

Eclipse Space's Huerta on SpaceX's Test Mission Delay

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SUMMARY

SpaceX's recent Starship launch attempt was scrubbed due to necessary hardware adjustments following previous test failures. The discussion highlights the importance of Starship for the future of SpaceX's Starlink V3 satellites, emphasizing the rapid growth and commercial success of the Starlink project, which has already generated significant revenue in a short time.

- Starship is crucial for the deployment of Starlink V3 satellites, which cannot be launched on existing Falcon 9 rockets.*
- SpaceX has made significant progress with a full stack of 20 operational V3 satellites, indicating readiness for mass production.*
- Starlink has grown from a small team to nearly 3,000 employees, achieving over \$1 billion in revenue faster than any previous satellite service.*
- The total addressable market for connectivity is projected to be around \$1.6 trillion, showcasing the potential for future growth.*
- SpaceX's culture emphasizes rapid iteration and engineering rigor, which has been effective in previous projects like Falcon 9 and Starlink.*
- The scrubbing of the launch was a cautious decision based on telemetry data and the need for high success probability in early tests.*
- The engineering approach at SpaceX allows for quick feedback and improvements, even as the scale and costs of projects increase.*

This isn't my first rodeo. Do you know how many of these starship launch attempts I've done live on television that then get scrubbed? But what I was saying there about the Starlink test component V3 on Starlink, the much bigger picture that the reason we pay such close attention to whether Starship can be rapidly reusable and operable is that that future business line at SpaceX. You worked on the one that's happening right now. It needs Starship to work.

Just give us that broader context. Yeah. So I think the key thing here is that all of these V3 spacecraft were specifically designed for Starship. Like, you can't go back to launch one of these new satellites on a Falcon nine. And so, yeah, you're absolutely right. SpaceX is hard. And, you know, you really need Starship to unlock V3. That being said, the fact that they have a full stack of 20 V3 satellites that are, you know, real V3 satellites that are working is a huge, huge step in the right direction.

And it actually implies a whole lot has already been done to build the factory and get ready for mass production

of other spacecraft and kind of cleaning the factory, so to speak. So, the fact that they had real satellites is it's a big deal that I think people should not undervalue. Just to remind anyone that's tuning into to Bloomberg televisions coverage right down to the wire. But SpaceX is scrubbing this this 13th test flight of Starship today, Thursday in the United States, Friday in Asia.

Part of this was hardware tweaks and fixes from from test 12, where some of the the engines on both the Super Heavy booster and this Starship spacecraft failed at different phases of the test, and they had fixes for that. Derek, just reflect on your time at space, what you were working on, and how far that Starlink business has come. Right? This the scale of the constellations known but actually like it's it's always astonishing how much of a commercial success Starlink became so quickly.

Yeah, absolutely. I mean, I think, when I started at SpaceX, it wasn't called Starlink. It was called to satellite development, and, there was about 150 or so people, I think now there's, you know, close to 3000 people working on Starlink. So dramatic growth, dramatic improvement. I think another fun fact is that, you know, it got to, organically over \$1 billion in revenue, you know, faster than anyone else before. I think the first, organically, growth, revenue stream was, was Inmarsat, and it took them about 30 years to get there.

So the fact that SpaceX did it with Starlink alone and just a handful of years, I think is a huge testament to how real this market is and how, how far SpaceX is in, in this broadband market. Derek. That being said, you look at the way the stock is performing as it has outlined. Maybe this might be also was exacerbating the moves as well. But investors are having doubts about, you know, whether there is conviction in this value of the company.

Remind us the long term potential that you see in space. Absolutely. I mean, I think you you see space moving. And I think maybe one way to frame it is just the way that space has historically compounded their technology to create unlocks. So you had Falcon nine reusability that really unlocked, Starlink. And then now you have Starship that's going to unlock, Starlink for three, but also is going to unlock in-space compute and data centers and more technologies.

And I think the other fun, interesting note is that the revenue, generation that we're seeing in just the Starlink aspect of, of space right now, you know, back when I started at space X, you know, Elon was talking about it being a 30, you know, \$30 billion kind of kind of market sort of thing. And so here we are already seeing the TAM for connectivity is outlined in the rest. One is like \$1.6 trillion or so. So the market is growing because of the technology and how advanced it is. And so that shouldn't be discounted in the future, I think. Can you talk to us about the sort of culture behind the engineering and the company?

There's been some talk about how when it came to the Falcon, there was, you know, testing and failures, and that helped lead to its success. But when it comes to the starship, because of how massive, how expensive it is, there is some skepticism that an approach like this would work as well. Yeah, that's a super interesting question. And I think just the fact that SpaceX is approached is all about building things quickly and getting that proof points and iterating and and getting that feedback. I think, is the right approach.

I think you're absolutely right. That Starship is a is is applying that to a massive scale, but I think SpaceX has the right of right, technology and the right engineering, you know, approach in solving these problems that it makes sense that even on this larger scale, where things are more expensive, that that you can, compound that success and grow. we saw it on, on Starlink in the early days. We were trying to mass produce, you know, the V 0.9 constellation and figure out how to do that. And we were able to iterate quickly and, apply our engineering rigor as such. But then, you know, as we got the constellation growing and, you know, the, the impacts of the decisions that we're making, we're not just on a, on to ten, ten prototype satellites, but on a whole constellation of thousands and thousands.

And so, sure, those decisions have more impact. But that approach, lets you iterate more quickly and get to the results faster. Derek Wonder as well. I mean, we're waiting to see what SpaceX says about why this was scrubbed, but talk to us a bit more. Help us understand what could possibly have led to this. Is this maybe an issue with the Raptor engines? I mean, I'm definitely not a rocket person at all. I'm.

I'm an RF nerd, for sure. But, you know, usually in my experience, these are these are just to SpaceX, has a whole lot of telemetry that they're looking at. And the engineers or, and really, the computer systems, autonomous systems flag something is as being anomalous and wanting to check out. And so in these early days, things tend to be more conservative. There's a lot more scrutiny going on. And all the data set points are such that you are just more, more cautious and more conservative. And, you know, as you noted earlier, these, iterations are expensive. It's a it's a large, capital investment doing any one of these, these tests.

And so you want to have the highest probability of success, for sure. But that doesn't mean that you're going to take a risk, needlessly.