



## NATIONAL GEOSPATIAL-INTELLIGENCE AGENCY

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### Podcast: NGA Director Letitia A. Long interview with “Directions Magazine”

National Geospatial-Intelligence Agency Director Letitia A. Long was interviewed by Joe Francica, editor-in-chief of “Directions Magazine” July 29th in Huntsville, Alabama.

The audio file of this interview is available [here](#).

#### TRANSCRIPT

**Francica:** Hello and welcome to another “Directions Magazine” podcast. This is Joe Francica, editor-in-chief. The Director of the National Geospatial-Intelligence Agency, Ms. Letitia Long, paid a visit to my hometown, Huntsville, Alabama, as she was meeting with her contingent of NGA employees at the Missile and Space Intelligence Center (MSIC) on the Redstone Arsenal. She was gracious enough to grant me an interview and we had a chance to sit down and talk about her tenure as director, the expanding mission of the NGA and the impact of geospatial technology in intelligence gathering, as well as government policy. I hope you enjoy the interview.

**Francica:** Well, good thanks again, you know, for coming. So, I did want to start with the current mission of NGA and you’re here in Huntsville reviewing the work of the NGA contingent. So, obviously they’re a little bit busy out at MSIC given the MH-17 tragedy. So, with this backdrop and that of the current budget constraints of the defense agencies, isn’t it logical to conclude the geospatial technology and the GEOINT (geospatial intelligence) tradecraft will continue to be a highly-valued resource in the IC (intelligence community) community -- and, hopefully receive continued funding at a level consistent with the critical mission?

**Long:** Well certainly, Joe. From my vantage point and from my perspective GEOINT is the very foundation upon which all the rest of our information -- both classified and unclassified -- in the intelligence community can be layered. Everything that we are looking at, everyone that we are looking at, every activity is somewhere at a point in time. So, everything that is geo-referenced -- and, not only do you geo-reference it -- but, when you geospatially-enable data, you’re able to visualize it and make more conclusions out of that information very quickly. And, so I firmly believe that we are not only the foundation, we are driving intelligence integration. The Director of National Intelligence agrees with that. Intelligence integration is his highest priority. So, while I can’t predict the budget, I certainly believe that we will continue to be funded at a level commensurate with what we need to be doing. [Joe: Right].

**Francica:** In one of the stated missions that NGA has -- and this is on the NGA website -- is to take into account NGA’s need to be agile. This is something you have said during your tenure -- including support to military and intelligence operations, intelligence analysis, et cetera, counterterrorism, counterproliferation -- it’s a mission that seems to have evolved down through General Clapper, through Bob Murrett, and moving on really from not just international security, but domestically as well, focused on confronting natural disasters. Sandy being a great example of that. So, from an organizational standpoint do you anticipate that NGA might have to separate its domestic mission requirements when it also faces, you know, so much impact and strain from supporting the warfighter and just being more internationally focused?

**Long:** I wouldn’t call it “separating.” I would call it what we’ve always done and that is balancing. So, we will always have more requirements than we can fulfill. [Joe: Right]. We will always have again more requirements than we can fulfill, so it’s a matter of balance. And, when you look at the investment that our country has made in our capabilities from an intelligence perspective and what we do and respond to in a national security space -- if we can take those capabilities and apply them when it comes to natural disasters, humanitarian

assistance, disaster operations, we absolutely should do that. And, we have been doing it, as you mentioned, for over a decade now. We talk about it more than we used to. We're more transparent than we used to be.

You know when I arrived at the agency and we were doing support to the Federal Emergency Management Agency or state and local, we would give a product that didn't even have our name on it -- didn't have our seal on it -- because we didn't want necessarily to have intelligence associated with that. We're beyond that. And, I think that's a good thing that we are talking about the fact that what we invest in as a nation can be used to support domestic operations when asked by a lead federal agency. And, again that's a good thing that we can take those investments and use them to save lives and to support those recovery operations here in the United States and abroad -- because, we also support natural disasters abroad.

**Francica:** Yeah and that really is critical. And, to use the resources that we've got here I think is only more beneficial to everybody. So, let me just talk quickly about mobile and immersive, those are two of your hot buttons. Can you point to some of the major successes that these two areas, you know, given your tenure -- do you want to highlight some of those two big things? The mobile -- I know mobile was huge in getting stuff down to the warfighter -- and then, of course, more recently on the immersive side.

**Long:** So, from the mobile perspective, let me take it back to what we were just talking about [Joe: Yeah] -- on the humanitarian assistance, disaster recovery. In my tenure we have totally transformed that mission space. When I started, we were working with rescue -- search and rescue teams. Deploying with them in the field, manually drawing where events had occurred, manually dropping GPS points, going back to the command post, entering -- "fat-fingering"-- data into a computer.

That's all different because of mobile devices and the mobile apps that we've developed. And we have enabled those first responders to do so much more themselves which frees us up to do the advanced analysis, to develop more applications, to enable the first responders to do even more. So, mobile has been huge in the HADR (humanitarian assistance / disaster response) arena. Also -- as you just mentioned -- with the warfighter being able to get applications that they can readily download to a mobile device, or download in the field to a laptop or a desktop and download our information -- the latest. Whether it's classified -- within their garrison, if you will -- or unclassified onto their mobile devices, the warfighter is able to also serve himself, serve herself more, again freeing us up to do that advanced analysis.

**Francica:** Has there been much of an issue with training when they get a mobile app? Or, is it pretty much -- they know how to use it?

**Long:** It really is, especially if you take, you know, our warfighters -- twenty-somethings -- it's the same as them using their smartphone or a tablet. It's intuitive. In fact, we develop our apps so that they are intuitive. If there's any training needed it's embedded -- they don't go to school, they don't go to classes for that. And, I'm sorry -- you also asked me about -- [Joe: The immersion] being immersive [Joe: Yeah].

So, immersion is really what I will call the next phase. It's the next step. It's really living within the data. We're doing some amount of that now, we are just getting, you know, the tip of the iceberg. We are really just getting started. But, when you think about how much information is available to anyone -- you know, in your personal life. Making sense of it all, analyzing it, that's where our focus is. And, that's where we see immersion living within the data.

If I can relate it to gaming, when you think about the games that are there and how you immerse yourself into that environment -- live within the data -- and, therefore be able to visualize it and interpret it so much faster instead of reading text or going through tables. That's what we are talking about when it comes to geospatial and geospatial intelligence information.

**Francica:** I think we've always wanted to get there, you know, when we visualize the satellite imagery, those of us trained in imagery analysis wanted to put ourselves into that picture. I just think it makes it totally intuitive to the warfighter to be there to see it, to visualize it.

**Long:** And also, to the policymaker. Because again -- when you're presenting as much information as we are trying to present in a very short period of time -- being able to see it visually you can convey so much more information, which allows them to draw conclusions very quickly, which in turns gives them more time to think about how they are going to apply that information -- what is the consequence that they want to achieve and therefore, how can they get to that answer quicker.

**Francica:** Yeah. And, I want to jump to this question ahead because you just referenced it. I, when I have the opportunity to interview a governor or civic head -- I've had the opportunity to interview a couple governors like Governor O'Malley. And, I always ask the question, "Can you govern, can you dictate policy from a geospatial perspective? Can you use this technology in your everyday?" We just talked about it with Mayor Battle -- he's obviously all into it. But, as you just said, when you can see the information it makes it so much more valuable. So, at least try to propose that to policymakers -- "Can you use this?"

**Long:** And, I hope the answer you get is, "Absolutely." [Joe: Well sometimes.] Well, from an educated consumer that is the answer that we get. And, not only can they rapidly make sense of it and make decisions based upon it, they want more. They want to be able to drill down and do that almost on their own [and] ask questions if they need help interpreting the data. But, they want it arrayed in such a way that it's intuitive and it's obvious and they can arrive at that answer which does allow them to govern, to make a decision. To, you know, enter into a negotiation or conversation fully equipped.

**Francica:** Yeah, I'm sure you've had that opportunity to brief the President using geospatial technology. It must be so much easier to explain something.

**Long:** It absolutely is. I mean, I don't personally brief him. But, when the teams go in, he's already read everything. He wants to have that conversation and get into the "so what." And, so when you walk in arraying that data and you have that visual -- that enables that conversation.

**Francica:** Yeah. And, let me go just to a little bit about the data that we are inundated with -- small sats (satellites), UAV's (unmanned aerial vehicles), LIDAR (light detection and ranging), so many sensors. There is a real data integration challenge that we have before us. The volume and velocity is exploding. And, the NGA will be presented with all of these challenges. Can you lean on the existing NGA workforce or do you look towards the vendor community and how are they going to help support the mission?

**Long:** So, the answer to that is -- both. I mean, we have an incredibly talented workforce at NGA. And, we are hiring continuously. We are looking always at the skill sets that we're going to need in the future -- so, whether it's hiring with those skills sets or retraining some amount of the workforce that we have. We also partner with industry, with academia, to take advantage of their skill sets, to fill in gaps that we have -- or, simply it's a skill set we may need for a period of time. Or, it's a skill set we believe we may never be able to really cultivate or develop, because maybe there's not a whole career track at the agency.

So, it truly is a partnership. And, I think what is the biggest challenge is projecting the skills that we will need into the future -- both within our workforce and within industry, working with academia for them to train and educate the future workforce -- and then ensuring we have the right numbers in the right places.

**Francica:** Yeah. And, I can see that as a challenge and we actually do a little bit of it here, too. I'm trying to work with the three universities locally -- we've got great remote sensing classes. But, to focus in on the tradecraft, it's a little different. We want to get GEOINT certification here in town to support the ongoing mission at NGA.

**Long:** And, we have [a] new initiative that I'd be happy to talk with you more about. The Director of National Intelligence – actually [it] predates the Director of National Intelligence. So, over a decade ago [they] created a program called Intelligence Community Centers for Academic Excellence -- where grants are given to universities to enable them to develop analytic intelligence analysis and analytic programs [Joe: Right].

We are building upon that and have just embarked upon a program for Geospatial Intelligence Centers of Academic Excellence [Joe: Okay]. And so, we are working with universities across the country to help them develop geospatial intelligence programs, analytic programs. And, I'd be happy to go into more detail --

**Francica:** Yeah. Yeah, I'm sure the local universities would love to know more. Let me just go to GeoQ and Github. We just discussed [it] a little bit, along with other applications that were just unveiled at the White House. You know we in Huntsville obviously hope to be the poster people for GeoQ and event pages. But, putting GeoQ on GitHub was an unusual move for an intelligence agency and it really goes up to my first question about mission scope. Can we expect the future of GeoQ, hopefully, to eliminate some of the red tape in getting more of your timely data to local government and first responders?

**Long:** And, the answer is – “Absolutely, yes.” I don't see GeoQ as much an issue of mission scope as I do see it about working smarter and being innovative. So, the whole point in putting that software out on GitHub was to encourage collaboration, was to encourage others to bring their good ideas, to encourage others to bring ideas that NGA never would of thought of and take that software tailor it, use it, give it back. And, it's out there, it's available for everyone and, you know, that's the beauty of it. And then, with the other applications, you know, you mentioned GeoQ [and] the other applications that we're putting out there it is a way of getting applications -- and eventually -- product into the hands of the users much more quickly.

**Francica:** Right. And that really follows on to the next question, which is -- can you effectively put this information into more hands on a daily basis, on an hourly basis? We talked about getting into policy, in politicians' hands. What products should they leverage -- and, maybe stated differently -- how much better can our decision-making process be with this?

**Long:** And so, our whole focus here -- again with using GitHub and putting some of our applications out there is to enable and while this is enabling -- largely, in the first responder community -- it also works over into all of our mission areas. And so, that is supporting the policymaker, the warfighter and the first responder. And, what we are here trying to do is get answers, products, information, services to those mission partners more quickly.

And, at the end of the day it is to enable them to be able to make the decision they need to make more quickly -- so that they save lives, they plan and execute operations more quickly and enter into a negotiation or making a policy-level decision with better information and making it in a more timely manner. At the end of the day, it's about giving our customers -- our mission partners -- decision space.

**Francica:** Well, Director Long, thank you so much for your time we really appreciate it. And, thanks for coming to Huntsville and being with us.

**Long:** Well, thank you very much, Joe.

**Francica:** Thanks.

**Francica:** Thanks again for joining me on another Directions Magazine podcast. If you'd like to comment about my interview today, please write to me at [editors@directionsmag.com](mailto:editors@directionsmag.com) or send me a tweet @DirectionsMag. Thanks again for joining me and be sure to tell a friend.