

1

00:00:00,000 --> 00:00:03,000

Remember, don't try this at home.

2

00:00:03,000 --> 00:00:06,000

We've got years of experience that keeps us safe.

3

00:00:09,000 --> 00:00:12,000

It's a myth revisited special.

4

00:00:12,000 --> 00:00:16,000

This may look like a salami, but it's rocket fuel.

5

00:00:16,000 --> 00:00:20,000

As the team goes head to head with disgruntled viewers,

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

first they're resetting their sights on splitting an arrow.

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00:00:25,000 --> 00:00:27,000

He hit this dead on.

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00:00:27,000 --> 00:00:31,000

Then the bullet into water myth sinks to a new death.

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00:00:33,000 --> 00:00:40,000

And finally, the famous Confederate rocket gets a meat makeover.

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00:00:40,000 --> 00:00:43,000

Damn, I'm lightin' slummies, man.

11

00:00:43,000 --> 00:00:45,000

I'm makin' a rocket out of meat.

12

00:00:46,000 --> 00:00:48,000

Who are the Myth Muscles?

13

00:00:49,000 --> 00:00:50,000

Adam Savage.

14

00:00:50,000 --> 00:00:52,000

An answer all over my head, man.

15

00:00:52,000 --> 00:00:53,000

And Jamie Heidemann.

16

00:00:53,000 --> 00:00:55,000

Gets me all worked up, just lookin' at it.

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00:00:56,000 --> 00:01:00,000

Between them, more than 30 years special effects experience.

18

00:01:01,000 --> 00:01:02,000

That was heavy.

19

00:01:02,000 --> 00:01:04,000

Joining them, Grant Imahara.

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00:01:04,000 --> 00:01:05,000

Go get him, boy.

21

00:01:06,000 --> 00:01:07,000

Tori Belichi.

22

00:01:07,000 --> 00:01:08,000

Whoa.

23

00:01:08,000 --> 00:01:09,000

And Carrie Byron.

24

00:01:09,000 --> 00:01:11,000

That was crazy.

25

00:01:11,000 --> 00:01:13,000

They don't just tell the myths.

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00:01:13,000 --> 00:01:16,000

They put them to the test.

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00:01:26,000 --> 00:01:30,000

So we're about to do one of my all-time favorite things we do on the show,

28

00:01:30,000 --> 00:01:32,000

which is a revisit episode.

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00:01:32,000 --> 00:01:40,000

And no other show that I know of ever comes to a conclusion that they are willing to reverse upon further investigation.

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00:01:40,000 --> 00:01:45,000

And every time we do this, I think we come up with even better results and we silence our critics.

31

00:01:45,000 --> 00:01:47,000

I don't know. I think it's just a lot of whining.

32

00:01:47,000 --> 00:01:48,000

What do we have up this time?

33

00:01:48,000 --> 00:01:50,000

Bullets fired into water is a good one.

34

00:01:50,000 --> 00:01:51,000

Bullets fired into water.

35

00:01:51,000 --> 00:01:54,000

We also have Confederate rockets.

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00:01:54,000 --> 00:01:55,000

Confederate rocket?

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00:01:55,000 --> 00:01:56,000

Confederate rocket.

38

00:01:56,000 --> 00:01:57,000

Okay.

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00:01:57,000 --> 00:01:58,000

And there's one more.

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00:01:58,000 --> 00:02:00,000

The most controversial, I have to say, has got to be splitting an arrow.

41

00:02:00,000 --> 00:02:03,000

The amount of vitriol in my mailbox about that one is just crazy.

42

00:02:03,000 --> 00:02:05,000

So we're going to silence them this time?

43

00:02:05,000 --> 00:02:09,000

Not only did we get it right the first time, but this time we're going to make you sure of it.

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00:02:09,000 --> 00:02:14,000

Well, in that case, splitting an arrow seems like a good place to start.

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00:02:14,000 --> 00:02:18,000

In Robin Hood, Arrow Flynn made it look so easy.

46

00:02:18,000 --> 00:02:20,000

He's split fill of terror.

47

00:02:20,000 --> 00:02:23,000

A split from knock all the way to tip.

48

00:02:23,000 --> 00:02:27,000

And a split second later, the crowd went ballistic.

49

00:02:30,000 --> 00:02:31,000

Yep, ready?

50

00:02:31,000 --> 00:02:32,000

Yep.

51

00:02:32,000 --> 00:02:39,000

But when the Mythbusters emulated Arrow, their long shots were a bit of a long shot.

52

00:02:39,000 --> 00:02:41,000

Nice grouping, Grant.

53

00:02:41,000 --> 00:02:46,000

So they did a point blank test which still didn't seal the deal.

54

00:02:47,000 --> 00:02:53,000

But according to viewers, the team used the wrong bow, the wrong arrow heads, the wrong arrow shafts.

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00:02:53,000 --> 00:02:56,000

The fans think it's still possible.

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00:02:56,000 --> 00:02:58,000

Well, let's do it their way this time.

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00:02:58,000 --> 00:03:06,000

We'll take all of their advice and in addition, we'll have our researchers dig up information on making our own arrows in the period materials,

58

00:03:06,000 --> 00:03:10,000

in the way that they did it at that time, and see what happens.

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00:03:10,000 --> 00:03:15,000

So for this revisit, our sharp shooters are going to listen to the fans.

60

00:03:15,000 --> 00:03:21,000

As they build fully authentic medieval arrows, starting with the shafts.

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00:03:23,000 --> 00:03:31,000

According to a fryer tuck load of fans, to split an arrow, it must be made of perfectly straight grain timber.

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00:03:32,000 --> 00:03:37,000

And would you believe it, one viewer has donated the perfect piece.

63

00:03:37,000 --> 00:03:42,000

Our witness sent to us all the way from British Columbia, from Boards by George,

64

00:03:42,000 --> 00:03:47,000

and hands picked out every one of these pieces to have the straightest possible grain.

65

00:03:47,000 --> 00:03:51,000

Instead of just telling us we did it wrong, he's actually participating in this revisit.

66

00:03:51,000 --> 00:03:53,000

I love that.

67

00:03:53,000 --> 00:03:55,000

As well as I.

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00:03:55,000 --> 00:03:57,000

I love it too.

69

00:03:59,000 --> 00:04:03,000

Good old George, but what is it that makes this cedar so special?

70

00:04:03,000 --> 00:04:07,000

As you can see it's splitting all the way down the length of the wood.

71

00:04:07,000 --> 00:04:11,000

If we make arrows out of this, this is going to be our best chance of splitting an arrow.

72

00:04:12,000 --> 00:04:17,000

That has the grain running straight through it is, so the fans reckon, ideal.

73

00:04:18,000 --> 00:04:22,000

Which means that Tori and Grant can get to grips with how to fire them.

74

00:04:22,000 --> 00:04:32,000

Here on MythBusters we like to reinvent the wheel, and apparently we chopped up our last robotic arrow firing machine to save space in the shop.

75

00:04:32,000 --> 00:04:35,000

So we need to build it again.

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00:04:35,000 --> 00:04:40,000

The guys thought this myth was so busted, that they busted their arrow bar.

77

00:04:41,000 --> 00:04:43,000

So now they've got to make it anew.

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00:04:43,000 --> 00:04:50,000

But ArrowBot 2 will be slightly different, so that it can fire a more authentic Robin Hood type weapon.

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00:04:52,000 --> 00:04:57,000

We've gone from using a compound bow to a long bow, which is more traditional.

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00:04:57,000 --> 00:05:03,000

We're trying to keep the circumstances the way they would be if you were splitting an arrow.

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00:05:03,000 --> 00:05:07,000

And talking of arrows carries adding the finishing touches.

82

00:05:08,000 --> 00:05:14,000

I'm preparing the fletching for the arrows. It is the little feathery end of the arrows that keep it steady in flight.

83

00:05:14,000 --> 00:05:23,000

From the reference material we have, it looks as though in the Middle Ages that the feathers that would have been used would have been goose, or possibly peacock or swan.

84

00:05:23,000 --> 00:05:25,000

Most commonly goose.

85

00:05:26,000 --> 00:05:31,000

While Carrie has a gander at the fletchings, Tori's getting to the sharp end.

86

00:05:32,000 --> 00:05:37,000

There's one final thing to finish these fires. Strengthening the knock.

87

00:05:37,000 --> 00:05:40,000

So what I've got here is a goat horn.

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00:05:40,000 --> 00:05:52,000

And the idea is that you put a split in the arrow and take a sliver of this horn, put it in there, and whip a string around to reinforce.

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00:05:52,000 --> 00:05:58,000

The reinforced goat knock is the last addition to make the arrows completely Robin Hood compatible.

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00:05:58,000 --> 00:06:03,000

But ironically, this may actually hinder the arrow split attempt.

91

00:06:05,000 --> 00:06:18,000

A perfectly straight grain cedar arrow may well split when hit dead on, but the goat horn in a traditional arrow could be so hard that it might block the path of the fired flyer to make a split impossible.

92

00:06:20,000 --> 00:06:24,000

But historical accuracy is what viewers wanted.

93

00:06:24,000 --> 00:06:27,000

So the strengthening horn is going to stay.

94

00:06:29,000 --> 00:06:38,000

And to complete the quest for authenticity, Tori wants to use the homemade darts, not just as the target arrows, but also as the fired flyers.

95

00:06:39,000 --> 00:06:43,000

But that will only work if they fly straight and true.

96

00:06:43,000 --> 00:06:47,000

So we just finished building our arrows, Yoli style.

97

00:06:47,000 --> 00:06:54,000

My feeling is that when we fire these things, they're probably going to explode on impact because the wood isn't that strong.

98

00:06:55,000 --> 00:06:57,000

Well, why not do a test fire?

99

00:06:58,000 --> 00:07:02,000

Firing in three, two, one.

100

00:07:04,000 --> 00:07:06,000

A bullseye it ain't.

101

00:07:07,000 --> 00:07:08,000

Huh.

102

00:07:08,000 --> 00:07:09,000

Oh, wow.

103

00:07:10,000 --> 00:07:12,000

Well, it looked like a strong firing.

104

00:07:12,000 --> 00:07:14,000

Yeah, they don't fire so straight though.

105

00:07:14,000 --> 00:07:15,000

Not so much.

106

00:07:15,000 --> 00:07:18,000

How the hell do we get it at that angle? That's what I want to know.

107

00:07:18,000 --> 00:07:20,000

It looked almost like it hit something on the way out.

108

00:07:20,000 --> 00:07:22,000

Maybe it hit the fletching.

109

00:07:22,000 --> 00:07:25,000

Yeah, it's possible.

110

00:07:26,000 --> 00:07:30,000

The authentic arrow is about as accurate as a scud missile.

111

00:07:30,000 --> 00:07:38,000

But because the team still wants to use them as both the splitter and the split-e, it's going with the point blank test straight away.

112

00:07:38,000 --> 00:07:42,000

And Tori's in charge of the high tech aiming system.

113

00:07:43,000 --> 00:07:44,000

Ready?

114

00:07:44,000 --> 00:07:45,000

Ready?

115

00:07:45,000 --> 00:07:46,000

High speed ready?

116

00:07:46,000 --> 00:07:47,000

Go.

117

00:07:47,000 --> 00:07:49,000

Three, two, one.

118

00:07:51,000 --> 00:07:52,000

Whoa.

119

00:07:53,000 --> 00:07:55,000

That was cool.

120

00:07:55,000 --> 00:07:57,000

It was right on the money.

121

00:07:59,000 --> 00:08:00,000

But there was no split.

122

00:08:00,000 --> 00:08:03,000

The force from the bow broke the fired arrow in half.

123

00:08:03,000 --> 00:08:09,000

So for test two, they're going to try a stronger modern arrow, still aiming at the authentic target.

124

00:08:11,000 --> 00:08:12,000

Go.

125

00:08:14,000 --> 00:08:17,000

It's a tougher arrow, but the same result.

126

00:08:17,000 --> 00:08:21,000

Oh, shoot.

127

00:08:22,000 --> 00:08:29,000

The modern fires is bent as a \$3 bill, yet the target arrow is virtually unscathed.

128

00:08:29,000 --> 00:08:33,000

To get the elusive split, they're going to need a plan B.

129

00:08:42,000 --> 00:08:49,000

The next revisit is from the explosive Confederate rocket, where the Mifbusters went ballistic.

130

00:08:50,000 --> 00:08:51,000

Three.

131

00:08:51,000 --> 00:08:57,000

Adam and Jamie built, aimed and launched missiles made out of Civil War era technology.

132

00:08:59,000 --> 00:09:07,000

But try as they might, they found that even their souped up hybrid retro rocket couldn't fly the mythical 120 miles.

133

00:09:12,000 --> 00:09:14,000

So you guys are revisiting Confederate rocket?

134

00:09:14,000 --> 00:09:15,000

How come?

135

00:09:15,000 --> 00:09:19,000

I mean, didn't your last three rocket systems work perfectly and you busted the myth, right?

136

00:09:19,000 --> 00:09:24,000

When we were doing the original, we came across a piece of information that we had to have a crack at.

137

00:09:24,000 --> 00:09:31,000

Apparently these hybrid rockets are so simple and effective that they'll run off of just about anything, even a salami.

138

00:09:31,000 --> 00:09:33,000

So you guys are going to fuel these rockets with salami?

139

00:09:33,000 --> 00:09:34,000

You bet.

140

00:09:37,000 --> 00:09:42,000

When it comes to rocket fuel, the Mifbusters like to think outside the box.

141

00:09:43,000 --> 00:09:46,000

It's got to be one of the strangest things we've ever done.

142

00:09:47,000 --> 00:09:50,000

I mean, I'm about to chuck a salami into the lathe.

143

00:09:51,000 --> 00:10:00,000

Sure is strange, but these hybrid rockets are so efficient that apparently any hydrocarbon, even salami, can be fuel.

144

00:10:01,000 --> 00:10:10,000

This may look like a salami, it may smell like a salami, it may even taste like a salami, but it's rocket fuel.

145

00:10:11,000 --> 00:10:18,000

While the fuel is going to be a little off the wall, everything else about their rocket is going to match their Confederate rocket blueprint.

146

00:10:21,000 --> 00:10:24,000

That Mifbusters missile was split into two halves.

147

00:10:24,000 --> 00:10:35,000

The bottom section contained the paraffin wax fuel, which, on ignition, gently smoldered until the top half's liquid nitrous oxide was added with explosive results.

148

00:10:36,000 --> 00:10:45,000

This time, they'll keep the same burn-enhancing NOx oxidizer, but replace the wax fuel with a string of sausages.

149

00:10:47,000 --> 00:10:53,000

And that's not the only change, because this time there's no need to stick to Civil War era technology.

150

00:10:53,000 --> 00:10:55,000

Yep, that's about perfect.

151

00:10:56,000 --> 00:11:01,000

They can make their salami rocket a little more refined, starting with the launch system.

152

00:11:02,000 --> 00:11:16,000

Three switches, one's going to be the fill shut-off, one will be the quick-release removal of the filling hose, and the third will be the launch button.

153

00:11:17,000 --> 00:11:21,000

They next want to modernize the way they filled a tank with nitrous oxide.

154

00:11:22,000 --> 00:11:30,000

Because last time they struggled to tell if it was filling at all, and disconnection was rather dicey.

155

00:11:33,000 --> 00:11:34,000

Are you okay?

156

00:11:34,000 --> 00:11:36,000

Yeah, I knew I was going to do that.

157

00:11:37,000 --> 00:11:41,000

So now they're going to put the tank under vacuum and draw the nitrous oxide in.

158

00:11:42,000 --> 00:11:49,000

What I've got to do here is pull a vacuum on this tank and see whether it actually sucks a

sufficient amount of water into it.

159

00:11:50,000 --> 00:11:54,000

The same volume of which we'll be intending to pull in in nitrous oxide.

160

00:11:55,000 --> 00:11:59,000

It's an ingenious idea, but one worth testing out with water pre-launch.

161

00:12:06,000 --> 00:12:07,000

Success!

162

00:12:07,000 --> 00:12:09,000

The Mythbusters adore a vacuum.

163

00:12:10,000 --> 00:12:17,000

Come experiment day, they'll now be able to completely fill the NOx tank to ensure max thrust from the salami.

164

00:12:19,000 --> 00:12:26,000

Spurred on by this progress, the Mythbusters race ahead with the final touches to their lunch meat launcher.

165

00:12:27,000 --> 00:12:28,000

There's your rocket nozzle.

166

00:12:29,000 --> 00:12:30,000

That's beautiful.

167

00:12:31,000 --> 00:12:35,000

With the nozzle in place, the team joins up the two halves of the engine.

168

00:12:36,000 --> 00:12:38,000

That is so light.

169

00:12:39,000 --> 00:12:41,000

A shiny rocket hull later.

170

00:12:42,000 --> 00:12:44,000

And that is that.

171

00:12:44,000 --> 00:12:50,000

One hybrid rocket with nitrous oxide as the oxidizer and salami as the fuel.

172

00:12:51,000 --> 00:12:52,000

Okay, go for it.

173

00:12:53,000 --> 00:12:54,000

And...

174

00:12:57,000 --> 00:12:58,000

That is great.

175

00:12:59,000 --> 00:13:00,000

Okay.

176

00:13:00,000 --> 00:13:01,000

I love it.

177

00:13:01,000 --> 00:13:03,000

It sure is lovely, but will it work?

178

00:13:04,000 --> 00:13:12,000

Well, before heading to mission control in the desert, Jamie and Adam are first going to put their meat missile through a locked down test fire at Alameda.

179

00:13:13,000 --> 00:13:17,000

You got your pepperoni, you got your salami, you got bologna.

180

00:13:17,000 --> 00:13:18,000

So I can't get a veggie?

181

00:13:18,000 --> 00:13:20,000

No, no veggie rockets.

182

00:13:20,000 --> 00:13:21,000

Sorry.

183

00:13:21,000 --> 00:13:22,000

How much?

184

00:13:22,000 --> 00:13:27,000

Pyrotechnician Jack Morocco is here because he has a license to pack black powder.

185

00:13:27,000 --> 00:13:32,000

So Jack, can I set you up with helping us manufacture the salami rocket engines?

186

00:13:32,000 --> 00:13:35,000

Absolutely, I just hope I don't get too hungry.

187

00:13:36,000 --> 00:13:43,000

If the salamis are going to burn explosively when the nox is added, they first need to be on fire.

188

00:13:43,000 --> 00:13:47,000

And a small coating of gunpowder should do just the job.

189

00:13:48,000 --> 00:13:49,000

Let's just see what it does.

190

00:13:49,000 --> 00:13:50,000

All right.

191

00:13:50,000 --> 00:13:51,000

Okay.

192

00:13:51,000 --> 00:13:52,000

Ready to go?

193

00:13:54,000 --> 00:13:55,000

Whoa!

194

00:13:55,000 --> 00:13:56,000

It's a movie.

195

00:13:57,000 --> 00:14:02,000

Eight salami rolls later and it's time to play hide the sausage.

196

00:14:03,000 --> 00:14:04,000

Last one.

197

00:14:06,000 --> 00:14:12,000

With the motor packed and loaded, the rocket is locked down so that it can ignite but can't take off.

198

00:14:14,000 --> 00:14:16,000

And then it's all systems go.

199

00:14:17,000 --> 00:14:21,000

This is another one of those things where you just run through so many of the safety procedures

200

00:14:21,000 --> 00:14:25,000

and so many of the systems in your head that every now and then you have to remind yourself

201

00:14:25,000 --> 00:14:28,000

and go, damn, I'm lighting salamis, man.

202

00:14:28,000 --> 00:14:30,000

I'm making a rocket out of meat.

203

00:14:30,000 --> 00:14:34,000

But will it make minced meat of this myth?

204

00:14:34,000 --> 00:14:38,000

This proof of concept static test of the salami rocket.

205

00:14:38,000 --> 00:14:40,000

I'm going to release the nitrous oxide.

206

00:14:41,000 --> 00:14:42,000

Off she goes.

207

00:14:42,000 --> 00:14:43,000

All right.

208

00:14:43,000 --> 00:14:48,000

In three, two, one, launch and shut up.

209

00:14:53,000 --> 00:14:54,000

What was that?

210

00:14:54,000 --> 00:14:55,000

The rocket is gone.

211

00:14:56,000 --> 00:14:57,000

No way.

212

00:14:57,000 --> 00:15:01,000

No, not gone up in the air, Adam, but gone to the dogs.

213

00:15:02,000 --> 00:15:03,000

Oh, what?

214

00:15:03,000 --> 00:15:04,000

Did it blow up?

215

00:15:04,000 --> 00:15:05,000

Yeah.

216

00:15:05,000 --> 00:15:06,000

The engine's gone.

217

00:15:06,000 --> 00:15:07,000

No.

218

00:15:08,000 --> 00:15:13,000

Their notorious PIG wasn't a rocket, but it sure was a blast.

219

00:15:13,000 --> 00:15:16,000

The place looks like a massacre in a deli.

220

00:15:16,000 --> 00:15:18,000

Time for a post-mortem.

221

00:15:18,000 --> 00:15:24,000

What I saw when Adam pushed the button was that there was flame coming out of the bottom of the rocket.

222

00:15:24,000 --> 00:15:28,000

That meant that the ignition worked, the black powder worked and it lit.

223

00:15:28,000 --> 00:15:32,000

And then there was a pause when the nitrous oxide was opened.

224

00:15:33,000 --> 00:15:36,000

And then it was just gone.

225

00:15:43,000 --> 00:15:47,000

Amazingly, the salami fuel was too powerful.

226

00:15:47,000 --> 00:15:53,000

As it burned, there was an excess of exhaust and the pressure built up until kaboom.

227

00:15:55,000 --> 00:16:00,000

For the boys to get some pastrami propulsion, it's back to the drawing board.

228

00:16:01,000 --> 00:16:05,000

Let's get some brooms and start cleaning up this carnage assata.

229

00:16:05,000 --> 00:16:08,000

There's meat everywhere. Disgusting.

230

00:16:12,000 --> 00:16:19,000

Back with splitting an arrow, the team is going crazy with deja vu as it attempts to bust this myth once again.

231

00:16:20,000 --> 00:16:27,000

Despite making the most splittable arrow possible and using a traditional bow with a 90-pound draw,

232

00:16:27,000 --> 00:16:30,000

their point blank shot failed miserably.

233

00:16:30,000 --> 00:16:32,000

And Grant knows why.

234

00:16:33,000 --> 00:16:42,000

At that range, we're putting a huge amount of force in the arrow and that's why they're either breaking or in the case of the aluminum arrow, bending.

235

00:16:42,000 --> 00:16:46,000

So I think we actually need to go back to doing a range test.

236

00:16:46,000 --> 00:16:53,000

Let the arrow fly. That way, we're not pushing on it to try and push through the other arrow.

237

00:16:53,000 --> 00:17:00,000

With their point blank test chaffed, the archery range is the perfect place to test this myth once and for all.

238

00:17:02,000 --> 00:17:09,000

And as in their recent test, they're going to use their authentic arrows as the target, but modern arrows to fire.

239

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

The important thing is that we're using the replica arrows as the target arrow because it's really not going to matter the arrow that goes into it.

240

00:17:17,000 --> 00:17:22,000

Half as much as it matters that the arrow it's going into is made with period materials.

241

00:17:22,000 --> 00:17:25,000

Here we go in three, two, one.

242

00:17:25,000 --> 00:17:32,000

Close, but not close enough. Of course, they can only split the arrow if they actually hit it.

243

00:17:32,000 --> 00:17:35,000

So they dial in the focus.

244

00:17:35,000 --> 00:17:38,000

Here we go. Three, two, one.

245

00:17:40,000 --> 00:17:43,000

You know, I think we hit it because it's definitely off target.

246

00:17:43,000 --> 00:17:48,000

Sure enough, this time they got a direct hit, but no splitting.

247

00:17:48,000 --> 00:17:52,000

And that's the same story for their next five fires.

248

00:17:52,000 --> 00:17:58,000

Hit after hit, but no knock to tip split, which is all a little familiar.

249

00:17:58,000 --> 00:18:02,000

When these guys first tested this myth, they filmed something surprising.

250

00:18:02,000 --> 00:18:06,000

Straight as an arrow is not how arrows actually fly.

251

00:18:06,000 --> 00:18:12,000

They bend and wobble through the air, which makes getting a split almost impossible.

252

00:18:12,000 --> 00:18:20,000

The same thing is happening here, but the team got too many vitriolic emails to abandon this myth now.

253

00:18:20,000 --> 00:18:24,000

Somehow I feel like this has happened before.

254

00:18:24,000 --> 00:18:32,000

Something reminding you of something like we may have done this once.

255

00:18:32,000 --> 00:18:36,000

They're not giving up without a fight.

256

00:18:40,000 --> 00:18:46,000

We couldn't do a myth revisited without one gun story, so here it is.

257

00:18:46,000 --> 00:18:51,000

So, bolts fired into water. What did we do wrong with that one? I thought we did great.

258

00:18:51,000 --> 00:18:56,000

You did do great, but the viewers, in addition to all that testing, would have liked to have seen us fire guns underwater.

259

00:18:56,000 --> 00:19:01,000

That might get past the bullet hitting the water deceleration problem that we were having.

260

00:19:01,000 --> 00:19:05,000

It's another opportunity to break out the guns, I guess, huh?

261

00:19:05,000 --> 00:19:11,000

Last time, the myth musters broke out guns galore to see if bullets really are stopped by water.

262

00:19:11,000 --> 00:19:17,000

This is M1 Grand 30 caliber at 2 feet.

263

00:19:17,000 --> 00:19:22,000

And the results were surprising. The more powerful the gun...

264

00:19:22,000 --> 00:19:26,000

This kills you. This kills you and everyone else in the room.

265

00:19:26,000 --> 00:19:30,000

The more ineffective the bullet in water.

266

00:19:30,000 --> 00:19:39,000

Fans were happy with these findings, but now want to know whether guns actually work when

submerged.

267

00:19:39,000 --> 00:19:45,000

To find out, Tori, Carrie and Grant are going to build a water trough, drown their weapons,

268

00:19:45,000 --> 00:19:50,000

and see at what distance they penetrate a block of ballistics material.

269

00:19:50,000 --> 00:19:58,000

King Cobra. Six hour P239, 9mm. M1 Grand.

270

00:19:58,000 --> 00:20:02,000

Personal favorite, 12 gauge shotgun.

271

00:20:02,000 --> 00:20:10,000

Of course, there are special forces guns like the Glock 17 or the SPP-1 that can fire underwater.

272

00:20:10,000 --> 00:20:14,000

But this myth is about regular weapons like these.

273

00:20:14,000 --> 00:20:21,000

Will any of them shoot from the hip when submerged in Tori's newly reinforced water filled trough?

274

00:20:21,000 --> 00:20:26,000

Alright, here we are, main event. We're about to fire a bullet underneath the water.

275

00:20:26,000 --> 00:20:30,000

What I need to do is I need to open the chamber of the gun to make sure there's no air at all in the barrel.

276

00:20:30,000 --> 00:20:39,000

The gun must be air free because otherwise it could explode if the bullet passes from air to water inside the barrel.

277

00:20:39,000 --> 00:20:44,000

Okay, we are loaded and ready to fire.

278

00:20:44,000 --> 00:20:49,000

For each gun they want to know two things. Over what distance is it lethal?

279

00:20:49,000 --> 00:20:54,000

But before that, will it even fire underwater?

280

00:20:54,000 --> 00:20:59,000

9mm, first shot. Three, two, one.

281

00:20:59,000 --> 00:21:04,000

That looked cool. I think I might have made it all the way.

282

00:21:04,000 --> 00:21:07,000

That was rad. The whole water just like leaped up.

283

00:21:07,000 --> 00:21:12,000

I think it went far. There it is. I'd say that was about 18 feet.

284

00:21:12,000 --> 00:21:16,000

And the bullet is perfectly intact.

285

00:21:16,000 --> 00:21:21,000

One thing we're just kind of skipping over is we've just proven that you can fire a bullet

underneath water.

286

00:21:21,000 --> 00:21:23,000

Oh, you're right.

287

00:21:23,000 --> 00:21:28,000

So right there it's confirmed. It's possible to shoot a gun underneath water.

288

00:21:28,000 --> 00:21:36,000

Test one's passed. A 9mm will fire underwater. But as Grant discovers, it won't reload.

289

00:21:36,000 --> 00:21:41,000

Check it out. When I was resetting the ransom rest, I found the shell casing caught in the slide.

290

00:21:41,000 --> 00:21:43,000

It didn't eject the bullet.

291

00:21:43,000 --> 00:21:45,000

No, because it relies on the pressure.

292

00:21:45,000 --> 00:21:47,000

Right, and you have that water on top of it.

293

00:21:47,000 --> 00:21:50,000

So if you're shooting underwater, you only have one shot to kill the bad guy.

294

00:21:50,000 --> 00:21:52,000

Yep, you better get it right.

295

00:21:52,000 --> 00:21:57,000

So you've got one shot, but over what distance is it life-threatening?

296

00:21:57,000 --> 00:21:59,000

In the original story...

297

00:21:59,000 --> 00:22:03,000

Okay, this 9mm pistol at 8 feet.

298

00:22:03,000 --> 00:22:09,000

Adam and Jamie showed you'd have to dive 8 feet to survive a shot from a 9mm.

299

00:22:09,000 --> 00:22:13,000

When it's fired into water from air.

300

00:22:13,000 --> 00:22:15,000

Whoa, no, that didn't go all the way through.

301

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

But what about when it's in the water to begin with?

302

00:22:19,000 --> 00:22:25,000

From the barrel to the ballistic material with 10 feet, we're going with another 9mm round full metal jacket.

303

00:22:25,000 --> 00:22:28,000

In 3, 2, 1...

304

00:22:28,000 --> 00:22:31,000

Another fire, but was it lethal?

305

00:22:31,000 --> 00:22:34,000

So it didn't even have the penetration of a BB?

306

00:22:34,000 --> 00:22:35,000

No.

307

00:22:35,000 --> 00:22:36,000

Not lethal?

308

00:22:36,000 --> 00:22:37,000

Not at 10 feet.

309

00:22:37,000 --> 00:22:39,000

Alright, why don't we do 2 feet, see what happens there.

310

00:22:39,000 --> 00:22:41,000

Great.

311

00:22:41,000 --> 00:22:43,000

9mm at 2 feet?

312

00:22:43,000 --> 00:22:45,000

Oh yeah.

313

00:22:45,000 --> 00:22:50,000

But this time, when they look for the round, there's a problem.

314

00:22:50,000 --> 00:22:52,000

It's nowhere to be found.

315

00:22:52,000 --> 00:22:55,000

There's no obvious hole in the ballistic's material.

316

00:22:55,000 --> 00:22:57,000

Oh, it's the magic bullet.

317

00:22:57,000 --> 00:22:58,000

It's a disappearing bullet.

318

00:22:58,000 --> 00:23:00,000

It disappeared.

319

00:23:00,000 --> 00:23:02,000

And it's not tucked away in the trough.

320

00:23:02,000 --> 00:23:04,000

I don't see it in here.

321

00:23:04,000 --> 00:23:06,000

It's all a bit of a mystery.

322

00:23:06,000 --> 00:23:09,000

At 2 feet, we couldn't find the bullet.

323

00:23:09,000 --> 00:23:18,000

So what we're going to have to do is dissect the ballistic's material block at the end of the experiment and see if we can find it.

324

00:23:18,000 --> 00:23:21,000

Right now, we're going to move on to the .357.

325

00:23:21,000 --> 00:23:24,000

There's no time to stop and search.

326

00:23:24,000 --> 00:23:29,000

With the light fading fast, the team must crack on with the rest of their weaponry.

327

00:23:29,000 --> 00:23:30,000

OK.

328

00:23:30,000 --> 00:23:35,000

.357 Magnum Full Metal Jacket in 3, 2, 1.

329

00:23:35,000 --> 00:23:38,000

Was that a bigger boom?

330

00:23:38,000 --> 00:23:41,000

I don't see a big hole.

331

00:23:41,000 --> 00:23:43,000

Bigger boom, same problem.

332

00:23:43,000 --> 00:23:46,000

The round is nowhere to be seen.

333

00:23:46,000 --> 00:23:48,000

No bullets.

334

00:23:48,000 --> 00:23:52,000

The .357 sure works underwater.

335

00:23:52,000 --> 00:23:57,000

But it's deadliness is going to need some further dissection.

336

00:24:00,000 --> 00:24:06,000

In the Confederate rocket revisit, Adam and Jamie have had a Salami setback.

337

00:24:06,000 --> 00:24:12,000

Their mythical meat missile was more of a baloney boom.

338

00:24:12,000 --> 00:24:14,000

So how did the Salami powered rockets go?

339

00:24:14,000 --> 00:24:15,000

It didn't go.

340

00:24:15,000 --> 00:24:17,000

It catastrophically failed on the launch pad.

341

00:24:17,000 --> 00:24:19,000

Well, that doesn't sound like a failure.

342

00:24:19,000 --> 00:24:21,000

But I guess you do need to make a rocket.

343

00:24:21,000 --> 00:24:23,000

So what are you going to do next?

344

00:24:23,000 --> 00:24:27,000

We learned that there is enough energy in a Salami to cause an explosion.

345

00:24:27,000 --> 00:24:30,000

So that means there ought to be enough energy to launch a rocket.

346

00:24:30,000 --> 00:24:32,000

We just need to refine it a little bit.

347

00:24:32,000 --> 00:24:38,000

And I had to thought that we could possibly make a smaller version using paintball gun tanks

348

00:24:38,000 --> 00:24:41,000

that we could get together pretty quickly.

349

00:24:41,000 --> 00:24:46,000

So they're shrinking things down to two small paintball tanks joined by a valve.

350

00:24:46,000 --> 00:24:49,000

The top tank will be filled with liquid nitrous oxide.

351

00:24:49,000 --> 00:24:53,000

And the bottom stuffed with a solitary Salami.

352

00:24:53,000 --> 00:24:57,000

It's a mad rush because the boys are well behind schedule.

353

00:24:57,000 --> 00:25:02,000

Luckily, the advantage of this new design is that it's easy to put together.

354

00:25:03,000 --> 00:25:05,000

Rocket nozzle.

355

00:25:06,000 --> 00:25:09,000

One Salami later and the new rocket is ready.

356

00:25:11,000 --> 00:25:14,000

And after four sweaty hours...

357

00:25:15,000 --> 00:25:17,000

You think we're ready to pack out?

358

00:25:18,000 --> 00:25:19,000

I think we're ready.

359

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

At last for the great Salami showdown, it's off to the middle of nowhere.

360

00:25:30,000 --> 00:25:33,000

When Adam and Jamie fired their shotgun into water...

361

00:25:33,000 --> 00:25:34,000

One!

362

00:25:35,000 --> 00:25:38,000

They found that it was deadly at a distance of 10 feet.

363

00:25:38,000 --> 00:25:39,000

Jesus wet, Jamie.

364

00:25:39,000 --> 00:25:41,000

That's definitely a lethal hit.

365

00:25:41,000 --> 00:25:44,000

But what about when the gun is already under?

366

00:25:44,000 --> 00:25:45,000

Okay.

367

00:25:45,000 --> 00:25:50,000

Shotgun at 10 feet underwater in three, two, one.

368

00:25:53,000 --> 00:25:56,000

Just like the handguns, there's fire in the hole.

369

00:25:56,000 --> 00:25:59,000

But this time, there is a difference.

370

00:26:00,000 --> 00:26:02,000

Look at that. It cracked all the way.

371

00:26:02,000 --> 00:26:05,000

The gun has exploded in half.

372

00:26:05,000 --> 00:26:08,000

Now do you think that's because there was air in there somewhere

373

00:26:08,000 --> 00:26:11,000

or it's just a really bad idea to shoot shotgun underwater?

374

00:26:11,000 --> 00:26:13,000

I think it's a bad idea to shoot shotgun underwater.

375

00:26:13,000 --> 00:26:15,000

I doubt seriously there's any air in there.

376

00:26:15,000 --> 00:26:17,000

What a shame.

377

00:26:17,000 --> 00:26:19,000

So shotgun hunting underwater?

378

00:26:19,000 --> 00:26:20,000

It's stupid.

379

00:26:22,000 --> 00:26:25,000

With the shotgun sunk, there's one rifle remaining.

380

00:26:26,000 --> 00:26:29,000

Up next, we have the M1 Garand,

381

00:26:29,000 --> 00:26:34,000

which actually has the exit velocity of 2,700 feet per second,

382

00:26:34,000 --> 00:26:38,000

which is basically like three times the energy of any of the guns we've shot today.

383

00:26:38,000 --> 00:26:41,000

Last time, the super fast M1's bullet...

384

00:26:41,000 --> 00:26:42,000

...blast.

385

00:26:42,000 --> 00:26:45,000

...disintegrated virtually on impact with the water.

386

00:26:48,000 --> 00:26:52,000

But now, when under, will it make you drown your sorrows?

387

00:26:53,000 --> 00:26:57,000

M1 Garand in three, two, one.

388

00:26:59,000 --> 00:27:01,000

That was a good one.

389

00:27:02,000 --> 00:27:05,000

The gun's in one piece, but the bullet...

390

00:27:05,000 --> 00:27:07,000

Here's the bullet.

391

00:27:07,000 --> 00:27:08,000

Right there?

392

00:27:08,000 --> 00:27:09,000

Yep.

393

00:27:09,000 --> 00:27:11,000

What is that? What is that, about six feet?

394

00:27:11,000 --> 00:27:12,000

Yeah.

395

00:27:12,000 --> 00:27:13,000

What do you think?

396

00:27:13,000 --> 00:27:15,000

Around six feet, unless your point blank.

397

00:27:15,000 --> 00:27:17,000

I don't think this thing's lethal.

398

00:27:17,000 --> 00:27:19,000

Wait, it fell at six feet.

399

00:27:19,000 --> 00:27:21,000

Yeah, and it didn't even make it to our target.

400

00:27:21,000 --> 00:27:24,000

This time, the bullet hasn't shattered.

401

00:27:24,000 --> 00:27:28,000

But it's still being rendered ineffective by water.

402

00:27:28,000 --> 00:27:30,000

I would say, though, it's pretty intimidating.

403

00:27:30,000 --> 00:27:33,000

I think if somebody was shooting one of those at me underwater

404

00:27:33,000 --> 00:27:36,000

and saw that explosion, I'd still be freaking out.

405

00:27:36,000 --> 00:27:39,000

Frightening for sure, but just a few kicks away,

406

00:27:39,000 --> 00:27:44,000

and the water will prevent the M1's bullet from spilling your blood.

407

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

But can the same be said of the handguns?

408

00:27:50,000 --> 00:27:53,000

We're back at the shop now, and we've taken our block of ballistic material,

409

00:27:53,000 --> 00:27:57,000

and we need to dissect it because we didn't find any bullets or any bullet holes,

410

00:27:57,000 --> 00:28:01,000

and we want to find out if there might be one lodged in there that we can't see.

411

00:28:01,000 --> 00:28:02,000

You guys find anything?

412

00:28:02,000 --> 00:28:03,000

No.

413

00:28:03,000 --> 00:28:05,000

There's no holes. There's nothing.

414

00:28:05,000 --> 00:28:09,000

Okay, do you... Let's take this off and just start cutting into it.

415

00:28:09,000 --> 00:28:11,000

Slice and dice.

416

00:28:11,000 --> 00:28:12,000

Yeah, sounds good.

417

00:28:13,000 --> 00:28:17,000

It's a careful operation as the team carves off one layer at a time,

418

00:28:17,000 --> 00:28:22,000

but it's beginning to look like the handgun rounds didn't even make it in.

419

00:28:23,000 --> 00:28:24,000

There's nothing in here.

420

00:28:24,000 --> 00:28:25,000

Looks clean.

421

00:28:25,000 --> 00:28:26,000

Yeah.

422

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

Until...

423

00:28:30,000 --> 00:28:32,000

Wait, wait, wait. I feel something.

424

00:28:32,000 --> 00:28:33,000

Hey.

425

00:28:34,000 --> 00:28:36,000

Hey! There it is.

426

00:28:36,000 --> 00:28:37,000

It's the 9mm.

427

00:28:37,000 --> 00:28:38,000

It's the 9.

428

00:28:38,000 --> 00:28:39,000

It's the 9.

429

00:28:39,000 --> 00:28:43,000

I'm two inches from the back, which means I've penetrated four inches deep.

430

00:28:44,000 --> 00:28:45,000

That's lethal.

431

00:28:45,000 --> 00:28:48,000

Well, let's keep cutting it, because we still don't have the 357.

432

00:28:48,000 --> 00:28:54,000

The 357 Magnum is more powerful than the 9mm, so the team keeps cutting deeper.

433

00:28:54,000 --> 00:28:55,000

Wait.

434

00:28:55,000 --> 00:28:56,000

Here's the other one.

435

00:28:56,000 --> 00:28:57,000

How deep is that?

436

00:28:57,000 --> 00:28:58,000

Wow.

437

00:28:58,000 --> 00:29:00,000

That went almost all the way through.

438

00:29:00,000 --> 00:29:03,000

I would say that's about 5.5, 5.75 inches.

439

00:29:03,000 --> 00:29:04,000

Yeah.

440

00:29:05,000 --> 00:29:11,000

So at two feet, the Magnum, like the other handgun, will send you to a watery grave.

441

00:29:12,000 --> 00:29:15,000

So guys, bullets fired underwater, how did you do?

442

00:29:15,000 --> 00:29:19,000

Well, Jamie, you can actually fire a handgun or a rifle underneath water.

443

00:29:19,000 --> 00:29:21,000

But not a shotgun.

444

00:29:21,000 --> 00:29:23,000

Well, what happens to the shotgun?

445

00:29:23,000 --> 00:29:24,000

Blows up.

446

00:29:24,000 --> 00:29:25,000

Hmm.

447

00:29:25,000 --> 00:29:27,000

My young friend, were they lethal?

448

00:29:27,000 --> 00:29:30,000

Neither of them were lethal at a distance of more than three feet.

449

00:29:30,000 --> 00:29:33,000

It's actually more lethal to fire into water than underwater.

450

00:29:33,000 --> 00:29:37,000

So what are you guys going to call this, busted, plausible, or confirmed?

451

00:29:37,000 --> 00:29:38,000

Confirmed.

452

00:29:38,000 --> 00:29:39,000

You can fire a gun underwater.

453

00:29:39,000 --> 00:29:40,000

Yes.

454

00:29:40,000 --> 00:29:41,000

Well, nice work, guys.

455

00:29:41,000 --> 00:29:42,000

Thanks.

456

00:29:42,000 --> 00:29:43,000

Thanks.

457

00:29:52,000 --> 00:29:56,000

Back with splitting an arrow, the team has fired over 30 shots.

458

00:29:57,000 --> 00:30:02,000

But so far, the authentic and made target arrow has failed to split it all.

459

00:30:04,000 --> 00:30:06,000

And Tari thinks he knows why.

460

00:30:07,000 --> 00:30:12,000

Should we take the horn out so that we're giving ourselves the best chance of splitting this arrow?

461

00:30:12,000 --> 00:30:14,000

Yeah, we could certainly try that.

462

00:30:14,000 --> 00:30:18,000

I mean, that's how it was described in the historical text.

463

00:30:18,000 --> 00:30:22,000

Let's just try to make our critics happy, because I'm tired of arguing with them anyway.

464

00:30:22,000 --> 00:30:28,000

Might as well take out the bone so that if it really still doesn't split it, then we could go out.

465

00:30:28,000 --> 00:30:35,000

As predicted, the traditional horny knock is so strong that the fired arrow gets diverted off target.

466

00:30:37,000 --> 00:30:41,000

So Grant's taking out the horn, which may help split the arrow,

467

00:30:41,000 --> 00:30:45,000

but makes this experiment no longer Robin Hood compatible.

468

00:30:46,000 --> 00:30:47,000

There's your problem.

469

00:30:52,000 --> 00:30:54,000

Salami sure is popular.

470

00:30:54,000 --> 00:31:01,000

2,500 tons of this innocuous looking meat medley is eaten every year.

471

00:31:01,000 --> 00:31:04,000

But can it do more than just power our bodies?

472

00:31:04,000 --> 00:31:08,000

Can it fuel something altogether more spectacular?

473

00:31:09,000 --> 00:31:13,000

Well, the myth musters have come to the middle of nowhere to find out.

474

00:31:14,000 --> 00:31:15,000

It's dawn.

475

00:31:15,000 --> 00:31:16,000

It's freezing.

476

00:31:16,000 --> 00:31:22,000

And we're back on the original launch site of the Confederate rocket, except this time with the Salami powered rocket.

477

00:31:22,000 --> 00:31:26,000

Yeah, we know from the first test that we did that the energy is there.

478

00:31:26,000 --> 00:31:32,000

Hopefully we figured out how to harness it in such a way that it actually propels the rocket instead of explodes it.

479

00:31:32,000 --> 00:31:36,000

So what do you think? Should we get into it?

480

00:31:36,000 --> 00:31:37,000

Yeah, let's just go.

481

00:31:37,000 --> 00:31:38,000

All right.

482

00:31:38,000 --> 00:31:43,000

Just like at Alameda, they're going to position the rocket 500 feet away,

483

00:31:43,000 --> 00:31:47,000

crouch behind safety glass, and hope for the best.

484

00:31:47,000 --> 00:31:50,000

But this time they've got a secret weapon.

485

00:31:51,000 --> 00:31:54,000

Rocket expert Eric Gates is here to help them.

486

00:31:55,000 --> 00:31:57,000

Eric is a regular myth-keteer.

487

00:31:57,000 --> 00:32:01,000

It was his rockets that gave the thrust to the famous rocket car.

488

00:32:04,000 --> 00:32:09,000

And without him, a full 360 degree ride around a swing set would have been impossible.

489

00:32:10,000 --> 00:32:15,000

This time he's already altering Adam and Janie's plans.

490

00:32:17,000 --> 00:32:22,000

Eric wants to replace the black powder ignition system with modern hobby rocket fuel.

491

00:32:22,000 --> 00:32:27,000

And as usual, he can't resist a demonstration to show why.

492

00:32:27,000 --> 00:32:35,000

Your black powder is a quick flash, whereas this AP will burn for about three or four seconds with the constant heat to get the fuel hot for the nitrous.

493

00:32:35,000 --> 00:32:36,000

Okay.

494

00:32:36,000 --> 00:32:38,000

So if you want to push that button.

495

00:32:38,000 --> 00:32:41,000

Three, two, one.

496

00:32:44,000 --> 00:32:45,000

That's beautiful.

497

00:32:45,000 --> 00:32:46,000

That's what I wanted to see.

498

00:32:46,000 --> 00:32:52,000

It's making a nice jet down the throat of even that small donut, which will ignite the length of the sausage.

499

00:32:52,000 --> 00:32:58,000

The hobby fuel should do a much better job at setting the salami alight before the nox is added.

500

00:32:59,000 --> 00:33:00,000

Need as a whistle.

501

00:33:01,000 --> 00:33:08,000

And as for the nox, they've abandoned the vacuum filling system as they fill her up the old fashioned way.

502

00:33:09,000 --> 00:33:14,000

A fancy finned rocket hull later and she's taken to ground zero.

503

00:33:14,000 --> 00:33:18,000

Everybody is aware that we're about to go hot over.

504

00:33:18,000 --> 00:33:19,000

Go ahead and make the system hot.

505

00:33:19,000 --> 00:33:25,000

Here in Mojave, the mythbusters have flight clearance up to 50,000 feet.

506

00:33:25,000 --> 00:33:29,000

So how high might this pastrami puppy soar?

507

00:33:30,000 --> 00:33:31,000

What's going to happen?

508

00:33:31,000 --> 00:33:34,000

I give it a 20% chance of blowing up right on the stand.

509

00:33:34,000 --> 00:33:39,000

About a 50% chance of launching somewhere under 20 or 30 feet.

510

00:33:39,000 --> 00:33:44,000

And the rest is that it's going to go maybe to a couple thousand feet.

511

00:33:44,000 --> 00:33:47,000

What we have to get here is an actual flight.

512

00:33:47,000 --> 00:33:53,000

Personally, I'm not going to be satisfied if it just gets off the launch rod and goes 10 feet in the air.

513

00:33:53,000 --> 00:33:56,000

I mean, technically that's a flight.

514

00:33:56,000 --> 00:34:00,000

I think it's going to go hundreds of feet if not thousands of feet in the air.

515

00:34:00,000 --> 00:34:09,000

Okay, so this is a salami rocket with a half inch nozzle firing in three, two, one.

516

00:34:09,000 --> 00:34:10,000

Boom.

517

00:34:12,000 --> 00:34:14,000

Hey!

518

00:34:15,000 --> 00:34:16,000

Look at that!

519

00:34:17,000 --> 00:34:18,000

20 feet, man!

520

00:34:18,000 --> 00:34:19,000

What did I tell you?

521

00:34:19,000 --> 00:34:21,000

I don't care, man.

522

00:34:21,000 --> 00:34:26,000

What anybody says, that was a salami rocket and it flew.

523

00:34:26,000 --> 00:34:28,000

Everything else is in material.

524

00:34:29,000 --> 00:34:34,000

Fly it did, but this being mythbusters, we can't leave it at 20 feet.

525

00:34:40,000 --> 00:34:46,000

In Split Arrow, Tari, Kari and Grant have been giving the Robin Hood myth their best shot.

526

00:34:46,000 --> 00:34:50,000

Yet, whatever they've tried, singles are bunches.

527

00:34:51,000 --> 00:34:57,000

They failed to split even that hair, but they've got one more trick up their sleeve.

528

00:34:57,000 --> 00:35:00,000

And here he is, Jim Long.

529

00:35:05,000 --> 00:35:06,000

This is great.

530

00:35:06,000 --> 00:35:12,000

I mean, that was one of the things that the viewers were saying is, why don't you get a

professional shooter in?

531

00:35:12,000 --> 00:35:14,000

I don't know, man. This is working out perfect.

532

00:35:14,000 --> 00:35:15,000

This is it.

533

00:35:15,000 --> 00:35:20,000

Jim is one of the best archers in the land, and this myth is now down to him.

534

00:35:22,000 --> 00:35:26,000

He knocked the sticker off the end.

535

00:35:26,000 --> 00:35:32,000

It's a pretty good start from our Robin Hood wannabe, and the team goes in for a closer look.

536

00:35:32,000 --> 00:35:34,000

It's split at all.

537

00:35:34,000 --> 00:35:38,000

You took out the fletching on this side.

538

00:35:38,000 --> 00:35:40,000

You split a little bit of the wood.

539

00:35:40,000 --> 00:35:44,000

If that's his cider, what's he gonna do when he gets his eye in?

540

00:35:46,000 --> 00:35:47,000

There's the other feather.

541

00:35:49,000 --> 00:35:50,000

He's good.

542

00:35:51,000 --> 00:35:54,000

The arrow's getting shredded, but not split.

543

00:35:55,000 --> 00:36:03,000

Jim's pinpoint accuracy allows him to get hit after hit, but even he can only get partial splits at best.

544

00:36:03,000 --> 00:36:05,000

It's just getting deflected.

545

00:36:05,000 --> 00:36:06,000

Until...

546

00:36:10,000 --> 00:36:11,000

Dang.

547

00:36:11,000 --> 00:36:12,000

It's brutal.

548

00:36:12,000 --> 00:36:14,000

Oh, look at that.

549

00:36:14,000 --> 00:36:15,000

We got a split.

550

00:36:15,000 --> 00:36:16,000

Look at that.

551

00:36:16,000 --> 00:36:18,000

Almost like 10 inches long.

552

00:36:18,000 --> 00:36:20,000

That's about a third of the way down the arrow.

553

00:36:20,000 --> 00:36:28,000

It's taken over 60 direct hits to get the biggest split yet, but it's still only one-third of the arrow's length.

554

00:36:29,000 --> 00:36:33,000

I think this is the closest we'll ever be able to come to splitting it.

555

00:36:33,000 --> 00:36:34,000

I mean, look.

556

00:36:34,000 --> 00:36:35,000

Okay.

557

00:36:35,000 --> 00:36:37,000

I mean, it came in very, very cleanly.

558

00:36:37,000 --> 00:36:44,000

You can see it following straight down the grain until it gets to about here, and then it starts to go off kilter.

559

00:36:44,000 --> 00:36:46,000

He hit this dead on.

560

00:36:46,000 --> 00:36:47,000

We can do this all day.

561

00:36:47,000 --> 00:36:49,000

I don't think we're gonna get a better shot than this.

562

00:36:49,000 --> 00:36:54,000

How can you get a better shot than dead on with carbon fiber arrows?

563

00:36:54,000 --> 00:36:55,000

Yeah, there's no way.

564

00:36:55,000 --> 00:36:56,000

It's busted.

565

00:36:56,000 --> 00:37:07,000

Given that the team made the most splittable arrow possible and a whole day's worth of fires have failed to yield a not-to-tip split, this myth is busted again.

566

00:37:07,000 --> 00:37:10,000

So how did they do it in the movie?

567

00:37:10,000 --> 00:37:17,000

So we're switching to bamboo because we think that in the Robin Hood movie, in order to fake the splitting arrow,

568

00:37:17,000 --> 00:37:22,000

they used something with a hollow core that looked wooden, and bamboo is very close to that.

569

00:37:22,000 --> 00:37:24,000

So we're gonna try it out.

570

00:37:24,000 --> 00:37:27,000

Did Robin Hood use some movie magic?

571

00:37:28,000 --> 00:37:30,000

Let's take a closer look.

572

00:37:30,000 --> 00:37:38,000

Slowed right down, the target arrow sure does look hollow, and the rings on the edge are very similar to bamboo.

573

00:37:40,000 --> 00:37:43,000

Of course, bamboo originates in Asia.

574

00:37:43,000 --> 00:37:52,000

Robin Hood did not fire arrows like this, but can the team split this completely unauthentic movie-inspired shaft?

575

00:38:01,000 --> 00:38:03,000

This is what I'm talking about.

576

00:38:03,000 --> 00:38:05,000

You are the man!

577

00:38:06,000 --> 00:38:07,000

Fire.

578

00:38:07,000 --> 00:38:14,000

They cheated, but got what they wanted, a not-to-tip split that looks nearly identical to that from the movie.

579

00:38:16,000 --> 00:38:20,000

And what's more, it took just one arrow to get it right.

580

00:38:21,000 --> 00:38:27,000

So, on splitting an arrow revisit, we followed all the viewers' advice. What was the result?

581

00:38:27,000 --> 00:38:34,000

We gave them what they asked for. We made our own arrows, we had a traditional longbow, we even brought in a skilled archer who hid it,

582

00:38:34,000 --> 00:38:36,000

and he couldn't split it.

583

00:38:36,000 --> 00:38:40,000

After we were at the range, and we saw how the bamboo split right down the center,

584

00:38:40,000 --> 00:38:46,000

and we saw how we couldn't get into the cedar arrows more than 10 inches, I think the movie used bamboo.

585

00:38:46,000 --> 00:38:49,000

And as we know, anything's possible in the movies.

586

00:38:49,000 --> 00:38:50,000

That's right.

587

00:38:50,000 --> 00:38:51,000

Is it busted?

588

00:38:51,000 --> 00:38:52,000

Still busted.

589

00:38:52,000 --> 00:38:53,000

Busted. Busted.

590

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

Civil War Rocket.

591

00:39:01,000 --> 00:39:04,000

The Mythbusters are revisiting Confederate Rocket.

592

00:39:05,000 --> 00:39:06,000

Ignition!

593

00:39:09,000 --> 00:39:13,000

In that myth, their ludicrous launch exceeded all expectations.

594

00:39:19,000 --> 00:39:22,000

So far, the same can't be said of their revisit.

595

00:39:22,000 --> 00:39:26,000

Their first salami rocket was rather sorry for itself.

596

00:39:26,000 --> 00:39:28,000

But all is not lost.

597

00:39:29,000 --> 00:39:34,000

To try to get a little more altitude, the team is going to give it one more go,

598

00:39:34,000 --> 00:39:37,000

with a new nozzle that may better focus the thrust.

599

00:39:37,000 --> 00:39:39,000

And that's not the only change.

600

00:39:40,000 --> 00:39:47,000

You know, the main criticism we got for our first Confederate rocket launch was that we did not have sufficient camera coverage.

601

00:39:47,000 --> 00:39:51,000

People complained that we didn't cover the rocket's flight, and that we didn't have an onboard camera.

602

00:39:51,000 --> 00:39:56,000

You have to remember that this was an experimental rocket, and we had no idea that it was actually going to work.

603

00:39:56,000 --> 00:39:58,000

I thought it was going to blow up.

604

00:39:58,000 --> 00:40:03,000

Well, for those viewers that want to see some of that kind of fancy footage, here's some from Eric Gates.

605

00:40:05,000 --> 00:40:09,000

Eric Gates, rocket expert and cameraman.

606

00:40:09,000 --> 00:40:14,000

And luckily, Eric just happens to have brought his rocket camera with him.

607

00:40:14,000 --> 00:40:19,000

But will the new salami rocket reach an altitude as high as this?

608

00:40:21,000 --> 00:40:23,000

We got a Junkyard Rocket, man.

609

00:40:23,000 --> 00:40:28,000

This is fire number two with onboard camera.

610

00:40:29,000 --> 00:40:35,000

It's got all the gadgets, but will this salami rocket break the 20-foot record?

611

00:40:36,000 --> 00:40:39,000

In three, two, one.

612

00:40:43,000 --> 00:40:46,000

It didn't go even as far as the first one.

613

00:40:46,000 --> 00:40:50,000

But it went up! Hey! All right.

614

00:40:51,000 --> 00:40:56,000

On ignition, the nozzle blew out, so there was nothing to focus the salami thrust.

615

00:40:56,000 --> 00:41:01,000

And the onboard camera blew too, but it was mission accomplished.

616

00:41:03,000 --> 00:41:07,000

I'm actually not at all surprised that salami works really well as a rocket fuel.

617

00:41:07,000 --> 00:41:11,000

No doubt ours could be better. We need a little more refinement here and there.

618

00:41:11,000 --> 00:41:16,000

But the beauty of the hybrid rocket is that it'll burn just about any hydrocarbon,

619

00:41:16,000 --> 00:41:20,000

and it'll burn it aggressively enough to serve as a rocket fuel.

620

00:41:20,000 --> 00:41:25,000

So, you know, we could have gone to the moon with salami.

621

00:41:26,000 --> 00:41:31,000

The moon? That's only 240,000 miles to go.

622

00:41:31,000 --> 00:41:35,000

So, salami rocket is busted, plausible or confirmed?

623

00:41:35,000 --> 00:41:38,000

Hey, a flight's a flight. We got airborne, so it's confirmed.

624

00:41:38,000 --> 00:41:43,000

Salami does seem to make a pretty good rocket fuel, but I'm going to stick with paraffin.

625

00:41:43,000 --> 00:41:46,000

Okay. We're taking this back home.

626

00:41:55,000 --> 00:41:57,000

He's tired now.