

1

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

You know what, I've been around for a while.

2

00:00:08,400 --> 00:00:14,600

I've traveled the world, met some interesting people, done some crazy things.

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00:00:14,600 --> 00:00:19,040

So you might just think there's not much that could take me by surprise.

4

00:00:19,040 --> 00:00:22,440

You'd be wrong.

5

00:00:22,440 --> 00:00:27,540

The world is full of stories and science and things that amaze and confound me every single

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00:00:27,540 --> 00:00:28,540

day.

7

00:00:28,540 --> 00:00:31,500

Incredible mysteries that keep me awake at night.

8

00:00:31,500 --> 00:00:33,700

Some I can answer.

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00:00:33,700 --> 00:00:38,420

Others justify logic.

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00:00:38,420 --> 00:00:45,060

Like the man who falls 47 stories from a New York skyscraper to the street below and lives.

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00:00:45,060 --> 00:00:51,220

Or what about the mysterious and deadly ice chunks, the size of basketballs falling from

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00:00:51,220 --> 00:00:55,700

the sky and smashing into people's homes?

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00:00:55,700 --> 00:01:00,460

And then there's the bizarre story of the seven dismembered feet that washed up on the

14

00:01:00,460 --> 00:01:04,380

beaches of Vancouver wearing sneakers.

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00:01:04,380 --> 00:01:06,820

Yep.

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00:01:06,820 --> 00:01:10,220

It's a weird world.

17

00:01:10,220 --> 00:01:11,500

And I love it.

18

00:01:25,700 --> 00:01:32,740

December 7th, 2007.

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00:01:32,740 --> 00:01:37,420

New Yorkers witness one of the strangest events in the city's history.

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00:01:37,420 --> 00:01:42,720

I can remember myself and the other guys looking up and saying, it can't be.

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00:01:42,720 --> 00:01:45,580

Something that I cannot explain.

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00:01:45,580 --> 00:01:52,660

A dramatic accident with an outcome that justifies reason.

23

00:01:52,660 --> 00:01:54,980

Listen to this.

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00:01:54,980 --> 00:01:58,420

Our modern way of life runs on rules.

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00:01:58,420 --> 00:02:01,860

Laws that need to be obeyed, telling us what we can or cannot do.

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00:02:01,860 --> 00:02:04,900

But really, most of these rules can't stop you from doing anything.

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00:02:04,900 --> 00:02:07,180

If you choose to, you can break laws.

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00:02:07,180 --> 00:02:10,740

But science is quite different.

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00:02:10,740 --> 00:02:12,420

Take physics, for example.

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00:02:12,420 --> 00:02:17,220

Here there are indisputable laws that physically cannot be challenged, certain facts that are

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00:02:17,220 --> 00:02:18,220

absolute.

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00:02:18,220 --> 00:02:22,940

I mean, the laws of gravity are not exactly open to interpretation, right?

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00:02:25,980 --> 00:02:30,940

It's nearly Christmas in New York.

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00:02:30,940 --> 00:02:40,660

An exciting time for everyone in the city, including brothers Alcides and Edgar Moreno.

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00:02:40,660 --> 00:02:42,220

A working team.

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00:02:42,220 --> 00:02:44,980

December 7th is another regular day on the job.

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00:02:44,980 --> 00:02:48,540

But the Moreno job is far from regular.

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00:02:48,540 --> 00:02:51,380

High above the streets of the Big Apple.

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00:02:51,460 --> 00:02:56,860

Alcides and Edgar do what would certainly give me the heebie-jeebies.

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00:02:56,860 --> 00:02:58,900

Their high-rise window washers.

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00:02:58,900 --> 00:03:03,100

The window washers that I speak to seem to enjoy their work.

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00:03:03,100 --> 00:03:06,980

They can enjoy the sunrise in the morning.

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00:03:06,980 --> 00:03:10,140

And this is their chosen field, and they like it.

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00:03:10,140 --> 00:03:17,180

Today, the brothers will be cleaning the solo residences at East 66th St. in over 400 feet

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00:03:17,180 --> 00:03:18,420

of glass.

46

00:03:18,420 --> 00:03:22,060

On the roof, the men prepare to launch a platform like this one.

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00:03:22,060 --> 00:03:26,140

It's designed to suspend them on the side of the building as they work.

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00:03:26,140 --> 00:03:31,140

Unknown to them, there is a serious malfunction, and the Moreno brothers are just moments from

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00:03:31,140 --> 00:03:34,060

a terrifying and spectacular accident.

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00:03:34,060 --> 00:03:38,660

The two window washers were preparing to launch the rig that morning.

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00:03:38,660 --> 00:03:42,100

They got their equipment ready on the roof of the building.

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00:03:42,100 --> 00:03:44,660

So they had a bucket of hot water.

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00:03:44,660 --> 00:03:47,060

They had squeegees.

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00:03:47,060 --> 00:03:52,180

And they had this rig attached to a carriage and had electric motors that would elevate

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00:03:52,180 --> 00:03:56,780

them and hold them in place.

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00:03:56,780 --> 00:04:01,820

Photos from that day show the brothers put down their luges before positioning the platform.

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00:04:01,820 --> 00:04:09,060

It's approximately 22 feet in length by 2 1 1 1 1 foot wide, and it's designed to carry

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00:04:09,060 --> 00:04:10,060

two workers.

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00:04:10,060 --> 00:04:14,060

Then they swung the rig over the edge of the building and got on the rig.

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00:04:14,060 --> 00:04:31,260

When the men stepped on the platform, the platform immediately gave way.

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00:04:31,260 --> 00:04:34,020

I saw the commotion.

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00:04:34,020 --> 00:04:40,940

There were a lot of people standing in the street around the building screaming and pointing.

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00:04:40,940 --> 00:04:45,460

New York State safety inspector Kevin Dillon arrives on the scene and is witness to the

64

00:04:45,460 --> 00:04:46,460

carnage.

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00:04:46,460 --> 00:04:49,620

There was debris all over the place.

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00:04:49,620 --> 00:04:51,380

Scattered all over the place.

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00:04:51,380 --> 00:04:54,180

There was blood.

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00:04:54,180 --> 00:04:59,860

Tragically, 30-year-old Edgar Moreno was killed instantly.

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00:04:59,860 --> 00:05:05,020

But among the wreckage, paramedic Gary Smiley makes an amazing discovery.

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00:05:05,020 --> 00:05:08,140

We entered the debris field because they had said there was a guy in there.

71

00:05:08,140 --> 00:05:11,340

We started to move a lot of the metal and debris.

72

00:05:11,340 --> 00:05:13,340

When I first saw him, he was in a sitting position.

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00:05:13,340 --> 00:05:15,100

His hands were up around his chest.

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00:05:15,100 --> 00:05:18,020

I went to touch him and he gasped.

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00:05:18,020 --> 00:05:22,820

That took us aback because then we realized that this gentleman is actually still alive.

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00:05:22,820 --> 00:05:29,060

I can remember myself and the other guys looking up and just saying to ourselves, it can't be.

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00:05:29,060 --> 00:05:30,660

It's just impossible.

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00:05:30,660 --> 00:05:35,780

With no time wasted, Alcides is rushed to the hospital.

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00:05:35,780 --> 00:05:40,740

The fall has left him with broken ribs and legs and severe spinal injuries.

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00:05:40,740 --> 00:05:44,180

But just two weeks later, on Christmas Day...

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00:05:44,180 --> 00:05:49,500

I don't know what adjective you'd care to use on unprecedented, extraordinary.

82

00:05:49,500 --> 00:05:53,460

If you are a believer in miracles, this would be one.

83

00:05:53,460 --> 00:05:57,300

Alcides gives his wife Rosario the best present she could ever wish for.

84

00:05:57,300 --> 00:06:00,220

He speaks for the first time since the accident.

85

00:06:00,220 --> 00:06:03,820

He will make an incredible recovery.

86

00:06:03,820 --> 00:06:04,900

I don't know what to tell you.

87

00:06:04,900 --> 00:06:06,660

I'm still at all. I'm still a show.

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00:06:06,660 --> 00:06:10,180

I've worked as a paramedic in New York City for approximately 25 years.

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00:06:10,180 --> 00:06:13,940

And I've never seen anyone fall from that height before and survive.

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00:06:13,940 --> 00:06:15,300

It's truly amazing.

91

00:06:15,300 --> 00:06:18,140

I think Alcides has a guardian angel.

92

00:06:18,140 --> 00:06:23,020

To fall in excess of over 400 feet, it's just truly amazing.

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00:06:23,020 --> 00:06:29,260

It would be millions and millions and millions to one of the odds of surviving a fall like that.

94

00:06:29,260 --> 00:06:32,100

I just can't explain how he could do that.

95

00:06:32,140 --> 00:06:36,260

Okay, even for New York City, this story is weird.

96

00:06:36,260 --> 00:06:37,220

Let's think about this.

97

00:06:37,220 --> 00:06:40,620

My single-story house must be what?

98

00:06:40,620 --> 00:06:42,460

15 feet high?

99

00:06:42,460 --> 00:06:45,980

Even though I fell off my roof, it could be fatal.

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00:06:45,980 --> 00:06:50,340

So imagine if my house was over 400 feet high.

101

00:06:50,340 --> 00:06:55,420

How can someone fall 47 stories and survive?

102

00:06:55,420 --> 00:06:58,540

The whole descent would have been over in less than five seconds.

103

00:06:58,580 --> 00:07:03,860

But during that time, something extraordinary must have happened.

104

00:07:03,860 --> 00:07:06,580

But what?

105

00:07:06,580 --> 00:07:11,420

So let's try and unravel this seemingly impossible mystery by starting at the top.

106

00:07:11,420 --> 00:07:16,180

It's up here that investigators have discovered that the cause of the accident

107

00:07:16,180 --> 00:07:22,020

might be the key to understanding how Alcides Moreno survived.

108

00:07:22,020 --> 00:07:24,980

According to evidence recovered from the accident scene,

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00:07:25,020 --> 00:07:29,420

the fall was set in motion by two simple but deadly events.

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00:07:31,940 --> 00:07:36,020

The first concern the Moreno brothers themselves.

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00:07:36,020 --> 00:07:41,060

If the workers had followed all the safety rules and regulations,

112

00:07:41,060 --> 00:07:47,860

they would have been attached to their safety ropes and would have been left dangling on the side of the building.

113

00:07:47,860 --> 00:07:50,180

So why weren't the Moreno brothers saved by theirs?

114

00:07:52,580 --> 00:07:53,580

Simple.

115

00:07:54,980 --> 00:07:56,380

They weren't wearing them.

116

00:07:58,940 --> 00:08:05,620

The second crucial event concerned the way the scaffold had been set up.

117

00:08:05,620 --> 00:08:08,700

Now the window washing platform was supported by cables,

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00:08:08,700 --> 00:08:11,180

connected to two arms overhead.

119

00:08:11,180 --> 00:08:13,860

These loops of cables, fastened by crimps,

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00:08:13,860 --> 00:08:17,740

were the only things securing the rig to the building.

121

00:08:17,740 --> 00:08:20,100

And while analyzing photos of the wreckage,

122

00:08:20,140 --> 00:08:25,700

US Labor Department official Richard Mendelssohn discovered just how that rig failed.

123

00:08:25,700 --> 00:08:28,540

Here we see a shot of one of the crimps.

124

00:08:28,540 --> 00:08:31,580

So this is a crimp we recovered from the scene.

125

00:08:31,580 --> 00:08:36,900

And the crimps are the attachment devices that were supposed to hold that wire rope together.

126

00:08:36,900 --> 00:08:44,020

Amazingly, these two tiny crimps are capable of supporting the full 1,700-pound weight of a window washing platform

127

00:08:44,020 --> 00:08:46,260

and its crew, if properly fitted.

128

00:08:46,260 --> 00:08:51,740

What caused the platform ultimately to collapse was the fact that the crimps had not been pushed in enough.

129

00:08:51,740 --> 00:08:55,780

Since it wasn't crimped enough, the added weight of the two brothers, the two workers,

130

00:08:55,780 --> 00:09:00,020

as soon as they stepped on the platform was enough to cause it to fall.

131

00:09:00,020 --> 00:09:04,660

But, and this is crucial, it's believed both crimps failed nearly simultaneously.

132

00:09:08,620 --> 00:09:12,140

That means the platform was more or less horizontal when it fell

133

00:09:12,140 --> 00:09:16,420

and the two men stayed on board as it plummeted to the street below.

134

00:09:18,820 --> 00:09:21,180

This is where hard science takes over.

135

00:09:21,180 --> 00:09:26,020

Physicist Professor Brian Schwartz has investigated every inch of this fall

136

00:09:26,020 --> 00:09:30,580

and he believes the platform may have contributed to our city's survival

137

00:09:30,580 --> 00:09:33,380

by slowing the rate of his descent.

138

00:09:33,380 --> 00:09:35,580

It's a very improbable event.

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00:09:35,580 --> 00:09:39,700

If it were to happen again, the likelihood of survival is very, very small.

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00:09:39,780 --> 00:09:45,580

The platform had a total area of 55 square feet, so that presented a fairly wide area

141

00:09:45,580 --> 00:09:48,300

and as a result the drag force was quite large.

142

00:09:48,300 --> 00:09:52,300

That cuts the velocity by about 50 miles an hour.

143

00:09:54,100 --> 00:09:55,660

OK, let's think about this some more.

144

00:09:55,660 --> 00:10:01,300

When objects fall, air resistance pushes up to oppose the force of gravity pulling down.

145

00:10:01,300 --> 00:10:06,820

If the men hadn't been on the platform, they would have hit the ground at around 110 miles per hour.

146

00:10:06,820 --> 00:10:11,380

But because the force of drag was pushing up against the bottom of the platform,

147

00:10:11,380 --> 00:10:16,020

they were standing on, they were slowed to around 60 miles per hour.

148

00:10:18,140 --> 00:10:19,340

Does that help?

149

00:10:19,340 --> 00:10:27,340

It's better than 110, but 60 miles an hour is still fast enough to really result in usually death.

150

00:10:28,780 --> 00:10:35,140

So the fact that our cities were still on the platform wasn't enough to save his life during the fall,

151

00:10:35,140 --> 00:10:37,140

but what about the landing?

152

00:10:39,140 --> 00:10:46,540

In some final split second twist to fate, could something have broken our cities fall enough to save his life?

153

00:10:46,540 --> 00:10:49,540

Could the platform have helped him here?

154

00:10:50,740 --> 00:10:52,540

It's weird but true.

155

00:10:52,540 --> 00:10:57,340

High-rise window washer, our cities moreno, survived the seemingly impossible,

156

00:10:57,340 --> 00:11:01,700

a 47-story fall from a New York skyscraper.

157

00:11:01,700 --> 00:11:03,220

But how?

158

00:11:03,220 --> 00:11:07,580

As investigators poured over the evidence, they discovered something even weirder.

159

00:11:07,580 --> 00:11:15,740

An incredible series of events in the final split seconds that may have combined to break our cities fall.

160

00:11:15,740 --> 00:11:20,740

What we can see here is we can see scrape marks and some damage to a parapet on one of the windows

161

00:11:20,740 --> 00:11:22,980

and then a scrape going down the face of the building.

162

00:11:22,980 --> 00:11:29,060

And this is where we believe that the side of the scaffold platform impacted the short building next to it.

163

00:11:29,060 --> 00:11:36,260

No one knows for sure if this impact was the moment that caused Edgar Moreno to be thrown from the platform and killed.

164

00:11:36,260 --> 00:11:43,860

One thing though is certain, Alcides remained on the platform with the rate of his descent reduced

165

00:11:43,860 --> 00:11:46,860

as he entered the final phase of the accident.

166

00:11:46,860 --> 00:11:53,260

The fall occurred in a certain way in which the sides of the scaffolding hit the buildings there in the alleyway

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00:11:53,260 --> 00:12:00,860

and as a result the landing was a lot longer and a lot softer than it would have been had he just hit the ground flat.

168

00:12:00,860 --> 00:12:06,780

After hitting a ledge, the platform struck a low wall opposite, breaking his fall further

169

00:12:06,780 --> 00:12:14,460

and causing the platform to react in a crucial way that saves Alcides life.

170

00:12:14,460 --> 00:12:20,420

When the platform impacted the adjacent building in that short wall, it collapsed into a V.

171

00:12:20,420 --> 00:12:27,620

And my understanding is that Alcides was located in that V when the platform collapsed onto itself.

172

00:12:27,620 --> 00:12:30,180

But how would that have saved his life?

173

00:12:30,180 --> 00:12:36,220

Being a big fan of NASCAR and growing up with the family, we've always watched these horrific crashes.

174

00:12:39,580 --> 00:12:45,420

Where the car rolls and burns and all of a sudden you see a hand go in and releases a seat belt.

175

00:12:46,420 --> 00:12:50,420

And a guy walks away from a crash and you scratch your head and you say,

176

00:12:50,420 --> 00:12:52,420

well, how did he survive that?

177

00:12:52,420 --> 00:12:57,420

And this in my opinion is exactly how he survived.

178

00:12:57,420 --> 00:13:03,420

I believe that the platform created a roll cage and protected his body.

179

00:13:03,420 --> 00:13:09,420

The platform acted like a spring in some sense that it broke his fall.

180

00:13:10,420 --> 00:13:13,420

Well, what an irony.

181

00:13:13,420 --> 00:13:19,420

The very platform that caused this terrible accident helped protect Alcides.

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00:13:19,420 --> 00:13:21,420

But that's not all.

183

00:13:21,420 --> 00:13:27,420

You see, Alcides' posture may also have helped save him too.

184

00:13:27,420 --> 00:13:33,420

The force of stopping got distributed over his whole body, so the force on any one part of his body

185

00:13:33,420 --> 00:13:38,420

was a lot smaller than it would have been had he hit, let's say, with his head first or feet first.

186

00:13:38,420 --> 00:13:43,420

You had 47 floors worth of cable and rope that was down in the backyard.

187

00:13:43,420 --> 00:13:47,420

It was a pretty immense rubble field that he was just, you know,

188

00:13:47,420 --> 00:13:52,420

as if somebody just placed them in the middle of it in probably the only, you know,

189

00:13:52,420 --> 00:13:55,420

survival position you could have found him in.

190

00:13:56,420 --> 00:14:00,420

It's the last piece to this incredible puzzle.

191

00:14:00,420 --> 00:14:06,420

Against odds of millions to one, a bizarre series of events

192

00:14:06,420 --> 00:14:10,420

combined to save this window washer's life.

193

00:14:13,420 --> 00:14:16,420

Many people believe Alcides' survival was a miracle.

194

00:14:16,420 --> 00:14:21,420

Well, if you think a miracle can be defined as incredibly good luck, they may be right.

195

00:14:21,420 --> 00:14:27,420

But it was also combined with the mind-boggling dynamics of simple physics.

196

00:14:27,420 --> 00:14:29,420

I like physics.

197

00:14:37,420 --> 00:14:43,420

You don't need me to tell you that the modern world can be a pretty dangerous place.

198

00:14:43,420 --> 00:14:50,420

Every day you go out the door, there's literally a million and one ways you can meet a terrible end.

199

00:14:50,420 --> 00:14:54,420

But you know, man's home is his castle.

200

00:14:54,420 --> 00:14:56,420

There's no safer place to be, right?

201

00:14:56,420 --> 00:14:59,420

At least that's what I used to think, but guess what?

202

00:14:59,420 --> 00:15:01,420

Times are changing.

203

00:15:01,420 --> 00:15:08,420

Now me, you, everyone we know is immortal danger at all times from a mystery assailant

204

00:15:08,420 --> 00:15:15,420

who can strike at our homes at any time.

205

00:15:18,420 --> 00:15:21,420

You see, all over the world, unaccounted,

206

00:15:21,420 --> 00:15:26,420

objects have begun falling from clear blue skies with destructive

207

00:15:26,420 --> 00:15:30,420

and potentially fatal and very scary consequences.

208

00:15:33,420 --> 00:15:37,420

Come with me to the sleepy rural town of Brush, Colorado.

209

00:15:37,420 --> 00:15:41,420

Danelle Hagen was in the comfort of her own home

210

00:15:41,420 --> 00:15:43,420

when she was a little girl.

211

00:15:43,420 --> 00:15:46,420

She was a little girl, but she was a little girl.

212

00:15:46,420 --> 00:15:50,420

In the beautiful town of the city of Brush, Colorado,

213

00:15:50,420 --> 00:15:55,420

Danelle Hagen was in the comfort of her own home when she was attacked.

214

00:15:56,420 --> 00:15:58,420

This is my home behind me.

215

00:15:58,420 --> 00:16:07,420

Saturday morning, my daughter and I got up and were just doing normal Saturday morning relaxing kind of things.

216

00:16:07,420 --> 00:16:11,420

I had gone to sit at the computer, which is just right outside the kitchen area.

217

00:16:11,420 --> 00:16:14,420

Kind of quiet, having the coffee, trying to wake up.

218

00:16:14,420 --> 00:16:18,020

Her Saturday morning calm is about to be shattered

219

00:16:18,120 --> 00:16:22,420

in the most terrifying and weird way.

220

00:16:22,520 --> 00:16:24,600

So I was sitting about three feet outside the kitchen door

221

00:16:24,700 --> 00:16:28,160

when I heard a huge what sounded like an explosion.

222

00:16:28,260 --> 00:16:31,560

And I thought I was going to get up and look outside

223

00:16:31,660 --> 00:16:33,000

and see some horrific thing outside.

224

00:16:33,100 --> 00:16:34,300

I kind of turned to my left, which

225

00:16:34,400 --> 00:16:37,500

would have been towards the kitchen.

226

00:16:37,600 --> 00:16:40,640

And in that instant, the kitchen had been destroyed.

227

00:16:40,740 --> 00:16:42,240

I had beams hanging.

228

00:16:42,260 --> 00:16:44,440

The ceiling had crashed in.

229

00:16:44,540 --> 00:16:47,300

It was unbelievable.

230

00:16:47,400 --> 00:16:48,900

And I was in shock, just speechless.

231

00:16:49,000 --> 00:16:52,740

I was too dumbfounded to be scared at that point.

232

00:16:52,840 --> 00:16:54,280

Immediately after the explosion, I

233

00:16:54,380 --> 00:16:56,040

think I was in too much shock to be scared.

234

00:16:56,140 --> 00:16:57,380

My daughter was hysterical.

235

00:16:57,480 --> 00:16:59,380

She came running out, screaming, crying.

236

00:16:59,480 --> 00:17:01,420

She couldn't get out of the house fast enough.

237

00:17:01,520 --> 00:17:02,720

And at that point, I was trying to decide

238

00:17:02,820 --> 00:17:04,420

if it was safe for us to be there.

239

00:17:04,520 --> 00:17:06,960

I didn't know if a gas line, something had happened.

240

00:17:07,060 --> 00:17:09,360

And if something else would explode.

241

00:17:09,460 --> 00:17:10,760

And I was basically in shock.

242

00:17:10,820 --> 00:17:14,060

I really didn't know what to do at that point.

243

00:17:14,160 --> 00:17:17,660

Initially, Danelle thinks it was caused by an exploded gas

244

00:17:17,760 --> 00:17:18,620

line.

245

00:17:18,720 --> 00:17:20,960

But when an inspector surveys the damage,

246

00:17:21,060 --> 00:17:24,760

its extraordinary origins are revealed.

247

00:17:24,860 --> 00:17:27,500

Guy said, you know, you didn't have an explosion out.

248

00:17:27,600 --> 00:17:29,400

You had something crash through.

249

00:17:29,500 --> 00:17:30,680

As we started looking around the kitchen,

250

00:17:30,780 --> 00:17:32,940

it was when we first saw this huge chunk of ice,

251

00:17:33,040 --> 00:17:34,440

about the size of a bowling ball.

252

00:17:34,540 --> 00:17:38,880

A huge ball of ice weighing about 20 pounds

253

00:17:38,940 --> 00:17:41,780

had crashed into Danelle's home.

254

00:17:41,880 --> 00:17:43,280

When I saw the large chunk of ice,

255

00:17:43,380 --> 00:17:45,540

I didn't immediately connect it with anything

256

00:17:45,640 --> 00:17:47,040

having crashed through.

257

00:17:47,140 --> 00:17:48,480

It was just, oh, how odd.

258

00:17:48,580 --> 00:17:50,180

You know, why would there be ice in the middle of all

259

00:17:50,280 --> 00:17:51,720

this rubble in the kitchen?

260

00:17:51,820 --> 00:17:53,520

So I didn't immediately put it together.

261

00:17:53,620 --> 00:17:55,820

It was after the fire department came

262

00:17:55,920 --> 00:17:57,160

and the gentleman from the gas company

263

00:17:57,260 --> 00:17:59,220

that we all started piecing things together.

264

00:17:59,320 --> 00:18:01,460

Ice?

265

00:18:01,560 --> 00:18:02,400

But ice is our friend.

266

00:18:02,500 --> 00:18:03,360

We skate on it.

267

00:18:03,460 --> 00:18:04,460

We put it in our drinks.

268

00:18:04,560 --> 00:18:07,260

We use it to help relieve injured muscles.

269

00:18:07,760 --> 00:18:10,160

Oh, no.

270

00:18:10,260 --> 00:18:15,420

This ice was not nice.

271

00:18:15,520 --> 00:18:25,360

It was huge, just like this one, weighing about 20 pounds.

272

00:18:25,460 --> 00:18:28,600

Imagine this crashing through your ceiling.

273

00:18:28,700 --> 00:18:34,320

So where in heaven's name did a piece of ice this size come

274

00:18:34,420 --> 00:18:34,820

from?

275

00:18:38,020 --> 00:18:40,160

Basketball-sized piece of ice.

276

00:18:40,260 --> 00:18:42,300

Maybe Chaco Neal finally made a free throw.

277

00:18:45,600 --> 00:18:48,860

To answer that question, I'm going to need some help.

278

00:18:48,960 --> 00:18:51,900

Some friends of mine, researchers at the Texas Tech,

279

00:18:52,000 --> 00:18:56,700

are going to see what kind of damage ice can do.

280

00:18:56,800 --> 00:18:58,840

How are they going to do this?

281

00:18:58,940 --> 00:19:01,580

We're the huge cannon, of course.

282

00:19:01,680 --> 00:19:03,820

Today, we're going to shoot some ice.

283

00:19:03,920 --> 00:19:06,020

Sounds like fun, but let's get on with it.

284

00:19:06,080 --> 00:19:07,640

In their first test, they're going

285

00:19:07,740 --> 00:19:12,280

to shoot a 5-pound ice chunk at its terminal velocity.

286

00:19:12,380 --> 00:19:14,480

That's the fastest speed that an object can

287

00:19:14,580 --> 00:19:16,880

fall through the air.

288

00:19:16,980 --> 00:19:19,020

For a 5-pound chunk, the terminal velocity

289

00:19:19,120 --> 00:19:22,160

is about 110 miles per hour.

290

00:19:22,260 --> 00:19:25,260

This is going to simulate the speed of a ball of ice,

291

00:19:25,360 --> 00:19:28,700

the size of a melon, falling from at least 2,000 feet.

292

00:19:28,700 --> 00:19:30,080

Clear?

293

00:19:30,180 --> 00:19:37,180

Three, two, one.

294

00:19:41,280 --> 00:19:42,680

And look at that.

295

00:19:42,780 --> 00:19:44,520

It went right through like a bullet.

296

00:19:44,620 --> 00:19:46,720

Let's see that again in slow motion.

297

00:19:46,820 --> 00:19:48,160

I've always wanted to say that.

298

00:19:53,460 --> 00:19:55,660

So we've confirmed that a falling chunk of ice

299

00:19:55,760 --> 00:19:57,160

can rip through the air.

300

00:19:57,220 --> 00:19:58,960

And that a falling chunk of ice can

301

00:19:59,060 --> 00:20:00,460

rip through the roof of a house.

302

00:20:00,560 --> 00:20:03,100

But this is nowhere near the destruction

303

00:20:03,200 --> 00:20:05,400

seen in Denel's roof.

304

00:20:05,500 --> 00:20:07,100

It is estimated that a ball of ice

305

00:20:07,200 --> 00:20:10,900

the size of a basketball, like the one that hit Denel's house,

306

00:20:11,000 --> 00:20:12,340

would have likely been traveling

307

00:20:12,440 --> 00:20:17,080

at a terminal velocity of approximately 150 miles per hour.

308

00:20:17,180 --> 00:20:18,840

But the test is only a partial success,

309

00:20:18,940 --> 00:20:20,620

because we're not able to calculate

310

00:20:20,720 --> 00:20:23,380

from what height the ball of ice actually fell.

311

00:20:23,400 --> 00:20:24,780

So we're determined this.

312

00:20:24,880 --> 00:20:28,080

We'll need more clues.

313

00:20:28,180 --> 00:20:32,980

The most likely suspect you might think is this stuff, hail.

314

00:20:33,080 --> 00:20:36,180

Frozen water droplets that form in thunderstorm clouds

315

00:20:36,280 --> 00:20:38,720

up to 70,000 feet high and have been known

316

00:20:38,820 --> 00:20:41,720

to do some serious damage.

317

00:20:41,820 --> 00:20:45,260

Like here in Edmonton, Canada, where in 2007,

318

00:20:45,360 --> 00:20:48,300

hail the size of baseballs smashed down

319

00:20:48,360 --> 00:20:51,000

into dark, heavy clouds onto residential areas.

320

00:20:54,360 --> 00:20:56,700

But 700 miles away in Vancouver,

321

00:20:56,800 --> 00:20:59,060

a sky filled with thunderstorm clouds

322

00:20:59,160 --> 00:21:01,540

isn't exactly what Chris Drabb remembers,

323

00:21:01,640 --> 00:21:06,740

when a huge ice bomb crunched into his neighborhood in 2009.

324

00:21:10,580 --> 00:21:12,780

This was undoubtedly the strangest,

325

00:21:12,880 --> 00:21:15,160

the most fascinating thing I've ever seen in my life.

326

00:21:15,280 --> 00:21:21,320

It was a very hot, sunny, bright Friday afternoon,

327

00:21:21,420 --> 00:21:23,660

and I was mowing my lawn.

328

00:21:23,760 --> 00:21:28,260

And I hear what was a loud noise,

329

00:21:28,360 --> 00:21:30,760

like an artillery shell or something thundering.

330

00:21:30,860 --> 00:21:34,000

And I look up in the sky and I see something

331

00:21:34,100 --> 00:21:37,200

falling at incredible velocity.

332

00:21:37,300 --> 00:21:41,380

I could see coming down this direction here,

333

00:21:41,500 --> 00:21:45,380

what looked like a large chunk of rock

334

00:21:45,480 --> 00:21:47,380

or a large chunk of something,

335

00:21:47,480 --> 00:21:51,540

trailing a plume of white debris or smoke after it.

336

00:21:51,640 --> 00:21:52,840

I didn't know what to think of it.

337

00:21:52,940 --> 00:21:57,740

It didn't compute because the sky was sunny, it was hot,

338

00:21:57,840 --> 00:21:59,680

there wasn't a cloud in the sky.

339

00:21:59,780 --> 00:22:02,540

Just like the case of Danelle Hagan,

340

00:22:02,640 --> 00:22:06,380

Drabb's ice bombs came from seemingly nowhere

341

00:22:06,480 --> 00:22:09,840

on a perfectly calm and sunny afternoon,

342

00:22:09,900 --> 00:22:16,500

meaning it can't behave weirder and weirder.

343

00:22:16,600 --> 00:22:20,640

OK, where else could it be coming from?

344

00:22:20,740 --> 00:22:21,700

Here's a clue.

345

00:22:21,800 --> 00:22:25,300

Danelle's house happens to also be in the approaching flight

346

00:22:25,400 --> 00:22:28,440

path of a major airport.

347

00:22:28,540 --> 00:22:31,240

Coincidence?

348

00:22:31,340 --> 00:22:33,700

Could the world of aviation be responsible

349

00:22:33,800 --> 00:22:35,800

for these mysterious ice bombs?

350

00:22:40,840 --> 00:22:44,200

As commercial pilot Stuart McCaskill knows,

351

00:22:44,300 --> 00:22:48,000

the aviation industry has problems of its own with ice.

352

00:22:48,100 --> 00:22:51,000

There's been a lot of accidents because of icing on airplanes.

353

00:22:51,100 --> 00:22:54,240

So now, icing and flying and icing

354

00:22:54,340 --> 00:22:58,600

is of huge importance and a number one item in all of aviation.

355

00:22:58,700 --> 00:23:02,800

Right, so ice builds up on the aircraft in two ways,

356

00:23:02,900 --> 00:23:05,600

on the ground or in flight.

357

00:23:05,700 --> 00:23:09,200

Flight icing occurs when a plane flies through a cloud

358

00:23:09,260 --> 00:23:11,860

filled with tiny droplets of supercooled water

359

00:23:11,960 --> 00:23:14,360

that freezes upon impact.

360

00:23:14,460 --> 00:23:18,360

For ice to form on a wing, you need supercooled water droplets.

361

00:23:18,460 --> 00:23:21,060

If this ice builds up, it doesn't conform to the wing.

362

00:23:21,160 --> 00:23:24,260

It's all over the place, and you can get varying degrees

363

00:23:24,360 --> 00:23:26,400

of aerodynamic instability.

364

00:23:26,500 --> 00:23:27,560

So it's a weight thing.

365

00:23:27,660 --> 00:23:30,060

She's destroying the lift.

366

00:23:30,160 --> 00:23:34,860

Yeah, there is no doubt ice can be a major problem.

367

00:23:34,960 --> 00:23:37,260

That's why the aviation industry has developed

368

00:23:37,320 --> 00:23:39,820

sophisticated anti-icing equipment.

369

00:23:43,320 --> 00:23:46,320

So we've looked at the wheel well, we've looked at the wing.

370

00:23:46,420 --> 00:23:49,820

Yeah, shiny nose, sorry.

371

00:23:49,920 --> 00:23:53,320

But is there any place left on the plane we still haven't looked?

372

00:23:57,820 --> 00:23:59,820

Oh, no.

373

00:23:59,920 --> 00:24:03,220

Could the urban legend of airplanes letting go

374

00:24:03,320 --> 00:24:06,020

of their frozen toilet waste in mid-air

375

00:24:06,080 --> 00:24:06,980

actually be true?

376

00:24:09,480 --> 00:24:13,480

Is it possible that the 20-pound ice chunk that fell from the sky

377

00:24:13,580 --> 00:24:15,820

and destroyed Danelle Haken's kitchen

378

00:24:15,920 --> 00:24:19,720

originated in the lavatory of a passing commercial airliner?

379

00:24:24,220 --> 00:24:27,420

An aircraft system is just the same as an RV system

380

00:24:27,520 --> 00:24:29,880

in that it is self-contained.

381

00:24:29,980 --> 00:24:32,680

This is the access panel for the lav service,

382

00:24:32,740 --> 00:24:37,140

and it's serviced on the ground in-flight, not accessible,

383

00:24:37,240 --> 00:24:40,740

and any seepage from this area in-flight would be minuscule

384

00:24:40,840 --> 00:24:43,540

and certainly would not lead to any ice build-up

385

00:24:43,640 --> 00:24:45,780

that would fall from the airplane.

386

00:24:45,880 --> 00:24:49,980

I can't imagine where this sort of ice formation

387

00:24:50,080 --> 00:24:53,540

would take place or anything of this size on an airplane

388

00:24:53,640 --> 00:24:56,440

and then jettison itself and fall to the earth.

389

00:24:56,540 --> 00:24:59,540

I really can't imagine how that might happen.

390

00:25:03,080 --> 00:25:04,780

Okay, this is getting spooky.

391

00:25:04,880 --> 00:25:07,780

If it's not hail and it's not from an aircraft,

392

00:25:07,880 --> 00:25:11,040

maybe we need to go higher still to find the source

393

00:25:11,140 --> 00:25:12,980

of these killer ice bombs.

394

00:25:13,080 --> 00:25:16,740

Could the culprit be from outer space?

395

00:25:16,840 --> 00:25:18,280

Take comets.

396

00:25:18,380 --> 00:25:21,080

Comets are made of rock, dust, frozen gases,

397

00:25:21,180 --> 00:25:23,740

and you guessed it, ice.

398

00:25:23,840 --> 00:25:29,740

Ice that vaporizes to resemble a tail as they approach the sun.

399

00:25:29,800 --> 00:25:30,840

The scary part?

400

00:25:30,940 --> 00:25:34,940

Sometimes they smash into planets like in 1994

401

00:25:35,040 --> 00:25:38,400

when a fragment from Comet B Shoemaker, Levy 9,

402

00:25:38,500 --> 00:25:39,800

collided with Jupiter,

403

00:25:39,900 --> 00:25:42,600

releasing a frightening energy equivalent

404

00:25:42,700 --> 00:25:48,040

to six million megatons of TNT.

405

00:25:48,140 --> 00:25:51,240

But as astronomer Robert Stencil knows,

406

00:25:51,340 --> 00:25:53,440

the earth has a natural defense system

407

00:25:53,540 --> 00:25:56,700

to help protect us from similar disasters.

408

00:25:56,760 --> 00:25:59,560

What we anticipate happens when comets encounter

409

00:25:59,660 --> 00:26:02,260

the Earth's atmosphere is that they heat up in a hurry

410

00:26:02,360 --> 00:26:06,060

and 99.999% of that would vaporize

411

00:26:06,160 --> 00:26:08,560

before they reach the ground.

412

00:26:08,660 --> 00:26:11,100

So could the ball of ice that destroyed

413

00:26:11,200 --> 00:26:14,560

Denel Hagen's kitchen have been the surviving remnant

414

00:26:14,660 --> 00:26:15,800

of a comet?

415

00:26:15,900 --> 00:26:18,200

For something to survive to the ground

416

00:26:18,300 --> 00:26:21,060

and still be the size of a basketball,

417

00:26:21,160 --> 00:26:24,560

it would probably have to be of order a million times larger.

418

00:26:27,060 --> 00:26:28,420

And that's the problem.

419

00:26:28,520 --> 00:26:31,020

In a world that constantly watches the skies,

420

00:26:31,120 --> 00:26:34,360

would a comet 160 miles across,

421

00:26:34,460 --> 00:26:38,560

plummeting through space towards us, go unnoticed?

422

00:26:38,660 --> 00:26:40,960

I hope not.

423

00:26:41,060 --> 00:26:44,000

So we checked out Hale, we checked out the plane,

424

00:26:44,100 --> 00:26:48,920

we checked out the bathroom, and we checked up in space.

425

00:26:49,020 --> 00:26:53,520

Where else is there left to look?

426

00:26:53,620 --> 00:26:56,220

Meet meteorologist David Jones.

427

00:26:56,340 --> 00:26:59,540

He has a theory that we are dealing with a whole new kind

428

00:26:59,640 --> 00:27:05,080

of weather phenomena that puts us all in potential danger.

429

00:27:05,180 --> 00:27:07,180

They're not cosmic, they're not from space.

430

00:27:07,280 --> 00:27:09,940

The theory is that these great chunks of ice

431

00:27:10,040 --> 00:27:12,280

form very high in the upper atmosphere,

432

00:27:12,380 --> 00:27:17,640

above the level where most of normal day-to-day weather occurs.

433

00:27:17,740 --> 00:27:20,440

OK, this is where we need a good old-fashioned sixth grade

434

00:27:20,540 --> 00:27:22,680

science lesson.

435

00:27:22,780 --> 00:27:24,780

It's right here in the boundary region

436

00:27:24,840 --> 00:27:27,500

between the moist upper troposphere

437

00:27:27,600 --> 00:27:30,700

and the cold lower stratosphere where Jones believes

438

00:27:30,800 --> 00:27:34,280

the process of ice crystal formation starts.

439

00:27:34,380 --> 00:27:37,880

Wind shear, caused by the mixing of warm and cold air,

440

00:27:37,980 --> 00:27:41,240

creates powerful turbulence that is strong enough

441

00:27:41,340 --> 00:27:46,140

to keep ice bombs aloft as they grow.

442

00:27:46,240 --> 00:27:48,440

And the growth of those ice crystals

443

00:27:48,540 --> 00:27:50,480

is supported by the turbulence.

444

00:27:50,580 --> 00:27:52,680

And the turbulence in this very moist air

445

00:27:52,740 --> 00:27:56,480

allows the crystals to grow, somewhat like hail stones do,

446

00:27:56,580 --> 00:28:01,280

until they're so heavy that the strong winds can't support them

447

00:28:01,380 --> 00:28:03,180

and they fall to the ground.

448

00:28:03,280 --> 00:28:04,620

Wait a minute, wait a minute, wait a minute.

449

00:28:04,720 --> 00:28:07,560

What are these mutant ice monsters called?

450

00:28:07,660 --> 00:28:08,520

I'll tell you.

451

00:28:08,620 --> 00:28:12,960

Mega cre... cremata?

452

00:28:13,060 --> 00:28:19,060

I'm sorry, I'll get it right next time when there's no airplane.

453

00:28:19,160 --> 00:28:20,440

There's nothing wet, I promise you.

454

00:28:20,540 --> 00:28:22,400

So what are these mutant ice monsters called?

455

00:28:22,460 --> 00:28:23,520

I'll tell you.

456

00:28:23,620 --> 00:28:26,300

Mega... uh...

457

00:28:26,400 --> 00:28:28,400

Mega cryo meteor.

458

00:28:28,500 --> 00:28:31,660

Mega meaning large, cryo meaning ice,

459

00:28:31,760 --> 00:28:34,700

and meteor meaning of atmospheric origin.

460

00:28:37,000 --> 00:28:40,440

Frighteningly, reports of these mega cryo meteors

461

00:28:40,540 --> 00:28:42,580

seem to be on the increase.

462

00:28:42,680 --> 00:28:45,780

In 2007, for example, a resident of Tampa, Florida,

463

00:28:45,880 --> 00:28:48,580

was working on his Red Hot Ford Mustang

464

00:28:48,680 --> 00:28:51,520

when suddenly it got iced by a chunk

465

00:28:51,580 --> 00:28:53,620

the size of a basketball.

466

00:28:53,720 --> 00:28:55,220

Yikes.

467

00:28:55,320 --> 00:28:59,580

It struck with so much force, the roof was completely flattened,

468

00:28:59,680 --> 00:29:04,060

and the heavy sports car bounced four feet off the ground.

469

00:29:04,160 --> 00:29:08,600

Since about 1950, there have been about 100 verifiable reports

470

00:29:08,700 --> 00:29:12,200

of these ice chunks falling from clear blue sky.

471

00:29:12,300 --> 00:29:17,040

Since about 2001, there's been well over 50

472

00:29:17,140 --> 00:29:19,140

of these events reported.

473

00:29:20,140 --> 00:29:22,760

And that, according to many scientists,

474

00:29:22,860 --> 00:29:26,600

is because mega cryo meteors might be yet another consequence

475

00:29:26,700 --> 00:29:30,240

of global warming, increasing the levels of warm air

476

00:29:30,340 --> 00:29:32,540

that reach the stratosphere.

477

00:29:32,640 --> 00:29:34,540

There's no way to say whether we're going to see more

478

00:29:34,640 --> 00:29:36,980

of these weird events in the future.

479

00:29:37,080 --> 00:29:40,580

So whether the mega cryo meteor theory is true or not,

480

00:29:40,680 --> 00:29:44,820

one thing is for sure, it's time to watch the skies...

481

00:29:44,880 --> 00:29:47,140

because you might be next.

482

00:29:47,240 --> 00:29:50,880

Or even worse, me.

483

00:30:08,980 --> 00:30:11,980

Some people just don't know what's going on.

484

00:30:12,980 --> 00:30:15,980

Some people just love hanging out at the beach, not me.

485

00:30:16,080 --> 00:30:18,980

I'm a pool kind of guy.

486

00:30:19,080 --> 00:30:22,980

I don't like skimming him, but I like swimming him.

487

00:30:23,080 --> 00:30:26,980

I mean, just think about all the dangerous and slimy creatures

488

00:30:27,080 --> 00:30:30,620

that are in the ocean, and then there's all the junk

489

00:30:30,720 --> 00:30:33,720

we put in there, pollution, trash, sewage.

490

00:30:33,820 --> 00:30:36,860

Did you know it's been estimated that for every square mile

491

00:30:36,960 --> 00:30:40,860

of ocean, there's around 45,000 pieces of floating plastic in it?

492

00:30:41,840 --> 00:30:46,960

Whew, this next tale is about the most sinister,

493

00:30:47,060 --> 00:30:49,260

mysterious, and downright, I'm sorry,

494

00:30:49,360 --> 00:30:52,960

weird collection of seaborne debris ever to wash up

495

00:30:53,060 --> 00:30:55,960

on the shores of North America.

496

00:30:57,260 --> 00:31:00,400

Vancouver, British Columbia, a lovely place famous

497

00:31:00,500 --> 00:31:04,740

throughout the world for staging the 2010 Winter Olympics.

498

00:31:04,840 --> 00:31:08,940

But infamous for a series of grisly and downright

499

00:31:09,120 --> 00:31:10,620

weird discoveries.

500

00:31:13,220 --> 00:31:17,720

August 20, 2007, Jedediah Island near Vancouver,

501

00:31:17,820 --> 00:31:20,020

a young girl taking a walk on the beach

502

00:31:20,120 --> 00:31:22,020

makes a disgusting discovery.

503

00:31:26,800 --> 00:31:30,160

November 12, 2008, a couple walking their dogs

504

00:31:30,260 --> 00:31:33,300

just a few miles away in Richmond, British Columbia

505

00:31:33,400 --> 00:31:37,700

discover something equally as horrific.

506

00:31:38,060 --> 00:31:41,500

I saw a running shoe thrown up on a rock.

507

00:31:42,800 --> 00:31:45,100

I felt a strange sensation.

508

00:31:45,200 --> 00:31:48,000

It compelled me to do something about it, not visual.

509

00:31:48,100 --> 00:31:50,600

It's just a sense that I had.

510

00:31:50,700 --> 00:31:54,180

Curiosity soon turned to fear when they looked inside.

511

00:31:54,280 --> 00:31:55,340

Then I could see there's something in it,

512

00:31:55,440 --> 00:31:57,620

so I wanted to figure out what it was.

513

00:31:57,720 --> 00:31:59,680

The shoe was in pretty good condition.

514

00:31:59,780 --> 00:32:03,880

As they turned it over, it looked like a athletic sock

515

00:32:03,980 --> 00:32:06,120

that had been well-aged with what I would call

516

00:32:06,620 --> 00:32:08,780

a large ham knuckle bone in there.

517

00:32:10,140 --> 00:32:12,720

Now this is where it gets really scary,

518

00:32:12,820 --> 00:32:16,980

because what lay in the shoe wasn't animal flesh.

519

00:32:17,080 --> 00:32:18,320

It was a human foot.

520

00:32:19,620 --> 00:32:20,720

So what do we have?

521

00:32:20,820 --> 00:32:25,000

Two Vancouver beaches, two unrelated feet.

522

00:32:25,100 --> 00:32:27,560

It was a shocking find, but amazingly,

523

00:32:27,660 --> 00:32:31,700

according to police, not actually that odd.

524

00:32:31,800 --> 00:32:34,840

There's a number of waterways that surround

525

00:32:34,860 --> 00:32:37,860

the Mitchell Vancouver area, so it's not that unusual

526

00:32:37,960 --> 00:32:40,860

to have a variety of body parts wash up,

527

00:32:40,960 --> 00:32:44,400

and it's not usually newsworthy.

528

00:32:44,500 --> 00:32:46,540

These two feet were just the beginning,

529

00:32:46,640 --> 00:32:48,440

and as more sneakers wash up,

530

00:32:48,540 --> 00:32:50,600

news of this macabre mystery

531

00:32:50,700 --> 00:32:53,400

quickly spreads fear throughout the region.

532

00:32:53,500 --> 00:32:55,480

The left foot was spotted Monday morning,

533

00:32:55,580 --> 00:32:57,880

floating in the waters off Westham Island.

534

00:32:57,980 --> 00:33:00,920

The kind of case you could see in a crime show on television,

535

00:33:01,020 --> 00:33:03,720

but it's happening right now in the Gulf Islands.

536

00:33:04,920 --> 00:33:08,220

After the fifth, sixth, seventh foot,

537

00:33:08,320 --> 00:33:12,320

it does appear pretty odd, pretty unusual,

538

00:33:12,420 --> 00:33:16,720

and of course a number of theories have been put forward

539

00:33:16,820 --> 00:33:20,200

to us by the public through our website, et cetera,

540

00:33:20,300 --> 00:33:23,860

and there's certainly a curiosity

541

00:33:26,460 --> 00:33:27,900

to what's happening.

542

00:33:28,000 --> 00:33:31,080

In a little over a year, a total of seven feet wash up

543

00:33:31,180 --> 00:33:34,380

on beaches in close proximity to Vancouver,

544

00:33:34,420 --> 00:33:38,260

five right feet, and two left,

545

00:33:38,360 --> 00:33:41,760

all wearing sneakers.

546

00:33:41,860 --> 00:33:44,500

The media call it the case of the missing feet.

547

00:33:44,600 --> 00:33:47,860

Meanwhile, the police and criminologist, Dr. Gale Anderson,

548

00:33:47,960 --> 00:33:53,340

struggled to identify who the decomposing body parts belonged to.

549

00:33:53,440 --> 00:33:57,700

We have DNA on all of the feet that have been found.

550

00:33:57,800 --> 00:34:01,040

The problem is we don't have anything to match it to.

551

00:34:01,140 --> 00:34:03,140

Your DNA alone isn't going to tell you anything.

552

00:34:03,200 --> 00:34:04,240

It's just a barcode.

553

00:34:04,340 --> 00:34:05,640

And you see, that's the problem.

554

00:34:05,740 --> 00:34:10,140

Without bodies, identifying the victims is nearly impossible.

555

00:34:10,240 --> 00:34:15,320

But at least analyzing the DNA does provide some data.

556

00:34:15,420 --> 00:34:18,060

Our investigation determined that the third foot and the fifth

557

00:34:18,160 --> 00:34:22,720

foot were a match, and the fourth foot and sixth foot

558

00:34:22,820 --> 00:34:24,020

were also a match.

559

00:34:24,120 --> 00:34:27,360

However, we still don't know who those feet belonged to.

560

00:34:27,860 --> 00:34:33,360

The case of the missing feet, a shudder at the thought.

561

00:34:33,460 --> 00:34:37,700

Where did these seven sneakers come from?

562

00:34:37,800 --> 00:34:42,000

And to whom did the feet inside belong?

563

00:34:42,100 --> 00:34:44,640

All over the world, journalists, scientists, bloggers,

564

00:34:44,740 --> 00:34:48,440

and amateur sleuths weighed in with their theories.

565

00:34:48,540 --> 00:34:51,820

Were funeral home workers dumping bodies in the ocean?

566

00:34:51,920 --> 00:34:54,620

Were medical workers, or were they just

567

00:34:54,680 --> 00:34:56,720

workers dumping bodies in the ocean?

568

00:34:56,820 --> 00:35:01,220

Were medical students carrying out a sick prank?

569

00:35:01,320 --> 00:35:05,420

Or was this the work of another Vancouver serial killer?

570

00:35:05,520 --> 00:35:09,300

Yes, I said another one.

571

00:35:11,900 --> 00:35:15,840

A number of people have brought up the theory of,

572

00:35:15,940 --> 00:35:18,780

it's probably another serial killer.

573

00:35:18,880 --> 00:35:22,980

In 2007, Robert Pickton was convicted of the murder

574

00:35:23,000 --> 00:35:26,880

of six Vancouver women and charged in the deaths of 20

575

00:35:26,980 --> 00:35:28,140

more.

576

00:35:28,240 --> 00:35:32,040

Could he have been responsible for the feet, too?

577

00:35:32,140 --> 00:35:34,780

But if the feet had been cut off by a serial killer,

578

00:35:34,880 --> 00:35:38,320

the telltale signs of the act would be visible to forensic

579

00:35:38,420 --> 00:35:40,760

experts like Coroner Jeff Dolan.

580

00:35:40,860 --> 00:35:43,820

With respect to separation, whether it's a natural or

581

00:35:43,920 --> 00:35:45,800

mechanical separation from the body,

582

00:35:45,900 --> 00:35:48,600

experts who conduct toolmark analysis

583

00:35:48,700 --> 00:35:51,840

would examine the bones to see what type of mechanism had

584

00:35:51,900 --> 00:35:54,200

actually separated that bone from the rest of the body.

585

00:35:54,300 --> 00:35:56,840

But the team came up with a surprising answer.

586

00:35:56,940 --> 00:35:59,240

There is no evidence that there was any kind of mechanical

587

00:35:59,340 --> 00:36:00,900

separation of these bones.

588

00:36:01,000 --> 00:36:04,320

They've come apart at their natural point of separation.

589

00:36:04,420 --> 00:36:08,020

So if the feet had not been intentionally severed, what

590

00:36:08,120 --> 00:36:10,680

happened?

591

00:36:10,780 --> 00:36:13,560

Dr. Anderson believes she has the answer based on her

592

00:36:13,660 --> 00:36:18,760

research into what happens to submerged flesh as it decomposes.

593

00:36:18,860 --> 00:36:19,860

This is Venus.

594

00:36:19,980 --> 00:36:22,220

It's the Victoria Experimental Network under the sea.

595

00:36:22,320 --> 00:36:25,220

So look at decomposition underwater so that I could see

596

00:36:25,320 --> 00:36:26,820

how a body decomposes.

597

00:36:26,920 --> 00:36:27,960

What animals feed on it.

598

00:36:28,060 --> 00:36:30,460

When you bring the body ashore, you see marks on the body.

599

00:36:30,560 --> 00:36:31,360

Well, what's that?

600

00:36:31,460 --> 00:36:32,160

Is that suspicious?

601

00:36:32,260 --> 00:36:33,260

Is that foul play?

602

00:36:33,360 --> 00:36:35,600

Or is that just something naturally caused by animals

603

00:36:35,700 --> 00:36:36,840

in that area?

604

00:36:36,940 --> 00:36:39,500

Instead of putting more human cadavers at the bottom of the

605

00:36:39,600 --> 00:36:43,640

ocean, Anderson has another option, a pig.

606

00:36:43,740 --> 00:36:45,180

Pig carcass is very similar to human.

607

00:36:45,280 --> 00:36:47,480

So they do decompose in very similar manner to the way a

608

00:36:47,540 --> 00:36:48,700

human body decomposes.

609

00:36:48,800 --> 00:36:51,600

And they're fed on, certainly, interestarily by insects on

610

00:36:51,700 --> 00:36:55,840

land in a very similar manner to that of a pig carcass, to a

611

00:36:55,940 --> 00:36:56,740

human body.

612

00:36:56,840 --> 00:36:59,040

So we use these in a lot of our experiments.

613

00:36:59,140 --> 00:37:02,080

So we hope that these would be very, very similar to what

614

00:37:02,180 --> 00:37:04,820

would happen in a human case.

615

00:37:04,920 --> 00:37:08,060

According to Dr. Anderson, the sea is a very inhospitable

616

00:37:08,160 --> 00:37:10,320

place for bodies.

617

00:37:10,420 --> 00:37:12,500

In these cases with Venus, we've been able to see it

618

00:37:12,600 --> 00:37:15,960

actually performed by these animals, by the crabs in

619

00:37:16,040 --> 00:37:18,580

particular, the large dungeon-esque crabs and also the

620

00:37:18,680 --> 00:37:20,580

smaller squat lobsters.

621

00:37:20,680 --> 00:37:23,220

Once the flesh is gone, it doesn't take long for the body

622

00:37:23,320 --> 00:37:26,420

to come apart, a nasty process known as

623

00:37:26,520 --> 00:37:28,220

disarticulation.

624

00:37:28,320 --> 00:37:30,720

Wrists and ankles have got lots of tiny little bones in them.

625

00:37:30,820 --> 00:37:33,760

So it's very easy to disarticulate those by natural

626

00:37:33,860 --> 00:37:36,560

activity.

627

00:37:36,660 --> 00:37:40,100

OK, so the process of decomposition underwater

628

00:37:40,200 --> 00:37:45,360

will lead parts of the body to come loose to disarticulate.

629

00:37:45,860 --> 00:37:49,000

So why was it that only feet were washing up on the beaches

630

00:37:49,100 --> 00:37:52,900

of British Columbia, one at hands or even heads?

631

00:37:56,200 --> 00:37:59,140

Perhaps the answer lies in the footwear itself.

632

00:37:59,240 --> 00:38:01,780

The feet that have been washed ashore were in running shoes.

633

00:38:01,880 --> 00:38:03,580

Now, if you think about a running shoe, throw one in a

634

00:38:03,680 --> 00:38:05,180

swimming pool, it floats.

635

00:38:05,280 --> 00:38:06,480

So it's a floatation device.

636

00:38:06,580 --> 00:38:08,820

And I think that's probably why you're specifically

637

00:38:08,920 --> 00:38:11,320

finding feet and not finding the rest of the body.

638

00:38:11,420 --> 00:38:15,320

OK, so we know that feet can naturally come free as a

639

00:38:15,420 --> 00:38:16,620

body decomposes.

640

00:38:16,720 --> 00:38:19,560

We figured out why they floated ashore.

641

00:38:19,660 --> 00:38:21,260

But the real mystery remains.

642

00:38:24,860 --> 00:38:29,900

Where did the seven feet come from?

643

00:38:30,000 --> 00:38:32,580

In a little over a year, seven dismembered feet

644

00:38:32,680 --> 00:38:36,980

washed up on beaches in and around Vancouver.

645

00:38:37,080 --> 00:38:39,520

Police now know that the feet weren't sewn off,

646

00:38:39,620 --> 00:38:42,880

thankfully, and that it was the sneakers that floated them

647

00:38:42,900 --> 00:38:43,980

to shore.

648

00:38:44,080 --> 00:38:48,380

But the origins of these feet remain a mystery.

649

00:38:48,480 --> 00:38:50,920

Many believe that the feet were a grim souvenir

650

00:38:51,020 --> 00:38:54,720

of the massive Asian tsunami of 2004,

651

00:38:54,820 --> 00:38:57,920

a theory supported by the fact that one of the shoes found

652

00:38:58,020 --> 00:39:01,400

was only sold in India in 2003.

653

00:39:01,500 --> 00:39:04,000

We were getting phone calls, emails, letters

654

00:39:04,100 --> 00:39:07,940

from around the world, people who had missing family members

655

00:39:08,040 --> 00:39:09,040

from the tsunami.

656

00:39:09,140 --> 00:39:10,480

Seems plausible.

657

00:39:10,500 --> 00:39:13,180

But according to oceanographer Eddie Carmack,

658

00:39:13,280 --> 00:39:17,340

the tsunami theory holds no water.

659

00:39:17,440 --> 00:39:19,080

One thing to understand about the oceans

660

00:39:19,180 --> 00:39:23,960

is that they are a system highways that we call gyres.

661

00:39:24,060 --> 00:39:27,760

Water goes around and around in these gyral orbits.

662

00:39:27,860 --> 00:39:29,620

And particles following these orbits

663

00:39:29,720 --> 00:39:32,900

can come from great distances at sea.

664

00:39:33,000 --> 00:39:35,560

I would think it very unlikely that the feet would have

665

00:39:35,660 --> 00:39:37,540

come from the Indian Ocean.

666

00:39:37,640 --> 00:39:40,100

The ocean currents don't link up that well.

667

00:39:40,160 --> 00:39:41,900

It's not a very direct path.

668

00:39:42,000 --> 00:39:44,100

And if something did drift from there,

669

00:39:44,200 --> 00:39:49,140

it would take well over a decade to reach these shores.

670

00:39:49,240 --> 00:39:52,040

Given that feet started appearing just three years

671

00:39:52,140 --> 00:39:54,140

after the tsunami, investigators

672

00:39:54,240 --> 00:39:56,740

are forced to start looking for another explanation

673

00:39:56,840 --> 00:40:00,840

and turn to the recent crash of a small plane off

674

00:40:00,940 --> 00:40:02,880

the coast of British Columbia.

675

00:40:02,980 --> 00:40:04,580

At that stage of the investigation,

676

00:40:04,680 --> 00:40:06,720

only one individual had been recovered,

677

00:40:06,820 --> 00:40:08,420

restaurant accounted for.

678

00:40:08,480 --> 00:40:11,180

When the feet began to appear, we

679

00:40:11,280 --> 00:40:13,480

expected to have a hit in that cluster.

680

00:40:13,580 --> 00:40:15,920

But these hopes were soon dashed.

681

00:40:16,020 --> 00:40:18,260

The DNA from the feet doesn't match

682

00:40:18,360 --> 00:40:21,360

with any of the crash's victims.

683

00:40:21,460 --> 00:40:23,960

A global search for clues has turned up nothing.

684

00:40:24,060 --> 00:40:26,400

The feet can't be coming from tsunami victims.

685

00:40:26,500 --> 00:40:29,900

They didn't float thousands of miles across the sea.

686

00:40:30,000 --> 00:40:33,240

So maybe they came from closer to home.

687

00:40:33,340 --> 00:40:37,740

Facing a dwindling list of possible explanations,

688

00:40:37,800 --> 00:40:41,840

Carmack has a theory that the shoe's origin is a lot closer

689

00:40:41,940 --> 00:40:46,440

to home, and he has a novel way to prove it.

690

00:40:46,540 --> 00:40:47,840

Well, what I'm holding in my hand

691

00:40:47,940 --> 00:40:51,980

is an old recycled running shoe.

692

00:40:52,080 --> 00:40:57,760

It's been inserted with a satellite track GPS system,

693

00:40:57,860 --> 00:41:01,000

and it has been ballasted.

694

00:41:01,100 --> 00:41:02,760

So when this is thrown in the water,

695

00:41:02,860 --> 00:41:07,000

it's about as close to replicating the pattern

696

00:41:07,020 --> 00:41:09,200

that a drifting shoe would follow.

697

00:41:09,300 --> 00:41:12,600

By dropping these shoes from various points around Vancouver

698

00:41:12,700 --> 00:41:15,900

and tracking their every motion via GPS,

699

00:41:16,000 --> 00:41:18,900

Carmack believes he knows which currents carried

700

00:41:19,000 --> 00:41:20,880

the missing feet to shore.

701

00:41:20,980 --> 00:41:23,380

Behind me is the Alex Fraser Bridge.

702

00:41:23,480 --> 00:41:27,720

Fraser River is flowing from my left to my right to the sea.

703

00:41:27,820 --> 00:41:31,420

Three of the shoes were found on the mouth of the river

704

00:41:31,520 --> 00:41:33,460

on the islands downstream.

705

00:41:33,560 --> 00:41:35,660

So the direction of travel is certainly

706

00:41:35,680 --> 00:41:37,620

consistent with the pathway of the river.

707

00:41:37,720 --> 00:41:41,720

So it appears that the river, not the ocean,

708

00:41:41,820 --> 00:41:44,300

is the likely source of the shoes.

709

00:41:44,400 --> 00:41:47,000

But investigators still have no names,

710

00:41:47,100 --> 00:41:48,740

and they're growing desperate.

711

00:41:48,840 --> 00:41:52,440

So we have gone public with the photos of the footwear

712

00:41:52,540 --> 00:41:54,600

in the hopes that somebody would recognize it

713

00:41:54,700 --> 00:41:58,140

as belonging to that of their loved one.

714

00:41:58,240 --> 00:42:00,220

This ID tactic seems like a long shot,

715

00:42:00,320 --> 00:42:04,520

but apparently it's right on target.

716

00:42:04,580 --> 00:42:07,920

The first foot, which was located on Genedaya Island

717

00:42:08,020 --> 00:42:12,720

on August 20, 2007, was later identified

718

00:42:12,820 --> 00:42:16,500

to that of a missing person, missing male,

719

00:42:16,600 --> 00:42:18,900

from the Lorraine land here.

720

00:42:19,000 --> 00:42:23,800

He was last found to be in some type of emotional distress.

721

00:42:23,900 --> 00:42:28,640

Suddenly, in a sea of red herrings, one theory stands out,

722

00:42:28,740 --> 00:42:32,340

a surprising appearance of naturally disarticulated body

723

00:42:32,400 --> 00:42:35,800

parts with no visible sign of homicide,

724

00:42:35,900 --> 00:42:39,640

all found in water systems near bridges.

725

00:42:39,740 --> 00:42:41,940

They could be suicide victims.

726

00:42:42,040 --> 00:42:45,280

They could have been people that jumped off the bridge.

727

00:42:45,380 --> 00:42:51,620

We have a number of people that are presumed dead in a database

728

00:42:51,720 --> 00:42:56,520

where only their vehicle was found parked on a bridge.

729

00:42:56,620 --> 00:42:59,500

And while the suicide theory seems likely,

730

00:42:59,600 --> 00:43:01,360

it remains just that.

731

00:43:02,400 --> 00:43:03,460

A theory.

732

00:43:03,560 --> 00:43:06,240

They all remain active investigations.

733

00:43:06,340 --> 00:43:09,440

And there's no such thing as a cold case.

734

00:43:09,540 --> 00:43:13,040

We never thought that we would end up at seven feet.

735

00:43:13,140 --> 00:43:16,920

Only time will tell whether or not there will be an eight.

736

00:43:17,020 --> 00:43:21,720

In the end, there are no hard answers, just more questions.

737

00:43:21,820 --> 00:43:26,160

And after three years, seven feet, and endless questions,

738

00:43:26,260 --> 00:43:30,560

the case of the missing feet remains open and unsolved.

739

00:43:32,840 --> 00:43:38,400

So there we have it, three strange and mysterious stories,

740

00:43:38,500 --> 00:43:43,140

but each with many plausible theories to explain them.

741

00:43:43,240 --> 00:43:46,820

Did Al Cidiz Moreno survive his 47 story fall

742

00:43:46,920 --> 00:43:49,020

because of a freak series of events

743

00:43:49,120 --> 00:43:50,880

conspired to break his fall?

744

00:43:50,980 --> 00:43:52,780

It seems so.

745

00:43:52,880 --> 00:43:56,500

And the lone Ice Bombs falling from clear-blue skies

746

00:43:56,600 --> 00:43:59,800

with a sin of an indifference between the two

747

00:43:59,800 --> 00:44:03,760

Ice bombs falling from clear blue skies all over the world.

748

00:44:03,760 --> 00:44:06,480

A new quirk of global warming?

749

00:44:06,480 --> 00:44:07,320

Maybe.

750

00:44:08,200 --> 00:44:10,680

And will we ever find a conclusive answer

751

00:44:10,680 --> 00:44:12,880

to finally close the case of Vancouver's

752

00:44:12,880 --> 00:44:15,200

seven washed up feet?

753

00:44:15,200 --> 00:44:16,160

Who knows?

754

00:44:17,520 --> 00:44:21,760

Join me next time for three new stories

755

00:44:21,760 --> 00:44:23,760

that will be undoubtedly

756

00:44:25,840 --> 00:44:27,040

weird or what.