

Tukufu: Our first story takes us on a journey behind the scenes of one of the greatest feats in modern history. Early in the morning on May 20, 1927, Charles Lindbergh takes off in the Spirit of St. Louis from Roosevelt Field near New York City. His daredevil goal: to make the first solo flight across 3,000 miles of Atlantic Ocean. Some 33 hours later, when he lands in Paris, Lindbergh has become an instant icon. His flight captures the attention of the world and infuses the public imagination with the dream of flight. Two brothers in New Jersey say they have a letter that proves their uncle is the forgotten hero of this historic event.

Joe Rutledge: Yeah, my uncle was very passionate about aviation and over the years probably the one story about him which has intrigued my brother and I the most is what he did to help Lindbergh get across the ocean on his transatlantic flight.

Tukufu: I'm Tukufu Zuberi. I've come to Parsippany, New Jersey, to meet with Joe and George Rutledge and hear more about their mysterious uncle and his startling claim.

Both: Come on in.

Tukufu: All right, great. [sits down] So this is the letter.

Joe Rutledge: Yes, it is.

Tukufu: And...who sent it?

George Rutledge: A man by the name of Guy Vaughan.

Tukufu: Guy Vaughan, and who is he?

George Rutledge: He was a vice president of Wright Aeronautical.

Tukufu: May I? [reads] "Wright Aeronautical Corporation, Paterson, New Jersey, 25 May 1927. Now that the enthusiasm and cheering for Captain Lindbergh's recent achievement has quieted to a more normal appreciation of a job well done, I want you to know that the Wright Aeronautical Corporation realizes how inadequate they would be but for your enthusiasm and outstanding cooperation."
That's quite interesting. It seems like some kind of form letter, but it's really not clear what the company is thanking Tom Rutledge for. Now, what is it that you want to know?

Joe Rutledge: Well, as you can see, the letter is a little vague, but according to our family history, my uncle built the engine for Lindbergh's Spirit of St. Louis. We were hoping that you could do some investigations and see if you can prove that.

Tukufu: Do you have anything else I could go on?

George Rutledge: Actually, yeah, we do. We have a photo of my uncle on an assembly line of an engine facility. He's the second person from the right there. The interesting story, really from the family story, is that he was disappointed in getting Lindbergh's engine.

Tukufu: In retrospect, that seems quite odd.

George: It is.

Tukufu: Well, I'm going to take this and get back to you as soon as I can. All right?

Joe Rutledge: That'd be great!

Tukufu: I want to refresh my knowledge of the Lindbergh story. That spring of 1927, the possibility of transatlantic flight has seized the popular imagination. Businessman Raymond Orteig has offered a \$25,000 reward to the first pilot to make a solo flight between New York and Paris. The big favourites are Clarence Chamberlain, a World War I ace, and Admiral Richard E. Byrd, who has already flown to the North Pole. At just 25 years old, Lindbergh is a relative unknown and few give him much hope of making history. When he lands in France, the nation is stunned. In the same way future generations would watch man walk on the moon, Lindbergh's flight causes the world to pause and reflect on the limitless possibility of the human spirit.

Tukufu: I'm heading to Florida to meet with an expert on early airplane engines, to see if he's ever heard of Tom Rutledge. A leading source of information on early airplane engines is here in Polk City, Florida, at the Fantasy of Flight Museum. Many of these aircraft fly using restored antique engines. Looking around, I get a powerful sense of the revolution in flight that Lindbergh helped father. Kermit Weeks is the museum's director.

Tukufu: Kermit, how are you?

Kermit Weeks: Hey, how are you doing?

Tukufu: So this is the Spirit of St. Louis, huh?

Kermit: This is not the original. The original is in the Smithsonian Institute in Washington, and rightly so. This is the next best thing. This is a reproduction of the Spirit of St. Louis.

Tukufu: How was it to fly this plane?

Kermit: One of the big drawbacks is the fact that he has no forward visibility. There's three fuel tanks in the wings, two fuel tanks in front of them, and there are -- there's no windows because he's literally looking at a fuel tank.

Tukufu: Well, then, how did he see in front of him?

Kermit: He actually looks out the side windows and, of course, you know, you can make turns to look ahead of you. When he comes in to land, that's the critical part, and he actually comes in a little bit sideways and sees the runway as long as he can, and then right when the airplane touches down, he levels out, touches down, and just hopes to God nothing pulls out in front of him.

Tukufu: One of the reasons I came to Florida was to sit in this cockpit and put myself in Lindbergh's shoes: confined in this teeny box for 33 1/2 hours with nothing below but ocean? Lindbergh must have put a tremendous amount of faith in his engine -- the one piece of equipment that could not fail him.

Kermit: Well, you know, one thing he didn't have to worry about was a lot of air traffic over the North Atlantic in 1927. He was probably the only guy out there.

Tukufu: So, is this the original Wright J-5?

Kermit: No, this one is actually a little bit different model, but we've actually got one in the back that we're

working on that'll actually be -- we're going to run it.

Tukufu: Can I look at that?

Kermit: Yeah, yeah, it's back this way.

Tukufu: So this is the J-5 Whirlwind, like the one that carried Lindbergh to immortality. We always think of the Spirit of St. Louis when we think of his flight, but none of that would have been possible without this baby. Do you know why Lindbergh thought this was such a great engine?

Kermit: Well, one of the reasons was because he needed something that could fly 40 hours and the other thing that was extremely important was the new cylinder design which allowed this engine a much better fuel consumption and higher fuel efficiency, which meant that Lindbergh could get across the Atlantic using less fuel. The other thing was, this grease reservoir up here on the top allowed to grease the valve springs for at least 40 hours. Normally, air-cooled engines of those days, they would have to manually grease these every time they would land and take off again.

Tukufu: Do you know much about the names of the individuals who engineered and designed the J-5?

Kermit: Well, of course, Charles Lawrence was involved in the early design of the -- the J-1, and Sam Heron, actually, I believe was the one who actually engineered the more efficient fuel flow in the cylinders.

Tukufu: This looks just like the engine in the photograph I got from the brothers. It seems as if their uncle did build Whirlwind J-5s. I asked Kermit whether Rutledge built the Lindbergh engine.

Kermit: He possibly could have been involved, but as I said, that name's never come up in any of my history or anything that -- that I've read.

Tukufu: The Wright Aeronautical Corporation where Tom Rutledge worked was in Paterson, New Jersey, and that's where I'm heading. Although the company shut its gates in 1943, many of its surviving records are stored here, at the Passaic County Historical Society. The company had developed out of several businesses formed by the Wright brothers. Sixteen years after their historic flight at Kitty Hawk, the corporation found a home in a city that had been a cradle of the Industrial Revolution. Cutting-edge technology made Wright Aeronautical the engine maker of choice for several of the Orteig Prize competitors.

Tukufu: Okay, here we go. The last word in aeronautical engines for commercial use: the new Wright Whirlwind, model J-5. This is the engine. This is what we're looking for here. This is all really fascinating, but what I need is something that will help me tie Tom Rutledge in with Lindbergh's engine. Here's a document from Wright Aeronautical describing the day of Lindbergh's flight, and the key Wright employees involved. "Plane and engine were tuned up and fuel was loaded by K.C. Boedecker, Kenneth Lane, and E.J. Mulligan." Nothing on Rutledge. If he was key to the flight, you'd think that he would have been mentioned. Let me look at some more of the files.

Tukufu: I've been through this entire archive, and I've come up empty-handed. I thought if I was going to find anything on Tom Rutledge, it would be here. I'm beginning to have serious doubts about Tom Rutledge's involvement with Lindbergh's engine. I'm going to approach this from another angle. I wonder if any piece of the brothers' story checks out. Joe and George told me that their uncle had been disappointed that he was assigned to work with Lindbergh, so I put the question to Jeremy Kinney, a Lindbergh expert and an historian of aviation technology.

Tukufu: That sounds crazy to me. Why would anybody be disappointed because they get to build Lindbergh's historic engine?

Jeremy Kinney: Oh, he would have been very disappointed, because Lindbergh was an unknown flier and the airplane was from an unknown company.

Tukufu: Kinney also suggests that although Charles Lindbergh became an immortal, it was just possible that historians had overlooked a key figure in the flight.

Kinney: While hundreds of people work on an engine assembly line today, in 1927 it was the job of one man. They would take over 700 pieces, and put it together in a running engine. They'd actually get it running and started, and then they would take the engine apart again to see where the wear was, where the problems were, and then they'd put the engine back together again.

Tukufu: Kinney said the engine builder was like the conductor of an orchestra, responsible for bringing all the parts together.

Kinney: So the engine builders, the ones who breathe a spark -- the spark of life into these engines, are actually what the reputation of Wright Aeronautical is based on, because people's lives depend on these engines.

Tukufu: So, Tom Rutledge did have an important job at Wright Aeronautical Corporation, but is there any way that I could confirm that he was the individual who built Lindbergh's engine? Kinney tells me that the date on the brothers' letter may make it a crucial fragment of 20th-century history.

Kinney: Here's the May 1927 letter from Guy Vaughan congratulating Rutledge in his role in Captain Lindbergh's flight, and it's dated 25 May. It's four days after the flight. So this is very, very important. And these are Whirlwind engines the engine builders are assembling right there.

Tukufu: What he would show me next would help answer George and Joe's question.

Tukufu: I've come back to tell the Rutledge brothers what I've discovered about their uncle. I was not able to find anything in the Wright Aeronautical Corporation Records that indicated that your uncle, Tom Rutledge, built Lindbergh's engine.

Joe: Shucks.

Geoge: Hmm.

Joe: I thought it might be so.

Tukufu: However, I spoke to an expert in aeronautical history, and he was able to tell me: the corporate records of Wright Aeronautical don't -- you know, they just don't survive, but there is another source.

Flashback

Tukufu: Jeremy shows me an article from a specialists' journal called "The Flier" that features Tom Rutledge as the engine builder for Lindbergh.

Tukufu: Oh, look at this. This is great. I mean, this puts Tom Rutledge and Lindbergh's engine in the same room, in the same space, and at the same time. Although it's a second-hand source and dates from 1970, Kinney said the article, the photo, and the letter are pieces of a puzzle that fit together and answer the brothers' question.

Kinney: These three pieces of evidence pretty much confirm that Rutledge was the engine builder for the Spirit of St. Louis.

Tukufu: Well, the Rutledge brothers are going to be happy to hear this.

Back to Reveal

George: Right.

Joe: Ah, that's great.

George: [tears up] I'm sorry. That's just wonderful.

Joe: We always thought so, because my father and my uncle always told a very consistent story.

George: It just gets me when I think he was only 24 years old. He was only 24 years old.

Tukufu: Yeah, put it in proper perspective he was a young boy.

George: And the irony of the whole thing, you know, when he was initially given the Lindbergh engine, he was actually disappointed, because he really wanted to build it for... someone he knew.

Tukufu: Yes.

George: And then he did his job dutifully, didn't make any difference, and as fate and destiny turned out, he built the engine that was on the first plane that crossed...

Tukufu: [chuckling] Yeah.

George: Fate and destiny.

Joe: Thanks a lot.

Tukufu: No, thank you.

Tukufu: We all think we know the story of Charles Lindbergh. Of course, he was the main character in an unforgettable chapter of history. But history often forgets the laborers who build the stage that history is acted upon. Lindbergh's flight was made possible by the sweat of the working people of Paterson, New Jersey, and the expertise of craft engineers, like Tom Rutledge. Charles Lindbergh's dramatic feat made him the most famous aviator of an aviation-crazed era. There were other figures, too, less well-known but no less of interest.

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