

## Geointeresting Podcast Transcript

### Episode 30: President, general, surveyor and NGA employee number one — George Washington

This July Fourth marks 242 years since our nation declared its independence from Great Britain in the midst of the Revolutionary War. George Washington — or as Director Cardillo addresses him: NGA's employee number one — leveraged land surveying, cartography and geography skills to lead the American military to victory over Britain in 1783. Throughout the course of the war, these skills were blended together to make maps to aid the Continental Army. These maps were especially critical in gaining an advantage in battle. Today, we're talking with Dr. Joe Stoltz, the digital historian at the Fred W. Smith National Library for the Study of George Washington at Mount Vernon. He offered insight into how George Washington's expertise in land surveying impacted his military service and ultimately laid the foundation for GEOINT during the American Revolution.

Stoltz: My name is Joe Stoltz. I am the digital historian here at the [Fred W. Smith National Library for the Study of George Washington] Washington Library. The best way we've sort of come to explain it is I'm kind of like the chief geek and chief nerd at the same time. So I'm a liberal arts major. That's what all three of my degrees are in. I've got a Ph.D. in history. I was formally trained at TCU [Texas Christian University] — go Horned Frogs — but I happened to do enough other things with computers and mapping and digital presentations of history that somebody thought it would be a good idea to slap 'digital' on the front, because it's great for branding for liberal arts majors to get jobs. So my chief role here at the library and at Mount Vernon is I'm: one, the on-staff military historian when those questions come up; and then: two, I do things like manage our digital encyclopedia and other sort of public history projects that we put on our website.

NGA: Great. Well, we're interested in talking about particularly mapping but George Washington's surveying history and also what that tradecraft was like at the time and how it might have been used in military battle. And, like I said, our agency director likes to call George Washington 'employee number one' because of his surveying background. So how might he have gotten into that field? What do you think his motivation for that would have been, and what do you think it might have been like to be a surveyor at the time?

Stoltz: Yeah, so Washington's background — I think we in the 21st century think of the marble man that has monuments all over the place. I think every state in the union has something named after him and pretty much every municipality. But when Washington's growing up, he is the third-born son. He's got two older half brothers who have both been sent to England. Virginia is a patriarchal society. The inheritance laws do not work in the 18th century the way they do now. So George Washington is not really expecting to get some sort of huge inheritance or even an evenly shared inheritance. As the third-born son, he's going to need to find some practical way for himself. He's by no means going to come into his adulthood poor, but he is not like, say Thomas Jefferson, going to be gifted a large-scale plantation with access to a huge line of credit. George Washington is going to need to find some sort of practical career for himself. He's eventually going to settle on surveying. He originally wants to go into the navy. His mom's not so enthused about the idea of him being away for long periods of time. So that sort of falls through. If mom's going to want me close to home, but I also want to get away for a while, surveying could be a good fit. Virginia in this time period is really in many ways — like the sort of heavily settled portion of Virginia is still just the Tidewater area; pretty much everything up to the fall line. Really, anything in the Shenandoah Valley is, for white colonists in the Tidewater, is sort of only fairly recently discovered country and sort of pretty wilderness, and they don't really know what's there.



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NGA: Ripe for surveying.

Stoltz: Yes, ripe for surveying. Because on the one hand, someone has been told, like, say, Lord Fairfax [Thomas Fairfax, 6th Lord Fairfax of Cameron], who is going to be really important to our story here in a minute — his home was at Belvoir Plantation, which is where Fort Belvoir gets its name. His land grant from the King of England is all the way up to the Appalachian Mountains. Well, that's great, but what's actually there? And if he's going to start to subdivide that to sell it to make money off of it, somebody actually needs to go out there and put eyes on that land and start to map what's actually theirs. Because if it hasn't been mapped, does it really exist? And for colonial Virginia, that's a big question.

So the advantage with being a surveyor is: one, it's steady, secure work. There's going to keep needing to be demand for it. But then: two, because you're going to be one of the first people to actually go and put eyes on this sort of quote-unquote, heavily air quoted, "new undiscovered land," because there's definitely people on it. But for the people that are now looking at buying it, those white Virginians, the great thing for Washington, the great thing for any surveyor — since you're one of the first people to actually go out and physically put on eyes on it, that's part of the society that has access to, that have their legal ownership right — you also know where the best parts are. So you, in a way, will sort of have first pick when this comes up for sale, whenever who decides to start to sell it. You already know what the best parts are and can be in a position to sort of take advantage of those right away. Think of having first access to an IPO, an initial trade offering, for a stock.

So Washington, because he is not — two things, right? He's the third-born son, so there's not a lot of investment being put into him in the first place. And then his father dies when he's still a teenager, so any chance that Washington would have even gone to college at William and Mary, which it sounds weird when I say, 'William and Mary is a backup school,' but Washington's two older brothers went to college in England. Washington, if he was going to go to college at all, was going to have to 'slum it' at William and Mary. But his father dies, and so that's just not going to happen. There's just not money for it. So he is, through his older brother, Lawrence, sort of taken in by the Fairfax family and is given access to the Fairfax library at Belvoir. And we know for a fact that when he was there, one of the books he read when he was there was "The Art of Surveying."

A lot of what Washington did throughout his life was self-taught, in a lot of respects. I think the biggest advantage — I'll do my plug for a liberal arts education here — the biggest advantage that, I think, Washington got from the Fairfax family was a true liberal arts education in the sense of learning how to learn. So that anything he would then go on to try and take on as a profession, he had sort of a structured way that he knew to educate himself. And that's what he does with surveying. He's never formally trained. He spends a lot of time ...

NGA: It's more on-the-job training.

Stoltz: Yes, he actually, in 1748, will actually go on a surveying expedition with a portion of the Fairfax family when they are going out to the Shenandoah to map some of their lands. So he's there as an assistant. And so he's read about it in theory. Now he's seeing it in practice. And in 1749, he'll actually get his surveying official certificate from William and Mary. So they can sort of claim him as an alum; at least for like a certificate program, so good for them.

NGA: And then he was hired as an actual surveyor for; was it the county of Culpepper?

Stoltz: Yes, he's Culpepper County briefly — Culpepper County's official surveyor. He's less interested in that, because, again, he really wants to be working out west.

NGA: Was that common, though, for counties to have a surveyor on staff like that?

Stoltz: Yes, because land is always getting partitioned, so it's always coming up in legal disputes. So most counties would keep some sort of surveyor on staff to help resolve land disputes. But, again, where Washington really wants to be is doing those ones out west. So he'll eventually switch over to doing more stuff in Frederick County, and then he'll actually get out of being a professional surveyor after he starts to accumulate some money for himself and starts to buy land. He'll really start to focus on doing the surveying for his own properties.

NGA: And then, moving forward to his military career, how do you think that skill set or that experience being a surveyor would have influenced his time in the military?

Stoltz: That's a great question. You know, I think to some extent, that's why he lands the first military job he does. Because he is one of the only people among the Virginia gentry leadership — I mean, he is at the very low end of it at this point, but he's still part of it. Because he's one of the only people that's actually been out that way, that's why he gets — in 1753, Governor [Robert] Dinwiddie will actually ask him to go deliver a message to the French out in the Ohio Valley, who have been encroaching onto what Virginia is going to claim is part of their territory. And Washington is supposed to go deliver a note and kindly ask the French to leave, who, of course, are going to say no. But they need to officially make the ask, right? And so Washington is sent out to go do this. The French predictably say no. Washington makes it back. Well, at that point, Dinwiddie wants to send some sort of military expedition to try and convince the French to leave. And, well, now you have this young Virginia gentleman that has, again, been one of the only people to go that far that way. That is someone that Dinwiddie can socially give a high-ranking military command to. And Washington is given — he's executive officer of the Virginia regiment, which are provincial soldiers, but they're full time, right? So, think, like a National Guard unit that's actually been activated into full-time service would be sort of the equivalent to what the Virginia regiment was. And he's sort of sent as one of the lead elements out to the Ohio Valley, because, again, he's one of the few people that has been out there to see it. And so his surveying background gives him the 'in' to get that military commission that would have been fairly desirable in this period of Virginia, because military service could be a way to advance yourself within the greater British colonial and British imperial society if you have success.

Now, of course, we all know that Washington will not have success that first military trip out to the Ohio Valley. I think it's also where he learned his first lessons in branding, because you really should not name something, "Fort Necessity." It's sort of a 'tell' to your men that the situation maybe isn't as good as they might like it to be. And so that will not go well for him, and he comes back. But I think his surveying trips out to the Shenandoah, especially, become really important after. There's going to be sort of a follow-on expedition the next year where this guy Edward Braddock, this British general, is going to come over. It's not going to go well for him at something called "Braddock's Defeat," which tells you about how well it goes. And at that point, that's when the British decide, "We want to kick the French out of the Ohio Valley, but we're not going to go through Virginia. Let's just go through Canada." The British will actually pull a lot of their forces from Virginia, leaving the Virginians to themselves to defend Virginia — at this point when we say Virginia, we mean West Virginia as well. And so the British have been there just long enough to make all the American Indians in the Ohio Valley mad, and then they leave, and now it's up to the Virginians to figure out some sort of way to defend Virginia with some sort of 450-mile frontier to have to cover. And Washington, at only 23 years old, is now the senior-most and 'most experienced' — again, use air quotes there — military officer in the colony, and so

he's put in charge of figuring out how to do the defense of all of Western Virginia and sort of defend the Shenandoah lengthwise, which is, you know, not the way you want to have to do this. He will help set up a series of forts, and I would argue his surveying background and his familiarity with topography and these surveying expeditions out there really informed and gave him some insight into how to set up those fortifications and how to fill in the gaps with patrols and stuff. Unfortunately, there are no surviving maps of where even some of these forts were. We know sort of roughly where they would have been, but there would have had to have been some map that would have had all these forts marked on it. And I can all but guarantee Washington spent a lot of time pouring over this map, and he could be a very meticulous person. I don't think he's somebody you really would have wanted to work for, because he would have been very exacting, and I have no doubt that there probably were a map of each of those forts he's probably always wanting updates: "Has this been fixed? I really want you to do that."

NGA: Well, what kind of capabilities would his army have had as far as surveying skills, mapmaking, compared to, say, the French?

Stoltz: Yeah, not much. Part of the issue here that is going to eventually — we get a lot of looks when we say this sometimes — radicalize George Washington; he is a member of the British imperial gentry, and then at some point he will decide: nope, being this new thing called American sounds good. At some point George Washington radicalizes against his government, and part of why that is, is because of how the British imperial system was structured. In the British imperial system, the colonists serve a certain function. And that function is to support the metropole, to support England, not even Britain; support England. And so the way the military was structured in the colonies — yes, there's lots of times that provincial troops are called into service, and there's many great paintings and all sorts of drawings and stuff you see of colonial soldiers very ruggedly at drill musters and everything with their muskets and everything, but that's not all there is to fighting a war. It's not just running around with guns, shooting at people. There has to be some level of organization, and that's the thing ...

NGA: And strategy.

Stoltz: And strategy, right? And that's the thing that the colonists were generally bad at. And not necessarily bad at, but they didn't have to be good at [it], because there was always some sort of larger British imperial functionary that could come in and do it, right? The Americans don't need to worry about how to organize an army of 5-, 6-, 7-, 10-, 20-thousand soldiers, because they weren't in charge of it anyway. If the army gets that big, the British are going to send somebody over. They're going to send a general over. They're going to send aides-de-camp. They're going to send cartographers. They're going to send engineers. They're going to send all those really highly educated professional officers that the colonists really just don't need. They just need to produce infantry. They just need to produce people that can shoot guns.

Flash forward to 1775, when the Second Continental Congress has decided to establish this thing called the Continental Army, because four separate colonial armies have decided to attack the British outside of Boston, and, yes, I did say four separate armies, because technically speaking, the force outside of Boston is the independent armies of Massachusetts, Rhode Island, Connecticut and New Hampshire. They don't even report to each other, right? So when Congress decides to take these into service and establish this new thing called a Continental Army, and they're looking around going, "Well, who is the most experienced person?" Right, on the one hand, George Washington has only ever been a colonel in continental service, which is the same thing as guys like Israel Putnam and other New England leaders that are quite successful. But the advantage Washington had in his background that those other ones didn't is that he had had to do things like organize the defense of an entire frontier. Guys like Israel



Putnam had also been colonels of regiments during the French and Indian War. This isn't to disparage them — all they ever had to do was be a part of a larger formation. Whereas, Washington's time — there is a period of a few years where he is left in charge to have to figure it out himself. So he's having to figure out the logistical side. He's having to figure out the cartographic side, figure out the engineering side: how do you build these forts? Where do you site them? — all of that stuff. You didn't have a whole lot of people — that's not to say that Washington was necessarily good at it. He was one of the only ones with anything approaching it; sort of the 'tallest building in Wichita' thing. Sorry to our listeners in Wichita. But so the most qualified, which is sort of a very low bar to have to attain. It's just sort of lucky for the colonial cause that he actually happened to not be horrible at it, as well.

NGA: You mentioned earlier with the French and their capabilities and what they kind of brought over here?

Stolz: Even with all the sort of skill that Washington brings to the higher-level command of the Continental Army, the problem is he's still only one person. It's a shortcoming the Continental Army will face throughout the entire war. Generally, when Washington loses a battle, it's generally because he's put too much faith in a subordinate commander, right? Like, you probably should have gone and double-checked what that person was doing and not just assumed that ...

NGA: Trust, but verify.

Stoltz: Trust, but verify, right. Just check up to make sure they are actually as competent as you were hoping they were, if that thing is going to be critical to your whole plan. And one of the things that Washington never really had a lot of access to was a significant source of engineers, cartographers, staff officers. He had guys like Alexander Hamilton, who, before he was doing his hit Broadway musical, was aide-de-camp to Washington, and Washington sort of had this cadre of young, well-educated college men that served as his aides-de-camp that served throughout the war. And he wanted those, because aide-de-camp in this time period is sort of your general-purpose administrative assistant to a general but also at times would have to represent you personally; so that if you need to send an order that's fairly complicated, or you don't have time to write it down, you could send this person that understood the intent behind the order that could answer these questions. And it had to be somebody that is composed enough to, as only a lieutenant colonel, stand up to someone that's a general and say, "Well, that's great. I represent the higher-ranking general," and to not exceed your authority in that right either — to hit that mark. It was really always hard for Washington to find men like that, so Washington always valued them. One thing he never had access to — because you could find well-spoken, college-educated men in the colonies, right? — a graduate from Harvard or Yale or William and Mary or — I think at the time it's King's College — Columbia, Princeton. Those places exist. What they don't have, though, is people that don't do military cartography. It's a very specialized sub-field, and it's something that anyone who wanted to move up in the ranks of a European army was always practicing. In the 18th century, they're starting to establish some military academies — you know, it's something that's increasingly being taught there — but you know that hasn't happen in the colonies, right? Like, West Point's not going to become 'a thing' until 1803, and so it doesn't exist in America at this point. And the French will — as early as 1776, when the Americans officially declare independence — start to surreptitiously send over military engineers and military cartographers. You have guys like Thaddeus Kosciuszko [who] comes over on his own but [also] guys like [Louis Lebègue de Presle] Duportail and some of these other French officers. It's weird, because a lot of Americans I don't think realize just how much that was actually the French government behind it. Because, you know, the French government can't admit they're doing it, because they're not officially at war yet; because if they do it and the British find out, then the British will then declare war, and the

French aren't ready for that. And so, you know, they're sending these guys over secretly, and even to this day, I think the French almost did too good of a job in some ways, because I think they're not getting some credit for some of these efforts. But so they'll try and send over some engineers and some cartographers, and they're great as sort of like a stop gap, but there's never sort of enough of them to go around, and you can generally find — if you look at like sort of the broad history of the war effort from 1775 until, you know, really, 1780 — if you ever want to look at, like, where the Americans are losing, it's generally where there aren't cartographers and engineers. They're such a force multiplier for helping a general understand what's going on, because they can create the maps to help them sort of visualize it.

NGA: Because prior to the war, commercial maps was pretty much all that was available, and those came out of London, and so your supply kind of stops.

Stoltz: Yes, it's weird, you know, because we can, you know, not with 100 percent exactness, but there's times when you can see when Washington is sort of operating in a new area, or, like, here's a guy that's traveled through New Jersey, but he's never had to worry about the inner details of, like, what exit to get off at on the parkway. If Washington wants to create detailed march orders for where he wants the army to go, you can actually look at the commercially available maps and see, "OK, this is probably the map he had, because these are the marks that he's, you know, telling him to go to." And then he'll, you know, get information from a local New Jerseyan, and it's like, "Well, you know, there was, like, a shortcut you could have taken." But, yes, all of these maps were produced in London. The mercantilist system of the British is that finished goods are produced back in London. Even something we think of as simple as a map — the sort of skills and the information it takes to put together some major map like that and the printing presses required to print off large-scale commercial maps don't exist in the colonies. And so if you happen to go to war with England, and you're trying to buy these things from London, it becomes harder to go shopping for them.

NGA: It's more difficult, yes.

Stoltz: You could maybe try and pick some up in Paris, but, you know, then you've got to speak French, and it just doesn't quite work the same way.

NGA: So it made that skill set even more valuable.

Stoltz: In 1781, you know, this — everyone sort of thinks that the Yorktown campaign is the big moment of 1781, the two armies; the French Army has been up in Newport, Rhode Island, since July of 1780, just kind of hanging out with the Rhode Islanders, having dinners and parties and enjoying the food, and the American Army has been camped up by West Point throughout that winter. They can't do any offensive operations, because Congress has run out of money, but by 1781, there's a fresh influx of cash from Louis XVI, who graciously gives like chests full of silver, which happened to make it easier to conduct large-scale military operations. And so Washington then can finally start to plan some sort of offensive activity. The question is whether to attack New York where they're basically already at — the Americans and the French are already sort of in the neighborhood — or do you actually go down to the Chesapeake where the British have been running around Virginia causing havoc? They've already threatened Washington's house, and there's a guy named Benedict Arnold down there in Virginia that's really embarrassing George Washington. Washington would like to get his hands on him. So the French and American armies link up in June, at the end of June in 1781, and, you know, there's a whole discussion of "will we, won't we" attack New York? And sort of the traditional narrative, if you read most books about the Yorktown campaign, is actually based off of a poorly translated version of [Marshal Jean-Baptiste Donatien de Vimeur, comte de] Rochambeau's memoirs that Rochambeau writes in 1807. Where Rochambeau, or I should say, where the translator, implies

that — Rochambeau implies that he sort of tricks Washington into going down to Yorktown, and that's just not the case. We know by looking at Washington's own writings that in mid-July he's already considering this idea of moving his entire army 450 miles down to Yorktown. I mean, that's not something you just do when you get a note from [François Joseph Paul] de Grasse saying, "Hey, I'm going down to Virginia Beach. Do you want to join me, you know, for a party on the sand?" You don't just move an army 450 miles in a day. This is something that they had to have been planning. Part of what convinces Washington that the attack on New York isn't going to work is those French cartographic skills. The two armies, when they link up, will do what's called a 'reconnaissance in force.' They'll actually take about half of each army, about 8,000 men total, march almost right to around where Yankee Stadium is now, demonstrate in front of the British — and by that I mean, like, all line up and get the British to shoot at them. The British, at this point, are all ensconced in various little fortifications in northern Manhattan where it gets really hilly. And the whole point of all of this is for both armies to just keep the British's attention while Washington, Rochambeau and their team of cartographers ride around drawing maps. And, I mean, literally drawing, right? Because they have to do it all by hand. And so the surveyors and the cartographers for both armies will go out while the armies are distracting the British for two straight days — will go out, will map everything on Long Island, will map all of northern Manhattan, will map portions of the Bronx. Because, remember, Washington hasn't seen these things since 1776 when they get run out of New York. Washington actually writes in his own diary — and it's sort of interesting from, like, an environmental history perspective; he writes sort of a note to himself in his own diary of this — that northern Manhattan looks so strange, because whereas before there used to be giant stands of trees, now there's not even bushes as high as a man's waist. Because you've had four or five thousand British and Hessian soldiers camped in northern Manhattan for four years, five years, at this point. They had to use wood to build the forts. They had to use wood to heat fires in winter. And so all of northern Manhattan's geography has changed because of this human occupation for so long. They do this reconnaissance in force. They make all these rough sketches, and then both armies retreat back to the Dobbs Ferry area, and that's when their cartographers really go to work, and they start turning out all of these beautiful handmade maps. Again, there's no printing press to reproduce these. They all have to be reproduced by hand, and they all have to be exact enough and accurate enough that they can exchange these maps, because Washington needs a version, Rochambeau needs a version, if there's any chance of the French fleet, that will never have seen any of New York before in its life. The French fleet would, in theory, show up completely sight unseen. They need a map. They have to decide common names for everything. So these maps — some of them are in the Library of Congress.

NGA: I was just going to ask.

Stoltz: Yes, some of them are actually in the Library of Congress in the Rochambeau Map Collection. They had to actually decide whether they were going to use the French name for something or the English name for something, and, generally, they went with whichever one was easiest for both sides to say, right? This is a multinational army, and so the cartographers are having to think through all of these issues, and by the time it's all done, the maps will actually allow the staff officers to come up with this massive 26-page handwritten report of: OK, if we're going to attack New York City, this is what it's going to cost in terms of troops, and this is what it's going to cost in terms of food and supplies, and this is how long we think it's going to take. Even as they're generating this report, we know that Washington is already starting to ask people, "What's the weather like in Philadelphia?" and, "What's the situation with the roads?" and, "If I was going to happen to do something to take a trip down to Virginia with a bunch of my friends, how would I go about doing that? Because it's not something that can be done overnight." Washington wants New York back. He got run out of there unceremoniously. It's embarrassing. New York is the major base for the British in the American colonies that are

rebellious. If he could, that would be 'big sexy victory' to actually get the retribution of reconquering New York. And he really wants to. And I think it's those French maps and that staff officer work that really convinces him: as much as I want this, it's not the right decision. And without those maps, it becomes much harder to visualize just how hard of a challenge it would have been to attack the city of New York. And so that's when they'll decide: OK, we're going to Virginia. We can stop at my place on the way and have some snacks.

NGA: So, I mean, they've played a huge role in the entire war, really, all throughout.

Stoltz: Yes. I mean, it's interesting that West Point will not be established until the Jefferson administration, mostly because Jefferson and his political party don't want to pay for it when the Federalists are in charge. But then once Jefferson actually gets to be president, he decides: oh, maybe we kind of do need that. It's not a coincidence at all that from the start, West Point's curriculum was a military engineering and military cartography intensive curriculum.

NGA: They realized they needed those skills.

Stoltz: It's that thing that they cannot reproduce, even the most 'Jeffersonian Republican, pro-militia as the bulwark of defense of the nation' type realized you're still going to have certain positions like artillery, like cartography, like engineering that just takes time and investment and training. You can't just catch up with that quickly. I taught at West Point for two years, and the cadets now are always fascinated when you talk about this — that drawing was a required course at West Point, originally. Actually, in the Special Collections Library at West Point of William Tecumseh Sherman's drawings that he did as a student, and it's these very ripped muscular Greek men in the nude, which is fascinating. But you think about it — if you can draw abs, you can draw a hill, which is actually what they were training these guys to draw; was hills and stuff. But what they would have them do was classical figure drawing, because if you can figure out the contours of the human body from sight, you can figure out the contours of a hill. And these don't have to be big elaborate maps. It can be a sketch. Great, because this is still a time period — even into the American Civil War — it's conducting war by passing notes and oftentimes by even rough sketches. And the better your sketches can be, the better chance you have for success and the more troops you can bring home, which is ultimately the goal of any military officer. And so the cartographic angle was essential to American victory in the war and a central part of the American defense policy after the war. One of the first efficiencies they move to correct is making sure there are armories so that the U.S. doesn't need to import guns from Europe — because you're most likely going to be going to war with Europe, so they're not going to sell you stuff — and establishing cartography and engineering schools in the United States. It's the first two things that [the] national defense movement in the U.S. looks to correct.

NGA: And then, as far as Washington's life, he kept up his surveying skills throughout his life, right?

Stoltz: Yes. He was doing some personal surveying of Mount Vernon even a few weeks before he died. It was something he enjoyed. You know, we can see from the surveys he does — it's funny. You don't see Washington in his writing ever really doing a lot of sort of embellishment. He's very matter of fact in anything he writes. But if you look at his surveys, you see sort of little extra flourishes on the compass roses and stuff like that. He's a very practical guy, so the compass rose still has to be accurate, but you can see his mapping is his one little artistic release that he would ever sort of allow himself. And, again, you know, I wouldn't want to work for him, personally. I think all of us at Mount Vernon kind of work for him now, but I'm glad that he's not my direct supervisor, because he takes a personal interest in the surveying of the federal city and how they're going to lay out Washington, D.C. He's going to live right near it, even after he retires, so he's kind of interested, and he wants it done right, but it's going to have



his name on it, so he kind of wants it done right. But, you know, he's even sort of checking on the surveys done on the layout [of] Washington, D.C.

NGA: Well, trust, but verify.

Stoltz: Yes, trust, but verify. He's finally learned that lesson, but he always had a fascination with maps and with surveying, and, you know, it's one of our disappointments here at the library that when Washington dies, there's a survey done of his library. I should say, 'inventory' done of his library, because they have to disentangle the Washington and the Custis estates, because there's no direct heir for George and Martha, right? And so we have this great inventory of the books that were in Washington's library. Unfortunately, when they did the inventory for maps, they just said, "Map collection," so we don't have a great idea — we know he had a lot of maps. Unfortunately, what we don't have a great idea of is what maps they were. Like I said, he was always a very practical reader, you know? So this is library collection of military art and science, political theory, surveying, agriculture, right? He was not a big guy of reading fiction, but he did like to read travelogues or stuff that you would read like in a geography class today that's not just about like the maps but also sort of understanding the culture behind the organization. I think in some ways geography was sort of his leisure reading, which you could tell about how much he relaxed. I think he always had a lifelong interest with maps. Certainly, in the mansion today, we still have his globe right there where you can see it. Cartography is what helped him sort of make his way in life from the start, and I think it's something he always had a lifelong fascination with.

NGA: Thanks to Joe for giving us a glimpse of George Washington's life and legacy. Washington accomplished a lot in his lifetime, but his interest in land surveying, cartography and geography are perhaps the things we were most appreciative of here at NGA. As honorary employee number one, we honor the legacy of George Washington and the road he paved for GEOINT over 200 years ago.

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This episode's music is courtesy of the United States Army Old Guard Fife and Drum Corps. The men and women of the corps proudly carry on traditions that accompanied the birth of our nation. We think George Washington would approve.

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