



Episode 6, NC-4: First Across the Atlantic, Pensacola, Florida and Hammondsport, NY

Elyse Luray: Our first story examines a swatch of fabric which may be from one of history's most forgotten milestones: the world's first transatlantic flight. May 17th, 1919. The Portuguese Azores. Men in whaling ships watched the sea for their prey, harpoons at the ready. But on this morning, they make an unexpected and otherworldly sighting. A huge gray flying machine emerges from the fog, making a roar unlike anything they have ever heard before. Six American airmen ride 20,000 pounds of wood, metal, fabric and fuel, and plunge gently into the bay, ending the flight of the NC-4. It was journey many had thought impossible. For the first time, men had flown from America to Europe, crossing the vast Atlantic Ocean. But strangely, while their voyage was eight years before Charles Lindbergh's flight, few Americans have ever heard of the NC-4. Almost 90 years later, a woman from Saratoga, California, has an unusual family heirloom that she believes was a part of this milestone in aviation history. I'm Elyse Luray and I'm on my way to meet Shelly and hear her story. Hi.

Shelly: Hi Elyse.

Elyse: Nice to meet you.

Shelly: Come on in.

Elyse: So is this something that has always been in your family?

Shelly: Yeah. It was passed down from my grandparents. Here it is.

Elyse: Okay. So this is the fabric. Wow! It's in wonderful condition.

Shelly: Yeah, it's been in the envelope for years and years. And there's an inscription on the other side that's written by my grandmother.

Elyse: "This a piece of the original fabric that covered the wings of the NC-4, the first plane to cross the Atlantic by our navy, May 31st, 1919." Well, I think most people think of Lindbergh as crossing the Atlantic for the first time.

Shelly: I think they do. Lindbergh made the first solo nonstop flight across the Atlantic, but it was some years earlier that a navy plane, the NC-4, made the very first flight.

Elyse: Shelly tells me that she has an intimate connection to the flight. Her step-grandfather, Walter Hinton, was the NC-4's pilot.



Shelly: I have a picture of him here with my grandmother, Sally, in front of the NC-4 just before he made the transatlantic flight.

Elyse: Oh, nice.

Shelly: If you look on the back, there's an inscription that my grandmother wrote.

Elyse: "Walter and Sally Hinton sitting in NC-4 before Walter flew to England May 31st, 1919." God, they look so young.

Shelly: Yeah, and she must have been nervous.

Elyse: And what exactly do you want me to find out?

Shelly: Well, I guess I have two questions. One is, can you connect this piece of fabric with the original NC-4 aircraft? And the second question is, why is it that this flight is so little known?

Elyse: Well, I'm going to have to take the fabric with me.

Shelly: Okay.

Elyse: And I'll see what I can find out.

Shelly: Sounds great.

Elyse: If this fabric really is from the first plane to cross the Atlantic, it's a great bit of history. It's linen and the coarse weave tells me that it's old, so dating it from 1919 is reasonable. But the more I examine the fabric itself, the more skeptical I'm feeling. The linen has almost no signs of wear. It's hard to believe that it could have been on the wings of a plane that flew the Atlantic. I'm one of those people who'd never heard of the NC-4, so my first task is to learn more about its historic flight. As early as 1913, aviators are racing to be the first to cross the Atlantic. That's just ten years after the Wright Brothers first took to the air. During World War I, the U.S. Navy developed an experimental long range seaplane to guard American shipping against deadly U-boat submarines. It's a biplane and the wings are massive. After the war ended in 1918, the navy decided their new fabric covered flying boat would be given the ultimate test: to conquer the Atlantic. Because of the danger, there were three legs to the journey – New York to Newfoundland, a marathon 1389 mile trip to the Azores; followed by the final leg to Lisbon Portugal. On May 8th, 1919, three NC aircraft left New York. But only Walter Hinton's NC-4 made it all the way to Lisbon. Newspaper accounts of the flight make it clear to me that the navy



airmen were certainly famous in their day. This is impressive. After completing the first solo transatlantic flight, eight years after the NC-4, Charles Lindbergh had this to say: "I had a better chance of reaching Europe in the Spirit of St. Louis than the NC boats had of reaching the Azores. I had a more reliable type of engine, improved instruments and a continent instead of an island for a target." It's hard to imagine how this remarkable flight could have faded from public awareness. But my first task is to learn more about Shelly's fabric. Traff Doherty is the Director of the Glenn H. Curtiss Museum in Hammondsport, New York. "NC" stands for Navy Curtiss. Traff tells me how Glenn Curtiss became a major force in early aviation.

Traff Doherty: Curtiss is considered the founder of the American aircraft industry. But a century ago, he was a motorcycle manufacturer. And because of his lightweight engines, he was drawn into aviation by people who wanted to experiment and use his engines in their craft.

Elyse: I tell Traff about Shelly's piece of linen. He explains how fabric also helped make early planes light enough to fly. He has a perfect illustration for me.

Elyse: Wow, this is incredible! The museum is building an authentic reproduction of a 1914 Curtiss "America" flying boat. It was the precursor to the NC-4

Traff: Fabric is used just about everywhere. It's used to cover the planking on the fuselage and the flying surfaces, such as the tail assembly here. And also on a wing panel like this. This is the one panel we haven't covered yet.

Elyse: Wow, it's beautiful! It's like a piece of artwork.

Traff: Just a typical wing structure of the period, Elyse, made mostly of ash and spruce.

Elyse: The fabric is like the skin.

Traff: That's exactly right. The fabric forms a covering over the structure of the wing.

Elyse: I want to see what Traff thinks of Shelly's piece of linen. So here's the fabric and I would love to get your opinion.

Traff: Let's take a look.

Elyse: What do you think?



Traff: It's linen. It's coarse weave. Definitely from around World War I. The only problem I have with it is if it were used on an aircraft, it would be impregnated with dope. If this were used on the airframe of the NC-4, it would have to...it would probably be colored dope, either yellow or gray. This is not. This is still raw fabric.

Elyse: Traff shows me how a liquid adhesive and sealer, called dope, attaches the fabric to the wing. Next, it's fixed more firmly with rib stitching. Finally, more dope is applied, making the wing airtight and waterproof. Could it have been used inside the aircraft?

Traff: The NC-4 is a flying boat. There's water everywhere, so they... everything had to be sealed against water and air. So, being that this is raw, I'd say not.

Elyse: It's pretty clear that Shelly's fabric couldn't be from the NC-4's historic flight. I'm curious how her grandmother could have been so wrong. In the meantime, I want to figure out why Walter Hinton and the other NC-4 crew have been largely forgotten today. Traff told me that the original NC-4 is on display at the National Museum of Naval Aviation in Pensacola, Florida. I'm meeting John Bayer, a navy lieutenant whose long flights over the Atlantic gave him a special vantage on the men of the NC-4.

John Bayer: So this is a P-3 Orion. It could be kind of thought of as the descendent of the NC-4. And back in the early 80s when I was flying on these, hunting Russian submarines in the North Atlantic, I used to think often about the NC-4 and the conditions they faced.

Elyse: John suggests the best way to really understand what the NC-4 airmen experienced is to see their plane face to face.

John: So here's the NC-4. It's the centerpiece of the collection here at the museum.

Elyse: Wow. It's huge.

John: Yeah, it is. It has a wingspan of about that of a 727. It was the largest aircraft of its time. Way more complex than anything else you'd have seen during the first World War.

Elyse: It looks like a boat with wings.

John: And that's exactly what it is, basically. They launched it and recovered it just like a boat. Flying the airplane was really something, because you were exposed to the elements. And, if you'd like to get up in the cockpit you can see kind of what it was like in those days.

Elyse: Yeah, I'd love to.



John: This is great. Not too many people get this view.

Elyse: [Laughs] I'm going to take my shoes off. Wow.

John: So here you are at the controls of the NC-4.

Elyse: It's tiny.

John: Yeah, it really is, you know. And imagine you're sitting here for 15 hours at the controls. You're in an open cockpit. You're being hit by the wind blasts. You just have a pair of goggles and this little windshield to protect you, so you know, fog, rain, sleet, whatever, you're out here in the elements, 70 miles an hour for over 15 hours. So every time the tail surfaces were hit by a strong gust of wind, they were buffeted.

Elyse: Right.

John: And they're both hanging onto the control wheel here and being shook by the force of the wind. You can't take your hands off the controls. You can't take a break. And, you basically had no relief for the 15 hours they were on the flight from Newfoundland to the Azores. If they lost sight of the surface of the ocean, the two pilots could easily become disoriented and crash the airplane.

Elyse: So given the odds and the elements that they were up against, this was just an unbelievable accomplishment.

John: It was. It was. I don't know many pilots that would be up to it today, because it was pretty dangerous for the time.

Elyse: So why don't more people know about it?

John: Well, you know the war just ended six months prior. People were getting pretty tired of war, I think. And so anything having to do with the military kind of got downplayed a little. And they basically were moving into the Roaring 20s. You know, time to have fun. So, they wanted to put it all behind them.

Elyse: John says there's another reason people don't remember the NC-4. Perhaps the biggest one.

John: Just two weeks later you had Alcock and Brown, two British pilots who crossed the Atlantic nonstop from Newfoundland to Ireland.



Elyse: The NC-4 had opened the door to a golden age of aviation. But ironically, the great flights of the 1920's by Charles Lindbergh, Richard Byrd and Amelia Earhart quickly eclipsed the headlines from the NC-4's flight.

John: There were so many aviation firsts that happened in such a short span of time, people were logically and naturally ready to move onto the next set of heroes every time there was a new headline.

Elyse: That answers Shelly's second question. But I'm still wondering how her grandmother could have been so wrong about her NC-4 fabric.

John: I can tell you it's probably old aircraft fabric, but that's about all I can tell you about it right now.

Elyse: John does pass on a potentially valuable clue. The museum holds an extensive collection of artifacts related to the NC-4. Hill Goodspeed, the museum's historian, said their archive holds many papers and artifacts related to the NC-4 flight, including some original fabric.

Hill Goodspeed: So I have two samples I wanted to show you.

Elyse: Okay.

Hill: The first one was removed by an employee of the Curtiss plant in Garden City, New York, where it was built.

Elyse: And you have documentation for this?

Hill: We sure do. And it was removed following the transatlantic flight, according to his letter he sent in when he donated it.

Elyse: It's been doped.

Hill: Definitely. It's very rigid. Obviously, looks like it has a lot of wear and tear.

Elyse: Yeah.

Hill: And stained in places and looking at that, you would think that that had gone through a experience like the transatlantic flight where it had really been exposed to the elements.

Elyse: And what's this?



Hill: This is another piece of fabric, which is, obviously, you can see it has not been doped.

Elyse: The fabric that Hill shows me looks and feels a lot like Shelly's. And when I see the handwriting on the back, it's clear we've stumbled onto something important.

Hill: "My..."

Elyse: "Husband".

Hill: "...husband, Lieutenant Walter Hinton. August, 1919". And signed by Mrs. Walter Hinton.

Elyse: Oh, that's Shelly's grandmother. Well, that's interesting because I have this envelope written by Shelly's grandmother. And...if you look closely....

Hill: Well, that writing looks pretty similar.

Elyse: Walter looks almost identical. The W, the L. The T.

Hill: The T, definitely. This...this looks almost identical.

Elyse: Her signature is identical. I mean, there's no doubt in my mind that this and this were written by the same person.

Hill: I would agree.

Elyse: The date on the museum's fabric is curious. August, 1919, is three months after the NC-4 made its transatlantic voyage. So what's the connection between these pieces of fabric and the NC-4? Hill and I dive back into the Naval Museum's archive.

Hill: Elyse, take a look at this.

Elyse: Did you find something?

Hill: I think so. This is a copy of the Bureau of Aeronautics Newsletter, and here's one from Rockaway, Long Island, New York, which was an air station. August 23rd, 1919. And beneath about three items you have mention of the NC-4.



Elyse: What Hill showed me next allowed me to wrap up my investigation. I'm headed back to tell Shelly what I've learned.

Elyse: Your grandmother's story isn't true. The fabric is not from the original NC-4.

Shelly: Wow.

Elyse: Are you upset?

Shelly: No, but I'm surprised, definitely. It kind of makes you wonder what Grandma was talking about all those years. And I'm wondering where the fabric really came from.

Elyse: Well, it turns out it was used for something unique and a little special in the history of naval aviation.

Hill: This is a copy of the Bureau of Aeronautics Newsletter, August 23rd, 1919.

Elyse: "The NC-4 at the present time is at the Curtiss Plant in Garden City being overhauled. It is expected back in the near future to be erected for its proposed recruiting trip." So the plane was being used for recruiting purposes.

Hill: That's correct. After all, it had flown the Atlantic and the navy wanted to take advantage of the positive publicity that came out of that.

Elyse: The NC-4 crew, including Shelly's step-grandfather Walter Hinton, went on a recruitment tour to drum up interest in the burgeoning Navy Aviation Program.

Hill: They hit places from Maine to Texas and all the way up the Mississippi River and exposed just countless thousands to naval aviation.

Elyse: Everywhere it went, the NC-4 and its crew was given a hero's welcome by a public fascinated by the new technology. The navy wanted the famous NC-4 to look its best, so it had been resurfaced for the tour.

Elyse: So that's probably what these two pieces of fabric were used for.

Hill: I would say so, because the aircraft had been, after all, flying the Atlantic over thousands of miles and was battered by the elements, and they wanted to make sure it was air-worthy. And part of that was putting new fabric on the aircraft.



Shelly: That's a great story. I had no idea.

Elyse: The National Museum of Naval Aviation had some unique NC-4 artifacts in their collection that I knew Shelly would be eager to see. Some of the commendations and awards her step-grandfather, Walter Hinton, received after making his historic flight.

Elyse: And this is something that I think is really special. It's a watch that was given to your step-grandfather. And if you turn it over, you can see the inscription on the back.

Shelly: "From Glenn Curtiss, to Lt Walter Hinton, USN. Pilot, NC-4. Commemorating the first trans-atlantic flight." That's...that's just incredible. Thank you so much for bringing this story to me. There's so many aspects of it. I had no idea.

Elyse: Although Shelly's fabric wasn't from the first transatlantic flight, investigating its origins allowed me to appreciate one of the U.S. Navy's finest hours. War weariness and a tidal wave of aviation achievements soon eclipsed the NC-4 in the public's mind. But for one brief shining moment, the plane and its men captured the national imagination in a way no one had ever done before.