

1

00:00:00,000 --> 00:00:09,000

In this episode of Mythbusters, it's the magic of movies on trial.

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00:00:09,000 --> 00:00:14,760

You've seen this at the movies before, but can it happen in real life?

3

00:00:14,760 --> 00:00:18,580

And remember this scene from the film American Graffiti.

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00:00:18,580 --> 00:00:25,520

We go on patrol with remote control and put Hollywood illusions to the test.

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00:00:25,520 --> 00:00:30,320

Plus, what happens when you use a bullet instead of a few?

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00:00:30,320 --> 00:00:32,820

Can we fire up a bullet?

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00:00:32,820 --> 00:00:34,520

Who are the Mythbusters?

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00:00:34,520 --> 00:00:37,320

Is my missing an eyebrow?

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00:00:37,320 --> 00:00:38,520

Adam Savage.

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00:00:38,520 --> 00:00:41,520

I always enjoyed seeing Adam in pain.

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00:00:41,520 --> 00:00:42,320

Oh!

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00:00:42,320 --> 00:00:43,820

And Jamie Heineman.

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00:00:43,820 --> 00:00:46,320

Jamie wants a big boom.

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00:00:46,320 --> 00:00:50,220

Between them, more than 30 years special effects experience.

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00:00:50,220 --> 00:00:51,620

You're kind of sexy.

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00:00:51,620 --> 00:00:54,520

They don't just tell the myths.

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00:00:54,520 --> 00:00:57,520

They put them to the test.

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00:01:02,520 --> 00:01:07,520

You know a rock band has made it when they get their own private jet.

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00:01:07,520 --> 00:01:13,520

The Mythbusters know they've made it when they get to destroy their own private jet.

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00:01:15,520 --> 00:01:23,520

Ladies and gentlemen, please fasten your seatbelts as we test the myth of explosive decompression.

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00:01:23,520 --> 00:01:29,520

The myth is that if you are in an aircraft at altitude and you poke a tiny hole in the exterior of the plane,

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00:01:29,520 --> 00:01:35,520

will you get sucked out through that hole and potentially cause an explosive decompression?

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00:01:35,520 --> 00:01:41,520

You mean like in the movies when you see like the whole cabin like everyone's like going towards the hole?

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00:01:47,520 --> 00:01:48,520

That's it.

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00:01:48,520 --> 00:01:49,520

Cool.

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00:01:49,520 --> 00:01:54,520

Well this narrative's been around for years probably as long as high altitude flying has been

around.

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00:01:54,520 --> 00:01:59,520

This also comes from this dual fear of flying and guns.

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

Two things that can kill you, two things that you have little control over.

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

So you see this image enough and we've probably seen it dozens of times in film.

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00:02:07,520 --> 00:02:09,520

It does become rather real.

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00:02:09,520 --> 00:02:10,520

It's a pretty startling image.

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00:02:10,520 --> 00:02:14,520

I think most people are thinking about a gun with this myth.

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00:02:14,520 --> 00:02:20,520

And so we're going to have to buy a pistol and put a remote firing mechanism on it,

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00:02:20,520 --> 00:02:26,520

a motor of some sort that we can operate from outside the aircraft so that we don't have to be in there when this happens.

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00:02:26,520 --> 00:02:31,520

Jamie has bought a 9mm handgun for the experiment.

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00:02:31,520 --> 00:02:34,520

He has a hunch about what he needs to do.

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00:02:34,520 --> 00:02:42,520

These things are taken out of vending machines for soda and this is the motor that actually launches the can of soda

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00:02:42,520 --> 00:02:46,520

down out of the reservoir into the slot.

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00:02:47,520 --> 00:02:50,520

But this is a troublesome little challenge.

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00:02:50,520 --> 00:02:51,520

That'll work.

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00:02:51,520 --> 00:02:54,520

And soon we can't reach Jamie.

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00:02:54,520 --> 00:03:01,520

He is like a myth-busting monk in his trans-like problem-solving state.

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00:03:01,520 --> 00:03:06,520

Then the way becomes clear and the rig takes shape.

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00:03:06,520 --> 00:03:08,520

It's an ingenious device.

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00:03:08,520 --> 00:03:13,520

As the gear finger goes round, it can repeatedly fire the pistol.

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00:03:13,520 --> 00:03:15,520

Seems like it's working.

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00:03:15,520 --> 00:03:16,520

It fired it.

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00:03:16,520 --> 00:03:21,520

The myth-busters have taken the first step on a long, difficult journey.

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00:03:23,520 --> 00:03:29,520

The normal cruising altitude of a passenger jet is around 35,000 feet.

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00:03:29,520 --> 00:03:35,520

Humans can't survive at that height, so planes are built to be pressurized.

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00:03:35,520 --> 00:03:46,520

On-board compressors pump in air to replicate the atmospheric pressure of a lower, more habitable altitude, usually 6 to 7,000 feet.

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00:03:47,520 --> 00:03:56,520

It's the difference between the air pressure inside and outside of the plane that creates the environment for an explosive decompression.

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00:03:57,520 --> 00:04:00,520

A hole in the plane will be like a hole in a balloon.

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00:04:00,520 --> 00:04:09,520

The air will try and rush from the area of high pressure inside to the area of low pressure outside.

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00:04:09,520 --> 00:04:17,520

We've calculated that the differential in pressure between the inside of the aircraft and the outside at altitude is about 8 psi.

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00:04:17,520 --> 00:04:23,520

To replicate the myth, the boys need to pressurize a plane to 8 pounds per square inch.

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00:04:24,520 --> 00:04:30,520

Adam has found their test subject already, a DC-9 passenger jet.

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00:04:30,520 --> 00:04:41,520

Actually, this is a plane that's being salvaged, and so they would go into it and pull out all the stuff that they could resell, the avionics, the cockpit windows, the chairs, the bathrooms, and then they'd scrap the rest of it.

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00:04:41,520 --> 00:04:43,520

It's a big plane, though, isn't it?

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00:04:43,520 --> 00:04:49,520

Yeah, it's like over 100 feet long this thing. It's definitely not small. We're going to have some fun.

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00:04:49,520 --> 00:04:51,520

It's a full-size jet airliner.

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00:04:51,520 --> 00:04:52,520

Yeah.

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00:04:54,520 --> 00:05:02,520

A full-size jet airliner won't fit in Janie's workshop, so the workshop goes on the road.

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00:05:04,520 --> 00:05:08,520

This is the Mojave Desert, north of Los Angeles.

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00:05:08,520 --> 00:05:18,520

Out here, low rainfall plus low humidity equals low corrosion, a perfect solution for storing aircraft.

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00:05:18,520 --> 00:05:29,520

This is a giant parking lot for the world's airlines. Most of these planes will fly again. Some will land on the scrappy.

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00:05:29,520 --> 00:05:39,520

The more time I spend around planes, the more they absolutely mystify me. I'd be a terrible airplane designer because I'd look it up and I'd go, yeah, like that's ever getting off the ground.

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00:05:39,520 --> 00:05:49,520

This retired DC-9 once flew for Hawaiian Airlines. Now its wings are clipped and it's slowly being recycled for parts.

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00:05:49,520 --> 00:05:56,520

But first, it will become the Mythbusters Explosive Decompression Laboratory.

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00:05:57,520 --> 00:06:00,520

When do you ever get to do this? This is so cool.

71

00:06:04,520 --> 00:06:07,520

Wow! Oh, that's cool.

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00:06:10,520 --> 00:06:17,520

This is where the pilot sits. So many little doodads and geegos and doohickeys.

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00:06:17,520 --> 00:06:20,520

Haha, I've always wanted to close one of these.

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00:06:20,520 --> 00:06:29,520

Trying to pressurize the plane right now would be like trying to inflate a fishing net. There's a few holes that need to be plugged first.

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00:06:29,520 --> 00:06:33,520

That was an antenna. You can see it was bolted in.

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00:06:33,520 --> 00:06:37,520

The biggest problem is up here in the cockpit.

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00:06:37,520 --> 00:06:50,520

You can see there are no windscreens in this plane. This is going to be my task for the next few hours, is cutting out cardboard templates of each of these windows and then make those out of plywood, pop them in and foam them.

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00:06:50,520 --> 00:06:53,520

Hopefully that will get us the pressure that we want.

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00:06:55,520 --> 00:06:58,520

Working in the desert heat isn't easy.

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00:06:58,520 --> 00:07:12,520

We've been crawling through this magnificent DC-9 here, trying to find all of its holes and plug them up, which is not that difficult to task if it wasn't 105 degrees in shape.

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00:07:12,520 --> 00:07:19,520

The people that work on these airplanes here indicate that we're not going to be able to seal this thing up.

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00:07:19,520 --> 00:07:28,520

We're almost done with this cockpit.

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00:07:40,520 --> 00:07:47,520

Right to the touch in 60 seconds, set hard in five minutes. And over here is when I've previously prepared.

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00:07:48,520 --> 00:07:53,520

We're actually having some fun working on this. It's interesting to see how these things are built.

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00:07:53,520 --> 00:07:58,520

I'm installing the pressure gauge onto the emergency escape window.

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00:07:58,520 --> 00:08:02,520

This gauge will be critical during the experiment.

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00:08:02,520 --> 00:08:14,520

Once it reaches 8 pounds per square inch, we know the difference between the pressure inside and outside of the cabin is exactly the same as it would be at 35,000 feet.

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00:08:14,520 --> 00:08:18,520

It will be time to fire the gun.

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00:08:18,520 --> 00:08:24,520

The plane seems to be sealed and ready, so Jamie and Adam put it to the test.

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00:08:24,520 --> 00:08:33,520

To fill something this large with compressed air, you need a big compressor. And they don't get much bigger than this.

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00:08:33,520 --> 00:08:36,520

Looks like it ought to be able to fly by itself with those big outputs.

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00:08:36,520 --> 00:08:37,520

I know.

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00:08:37,520 --> 00:08:43,520

This is a Huffer. Normally it's used to start the engines on a 747.

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00:08:43,520 --> 00:08:52,520

Now on unload, it's just venting all of its air out the roof. And you go to jet start and it puts every last bit of it into that hose.

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00:08:52,520 --> 00:08:53,520

Sounds dangerous.

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00:08:53,520 --> 00:09:00,520

Apparently if the Huffer coupler came off while it was pressurized, pretty much take your head off.

97

00:09:00,520 --> 00:09:06,520

Before there's any huffing and puffing, Jamie gives his signature safety speech.

98

00:09:06,520 --> 00:09:09,520

Sign, seal. Let's deliver it.

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00:09:09,520 --> 00:09:15,520

People and equipment are shielded with metal cages and bulletproof plastic.

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00:09:15,520 --> 00:09:17,520

Clarence, keep serious because I've got the thing on.

101

00:09:17,520 --> 00:09:22,520

A remote camera is feeding pictures of the pressure gauge to a monitor.

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00:09:22,520 --> 00:09:27,520

Jamie will call out the readings to Adam.

103

00:09:27,520 --> 00:09:33,520

The cabin pressure is starting to rise.

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00:09:33,520 --> 00:09:37,520

But the plane is leaking like a sieve.

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00:09:37,520 --> 00:09:42,520

Guys, we have a problem with pressurization. We're going to fill a few holes that we found some leaks in.

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00:09:42,520 --> 00:09:45,520

So stand by it, it'll take about 10 minutes.

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00:09:45,520 --> 00:09:46,520

All these holes here?

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00:09:46,520 --> 00:09:52,520

Yeah, each one of those has to be filled.

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00:09:52,520 --> 00:09:56,520

Okay everybody, the holes are filled. We're good to go. Positions please.

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00:09:56,520 --> 00:10:17,520

2 psi, 3, 4, 5 and we're at 6 psi. Then trouble.

111

00:10:17,520 --> 00:10:18,520

What happened?

112

00:10:18,520 --> 00:10:21,520

We've got a blowout on one of the cockpit windows.

113

00:10:21,520 --> 00:10:23,520

Whoa!

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00:10:24,520 --> 00:10:27,520

We got up to 6, 6.5 psi on that.

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00:10:27,520 --> 00:10:31,520

We're within the spitting distance of our goal.

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00:10:31,520 --> 00:10:35,520

But what was that black bag we saw flying over the plane?

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00:10:35,520 --> 00:10:39,520

Both pilot seats have a plastic bag on them.

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00:10:39,520 --> 00:10:46,520

And this is a very tiny hole and if a black plastic bag made it past that, that's explosive decompression.

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00:10:46,520 --> 00:10:50,520

Another quick patch, another try.

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00:11:01,520 --> 00:11:03,520

The whole piece?

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00:11:03,520 --> 00:11:12,520

And that's why aircraft windows are built from 3 quarter inch bulletproof glass and not plywood and foam.

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00:11:12,520 --> 00:11:18,520

One of the pilot seats was sucked out of the plane and blown over 200 yards away.

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00:11:18,520 --> 00:11:23,520

It was between the one on the fence and the next one in.

124

00:11:23,520 --> 00:11:25,520

Oh my God.

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00:11:25,520 --> 00:11:27,520

I thought it was a piece of plywood.

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00:11:27,520 --> 00:11:30,520

Let's go see Jamie. That's the seat from the pilot's chair.

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00:11:30,520 --> 00:11:31,520

Yeah.

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00:11:31,520 --> 00:11:34,520

And that's what's left of the plywood.

129

00:11:34,520 --> 00:11:40,520

I'm surprised and I'm a little concerned.

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00:11:40,520 --> 00:11:46,520

The cockpit windows are going to take a little more work, but that's a job for tomorrow.

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00:11:46,520 --> 00:11:55,520

Next morning, Adam continues his battle to seal and secure the cockpit windows.

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00:11:55,520 --> 00:12:00,520

Reservations are unusually low for this experimental flight.

133

00:12:00,520 --> 00:12:02,520

I'm kind of tired of lugging Buster around.

134

00:12:02,520 --> 00:12:06,520

Our only passenger has just arrived.

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00:12:06,520 --> 00:12:09,520

A shy, quiet man named Buster.

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00:12:09,520 --> 00:12:12,520

Come on. You've had one too many. Sit down.

137

00:12:12,520 --> 00:12:17,520

Next, Jamie mounts and aims his 9mm handgun.

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00:12:17,520 --> 00:12:22,520

I'm going to be extra careful with this thing that it's nice and secure.

139

00:12:22,520 --> 00:12:28,520

And after all, it is a remote controlled gun and guns can kill people.

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00:12:28,520 --> 00:12:30,520

I'd say that's pretty good.

141

00:12:30,520 --> 00:12:32,520

I'm loading the gun.

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00:12:32,520 --> 00:12:34,520

Okay guys, the gun is loaded.

143

00:12:34,520 --> 00:12:42,520

Foam packing peanuts are spread around to see if they will be sucked out of the plane by explosive decompression.

144

00:12:42,520 --> 00:12:44,520

Let's blow some stuff up.

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00:12:44,520 --> 00:12:54,520

Its earmuffs on, Huffer on.

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00:12:54,520 --> 00:13:00,520

As the pressure rises once again, Jamie monitors the gun through a remote camera.

147

00:13:00,520 --> 00:13:03,520

We reach 8 pounds per square inch.

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00:13:03,520 --> 00:13:09,520

He activates the remote firing control and shoots a hole in the skin of the jet.

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00:13:09,520 --> 00:13:12,520

The plane doesn't tear open.

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00:13:12,520 --> 00:13:17,520

And apart from a puff of compressed air escaping, nothing dramatic happens.

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00:13:17,520 --> 00:13:21,520

You know, it did make a hole in the fuselage and we were at the correct pressure.

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00:13:21,520 --> 00:13:25,520

And I notice our packing peanuts are still in place and so is Buster.

153

00:13:25,520 --> 00:13:27,520

The plane did not explosively decompress.

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00:13:28,520 --> 00:13:30,520

Perfect.

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00:13:30,520 --> 00:13:32,520

And just plug that sucker right up.

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00:13:32,520 --> 00:13:34,520

Well, we did it there little buddy.

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00:13:34,520 --> 00:13:36,520

Don't call me little buddy.

158

00:13:36,520 --> 00:13:39,520

Yeah, you know, we pressurized the DC-9.

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00:13:39,520 --> 00:13:41,520

They said it wasn't possible.

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00:13:41,520 --> 00:13:46,520

And with a little foam and a little ingenuity, I think we did an admirable job here.

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00:13:46,520 --> 00:13:47,520

I'm really pleased with that.

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00:13:47,520 --> 00:13:52,520

Yeah, it held the pressure and the gun rig worked just like clockwork.

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00:13:52,520 --> 00:13:58,520

The next experiment is to see if a bullet fired at a window will cause it to blow out.

164

00:13:58,520 --> 00:14:04,520

I'm re-aiming and reloading the gun so nobody walk in front of the plane from now on.

165

00:14:04,520 --> 00:14:06,520

Starting the Huffer.

166

00:14:06,520 --> 00:14:08,520

The jet is pressurized.

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00:14:08,520 --> 00:14:13,520

Jamie prepares to recreate the scenario we've seen in many movies.

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00:14:13,520 --> 00:14:16,520

A gun firing inside a plane.

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00:14:16,520 --> 00:14:20,520

Will it cause explosive decompression?

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00:14:20,520 --> 00:14:23,520

Jamie pulls the remote trigger.

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00:14:23,520 --> 00:14:25,520

The gun fires.

172

00:14:28,520 --> 00:14:30,520

But nothing happens.

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00:14:30,520 --> 00:14:33,520

Well, that didn't seem to do much at all, did it?

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00:14:33,520 --> 00:14:36,520

Dead center in the window though.

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00:14:36,520 --> 00:14:38,520

Nicely aimed.

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00:14:38,520 --> 00:14:45,520

Our high-speed camera shows the bullet's impact with a plastic window, but no reaction from Buster.

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00:14:45,520 --> 00:14:47,520

The bullet went straight through.

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00:14:47,520 --> 00:14:49,520

Clearly Buster did not.

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00:14:49,520 --> 00:14:51,520

No explosive decompression here.

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00:14:51,520 --> 00:14:57,520

I think we definitively showed that a small puncture hole, either in the fuselage or in a window of a plane,

181

00:14:57,520 --> 00:15:03,520

is not going to cause the plane to explosively decompress and you will not be sucked through that little hole.

182

00:15:03,520 --> 00:15:05,520

Well, the myth is definitely busted.

183

00:15:05,520 --> 00:15:07,520

Small holes ain't going to do it.

184

00:15:07,520 --> 00:15:10,520

So now it's time to see what happens with a big hole.

185

00:15:11,520 --> 00:15:19,520

Later in the show, we put the explosive in explosive decompression.

186

00:15:19,520 --> 00:15:21,520

Starting the Huffer.

187

00:15:23,520 --> 00:15:27,520

MythBusters experiments are meant to be fun.

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00:15:30,520 --> 00:15:34,520

But doing donuts with a remote-controlled cop car?

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00:15:34,520 --> 00:15:38,520

What excuse could they cook up for this?

190

00:15:39,520 --> 00:15:42,520

It's a myth called Rear Axle.

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00:15:42,520 --> 00:15:47,520

This is really a Hollywood thing that we've got here, you know, busting what's possible in the physical world

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00:15:47,520 --> 00:15:49,520

and what's possible in the Hollywood world.

193

00:15:52,520 --> 00:15:58,520

This comes from a movie in the early 70s called American Graffiti about kids in the late 50s.

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00:15:58,520 --> 00:16:02,520

And in the movie, one of the actors plays a trick on a cop car.

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00:16:02,520 --> 00:16:08,520

He takes some cable, puts one loop around a pole, and the other end wraps it around the rear axle of a police car.

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00:16:11,520 --> 00:16:13,520

And he takes off in front of the car.

197

00:16:13,520 --> 00:16:18,520

And as the police car goes to chase him, reaches the end of the cable, and the rear axle is completely out of the cop car.

198

00:16:18,520 --> 00:16:20,520

That's what we've got to do today.

199

00:16:20,520 --> 00:16:22,520

When will the fun ever stop?

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00:16:26,520 --> 00:16:29,520

Okay, Adam, how are we going to do it? What do we need?

201

00:16:29,520 --> 00:16:32,520

Well, it's actually a pretty simple shopping list for this one.

202

00:16:32,520 --> 00:16:35,520

We need a police car. We need the materials to make it remote-controlled.

203

00:16:35,520 --> 00:16:40,520

We need about 75 feet of cable, a pole to lash at two, and a couple hundred feet of running space.

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00:16:42,520 --> 00:16:47,520

The police were too happy about handing over one of their highway patrol cars.

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00:16:49,520 --> 00:16:56,520

So we've got a Hollywood stunt double, a cop car copy from top to bottom.

206

00:16:56,520 --> 00:17:05,520

This is the back seat of a cop car with the spaces for your arms to be behind your back.

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00:17:05,520 --> 00:17:11,520

And in fact, when you sit in it like that, you find that it's really pretty amazingly comfortable.

208

00:17:13,520 --> 00:17:16,520

No, I know what it'll be like when I finally get arrested.

209

00:17:20,520 --> 00:17:23,520

Now it's rigged for remote control.

210

00:17:23,520 --> 00:17:24,520

Go ahead and gingerly.

211

00:17:24,520 --> 00:17:29,520

Jamie has wrapped his recycling brain around the steering.

212

00:17:29,520 --> 00:17:32,520

This thing is an electric motor off of a wheelchair.

213

00:17:32,520 --> 00:17:36,520

And we're going to use that to drive the police car.

214

00:17:37,520 --> 00:17:41,520

It takes a bit of work, but these guys know exactly what they're doing.

215

00:17:45,520 --> 00:17:47,520

Oh, I've got a hot ember on my crotch.

216

00:17:48,520 --> 00:17:54,520

Pretty soon, we're ready to take our police cruiser out to the Mythbusters testing range.

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00:17:57,520 --> 00:18:05,520

Our urban legend expert, Heather Joseph Witham, says the story of the rear axle is a reminder of simpler times.

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00:18:06,520 --> 00:18:13,520

I think the reason people like it now is because it's the hijinks of an earlier era.

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00:18:13,520 --> 00:18:18,520

Nobody gets hurt. It's really funny. It's good, clean, fun.

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00:18:18,520 --> 00:18:27,520

It makes you think that there was a more innocent era where you could do things and not go to jail and not worry about the consequences.

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00:18:29,520 --> 00:18:34,520

This is where we will try and rip the rear axle from our police car.

222

00:18:34,520 --> 00:18:41,520

An empty donk yard with plenty of room for Jamie to make sure the car is running properly.

223

00:18:44,520 --> 00:18:50,520

I'm going to have to get a turn doing that.

224

00:18:50,520 --> 00:18:55,520

Apart from the mustaches, these two haven't changed much since elementary school.

225

00:18:55,520 --> 00:18:57,520

Come on, it's my turn.

226

00:18:57,520 --> 00:18:59,520

Wait, you think I'm getting out of this thing?

227

00:18:59,520 --> 00:19:01,520

Not.

228

00:19:07,520 --> 00:19:09,520

He's not as good at it as I am.

229

00:19:14,520 --> 00:19:17,520

We can just sit here and do this all day.

230

00:19:19,520 --> 00:19:21,520

Alright, back to science.

231

00:19:23,520 --> 00:19:29,520

You've got the brake set up so that it fails safe, right? As soon as it would get out of range from you, the brake goes on, right?

232

00:19:29,520 --> 00:19:31,520

Okay, well, we'll try to do that.

233

00:19:32,520 --> 00:19:38,520

A runaway driverless police car is one danger. The other is this steel cable.

234

00:19:38,520 --> 00:19:42,520

My guess is it's going to break, and when that happens, it's going to snap.

235

00:19:42,520 --> 00:19:46,520

And when it snaps, it could probably, like, cut somebody in half.

236

00:19:47,520 --> 00:19:53,520

So crew and equipment are tucked into the Mythbusters trusty Lexan safety shelter.

237

00:19:55,520 --> 00:19:58,520

The cable will be tied to this telephone pole.

238

00:19:58,520 --> 00:20:01,520

Shall we measure 75 feet from the pole?

239

00:20:01,520 --> 00:20:03,520

Sure.

240

00:20:04,520 --> 00:20:08,520

Well, I'm standing right here at 75 feet.

241

00:20:08,520 --> 00:20:13,520

This is where the cable will end, and the chaos will begin.

242

00:20:13,520 --> 00:20:15,520

You think Buster's going to be our driver?

243

00:20:15,520 --> 00:20:19,520

Well, yeah, I think it's another job for Buster.

244

00:20:19,520 --> 00:20:22,520

You ready, buddy? We've got a police uniform for you.

245

00:20:27,520 --> 00:20:29,520

It's going to look like one of the village people.

246

00:20:34,520 --> 00:20:39,520

We've got one more critical check before starting the experiment.

247

00:20:39,520 --> 00:20:41,520

Are you ready for your test, Jamie?

248

00:20:41,520 --> 00:20:42,520

I'm all set.

249

00:20:42,520 --> 00:20:44,520

Let's take it for a spin.

250

00:20:46,520 --> 00:20:50,520

Jamie has to start the car and put it into gear manually.

251

00:20:51,520 --> 00:21:00,520

After that, accelerator, steering and brakes are all in his remote control.

252

00:21:04,520 --> 00:21:10,520

But maybe not his complete control.

253

00:21:10,520 --> 00:21:12,520

Watch it, Jamie.

254

00:21:15,520 --> 00:21:18,520

Why don't I put it in reverse there, honey?

255

00:21:18,520 --> 00:21:20,520

Did you forget where the brake was?

256

00:21:21,520 --> 00:21:22,520

Can you do a donut, man?

257

00:21:22,520 --> 00:21:24,520

Come on, let's do donuts.

258

00:21:24,520 --> 00:21:25,520

We'll see.

259

00:21:25,520 --> 00:21:27,520

Jamie's still getting up to speed.

260

00:21:27,520 --> 00:21:30,520

Now, did someone order some donuts?

261

00:21:42,520 --> 00:21:44,520

Watch out for the fire hydrant.

262

00:21:48,520 --> 00:21:49,520

That is sexy.

263

00:21:52,520 --> 00:21:54,520

An empty car doing donuts kind of like a car.

264

00:21:55,520 --> 00:21:59,520

An empty car doing donuts and a police car with its lights flashing.

265

00:21:59,520 --> 00:22:01,520

Now, I checked. There's nothing more fun than that.

266

00:22:02,520 --> 00:22:05,520

You just know what's coming next.

267

00:22:05,520 --> 00:22:08,520

So can I drive it around a little bit?

268

00:22:08,520 --> 00:22:10,520

I won't do donuts, I promise.

269

00:22:10,520 --> 00:22:13,520

It's a delayed thing. You can ruin the car real quick.

270

00:22:13,520 --> 00:22:19,520

So the main thing is the most awkward thing is the brake, because it's a delay.

271

00:22:19,520 --> 00:22:23,520

This is Adam and Jamie's childhood dream times 10.

272

00:22:23,520 --> 00:22:27,520

It's a remote control police car with lights.

273

00:22:35,520 --> 00:22:37,520

Be ready to go for the brake.

274

00:22:40,520 --> 00:22:41,520

Back to zero.

275

00:22:41,520 --> 00:22:42,520

There you go.

276

00:22:44,520 --> 00:22:46,520

That's all I wanted to do.

277

00:22:49,520 --> 00:22:51,520

I'm going to assemble the cable.

278

00:22:51,520 --> 00:22:55,520

So I'm going to get the cable on the harbour and drop it about four feet from the pole over here and assemble it.

279

00:22:55,520 --> 00:22:57,520

75 feet of cable.

280

00:22:57,520 --> 00:22:59,520

5 sixteenths of an inch thick.

281

00:22:59,520 --> 00:23:03,520

Adam checks for tangles and ties it to the telephone pole.

282

00:23:05,520 --> 00:23:07,520

We're ready to go.

283

00:23:08,520 --> 00:23:10,520

I can't wait to see what happens.

284

00:23:10,520 --> 00:23:14,520

Our stunt patrol car rolls into takeoff position.

285

00:23:14,520 --> 00:23:17,520

Put it in the park, shut it down, up and on the cable.

286

00:23:18,520 --> 00:23:20,520

Here we go.

287

00:23:21,520 --> 00:23:24,520

Adam loops the cable around the rear axle.

288

00:23:28,520 --> 00:23:34,520

Just like in the movie, Officer Buster is unaware his car is being tampered with.

289

00:23:36,520 --> 00:23:39,520

Basically it's around the right side rear axle.

290

00:23:39,520 --> 00:23:41,520

We're wired and ready.

291

00:23:41,520 --> 00:23:45,520

But can our cable pull a plug on the rear axle?

292

00:23:45,520 --> 00:23:47,520

Find out later in the show.

293

00:23:52,520 --> 00:23:54,520

Okay Bubba, what do we got?

294

00:23:54,520 --> 00:23:56,520

Well, Thurston.

295

00:23:56,520 --> 00:23:57,520

We got a good one today.

296

00:23:57,520 --> 00:23:58,520

We got Frog Gigan.

297

00:23:58,520 --> 00:23:59,520

Frog what?

298

00:23:59,520 --> 00:24:00,520

Frog Gigan.

299

00:24:00,520 --> 00:24:03,520

That's hunting frogs to the rest of us.

300

00:24:03,520 --> 00:24:09,520

Apparently a couple of good old boys on their way back from the late night round of Frog Gigan, their headlights go out.

301

00:24:09,520 --> 00:24:17,520

They determine that it's a blown fuse and they also determine that a 22 caliber bullet is the perfect replacement for said fuse.

302

00:24:17,520 --> 00:24:18,520

That's clever.

303

00:24:18,520 --> 00:24:26,520

So it would seem until 20 miles later the bullet heats up enough to fire and hit the driver in some very private parts.

304

00:24:26,520 --> 00:24:31,520

At which point he loses control of his truck, hits a tree off the side of the road.

305

00:24:31,520 --> 00:24:35,520

Both guys survived but the driver needed surgery.

306

00:24:35,520 --> 00:24:39,520

The internet turned this story into an urban myth.

307

00:24:39,520 --> 00:24:45,520

In 1996 an internet story appeared that purported to be from the Arkansas Democrat Gazette.

308

00:24:45,520 --> 00:24:48,520

The title was True Life Redneck Tale.

309

00:24:48,520 --> 00:24:54,520

If you name something that has authority like a newspaper then that makes it even all the more plausible.

310

00:24:54,520 --> 00:25:04,520

Now in this case the Arkansas Democrat Gazette got all sorts of flak for this story and they had to print an article saying that they never printed the original article.

311

00:25:04,520 --> 00:25:06,520

So what do you think we're going to need for this Jamie?

312

00:25:06,520 --> 00:25:10,520

First thing we've got to do is find a pickup and it has to have this kind of fuse in it.

313

00:25:10,520 --> 00:25:13,520

The old kind of glass style fuse that's shaped like a bullet you mean?

314

00:25:13,520 --> 00:25:15,520

Yeah, that's the one.

315

00:25:15,520 --> 00:25:19,520

Jamie and Adam head off on a hunting trip of their own.

316

00:25:19,520 --> 00:25:22,520

So Jamie you're from Indiana, what the hell is Frog Gigan?

317

00:25:22,520 --> 00:25:27,520

Well you get a spear and a flashlight and you go out and you spear frogs with it.

318

00:25:27,520 --> 00:25:31,520

I think the flashlight kind of dazes them or something.

319

00:25:31,520 --> 00:25:35,520

I used to do it when I was a kid but it was just for fun.

320

00:25:35,520 --> 00:25:37,520

Did you eat them?

321

00:25:37,520 --> 00:25:40,520

No, just a mean little teenage boy.

322

00:25:40,520 --> 00:25:42,520

So just it was killing?

323

00:25:42,520 --> 00:25:44,520

Killing frogs, yeah.

324

00:25:44,520 --> 00:25:45,520

Alright.

325

00:25:45,520 --> 00:25:49,520

This is one of their happiest hunting grounds, the Junkyard.

326

00:25:56,520 --> 00:25:57,520

Stop!

327

00:25:57,520 --> 00:25:58,520

Bingo Jamie, we got one.

328

00:26:02,520 --> 00:26:05,520

There are pickups by the truckload.

329

00:26:05,520 --> 00:26:08,520

But bagging the right type of fuse facing the right way,

330

00:26:08,520 --> 00:26:12,520

well that isn't as easy as spearing frogs in a pond.

331

00:26:12,520 --> 00:26:18,520

This Mitsubishi appears to have the closest thing out of all the pickups that we've looked at

332

00:26:18,520 --> 00:26:21,520

to a fuse that's aimed directly at the driver.

333

00:26:21,520 --> 00:26:24,520

I think that's the best we're going to do, I'm going to pull it out.

334

00:26:25,520 --> 00:26:29,520

Five dollars for a simple entail, it's a letter, then it's fifteen.

335

00:26:29,520 --> 00:26:32,520

The Junkyard Junkies were only looking for a fuse box,

336

00:26:32,520 --> 00:26:35,520

but it's turned into quite a shopping spree.

337

00:26:35,520 --> 00:26:38,520

No one's going home empty handed.

338

00:26:38,520 --> 00:26:43,520

Well that's what we need for the show, but this is what I came out with.

339

00:26:44,520 --> 00:26:51,520

The boys have decided to install this retro fuse box from the Junkyard into Jamie's old pickup.

340

00:26:51,520 --> 00:26:54,520

Oh yeah, we're burning rubber now.

341

00:26:54,520 --> 00:26:57,520

Hey baby, you want to ride, huh?

342

00:26:58,520 --> 00:27:03,520

Adam gets to work wiring the circuit while Jamie rigs up the fuse box.

343

00:27:03,520 --> 00:27:07,520

I pulled this one out and I'm going to crimp on the battery.

344

00:27:07,520 --> 00:27:08,520

And then put it back in?

345

00:27:08,520 --> 00:27:09,520

Yeah.

346

00:27:13,520 --> 00:27:15,520

Alright, here we go.

347

00:27:16,520 --> 00:27:20,520

Alright, so that's the main feed to the batteries hot.

348

00:27:22,520 --> 00:27:24,520

Hey, they both worked, alright.

349

00:27:24,520 --> 00:27:28,520

These are the twenty-two caliber bullets used in the myth.

350

00:27:28,520 --> 00:27:31,520

As replacement fuses, they work.

351

00:27:31,520 --> 00:27:33,520

Check this out.

352

00:27:33,520 --> 00:27:36,520

Almost like it was made to fit in the fuse holder.

353

00:27:36,520 --> 00:27:38,520

Yeah, it actually snugs right in there.

354

00:27:38,520 --> 00:27:39,520

Alright.

355

00:27:39,520 --> 00:27:43,520

You know, I don't think it'd be that bad of an idea as long as you didn't get it short.

356

00:27:43,520 --> 00:27:44,520

The truck is ready.

357

00:27:44,520 --> 00:27:50,520

If the bullet goes off, a high speed camera will record its path by the microsecond.

358

00:27:51,520 --> 00:27:57,520

Time for Buster, our professional crash test dummy, to get behind the wheel.

359

00:27:57,520 --> 00:28:01,520

Jamie and Adam will be trying to fire live ammunition here.

360

00:28:01,520 --> 00:28:08,520

And taking a hit in the pants from a bullet is one part of the myth they don't want to recreate.

361

00:28:12,520 --> 00:28:15,520

Bulletproof shields go up in front of the truck,

362

00:28:15,520 --> 00:28:19,520

and a remote switch is wired to the circuit from a safe distance.

363

00:28:20,520 --> 00:28:26,520

So, we've got our circuit wired up, that the headlights go on by themselves through the fuse box.

364

00:28:26,520 --> 00:28:29,520

We've got our remote activation switch.

365

00:28:29,520 --> 00:28:31,520

I think it's time to put the bullet in the fuse box.

366

00:28:31,520 --> 00:28:32,520

Have you got one?

367

00:28:32,520 --> 00:28:34,520

I have a bullet.

368

00:28:34,520 --> 00:28:36,520

Alright, here we go.

369

00:28:37,520 --> 00:28:38,520

Are you ready?

370

00:28:38,520 --> 00:28:39,520

I'm ready.

371

00:28:39,520 --> 00:28:44,520

Alright, this is the first test, just with how the bullet does.

372

00:28:45,520 --> 00:28:46,520

With the lights on?

373

00:28:46,520 --> 00:28:47,520

Yeah.

374

00:28:47,520 --> 00:28:50,520

This does prove one part of the myth.

375

00:28:50,520 --> 00:28:52,520

The headlights are on.

376

00:28:52,520 --> 00:28:54,520

A bullet will complete the circuit.

377

00:28:54,520 --> 00:28:57,520

They went for 20 miles, which I guess means about 20 minutes.

378

00:28:57,520 --> 00:28:59,520

So, let me get you an alligator clip.

379

00:28:59,520 --> 00:29:01,520

We've got a stopwatch.

380

00:29:01,520 --> 00:29:03,520

One that's quarter after.

381

00:29:03,520 --> 00:29:04,520

Yeah.

382

00:29:04,520 --> 00:29:10,520

While the truck goes for an imaginary drive, Adam has a very real nap.

383

00:29:15,520 --> 00:29:17,520

So, Adam, it's been a solid 20 minutes.

384

00:29:17,520 --> 00:29:21,520

Well, given that nothing's happened, I think we've given it another 10 minutes.

385

00:29:21,520 --> 00:29:22,520

Just to be sure?

386

00:29:22,520 --> 00:29:23,520

Yeah.

387

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

Okay.

388

00:29:24,520 --> 00:29:28,520

It's been a long and utterly uneventful trip home for Buster.

389

00:29:28,520 --> 00:29:29,520

It's been about 30 minutes.

390

00:29:29,520 --> 00:29:30,520

I think we're ready to check it out.

391

00:29:30,520 --> 00:29:33,520

You want to disconnect and go read the temperature on our bullet?

392

00:29:33,520 --> 00:29:34,520

Okay, you ready?

393

00:29:34,520 --> 00:29:35,520

Yeah.

394

00:29:36,520 --> 00:29:38,520

Hey, Adam, do it from a distance for...

395

00:29:38,520 --> 00:29:39,520

Yeah.

396

00:29:39,520 --> 00:29:42,520

No, I'm not going to put my eye up to it or anything.

397

00:29:42,520 --> 00:29:46,520

So, I got a temperature off the bullet of about 113 degrees.

398

00:29:46,520 --> 00:29:48,520

Nothing real special there.

399

00:29:48,520 --> 00:29:50,520

It gets hotter than that in the summer in a car.

400

00:29:50,520 --> 00:29:53,520

And bullets don't often go off that way.

401

00:29:53,520 --> 00:29:56,520

Okay, so what could set that bullet off?

402

00:29:56,520 --> 00:29:59,520

When a fuse blows, there's usually a good reason for it.

403

00:29:59,520 --> 00:30:02,520

You know, it just doesn't do it by itself.

404

00:30:02,520 --> 00:30:05,520

My guess would be that it would be a short.

405

00:30:05,520 --> 00:30:07,520

So, you say we just short right across the bullet from the battery?

406

00:30:07,520 --> 00:30:08,520

Yeah.

407

00:30:08,520 --> 00:30:11,520

Once bypass the light bulbs and see whether we can get the bullet to go off.

408

00:30:11,520 --> 00:30:13,520

If anything works out well.

409

00:30:13,520 --> 00:30:17,520

A short circuit is when the electricity coursing through the wires of a circuit

410

00:30:17,520 --> 00:30:19,520

is diverted to a shorter path,

411

00:30:19,520 --> 00:30:23,520

usually one that allows much more current to flow through it.

412

00:30:23,520 --> 00:30:26,520

That's when a fuse would normally give way

413

00:30:26,520 --> 00:30:29,520

and stop the dangerously high current.

414

00:30:29,520 --> 00:30:34,520

So, I'm going to short across the leads of one of the headlights.

415

00:30:34,520 --> 00:30:38,520

We're about to cause a flat short right across the circuit.

416

00:30:38,520 --> 00:30:41,520

And that will either heat up the bullet, set off the bullet,

417

00:30:41,520 --> 00:30:43,520

or it will fry the wiring.

418

00:30:43,520 --> 00:30:46,520

No matter what, never connect red to black.

419

00:30:46,520 --> 00:30:49,520

Alright, well, this ought to work.

420

00:30:49,520 --> 00:30:51,520

Be a short. I'm pretty sure.

421

00:30:51,520 --> 00:30:52,520

Ready?

422

00:30:52,520 --> 00:30:54,520

Ready when you are.

423

00:30:54,520 --> 00:30:56,520

Should start. Yeah, there's the smoke.

424

00:30:56,520 --> 00:30:57,520

Cool.

425

00:30:57,520 --> 00:30:58,520

Fit?

426

00:30:58,520 --> 00:30:59,520

Yeah, wiring fried.

427

00:30:59,520 --> 00:31:02,520

That's a bonafide short.

428

00:31:02,520 --> 00:31:05,520

Obviously, you didn't get the bullet hot enough.

429

00:31:05,520 --> 00:31:06,520

There it is.

430

00:31:06,520 --> 00:31:07,520

Let's see.

431

00:31:07,520 --> 00:31:10,520

Oh, look at that. That's yummy looking.

432

00:31:10,520 --> 00:31:15,520

The next step that I see is to take the heaviest gauge wire that we'd find in a car

433

00:31:15,520 --> 00:31:20,520

and run this short again and see if that gets the bullet hot enough.

434

00:31:20,520 --> 00:31:24,520

The heavier wire will carry more heat to the fuse box,

435

00:31:24,520 --> 00:31:29,520

but will the bullet get hot enough to fire before the wire fails?

436

00:31:29,520 --> 00:31:31,520

Okay, ready?

437

00:31:31,520 --> 00:31:32,520

Yeah.

438

00:31:32,520 --> 00:31:34,520

Hey!

439

00:31:34,520 --> 00:31:36,520

Can we fire off the bullet?

440

00:31:36,520 --> 00:31:37,520

We fired off the bullet.

441

00:31:37,520 --> 00:31:40,520

Oh, thank God! That's excellent!

442

00:31:40,520 --> 00:31:43,520

I smell gunpowder.

443

00:31:43,520 --> 00:31:44,520

You smell gunpowder?

444

00:31:44,520 --> 00:31:45,520

I know that smell.

445

00:31:45,520 --> 00:31:46,520

Oh, let's see.

446

00:31:46,520 --> 00:31:48,520

It went off.

447

00:31:48,520 --> 00:31:52,520

Ah, bullet is missing.

448

00:31:52,520 --> 00:31:55,520

Oh, look at that.

449

00:31:55,520 --> 00:31:56,520

You're loving this.

450

00:31:56,520 --> 00:31:58,520

There's the cartridge.

451

00:31:58,520 --> 00:32:02,520

It's almost like the cartridge in the bullet exploded like this,

452

00:32:02,520 --> 00:32:06,520

and the cartridge went into the rubber mat of the floor,

453

00:32:06,520 --> 00:32:08,520

and the bullet seems to have gone that way.

454

00:32:08,520 --> 00:32:10,520

We haven't found it yet, but we're going to do a few more tests.

455

00:32:10,520 --> 00:32:13,520

Pull the dummy out and take a look at him to see where the bullets went.

456

00:32:13,520 --> 00:32:15,520

Jamie, Jamie, can I try it this time?

457

00:32:15,520 --> 00:32:16,520

Can I blow the bullet up?

458

00:32:16,520 --> 00:32:17,520

Can I? Can I?

459

00:32:17,520 --> 00:32:18,520

I'd really like to try.

460

00:32:18,520 --> 00:32:20,520

Set the bullet off.

461

00:32:24,520 --> 00:32:25,520

This is fun.

462

00:32:25,520 --> 00:32:27,520

Just like clockwork.

463

00:32:27,520 --> 00:32:28,520

Let's do another one.

464

00:32:28,520 --> 00:32:30,520

Let's do another one.

465

00:32:30,520 --> 00:32:32,520

Okay, give me another one.

466

00:32:37,520 --> 00:32:38,520

Here, you grab one, I'll grab the other.

467

00:32:38,520 --> 00:32:40,520

We'll do like a Wonder Twins one.

468

00:32:40,520 --> 00:32:41,520

Okay.

469

00:32:44,520 --> 00:32:45,520

There we go.

470

00:32:45,520 --> 00:32:46,520

All right, ready?

471

00:32:49,520 --> 00:32:51,520

I'm impressed with how fast this works.

472

00:32:51,520 --> 00:32:54,520

It turns out to be a pretty effective way of setting off a bullet.

473

00:32:54,520 --> 00:32:56,520

It's not lethal, I don't think.

474

00:32:56,520 --> 00:32:59,520

But you know, the thing is, there was nothing in the myth that said

475

00:32:59,520 --> 00:33:01,520

that he took a lethal hit.

476

00:33:01,520 --> 00:33:03,520

I mean, I have to say, if I put a bullet in a fuse box,

477

00:33:03,520 --> 00:33:05,520

and 20 minutes later I hear a bang,

478

00:33:05,520 --> 00:33:09,520

and I feel something smack into my groin,

479

00:33:09,520 --> 00:33:12,520

I'm going to freak out and like run the car right off the road.

480

00:33:12,520 --> 00:33:17,520

Buster has faced the fuse box firing squad 10 times.

481

00:33:17,520 --> 00:33:20,520

Let's see if that broadside made a mark.

482

00:33:20,520 --> 00:33:24,520

The high-speed camera shows at least one bullet

483

00:33:24,520 --> 00:33:27,520

shooting towards Buster's bits.

484

00:33:27,520 --> 00:33:29,520

Warped and twisted by the firing,

485

00:33:29,520 --> 00:33:34,520

some of the shells also turned into threatening pieces of shrapnel.

486

00:33:37,520 --> 00:33:39,520

I laugh every time I do that.

487

00:33:39,520 --> 00:33:43,520

Jamie takes a closer look and makes a startling discovery.

488

00:33:43,520 --> 00:33:44,520

Oh, look at that.

489

00:33:44,520 --> 00:33:46,520

That wasn't there before.

490

00:33:46,520 --> 00:33:47,520

See that?

491

00:33:47,520 --> 00:33:50,520

One of those bullets, at least,

492

00:33:50,520 --> 00:33:52,520

shot a hole in his pants.

493

00:33:52,520 --> 00:33:57,520

And there's actually another bullet hole down here and here.

494

00:33:57,520 --> 00:34:00,520

While those pants are full of holes,

495

00:34:00,520 --> 00:34:04,520

Jamie can't find any signs of damage on the dummy's legs or torso.

496

00:34:04,520 --> 00:34:08,520

I don't think that those bullets had enough force to really do anything.

497

00:34:08,520 --> 00:34:10,520

I bet if we were a real person,

498

00:34:10,520 --> 00:34:12,520

you'd probably have some pretty nasty little bruises.

499

00:34:12,520 --> 00:34:13,520

That's about it.

500

00:34:18,520 --> 00:34:20,520

Well, we set off quite a few bullets, it worked.

501

00:34:20,520 --> 00:34:22,520

Oh, no, that was a lot of fun.

502

00:34:22,520 --> 00:34:24,520

I had no idea that would go off so easily.

503

00:34:24,520 --> 00:34:26,520

Yeah, but we did have to short-circuit it.

504

00:34:26,520 --> 00:34:30,520

We had to use heavier than the normal wire that was installed in the truck.

505

00:34:30,520 --> 00:34:34,520

We had to line up the fuse box in exactly the right position.

506

00:34:34,520 --> 00:34:38,520

No, it's obvious that an extraordinary sequence of events

507

00:34:38,520 --> 00:34:40,520

would have to occur for this to happen.

508

00:34:40,520 --> 00:34:45,520

But given how easily they went off with heavier-than-average wiring

509

00:34:45,520 --> 00:34:48,520

and the decrepit state of some people's pickup trucks,

510

00:34:48,520 --> 00:34:51,520

I still think it's possible that this could happen.

511

00:34:51,520 --> 00:34:53,520

I'd agree, it's possible.

512

00:34:53,520 --> 00:34:54,520

Unlikely, but possible.

513

00:34:54,520 --> 00:34:56,520

I'd say myth-busted for now,

514

00:34:56,520 --> 00:34:58,520

but still out there waiting to happen.

515

00:35:04,520 --> 00:35:07,520

It happened in the film American Graffiti.

516

00:35:07,520 --> 00:35:10,520

But can the myth-busters do it for real?

517

00:35:11,520 --> 00:35:15,520

We've got a remote-control police car tied to a telephone pole.

518

00:35:16,520 --> 00:35:18,520

Will we remove the rear axle?

519

00:35:18,520 --> 00:35:20,520

Let's go.

520

00:35:20,520 --> 00:35:21,520

Everybody ready?

521

00:35:21,520 --> 00:35:22,520

Yep, ready!

522

00:35:22,520 --> 00:35:29,520

Jamie starts the engine and runs to his safe driving post on top of this building.

523

00:35:29,520 --> 00:35:31,520

Okay.

524

00:35:32,520 --> 00:35:34,520

Get ready to goose the throttle.

525

00:35:34,520 --> 00:35:37,520

Our police car is off in hot pursuit.

526

00:35:39,520 --> 00:35:42,520

The cable whips into one of the cameras.

527

00:35:43,520 --> 00:35:49,520

And driving blind, Jamie pulls off a remarkable remote-controlled stop.

528

00:35:49,520 --> 00:35:51,520

Inches from disaster.

529

00:35:54,520 --> 00:35:56,520

Your stopping was beautiful.

530

00:35:58,520 --> 00:36:00,520

So it snapped at the pole, huh?

531

00:36:00,520 --> 00:36:02,520

Yeah, it looks like it's dragging the cable.

532

00:36:02,520 --> 00:36:03,520

It looks like it snapped at the pole.

533

00:36:03,520 --> 00:36:05,520

I think we need a stronger cable.

534

00:36:05,520 --> 00:36:08,520

It turns out the cable hasn't snapped.

535

00:36:08,520 --> 00:36:10,520

It's simply come undone.

536

00:36:10,520 --> 00:36:11,520

Yeah, nothing broke.

537

00:36:11,520 --> 00:36:15,520

I think the next time we have to either duct tape it or, you know, I brought some of that binder wire.

538

00:36:15,520 --> 00:36:20,520

Yeah, I think we should definitely bind it with wire when we get back there.

539

00:36:20,520 --> 00:36:21,520

Yeah.

540

00:36:21,520 --> 00:36:22,520

Shall we reset the car?

541

00:36:22,520 --> 00:36:23,520

Yeah, everything's fine, fortunately.

542

00:36:23,520 --> 00:36:25,520

I'll tell you when to go, Jamie.

543

00:36:25,520 --> 00:36:27,520

Alright.

544

00:36:36,520 --> 00:36:38,520

Good. Nice. Perfect.

545

00:36:38,520 --> 00:36:43,520

The cable actually did what we were afraid it was going to do and it's actually quite dangerous

546

00:36:43,520 --> 00:36:45,520

because it, you know, it whipped way off to the side.

547

00:36:45,520 --> 00:36:47,520

It took out one of our high-speed cameras.

548

00:36:47,520 --> 00:36:50,520

The person had been in there in that same position.

549

00:36:50,520 --> 00:36:52,520

It would have taken them out as well.

550

00:36:52,520 --> 00:36:55,520

Of course. Of course I could have hooked it up better.

551

00:36:55,520 --> 00:37:00,520

But just about anybody else would have made the same mistake that I did.

552

00:37:00,520 --> 00:37:01,520

Don't you think?

553

00:37:01,520 --> 00:37:05,520

This little guy won't be on hooking next time.

554

00:37:05,520 --> 00:37:06,520

Okay.

555

00:37:06,520 --> 00:37:07,520

I got some wire.

556

00:37:07,520 --> 00:37:08,520

I got a hook.

557

00:37:08,520 --> 00:37:11,520

I got to let the jacket I no longer care about.

558

00:37:11,520 --> 00:37:13,520

Here we go.

559

00:37:13,520 --> 00:37:17,520

The other end of the cable gets the same treatment.

560

00:37:17,520 --> 00:37:20,520

We're calling that first attempt a test run.

561

00:37:20,520 --> 00:37:23,520

Nothing was really proved or disproved.

562

00:37:23,520 --> 00:37:27,520

This run will be the real deal.

563

00:37:27,520 --> 00:37:29,520

Come on. Yeah.

564

00:37:29,520 --> 00:37:31,520

Isn't television glamorous?

565

00:37:31,520 --> 00:37:32,520

Let's see.

566

00:37:32,520 --> 00:37:36,520

70% that the cable does break, but before it does,

567

00:37:36,520 --> 00:37:39,520

it does enough damage to the car we can't do a second test at all.

568

00:37:39,520 --> 00:37:43,520

20% that it actually breaks but doesn't do any damage to the car.

569

00:37:43,520 --> 00:37:46,520

We can do a second test, weaken the axle, etc.

570

00:37:46,520 --> 00:37:49,520

10% it works perfectly, yanks the axle right out of the car.

571

00:37:49,520 --> 00:37:53,520

I believe if you add those numbers up, they come to 100%.

572

00:37:53,520 --> 00:37:58,520

We have a remote-controlled police car with its axle tied to a telephone pole

573

00:37:58,520 --> 00:38:01,520

by 75 feet of cable.

574

00:38:01,520 --> 00:38:06,520

Let's step on the gas.

575

00:38:06,520 --> 00:38:14,520

This time the cable really snaps.

576

00:38:14,520 --> 00:38:16,520

That's spectacular.

577

00:38:16,520 --> 00:38:21,520

I should point out that the cable has a breaking load of 15,000 pounds.

578

00:38:21,520 --> 00:38:28,520

I would say right there that would be myth busted definitively.

579

00:38:28,520 --> 00:38:32,520

Big cable, bigger than even I thought was the one used in the movie.

580

00:38:32,520 --> 00:38:39,520

Still snapped to standard Ford chassis, not dissimilar at all from what they had back then.

581

00:38:39,520 --> 00:38:40,520

Myth busted.

582

00:38:40,520 --> 00:38:44,520

And what about Adam's bold pre-test predictions?

583

00:38:44,520 --> 00:38:46,520

Yes, okay, so I was off of my percentages.

584

00:38:46,520 --> 00:38:50,520

I gave what happened here a 30% chance of happening.

585

00:38:50,520 --> 00:38:52,520

20%?

586

00:38:52,520 --> 00:38:53,520

No, 30.

587

00:38:53,520 --> 00:38:56,520

70%, 20%, 10%?

588

00:38:56,520 --> 00:38:58,520

No, that wasn't me, that was somebody else.

589

00:38:58,520 --> 00:39:00,520

I said 50, 40, 10.

590

00:39:00,520 --> 00:39:04,520

70%, 20%, 10%?

591

00:39:04,520 --> 00:39:07,520

I reject your reality and substitute my own.

592

00:39:07,520 --> 00:39:09,520

Okay, so what's the plan now?

593

00:39:09,520 --> 00:39:12,520

Now what we do is what we do on every myth.

594

00:39:12,520 --> 00:39:16,520

First we replicate the circumstances, then we duplicate the results.

595

00:39:16,520 --> 00:39:19,520

And actually to do that we're going to have to do it like they do it in the movies.

596

00:39:19,520 --> 00:39:23,520

I mean if I had to do this for a film, what I'd do is I'd use a much bigger cable

597

00:39:23,520 --> 00:39:26,520

than you see in the film and I'd weaken the hell out of the axle.

598

00:39:26,520 --> 00:39:29,520

Take out half of its bolts or all of its bolts practically.

599

00:39:29,520 --> 00:39:32,520

Adam gets the job of crawling in the dirt.

600

00:39:32,520 --> 00:39:36,520

Since he's already dirty he's been kind enough to spare me.

601

00:39:36,520 --> 00:39:38,520

That's how his shirt stays white.

602

00:39:38,520 --> 00:39:40,520

I do all the dirty work.

603

00:39:43,520 --> 00:39:45,520

You having any luck, Adam?

604

00:39:45,520 --> 00:39:47,520

Yeah, most of the way through that one.

605

00:39:47,520 --> 00:39:52,520

Adam is slicing through the supports that hold the axle to the car body.

606

00:39:53,520 --> 00:39:57,520

I'm going most of the way through all four of these smaggiggies.

607

00:39:57,520 --> 00:40:03,520

Jamie had a visit from the cable guy and scored an upgrade to super size.

608

00:40:03,520 --> 00:40:10,520

This is 5-8 instead of 5-16 and the braking strength of this is approximately 10 times the weight of the car.

609

00:40:10,520 --> 00:40:13,520

And I don't think we're going to break this cable.

610

00:40:13,520 --> 00:40:17,520

I'm going to go around the extreme right end of the axle too.

611

00:40:17,520 --> 00:40:20,520

I figure all the leverage action we can get is good for us, don't you think?

612

00:40:20,520 --> 00:40:21,520

I agree.

613

00:40:22,520 --> 00:40:25,520

I think that's as good a job as we can do.

614

00:40:25,520 --> 00:40:26,520

I'm dirty.

615

00:40:26,520 --> 00:40:29,520

I'm the eighth dwarf, dirty.

616

00:40:29,520 --> 00:40:36,520

When this cable comes taut it's going to twist and hopefully torque that differential right off and the whole thing will come off.

617

00:40:36,520 --> 00:40:43,520

I've taken the oxytorch and I've cut through probably about 75 to 90% of each one of those four control arms.

618

00:40:43,520 --> 00:40:48,520

Either we're going to simply stop the car or we're going to break the car.

619

00:40:48,520 --> 00:40:53,520

I think we'll sooner shear the post off at its base than snap this cable.

620

00:40:53,520 --> 00:40:56,520

The car is ready for its final run.

621

00:40:56,520 --> 00:40:57,520

Okay, ready?

622

00:41:08,520 --> 00:41:09,520

There we go.

623

00:41:10,520 --> 00:41:13,520

While their relationship has taken a big shake off,

624

00:41:15,520 --> 00:41:18,520

car and axle are still mostly attached.

625

00:41:18,520 --> 00:41:22,520

Something really horrible happened inside that police car just now.

626

00:41:22,520 --> 00:41:24,520

I think she's done for.

627

00:41:24,520 --> 00:41:28,520

Incredibly, the cable snapped at the telephone pole end,

628

00:41:28,520 --> 00:41:32,520

but the car won't be driving any further.

629

00:41:32,520 --> 00:41:35,520

This is the coil spring from the rear suspension of the car.

630

00:41:35,520 --> 00:41:37,520

It was sitting like 10 feet from the car.

631

00:41:37,520 --> 00:41:40,520

It flattened the tire. This other one is jammed.

632

00:41:40,520 --> 00:41:47,520

The tires are in a wheel well and so even if we had been able to completely remove the thing, they're not going to go very far.

633

00:41:47,520 --> 00:41:54,520

You're exactly right. I mean, you can see under there the trunk is compressed by the impact it took from the axle

634

00:41:54,520 --> 00:41:58,520

and it looks like this entire thing yanked out but had nowhere to go.

635

00:41:58,520 --> 00:42:04,520

So if the misbusters couldn't pull the axle off, how did they do it in the movie?

636

00:42:04,520 --> 00:42:08,520

I think the key is just pyrotechnics. They somehow blew it.

637

00:42:08,520 --> 00:42:13,520

You'd have the rear axle probably on a ramp so that as soon as it underwent any pressure,

638

00:42:13,520 --> 00:42:17,520

it would both go out and under from the car but it would also raise up the car,

639

00:42:17,520 --> 00:42:19,520

which is exactly what it did in the film.

640

00:42:21,520 --> 00:42:25,520

So, Jamie, the Hollywood myth, the rear axle, what do you think the verdict is?

641

00:42:25,520 --> 00:42:33,520

Myth is busted. It's just not going to happen by itself, not with anything remotely like the circumstances that you saw in the movie.

642

00:42:33,520 --> 00:42:40,520

The Hollywood myth is busted. Buster performed admirably as usual, always a little tired.

643

00:42:40,520 --> 00:42:42,520

We're done here. Let's go home.

644

00:42:53,520 --> 00:42:59,520

You're in a jet at 35,000 feet and there's a hole in the fuselage or a window.

645

00:43:00,520 --> 00:43:06,520

What happens? Do you get sucked out in an explosive decompression or not?

646

00:43:06,520 --> 00:43:12,520

So far, the mythbusters have shown a bullet hole will have no immediate effect on cabin pressure.

647

00:43:14,520 --> 00:43:20,520

The tiny amount of air that can leak out is not enough to cause a rapid decompression.

648

00:43:20,520 --> 00:43:23,520

Well, I didn't see you do much at all, did I?

649

00:43:23,520 --> 00:43:25,520

But what about a bigger hole?

650

00:43:25,520 --> 00:43:31,520

Say, an entire window gets blown out. That's the next phase of our experiment.

651

00:43:31,520 --> 00:43:34,520

So, Boyd, I think we're going to need your help.

652

00:43:34,520 --> 00:43:36,520

Hell yeah.

653

00:43:36,520 --> 00:43:38,520

I think I can solve all your problems.

654

00:43:38,520 --> 00:43:41,520

Boyd is today's guest pyrotechnician.

655

00:43:44,520 --> 00:43:47,520

He sets a charge on Buster's window.

656

00:43:49,520 --> 00:43:51,520

Okay, Buster, get ready for a big bang.

657

00:43:51,520 --> 00:43:53,520

We're clear, over.

658

00:43:53,520 --> 00:44:00,520

Our super air compressor, the Huffer, pressurizes the plane to 8 pounds per square inch.

659

00:44:01,520 --> 00:44:09,520

The pressure difference between the inside of the plane and the outside is now the same as it would be at 35,000 feet.

660

00:44:09,520 --> 00:44:11,520

We're ready to fire.

661

00:44:11,520 --> 00:44:15,520

Three, two, one.

662

00:44:24,520 --> 00:44:25,520

Woo!

663

00:44:25,520 --> 00:44:29,520

Oh, that was worth it. That was worth everything we went through.

664

00:44:29,520 --> 00:44:31,520

It didn't quite fit through the hole.

665

00:44:32,520 --> 00:44:36,520

Now this is explosive decompression.

666

00:44:36,520 --> 00:44:42,520

A hole the size of the window allows a huge rush of air out of the plane,

667

00:44:42,520 --> 00:44:48,520

taking with it anything that's not tied down, including our crash test dummy.

668

00:44:50,520 --> 00:44:51,520

Wow.

669

00:44:51,520 --> 00:44:55,520

Yeah, it looks like it's ripped some of his back flesh off there.

670

00:44:55,520 --> 00:44:58,520

They would have pulled it all the way out towards the window.

671

00:44:58,520 --> 00:44:59,520

Can we yank this out of here?

672

00:44:59,520 --> 00:45:00,520

Yeah.

673

00:45:00,520 --> 00:45:02,520

Buster is having a bad year.

674

00:45:02,520 --> 00:45:05,520

Oh, well, he survived really well.

675

00:45:05,520 --> 00:45:08,520

I wouldn't want to be sitting near that window when that happened,

676

00:45:08,520 --> 00:45:12,520

but these kind of things that you see in the movies

677

00:45:12,520 --> 00:45:16,520

where just like somebody standing at the other end of the plane gets pushed out,

678

00:45:16,520 --> 00:45:18,520

I don't really think so.

679

00:45:18,520 --> 00:45:20,520

No, however, I would not want to be in this seat.

680

00:45:20,520 --> 00:45:23,520

I would imagine that this guy might have lost his arm.

681

00:45:26,520 --> 00:45:27,520

That's one sealed window.

682

00:45:27,520 --> 00:45:30,520

Boyd has some explosives left over,

683

00:45:30,520 --> 00:45:34,520

so the team decide to see what a really big bang will do.

684

00:45:34,520 --> 00:45:37,520

So, Boyd, what kind of charges is this you're laying now?

685

00:45:37,520 --> 00:45:43,520

This is a 100 grain shape charge that is designed to take the side out of this airplane.

686

00:45:43,520 --> 00:45:46,520

Attention, the charge is laid. The plane is live.

687

00:45:46,520 --> 00:45:49,520

We're clearing out sealing doors and warming the hover.

688

00:45:58,520 --> 00:46:02,520

We're back up to pressure and ready for ignition.

689

00:46:02,520 --> 00:46:09,520

This blast was a little bigger than expected.

690

00:46:09,520 --> 00:46:11,520

I'm glad we were over there.

691

00:46:14,520 --> 00:46:16,520

You're good. Everybody's good.

692

00:46:16,520 --> 00:46:17,520

Everybody's good.

693

00:46:17,520 --> 00:46:21,520

You know, again, it just pays to be really careful with these explosives.

694

00:46:21,520 --> 00:46:23,520

Buster, you're good.

695

00:46:23,520 --> 00:46:24,520

You're good.

696

00:46:24,520 --> 00:46:25,520

You're good.

697

00:46:25,520 --> 00:46:26,520

You're good.

698

00:46:26,520 --> 00:46:27,520

You're good.

699

00:46:27,520 --> 00:46:28,520

You're good.

700

00:46:28,520 --> 00:46:29,520

You're good.

701

00:46:29,520 --> 00:46:30,520

You're good.

702

00:46:30,520 --> 00:46:31,520

You're good.

703

00:46:31,520 --> 00:46:32,520

We're ready to go close.

704

00:46:32,520 --> 00:46:35,520

Buster may be done for.

705

00:46:35,520 --> 00:46:36,520

Did he, where is he?

706

00:46:36,520 --> 00:46:37,520

No.

707

00:46:37,520 --> 00:46:41,520

Incredibly, Buster is still sitting in his seat,

708

00:46:41,520 --> 00:46:46,520

although the next row of seats are now sitting on him.

709

00:46:53,520 --> 00:46:57,520

The camera looks okay.

710

00:46:57,520 --> 00:47:01,520

Please make sure your tray tables are in the upright and locked position.

711

00:47:01,520 --> 00:47:09,520

The combination of explosives and the high air pressure inside the plane has peeled the entire roof off.

712

00:47:09,520 --> 00:47:13,520

Boy, this is as close as I ever want to come to a scene like this.

713

00:47:13,520 --> 00:47:17,520

You know, it's fun to see things blow up sometimes. This is actually kind of disturbing though.

714

00:47:17,520 --> 00:47:20,520

You know, we've all ridden in airlines.

715

00:47:20,520 --> 00:47:26,520

Explosive decompressions similar to these experiments have happened in real life.

716

00:47:26,520 --> 00:47:35,520

In 1988, Aloha Airlines Flight 243 suffered a spectacular decompression that was blamed on metal fatigue.

717

00:47:35,520 --> 00:47:42,520

One flight attendant was killed when she was pulled from the 737 at 24,000 feet.

718

00:47:42,520 --> 00:47:49,520

But incredibly, all passengers survived and the plane was able to make an emergency landing.

719

00:47:49,520 --> 00:47:54,520

This incident shows the structural strength of modern aircraft.

720

00:47:54,520 --> 00:47:58,520

They can take a big hit and still keep flying.

721

00:47:58,520 --> 00:48:03,520

A fact that Adam and Jamie have learned working on their DC-9.

722

00:48:03,520 --> 00:48:12,520

If anything, testing this myth made me feel safer about flying because it showed that even if somebody fires a bullet through the window that you're sitting at,

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00:48:12,520 --> 00:48:17,520

all you're going to hear is like a rushing sound, but it's not going to destroy the plane at all.

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00:48:17,520 --> 00:48:20,520

You know, the myth that you can be sucked out a tiny hole is just not true.

725

00:48:20,520 --> 00:48:25,520

It's not going to make the cabin explode or make chairs pile towards the door.

726

00:48:25,520 --> 00:48:27,520

It's not going to throw bodies around.

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00:48:27,520 --> 00:48:32,520

We pierced the window. We pierced the aluminum shell of the airplane.

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00:48:32,520 --> 00:48:36,520

Nothing happened. It might have whistled a little bit. That was it.

729

00:48:36,520 --> 00:48:39,520

Myth busted.

730

00:48:39,520 --> 00:48:43,520

You guys keep bringing in more crap into the shop.

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00:48:43,520 --> 00:48:47,520

That is not crap. That is a fantastic trophy for your wall.

732

00:48:47,520 --> 00:48:51,520

From one of the most fun myths we've ever had to bust. Come on.

733

00:48:51,520 --> 00:48:53,520

It was pretty fun.