires, but directly through thin air.

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00:28:22,960 --> 00:28:30,240

Marconi refined his invention, and in 1901 he sent the first radio broadcast across the Atlantic

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00:28:30,240 --> 00:28:37,280

Ocean. A message that would have taken Christopher Columbus several months to deliver could now be

248

00:28:37,280 --> 00:28:45,680

sent in the blink of an eye. Within a few decades, radio had taken its place at the center of modern

249

00:28:45,680 --> 00:28:52,880

life. Sports, politics, entertainment, and commerce were revolutionized by the ability of sound and

250

00:28:52,880 --> 00:29:00,000

music to travel magically through the air. People began listening for Martians. They began to wonder,

251

00:29:00,000 --> 00:29:04,400

is there a Martian civilization that might be signaling to us? People like Marconi listened

252

00:29:04,400 --> 00:29:09,040

for these, and they occasionally announced that they had discovered signals from Mars.

253

00:29:09,600 --> 00:29:14,240

We now think that that was probably wrong, because there was a type of signal that they were probably

254

00:29:14,240 --> 00:29:18,640

picking up that they didn't know about them, but we now understand. This is a strange kind of signal

255

00:29:18,640 --> 00:29:24,400

called a whistler. It's produced by lightning, but it's lightning that's been transformed by the

256

00:29:24,400 --> 00:29:31,680

Earth's atmosphere into a strange signal that sounds just like a whistle. Like that. And so you get

257

00:29:31,680 --> 00:29:38,400

what sounds like an artificial signal, but it isn't. The intergalactic eavesdropping continues

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00:29:38,400 --> 00:29:47,120

today, but with far more powerful receivers. These are radio telescopes pointed toward the

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00:29:47,120 --> 00:29:54,640

heavens in a search for faint signals from outer space. Some physicists believe they may well

260

00:29:54,640 --> 00:30:01,520

hold our best chance of contact with intelligent beings from other planets. At Harvard University

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00:30:01,520 --> 00:30:07,920

in Cambridge, Massachusetts, Earth's most sophisticated detector in the search for life in outer space

262

00:30:07,920 --> 00:30:14,240

is being updated in a laboratory. It will look for answers to one of humanity's oldest questions.

263

00:30:14,800 --> 00:30:22,320

Is anybody out there? The project is headed by Dr. Paul Horowitz. First and foremost,

264

00:30:22,320 --> 00:30:27,440

for a signal generated by an intelligent species somewhere else, we have to guess what kind of

265

00:30:27,440 --> 00:30:31,920

signal that might be. First of all, is it light? Is it radio waves? Is it particles?

266

00:30:32,640 --> 00:30:39,040

Best guess is it's radio waves. Best guess amongst the radio wave possibilities are microwaves.

267

00:30:39,040 --> 00:30:44,080

What kind of signal there? It's anyone's guess. Some people believe a carrier, a single long

268

00:30:44,080 --> 00:30:49,840

transmission, a transmitter left on, probably saying nothing. Just saying I'm here. Of course,

269

00:30:49,840 --> 00:30:56,000

radio has been around for over a hundred years, but only in the last decade have computers become

270

00:30:56,080 --> 00:31:00,880

powerful enough for SETI, the search for extraterrestrial intelligence.

271

00:31:02,560 --> 00:31:08,000

Specialized chips and circuit boards comprise the brain of the radio telescope system.

272

00:31:08,720 --> 00:31:15,840

It will process the stream of signals captured by a giant antenna. Our search uses an 84 foot

273

00:31:16,400 --> 00:31:21,040

steerable radio telescope. Looks like a backyard satellite dish, but much bigger. It can collect

274

00:31:21,040 --> 00:31:26,640

rather weak signals and concentrate them at the focus. There we have some very sensitive amplifiers,

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00:31:26,640 --> 00:31:30,240

the best that can be made these days, to strengthen that very weak signal.

276

00:31:31,520 --> 00:31:36,000

The tiny signals will be transmitted through cables into the control room,

277

00:31:36,000 --> 00:31:42,160

where an array of computers will sort through the cosmic noise, looking for a deliberate signal,

278

00:31:42,160 --> 00:31:48,800

a sign of intelligent life. Occasionally we find strange signals there. Really interesting signals

279

00:31:48,800 --> 00:31:53,520

that look like the kind of thing that might be produced artificially by another civilization,

280

00:31:54,160 --> 00:31:59,600

but if you got a repeat of the signal at the same frequency and the same point in the sky,

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00:31:59,600 --> 00:32:03,680

that would tell you it was not a random event on the surface of the earth or inside of your computer.

282

00:32:04,240 --> 00:32:09,280

We would have to say that it's most likely being produced by another civilization some distance away.

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00:32:10,240 --> 00:32:15,600

The problem is none of these signals has ever repeated, but it's enough to keep us intrigued and wanting to continue.

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00:32:15,600 --> 00:32:22,560

But what are the odds that we will get a signal from some exotic civilization?

285

00:32:23,440 --> 00:32:29,840

That there's other life in the universe guaranteed. That there's other life in the galaxy guaranteed.

286

00:32:29,840 --> 00:32:35,680

Any odds you like absolutely cannot be any other way. That there's advanced life somewhere in the

287

00:32:35,680 --> 00:32:42,480

universe guaranteed. Somewhere else in the galaxy so extremely probable that I would give you at

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00:32:42,480 --> 00:32:46,880

least 100 to 1 odds that interstellar communication could well be taking place.

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00:32:48,640 --> 00:32:56,240

Even with these unbeatable odds, the quest for radio contact faces at least one possibly insurmountable

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00:32:56,240 --> 00:33:01,840

obstacle. A lot of people, both scientists and people who are critical of CEDI, have said maybe

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00:33:01,840 --> 00:33:06,560

an advanced civilization would use some equipment that's far beyond anything we could possibly know

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00:33:06,560 --> 00:33:11,360

about and so CEDI isn't even worth doing. And that's possible. It could be that there's some technique

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00:33:11,360 --> 00:33:16,960

for communicating across the distances between stars that we have no conception of and we will

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00:33:16,960 --> 00:33:22,160

not be able to do for a thousand years. But they probably thought about this too and they probably

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00:33:22,160 --> 00:33:26,080

went into their museum and they said what did we use a million years ago in the primitive part of

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00:33:26,080 --> 00:33:30,320

our civilization to communicate across distances and they said oh there's this thing they used to

297

00:33:30,320 --> 00:33:35,520

call radio and that's what we could use if we wanted to communicate with a primitive civilization

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00:33:35,520 --> 00:33:39,680

that doesn't know the advanced stuff that we know. So I'm hoping that they're using the galactic

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00:33:39,680 --> 00:33:46,080

equivalent of Boy Scout technology to send a signal that a civilization as primitive as we are

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00:33:46,080 --> 00:33:53,840

could detect. If such a scenario plays out we may be able to achieve distant rather than

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00:33:53,840 --> 00:34:00,160

close encounters with extraterrestrial beings. Dr. Horowitz believes that one day CEDI will

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00:34:00,160 --> 00:34:07,040

indeed receive a message from other intelligent life in the universe. And this will be quite an

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00:34:07,040 --> 00:34:12,240

event. This will be the first bridge across four billion years of independent life start and

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00:34:12,240 --> 00:34:18,000

evolution. It will be the end of Earth's cultural isolation in a galaxy and in universe containing

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00:34:18,000 --> 00:34:23,600

surely millions of other civilizations. It will be without doubt the greatest discovery in the history of humankind.

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00:34:26,560 --> 00:34:33,360

Until that broadcast is received we remain the eyes and ears of the universe ever alert for a

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00:34:33,360 --> 00:34:44,560

tiny signal that tells us we are not alone. However during the 1980s some UFO researchers came to

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00:34:44,560 --> 00:34:52,160

believe that there were abundant signs right here on Earth that visitors from outer space had made contact.

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00:34:54,880 --> 00:35:00,640

The clues were the so-called crop circles large and often intricate patterns carved into fields

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00:35:00,640 --> 00:35:09,200

of grain across Britain. Crop circles were connected to UFO phenomena beginning in the early 80s

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00:35:09,200 --> 00:35:14,560

soon after they appeared in England because people figured round marks on the ground. Gee they're like

312

00:35:14,560 --> 00:35:19,760

UFO traces that UFOs have left before so why not UFOs causing these things because they are mysterious

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00:35:19,760 --> 00:35:27,760

it can't seem to find the source of them. These mysterious forms began to appear in Bratton

314

00:35:27,760 --> 00:35:36,320

Wiltshire England around 1980. Farmers here called the simple shapes corn circles and wrote them off

315

00:35:36,320 --> 00:35:42,800

as a quirk of nature but the months and years that followed brought an explosion of new sightings.

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00:35:45,120 --> 00:35:51,200

Crop circle magazines soon emerged to publicize the elaborate and beautiful patterns that were

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00:35:51,200 --> 00:35:58,160

now visiting other crops. Researchers who call themselves serialologists stepped into catalogue

318

00:35:58,160 --> 00:36:08,000

these strange patterns and discover common traits. But are crop circles evidence of alien visitors?

319

00:36:08,000 --> 00:36:14,080

To solve the mystery a commercial film company in England undertook a nighttime stakeout of a

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00:36:14,080 --> 00:36:20,720

cornfield in Wiltshire in 1991. It was here that filmmakers made a startling discovery.

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00:36:21,360 --> 00:36:27,600

Thermal imaging equipment revealed the faint outline of humanoid shapes moving in a circle.

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00:36:31,120 --> 00:36:37,360

But the shapes were in fact quite human. They belong to a pair of Englishmen named Doug Bauer

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00:36:37,360 --> 00:36:44,240

and Dave Chorley. Doug and Dave claimed responsibility for dozens of the complex patterns that had

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00:36:44,240 --> 00:36:51,040

caused so much mystery. Many circles the twosome pointed out were even signed with their initials

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00:36:51,040 --> 00:36:58,560

D and D. The circles that we created in 1978 with the standing walls of corn as if they'd

326

00:36:58,560 --> 00:37:04,880

been cut out of pastry with a knife they were our doing and we started it way back in that time.

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00:37:04,880 --> 00:37:12,480

However numerous crop circles have now been observed in Canada and the United States

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00:37:12,480 --> 00:37:16,080

in addition to those that continue to appear all across England.

329

00:37:17,440 --> 00:37:21,600

Doug and Dave didn't make those. They would have to have been lickety split all over the planet.

330

00:37:22,240 --> 00:37:29,200

Having said that that doesn't mean I find a UFO connection. There really aren't any good cases of

331

00:37:29,200 --> 00:37:33,920

people seeing the saucer making them crop circle. It's another one of these interesting anomalies

332

00:37:33,920 --> 00:37:41,360

that should be studied at the university level and isn't being. Even without crop circles most

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00:37:41,360 --> 00:37:47,920

UFO researchers believe that unexplained photos and irrefutable eyewitness testimony make the case

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00:37:47,920 --> 00:38:01,360

that UFOs are real and visiting earth with alarming regularity. Virtually all of us have heard of

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00:38:01,360 --> 00:38:08,880

UFOs but relatively few of us have ever seen one. How are we to pass judgment on the question of

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00:38:08,880 --> 00:38:15,440

whether or not they are real? Making such a decision is like being a juror and weighing evidence

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00:38:15,440 --> 00:38:22,960

on one of the most important issues facing humanity. Perhaps UFOs are nothing more than hoaxes or

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00:38:22,960 --> 00:38:29,760

mistaken observations but if they are real they have to come from some place. The universe offers

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00:38:29,760 --> 00:38:37,280

infinite possibilities. If there is life out there it may well have gotten going long before we did.

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00:38:38,160 --> 00:38:45,360

Indeed Zeta reticuli a pair of stars often mentioned as having planets that might support life

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00:38:45,360 --> 00:38:51,840

is known to be about one billion years older than the earth. The thing we need to keep in

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00:38:51,840 --> 00:38:59,040

perspective we've only had fancy technology call it a hundred years. Well the Zeta reticulants got a

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00:38:59,040 --> 00:39:04,240

billion year head start. Let's be conservative let's suppose they only got a million year head start.

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00:39:04,240 --> 00:39:09,120

Let's be truly conservative and say they only got a 10,000 year head start which is nothing out of the

345

00:39:09,120 --> 00:39:15,840

billion years available. Surely we would all agree that we can't even imagine the advanced technology.

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00:39:18,080 --> 00:39:23,840

If some advanced civilization built spacecraft that can actually whisk them through the universe

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00:39:23,840 --> 00:39:27,920

why would they want to visit a primitive galactic backwater like earth.

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00:39:29,680 --> 00:39:35,520

One can only postulate that they're concerned about their own survival and security. At the end of

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00:39:35,520 --> 00:39:45,600

world war two there were three signs visible to any alien visitor that soon this primitive society

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00:39:45,600 --> 00:39:54,080

whose major activity is tribal warfare would be bothering them. Rockets radar and nuclear weapons

351

00:39:54,080 --> 00:39:59,920

were three signs that earthlings might soon be a force to contend with in the interstellar neighborhood.

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00:40:00,720 --> 00:40:06,800

If there are other civilizations in the universe perhaps they felt the need to keep a watchful eye

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00:40:06,800 --> 00:40:13,040

on potentially threatening developments here on earth. There had been many many sightings over

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00:40:13,840 --> 00:40:21,280

air bases in in the west over classified atomic installations. They were not just randomly

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00:40:21,280 --> 00:40:26,720

distributed but they did seem to concentrate at least in the early years on places where

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00:40:26,720 --> 00:40:33,600

experimental research was being done this kind of thing. Statistically astronomers know that

357

00:40:33,600 --> 00:40:39,200

there's life out there somewhere and the chances of it being intelligent life is debatable but it's

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00:40:39,200 --> 00:40:43,920

possible that somewhere in the universe there are creatures like us. Now whether they're coming

359

00:40:43,920 --> 00:40:49,600

here is a very tricky question because we don't have the physical evidence we don't have the chunk

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00:40:49,600 --> 00:40:55,360

of saucer in our hand and abductees haven't brought back a towel from the zeta reticuli hilton.

361

00:40:55,360 --> 00:41:00,480

We don't have any of the good stuff that definitely proves that somebody has been here.

362

00:41:02,800 --> 00:41:08,080

What the UFO case lacks in physical evidence it makes up for in solid eyewitnesses.

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00:41:09,600 --> 00:41:18,240

The Air Force UFO investigation from 1948 to 1969 cataloged some 12,000 sightings. Most were

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00:41:18,240 --> 00:41:25,760

explained but 700 accounts from credible witnesses remain a mystery despite all the Air Force efforts

365

00:41:25,760 --> 00:41:33,040

to explain them. They used all kinds of tricks to misrepresent what the results were always focusing

366

00:41:33,040 --> 00:41:39,680

on. Only 700 couldn't be explained. Only? If I was looking for cures for cancer and I looked at

367

00:41:39,680 --> 00:41:46,320

12,000 chemicals would I say there is no cure because only 700 worked? The point is to find one.

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00:41:48,480 --> 00:41:54,560

But even accounts from seemingly unimpeachable eyewitnesses are not enough at least when the

369

00:41:54,560 --> 00:42:04,960

subject is UFOs. When you get down to what we have always is a story. I saw something. I saw a light

370

00:42:04,960 --> 00:42:14,480

in the sky. I saw a crashed flying saucer and a story is mythology. It is not in and of itself

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00:42:15,760 --> 00:42:16,160

proof.

372

00:42:16,320 --> 00:42:24,960

Yet videos and photographs add powerful support to eyewitness accounts of UFOs.

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00:42:25,840 --> 00:42:31,520

Many photos have been examined by experts who have found no evidence of fraud or alteration.

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00:42:32,720 --> 00:42:39,680

However, if it can be proved beyond a reasonable doubt that UFOs are real, we have only unleashed a

375

00:42:39,760 --> 00:42:50,000

new problem. The UFO phenomenon is a great challenge to our intellect, but even more it's a challenge

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00:42:50,000 --> 00:42:57,280

to our humility. That mankind likes to think he's in control. And if we take this subject

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00:42:57,280 --> 00:43:05,280

seriously we realize we're not. And I believe that mankind across cultures is fundamentally

378

00:43:05,280 --> 00:43:10,880

in psychological denial on this subject. We don't know how to cope with it emotionally.

379

00:43:12,000 --> 00:43:14,640

We can't even begin to grasp it intellectually.

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00:43:16,800 --> 00:43:23,520

Perhaps UFOs will one day be revealed as top secret fighter planes, more advanced and alien

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00:43:23,520 --> 00:43:33,760

looking than the F-117. Or UFOs may prove to be nothing more exotic than birds or weather balloons,

382

00:43:33,760 --> 00:43:38,080

as laughable as our ancestors' belief in witches and sea serpents.

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00:43:40,080 --> 00:43:46,640

Of course it is entirely possible that UFOs are exactly what they seem to be, alien aircraft

384

00:43:46,640 --> 00:43:56,000

from parts unknown. For the time being at least the truth about UFOs is in the eye of the people there.

385

00:43:56,400 --> 00:44:05,440

Josh is heading for the Glacial Ranges of Patagonia to examine the remains of a

386

00:44:05,440 --> 00:44:10,320

vanished tribe of giants and to attempt to solve one of the greatest riddles of our time.

387

00:44:10,320 --> 00:44:16,880

The word Patagonia itself means big teeth? Oh no. The giants of Patagonia on Digging for the Truth

388

00:44:16,880 --> 00:44:21,120

tonight at 9 on the History Channel. That's huge.