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INAME:	MCCULLOUGH, Bernard J.	Text w/Tape:
	(Barry), VADM USN	
IPLACE:	National Security Agency, O	PS-3, Ft. Meade, Maryland
IVIEWER:	(b)(3) NSA	
[NOTE; CL	Fleet. This interview will focus on Via as commander of U.S. Fleet Cyber C My name is <sup>[b)(3) NSA</sup> I am the Historian with the Center for Cryptolo <sup>(b)(3) NSA</sup> Historia interview is being recorded in the OP interview is up to TOP SECRET//CO classification at the end if needed. V	AN UNCLASSIFIED VERSION EATED WITH THE CLASSIFIED ELEASE OF THIS DOCUMENT TO AGE COMMAND IS PENDING JGH.] 2011-79. Today is 22 September hiral Bernard J. (Barry) McCullough, mmand/Commander of the U.S. Tenth ce Admiral McCullough's experience Command/Commander Tenth Fleet. National Security Agency's Oral ogic History. Along with me is an for the U.S. Tenth Fleet. This PS3 Building. The classification of this MINT. We can adjust this fice Admiral McCullough, welcome! tory appreciate you donating your time d you provide us your academic
McC:	(U//FOUO) ((TR NOTE: Name abbre format if spelled out.)) Yeah, i'd be g secondary school; I went to high schu Virginia, Weir High School. I receive Academy and went to the Naval Aca Page 1 of 2	lad to. Academic background is ool in a little town in northern West d an appointment to the Naval demy in June of 1971 and was

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graduated and commissioned on 4 June 1975. My other education includes various service schools for professional development and completion of a master's program at National Defense University, the Industrial College of the Armed Forces. So that's pretty much the academic background. Service assignments: as a junior officer I was assigned to nuclear cruisers. I have finished the Navy nuclear-propulsion instruction program and am a certified engineer on D2G power plant and A1W power plant. So I served as the Main Propulsion Assistant on the USS Texas, CGN-39 and as the Engineer Officer in USS Virginia, CGN-38. I also spent about two and a half years at the nuclear prototype in Ballston Spa. New York, from 1980 through 1982. I've been the CO of three ships...the commanding officer of three ships: USS Gemini, which was a patrol hydrofoil missile ship out of Key West, Florida. I was the commanding officer of USS Scott, DDG-995, a new threat upgrade destroyer, and commanding officer of USS Normandy, CG-60, an Aegis Class guided-missile cruiser. I served as the region commander for Navy Region Hawaii in my first flag assignment and was dual hatted as the Commander of Naval Surface Group, Middle Pacific, where I was responsible for three cruisers and a DESRON of six destroyers and frigates. Following my tour in Hawaii, I was the commander of Cruiser/Destroyer Group 12, which transitioned into Carrier Strike Group 14, and I was the commander of the Enterprise Battle Group. At the same time I was assigned as Commander, Carrier Strike Group Six, Commander John F. Kennedy Battle Group and we participated in operations in the northern Arabian Gulf including the 2004 November liberation of Fallujah by the Marine Corps in Iraq. Following that tour I was assigned as the Director of Surface Warfare on the Navy Staff, OPNAV N-86, and then I was promoted to Vice Admiral and assigned as the Deputy Chief of Naval Operations for the Integration of Capabilities and Resources, OPNAV N-8. Following my tour in the Pentagon I was assigned as Commander, Fleet Cyber Command/Commander U.S. Tenth Fleet, here at Fort Meade.

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(U/FOUO) Okay.

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(U/FOUO) ((TR NOTE: [b)(3) NSA name is too long to fit the column in the format so I am abbreviating it as shown.)) So, Admiral, you've had an amazing career. When looking back, as you may be doing sometimes, what are some of the things that kind of made you, you know, defining principles, things that kind of carried you to success?

McC: (U/FOUO) Well, first I'd say that I grew up in a lower-to-middle, middleclass home, and my father imbued me with a work ethic that allowed me to do the things I do today. I took a relatively difficult curriculum at the Naval Academy. I have a Bachelor's Degree in Naval Architecture, and when I went to my first at-sea assignments I was given positions of

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increased responsibility and authority ahead of my peers. On USS Texas I was assigned as the Main Propulsion Assistant after being on the ship for approximately six months. I was a very junior, junior, ah, lieutenant junior grade, if there is such a thing as a junior lieutenant junior grade, and it was a second-tour lieutenant's billet, so I was responsible for about 168 people and all the machinery and two nuclear power plants. When I went to prototype, I worked a lot with the civilians at the then General Electric Company that operated and owned the prototype at Ballston Spa, New York; it was operated by the Navy. And I was able to lead a group of sailors that were both submarine sailors and surface sailors and we accomplished some really difficult technical tasks on that power plant. And again, it gave me a level of responsibility inside that organization that no Navy lieutenant had had previously. And then when I went to Virginia as the engineer in 1983. I was at that time the most junior officer that was ever assigned to be the engineer officer on a nuclear-powered cruiser. went to my first command in 1986. I had only been out of the Naval Academy for 11 years. And so I think the opportunity the Navy gave me to be a leader of increasingly large organizations with increasingly greater scope of responsibility and authority over the first 11, 12, 13 years of my career is what enable me to be considered for positions of higher authority later.

(U/FOUO) With all that, any...Those are a lot of great events and activities; any people that kind of, you know, as you kind of looked to, like the three to five people that had the biggest influence of you...on you over the course of your career?

McC (U/FOUO) The CO I had on Virginia, Captain, Retired, Joseph King. We were off of Beirut in 1983 when they blew up the Marine compound in Beirut, and we'd been conducting fire missions...surface fire missions into targets in Lebanon prior to that event, and it was to watch how that CO molded the crew in the face of that calamity. Our folks went ashore and helped dia...helped do the recovery ops of the bodies of the Marines. And that was probably the hardest thing I've seen anybody try to organize and shape a crew to get through, and Joe King was spectacular. When I went to the Naval Academy as a battalion officer. I met a gentleman by the name of Joseph Prueher, who was promoted to one-star as the Commandant when I was at the Naval Academy. And Admiral Prueher became a four-star admiral and was Commander of PACOM and later the U.S. Ambassador to PRC. And his ability to form a team and execute the mission at the Naval Academy through some pretty trying times just taught me how to be a better leader, and I really enjoyed working for the Ambassador. When I had command of Scott, Vice Admiral, Retired, Doug Katz, as the commander of the Cruiser/Destroyer Group in America Battle Group made Scott the Air Defense Commander in the Fleet Certification Exercise-they were called FLEETEXes at that time-and used two Aegis

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cruisers commanded by senior O-6s in a silent SAM role, so I got to coordinate the air defense for this graded exercise that certified the battle group to deploy. Again, that was a huge responsibility laid on a pretty junior group of folks. I mean, my department heads were all mid-grade to junior lieutenants, and the XO was a lieutenant commander, and I was a 16-year commander, so it...Somebody that would put that level of faith and confidence in is pretty...pretty interesting. I worked for both Vern Clark and "Fox" Fallon, when they were the Second Fleet Commander. And I was going to...When I went to Second Fleet in May of 1997, I told then Admiral Clark that I wanted to pass through Second Fleet staff as quick as I could 'cause it was an "I" stop and go off to my Aegis cruiser. And I got told by then Vice Admiral Clark that I would learn more about joint war fighting under his tutelage than I ever would in command of that cruiser. And he was right (<sup>b)(3) NSA</sup> chuckles.)) And then Fallon, Admiral Fallon. by then Vice Admiral Fallon, relieved Clark, and so it was... I got asked to stay so I ended up doing 22 months of a six-month "I" stop. Now how you stay some place for 22 months on non-PCS orders. I don't know. but I did. ((More chuckles.)) So that was a really great opportunity. And then I worked under Admiral Roughhead when he was commander of George Washington Strike Group, I was the air-defense commander on Normandy. When he was the Second Fleet commander I had command of my carrier strike groups. And then, obviously, when he was the CNO I was the N-8. And Admiral Roughhead just routinely let me have more than enough rope to hang myself, and we had a truly great relationship. So there's those folks. The last one I'd bring up is a guy named Mike Malone, a retired vice admiral that was my second commanding officer when I was Engineer on Enterprise. He not only has become a very close friend, but as a twice-served commanding officer to go back to sea as a department head on an aircraft carrier is ... you know, you think it's demoting. But he taught me how aircraft carriers really worked, which served me extremely well when I went off to be CO of Normandy and the air-defense commander for GW. Not only that, he gualified me as Command Duty Officer Underway, which let me sit in the CO's chair during fixed-wing carrier operations. And I'd venture to say there's not two other SWOs in the Navy-Surface Warfare Officers-in the Navy that have ever been qualified as a CDO Underway on an aircraft carrier and actually sat in the captain's chair during fixed-wing flight ops. And so those folks, I'd say, probably had the most impact on my life.

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(U/FOUO) Thank you. That's outstanding! Any disappointments you'd care to share?

McC: (U/FOUO) I didn't screen for major command on my first look, you know, and you're flying along. I got deep selected for O-4; I got deep selected again for O-5 and then due to some fitness report politics I didn't screen for, ah, major command on first look, and I, you know, that's...I got to tell

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you, that's a wake-up call when you've gotten everything early and often, and then you get smacked in the face with a 2x4; it's entertaining. But it all worked out in the end.

(U/FOUO) Thanks! I want to kind of shift gears and capture a couple of things, I guess, in sort of a general question to get your sense. So, we've had a lot of changes in the Navy in the last, you know, couple of years, with information dominance; we've got this name, you know, Tenth Fleet. We had a Tenth Fleet in World War II. I think, you know, people kind of talk about some of the parallels. If you could just kind of tell us the story from your end of, Tenth Fleet, how the name came about, how the whole information-dominance thing came about and, how it felt to you to make it happen.

McC: (U/FOUO) Historically the United States was in peril as we approached the calendar year 1943. The German U-boats were just having a field day off the east coast of the United States. The cities didn't want to go to black out. The ships...Those merchant ships were silhouetted against the cities, and they were just slaughtering the merchant seamen. And Admiral King, the then CNO-that wasn't the title but that's what he was-decided that we had to act and we had to take extreme action to stop this or we were going to lose the war, because if you can't get stuff to Great Britain. you can't ever invade the continent and restore order to the continent. And so he decided to stand up a fleet in being, if you will, that had no assigned ships or airplanes—and I include submarines and ships. And he wanted to utilize advanced technology-and what's advanced technology at the time? Well, it's HF/DF and other code-breaking technology---to figure out where the U-boats were and then to bring kinetic assets to bear to eliminate the threat. And so he stood up the Tenth Fleet in May of 1943, and we developed and refined HF/DF and code-breaking, and the history of what we did with Enigmas is well documented. We also used HUMINT and other sources of ELINT, although we didn't call it ELINT or HUMINT at the time, and fused that data to be able to bring kinetic assets to bear and kill the submarines. So once we fused the date and we had the picture, if you will, then there were kinetic tactics, techniques and procedures that had to be developed and executed. And it's like the antisubmarine carriers or the "jeep" carriers we used to fill the air gap in the center of the ocean. It's how do you bring airplanes to bear against submarines? I mean, these were things we'd never done before. And the fusing of that data and the ability to transfer kinetic assets to act on the data is what enabled us to drive the U-boat menace in the Atlantic below the noise level. And it killed a lot of German submariners and it killed a lot of their submarines, and they were suffering from the ability to train their crews starting in about '43 and early '44, and so it turned the tide of the war in the Atlantic and enabled the eventual victory. I believe. So, where are we now? We have nation-state actors, we have patriotic civilians in

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adversary nation-states, and we have cyber criminals that are stealing us blind. And the amount of unclassified data that's being exfilled from this country is just total thievery of the intellectual property of the United States of America. Now, we haven't seen any cyber attacks, if you will, other than nuisances to this point, but the exfil of data is just horrendous. And so, how do you take and build a fleet-in-being from the Navy perspective that has no assigned ships and airplanes to operate, defend and maintain the Navy's networks and to develop non-kinetic capability in support of combatant commanders' operational and concept plans? And so when CNO Roughhead looked at the Navy's history, this was very similar to what CNO King had done ... what Fleet Admiral King had done in the Second World War. And so he and, I believe, with the assistance of Vice Admiral, Retired Jack Dorsett came up with the notion that we would build a fleet in being and appropriately re-designated it and re-commissioned it as the U.S. Tenth Fleet. And so that's the operational arm for the Navy in cyber warfare, ah, full-spectrum cyber operations, if you will. Then as we were going along and the SECDEF decided that we needed to embark in this new domain and decided to stand up U.S. CYBERCOM, there was a discussion on how the services would provide components to U.S. CYBERCOM. And at that point the Tenth Fleet was dual-hatted as U.S. Fleet CYBERCOM. And that echelon-two command is the service component and was designated as the service component to U.S. Cyber Command as well as an Ech-2 administrative command to the Chief of Naval Operations. Admiral Roughhead and I and Secretary Mabus-I guess it's "and me" and Secretary Mabus-went down and briefed DEPSECDEF Wynne on how we were going to do componentcy for U.S. Cyber Command in about February of 2010. And Secretary...DEPSECDEF Wynne, at that time approved, and Navy is way ahead. And so that's sort of how the Tenth Fleet came to being today and how the Fleet Cyber Command came into being.

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(U/FOUO) Um hmm.

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McC:

(U/FOUO) Um, why you?

McC (U/FOUO) Uh, yeah. I ask myself that.

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(U/FOUO) Probably didn't phrase that correctly, but you get my point. ((Admiral is speaking at the same time.))

McC: (U/FOUO) No, not...That's...I mean, that's fine. I was walking...I attended Undersecretary Work's swearing in in a courtyard in the Pentagon in the fall of 2009—and I don't remember whether it was October or November—and CNO Roughhead asked me to walk back with

(U/FOUO) Fascinating. At the time, you were the N-8.

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him, which was not unusual for him to ask me to either come to his office or walk with him because the real function of any service staff is to build a program and the budget, and that's what I did. So I walked back with him, and he asked me what I thought about Tenth Fleet. So I've got my budget hat on and I told him I really didn't know what that was. And he goes, "No, I mean about you doing it?" And I said, "Why would you want me to go run an organization that uses computers to do anything when I can barely turn a computer on?" And he said, "That's exactly why I want you to go do it." And so, that's how I got the job.

(U/FOUO) That's a great story. I've been wanting to know that for a long time. So you came in and...clean slate.

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(U/FOUO) At the time there was a vision, Information Dominance, information as a battery and all those things—clean slate. So what were the biggest challenges? You had to stand up a new organization essentially out of nothing.

### McC: (U/FOUO) [\*\*\* NOTE THIS IS THE KEY PART OF THE WHOLE

INTERVIEW \*\*\*] Well, there's a goodness and badness in being given a clean whiteboard and handed the markers. ((All laugh.)) CNO wrote a letter, and I think it was in...it was in the summer of 2009. July-I don't remember the date on the letter-and it laid out what he wanted this organization to do, and it talks about networks, and it talks about cyber. and it talks about information operations; it talks about electronic warfare and it talks about SIGINT cryptology and space. Now that's a pretty broad scope of responsibility or things they want you to go muck around in, for lack of a better word. And so what I did was I came up here...I started coming up here in December of 2009, and I think I had about 20 or 25 people. And, you know, I knew what information warfare officers did-and I'll call them cryptologists because that's what they are—I knew what intelligence officers did, and I thought I knew what IPs and ITs did, but I just...Okay, so that's what I had. And when I looked at cryptology/SIGINT with this "Merry Band of Brothers" I had up here, I said, "It seems to me we're pretty good at that: that the Navy's pretty world-crass in SIGINT/cryptology." I mean, when you go to NSA's big sites in Texas, Hawaii, Maryland, Georgia, there's lots of CTs running around. There's lots of information warfare officers, and they do really well. Okay. So that mission set seems to be okay. When I looked at electronic warfare, while surface-ship electronic warfare in the Navy is not where we would like it to be and is significantly degraded from where it was at the end of the Cold War-although Admiral Harvey has put it on a course to return to some preeminence—but when I looked at electronic warfare in toto, and I looked at the airborne electronic surveillance and the airborne electronic attack

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McC: (U/FOUO) Yeah.

we had, oh, we have the nation's only airborne electronic attack right now...that that was world class, especially with the shift from prowlers to growlers and what we had with the EP-3s and other airplanes. So that was pretty world class. And then I looked at space. And having been a programmer and a budget guy, "alls I knows' about space is the programs are behind schedule and over budget and there wasn't enough money I could put together to do anything about that, so I just sort of said, "Yeah, okay, that's neat. Got to go learn about that later." Information Operations-what is that? It's all things to all people. It's really how do you put all this other stuff together? And then I looked at cyber and networks. And, okay, so now what networks do we have? We have the NIPRNET, and we have the SIPRNET and JWICS, NSANet, so upper classification stuff. Where do we command and control kinetic forces at the operational level of war? Well, you do it on SIPRNET. And SIPRNET and the NIPRNET were never built to be operational networks; they were built as administrative networks, and to say we understood where the transport went and how the transport was arranged and who did what to who in that realm-"whom"-would be a significant understatement; also the fragility of it. And so, you know, all the services, but the Navy in particular-and obviously I know the Navy better than the other oneshave invested a huge amount of money in kinetic capability to go beyond visual range. [NEED CLARIFICATION on KILL RATIO COMMENT]). And you can only do that if you can command and control at the operational level of war. And so, I got to tell you, when I came up here and they gave me my TS read book and I opened it up and I get a report from another three-letter agency in town, the first time I opened it up it was like the guy with the Aquos television, and when they brought in more, it was like, "Wow! Wow!" ((Shouted.)) About the fifth day, it was, "Yeah." ((Whispered.)) And to see what adversaries across the globe were just stealing from us was just amazing. So if they can steal it from you, what else can they do to you? And, okay, so they're doing that over the NIPRNET. Where's the transport for all this stuff? Has DISA got their own cables running all over the place? Well, no, jeez, they don't. It's all commercial transport. So there must be a separate transport for this network. Oh, no, that rides on the same stuff this other stuff does; we just encrypt it. Okay. So now you're depending on commercial Internet service providers, be they local or global, to give you your command and control of forces. Okay, well, that gets the stuff to the ground stations. How does it get to the ships? So we go back to that space thing, you know, and what's the health of the satellite communications? Okay, so we got FLEETSATS that are probably all beyond their expected service lives. We got UFOs, other UHF satellites that have VHF transmitters on them that are at or beyond their service lives. We've got some government SHF. We used to call it "Challenge of Athena." I don't remember what we call it. Well, that's a commercial; it was DSCS (Defense Satellite Communication System (pronounced discus)). So we have some

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government SHF, and we lease the rest of it through the commercial. broadband satellite program. So now I've got leased bandwidth that's providing the stuff we need to forward-deployed ships. And the stuff that we own is on its last legs and is vulnerable to man-made or environmentally-made interference, as is the SHF. And so this is what my C2 structure hangs on, and it bothered me a lot, and so that's what we looked at. So then it's how do you get a picture? 'cause I'm an Aegis guy; I come in and say, "Where's the picture?" And everybody says, "boss, you have a picture on your wall." They didn't know what I was talking about. And so, how do you display the network so you can do net ops? Where are the sensors so you can do net defense? How do you do collections to enable proactive defense instead of reactive defense? And what Intel do you have to support all of that? And so that's what we decided to work on. And so, how do you display it? So we went and visited people like AT&T and Verizon and all these guys. I went to AT&T in Bedminster. New Jersey, and I walk into this space, and it's a pretty big space; it's about half the size of this building-Minster Ops Center. So I walk into it, and AT&T still does telephony-"Ma Bell" is alive and well and getting more healthy as they assimilate all the "baby Bells" that went away 'cause we figured out that wasn't such a good idea-and they do networks and computers, and it's a 140-billion-dollar-a-year company. So I figured, "You know, if they do this wrong, they go out of business. Probably be bad for the shareholders, so how do they do it?" So we go into this Ops Center and the left half of it's networks and the right half of it's telephony. And if the military had an ops center that big there would be 300 people in it. I mean, that's just the way we do things. There were 19 people in this place! Okay, so what did... How did they display the transport? How did they display their sensors? And how did they understand what was going on? Because right now, we're all pretty reactive-we're getting to be proactive-but we're pretty reactive to intrusions. You find somebody in your network, you go, "Oh, my god! They're in there." You figure out how they get in, you seal that hole; then you go clean them up and make sure you didn't ... You figure out what you lost. So these AT&T guys-and this was off the telephony side, but they did it the same way for networksthey bring me...or show me a diagram, and they've got what normal was for the last week, and they've got what normal was 30 days ago; what normal was a year ago, so they understand what normal is. We don't understand normal from attacks, or volume, or whatever. And they showed me this other thing that was... There was a real aberration in it: a vertical spike, ramp up, and then vertical drop off. And I said, "Wow, that's deviation from normal. What did you do about it?" "Ah, nothing. It was 'American Idol' voting night. We knew that the capacity demand was going to go way up at 1800 Eastern Time...or 2000 Eastern Time. It was going to ramp up through the course of the evening and then fall off when the voting window closed, and we put more capacity on to deal with it." That's not only going from reactive to proactive, that's going to predictive.

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And you've got to have the SA, the situational awareness that the operators can see and understand to get to predictive. And so now you can see somebody come in the network in relative...in near-real time and you can stop it before they get in and steal all your stuff and you figured out what they...you figured out what they were doing and then did what I said we'd do today. And so we had to build the SA to do that. So we've worked on that, and that was... I think, you know, we got a world-class Ops Center in the other end of the building. The other thing was, okay, so I've said we've got world-class cryptologists, and it's how do you generate effects to support combatant commanders? I mean, if you just look at what happened in Libya, and you can read it in the open press, those guys ran out of weapons and had to get weapons from us to do Libya. Okay! Now, there's a real tough opponent, kinetically. What's going to happen if you go against a high-end nation state that's got a lot of stuff you've got to use kinetic weapons for? How long will...How...What's our inventory? And so, how do you generate effects to support the combatant commander so he doesn't have to use all the kinetic weapons that are currently in his OPLANS? And so, almost at stand-up I told my folks to figure out what they had to do to support PAC Fleet and his OPLANS specifically, and what we had to do to support NAVCENT with his OPLANS. And I never worried about it. You know, I... I didn't worry about Europe that much. I didn't know Libya was going to erupt. But we're working with NAVEUR now too. So, what intelligence do you need? How do you put the organization together? And then, how do you gain the appropriate capability and capacity to execute the mission if you're called upon? And, oh, what are the legal authorities you need to do it? So General Alexander and his folks are working on the legal authorities. But to me, we have to develop the capability and capacity now ((emphasized)) because I firmly believe that when the bullets start to fly they're going to tell you to do the mission, and we'll get the legal authorities. And if you haven't started now and developed the capability and capacity, you're going tell the guy that wants your effects, "Got it. I'll get back to you in two years." A war is not going to last two years. So you've got to develop the capability and capacity and be ready to use it when you have the authority and you're called upon. So they're sort of the things that we've worked on, and I think we've come a pretty long way.

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(U/FOUO) With the industry I think you hit on a lot of really great points. Kind of going forward, you know, with wearing your N-8 hat looking at, you know, cost versus capability, what are some of the engagement things with industry that we should continue to hone in on?

McC: (U/FOUO) You...I mean, this technology is...Ah, I mean, some of the real high end of it's driven by some of the combat support agencies; make no doubt about it. The National Security Agency's unbelievable in the brain power and computing power they have at NSA, but even knowing that, we

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are not the technology drivers in this domain. In general, for 99.5 percent of it-giving NSA half a percent-the technology is driven by commercial sector. And so, I've been to Microsoft; I've been to AT&T; I've been to Verizon-ah. I can't even remember all the places I've been-and to try to learn what they did, why they did it, and how they did it. And when we did TERMINAL FURY 2010, Admiral Walsh asked me to come out thereand then Admiral Willard figured I was out there and didn't give me to Admiral Walsh—we took an industry cell, and I think we...Between federally funded research and development centers and academia and industry, we had fifteen plus or minus partners out there with us. And so when we took the industry folks... I mean, some of them are cleared into what we do and some of them aren't, but it doesn't mean the ones the ones that aren't can't tell you how to solve problems. So I put them in their own little cell, and the ones we could bring into the SCIF we did. But I'd go down...Or our folks would go down and talk to them every day and say. "Okay, here's what we're seeing on the battlefield." not, "Where you got it." It's not important. It's, you know, they were ... All had clearances or they couldn't have been in the building, but that some of them didn't have the TS/SCI and compartments that we just have all over the place around here. And so, you go down and you GENSER it up and you put the classification at SECRET//GENSER, and then you have all these people that can help you work on this problem. And NSA has done that with an organization that General Alexander is the gen... I believe the Executive Secretary is the right title for. And we did it in miniature fashion out in PACFLT...out in PACOM. And I think you've got to be there 'cause these people can help you solve problems. And if you have that relationship with them, then not only can they help you solve problems in crisis, but because you've developed this relationship during normal ops, when you got to spike to go to crisis, these people are part of the national defense fabric of this country and they will participate.

(S) So, if you don't use the JCOTF model, or, the Cyber PAC, then there's something else. Going forward, how do you make sure that you capture these processes?

McC: (S) Well, I...You know, first of all, everybody thinks I'm the author of the JCOTF construct and they just want me to go away so this will die and they can go do off...go off and do what they want. The real originator of the JCOTF concept was a fellow named General Keith Alexander. And when I first came here, he and I had a discussion about service...his service components supporting different regional combatant commanders in their OPLANS and CONPLANS, and how would you execute that mission? And his vision was that there would be some constant, steadystate relationship between that service component and that regional combatant commander and his staff in developing capabilities and capacities to support his OPLANS. And when a contingency occurred—

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	and you've got to define what's a contingency that requires this level of participation and what is not—that that three-star commander would go forward with enough capability and capacity, be it technical or personnel, to become a joint task force commander, if you will, for that combatant commander to execute operations, defensive ops, and non-kinetic effects generation to support that commander. And that's the JCOTF concept and that's what the boss still believes. And so it'sAnd the general will be here for a couple more years, I think, so I think we'll get there. I mean, you know, Admiral Willard and I are not just professional relations; we're friends, I would say. And I understand why the combatant commanders think they need to actually control everything, because they want to believe it's going to be there when the fight starts and they're not going to have to turn around and look for the cavalry, and so theythatThey want the capability and capacity there to support them. They really don't want to own it, like everybody thinks, because when people say they want to own it, they don't understand what "it" is. And the network's global and you can't put an enclave around it
(b)(3) NSA	(U/ <del>FOUO)</del> Right!
McC:	(U/FOUO) In a region andBecause, okay, now the transport that goes through PACOM's AOR on the way to India or Africa, he can't seal that off. He doesn'tWe don't own it. DoD doesn't own it. So, I think that we will eventually come to the right answer. And I was encouraged by a conference that Rooster Schmidle and Cecil Haney just hosted on this topic.
(b)(3) NSA	(U/FOUO) So, I meant to print off kind of an org chart to talk about
McC:	(U/FOUO) I drew those. I know what they look like.
(b)(3) NSA	(U/ <del>FOUO)</del> A couple little things. Well, I kind of added some things to this, ((Admiral chuckles)) and I've been beat up a lot by some people in the building here. And this is a little old, but I guess where you get the challenges here are—we talked a little about that—you know,
McC:	(U/ <del>FOUO</del> ) Um hmm.
(b)(3) NSA	(U/ <del>FOUO)</del> Your peers. So, you've got regional MOCs: you know, Vice Admiral Harris, other fleet commanders. It's the capability versus capacity tradeoff exactly that you talked about. There's the space piece.
McC:	(U/ <del>FOUO)</del> Um hmm.
(b)(3) NSA	(U/ <del>FOUO)</del> I understand that a little bit better; it's budget driven. Let's just kind of leave that aside for now, you know, but, ah, even withYou know, <b>Page 12 of 21</b>

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you...The relationship with STRATCOM for space, working through NETWARCOM with the space cell, they're still...

McC: (U/FOUO) Were getting ready ((interrupting))...We're getting ready to clean that up. Right now, STRATCOM has all the Navy forces assigned either through the latest GFMG (Global Force Management Guidance) (spoken gifmig)) or the FY-11 Memorandum For Forces...for...Forces For Memorandum. So STRATCOM has all these forces assigned. Everything that works for me is assigned to STRATCOM, with the exception of some capability we have in Colorado and at Suitland. So my space forces, all the network forces, all the transport forces, all the defenders and all the non-kinetic effects generators are all in the Forces For Memorandum of STRATCOM. STRAT has COCOM of those forces and delegated OPCON of those forces, with the exception of the space forces which were sort of ambiguous because of the way the Navy did it; he delegated OPCON of those forces to CYBERCOM. He delegated OPCON back to the service components, the same way we do ships and airplanes. So PACOM has COCOM of all the Navy forces in the Pacific. They're assigned in the Forces For Memorandum. He delegates OPCON to PAC Fleet, who delegates OPCON his numbered fleet commanders to execute the plans. So we've done that the same way. Also it provides a legal chain of authority to the President to fight wars in this domain, which we've never had before. So we have that. So now you got the space guys that are sort of hanging out. So how does NAVSPACE respond to tasking from STRATCOM through JFC Space? And we're having a discussion on that right now. And what I'd tell you is you don't want more layers in between JFC Space and the Navy guys that fly the satellites, because you might get somebody in that chain of command that doesn't understand that you can't have two satellites occupy the same cubic meter of volume somewhere 300 miles above the planet and don't have the SA to see it coming. And so what...We're working with, ah, the...at the Action Officer level right now with STRAT and our space folks is that STRATCOM will delegate OPCON of the space forces to me, which they've already done because it's in the Forces For Memorandum, and then I will delegate TACCON to JFC Space. And then JFC Space has a direct relationship with NAVSOC and that's the way it needs to be. And so I think we'll get that cleaned up.

(U/FOUO) So like, as an example, I was one of the guys that helped stand up the space cell for Vice Admiral MacArthur a few years back...

McC: (U/FOUO) Right!

(b)(3) NSA

(U/FOUO) And so we're doing this TERMINAL FURY. And going into it, you know, the thought around what are the inter-dependencies between space networks and IO just, you know, weren't really there,...

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- McC: (U/<del>FOUO)</del> Yeah.
- (U/FOUO) So you lose comms. The comms guys, you know, "What's going on?" "Talk to the space guys; maybe there's a space event that could have affected that." "Talk to the cryppies? Why would I talk to the cryppies?" "Well, there might have been a ground terrestrial event that affected something in space that drove this."
  - McC: (U/FOUO) Well, that's why it's all fused here and I have visibility into all of it.
- (U/FOUO) We kind of still have the tendency, of thinking, that it is 1943. My name is "Bull" Halsey, and I am going to go through the Straits of Luzon, and I am going to change the lighting scheme of this TBMD platform and make it look like something else, but I'm not thinking we have awareness of overhead capabilities and that kind of stuff. The awareness of how those things happen doesn't always occur out on the numbered fleet as you know.
  - McC: (U/FOUO) Well, what I'd tell you is we, through the MOC, have real-time contact with all those people, and now they've started to get visibility into it. And as we go to distributed ops and distributed defense, they'll have much clearer visibility in their MOCs of what we're doing. And we're working on that right now.
- (U/FOUO) Cause I guess that's where the "so what" is that gives the reach back and the push-pull demand signal.
  - McC: (U/FOUO) It's going to be...It's...Well, first it's got to be...I'd tell you, it's mutual support. They got to understand what we're doing; we need to understand what they're doing. That's the Memorandum of Agreement I have with all the numbered-fleet commanders and there's one document with all our signatures on it. It's not one I have with Second Fleet and one I have with Third Fleet, and one...

(U/<del>FOUO)</del> Right!

McC: (U/<del>FOUO)</del> It's one document we've all signed, and we've just developed this capacity to do real-time interactive planning with them. We're getting there.

(U/<del>FOUO)</del> And...I mean, this has been exponential over your...

McC: (U/FOUO) Yeah.

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(b)(3) NSA	(U <del>/FOUO</del> ) \	Your time.

McC: (U/FOUO) It's...Yeah, it's, ah...Yeah. I'm sort of running out of good ideas. Yeah. ((Chuckles.))

(U/FOUO) Because...So, from your N-8 experience...

McC: (U/FOUO) Yeah.

(b)(3) NSA

(U/FOUO) I guess, what do you see in, like, five years down the road? You know, what are some of the things that we need to do here on the staff to, you know, show that value so as we go into a POM (Program Objective Memorandum – Navy Budget Process)-14 crunch...?

McC: (U/FOUO) Well, I mean, it's...I've talked to CNO Roughhead about this. I got in a meeting with Admiral Greenert on his first work day in the job. You can have all the kinetic force in the world you want, and if you can't command and control of it, you're still going to lose the war. And so you can't just say, "Okay, in this era of declining budgets, I'm going to try to protect my kinetic force," because if you can't see to it, you're not going to win. Admiral Roughhead understands that; in my preliminary discussions with Admiral Greenert, he understands it. And so when you go to make budgetary adjustments because your top line went down, you've got to balance the entire portfolio; you can't just try to take it out of what we do for a living to hold on to force structure, and I think both Admiral Roughhead and Admiral Greenert and the folks in the A Wing understand that.

(U/<del>FOUO)</del> With the ADCON, OPCON, all these relationships...the lines of "spaghetti," (on the organizational chart) what have been the things that have been the most challenging for you?

McC: (U/FOUO) To get it done. The OPCON I explained. We finally...The services had never put the forces and capability we bring in the Forces For Memorandum; they were always reserved for the services. And when we did the Forces For Memorandum revision in FY...when we did it last November, so FY...the revision for FY-11, I talked with the N-3/N-5. (b)(3) NSA (b)(3) NSA and we decided this was time to do it right, and we put all the forces in the Forces For Memorandum. So that gave us the OPCON, and then STRAT did what they were supposed to, and CYBERCOM did what they were supposed to, and we got the OPCON. The ADCON was more difficult because other numbered fleets and some Ech-2s don't have ADCON. Okay, so in the kinetic force-the ships and airplanes and submarines-Fleet Forces Command in PAC Fleet had the ADCON and they executed that ADCON through their type commanders: SURFLANT, SURFPAC, AIRLANT, AIRPAC, and the submarines, SUBPAC, because

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the forces deployed and they changed operational command. So they would chop from Third Fleet to Seventh Fleet to Fifth Fleet, or from Second Fleet to Sixth Fleet to Fifth Fleet. And you wouldn't want the administrative control to change because it would be way too cumbersome, and the staffs weren't equipped to do it.

# (U/FOUO) Right!

McC:

(U/FOUO) So when I looked at that model, okay, I got why we did this. But then I looked at the model I had, and my guys don't chop to anybody. They belong to us. So why wouldn't I have the administrative control? And there's some important things in administrative control. The OPCON commander can reorganize a subordinate command to accomplish a mission. So I can reach down into somebody's organization and tell them to change it to do a mission if they're OPCON-ed to me. ADCON assigns people ((emphasized)) to that organization. So, if I didn't have ADCON and the ADCON rested with Fleet Forces Command, I could change the organization any way I wanted and he could pull all the people out of it. Now, Admiral Harvey wouldn't do that, and Admiral Harvey and I have been friends since 1977. Well, you can't have things like this built on personal relationships. And so we needed the ADCON from a personnel perspective. Also, the budget execution authority I needed, because I was dependant on another budget submitting office, even with the ADCON relationship, to get me my money. Now, that was Admiral Harvey, again, and Admiral Harvey's got a lot of competing requirements in a decreasing fiscal environment, and where do I play inside of his requirements? I'd rather play in big Navy's requirements. And the ADCON and the budget submitting office approval that's in works will give us that capability. And so that cleans up the entire command and control from a fiscal, administrative and operational relationship with this command. And it's different than the status quo, and nobody's ever thought about it this way before. And as in most things, change is hard and it's just taking a lot more time than I thought it would, but...

(U/<del>FOUO</del>) Can I ask you just a question about...

McC:

(U/<del>FOUO)</del> Yeah.

(b)(3) NSA

(U/FOUO) You've been talking here...You referenced previously about going through an exercise and having contractors come in...

McC: (U/FOUO) Yeah.

(b)(3) NSA

(U/<del>FOUO</del>) And working with them and everything. And I just get this feeling that there's this construct of your having to have flexibility, kind of out-of-the-box thinking along with...

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McC: (U/FOUO) Yes.

(U/FOUO) The whole thing with the...And how much flexibility and how mu...Where do you see...Where do I have to draw the line with out-of-the-box thinking and military construct, and how difficult has that been with these boundaries?

McC: (U/FOUO) I haven't found that boundary yet.

(U/<del>FOUO</del>) Okay.

- McC: (U/FOUO) It's hard to explain to some folks. It's not usually the senior leadership. I mean, it's not the combatant commanders and the component commanders. It gets down into the majors and lieutenant commanders that don't understand why you want this civilian included that's not a government employee, so that...That's where the push-back's been. You know, if I say I'm bringing Mr. Jones into a meeting and I know Jones has got the credentials and I can prove it, nobody says anything. But if I've got some commanders that want to take this guy into a planning effort, you get, "Oh, we can't talk to Jones. He's from AT&T," or, "He's from Verizon," or "He's from Microsoft," or something else. I think...So I don't think I've reached the bounds on that. What has to be understood is they provide advice, and they provide counsel, and they can tell you how to do it from their perspective. In the end it's not command by committee. The boss has the decision authority, and as long as we keep that clear. we're fine.
- (U/FOUO) Okay. Thank you.
- (b)(3) NSA

(U/FOUO) So, with Libya, we talked a little bit about that. You were working closely with one of my ((emphasized)) top three people, Vice Admiral Harry Harris. What are some of the things you learned from TERMINAL FURY that you were able to apply there?

McC: (U/FOUO) That goes back to what's a major theater contingency and what's not. Now, I don't want to, in any way, detract from what the United States and NATO was able to accomplish in Libya. But TERMINAL FURY is at one level of conflict.

(U/FOUO) And Libya is at a significantly other level of conflict. Where's the target-set development, and how do you gain access to things you need access to deliver messages, to shut things off or whatever? Libya disconnected itself from the Internet.

<del>(S//REL</del> )	Okay. (b)(1) USSC	? Probably! And that's (b)(1) USSC
(b)(1) USSC		
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McC: (S//REL) Ah, so...I mean, what...You know, I talked about where's the trip point? So when do you deploy this three-star JTF commander to execute Alexander's work in support of this geographic? Well, if you're having a major theater war—and I know that's not in vogue anymore—but if you're fighting a major contingency...So you're...You're going<sup>[b](1) USSC</sup>

(b)(1) USSC —this is a major theater contingency that requires three-star level command-and-control capability/capacity with the understanding of how that relates to what Alexander does in both hats globally. Okay. So that's...That's TERMINAL FURY. Ah, Libya—one bad actor, small country, relatively little kinetic capability to fight back. And so it was really messaging. And I talked about the access, and we hadn't looked at Libya since Qadaffi declared he was a good guy and gave everything up, more or less. So what access did we have and what did we understand? And it wasn't at the right level. [<sup>(b)(1) USSC</sup>

b)(1) USSC So I sent some folks over to talk to Admiral Harris and to Admiral Locklear about that. And we were sort of working that in conjunction with AFRICOM because he had the cell that understood it. And I...It was...The organization was in Naples, and I needed somebody on...with Harris to be able to try to tie this together. I mean, you know, Locklear's statement to me was—and Admiral Locklear and I are good friends—he said, "Barry, we just weren't ready to do this." He's absolutely right. That's why you got to develop the capability and capacity now so that when the whistle blows you're ready to go.

(b)(3) NSA

(U/FOUO) Outstanding! Um, let's see. We kind of talked Cyber PAC and JCOTF; any things you learned, you know, doing one vice the other?

McC: (U/FOUO) Ah, you know, I just...Cyber PAC to me is a steady-state organization. They have to have a relationship with one of the service...In this case, the Navy is General Alexander's service component that's been aligned with PACOM. So there's got to be a tie. They've got to understand that they...They can have situational awareness; they can do planning. If they want operations done, they've got to come to CYBERCOM through the service component to get that done because the COCOMs don't own the networks. You know, if you go to Hawaii, they think they own TNC PAC, they think they own DISA PAC. They don't! I mean, that's just the nature of living on Hawaii. I mean, the folks at Kunia that are Navy work for me. So NIOC Hawaii works for me; they don't work for PAC Fleet. And so how do you establish that relationship? How do you make it clear? The commanders understand. It's how do you make it

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clear to the next two levels who really for works for who in this, and how that authority has got to go? I think Cyber PAC's a good initiative. I think you need that steady-state capability there. I think you need a Cyber Support Element out there, and we've just got to make sure we get the relationships right. And then when the contingency erupts, what's the trigger that causes the three-star headquarters and capability and capacity to descend on Oahu? And so that's Navy. I mean, the same for CENTCOM. The Army has been given responsibility for CENTCOM, so Rhett Hernandez has got to have that relationship with people in General Mattis's headquarters. And what are the trigger points where he...roll in on top decks, cue the mission for CENTOM? And I think the Air Force has got (1-2g/weak) the same thing.

	got (1-2g/weak) the same thing.
(b)(3) NSA	(S//REL) So, we talked about, you know, Libya. (b)(1) USSC (b)(1) USSC (b)(1) USSC .On your watch, you know, what are some of the other, kind of, operational highlights, things that worked out well, things that, you know, we've learned from?
McC:	(U/FQUQ) Well, first I think, you know, it'sWhat worked out well and what didn't. There's no baseline to say what didn't go wellI mean, everything went better than it did the last time because there was no last time. Okay, so it's really what Mike Rogers has got to do. You know, did IDid we do it right while I was here? I don't know. Twenty years from now somebody will know. I don't know. I just know we did something different where nothing existed before. We built something where there was nothing. So it had to be better than nothing. And so now Admiral Rogers has the opportunity with the fresh set of eyes, that hadn't lived in the problem every day for the last 20 months, to come in and look at where we are, where we came from, and what I envisioned as the future, and he has the chance to adjust the future. And I think that's what's important here.
(b)(3) NSA	(U/ <del>FOUO)</del> Thank you. II know we're taking up a lot of time. I kind of wanted toI keep <b>asking</b> you questions, and I know people hate being asked questions. Any other things that you want to talk about, that you think are, you know, important to kind of capture here?
McC:	(U/FOUO) No, I think thatI think, you know, General Alexander has done a terrific job. I mean, the man's got huge responsibility; I don't know how he does it. I mean, the Director of the National Security Agency, last time I checked, was a fulltime job, and being a sub-unified commander is a fulltime job; he's managed to do them both, so I don't know whether he cloned himself or what. But I think he's done just a superb job putting the United States military on a course it has to go and then giving us the latitude to go execute what he's told us he wants us to do. You know, I Page 19 of 21

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	might be parochial; I think the Navy is way out in front of this. I think the way we organized is right. The fact that I am the service cryptological component commander, which gives me Title-50 authority, and none of my other service component commanders have that, I think is a huge disadvantage to them. I think we did it right. I think if you talk to the general, he thinks we did it right. I don't know how you fix it; that's up to the Marine Corps, Army, and Air Force to figure out. So I think, you know, we're on the right track from that perspective. I know my OPS Center is better than anybody else's, including CYBERCOM's, because Rob Schrier has been over here and said, "How do I get one of these?" So, I think we're ahead that way. And the fact that we had this core of people, the Navy, IWs, ITs, and ISs, that did this in different stovepipes and we've managed to bring this expertise together has, again, put us further ahead. And so I think we're on the right path, and I think it's good that Mike's coming up here and has the opportunity to give it a fresh look.
(b)(3) NSA	(U/ <del>FOUO</del> ) So, come 1 October, what are you planning on doing?
McC:	(U/FOUO) I don't know. Something. Ah, justI'm looking forward to it. I mean, I've done this for a long time. I've enjoyed every minute of it. You know, people say, "Well, what do you miss?" I'll miss being with the sailors. I'll miss sunrises, and sunsets, and stars at sea. But life looks pretty good on the outside, too.
(b)(3) NSA	(S//REL) Excellent. IThis is great. I mean, I got all my checkmarks here. ((People talking in the background—unintelligible.)) Let's see. Yeah. I guessOne thing I forgot to ask you about— <sup>(b)(1) USSC</sup>
McC:	(S//REL) What do you think <sup>(b)(1) USSC</sup>
(b)(3) NSA	Well, this is great! I got everything.
(b)(3) NSA	Good.
(b)(3) NSA	I'm good.
(b)(3) NSA	Thank you very much.
McC:	Is that enough for you?

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# (b)(3) NSA

McC:

That's good. That's excellent.

(U/FOUO) I'll tell you that I got guys like (b)(3) NSA who's been transferred-lieutenant commander. I've got a commander down here named (b)(3) NSA And then there's a commander that retired, whose name escapes me right now, that works for us as a civilian now over in Maryland. [Believed to be (b)(3) NSA These guys are spectacular. I mean, they're probably the best cyber planners on the face of the planet. And they go between TAO and service. So, I mean, the talent...The talent that's there is just amazing. And we didn't talk about this, and since I've still got some time, how do you... How do you retain these people? Okay. So I know the equations for...for keeping people in the service, and I know that unemployment's at 9.2 percent and if it goes below 8 percent and your recruiting starts to fall off and it goes through...below 7 percent, your attrition starts to go up. So, I don't ever wish for a bad economy-none of us do-but right now that's giving us this wealth of talent. If we had it, they didn't leave, and if it's out in public, they want to come work for us. So how do you maintain that if the unemployment goes back to six percent? 'Cause, I mean, there's... There's other government agencies who can pay our kids a lot more money...our sailors a lot more money than we do. And you've got the same talent pool that industry wants, that other departments in the federal government want, that combat support agencies want, and the military service wants, and so how do you make your career or your employment opportunity better than the others? And once you get the folks into our business, they enjoy a level of responsibility they get at a very early age; they enjoy the work, and I think they realize it's to a higher cause than just next quarter's numbers. And then with the incentives we still maintain for our folks that do this, I think it makes the military a viable alternative. How we're going to compete in lesser fiscal wellbeing and for the limited talent pool here is something that everybody is going to have to work on.

(b)(3) NSA

Outstanding!

(b)(3) NSA

(b)(3) NSA

Great! Thank you very much.

Thank you, Sir. ((Ends abruptly.))

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### TOP SECRET//SI//NOFORN

OHNR:	OH-2014-21	DOI: 24 March 2014	
TRSID:	(b)(3) NSA	DTR: 28 March 2014	
QCSID:	(b)(3) NSA	Text Review: 14May 2014	
		Text w/Tape:	
INAME:	ROGERS, Michael S. (Mike), VA	DM, USN	
IPLACE:	NSA, OPS 3 Building, Ft. Meade	e, Maryland	
IVIEWER:	(b)(3) NSA		
(b)(3) NSA	This is NSA Oral History 21-2014 ((OH- 2014, and we are talking to Vice Admira Commander, U.S. Fleet Cyber Commander TENTH Fleet—and recently nominated Security Agency and Commander of US focus on perceptions and concerns as a National Security Agency and USCYBE Historian for the Center for Cryptologic (b)(3) NSA United Sta Command and U.S. TENTH Fleet; and Historian for thefor USCYBERCOM. is TOP SECRET//COMINT. We will ad needed. Vice Admiral Rogers, the Cen thank you for taking time from your bus thoughts as you assume command of th USCYBERCOM. Would you please pro academic background and military care	al Michael S. Rogers, currently nd, and Commander of U.S. as the new Director of the National SCYBERCOM. This interview will he assumes command of the ERCOM. I'm (b)(3) NSA Oral History. Along with me is ates Navy, U.S. Fleet Cyber (b)(3) NSA The classification of this interview just this classification at the end if ter for Cryptologic History wants to y schedule to discuss your he National Security Agency and ovide us an overview of your	
Rogers:	In ((he clears his throat)Excuse me. undergraduate degree from Auburn Uni Personnel Management/Industrial Rela contract negotiated, I'm ready to go. ((from the National War College, and it's specific concentration in East Asia. So "Hey, if you just had your technical side <i>perfect</i> for these prospective new duties	iversity in Business, specifically tions. So if you ever need a Chuckling heard.)) My master's is National Security Strategy with a as General Alexander reminds me, education side Rogers, you'd be	
Classified By: (b)(3) NSA Center for Cryptologic History Oral History ProgramOH-2014-21-ROGERS			

TOP SECRET//SI//NOFORN

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NSA

So it is...That's one thing I always tell people: I enter this not with the technical background in terms of formal education that many do. I'll be honest and tell you, hey, that's not a factor in my mind. It's never been.

### (b)(3) NSA Mm hmm.

Rogers: I always used to urge when I was a detailer—a person responsible for the assignment of professional SIGINT and cyber officers with my own service---- I always used to tell them, "Hey, I wish I could send you all to Naval Postgraduate School to get, you know, master's level education in electrical engineering, mathematics, computer science. Hey, it's not going to happen. We just don't have the time and the resources. So what I think you need to do as an officer to be viable in our mission set in the 21<sup>st</sup> century: you must be technically proficient and you must be comfortable applying technology against a very technically focused target set. If you can do that, I think you have the relevant skill set for the future. If you can't, then we need to think about how do we augment your technical background." So in my case, I have always enjoyed the technical side of what we do. It's something I have always been comfortable with, and never thought that my education was a positive or a negative either way. I just never thought it was a major factor for me.

The second part of the question you asked in terms of my professional background. I was commissioned in the United States Navy out of the NROTC program at Auburn University, August the 28<sup>th</sup>, 1981. I initially was commissioned as a surface warfare officer. I did that for approximately five years—three of which were spent on a destroyer for my initial sea tour on a destroyer out of Norfolk—during which I did...Unusual for them—this is the early 1980s: combat deployments to Grenada, Beirut, El Salvador a couple of times. So it was a fun time. I was very lucky I was on a ship that did a lot of stuff. Had nothing to do with me. It was just the luck of the draw.

At the time, that ship, also the *USS Caron* (DD 970), was a cryptologic platform. I had no clue that the journey was ultimately going to take me into cryptology, but I was a TAO, tactical action officer—the commanding officer's representative down in combat in different tactical scenarios. So you would always go up to the (B% CES) to get your brief before you came on watch. Again, so I'm dealing with CTs and cryptologic professionals. I had no clue that I'd end up in their world. But I did that for three years. I had six months' of training and I...to become a (B% surface) officer. And then I spent about 18 months on a shore tour in (B% Washington, DC) where I changed specialties.

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I then became what was then a cryptologist, November 1986. As a cryptologist, I first went to Rota, Spain, where I did...I started as a COMEVAL airborne reconnaissance trainee working with VQ-2. Unfortunately the ((USS)) Stark was hit by two Exocets ((missiles)) in the Persian Gulf in June of 1986. '86? June of...

(b)(3) NSA '87.

Rogers: '87. And the decision was made: we're going to ramp up the Navy presence there. We're going to put...We're going to reflag tankers. So I got sent over. I got ripped out of the aviation program. Got sent over to do surface work, riding small (B% buoys). I did the first ten ((Operation)) Earnest Will escort missions through the Strait of Hormuz. Was there when we shot up the Rostam oil platform. Sank an Iranian frigate. So that was an exciting time. It was a lot of fun. Was there for ship attacks during the tanker wars, trying to stop the Iranians from shooting up tankers. So that was a lot of fun (1-2G) close quarters with those guys. ((Chuckling heard.))

Then got into...A little unusual in the cryptologic world: then I focused a lot of time on ELINT—more so than most of my peers. It just worked out this way. I ran the largest ELINT or electronic warfare segment in the Navy at the time for Europe. So I did all the Navy's reprogrammable libraries for all our automated systems: aircraft, ships, submarines, threat recognition systems. I ran the technical guidance unit that did all the training for all the electronic warfare for the Navy forward in Europe. I ran the analytic center for the largest SIGINT field site in Europe. I ran all the ELINT segments of that. So I...That has worked out very well for me. It's given me a pretty broad portfolio in my career, which I'm very grateful for. Most...Many cryptologists tend to be very COMINT-focused. I've done both the COMINT, but I've done a lot of the ELINT side—and EW, which I really liked.

(b)(3) NSA Mm hmm, supervised analysts as well.

**Rogers:** Yeah. And then...'Cause they...Don't get me wrong, they do the work. I'm just there as the officer to take the credit. They do the work.

(b)(3) NSA Hmm.

**Rogers:** Then I went to a Fleet CINC tour, where I ran...for the East Coast of the Navy. It was a Navy tour; four-star staff; senior, you know, waterfront guy

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in the Navy on the East Coast. I was the Cryptologic Plans and Policy guy. So my niche in life was to think about how do we need...? Coming out of the Cold War—this is like 1990 to 1993—my focus was: we're coming out of the Cold War. What's the future going to look like in...?

I worked for some great people. Five of the officers that I worked with in that organization...There were 19 officers. Five of us went on to be flag officers. It's among the highest concentration of really smart professional cryptologists I have ever been a part of then. Those guys were just phenomenal. And my niche was: "Okay Rogers. Work with the team, and let's figure out where we need to take cryptology and SIGINT for the United States Navy and, by extension, our joint partners. What are we going to do after the Cold War?" So that worked out really well. Got into some collection capabilities on non-traditional platforms. I argued that SPECWAR was the biggest investment area we needed to get into—that I thought the future was going to have a big (B% ground) component to it for us. And then counternarcotics was the other big focus of the next decade (B% from then). So I got involved in working on that.

From there, I went to Norf...up to Washington D.C., where I was the detailer for all of the O4 and below in my specialty. So my job was to determine what was the best fit for people. Where should they go? How I help them build their careers? I was also the Assistant Community Manager. So I got involved in: "Hey, how do you build the cryptologic work force, officer and enlisted...Primarily officers for me, but I also got involved in the enlisted side. How do you build a cryptologic workforce for the future? What are the skill sets you need? How do you train and educate? How do we give people the right set of experiences to optimize that training and education? How do we assess performance?

Then I left there and was the Executive Assistant to the Senior Cryptologist in the Navy. So I go to sit, you know, and...by his side so to speak, just as the note taker, to see how the organization worked from the flag deck—which was very interesting for me. I learned a lot from that.

From there I went to command up at Navy Security Group Activity, Winter Harbor, Maine—which has subsequently closed down. It had a very traditional mission up there: HF, DF, (b)(1) USSC

(b)(1) USSC It was one of five mission ground sites in the system. That system has subsequently been retired. And I also ran the schoolhouse. At the time, the Navy ran one of the four major on-orbit intelligence constellations. We don't do that anymore, but we did that one.

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### (b)(3) NSA Mm hmm.

**Rogers:** And I also...The biggest challenge there was, I was...The base was going to close within two years of my departure. So I did the initial work, you know, with the governor, with the Congressional delegation, with the Navy, with NSA about: "Okay, how do we go through a closure?" So I learned a lot about that, which is really...Stood me in good stead. Now I find myself in a position where I have shut down installations in my current duties, knowing what that's like at the other end.

From there, I went out to 6<sup>th</sup> Fleet where I was the Senior Cryptologist. I ran all of the SIGINT, cryptology as well as all the information operations for 6<sup>th</sup> Fleet ,which was the operational commander for Europe and Africa from a Navy perspective. Interestingly, during that tour, I was embedded in the (B% three vice the two), which I freaking loved. I was a Battle Watch Captain. At one point, they approached me about: "Hey, would you like to be the N3?" ((He chuckles.)) And I said, "I really can't...I would love to do it, but I really can't stay." I really loved it. I got very immersed in the operational side, even as I was working traditional intel kinds of things. And from there, I went to the National War College. Got a degree. Like I said, focused on East Asia. So I got to spend a lot of time focused on the PRC from a strategy and a policy/intellectual thought kind of perspective as well as North Korea—not realizing that this was going to pay off for me later in my career.

Then I went to the Joint Staff for my payback tour. And quite frankly, in some ways, that's where the wheels came off. What do I mean by that? I got totally out of the traditional experience set, which is one reason why I believe that I am...if I'm confirmed by the Senate, I'm going to be the next Director of NSA and the next commander of U.S. Cyber Command. Because I found myself...First, I started in very traditional areas. I ran the cyber effort of the Joint Staff. It was a very different time then. This is 2002. Or excuse me, 2003. I went to college at NDU from 2002 to 2003.

(b)(3) NSA Mm hmm.

**Rogers:** This is now 2003. Cyber is still relatively immature. The J3 ran everything. We did all the policy. We did the operational piece. The J6

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(B% worked) the information assurance piece. But at the time, that was considered kind of a niche. We didn't really look at it in a comprehensive way. And so, as an O6, I found myself: "Hey, you are Mister Cyber for the Joint Staff." So I...Wow, man, I loved that now. I only got to do it for four or five months before I changed jobs. In fact, in that tour, if you looked (B% at) that very first order that we ever sent from the department to U.S. Strategic Command for Network Operations: the POC is Captain M.S. Rogers. That was one of my babies ((he chuckles)) when I was (1G).

### (b)(3) NSA Hmm!

Rogers: My predecessor did all the work. We took 18 months to get that order out. I was only there for the last four. My job was to get it across the finish line. My O6 boss...I was an O6, but at the time I was working for another O6. He got grabbed to go be General ((Richard)) Myers' Executive Assistant as Chairman of the Joint Chiefs of Staff. So I got asked would I move up and take his job. So I ran the STO ((Special Technical Operations)) side for the Joint Staff as well as all the Information Operations elements on the Joint Staff. That's what I did for...again three or four more months. Then General Norton Schwartz, who was the J3 at the time, asked me, "Hey, would you come be my EA." which I found very...Executive Assistant, which I found, again, a little different. I'm an intel guy in a J3 organization. We're in the middle of two war. And this when things were particularly going bad in Iraq.

### (b)(3) NSA

Mm hmm.

Rogers: ((He chuckles.)) He says, "Hey, I'd like you to be my EA." And I said, "Sir, why don't you grab somebody who's been a k...I mean in the J3. (B% You got) carrier skippers. You got brigade posts Iraq and Afghanistan, brigade commanders. You've got wing commanders in the Air Force, you know. Why would you pick a guy like me? I wouldn't normally be in a 3." But he was a kind guy. From there, I went (B% up) to be the Director. I did that for six months. Then he was informed he was going to be the Director of the Joint Staff. I got asked to go up there. So I did. He asked me to go ahead of him 'cause he said, "I want you to understand the processes, learn the organization. So I was the EA to two different Directors on the Joint Staff. One of whom, Admiral Tim Keating, would subsequently be a big factor in my career.

From there...I'd now been on the Joint Staff about two years and thought I was going to be able to go back to the J3, when General Peter Pace, the Vice Chairman, had been nominated by the President to be the next

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Chairman. He asked me to come interview to be his Exec. I did that. He started the interview by telling me: "Hey, I'm going to be the first Marine Chairman of the Joint Chiefs of Staff. I cannot have a Navy guy as my EA, Rogers." And I said, "Hey, I understand, Sir. I'll go back to the J3. You interviewed a Navy guy. This is good." He called me back for two more interviews, constantly telling me the same thing. And then said, "I have a job for you after I get confirmed, but I can't tell you what it is." ((Chuckling heard.)) So I thought he was just being nice.

Sure enough, he gets confirmed. The morning he gets confirmed, he grabs me in the E Ring passageway—'cause I'm just walking between offices. And he says, "I want you to be my thinker. I want you to do the things that I don't have the time to do, or the things that I'm not paying attention to that I should. I want you to travel with me where ever I go. I want you to sit in on all my meetings. I want you to build a small team to help me analyze situations." So I created a Chairman's Action Group for him, and then traveled with him everywhere for his two years as Chairman. Sat in, in all his meetings.

During that tour, I also got tapped to...ended up becoming one of the leaders of what they called the Joint Staff Working Group. Things in Iraq were going poorly. The Chairman and most of the Chiefs had come to the conclusion the current strategy is not working and we got to do something different. That was in September of 2006. August of 2006 because he came off his July leave. And I remember he came back, saying, "We got to do something different. I've come to the conclusion we got to do something different." They commissioned a group: four people from each Service, supposedly the best and the brightest of guys like (1G) (B% Masters). There were four Navy guys. All four of us went on to make flag officer. Again, I was just fortunate.

But we were tasked by the Joint Chiefs of Staff to do a strategic assessment of the current global strategic environment. And then help them...And then bore down specifically on Afghanistan and Iraq. Particularly with Afghanistan, it was to do a sense of where we are. And for Iraq, it was help us figure out what we ought to do differently. As a result of the work of this group plus many other people—and many other groups—ultimately after our presentation to President Bush, they came...they, for a variety of reasons, came to the conclusion: "Hey, the Surge..." What became known as the Surge in Iraq was the strategy they

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went with. ((He coughs.)) Excuse me.

Then I left that job. And Admiral Keating—who had been the Director I worked for for three months as EA—heard that I had been selected for flag officer, said, "Hey, why don't you come out to PACOM and be the J2?" I said, "Sir, I have never served a day in the Pacific, and I got 27 years of commissioned service. And I'm not an intel officer. I'm a cryptologist. Are you sure you want to do this?" Then his comments...And I was very lucky. His comment to me was, "Hey..." 'Cause I said, "If you want me to get off that plane at Pearl and be the duty expert on Beijing and Pyongyang, I'm just not your guy, Sir. I've never served out there." ((He chuckles.))

Then his comment to me was, "Hey, I got a lot of people who are very smart about this AOR. That's not...I don't need more of that. What I need is somebody who understands the broader context, somebody who can think strategically, somebody who's going to speak the truth to me as they believe it, and somebody who knows how to build teams." I said, "Okay Sir. If that's the caveat, I think I can maybe be of minimal value to you." I did that for two yea...for like twenty months.

And then Afghanistan, meanwhile, has gone... has gotten much worse. And the decision is made to relieve the current commander. General McChrystal is selected to go in as the Commander on the ground. McChrystal decides he wants to take the Joint Staff J2 with him—a guy named Mike Flynn, now currently Lieutenant General Mike Flynn, the Director of DIA. So now, they're trying to find a JCS J2. And I get a call one day out at Pearl Harbor: "Hey, the General wants to talk to you about coming back to be the J2." And I'm...I had never worked for Admiral Mullin. I didn't know Admiral Mullin. And I'm thinking, "We're in two ground wars right now, and you want a Navy guy from the Pacific to be the J2? That doesn't make any sense to me." Mullin says same kind of thing: "Hey, look. I got tons of people that are focused on Afghanistan and Iraq. And it's going to suck up a lot of your time, but I don't want us to be totally (B% bore sighted) on this. Plus you got a pretty broad background in a lot of different areas. I want you to see what you can do." So I came back and did that. I did that for two years.

And then, in September of 2011, I was asked by the CNO to come out and be the second commander of Fleet Cyber Command and U.S. 10<sup>th</sup> Fleet.

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(B% And) it's now two and a half years later, and I find myself having been
nominated for the DIRNSA job and the U.S. Cyber Command job. And
we're waiting for the Senate toI've done my confirmation hearing from
the Senate Arms Services Committee. And now we're waiting for the
Senate to make up their mind about do they want this Rogers guy to get a
four-star and take on these jobs. ((He chuckles.))

- (b)(3) NSA Are we still thinking we'll get the vote in the committee tomorrow?
  - **Rogers:** I don't know. We'll see. I mean, the current hope...General Alexander is doing the ceremony on Friday, the 28<sup>th</sup> of March at 1500 either way—whether it's a retirement ceremony for him...

(b)(3) NSA	Yeah
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**Rogers:** Or if it's a retirement and a change of command. We're hoping that in the next 24 hours, we're going to get a sense for can they do it by the end of the week. If they can, then the current thinking is we'll just do it all in one ceremony: change of command *and* retirement. If not, it'll be a retirement ceremony for him. And I'll just go over there if and when I'm confirmed.

(b)(3) NSA Yeah, (B% okay).

- **Rogers:** Is that more detail than you...? Just to give me a sense for what you're looking for.
- (b)(3) NSA That's great. That was great.
  - **Rogers:** Is that more detail than you (3-4G; faint)?
- (b)(3) NSA That was good. What experiences in your background were important in preparing you to be DIRNSA and command USCYBERCOM? What do you think? I...One thing...Let me follow up and ask you.

**Rogers:** Sure, sure.

[(b)(3) NSA I noticed throughout what you were talking about here is the fact that you have a broader background scope than a lot of people, and you seem to be able to use that—or people saw that as a real advantage during your career...

Rogers: Right.

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(b)(3) NSA A command. And brought you in specifically because of that broader background as opposed to some specific expertise you had.

- **Rogers:** Yeah, I'll tell you, I'm very fortunate. First, I started out in the operational world as a traditional surface warfare officer—or combined arms guy in any of the other Services. That very much shaped the way I view the world around me. It very much shaped my approach to doing things. Secondly, even as a cryptologist or SIGINT individual, I have spent…I've been…I got 32 and a half years commissioned service. I have probably literally spent half of my career in J3 or command echelon organizations not in "2" organizations. Between my two tours on the Joint Staff, for example, I have six and a half years. I spent my entire O6 time on the Joint Staff, and then I spent my entire two-star time back on the Joint Staff in that six and a half years. Only two of those years were spent in the J2, for example.
- (b)(3) NSA Mm hmm.
  - **Rogers:** The...Four and a half were spent in the J3 in the Director's Office, working for the Chairman. So I have a very unusual...I'm not going to argue if it's better or worse. But it's just a little different than most of my peers with the same kind of background. I've spent more time in non-traditional and in, you know, strategic kinds of things.

The other thing: I was very lucky. When I made flag officer...At the time, I happened to be working for the then Chairman of the Joint Chiefs of Staff, who was getting ready to leave. He, unfortunately from my perspective, only served one two-year tour vice the normal two two-year tours of most chairmen. And he pulled me aside when I made flag, and he said, "There's two things I want you to be thinking about. The first is, there are many people who will look at you and they will try to stovepipe you based on your background. I am going to work hard to try to fight that while I can. And secondly, I think you ought to be the Director of the National Security Agency one day." I'm like, "What?" ((He laughs.))

(b)(3) NSA This is about 2010 when (3-4G) said that?

**Rogers:** This is like...No, this is 2006...

(b)(3) NSA Wow.

**Rogers:** When I made flag.

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(b)(3) NSA	Wow.	
Rogers:	So I have been very fortunate. Literally since I was a senior O6, I have had senior officers and policymakers in the department talking to me and trying to give me experiences that optimized me for these two jobs.	
(b)(3) NSA	Mm hmm.	
Rogers:	One of the reasons why Keating wanted me to go out to PACOM was: "Hey, look. I want to broaden you and because I want you to get experience in the theatre that I thinkIf we look 10 years down the road" I was there from 2005 to 2007. "Hey, as I look 10 years down the road, this is going to be the strategic imperative for the nation, I think. I want you to get you some experience." Admiral McConnell was alwaysAgain, former Director of NSA. He approached then Admiral Mullin, who was the Chairman, about, "Hey, you got a chance to use Rogers to be your J2. I" McConnell, who was a Navy intel officer, not a cryptologist. He was a Navy intel officer. McConnell had been the JCS J2 during the Gulf War	
(b)(3) NSA	Mm hmm.	
Rogers:	Before he came out to NSA. And he told Mullin, "Hey, the JCS J2 is a greatIt'll give Rogers a very broad perspective across the intelligence arena. He'll become a known entity across the leadership of the IC. He'll get the opportunity to work and interface on the Hill as well as in policy issues. Hey, I think you need to look at Rogers as a potential" Again, I'm very lucky. I'm a one-star out in Honolulu.	
(b)(3) NSA	Now, Sir, this is when McConnell was	
Rogers:	(B% Sure.)	
(b)(3) NSA	Director of National Intelligence? Is that correct?	
Rogers:	I don't remember if he was the DNI then or if he had left that job already. 'Cause, again, I never worked…(B% I didn't)…	
(b)(3) NSA	Right. He left in early 2009, 'cause (B% I've)…	
Rogers:	I never worked for Admiral McConnell, but he knew about me. And he would reach out through others occasionally, just to say: "Hey, keep doing what you're doing." You know, "Hey, I think you're building a great career."	
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### Hmm.

Rogers: I didn't know him. And then...So now, I'm the JCS J2. And the then Chairman says to me, "So, I think what we ought to look at for you is you...I think you ought to be the next Alexander." This is like 2009. "So here's what we're going to do. You're going to do this tour. And then we need to look at potentially getting you to command on the Navy component side for both U.S. Cyber Command..." And the other thing: I'm also the Service Cryptologic Commander for the United States Navy. So the Navy's the only Service that's organized this way. I mirror General Alexander's current duties, where he's both the cyber guy and the NSA guy. I mirror that in the United States Navy. I am both the cyber guy and the Service Cryptologic Commander. We're the only Service that is structured that way. And then General Alexander interceded to help me out.

> When I was getting ready to leave the Joint Staff, they said: "Hey, Rogers, we want you to be a three-star..." This is the Navy, is saying, "But we think maybe we want you to go be the OPNAV in 2N6. We're trying to push this whole information dominance idea. You know, you're the senior information dominance guy *per se*. You know, this strategy and policy piece seems to be something that you enjoy or we've used you for."

> Admiral ((Gary)) Roughead, then the CNO, says: "Hey, you really ought to go do that." And I pushed back arguing, "No, Sir. What I really ought to do is take this and apply it in an operational context to drive change at the deck plate level. And I ought to be the Fleet Cyber Command and the TENTH Fleet Commander. That's what I think is the best use. Because, Sir, look at what I have never been. I've never been a resource guy."

(b)(3) NSA Hmm.

Rogers: OPNAV N2/N6 fundamental mission is to align that policy and that strategic vision with the resource investments that we're making. You got to...It's all about progammatics and money for them. Sir, that is not my world. And quite frankly, I love the fact that I have been operational almost my entire career. It's what I really enjoy doing." And then, Admiral...So then General Alexander contacts me and says, "What are they talking about for you?" I said, "Hey, Sir, you know, on the positive side, I think they're going to make me a three-star. I'm very grateful. I'm very fortunate. I think Admiral Roughead is talking about going to be N2/N6." And he says, "Let me get back to you." He calls Admiral Roughead and says, "If you want..." This is...Again, this is 2011 now. "If you want Rogers to potentially be my relief, then he needs to be an

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operational commander, not a staff guy. You need to put him in Fleet Cyber Command." And Roughead says, "Okay."

### (b)(3) NSA

Yeah.

Rogers: And so, they make the change. And then the decision is made to send me here. And now it's two and a half years later. So I don't say any of that to name drop. I say that to tell people that...'Cause one of the reasons...one of the things I get asked is: "Given all the challenges that NSA in particular but as well as U.S. Cyber Command is dealing with right now, why in the heck would you ever want to go to that job?" I tell people because this...it's payback time for me. I literally, for the last eight years, have had seniors telling me, "We're going to try to optimize you to go in behind General Alexander." They gave me a set of experiences that were designed to do that. They gave me an opportunity that most people...In my particular specialty in the Navy, we had never had a three-star before I became a three-star. We had never had an operational commander before I became the Commander of Fleet Cyber Command and TENTH Fleet. ((He chuckles.)) We had never had an information warfare officer or cryptologist-information warfare being my designator title-who had ever been DIRNSA or ever been a four-star.

And so, I'm very mindful that a lot of people went out on a limb to try to give me an opportunity. And what kind of officer or leader would I be if I turned my back on that and just said, "Hey, look. It's been great. I'm going to go out and make a lot of money now on the outside." I just...I can't do it. I'm not wired that way. Now it's payback time.

(b)(3) NSA Do you think one of the situations or one of the characteristics that you have that maybe was a catalyst for a lot of this is strong people skills?

**Rogers:** Yeah, I...Probably, I guess. 'Cause there are certainly plenty of people...I mean, I always kid General Alexander: "Hey, Sir, you could be the Chief Engineer of this organization. Rogers can't be the Chief Engineer of NSA or U.S. Cyber Command. General Alexander is getting ready to leave his current duties with his name on six patents during his tenure as the Director. Sir, you're never going to find Roger's name on a single patent." ((He laughs.)) It's not that I can't do it and it's not that I'm not comfortable with it. But it's not my vision of what my strengths are.

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And if people ask me, "Why are you going to this job?" I'd say probably three things. Number one: because of my background and the set of experiences I was given. Secondly: because not only did those experiences pertain directly to the mission of U.S. Cyber Command and the National Security Agency, but I was also given the opportunity to think much more broadly. And got involved in a lot of stuff that quite frankly you would not normally find somebody with my background doing. Again, I was very fortunate. The third thing is: because I do think that I work well with people and I've always been able to build strong teams.

And then finally: in some ways, the one that means the most to me...When I got hired by General Pace and I got this opportunity to travel with the Chairman of the Joint Chiefs of Staff...I mean, I'm sitting (B% in him) with Karzai...with, you know, heads of state, talking about some pretty dicey issues. I'm just there as the note taker. ((He chuckles.)) But he took me everywhere he went. And I said to him one day, "Sir, you could have had anybody do this. If you follow history, I'm going to be, if I'm lucky and I'm lucky enough to make flag officer, Sir, I'm going to be a two-star and then I'm going home. You got guys who could be potential Chairmen in the future. You've got guys (B% that'd) be combatant commanders in the future on this staff that you could have picked. You could have taken anybody in DoD as the Chairman. Why would you pick a guy like me?

And he said to me, "Because you will find, Mike, when you get more senior, as you get more senior, that which you value the most is people around you who are willing to speak the truth to you. You will find this increasingly rare the more senior you get. Mike, I hired you because I believe that you will speak to the truth to me."

(b)(3) NSA

Hmm.

**Rogers:** "And because, Mike, you know that if you don't, you won't be working for me." I have never, ever forgotten that. And so, one of the things that I pride myself on is I have always been honest and direct with my bosses, with my subordinates, with my teammates. I always try to talk to them in a forthright manner. I want them to do the same thing for me. I've never hidden bad news. I'm a big fan of: "Hey, you deal with challenges head on." That...So that would be the fourth thing, right, (B% say), "Hey, I think that's one of the reasons why they decided to go with Rogers." And I think

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you see that in the, you know, the challenges of	(b)(1) USSC	that we
just went through, where I decided: "Hey, look.	We're going to a	use this as
a vehicle to drive change across the entire god d	lamn departmen	it. I am
not going to play whack-a-mole with we'll just fix	it and make it g	o away."
No way!		

(b)(3) NSA Let me ask a follow-up on this, if I may (b)(3) NSA Yes, on...Sir, I...General Davis, Deputy Commander of Cyber Command, asked me to do a <u>narrative</u>. It was his word: do a narrative on what happened in (b)(1) USSC He hit me with this late September, right after we did that (B% hot wire) (2-3B)...

## Rogers: Right.

(b)(3) NSA Over in the Director's large conference room. And so, I came up with that. And so I spent a lot of time, Sir, digging through this. And this could have played out differently...

Rogers: (1-2B)...

- (b)(3) NSA That whole thing could have played out...It could have gone this way; it could have gone that way. It could have been a whole lot worse than it did. How do you think that experience shaped you and shaped Fleet Cyber as well—and preparing *both*...and the Navy for the future?
  - Rogers: So specific to that set of experiences: in July of 2013, through NSA reporting, Fleet Cyber Command...Let's see. Personally—Mike Rogers— 'cause I remember this. (B% And it was)...The first reporting was on, I think, Saturday the 22<sup>nd</sup> of July 2013. I'm in the office. I always work on Sundays 'cause nobody's around. I can get stuff done.

So I'm in the office on Sunday, and I see (B% this first) report. And I'm going: "Okay, guys. We got a game changer here." And what this reporting initially suggested was, hey, (b)(1) USSC

(b)(3) NSA

Mm hmm.

 Rogers:
 That led to a series of steps. First, it took us a while to identify exactly how bad the compromise was. What was the extent of their presence on the network. We took a couple of initial steps within about 10 days.

 Those were based on an assessment that (b)(1) USSC
 It turns out that they had

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actually been able to move into a different section. And we made one mistake. We (1-2B)...

(b)(3) NSA	(B% That the password resetThat did it reset)
Rogers:	(b)(1) USSC
(b)(3) NSA	Mm hmm.
Rogers:	One digit, one misplaced error, and you're totally off. Based on that, I then decided, "Okay, we have to assume that we've got a fundamental compromise on the unclass(ified) section of the network. And I don't just want to play "clean-up on aisle nine". I want to drive fundamental change. So I said, "We're going to use a very operational approach to doing business. I want a named operation. I want this operation to have phases with an (B% objective OR objected) time to each phase, with a set of steps designed to generate these outcomes. I want those outcomes expressed in operational terms that non-network, non-SIGINT, non-cyber people can understand. And I want to use this to not only reassess that segment of the network, but I wanted to look at the entire unclass(ified) infrastructure as well as the SECRET level networks."
(b)(3) NSA	Mm hmm.
Rogers:	So we then implemented what we called (b)(1) USSC which
(b)(3) NSA	Of August, yeah.
Rogers:	Of 2013. At the time, I predicted it would take 90 to 120 days to complete the evolution. (b)(1) USSC I went back to the department as well as General Alexander and my Service, and said, "I believe that we have (b)(1) USSC
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And then the final part of the operation...Again, I was thinking longer term change. I wanted to get into what could we do on the classified systems, even though we had (b)(1) USSC

(b)(1) USSC	But I still wanted
to do some things there. We completed (b)(1) USSC	
(b)(1) USSC I ended it. If you ask me in my curre	nt two and a half
years what am I proudest of? I would tell you that.	

### (b)(3) NSA

Hmm.

Rogers: I believe that's another reason why I'm going to this next job-because while we could have used it as: "Oh, my God! The sky is falling," I told my team: "This is the Apollo 13 for us. What does that mean? You can either make it your worse day or it's going to be the best damned thing that we've ever been proud of. And, by God, we're making it the best damned we've ever done." ((Chuckling heard.)) We came out of that operation with a network in better shape than we had ever had with a fundamental level of knowledge that increased to a level we had never seen with a sense of buy-in from the operational commanders across my Service; with a buy-in across the department. I mean, I got..."Hey look, we're going to use this as the basis for changes we want to make to JIE; to how we're going to build the structure." I partnered with many other people—it wasn't just us: U.S. Cyber Command; (b)(1) USSC (b)(1) USSC my fellow Services, (B% say), "Look, I want to drive change across the whole department. So what do we got to do differently? Hey, U.S. Cyber Command, what does it really mean to be a subunified operational commander in this environment? (b)(1) USSC (b)(1) USSC And how do you make sure that the benefit of that gets out to operational commanders? (b)(1) USSC (b)(1) USSC

(b)(3) NSA

Mm hmm.

**Rogers:** I got my intel teammates. We love to monitor. We want it to flow. The operational side of me is going, "Damn it. I want to stop it at the Tier 1 boundary. I don't want to have to deal with it at the Tier 3 and Tier 2 boundaries that I'm responsible for."

(b)(3) NSA Mm hmm.

- **Rogers:** So I thought...And in the course of this, I had to go to the White House multiple times. I had to brief six different committees on the Hill multiple
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	times. ((Chuckling heard.))( I'm dealing with the Deputy Secretary of Defense and the Vice Chairman (1G) U.S. Cyber Command and NSA teammates, the OSD/CIO, my own Service CIO, my Service Secretary. I never met Secretary Mavis before. I got to meet him because of this. You know, I've always worked closely with the CNO 'cause he's my other boss aside from General Alexander.
	But I thought it came across to the department in many ways—notDon't take for one minute that I thought it was perfect. But it came across I thought to others as: "Hey, look. This is how you got to deal with things in the cyber network of the 21 <sup>st</sup> century."
(b)(3) NSA	(B% Right.)
Rogers:	(B% That) "Hey, look. This is going to become much more" This was one of the points I was trying to make: "Hey, guys, welcome to the new future. This is the norm. This is how we fight. Okay? This is how we maneuver. This is what you got to do." So there is no doubt—that experience is reallyreally shapes what I will bring to the table good and bad with U.S Cyber Command and NSA about: "Hey, here's [sic] some things I want to try to do a little differently."
(b)(3) NSA	Did you think it changed views (b)(1) USSC and, as you said, the new normal down in the senior levels of the Pentagon, even the White House?
Rogers:	I thought it did because, to them, it made it very real. I mean, example, As this is going onSo we first see this at the end of July. Our first steps in August don't work as I had hoped. (b)(1) USSC (b)(1) USSC (b)(1) USSC (b)(1) USSC (b)(1) USSC But I still rememberI'm over at the White House with Lisa Monaco, who's the Presidential Assistant for Homeland Security now—((John)) Brennan's old job.
(D)(3) NSA	
Rogers:	And it's the firstIt's the end of August. Broader context: The President   has come out and said: "Hey, look, we got a situation (b)(1) USSC   (b)(1) USSC   And   I'm there telling him: (b)(1) USSC   (b)(1) USSC   (b)(1) USSC   And our assessment—   both us and U.S. Cyber Command The assessment was: (b)(1) USSC
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	(b)(1) USSC
	(b)(1) USSC And I'm at the White House telling
	them. "So you mean, Admiral, (b)(1) USSC
	(b)(1) USSC "Yes, ma'am, that's what you need to tell the President.' ((Laughter heard.))
(b)(3) NSA	Do you think that was a factor in? Sir, do you think that was a factor in $(b)(1) \cup SSC$ ?
Rogers:	No, I don't think so because my comment to her was, "But the flip side is let's remember what we're talking about. We're talking about our CONUS unclassified segment."
(b)(3) NSA	Yeah.
Rogers:	"I'm telling you, as a service, I can fight. If I have to, I can lose this and keep fighting. It's going to be painful, but I can do it."
(b)(3) NSA	Right, right.
Rogers:	So I don't think it led them to (B% believe). But it certainly made them stop and think for a minute, "Ah, ooh."
(b)(3) NSA	Absolutely, mm hmm, yeah. Yeah, and they don't have your level of proficiency on these matters.
Rogers:	(B% Something like, "Eeee!")
(b)(3) NSA	((He chuckles.)) (B% And so)
Rogers:	And we put some additional things(b)(1) USSC
	(b)(1) USSC Because again, if werethat
	would be the organization on the Navy side that would be (b)(1) USSC
(b)(3) NSA	Mm hmm.
Rogers:	So I put some extra things in place over there to make sure, hey, (b)(1) USSC
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They never did, but I put some extra things in place to make sure. ((Chuckling heard.)) So...

(b)(3) NSA Sir, if I may...

Rogers: Sure.

(b)(3) NSA Take you back to 2011, as you arrived here...Just to ask what your initial impressions were: where the command was and what you saw...where you saw it going (1G)?

Rogers: The command was...In...September 11, we were just under two years old. The command was stood up in January of 2010. So it's still new in the big scheme of things. To be brutally honest, I saw a command that—from my perspective—was overly focused on what had been, and was not focused enough on what should be. What do I mean by that? To create this command, we had blown up a couple other, so to speak...We had stood down and literally picked apart a couple of other organizations. Shifted their resources around and created this. So much of this workforce had been working in different organizations-doing much the same thing, but working in different organizations. Some of them had been down in (b)(1) USSC vice up here (b)(1) USSC And I saw a workforce that I thought was just way focused on: "Oh, my God. We've made all these changes. It's terrible." And I'm thinking: "Hey, we're way passed that decision point. What are we doing to optimize mission outcomes here, guys? This is all about delivering effects and meeting our mission." That's what I care about, number one.

> Number two, I thought I was joining an organization that had great...that had strong technical expertise, but didn't have an operational mindset. What do I mean by that? I kept telling them: "You haven't really thought through what it means to be a warfighter in the network age in the 21<sup>st</sup> century." What are the implications for how we're going to organize? What are the implications for what we value? How do we prioritize? How do we structure ourselves? Where should we be investing finite resources: people, money, expertise? We've got to create a warfighting organization here.

And we can't be a "self-licking ice cream cone". It's not enough that we think we're doing a good job. ((Chuckling heard.)) The measure of

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success to me ain't us. I could care less what we think. What I care about is [sic] the traditional, kinetic-based, operational commanders that we support, and who at times support us. *That's* who I care about. General Alexander is our U.S. Cyber Command and NSA boss. *That's* the metric I care about. What do *they* assess our proficiency? How do *they* assess what we're doing? Are we ever able to generate value? Are we able to get the mission outcomes? I don't care what we think.

Again, it was a very different mindset. And I will say it was tough on the organization for (b)(1) USSC ((He chuckles.)) Early on, as we're going through this, I sat down with the Chief of Staff, and said: "Okay, I normally pride myself on being a very collegial, very team-oriented, very personable individual. We're (b)(1) USSC right now, and it ain't time to be Mr. Nice Guy. ((Chuckling heard.)) I need to kick some ass now, and I'm going to be a very different leader than they have seen. Some will respond well to this. Some won't. But I need to get their heads on straight." And so, I changed my approach was... I choose... I chose to take some of public forms as vehicles to drive change; to say, "This is unacceptable," to ensure that everyone understood I was going to hold subordinate commanders accountable to a higher level of performance, a higher level of knowledge than they were used to. For some, that was a little unsettling. But I said: "Hey, look,..."

This...It remind...I love...Again, I love history. If you go back to the Second World War in the Pacific, post-Pearl Harbor environment. First campaign really for the United States Navy is in the southern Pacific Solomon Islands. You go back and you look at that campaign—in some ways, much of like we're doing here. Radar is integrated afloat and used on platforms and tactical combat situations really for the first time for us as a Service. You get people who don't understand how to...who know technology, but don't understand how to apply a technology. You get people who aren't...You're in a world war. You're in a combat scenario. What worked for us in the peace time Navy, ain't going to work out here.

So you look at like Admiral (B% Goreley) [sic] was Commander Southwest Pacific Operation (2-3G). ((TR NOTE: Admiral Rogers is probably referring to Admiral Robert Ghormley.)) He got relieved by Nimitz. And they put a guy named Halsey in because Nimitz felt not that Goreley's ((Ghormley's)) not a good guy, "but we got to drive change here. And I can't afford to spend a year getting people up to speed, you know? I need to drive change." So he put a guy in like Halsey, who was known as a nail-biting: "Hey, it's about us versus the other guy. And that other freaking guy's going to lose, not us. What don't you understand?"So, that was a big cultural change for us, but I thought it worked out in the end.

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(b)(3) NSA	((He chuckles.)) Mm hmm, hmm.
(b)(3) NSA	We have seven minutes left, Sir. And I have a couple more questions
Rogers:	(B% Okay)
(b)(3) NSA	(B% Digging a little deeper)
Rogers:	And if you guys need to do more, I canI'll go get something else.
(b)(3) NSA	(2-3G)
Rogers:	'Cause I probably talked longer than you wanted. So (B% I'll) (1-2B)
(b)(3) NSA ?:	(B% Okay)
(b)(3) NSA	This is great, Sir.
(b)(3) NSA	(B% Yeah), this is good. (B% We're good), (1-2B)
(b)(3) NSA	Yeah, this is really good. And I should also note for the record that (b)(3) NSA wanted to be here. He's done this in the past, but was not available.
Rogers:	(3-4B).
(b)(3) NSA	Sir, so a little bit deeper into the mission set. Has the Central Operational Authority for the Navy for networks and cyber and IO and across the mission sets: how have you shaped that—which, as you noted when you arrived, you know, there was this organization. It was still fairly new. To take it across the mission sets into the future.
Rogers:	(2-3B). So what the question really goes to is: my predecessor had worked out a series of Memorandum [sic] of Agreements [sic}, written Memorandums [sic] of Agreements [sic], where this organization was designated as the Central Operating Authority for five or six different lines of operation—which you just heard in the question. Big cultural change for us as a Service.

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	I'd been in command two weeks. And we had a frigate out in the Atlantic, and which I'm watching on the network sideI'm watching this ship go out to a lot of IP addresses that they shouldn't have been going out to. OneAt least (b)(1) USSC And I'm going, "What in the hell is going on?" And so, I said, "Okay, we got a Memorandum of Agreement that says as the Network Operating Authority for the United States Navy, (b)(1) USSC (b)(1) USSC So I did that in this case. I ordered an underway unit: "Hey, disconnect them."
(b)(3) NSA	Was this (B% the) <i>Sullivan</i> , Sir? (XB)
Rogers:	No, this wasWhat was the frigate? God dang it. Out of (B% Maine Port). I apologize. I should remember this, but I'm
(b)(3) NSA	I'll find it.
Rogers:	I'm blanking out of the frigate's name.
(b)(3) NSA	Yeah, yeah. I'll find it.
Rogers:	I called down to ((U.S.)) Fleets [sic ((Fleet)) Forces Command—the four- star in the Navy that owns that ship, and said: "Hey, this is what I'm going to do." And they said: "Okay." The commander was not there. I talked to the deputy. Said: "This is what I'm doing." So we do it. The four-star commander comes back ((he chuckles)), and calls me the next day: "Hey, I'm not so keen about you deciding whether my ship should be taken on or off the GIG." And I said, "Well, Sir, you'veI got an MOA with your signature on there that says that's our operational concept, and that's what we need to do, Sir. Here's why." "Well, Mike, I'd like you to look at changing that". And I thought to myself, well, this is one of those opportunities you either going to be in command for a relatively short period of time ((chuckling heard))I'd literally been in command two weeks. And I said, "Well, Sir, I respectively don't agree. I believe that what we need to do is continue with the Memorandum of Agreement. I think this is a text book case of why you need that kind of unilateral authority. And it's my intent to continue this." And I'm waiting. There's a pause. He's clearly unhappy. "Okay, I'll think about it," and he never called me. He then, like two days later, said okay. He sends me a note that says "Okay."

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(b)(3) NSA	Has he since retired?
Rogers:	Yeah, Admiral ((John)) Harvey, who was a…Again, it wasn't because Admiral Harvey was a bad guy.
(b)(3) NSA	(B% Right), but…
Rogers:	But it's just an example of, "So what does it really?" It's one thing to say all this stuff, but what does it really mean? I was a big fan. We're going to show people what it really means (2G). ((Chuckling heard.)) Now, having said that, I think we've done a really good job in the cyber and the network world; where we have <i>not</i> done the job that I wish we had—and one of the things I'll talk to my relief about is—In the electronic warfare area and the space mission sets for the Navy. We still have not driven that same level of change across the Navy. And I'm going to suggest to her, "That's an area you need to focus on." For a variety of reasons—probably 'cause the network hadwas the biggest challenge at the time—I opted to focus much of my time on the network piece.
(b)(3) NSA	Hmm, (1G).
Rogers:	(B% But)
(b)(3) NSA	For the record, Sir, your relief is Admiral Tighe?
Rogers:	Admiral Jan Tighe, right.
(b)(3) NSA	(B% Right.)
Rogers:	Who has been confirmed by the Senate for duty as Vice Admiral and Commander, Fleet Cyber Command and Commander, TENTH Fleet. And now she's just waiting for this Rogers guy to get the hell out of the way.
(b)(3) NSA	Is she measuring the drapes? Is she((Chuckling heard.))
Rogers:	No, she's much more professional than that. ((More chuckling heard.)) But she's the Deputy now.
(b)(3) NSA	Yes.
Rogers:	So she has been here as my Deputy for five months. So she's done great! What else?
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(b)(3) NSA And I...If I can...

Rogers: Sure, come on!

- (b)(3) NSA Drill a little deeper into the...l've heard you talk before about NCWDG ((pronounced as "nic-widge"—Navy Cyber Warfare Development Group)) as a...the unique research and development arm for this command. And if you could just make a few comments about how that's aided you or your vision in implementing change here.
  - Rogers: (1-2G). When we created this Fleet Cyber Command and TENTH Fleet construct in the Navy, one of the things I liked about it was we came to the conclusion that to be successful in cyber/the network/the spectrum/EW/space/electronic warfare/information operations/SIGINT: we needed to build a construct that followed very traditional Navy war fighting lines that the rest of the Service could relate to. So we fight in the maritime environment through these things we call fleets and task forces. So we created in this organization a fleet with subordinate task forces. I was very adamant. I want the same structure the rest of the Navy uses. I want people to be able to understand this and relate to it in a way that they're comfortable with.

The one area...So every other numbered fleet in the United States Navy and there are five others-is defined by its geography. We are unique in that we are defined by our mission set. Our geography is global, and we're defined by our mission set. The other thing that makes us unique is given the dynamic nature, particularly of the cyber and SIGINT mission sets, the decision was made-which I really like-to provide us with an organic R&D capability: a "skunk works", if you will. Again, no other numbered fleet in the Navy has that kind of thing. But for us, the Navy Cyber Warfare Development Group or NCWDG-currently down in also known as (b)(1) USSC (b)(1) USSC for us—was an R&D capability assigned (B% to) OPCON to us, that enables us to harness their engineering expertise and their knowledge of networks and signals that go after particular problem sets—whether it's developing tool capabilities on the cyber side, whether it's doing some...being able to work some signal sets in (b)(1) USSC mission set. That's worked out great for us.

(b)(3) NSA	(1-2G). Are they working (b)(1) USSC Sir?
Rogers:	Yeah
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(b)(3) NSA	(B% Yeah)
Rogers:	Although they're not the lead for $(b)(1) \cup SSC$ being a project that we're going to do in the summer of 2014, in which we, Fleet Cyber Command withteaming with some othersWe are going to, through the UNCLASS network, demonstrate our ability to $(b)(1) \cup SSC$ .
(b)(3) NSA	Mm hmm.
Rogers:	(b)(1) USSC
(b)(3) NSA	You're going to ruin some poor captain's day.
Rogers:	It's alright. Somebody's going be unhappy when we say ((chuckling heard))But. again. one of the things I always tell the CNO is, "Sir, as much as I love the United States Navy and I've dedicated my entire adult life to it—as have many—we're a bureaucracy. And you want to drive change in a bureaucracy? You got to drive it from the top down. And then, number two, you got to cause pain. Sir, I want to go to (b)(1) USSC because I want to cause pain." ((Chuckling heard.)) Just like we've used cyber inspections as a vehicle to cause pain to drive changes in behavior—which has worked out well for us.
(b)(3) NSA	On that(b)(3) NSA last question that I leveraged here is fitting for (b)(1) And (b)(3) NSA might have something.
(b)(3) NSA	(B% Go ahead.)
(b)(3) NSA	Along the lines of (b)(1) what do you see the future for Fleet Cyber Command with the developments in IT and networking policy?
Rogers: Classif	I think we got a fundamentally sound vision for the future. I think the basic organizational construct, as highlighted (b)(1) USSC is fundamentally sound. But I think we need a (B% new working on)You know, if I was the next commander, the argument I would make is you got to build on what we've done on the cyber and the network world. You got to overlay the cyber mission force capabilities that we're bringing online, because that's, you know, one of my other big things(2-3G) during this lied By: (b)(3) NSA Center for Cryptologic History Oral History ProgramOH-2014-21-ROGERS Derived From: NSA/CSSM 1-52
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two and a half years was: doing the initial conceptual work, partnering with U.S. Cyber Command and others about so how do you build a cyber mission force? How should it be constructed? What are the skills that you need? How should you organize them? Hey, what should the Navy do versus what should the Army or the Air Force do?

So we've come up with...Collectively between us, we've come up with a plan that tasks the Navy to do, you know, a series of things. There's a (b)(1) USSC

And then, I think how do you oper...? The same way we've managed to operationalize the cyber and the network piece in our Service" what do we got to do to drive that same kind of change, particularly in space and EW. And how do we maximize the synergies between the spectrum and the network world. Because they are converging. Handheld digital mobiles being the...at the forefront of this. Where we're using the spectrum to access networks down to the individual user level, literally wherever we are in the world. As a SIGINT officer, I lick my lips at that because I'm going, "Hey, I *love* going against RF-based challenge sets.

(b)(3) NSA Mm hmm.

**Rogers:** That's opportunity. But (B% so much of that). Sir, did you have anything?

(b)(3) NSA I have one last thing I want to ask you.

Rogers: Sure!

(b)(3) NSA

As becoming Director of the National Security Agency, what's your major concern?

**Rogers:** I have not conscious...Again, 'cause I'm not confirmed yet. I am not...I haven't sat down and put a single pen to paper yet 'cause I told myself, "Hey, I got to hold off until I'm confirmed." But in general, when I did my

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interview with the President in…I guess I did that in January. Yeah, in
January of '14. 'Cause I wasYou know I interviewed with the Chairman
and the Secretary. And when I interviewed with Secretary of Defense
Hagel, he said, "Okay, the President has indicated once they make the
decision as to whether U.S. Cyber Command and NSA should be
together/should be separatedOnce they make that decision, the
President has decided he wants to interview." And in December the
decision was made: they're going to keep the organizations together
which I think was the right thing to do. When I got asked, I said, "Hey,
look. Here's why I think that's the right answer." Now, I would argue
that's not necessarily the long-term answer.

(b)(3) NSA Mm hmm.

Rogers: My view is you want each organization, particularly U.S. Cyber Command, to generate enough capability and enough capacity where they don't have to be, you know, one organization that over time might...One of my goals, I hope, as U.S. Cyber Command, is to generate enough capacity so that, you know, if queried by the Secretary or the President, I can say, "Well, now, you got enough capacity where you could actually make it work if you separated them. I believe that where we are right now, Sir, we don't have enough capacity to separate these still. You've got to keep them together. NSA is so foundational to U.S. Cyber Command." I mean, the reality is NSA can do its mission without U.S. Cyber Command and it'll do fine. (b)(1) USSC

(b)(3) NSA Mm hmm.

**Rogers:** We need a partnership here. But when I think about the NSA side of the house, I'm struck by several things. Number one: the morale of the workforce. NSA has now experiencing what our CIA teammates have had to live with their entire career. It's very public.

(b)(3) NSA

Mm hmm.

**Rogers:** Often viewed in a very critical light by many of the citizens of the nation as well as many other foreign citizens and foreign governments. CIA has gotten used to that environment. And their view is, "Hey, you're a professional. You do what...You comply with all regulation and policy. Keep your head down and you keep working. And you don't worry about that kind of stuff." NSA...The workforce at NSA never had to deal with this before. They've always been somewhat anonymous.

(b)(3) NSA Mm hmm.	
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**Rogers:** The mission not well understood by others outside of the profession. The flip side is the organization finds itself in a situation now, where many—I won't say all—but many individuals, to include average citizens, are asking, "What are they doing? Why are they doing it? And boy, I'm uncomfortable." You see that in foreign...many foreign citizens right now. Now, that's not to imply by any stretch (B% of the imagination) that everybody out there thinks that, "Oh, my God, NSA is some rogue organization that's, you know, acting unilaterally and without any care or thought to protect the rights and the privacy of our citizens." But, as my father always used to tell me when I was growing up, "Michael, focus on the way life is vice the way you wish it were. Because if you focus on the way you wish it were, you're going to waste a lot of your time and energy."

((Chuckling heard.)) And I have always been a big fan of, "Hey…" Again, it goes back to that truth to power question. Recognize the way things are. Be forthright and open about it. And deal with it. So I go into this job thinking to myself, "I'm not going to waste my time debating, well, is it fair? Is it true? Is it accurate? Is it right that citizens are questioning NSA?" My attitude is, "I'm not wasting one second of time debating that. I'm dealing with what is." And what is, is for a variety reasons, many of our citizens now question the role of the National Security Agency. So my view is we got to deal with that.

My first challenge is the workforce, I believe, because my concern is...So a workforce that's not used to this; a workforce that in many instances is composed of individuals who: highly technically proficient, incredibly gifted in what they do. But in terms of ability to express it to people who don't necessarily deal with this all the time...The ability to interface with people who don't have a clue about what we do: it's...that's a challenge for many people. It's a challenge for intelligence professionals. As I said in my confirmation hearing, "Look, I've spent...You know, I've been a cryptologist for 27 years now. And I spent my entire life in an SCI environment thinking, 'Okay, don't compromise this. Don't talk about that.' Hey, that ain't going to cut it as the Director in the 21<sup>st</sup> century, I don't believe."

The second challenge that concerns me is our relationships with industry and civilian and commercial partners. In the cyber and SIGINT world of today and tomorrow, you...we cannot operate in isolation, thinking NSA or U.S. Cyber Command's going to solve all the problems by itself. That is *never* going to happen. We have *got* to partner with others. And one of the implications of the Snowden revelations to me is now you got a lot of companies that are starting to say, "Yeah, I just can't take public knowledge of my connection with you." Even organizations that we have been working with for some measures of years, you now have their CEOs Classified By: (b)(3) NSA NSA NSA

very publicly speaking about, "Hey, we can't do this. You're compromising our business position." I'm not going to get in a public discussion about, well, fill in the blank. You know what we've been doing together for the last few years—which I thought was to the benefit of both of us.

#### (b)(3) NSA Mm hmm.

**Rogers:** I'm not going to get into a public outing. But if that expertise says, "I just can't work with you guys anymore," that has negative implications for the nation. It has negative implications for NSA's ability to do its mission. We have got to try to reverse that.

The third concern I have is I don't want to lose our foreign partners in all this. Some of been more vocal than others. But, again, we have got to make sure that on the NSA side, as on U.S. Cyber Command, we have strong partnerships with our foreign counterparts. Now, some of those partnerships, like in the FIVE EYES arena, are at one level versus pick another nation: (b)(1) USSC, where we have a very different relation...Not a bad relationship, but it ain't at the FIVE EYES level.

#### (b)(3) NSA

Mm hmm.

Rogers:I'm not arguing that that model should be "everybody should be in the<br/>FIVE EYES club." I reject that premise. But on the other hand, we have<br/>got to be able to have partnerships with a broad range of foreign entities<br/>out there. And the Snowden revelation, at the political level, has got some<br/>of our foreign intelligence counterparts—<br/>(b)(1) USSC<br/>(b)(1) USSC<br/>going, "Well, I don't have a problem with you guys. But my<br/>government's really a little dicey right now about what the hell it is that you<br/>guys do. And so we've been told we got to back off a little bit."

(b)(3) NSA Mm hmm. (b)(1) USSC Rogers: And so, I spent some time, even (b)(1) USSC though I'm not confirmed yet...But I went down and talked to them anyways as...in my current duties. And in the course of the discussions, I'm listening to them. (b)(1) USSC (b)(1) USSC Classified By: (b)(3) NSA Center for Cryptologic History Oral History ProgramOH-2014-21-ROGERS NSA Derived From: NSA/CSSM 1-52 Dated: 20070108 Declassify On: 20401201

(b)(1) USSC			

	support of the Administration and the oversight mechanisms on the Hill. Because if we lose those guys, now we're fighting with both hands tied behind our back. (2-3G) we got a nation that doesn't believe in us. Again, I'm not trying to argue that everybody. But the reality is there's a large segment of our population that just—based on what they've heard—has come to the conclusion that they are nervous about what the National Security Agency is doing. If you combine that with we lose the Administration or we lose the Hill
(b)(3) NSA	Mm hmm.
Rogers:	(B% Then), man, we got real problems. Now we're really in a situation where potentially our ability to execute our mission starts to be significantly degraded.
(b)(3) NSA	Yes.
Rogers:	That's a bad thing for the nation, I would argue most importantly. But it's also a bad thing for NSA.
(b)(3) NSA	Yeah.
Rogers:	Anything else for me?
(b)(3) NSA	No, that's great, Sir.
Rogers:	Oh! And then, lastly on the NSA sideIn the midst of all that, we got to be asking ourselves, "So what investments, what changes do we make now? So that the guythe men and women who are doing this mission set five, ten years from now: they're positioned for success. One of the things I love about what General Alexander didYou go back to when he first assumed the duties back in 2005 as the Director of NSA, he stepped back. And came to the conclusion that the fundamental vision that he inherited was not the right one. He came to the conclusion: we got to change what we're focused on. We've got to make some fundamental investments in things likeAnd these aren't in any priority order. We got to change what we're doing in terms of computing and analysis. We got to change what we're doing in terms of our ability to access and push information across this enterprise. And the ability to make information

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	available from the SIGINT enterprise to non-SIGINT people—whether they be forward commanders in the battlefield. (b)(1) USSC (b)(1) USSC We need to invest in the computing and analytic and mathematical foundations that are going to help us out as we're dealing with the cryptographic and encryption challenges that are going to be coming down the pike. Not now, but five, ten years from now, they're going to be here for us.	
	He reallyWe've got to do infrastructure. In his time in the job, we have totally rebuilt the power infrastructure here at Fort Meade.	
(b)(3) NSA	Mm hmm.	
Rogers:	We have fundamentally rebuilt the infrastructure (B% to) every one of the major sites outside of the Fort Meade campus. We have fundamentally built a data network and a storage and defensive strategy that enables us to operate like a global enterprise and to access rapidly amounts of data, volume-wise, that were unimaginable, you know, five years ago.	
	And that all happened because of a director and a broader team that I think consciously sat down and said, "Okay, what do we got to be doing now that's going to pay off for us five, ten years from now?" I don't think General Alexander realized five, ten years from then, he waswould still be the Director. ((Laughter heard.)) So I need to be thinking about what are the things need to do now that are going to pay off five, ten years.	
	And then, the last thing that I'm interested in is: what do we need to do today, right now, that prepares us for the challenges in the next 12 to 24 months? And I believe those challenges includeWe will see disruptive offensive actions taken against infrastructure in the United States in the next 18the next 12 to 24 months. It's going to happen.	
(b)(3) NSA	(B% Okay.)	
Rogers:	So are we ready—whether you're U.S. Cyber Command, whether you're NSA? The future to me is much more about integration, then creating cylinders of excellence. I see tons of cylinders of excellence at NSA, and I'm very grateful for that. But to really get it to the next level, to me it's about integration. So those are the kinds of things that I'm thinking about, as I get ready now.	
(b)(3) NSA	Just a couple	
Rogers:	Yeah	
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(b)(3) NSA	Or three things he's going to be worried about
(b)(3) NSA	A couple, ah huh.
(b)(3) NSA	For the next couple of years. ((Laughter heard.))
Rogers:	And remember, in…that's…in the end, it's all about the workforce. Our advantage is the workforce.
(b)(3) NSA	Yeah.
Rogers:	It ain't the network. It's not the analytics. It's not the tools. Not that those aren't important! But our edge is our people. And that goes back to my very first concern: I don't want to lose the workforce, (B% you know OR no).
(b)(3) NSA	Well, Admiral
Rogers:	Okay!
(b)(3) NSA	Thank you very much.
(b)(3) NSA	(B% Yeah.)
(b)(3) NSA	Appreciate it.
Rogers:	Oh, (4-5B).
(b)(3) NSA	Thank you very much, Sir.
(b)(3) NSA	Yeah, thank you.
Rogers:	Did you guys get what you were looking for? ((TR NOTE: Audio ends at this point.))

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