

**General John E. Hyten
Vice Chairman of the Joint Chiefs of Staff**

**Defense Writers Group
Project for Media and National Security
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Moderator: Welcome to this Defense Writers Group. I'm Thom Shanker, the Director of the Project for Media and National Security. I can't tell you how honored I am to have as our first in-person guest for Defense Writers Group General John E. Hyten, Vice Chairman of the Joint Chiefs of Staff.

As most of you know when I got this job in June I did a poll and everybody said that when we come out of pandemic there's a real desire to get the group back together in person for the conversation and contact and camaraderie. So General, it's so great to have you here today.

General Hyten: Thank you very much.

Moderator: The format is as always. I'll be a benign dictator and ask the first question.

General, I wanted to ask, you are just days away from taking off the cloth of our nation that you've worn for almost 40 years. At the strategic level, you're in a strategic job, sitting at your desk the day before you leave the Pentagon. If you were to pen a memo for your successor, what is the most important, most challenging risks that you think he or she should focus on, in particular some that you might not think are front and center enough today?

General Hyten: I hope to actually have a conversation with my successor but he has not been nominated yet so I might be writing that letter. I think as I write the letter I would focus on two things.

The first thing I'd focus on is that although we're making marginal progress, the Department of Defense is still unbelievably bureaucratic and slow. So I would encourage my successor in everything that he touches to focus on speed and reinserting speed back into the processes of the Pentagon. Because this country can move fast. We have proved it time and

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time again. But right now it's so frustrating because the answer to every question I give is okay, we need the following capability. How long is it going to take? And the answer is ten years. Ten to fifteen years. And they go through the reasons why. Because it takes two years to experiment, two years for requirements, two years for the budget and then if we go really fast maybe we have four years to initial operational capability and another five years to its full operational capability. Every program you look at you can see it that way.

Look at the new ICBM, the GBSD program which still doesn't have a name besides GBSD. It started roughly 2015. Right now, if everything goes right, we'll get to initial operational capability around 2030 and full operational capability around 2035.

That's a 15-20 year program. We built 800 three-stage solid rocket ICBMs when we didn't have any holes in the ground and we didn't have any [thematic] control, we had to build all that stuff and we built it in five years back in the '60s. So we can go fast if we want to. But the bureaucracy we've put in place is just brutal.

I would tell him that we have changed the JROC to do what the JROC is actually chartered to do by Congress and it provides the opportunity for speed. Not all across every element of acquisition and development, but it enables speed by actually focusing on joint requirements, because we've never done joint requirements before in the JROC even though the law tells us that one of the primary jobs of the JROC is to find new joint capabilities based on advances in technology or changes in concepts, and gosh, look at the advances in technologies going on in the country right now. Look at the changes in warfighting concepts that we had.

So we've written down requirements and I signed off the requirements for command and control, fires, logistics, information. I'm going to sign out probably today or tomorrow a new requirement for integrated air and missile defense. That actually prioritizes gaps and capabilities which is the other charter that the Congress gave us to do. And as we started down this path the services were questioning, I guess is the kind term, what we're trying to do because this is their authority. But we made a couple of points.

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Number one, this is the Joint Requirements Oversight Council, not the service requirements validation process. And if we actually develop the joint requirements up front and say this is what you have to be into, you actually don't have to come back to the JROC and ask Mother May I all the time for what you want to do. So if you think about what's in those requirements, it's pretty remarkable.

So I would talk to him about speed and detail. I'd talk to him about the JROC.

And then I would remind him, above all else don't forget the most important thing and it's real easy to do as the Chairman or the Vice Chairman. Don't forget the people that are doing this mission every day because if you want to know when I retire why I won't be worried about China, why I won't be worried about Russia, it's because it's amazing what the people that sign up to join the military in the United States can do. If you give them a mission, they will get it done. And they'll get it done in the face of disaster, in the face of lethal fires, in the face of everything an enemy can throw at them, they will achieve the mission and they're good at it. And we've been fighting constantly for 20 years and we're the best in the world. But if you're the Vice Chairman and you get caught up in all the NSC meetings and all the White House meetings and all the times you have to go to the Capitol and all the Pentagon meetings - because you chair like 20-30 different committees in the Pentagon, mostly co-chair them with the Deputy Secretary. If you get caught up in that and you forget, you better make sure you don't take care of the people, then that significant advantage could go away.

Moderator: Thank you, sir.

The first question goes to Demetri of the Financial Times.

DWG: Good morning, General.

A question on China. China has long had a minimum deterrence [inaudible] but if you look at the last few years, whether it's the nuclear side or the [inaudible] it looks a lot less lean and a lot more effective.

The question is, are you worried that they are moving away from [minimum deterrence] and do you worry at all that they're going to abandon no first use?

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General Hyten: I do worry they're going away from minimum deterrence because every indication is they are. You don't need to develop the kind of capabilities they're developing for minimum deterrence. The work they're doing in hypersonics, the work to fill out the triad, the work to build both a fixed base silo based ICBM program and a mobile ICBM program at the same time, to put ballistic missiles on bombers, to put ballistic missiles on submarines.

When you look at that structure, that is not a minimum deterrence model. You don't need that kind of a capability for a minimum deterrence capability. So that I'm worried about.

No first use, that statement doesn't bother me because words actually don't bother me. People can say we have a no first use policy, we don't have a no first use policy. What I worry about is capability. And if you're a military officer you have to worry about the capability and the possibility that an adversary will use that capability against you. So you have to assume that capability is meant for a reason and plan for that.

The political side has to worry about the words. The military side has to worry about the capabilities. And we have to focus on that and we have to assume that if a capability is fielded that I'll just say all the hypersonic weapons they're building, all of the nuclear weapons they're building are not meant for their own population. It's not meant because of the problem they have in the West of China. It is meant for the United States of America and we have to assume that and we have to plan for that and we have to be ready for that. And that's the position they're putting us in with the weapons that they're building.

DWG: How much of that do you think is directed toward a possible conflict over Taiwan? And how do you feel the weapons will play into that?

General Hyten: I think it's a two-part answer. The first part is if you're building - actually, just go back to the Chinese strategy that's been around since 1995. I wrote about it in 1998 not because I wanted to, because the university I was assigned to made me write about it. I didn't want to write about it. Fortunately, I was in the Department of Nuclear Engineering where half the students were Chinese and they just told me what the strategy was and gave me the strategy. So I wrote it down in my

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paper and the university said you passed and that was great. So I wrote that down in 1998 and they've been following that strategy ever since.

And one of the fundamental things they learned by watching the United States and they studied us in the First Gulf War, they studied us, they studied our doctrine, is that if you don't have a nuclear deterrent you have no freedom of maneuvering in any other activities if you're countering the United States. So you have to have a nuclear deterrent, and they understood that.

You also have to be able to dominate space and cyber and information and have a long range strike capability. They learned all that stuff from watching us in the '90s and they developed a strategy and they executed that.

In 2012 President Xi came in and executed that strategy.

But are nuclear weapons about Taiwan in particular? No. But they're about the entire structure of what China's doing.

So the second part of the answer is it's not all about Taiwan. It's about a capability necessary to challenge the United States, to challenge the West, to challenge our allies in the Pacific, and Taiwan is certainly a subset of that but it's not all about Taiwan.

Moderator: Next question is Mallory Shelbourne of USNI News.

DWG: Thank you for doing this.

I want to ask you about the recent [hypersonics] tests. You mentioned how [inaudible] were. I'm curious in that lens if you can talk about [inaudible] the U.S. and [inaudible] hypersonic weapons and how can the U.S. I guess in a practical way speed up the development of technology [inaudible]?

General Hyten: It's a really good question about speed. I can't talk about the recent test specifics because all the facts I know about are classified. A test did occur. It is very concerning, but I can't walk you through the specifics because all I know is the intel information. I hope it will get to the point where we can talk about those things in public, specifics about those things in public.

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But generally, I think what you need to be worried about is that I think in the last five years, maybe longer, the United States has done nine hypersonic tests. In the same time, I can't give you the exact number because that would be classified too, the Chinese have done hundreds. Single digits versus hundreds is not a good place.

Now it doesn't mean we're not moving fast through the development process of hypersonics, but what it does tell you is that our approach to development is fundamentally different than it used to be.

One of my favorite paintings in the Pentagon is at the beginning of the 8th corridor on the fourth floor on the right, there's a picture of a rocket and it's just - I'm a space guy so I like rockets. But it's just a rocket taking off. And it's a little rocket. And there's actually nothing else in the picture except the rocket taking off. But there's the little label on the bottom that says, "Discover 14". And why that's so cool to me is that Discover 1 through 13 failed. Discover 1 through 13 failed in about 18 months, and Discover 14 happened and it worked. And on top of that, was the Corona satellite that actually was the first spy satellite that we launched. One through 13 failed in like 18 months because our approach at the time was to test and instrument the heck out of it, fail, learn what failed; build another one, fire it, learn what failed; build another one, fire it, learn what failed. If you want to go fast, that's what you do.

KJU did that in North Korea. As opposed to his father and his grandfather, he decided not to kill the scientists and engineers when they failed, he decided to encourage them and let them learn by failing, and they did. So the 118th biggest economy in the world - 118th - has built an ICBM and a nuclear capability because they test and fail and they understand risk.

In 2000 the United States stated in our QDR - Quadrennial Defense Review - that we no longer have any adversaries in the world and because of that we're going to move from a threat-based development process to a capabilities-based development. And if we just build the capabilities we have in the United States we'll be able to stay ahead of everybody in the world forever. And we said that in a document.

When we did that, one of the implications was since we're so far

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ahead, we can remove all risk from the development process and make sure we only test when everything will work. So we slowly pulled all of the authorities back from the field in the Pentagon. Then congressional oversight over any failure that happened as well.

So now whatever you're testing, whether it's a missile, an airplane, a missile defense system, if it fails you guys put it on the front page of every newspaper in the world, in the country, that says Missile Defense Test Fails.

There's one test that we actually meant to fail because we're trying to drive it to failures and the headlines still said Missile Defense Test Fails and there's hearings and everything that we go through and we stop for two years.

Hypersonics is a perfect example. HDV1 and HDV2. Over a decade ago, I don't remember the dates, you guys can look them up. But look at HDV1 and the history. We were developing hypersonics ahead of everybody in the world and the first test failed. The first test of everything fails. So the first test fails and we have two years of investigation into why did it fail. Two years. Then we launch again and it fails, and we failed, this time it was two fails and we canceled the program and we stopped.

Then other start building hypersonics, others start testing, they start doing it the way we used to do it, and they start moving fast, so we start the programs again and we still won't test until we're highly confident it will work. And then the last test, actually I don't know - it didn't work either, but it didn't work because of a hypersonic problem, it didn't work because of another problem. But now we're going to study that to death before we move on again.

We have to understand risk and development.

Technology is hard. Go out to the West Coast and talk to anybody that's developing technology there and I guarantee you they will tell you the stories of all their failures because that's how you learn. Everybody in this room has probably learned more from failure, including me, than from successes. But somehow we've decided that failure is bad. Nope. Failure is just part of the learning process and if you want to get back to speed you better figure out how to put speed back into everything again and that means taking risk, and that means learning from failures, and

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that means failing fast and moving fast. But we have not done that. This country better do that or eventually, even though they're behind, China will pass us.

Moderator: Thank you, sir.

Net question is Tony Bertuca of Inside the Pentagon/Inside Defense.

DWG: Thank you, sir.

What can we expect to see now then? Now that you say the JROC process is ready to move faster. Ellen Lord put a lot in place. We've got middle tier acquisition now. The process is supposed to move a lot faster now. There's supposed to be way more prototypes, way more tests. I think the U.S. announced they had some hypersonics tests after the news about China.

What are we going to see coming up now? You're in a position to talk to us maybe about the POM and things that are planned. Are we going to see a lot more tests now or still not?

General Hyten: You know I can't talk about the POM, but I can talk generically about where it's going.

There are a lot of good things, so let me talk about the good things and then I'll transition to the not so good things.

We in the Joint Staff built a Joint Warfighting Concept and we stressed it against an aggressive Red Team and it didn't work quite right so we've changed it. It's actually working pretty well right now against stressing environments. The various concepts in there have morphed as we've gone through. It's pretty cool to watch that. But now as we continue to work with it, wargame it and stress it, it's working pretty well with the foundational concepts that we had. Those four elements I talked about fires, C2, logistics, information. Those were the orphans in the beginning. Then they became the supporting concepts. Then they became the functional battles. Now they're the pillars of the Joint Warfighting Concept. Because if you can actually win those functional battles you're going to be very effective.

So concepts actually lead to experimentation. Concepts don't lead to real capabilities directly, they lead to experimentation to figure out what will work and what won't work.

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So the department under Heidi Shyu and Deputy Hicks' leadership has put together a rapid experiment process that has taken over 200 different experiments that came in from all over the world and country and put them in and built an integrated experiment to actually work through a bunch of those and see what works. And then the Secretary has told us when you find out what in those works, I want you to figure out how to put those into the operational capability as fast as you can. That's pretty awesome. That's good.

On the not so good side is that the funding is going to be where? The FY23 POM because that's what we're building right now. Anybody look at a calendar today? We're in October of 2021 and we have this plan and we gave this concept and we have the experiments, but the first time we can actually get funding is 2023.

Then when 2023 rolls around, the odds of us having a budget for '23 in October of '22 is not real good. History does not say that that's - so it's probably going to be sometime in calendar '23 before we get there. And then the money has to actually flow. And then the money has to go out. So you're talking about the middle of calendar year 2023 before we get that. So almost two years from now, even though we know what we want to do.

We've got to find a way to adjust that. We're meeting with Congress and trying to work through ways to accelerate this process and get through, because I think many in the Congress understand this threat and understand that we have to move quickly against it, so I think that's good.

The other not so good thing is that Secretary Austin told us exactly the right thing. You better figure out how to transition right to operational capability. But we don't know how to do that. We really don't. We don't know how to take a prototype and move it into operations now. We take the prototype and then we develop requirements, hopefully remove that impediment, and then we have to get a program of record and it has to be approved by Congress. Then we go through this milestone development process to make sure we get there from here, and that's how you get to every answer's ten years. Hopefully the JROC's taken two years out of that process, so maybe it's eight years now, but that's still too slow.

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If this experiment works and we know what we want, how do we go build it?

DWG: You mentioned resources. The Pentagon's got a lot to do all the time. Things are always getting added. One of the things that's been added is climate change. Where do you see that mission going for the Pentagon as we look to build the future budget? Because some people would say this is a new mission. Those who oppose it would say this is a tax on the Pentagon. This is unplanned spending to hybridize all these fleets and the billions that ought to go into hypersonics.

General Hyten: Just out of the billions we've spent on Tyndall, the billions we've spent on Offutt, because of issues of climate change.

The climate change efforts we're putting in are actually attempted to save us from these unforeseen billions of dollars because when a Tyndall happens, when an Offutt happens - we just spent tens of billions of dollars dealing with natural disasters caused by climate change in the world. So if we can figure out how to mitigate that process we can actually save ourselves execution year dollars. And I'll tell you what, execution year dollars are more valuable than future dollars. When you have to pay that bill in execution year it just destroys readiness. It destroys your O&M accounts because that's where we take it from. Because we're not insured through Mutual of Omaha, we're insured through the United States government. So we have to pay our own bills and that kills us. So that piece of the puzzle is just to be smart about dealing with the challenges that climate change would cause us.

Moderator: Eric Schmitt of the New York Times, you're next.

DWG: Sir, thank you.

Last week the U.S. base in Al-Tanf in Southeast Syria came under attack by five small armed drones. Who was responsible for that attack? Why do you think that base was attacked when it was? And why is it that the United States military after seeing this threat now play out for a number of years, small armed drones in conflicts like Iraq, Yemen, other places. Why have they not developed an effective system at taking these small almost off-the-shelf technology type weapons out of the battlefields.

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General Hyten: Everybody's negative today. [Laughter].

Al-Tanf Garrison in Syria, an important base, down to the south, is always going to be vulnerable to strikes. It's been struck multiple times over the year. It will be struck again. Fortunately, it's amazing what we see and what we hear and what we know. Nobody got hurt. That's the good news.

But any time you're in a place like that and there's enemies around, at some point the enemies are going to strike. They've struck us with missiles, rockets, small arms, now there's a new technology that's a simple technology and it's very dangerous. Small UAVs with lethal capabilities, unbelievably dangerous and unbelievably challenging.

So we have deployed defenses for them and we have an effort led by the Department of the Army to look at small UAS defenses. Major General Sean Gainey is the Army officer in charge. Secretary Wormuth is the Secretary leading that effort. The Secretary and the Deputy have said you know what, as much as we've done, we still don't have defenses that are good enough. We haven't moved quickly enough. But small drones are a tough problem. They really are tough to see, tough to defend, and when somebody adds an explosive to them, now they become a weapon.

This is another area where our bureaucracy and our processes and to a certain extent our laws make it very difficult to deal with that problem. Because for some reason we look at those capabilities as airplanes and so we try to apply airplane rules to drone flight. That doesn't make any sense to me but we do, and therefore we've had challenges inside the United States with people flying drones over our most sensitive nuclear facilities and us not be able to do really anything about it.

So we've deployed jamming capabilities but many of those things are guided by GPS and jamming GPS in the United States is a bad thing because most of the airplanes in the United States are guided by GPS and the FAA says don't do GPS jamming.

There's RF jamming. Now you have embedded inertial nav systems in these little things that can navigate themselves.

So this is the ultimate attack/counterattack, point/counterpoint structure. Where the technology advances and we have to produce defenses at the same speed but we don't. We put it into the

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bureaucratic process of the Pentagon while the commercial technology is advancing every six months. And we put it into a development process that takes years. We can't be doing that. But I'll just say we do have defenses. Overseas is different than the United States. We do have the ability to jam certain things. We take advantage of those abilities. And fortunately to this date they haven't been successful. But I'm concerned that that technology which is, oh by the way not adversary technology, it's commercial technology, is going so fast because the commercial sector in China and in this country are going so fast that our bureaucratic processes won't keep up.

DWG: Was Iran responsible for that attack?

General Hyten: I can't tell you. That's intel information.

DWG: You don't know or you can't say?

General Hyten: I can't say. But I can tell you that Iraq supports the Shia militia groups and Iran supports significant elements in that part of the world. And Iran is a significant, and has been and will continue to be a significant threat to stability in that part of the world and we're going to have to figure out how to deal with Iran. But I hope everybody knows that we don't want war with Iran. We don't want war with China. We don't want war with Russia. We don't war with North Korea. We don't want war. Actually, we're tired of war. We don't want to fight another war. We would like diplomacy to work. We would like our State Department to aggressively pursue solutions with all these countries. We will maintain readiness to fall in on any problem that happens. The folks we have overseas we will defend and we'll reserve the right to attack if we need to to defend ourselves. But we don't want war.

Moderator: The next question is Bob Burns, AP.

DWG: A question about the hypersonic test. I'm wondering if you can step back and discuss sort of how that fits into the bigger picture of what China has been doing with [inaudible] basing of military? For example, does it have to do with their concerns about future advances in U.S. missile defense technology? Or is it something else that [inaudible] kind of a bigger picture?

General Hyten: I'll tell the rest of the story. It's a funny story. I talked about the research I had to do at the University

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of Illinois in 1998. I did 60 Minutes with David Martin five years ago, six years ago now, something like that. The 60 Minutes producers built him a book that was about that thick that had everything I'd ever written or said at the time. And one of those was that paper I wrote at the University of Illinois because the university published it. So in the interview he look at me and goes, so General Hyten, how did you know 20 years ago exactly what China was going to do ahead of the entire world? I looked at him and said I didn't know, I just [heard] what they said and I wrote it down. I just assumed it was right, because I just wanted that paper to be done. That's the level of analysis that was in that. They told me what they said they were going to do and I wrote it down. Anybody can go look up what they wrote, anybody can go look at what they said and that's what they did.

So the strategy they came up with was look at what the United States has done. In 1991 they attacked the largest army in the world, -- sixth largest army in the world actually - and destroyed it almost overnight by information, long range strike, precision missiles, GPS, maneuver capability. We have to build capabilities to do that and we have to be able to deny the United States the capability to do that. And then we have to have a nuclear backstop to make sure that we can maneuver in all those other areas. And they said that in 1995. And then Xi in 2012 accelerated that process. And they said by 2030 we want to be a regional power. By 2050 we want to be a global power. They said all that stuff.

So every element of what they're building is consistent with that strategy. Their long range conventional strike weapons, they chose missiles versus airplane dropped precision strike missiles. Why did they do that? It's real simple, they can base their missiles in the homeland. We couldn't base our precision strike in our homeland because we're taking that precision strike overseas. So our precision strike has to come from airplanes.

Now we're looking at long range precision strike now with missiles but we're also limited by the INF Treaty that we couldn't go down that path and China was not limited by the INF Treaty. So the most efficient way for them to get long range precision strike was missiles.

Why are they going counter-space? They're going counter-space in a big way. They're deploying weapons. They're deploying weapons in space. They're doing all those things. Why are they doing

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that? Because they saw how the United States used space and used space to dominant advantage.

Why are they developing significant counter-cyber capabilities? Because they watched how we used information. They watched how we used communications and they have to develop capabilities to counter that.

Why are they building all legs of the triad? Because they have to have a deterrent capability to meet that strategy.

It has been consistent for 30 years. Well, at least 25 years. It's been consistent all the way through. But every element they're building is to challenge the United States and our allies. Because they watched what we did and they built counters.

Why are they building this massive space infrastructure? A warfighting infrastructure. The reason they're building that is because they need to be able to target the United States wherever we are and they can't see that from China therefore they're going to have to build some kind of global capability and the best way to do that's in space.

Everything is aligned with that strategy. Does that answer your question?

DWG: Is it an offensive strategy they had in mind or strictly defensive?

General Hyten: No military strategy is defensive only. You can't have a defensive only strategy. So it's offense and defense. It's offense and defense to make sure that they can effectively challenge the United States. And our allies. That's why AUKUS is very upsetting to them. That's why when we deploy multiple carriers, including carriers from Great Britain, ships from Japan, Canada, Australia, they react negatively. They also react negatively to missile defenses. Look at what they did when THAAD deployed in South Korea. THAAD's got nothing to do with China. They don't like missile defenses and they don't like missile defenses in Asia. So they react negatively and they use all instruments of national power - economic, military, every instrument of national power in order to send that message. But it's consistent all the way through.

Moderator: Meghann Myers of Military Times.

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DWG: What is one thing you wish you could have accomplished in your long list of portfolio? And what is something you're afraid of falling by the wayside if when your job ends [inaudible]?

General Hyten: That's a hard question. The one thing I wish I'd accomplished. Wow. I think it would have been, so I'll do it from my own background in the Air Force. I wish we'd achieved a resilient space architecture before I left. We've talked about it for over a decade and we've designed it for over a decade. The design is out there. And because we haven't, we actually put the President in a tough spot because we have a handful of, I'll use the term I used that everybody quotes that got me I so much trouble, but I'm going to use it again anyway because it's accurate. We have a handful of fat, juicy targets and the adversary has built hundreds of little targets that are difficult to get after. Even though our fat, juicy targets are so much more capable than theirs, they're still fat, juicy targets. So we've actually encouraged the adversary to figure out how to kill fat, juicy targets. We shouldn't have done that, and we could have done something different. So I wish we'd have gone down that path.

The second part was what do I think's going to fall by the wayside?

DWG: Yes, after you leave what do you think might lose momentum.

General Hyten: That's one of two things. I think the Joint Warfighting Concept and JADC2 have enough momentum now that they're going to go forward because they're pretty much critical and they're pretty much getting embedded in the process at the Pentagon. But there's an element that I've, Congress and the Department made me the senior designated official for electromagnetic spectrum operations. That's the crazy dialogue I've ever heard in my life. I really don't even understand what it means, to be honest with you. But what it means is I'm "in charge of electronic warfare and spectrum operations". We've actually put a good plan in place and we have an implementation plan. Because we took our eye off that ball for 20 years. We used to be the best in the world at electronic warfare; now we don't rain it, we don't educate it, we don't equip it. So it's been recognized and we have to fix it because spectrum is key to every domain, key to every operation, key to every functional battle. Spectrum is key.

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So I'm worried that I've been pushing spectrum and if the Vice Chairman is not there as the senior designated official for spectrum, that that momentum could be lost. I think that's the one I'd pick.

Moderator: Wall Street Journal, Nancy Youssef.

DWG: I wanted to ask you about Afghanistan. One of the things we've been hearing about is the threat from ISIS and al-Qaida could emerge as quickly as six months to two years. And at the same time that we're hearing that, the U.S. has lost a lot of its intel capabilities in Afghanistan. And I'm trying to reconcile how you can close that gap [such that] those would still pose a threat from Afghanistan. So from your perspective, what is the threat as you see it? Can the U.S. effectively defend against it? And broadly what are the threats you see coming from Afghanistan to the region and to the United States?

General Hyten: When you don't have boots on the ground you don't have as good of information. It's really that simple. You use the connection with humans. You lose the human connectivity that you have when you have boots on the ground spread out through the country. So you lose that capability. So your intelligence picture degrades. You can't state otherwise because you don't have that connectivity anymore.

At the same time we have done over the horizon counterterrorism for a long time. Osama bin Laden is an over the horizon counterterrorism mission. We have significant capabilities in multiple domains that provide us very good information about what terrorists are thinking about doing in the United States.

So when we're not on the ground in Afghanistan we have to understand that that piece of information is lost and is degraded. Therefore we have to focus on the other things that we do, make sure we do them well, bring them up and then ideally work with allies and partners to gain as much access as we can into the area so that we can protect the interests of the United States.

So it is a much harder job when you're not on the ground. That's a fact. And anybody that tells you different is not being truthful.

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DWG: You cite bin Laden as an over the horizon capability, that was 10 years. We're talking about a threat being six months to two years. What I'm trying to understand is how do you develop an effective capability with a threat that imminent?

General Hyten: Imminent is, I think what we've talked about is that I think pockets of terrorism will probably arise in Afghanistan within the next year. The question is when will they reach a point where they can threaten the United States of America?

It goes back to the point/counterpoint piece I was talking about before. You have an adversary that is trying to threaten the United States. We need to be able to watch them, whatever resource we have, and make sure we understand that. And if we see an imminent attack we have to be able to respond before that attack happens.

We want to do that with allies and partners. We don't want to do that ourselves. But it is a tough problem. It is a tough problem when you don't have boots on the ground in Afghanistan. But it's not something that will manifest overnight because the ability to develop that capability and train that capability, then reach out and go international with that capability, that's a hard problem. But I don't think we should fool ourselves and not realize that al-Qaida will reappear in the country of Afghanistan. It will. And we have to watch. It's going to be an internal issue, internal to the country, internal to the Middle East, internal to the region. And when do they develop a capability to reach outside and come back to the United States? Because the President's task to us is figure out how to make sure that the United States is never attacked again. That's what we have to do.

Moderator: I'm going to lose sleep tonight. Thank you, sir.

Next is Alex Marquardt of CNN.

DWG: I'd like to follow up on Nancy's question.

How would you assess the actions and attitudes of the Taliban since the U.S. left Afghanistan with guards to both ISIS-K and al-Qaida?

General Hyten: That's an interesting question.

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How about not bad? That's about where it falls down, kind of right in the middle.

I wish ISIS-K and al-Qaida did not exist on the planet. That would be my perfect world. But they do. And they do exist in Afghanistan. And ISIS-K has attacked the Taliban and they've attacked mosques since we've left. So the Taliban does not like ISIS-K.

Al-Qaida has been quiet, but we still continue to have planes fly out of HKIA. We have planes every now and the fly out of Mazar-e-Sharif with American citizens, American visa holders, Afghans, and they continue to fly. And our State Department continues to work with the Taliban and they don't tell us they're going to eliminate ISIS-K and al-Qaida, but it hasn't been horrible. But they are the Taliban and they have been our enemy for 20 years now. And that is never going to be a good relationship. I could never sit down across from them and trust them. I just couldn't. I'm glad we have a State Department who is trained to sit down and talk with our adversaries and try to figure out points of common ground and ways to keep the peace. I don't want war.

A lot of times we look at the Defense Department as the solution to all our problems. That is not true. Any time diplomats are talking, I'm much happier. And that's what's happening right now.

So I'll just leave it at not bad.

DWG: But do you see the Taliban going after ISIS-K? Actively?

General Hyten: I know the Taliban does not like ISIS-K and they're going to try to do some things about ISIS-K, but I will not tell you specifics because the only information I have there is classified.

Moderator: Tony, Bloomberg.

DWG: A China question again, and the China testing.

So Milley said on Bloomberg TV [inaudible] he's concerned. Was it concerning because they demonstrated a capability that you did not know about before? Or that they demonstrated a test capability of a difficult technology that the U.S. has been

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tracking?

General Hyten: I can't answer the question because it's classified.

I'll give you a historical example because I can't talk about what happened last week but I can talk about what happened 50 years ago. 1967.

A fractional orbital bombardment system was built by the Soviet Union back in the '60s and the United States was aggressively pursuing a fractional orbital bombardment system. And the Soviet Union actually fielded a fractional orbital bombardment system.

DWG: And launched it into orbit.

General Hyten: Fractional orbit. When they did that two interesting things happened in the arms control community. One was the Outer Space Treaty in 1967 that banned the deployment of weapons of mass destruction in space. It also said we can't plant a flag on a celestial body. Those were the only two limitations on military activity in space, by the way. Everybody things there's bans on weapons. Those are the only two that exist in international law. We can't deploy a weapon of mass destruction in space.

The second thing that happened was SALT 2 that actually banned fractional orbital bombardment systems. Because they're unbelievably destabilizing, because it's very difficult to see them coming. And oh by the way, the Soviet system was an RV on the end of it, not a hypersonic [live] vehicle. So the United States and the Soviet Union sat down and negotiated SALT 2 and said we need to get rid of those, and we never ratified SALT 2. But both parties abided by that element, and in 1983 the Soviet Union took their FOBs off alert and nobody's ever deployed them again because they're unbelievably destabilizing.

So I hope that the world community would get together and realize that those are horrible weapons. They appeared to be first strike weapons back in the '60s and if they're ever built again they'll appear to be first strike weapons again. And I hope nobody ever builds them. I'll leave it at that.

DWG: Can you confirm that's what the Chinese launched in the test?

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General Hyten: I asked this morning ten times and all the information I have is intel, so I can't share intel.

DWG: What Pentagon weapons programs or defensive programs should be beefed up because of this test?

General Hyten: I can't talk about the Chinese test, but I can talk about hypersonics. So let me talk about hypersonics in general.

What does hypersonics mean?

DWG: Five times the speed of sound.

General Hyten: I'll simplify it and say really, really fast. What goes faster than a really, really fast missile?

DWG: Faster missile.

General Hyten: You can build a faster missile but that's unbelievably expensive, so you're going to spend billions of dollars to build one missile that can shoot down a hypersonic missile?

What else goes faster than a faster missile?

A laser. Light does. And we've finally reached the point in technology in lasers that it has reached the maturity that it can actually be lethal on incoming missile threats. We have not invested a lot in directed energy technology over the last few years, and if we want to get after that we need to invest in that.

The second piece of the puzzle is that the most important thing about defending yourself against hypersonics is not the weapon. It is not building your own hypersonics. It's building a sensor that can see hypersonics. And right now we don't have sensors, we don't have real effective - we can see some hypersonics, usually in post-event data processing. But we need to have sensors that see hypersonics just like we see ballistic missiles.

And to be honest, if you look at our architecture, what is the ancient radar architecture actually called? It's called the Ballistic Missile Early Warning System. It was [inaudible] of

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early warning way back in the day, then it became the [inaudible] architecture. Now it's our missile warning architecture. The architecture is focused solely around ballistic missiles. That's what we do really well. Any ballistic missile that takes off on the planet, we'll see it, and I'll get a phone call. Every time. Actually I get an email now because it happens so often.

But the ballistic missile threat is becoming a minority threat in the world. Cruise missiles, hypersonics. They're the threat of the future. So we have to change our architecture where it's not ballistic missiles that's primary. And oh by the way if we look really hard we can see hypersonics and cruise missiles, but we have to see everything. Because if you can see everything you can actually deter it. Because you can have warning architecture that will allow you to always have an assured second strike, and that's deterrence in a nutshell. But you have to be able to see it, and you have to be able to see it with confidence, not based on where it is, what it's doing, et cetera. You have to see it anywhere with confidence. So we have to change the focus of our early warning architecture from ballistic missiles to all missiles. We should be able to do that.

Moderator: Jeff Seldin, VOA.

DWG: Thank you very much.

For years we've heard how military officials talked about China eventually being the most imminent existential threat to the United States militarily, but we've also heard them say that for now it's Russia.

In light of the recent hypersonic missile test, in light of other developments China has made, has that flipped yet? Is the U.S. thinking that China perhaps is overtaking Russia as the most imminent threat? Or if it hasn't happened yet is it going to happen sooner rather than later?

General Hyten: I like the way Secretary Austin talked about it, and he talked about it multiple times, when he talks about China as the pacing threat. Russia is still the most imminent threat simply because they have 1550 deployed nuclear weapons, plus or minus, deployed against us today and China's got roughly 20 percent of that. And Russia has deployed tactical nuclear weapons with their forces that provide significant risk to any activity in Europe because the risk of escalation with a

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``tactical nuclear weapon'' which is the dumbest term in the history of the world, is real and we have to worry about that. We have to worry about that in the near term.

So you have to worry about Russia in the near term, but calling China a pacing threat is a useful term because the pace at which China is moving is stunning. The pace they're moving and the trajectory that they're on will surpass Russia and the United States if we don't do something to change it. It will happen.

So I think we have to do something. And again, it's not just the United States but it's the United States and our allies. That's the thing that really changes the game. Because our allies, working with us, create power and challenge that China really has a tough time dealing with. If it's the United States only it's going to be problematic in five years. But if it's the United States and our allies I think we can be good for a while. But it goes back to the speed issue I talked about earlier. We have to be able to insert speed back into our processes and we have to do that with our allies because our allies don't move any faster than us.

DWG: What about Russia and their hypersonic program? They had a [inaudible] test several years ago, I haven't heard much about it. How concerning is their program?

General Hyten: The public face of the hypersonic program there is because they had to declare it under the New START Treaty - another good reason to have arms control treaties by the way. They deployed four hypersonic nuclear weapons on their long-range ICBMs. And because the long-range ICBMs are accountable under the New START Treaty they had to tell us. That means we have a verification regime that we can go over and look and understand.

They built those against our, to make sure we could counter our missile defense system, even though our missile defense system right now is not focused on Russia and China, it's focused on North Korea. Nonetheless, they want to have the capability. So they built it, deployed it, and they continue to experiment with hypersonics, but not nearly at the pace of China. Not anywhere close to the pace of China. But nonetheless, they already have an operational hypersonic capability with a nuclear weapon, though. That's fairly concerning, but only a handful. When you only have a handful it's a message. When you build it across your entire force, then that's concerning.

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Moderator: Frank Wolfe, Defense Daily.

DWG: I wanted to follow up, the U.S. and Canada have been sort of discussing upgrading the early warning radar. I was interested, obviously you mentioned hypersonic tests be included. I don't know whether that has been a discussion point among the nations to do that. There's been obviously in the Space Force on the processing side is this Atlas system they've been developing to sort of replace SPADOC which will presumably apply to processing power increase. But I just wondered on those questions.

And then just in terms of the space-based TMPI, what's going on in terms of the JROC's involvement. It's obviously a classified effort but I just wondered what your thoughts are on that and what the need for it is.

General Hyten: You said SPADOC. That's what I should have said. After 40 years, I didn't replace SPADOC. I worked on SPADOC the first time in what, 1986. 1986. That is not a current weapon system. And there's been better ways to do that mission for decades. And I was the Commander of Space Command, the Commander of STRATCOM, the Vice Chairman of the Joint Chiefs of Staff and I couldn't replace it. That shows you the power of the status quo. Holy cow.

But when I look at the discussions we're having with our allies, Canada included, radars are going to be part of the solution. Now radars against hypersonics is problematic because the early warning system now looks up, hypersonics come in lower. So there's all kinds of technology. Over the horizon radar technology. The Australians have build an over the horizon radar capability that's pretty good. It sees a lot of very interesting things because of the way it bounces and bounces back. That's useful technology.

What we have to do with our allies, because it's a global problem, is that we have to build an integrated sensor architecture that can see these capabilities. It's not one solution. It's not one magic satellite or one even magic constellation of satellites that can see all the threats and just defend the nation. And if you tried to do that all in space, it's one of those infinite budget problems that you can never catch up to. So you have to integrate ground-based systems, air-

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based systems, space-based systems, and develop an integrated architecture that can provide the warning that we need. And we have to do that apace. That's going to be the challenge.

So the discussion with the allies are part of that. We have big radars in the UK. We talked about Australia, Canada. If you remember, Tony talked about the DEW Line. The DEW Line was actually through Canada, into Alaska, obviously, but over into Europe. So we're going to have to look at where it's going to go.

But the other piece of the puzzle is the reason the DEW Line was built and [Femius] was built is to guard the United States against over the North Pole structures. We have to worry about the South Pole again too because threats are going to come from everywhere.

I hope we get to the point where we sit down with China, Russia, separately, together, I don't care, and we talk about everything. Because the most important thing is to understand what they're thinking. And the only way to really understand what they're thinking is sit down and talk to them. And if you don't want war, I would like the diplomats to sit down and say how do we prevent war?

So not talking to China. We're talking to Russia. Strategic stability talks are ongoing. That's good. That's productive. We're talking with our allies and partners. That's good and productive. But we're not talking to China, not in a big way, and we need to.

DWG: And just in terms of the space-based GMTI --

General Hyten: So space-based GMTI, --

DWG: JROC's involvement.

General Hyten: So the JROC's involvement, it's actually a fairly simple problem. The JSTARS airplane cannot go into defend the territory or even close to it. It's an airborne big fat juicy target so it can't get there. So if it can't get there, how are you going to do it? The answer is, you're going to go to space. So basically it's not a hard requirements problem because the requirement is to track ground-based moving targets. What we're trying to do is simplify those requirements by defining all the

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joint interfaces in the broad based strategic directives and then just have the service, the Space Force this time, define what I have to do in order to achieve those moving target requirements. It's actually a fairly straightforward process for requirements now.

Moderator: General, it's near the end of time. We have more questions on the list but I did want to give you a moment or two for a final word. I thought that when you were going to reflect on your regrets it was you didn't do Defense Writers Group sooner. [Laughter].

General Hyten: I've done this before.

Moderator: We're really honored that you joined us today for what might be one of your last media engagements. Of course we thank you for coming and wanted to give you the final word, sir.

General Hyten: I just want to say thanks, to be honest with you. One of the most important things about our country is a free press. And a press that can ask me all the hard questions and try to get me to reveal intelligence information and torque me off and walk down that entire path that just annoys the heck out of me, but it's one of the greatest strengths of our country and it helps keep our country safe. It does.

I swear an oath to support and defend the Constitution against all enemies, foreign and domestic. That is the most important thing in my professional life. But the freedom of the press allows the American people to understand what's really going on. And it's unique. Other free presses exist, but there's been nothing like the American press.

But I get a little concerned when - because I actually, it annoys me when you ask me to reveal intelligence information and I can't. I want to say things and I can't. But we all follow the rules and we understand what the rules are. I just don't want our press ever to be perceived as one-sided. I always want the press to be looked at - and I'm a little concerned that the military is being politicized now in the press. That concerns me a little bit as we go through. We work really hard to make sure - I have worked really hard for 40 years to make sure nobody knows what my politics are. And my kids don't even know. One of them grew up left, one of them grew up right, and they both think they're like me. [Laughter]. And they both love each other, and

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they both get together and their best times are when we're all together. That's the way the country should be.

So I just want to thank you for your chosen profession and what you do. I hope you keep doing it. I hope you maintain your sources. Keep telling the story. And torque my successor off as much as you torque me off. [Laughter].

Moderator: The Defense Writers Group was founded in the dark days after the Vietnam War when relations with the military and the media were really at a low point, and it's engagements like these that we hope your successors will continue. It's only through this engagement that we can educate the American people. Even if we always torque each other off.

General Hyten: The interesting thing is that your job really is to inform and educate the American people. Or your readership. It's actually international readership now in many ways. But it's to inform and educate. That's what you do. And the interesting thing that I find with some military people is that, one of our jobs is to educate the American people about threats that we have to face and what we have to do so we can build momentum to make sure we can deal with those threats and the only way we can do that is to educate. But I can stand out on the corner and talk all I want and nobody's going to hear me. Believe it or not, not that many people watch C-Span which is where I appear on television.

So if we don't talk to the press there's no way to get the message out. It just doesn't happen. So I'll have the love/hate discussion with my successor at some point. I may be retired when I have that discussion but we'll have it. And he knows he has to tell the story. That's the only way to get the story out is to tell the story.

The last thing I'll leave you with is that the other element that bugs me that I wished I'd have finished changing, you really got me thinking. Is that we are so over-classified in what we do. So over-classified.

DWG: We can help with that.

General Hyten: I will not reveal classified information because I signed papers and everything that I'm not going to reveal classified information. But it is so over-classified for what it

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is, that I'll just leave you the last line. It's one of my favorite lines. I've used it way too many times and I'll use it again. That is you actually can't deter your adversary if everything is in the black. You know? The joke that goes with it, that I used at STRATCOM. I haven't used it in public recently, is the line from Dr. Strangelove. I used to quote Dr. Strangelove at STRATCOM all the time. It's a lesson in deterrence. Peter Sellers sitting there going, Uri, wouldn't it have been nice if you'd have told us about the Doomsday Machine? It would have helped to actually know that the Doomsday Machine existed in Dr. Strangelove.

So how do you expect to deter everybody if you keep everything in the black? The last element of deterrence that we don't do is communicate it credibly to our adversaries. And communication is talking. Communication is demonstrating capability. It's not not talking and hiding capability.

So we're going to have to change the classification structure that we have. Not to declassify everything. That would be foolish. But it's so highly classified now that you can't talk about anything. And that's a mistake.

DWG: How does that happen?

General Hyten: It happens for multiple reasons. There's a bureaucratic reason and a practical reason. I'll give the practical reason first because it actually makes sense. China started stealing everything and then everything started getting stolen so the natural reaction and the right reaction is to just clamp everything down and don't say anything. Then to classify, classify, classify so nothing leaks out.

The bureaucratic reason is, you know, if you're in the open you actually can't move fast because everybody and his brother is checking your homework. But if you're in the black nobody's check your homework. You still have to follow the laws, but you get to the bosses right away. So the people that are trying to build things fast learned that if I can just classify my stuff at the highest level then I eliminate all the bureaucracy and I can go fast. And we actually do that. And it's true.

So there's a practical reason which is real, that we need to worry about. Then there's this bureaucratic reason that is bogus that we just need to eliminate.

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DWG: And yet you said yourself that the system is now so slow that you need to fix that. So it hasn't actually --

General Hyten: Yep. So the only things I know that have gone fast the last few years are classified programs that I can't talk about.

Moderator: Thanks for your time, sir. It was great.

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