### Mr. Riki Ellison:

Good afternoon from Alexandria, Virginia. Nice August summer day. Aloha, Hafa Adai. I'm Riki Ellison, I'm the founder and chairman of the Missile Defense Advocacy Alliance. We have been founded for 20 years, always fun with the Oppenheimer movie. I did get a chance to get lectured by Edward Teller and had some time with Edward Teller back in 1980 when they were forming the Strategic Defense Initiative with the High Frontier and the President, Ronald Reagan. So this is our 53rd virtual congressional series. This is on a great topic. It is on the missile defense of Guam and the urgency that has to be behind it. Guam Missile Defense is about deterrence. It is about preventing a world war. It's not fighting the world war, it is preventing a world war by changing the Chinese calculus and what they can and can't do in the Pacific. The last World War we were in, both Guam and Hawaii started that World War. Both Guam and Hawaii weren't prepared, weren't defended, and both commanders as you know, were Admiral Kimmel and Major General Short were removed from command.

That's why it hasn't changed the importance of the United States ability to project power, in the Indo-Pacific region has not changed, it's from those two locations. And Guam is the closest in the second island chain to the threats that we face. So without hesitation, without doubt, that has to be defended across the multilayered system. And let's also step back and see, because we were there in 2013 when Harry Harris, and I think some of you worked for Harry Harris, made the decision to put THAAD on that island. And it was controversial back then and China went after it. And we did that, the Army did it. They put it in quick and that prototype was so good that we put it in Korea in 2015 and we integrated into Korea today into a capability much more than what that is. And it should be obviously in Japan. But we've been there, we have been in Guam. We've held six Missile Defenders of the Year for Guam, we've been engaged with the Governor during this whole process. So now we're here.

We have invested, we have made the decision politically from the highest level all the way down to fund and put forward an architecture for Guam. And what is concerning for us is that it's not moving fast enough. What is concerning for us is that this may not be in full operation with all layers until 2032, 2034. So we have to get after it. I want to just go over a couple things here that concern us. Hypersonic glide defense. Where is that? It's not in that architecture, it's not in development. It's in a very small percentage of MDA's budget to develop. It is not projected to be operational until that timeframe. And with that is HBTSS, because you have to have space sensors up there in that layer. And MDA's got two going up to demonstrate but you need to have 30, you need to have 40, you need to have 60.

That's got to be in play to see the threat, that can be in play in the 2029 but that doesn't seem like that's going forward fast enough. And to build up this type of architecture without hypersonic defense until '32 puts you in a very tough situation on defending that island from China. I think the other concern is that this is not going to be a test bed. This can't be a test bed with incremental capabilities coming in here. It can't. We have to have capacity of capability. I was in Huntsville, I was in Huntsville with you, Brian, and probably the best presentation was Lieutenant General Rasch's presentation, and Frank Lozano. Everything looks great. It's on paper, it looks great, but that's got to be reality.

And it looks like IBCS is not there yet and we got to wait for IBCS. And I think the specific army systems like the LTAMDS, like the A4, like the IFPC all have to wait until IBCS is certified to go. It's not certified to go yet. And so that puts everything else in jeopardy to some extent to have a full system. So that's a

concern. There's a concern on the capacity of the systems and the effectors. You can't fight without that kind of capacity. We don't see that in the FIGHTUP. We don't see that coming out for the actual interceptors to link into that. And the other missing requirement, which has not been fulfilled, a requirement from INDOPACOM is overhead persistent 360 degree surveillance. The JLENS, a dirigible, a balloon. It's not in the architecture.

You're going to rely on towers with the radars on top of them to look over the sea on maneuvering sea missiles. So there are some serious hurdles here that we've got to get through, but there are some great silver bullets. And I had a chance to see a couple of them. That MRC truck, the mid-range is in play for the offense. It's in play firing both Tomhawk and SM6s. It can go, it can be delivered. We've got all the VLS we want. There's so much VLS we got. So that's there, that capability is there, MRC & Aegis, and it can work today with the one radar. And that radar is coming in I believe in December for that test. But that system has some ability to mass up. So that's where we're at. That's the discussion of trying to move our ability to deploy a full capability with capacity to deter China to change its calculus.

And that's our discussion today on that. So very honored to have Major General Brian Gibson with us. Brian was over in Guam and some of these big briefings with the public and heard they went very well. He also was with us and I just love him for it, he did it last year in doing our INDOPACOM Missile Defender of the Year with Admiral Aquilino. We did that two weeks ago together and that was an awesome event with awesome leaders and that's how you win with people. And so he has been in a lot of positions, but he's probably in the most coveted missile defense position in the world, the 94th. The leaders in the 94th have gone on to be four-star generals, three-star generals. It is the most important missile defense position out of all the AAMDC's in the world. And ladies and gentlemen, Major General Brian Gibson.

### MG Brian Gibson:

Thanks, Riki. Wow, with that introduction, I better make sure today at least I focus on today. But serious, it's good spending time with you. Thanks for the invite and for the other guests on the net. Thanks for letting a guy in uniform still be part of the conversation. As Riki said, I do get the privilege to serve in Honolulu as the commander of the 94th Army and Missile Defense Command. And just a quick refresher that I've got two chains of command. One is a command chain, I'm an army headquarters assigned to United States Army Pacific under General Flynn, all service Title 10 things that have to occur. And then a war-fighting responsibility in dual hat is the deputy area defense commander for General Wilsbach in Pacific Air Forces, which really is the day-to-day tactical control of our sensors, our shooters, and our C2.

So uniquely positioned hopefully to provide some thoughts as I've been doing this about 14 months in this position and has watched this from inside the theater as you described how we're here today. But just a couple top level thoughts before we move on. General Flynn likes to say, "America's day begins on Guam." And unless you're out here, I think that's hard to internalize, visualize, and to deal with. But it is our homeland and it's not like it's another country that we have a mutual defense treaty with and alliance. It is our homeland. So I think as you saw through the public scoping sessions over the past couple weeks, that they did go fairly well and they were open and they were honest. This has to be a team activity and it has to be a team activity at the pace of the populace and the pace of the government leadership as well on the island.

So as we collectively try to bring to bear a system, I think it's important to stay focused on this isn't an US versus we activity, from Washington DC all the way to the island. This is an activity in defense of our homeland. And I think Admiral Nimitz would probably roll over in his grave given his headquarters is there and his former quarters are there if we didn't approach it that way as we go forward with Guam. The other thing is that I think it's the confluence of potential adversary activity that really, given Guam's location, is so important. Last year, just from a missile perspective, China, Russia and DPRK did the most launches they've ever done in history, right? That's an easy talking point, excuse me, but this year and on similar paces, I'm not as concerned about the numbers. They are what they are.

It's the capabilities that they're demonstrating and whether it's longer ranges, faster speeds, more maneuverability, solid rocket motors versus liquid rocket motors. And demonstrating in all domains, just not in the missile domain, but in the maritime domain you saw a couple of weeks ago, we had a combined surface action group from Russia and China flow up through the Bering Sea, and then down further south, back into the mid-Pacific. We've had continual activity in the South China Sea and the maritime domain from the PRC and the Second Thomas Shoal with the Philippines and trying to continue to impose their will throughout the AOR on things that they believe they lay claim to. I think you also see though that the activities and the growth of the PRC alone, my words, remain shocking.

And I don't think it shocks everybody else. Inside the military it's shocking because I don't know why you create a military means at that magnitude and that level of capability unless you intend to use it. Deterrence matters and that's why we're talking about today and what we're doing. But in my mind, the capabilities, just not defensively, that they continue to get after, but offensively they can range much further than just Taiwan. And you look at shots from DPRK towards midway last year, you'll look at the capabilities that China continues to get at to try and range Hawaii, well past Guam. I think this is a right discussion about what do we do about Guam. So I don't see inside the theater over this last 14 months anything other than to endorse the necessity, the urgency, and the speed to get after placing land-based air and missile defense capability on that island.

But I'd also be remiss if I didn't also talk about real quickly, the character of war changes as new capabilities and leaders come into play. Pacific's still massive, right? Geography doesn't change generally, leaders and capabilities do. And today land and the capabilities that the US is developing, land forces have real opportunity to demonstrate some sea control potentially, where in the past we haven't. So this idea of projecting power, defending land spaces, those kinds of things, it is important and we shouldn't just automatically say things are only defensive only. Because our capabilities today provide a range of options and flexibilities in our future, in the past where that wasn't provided. So it's a real privilege to serve in the environment. I walk the ground to Guam about once every two or three months and the environment remains harsh. The typhoon that recently hit a couple months ago, that will take years to recover, not only publicly but inside of military lines. So when we develop these things, the operating environment in and of itself will get a vote also. So with that, I'll stop there, and I look forward to the rest of the discussion. Thanks, Riki.

#### Mr. Riki Ellison:

Hey, Brian. Thanks. I just got a question for you just to roll out on it. Can you just sort of walk through, because the Army has been given the task to put this architecture together and the Army has to have

tasking authority over all the services and the resources to do it, but is the Army also doing the operations of this or are you still figuring that out? And all that stuff there seems to be slowing everything down or checking it. Can you comment on that if we're moving fast enough and with the environmental studies, if we're going to get there on time?

#### MG Brian Gibson:

Yeah, so for context first, and that'll answer directly your question. We, in the United States Army, are done putting things temporarily into the Pacific, that term permanent, and there's not the rest of the DOTMLPF tell to support its operation. And I think if you were to ask General Flynn, he would state it even more bluntly. But we do things rightfully for right direction at the time, even when we put THAAD on the island or THAAD in Korea, or you patriot down in Okinawa, you pick, there's a range of things. Many of these things were put in for the right reason at the time under temporary conditions without any type of permanency thought about. And even to this day, we still struggle with because of the processes, the bureaucracy, and the direction to become more permanent when we know we're not taking these things off in the locations where we put them even decades ago. As an example, it took us over nine years to get running water for the THAAD battery on Guam.

And I won't go any further. But that underpins, I think, this idea from the Army that we're very serious to make sure this is a full DOTMLPF thought about other than the things that these capabilities then really provide, which is important. So now, more broadly or more specifically to answer your question, yes, the DEP SEC DEF gave direction recently. That direction was standup USDANS is the senior defense official, and then also designate the Army as a senior acquisition executive for the defense of Guam system. But it's an ACAT 1D program to stay underneath the oversight of OSD. A lot of minutia there, but I think what that highlights to you is DOD.

We're still going to keep our finger in understanding necessity and making decisions. Also, as a function of that guidance, it was Army come back to me, the DEP SEC DEF in the near term with your analysis of what it will take to include throughout the full DOTMLPF to field this weapon system. So yes, the Army's going to have a responsibility, I think, with the rest of the joint force and joint stakeholders to provide context on other than just the ones and zeros of a weapon system capability.

### Mr. Riki Ellison:

Thanks, Brian. Is that going to take more time to deliver a fully operational capability, that kind of politics along with who's going to be in charge of the operations of it?

### MG Brian Gibson:

Yeah, there's a lot of decisions still to be made. Riki, I think General Thomas may say something about it, but we've only been at this really for about a year and I know a year is a long time and urgency always matter given the threat, as I laid out. Who knows if it'll take more time or not. Today we know there's a director from DEP SEC DEF come back and tell us, that's what the team is working on. And I think decision-makers will take that as they always do to try best to understand as future decisions will be

made, could it slow things down? There's a lot of coulds that happen in our military, right? Either intended or unintended for the right and wrong reasons, and this is no different.

## Mr. Riki Ellison:

Okay, thank you, Brian. Ladies and gentlemen, we have three of our MDAA board of directors with us and each of them are going to have an opportunity to say a few words. John Rood, former OSD policy, DOD. He is a prominent leader, highest positions at State Department, the CIA, the White House, the National Security Council. And he is also been on two major defensive industry groups, Raytheon and Lockheed. He comes with a wealth of information and wisdom. He was engaged with INDOPACOM most of his time when he was serving under the previous president. Ladies and gentlemen, John Rood.

## Mr. John Rood:

Well, thank you, Riki, for that great introduction. There's no way I could live up to that one, but thank you for saying that. It's a pleasure to be with the other members of the panel. You've got a great group together, and it's at a right time to talk about this because I think as General Gibson was talking, the threat from China and the scale of it, the rapidity, the complex nature of the evolution of that threat is something we just can't lose sight of. And I think the biggest concern I have about where we stand is we're recognizing as an enterprise, a defense institution in the defense department, the military services, and the collective body that supports them in industry, the importance of it, but it's nowhere near the pace that it needs to be at, paced by the relevancy of the threat. And we've got to move at the speed of relevance.

And if we were engaged in combat, which could be very shortly down the road based on the trends you're seeing in the Pacific, we are not moving fast enough, and we will not look back in history at our own performance and grade ourselves well if we don't step it up here. Because the reality is we're still a little behind. For example, you start at the top in my old role, what is our policy? And that's paced by the threat. You start with an assessment of the threat, and you start with a clear strategy and character the force to deal with that threat. But in missile defense, as an example, it's still being interpreted that North Korea is the pacing threat that animates most of our activities, not China, not Russia. And we're not as an organization being overt and explicit that the requirement to defend against large-scale missile attack from China on our forces in the region and in the United States is an explicit requirement and it's something we've got to make a priority.

I know that sounds very fundamental, but that's not in place yet. And then the pace at which we're moving with projections, for example, Admiral Hill, the director of the Missile Defense Agency, testifying, he was hoping to have some initial capability in place in the early 2030s, according to public testimony. Well, that's just simply not going to meet the need date. And I think history won't look well at us as a collective if we don't really improve that pace. There are some things that are in place. And on the good news front, as General Thomas was reminding us before we came on the air here, there has been a lot of progress. And if you go down, what does it take for our enterprise and the Defense Department to respond to a threat. You got to understand that threat. You have to have a strategy and policy in place that drives your operational military plans.

Those are also in place, that drives your requirements. There are clear requirements that have been established here for the defense of Guam. There's a program of record, but we've gotten to the stage that while initial budgets have been requested from the Hill, we're behind in the execution already and roles and responsibilities haven't been set out. And so if I was going to offer advice to the people in charge of the Pentagon today, it'd be one, the pace at which we're moving is not fast enough, and it's easy. And I was in roles like that to be defensive and say, I'm working fast, I'm doing things fast. But the real pacing item is how are you competing against the threat? And is that reasonable or unreasonable? That's not the right metric. The right metric is are you moving at the speed of relevance to deal with the security conditions?

And I don't think anybody would agree we are. And then, with that, the roles and responsibilities have recently been established for some components of the system, as you were just talking to General Gibson, but not sufficiently. And what's going to make this really complex is usually the programs and efforts in our military that struggle is when it involves more than one player and it crosses lines of responsibility. And that's where leadership is required. Here you've got a Navy system, Aegis Ashore, that's typically operated at sea, and then on land is staffed by sailors. You've got the Missile Defense Agency is the overarching architect for some of it, but there's a seam there in that the Army's been given the lead role for cruise missile defense. And what's required in Guam is the full spectrum of capabilities all the way at the high end, from hypersonic threats and ballistic missile threats down to cruise missile threats and counter UAS, because all will be employed in a conflict by China or others.

And if we recognize, and for those that haven't spent a lot of time in the Pacific, as General Gibson said, it's vast and there are a limited number of operating locations, and Guam is just central to us. It's not hardly surprising to me that 50, 60, 70 years later, after you were talking about Admiral Nimitz being headquartered there, that we still regard it as vital because when you look around at the other real estate that there is for options, it really drives you to a limited number of locations. So we're going to have to fight and defend from Guam, and we're going to have to recognize the strategic importance of it. So there are these seams. I think coming back and delivering capabilities in say the early 2030s again will not be good enough. And that's the objective in the year 2023, for those of us that have been involved in a lot of defense programs, when you are hoping to deliver capability in 10 to 12 years, the realistic outcome is something more like 15.

You're simply not going to get there unless we move faster. And doing accelerated acquisition requires changes in the system. Whenever we've had to surge, whether it's the creation of the missile defense agency initially to meet a threat that was looming from North Korea or it's the counter-IED fight, or the shipment of MRAPs to the field for the fight during the wars in Iraq and elsewhere, it required expedited and streamlined authorities and clear lines of responsibility back from the very top with the Secretary of Defense and deputy fully behind it. So we've got to get to that level. And these seams between the different capabilities and between the different services and organizations have to be worked on an ongoing basis. And it's almost the sort of thing you've got to have a council of leaders established to sit on top of with a single point at the top of that pyramid, typically the deputy secretary, to drive it on a daily basis.

I do think we're also not opening the full trade space of the defense space, and we've got to begin to include space-based capabilities much more fully in this equation. The ultimate high ground of space has

got to be employed to much greater effect for the missile defense mission, in my view. And those things are nascent. Dealing with hypersonic threats and other things, you're not going to do that simply from the ground or from sea-based assets. And so I don't think there's enough of a recognition of that that I'm seeing as well. But on the good news front, real budgets are available. Certain decisions have been made.

And so, as Ty Thomas was reminding us, progress has been made, but I think we've got to really recognize and with speed and urgency, adopt the lessons that we're seeing come out so forcefully in the conflict in Ukraine and elsewhere where missiles are the primary instrument of warfare. And UAS being implied very heavily on the battlefield. Defense is important. I do think that offensive capabilities need to be a part also, General Gibson highlighted that, whether it's sea lanes of control with land forces playing an increased role or the ability to do counterstrike. And I hope that we will also break down more of those barriers between offense and defense in our defense doctrine, and more importantly, in application between the services. So with that, that's probably enough for me to set the table, I'm happy to take questions.

### Mr. Riki Ellison:

Yeah, no, John, you're on. The time is perfect for roles and responsibilities. This is perfect. And it needs to be so we can mass up. We can mass, each of the services can mass up. MDA's budget can't do it all. One question for you, are we limited in policy in space to dominate that? And the second question, because we are doing hypersonic defense against most likely hypersonic nuclear weapons from China on US territory, is that now a shift to our bigger strategy on the US homeland to have that same capability?

#### Mr. John Rood:

I think we're still self-limiting ourselves in space and in the integration between offense and defense. And I think there's good movement. For instance, the standup of the Space Force and the issuance by General Saltzman of the first doctrine that the Space Force have is a big step forward over that which existed previously. And that's one of the good things you get from a service very focused on how do I fight and win in a certain domain. And so I want to commend them for taking those steps. But I still think we're short of that because I think we have to begin really walking the walk that the space domain is like the air domain, like the land domain, like the sea domain. It's another area for competition. And our potential adversaries are competing very vigorously. Whether we want to fully acknowledge that publicly or not, and the difficulty that we face versus a closed society like China or others is unless we as Americans operate very openly in our system and describe our objectives and describe our progress, and in our system what works best is to be self-critical too.

Where we find shortfalls, and we're not doing that. I don't think that we're clearly recognizing the offensive nature that has to be a character of warfare that will also apply to space and integrating those efforts, not as a supporting arm, but another arm of the service where at times you're going to be supported and other times supporting. We do that in the air, and sea, and land domains very seamlessly, but we are reluctant to do that in space, still mostly describing it as a support function as opposed to another area like the air domain, the land domain, the sea domain, where we will operate similarly. So I

think we're still limiting ourselves there. We're reluctant to say we do any kind of weapons in space, or even the terminology is concerning, and I think we need to be less concerned about that.

## Mr. Riki Ellison:

Thank you. Our next guest is Lieutenant General Retired Ty Thomas. He is the DCOM, the deputy commander for the United States Air Force Pacific. He's brilliant. Ladies and gentlemen, Ty Thomas.

# Lt Gen (Ret.) Jon "Ty" Thomas:

All right. Thanks, Riki. You're far too complimentary in your introductions, at least for me, but glad to be part of the panel. Good to see you out there in your fine office there, Brian, and right next to the PACAF headquarters.

You guys have hit on one of the, I think, reasonable points for us to point out. Because MDAA is an advocate, we're always advocating for doing this faster, sooner, better. But there has been a lot of progress made in the last year. And so I think, a little bit of kudos. First of all, Admiral Aquilino and his team at INDOPACOM, General Gibson and team, General Flynn, General Wilsbach, they've all been pushing really, really hard Pac fleets. So let's give them credit. There's been people on the Hill that have taken this seriously and put their weight behind it.

Mark knows those people very, very well. And then MDAA gets a little bit of credit and others who've been pushing from the outside. So all that said, we have so, so far to go and this discussion is clearing out the air on a lot of those things. So the first point is to touch on something that you and John both hit on, which is, okay, no... I mean the title of this conversation, No Time to Lose, No Time to Waste, No Time to Dither. We've already had our dithering time, okay? That's been the past decade. No more dithering. My point on that, and I think, I'll use a phrase which is default to fielding. What do I mean by that? So there's all kinds of systems that are going to be required, as John laid out, from the very high end against glide phase maneuvering, but all the way down to the very low end on counter-sUAS. And the lessons learned from what you can do with a 40 millimeter grenade and a DJI quadcopter in Ukraine. That should have our attention.

But my point there is that many of those systems do exist, right? THAAD's already there. Patriot's a capable system. We're going to have instances of IFPC, the Army's taken far too long. And we are going to get instantiations even if the test plays out well in December of 2024. My whole point there is that if we're not quite exactly sure how every single thing fits together, that should not hold us back from fielding capability. We should get it on the island, start to make the use of it and improve it over time. If we haven't noticed in the news, the charts that were provided as part of the environmental impact study, guess where they've been showing up? News articles in Asia. News articles in the PRC. I would submit that just the release of the fact that we have a plan and we're discussing it and has funding, has somewhat of a deterrent effect already. I don't want to overplay that, but it should be noticeable to us that there's a reaction to that.

Second thing is, let's not lose sight of the fact that every time we make some progress on defending Guam and the second island chain, I'll come back to that in a sec, we actually do free up some offensive capability in the sense that everything we can do that can untether an Aegis BMD destroyer cruiser puts

us in a position to put some offensive capability further forward. That is exactly what the Pac Fleet commander wants and what the INDOPACOM commander wants because it gives them options. And so let's not lose sight of that as we incrementally even field some capability, that we're going to gain some offensive capability that we otherwise had to hold back.

John made the point about the varying levels of the threat, and I would say the solution is layered. We all know that. I mean, the IAMD community understands that well. The point I want to make though is, and I know our focus is here on Guam, but I think we've got to understand that the second island chain is a system and particularly the Marianas is a system. And we've had some successes in doing launch on remote and be able to disaggregate sensors and effectors and all the various things. And that environment in the Marianas is rich for being able to do that. And if we're able to spread the pattern beyond Guam to the type of things that our opponent is going to go after, that's winning for us. That's winning because they have to expend more capability to try to degrade the advantage that we're creating by defending Guam and the Marianas.

So I think that's important and maybe we can talk about a little bit more in question and answer. Last thing that I'll really touch on is the pointing out, maybe it's the obvious, but is that an entire system, not just layered, but it's composed of four parts. And so you obviously have sensors and those sensors can sense from multiple domains in multiple ways. And the discussion about space is fascinating. Not just about our sensors, but, oh, by the way, we should care about their sensors and their ability to see what we're doing on Guam and can we do anything about their sensing. So we have sensors, we have effectors, our own. Okay? And then we have C2 systems themselves. This discussion about, okay, is IBCS, C2BMC, Aegis, all those things. That has to happen. And then you have to actually employ command and control.

And that last part often gets set aside in our fascination, associate plans, programs, budgets, but it's equally as important. And the point that I'll make and I'll close with on C2, is that this problem has been thought through, and I don't mean just specifically to Guam, I'm talking about integrated air missile defense. And it's been tried and tested in multiple different combat environments. That doctrine should be our guide. That doctrine that drives organization and authorities. And if we need to deviate from it, we should, but we should clearly understand exactly why we're going to deviate from it. Sometimes I think that gets lost in the discussion and it bears the same level of careful scrutiny as it does with building out the architecture itself. So hopefully that helps and I really look forward to questions over.

#### Mr. Riki Ellison:

Thanks, Ty. Ty, I'd like you to give us a perspective of why the Air Force has got an ACE agile combat strategy for the second island chain or first island chain, and why haven't they been more involved with the buildup of this Guam architecture? It seems like it's just the Army and the Navy on top of this and the Air Force is watching it, when they have that legitimate ability or requirement of the Army to defend their new airstrips wherever they put it. And the second thing, just touch a little bit on, if we don't have a dirigible up there, how many sorties you got to do for 24/7 to be able to do... And is that wasteful or do we need to have the dirigible or an overhead persistent over a bunch of aircraft to do that?

Lt Gen (Ret.) Jon "Ty" Thomas:

Wow. All right, well, two whopper questions. I mean, the first one's got a lot to unpack there, but I would say that on Agile Combat Employment and other components have... The Marines have expeditionary air base operations and the Navy's got distributed maritime operations. But the principle behind those is that no matter how good we are or become, it's a future state, we're never going to have enough active defenses to be able to counter the saturation threat that we're talking about coming from the PRC. So you have to develop passive means. That's one of our four pillars in IAMD. So in this case, Agile Combat Employment is an Air Force solution for passive means. And it is dispersal not just to survive but dispersal to continue to operate and operate effectively. And so I wouldn't first say that the first order reason why the Air Force is doing agile common employment because somebody isn't doing their job.

I think it's because the environment and the threat demands it. Now having said that, I mean kind of weaved in there was a question, well, who provides all the capabilities and why isn't the Air Force more involved in it? I would say the Air Force has been very involved in it. And the Air Force is responsible for and provides the capability for a key portion of air and missile defense, especially against cruise missiles. And that's airborne assets with sensing. And also you might have to find yourself chasing down a cruise missile with an F-15 or an F-22.

Hopefully it never comes to that. But, oh, by the way, part of that defense is also maintaining the forward DCA lane. So an H-6 bomber never gets in a position to launch a volley of cruise missiles. If they never launch the volley of cruise missiles, guess what? Everything is still in the magazine back in the second island chain. Nonetheless, the vast majority of this capability we're talking about comes from the Army and the Navy. And so they've got to have a lead role in this. There's unquestionably about that. And then the second question there, Riki, just a quick reminder, because I was unpacking so deep.

## Mr. Riki Ellison:

Just overhead persistent, the demand on the Air Force aircraft to do that.

## Lt Gen (Ret.) Jon "Ty" Thomas:

To me that's a no-brainer. I mean, we have got to find a way to provide that look down inside the air domain that's going to give us advantage on targeting the inbounds. And if we're going to try to do it by consuming the E-3... I'll just say that I can question whether that's even useful at all. But the E-7 could. Except that, where do we need the E-7? Forward, characterizing the air domain so that we can control the air domain in the places that we need to so that we can put the initiative against the opponent and keep them from gaining initiative. Going back to that H-6 example. So whether they're fixed, whether they're mobile, Riki, like a [inaudible] or something, really don't care. Need to have it. Over.

### Mr. Riki Ellison:

Okay. Thanks, Ty. All right, ladies and gentlemen. I love this guy. Graduated from Penn, Oxford and got a nuclear school out of the US Navy. He is the former three, the former head of ops for PACOM. He's also the senator, our senate's top guy on cyber. Great guy. Mark, it's all yours. Mark Montgomery.

### RADM (Ret.) Mark Montgomery:

Hey, thanks Riki and Brian, good to see you. And John and John, good to follow. I'll make it quick... I think the bad news here is that I think DoD has kind of cluster-bleeped this up, this challenge for the past seven years. And really all the way back to when it was pushed by PACOM in the 2016 PDI. The good news is I still think we're in a good position to have a useful initial operating capability at the end of 2024 and something we can build off of starting in 2025.

And I think that has to do with the Army and Navy having systems that we've generated for other purposes, that we can repurpose here to make work. It's just going to take a lot of integration. And so having one group in charge is good. I will say I'm glad that we have General Flynn, the A person designated in charge of this. I think the Navy should have been the person, but they aggressively tried not to be. And you should not pick someone who aggressively tries not to do something, because they'll just screw it up all the way home.

I think that we're going to end up with a system that takes... Basically our initial operating capability is going to be a spy radar with a agency to a VLS and then bring in from the Army MRC launcher... And Navy weapons, SM-6, SM-3. And then bring in from the Army, the MRCs and then THAAD. And we may be able to populate it with a little bit of extremely expensive and painful Patriot. But we may not. And look, that is not the perfect system, but it's something we can immediately begin to demonstrate and show the Chinese that we're serious about the defense of Guam and that we can generate elements of this in other areas where necessary. I think the real challenges for us is getting to a cost-effective cruise missile system. To beat a dead horse, IFPC is always two years away from being two years away.

I was actually listening to the Ohio Armed Services Committee staffers tell me, "The Army has told us they're on track." They made their decision not to push for a NASAMS. And then as soon as that was buttoned up, the Army announced to run a two year delay. Which is pretty common. I don't want to be brutal here, but IFPC is very, very late to need. And I suspect at some point we're just going to transition from a kinetic IFPC to a directed energy IFPC. And we're not two years away from that. We're even farther from Christmas, no offense. And I just think Navy systems and the Patriot are too expensive right now on their exchange rates of outgoing defensive missiles for incoming offensive missiles. It would be great if we could settle on some NASAMS. We apparently think that's good enough for Kiev and Lviv and Odessa.

It'd be nice if we could push them out there. It's good enough to defend the White House, Capitol Hill and the Pentagon. I think it's good enough for Andersen. The Andersen Air Force base in Guam. I would really push for that. I would add that into what I think the Army is going to design as that initial IOC I talked about, which I do think is good news, we can still get there. The other thing I'd add is what Riki and Ty was just referring to as dirigibles. We don't have to call it JLENS if there's some kind of sclerotic reaction to that word in the services. But I do think we need a persistent medium to high... In fact, JLENS isn't perfect. I would want something up at 50,000 to 70,000 feet, honestly. I'd also want something not tied to a cable eventually because I'd like to get the hell out of dodge if I'm in Guam.

But I'd like something that's really looking down and just as Ty implied, removing hundreds if not a thousand sorties by E-7, E-3, E-2D and other aircraft doing suboptimal look. And look, one thing I know about Army and Navy missiles, they're significantly more effective when they get firing track quality data

from a high altitude source. We've seen that with the new E-2D. We see it when we work with the Wedgetail from the Australians. And we'll see it with the US Air Force's Wedgetail when they get out there. And we saw it with JLENS when we had it. And we'll see it again, this derigible. And the beauty of this is we have the Israelis like OP testing some new systems for us out in the Negev Desert right now. So I think we're in a really good position on that.

So if we could add that low cost cruise missile defense, add the dirigibles, I think we've got the VLS, MRC. That's the vertical launch system and the truck based launchers that the Army provides. And a good mix of that. I think we could be in a very healthy place with one exception. This will be my final thing. So there's bad news and good news. There is one piece of very bad news and that's hypersonic defense. And this goes beyond the defense of Guam issue. This is a problem inside our government where we are very good at continuing to work on good news stories.

In other words, we're catching up on the offensive side. We've got the Army, Navy, and Air Force. I'm surprised the Marine Corps hasn't suddenly developed a hypersonic weapon. But we've got the Army, Navy, and Air Force kicking butt developing a hypersonic weapon to catch up with the Chinese and pass, I'm sure, the Chinese and Russians on offense. The problem is we're a democracy. That's not a problem. But the fact is, we're a democracy. And we're fighting an autocracy who has the first mover advantage. So our defense needs to be good as the Chinese offense. We don't want them to have a capability for which we don't have a deterrent response, a deterrent capability. And by that I mean a defensive capability and hypersonics. And I'm really worried that it sounds like we're spending about 12 to 14% on hypersonic defense. This is in the non-black programs as we are in the hypersonic offense. That's a real mismatch. And I get the feeling that we just don't have a best of breed to bet on.

And in the absence of that, we're not. And we're going to wait until I think I've heard a few times, it's been mentioned here, 2035. I think the Chinese are going to hit hypersonic offensive capability before 2035. I've seen the Chinese move to the left in procurement. I've seen the United States kind of universally move to the right in procurement in terms of timeline. So I'm really worried about that delta.

So we really got to get at that. If there's one thing I would say get at, and this is not for the defense of Guam team, this is for the Missile Defense Agency team.

Mr. Riki Ellison:

For the whole thing, yeah?

RADM (Ret.) Mark Montgomery:

Yeah, for the whole thing. And it applies to the defense of the homeland as well. So Riki, those are my kind of big thoughts. Again, very achievable. I'm excited to see Charlie Flynn's team tackle this. But what they're going to achieve is based on systems that exist already.

Mr. Riki Ellison:

Yeah. What, from your perspective, Mark, how do you put major pressure to get this out the door when you're going to see a couple of these things slowing down? Is it through Congress? Is it through the

DEFSEC? How do we get urgency? Is it the culture that's there? We've got to get this urgency back. We've been doing very limited stuff and oversight with North Korea.

## RADM (Ret.) Mark Montgomery:

So, look, I was very unhappy with how CAPE handled this. I'm not like the House Republicans who want to defund CAPE unhappy, but I'm unhappy. I think assigning it under the Secretary of Defense for the acquisition and to the Army to coordinate and move out, to be the service lead on that is probably at this point, they're the only services who didn't step one step back when they asked for volunteers.

So I think the Army, having the Army do this is the right... It is the only sense. Look, Congress has a sense of urgency about this, they just don't know the right answer. And they shouldn't. Just like CAPE didn't know the right answer. And they shouldn't. I think if the Army works closely with the Missile Defense Agency and US Pacific Command, they'll get to the right answer. But there does need to be a sense of urgency about it. And that's what I heard from General Gibson.

### Mr. Riki Ellison:

Mark, do you want to open up the questions and pass them around to the team?

### RADM (Ret.) Mark Montgomery:

Yeah, I'll go with the first one. I'll go right to Brian first since we have a guest on here. What do you see as the best mix of sensors and weapons to defend Guam? And do you think directed energy could play a role within the next five years?

## MG Brian Gibson:

Yeah, so the principle doctrinally of layering and tailoring defenses between sensors and shooters to include the persistent overhead sensing you all have talked about, I think that today's design based on capabilities available and threats that we see is appropriate for Guam minus the overhead persistent side because building something new that we haven't already built and approved is just going to be further and further to the right, quite frankly, with decisions that are unmade. So I think we're in a pretty good spot from a capabilities perspective, minus the timing.

Directed energy, I think as Riki said, he saw the Army truck for an eventual huge laser for 300KW. Those are certainly activities that our rapid capabilities office with General Rasch is working very hard on with other partners to include joint partners, Navy and Air Force.

Do I think it has a part to play in the next five years? I think regardless of when lasers come on the battlefield, from tactical to operational, as long as they are from the very get-go embedded into the command and control systems of record that we are going to employ on Guam, then yes, we could employ directed energy lasers on Guam. Not part of today's plan, could be tomorrow's plan. But if we keep the same C2 system, our AEGIS Weapon System, IBCS, whatever it is, we keep those and eliminate that as a future variable, then I think we don't artificially restrict our ability to employ them in the future.

Does that make sense, Mark?

#### Mr. Riki Ellison:

Hey Brian, what about the doctrine? Have we even invested in all the rules to fire a laser around? That's got to be some time and effort. And who's shooting it and who's training to shoot it? It still seems a long ways away.

### MG Brian Gibson:

Yeah, it certainly is an activity with time in front of us, but it's more than just paper deep now. From an Army perspective, and it's procural just because I know it, but from an Army perspective, we're fielding our fourth prototype, 50KW laser at Ford Sill as we speak into the hands of operators to operate with a maneuver formation from the Army to learn. Now, that's the tactical side of it.

It is a little bit different than a non maneuvering island in the Pacific, but the principles remain the same. There's an approval process at the OSD level that has to get approved to allow us to employ lasers on the battlefield. And then there's a whole bunch of procedures based on the operating environment to get it down to the operating level effectively.

I know this: Lasers are still just another arrow in the quiver. And we have a tactical C2 system, mainly by the air component, went over land and big spaces of air into the maritime domain, predominantly in defense of the fleet that can handle the introduction of lasers, to clear airspace, to get decisions made and then to make sure they're effective. But that's not a today thing.

## RADM (Ret.) Mark Montgomery:

Next question is for John, but one quick thing I'd add on it and agree with everything Brian said, I'd add on that the good news, Riki, is THAAD and AEGIS know exactly how to work together. And if you throw Patriot in, AEGIS and Patriot II, and in fact, on occasion they can make each other operate better. And you don't want to sell that down. And like I said, all of them could easily take a JLENS hook or something else.

For John, what's the role of the Missile Defense Agency? Is there anything we could do to make them more effective in this process?

## Mr. John Rood:

Well, Missile Defense Agency's been identified as the overall systems architect for ballistic missile defense and hypersonic missile defense. But where there's a seam I see that's pretty big in the roles and responsibilities is that the Army's been designated the lead service for cruise missile defense and counter UAS.

Now, you may think, well, okay, you shoot one missile at one target and a different missile at the other. But the command and control relationship and when a battle's unfolding, the enemy's not going to patiently sequence their fires. They're going to integrate them.

And so I worry a lot about the command and control software and the capability for commanders to manage the fight between the battle management command and control system that MDA manages

and the Army's IFPC. So what I would recommend is that the leadership appoint the MDA to be the overall systems architect to include the integration of the Army system into the BMC cubed.

I think the Army's going to have its hands full with the amount of work that it's going to have to do already with the development of the lower tier defenses. And so that's one of the things I think that could be added. And like you, I'm very concerned. I've been watching this IBCS movie for a few years and the ending doesn't appear to be getting closer. And these very large software jobs that we've had a history with in the Defense Department, they often don't close.

So I do think at some point we're going to have to architect some other solutions. But for now, I think it'd be enough for MDA to be appointed the overall command and control systems architect to make the two systems work together better.

#### Mr. Riki Ellison:

But John, if they are, who's doing the production of the weapon system? That's where they don't have the budget to do that. And we don't have the roles and responsibility to tell the services to go do that. That's where it seems to be very dysfunctional on trade space for the service chiefs to give up the money to do this without roles and responsibilities defined.

#### Mr. John Rood:

Yes, and see, I think the clear roles and responsibilities, whenever you're doing a very large, complex system, I'm a big believer, history shows you got to have a systems integrator, systems architect. And the decision's been made, and I think it's the right one that the Missile Defense Agency has that role, both the decision made by the department as well as the Congress. But we don't walk that walk.

And so when you're saying, well, they don't have the budget, well that can easily be moved from the service or elsewhere into the account. The services fight that, but you have to have somebody in charge as the lead systems integrator. And when you don't, you pay more. You may think you're saving money, you don't. That's a hard lesson one that we learned that we should not fail to heed.

But here also the production for the early development, the roles and responsibilities of the department has established is that's the Missile Defense Agency's role. But for production of units, the services need to budget and account for that. And unfortunately, this has been kind of a 15, 20 year struggle. And ultimately, you got to have OSD enforce that kind of discipline that that's what's going to have to be done. Because I can see it from the point of view of the services and at various times they have more programs, more needs than fit their budget.

And so to the extent they can cut back on some things or frankly have a little different prioritization, they will. And you've got a lot of sympathy for them because again, they've got way more needs than they've got budget to account for. But that's where there's got to be a prioritization, and typically above the service level to harmonize those things and to make them work together well.

# RADM (Ret.) Mark Montgomery:

Riki, we don't have much time left. I want to give-

Mr. Riki Ellison:

Give Ty a question, if you want. You got another question?

RADM (Ret.) Mark Montgomery:

Yeah, I got one for Ty. I was going to give Brian the final word after I asked Ty a question, all right? So Ty, for you, this is a good Air Force one. It says, "Hey, do the data links we have now have the throughput range and latency required for missile defense platforms given the countermeasures we're starting to see from the adversary?" That's the only PhD question we had in here. So we had that for the Air Force guy.

Lt Gen (Ret.) Jon "Ty" Thomas:

Yeah, I don't know. I don't think I can provide a definitive answer on that. I would say this, that we found ways to make Link 16 work better and more than we thought that we could get it to work. So there's that. But Link 16 just has some very fundamental structural limitations that I think we've got to be able to scale beyond.

The other I think important point is that the various wave forms are important and they each have their own unique qualities particular to what they're trying to do. You still have to bring them together. There is no waveform that rules them all. So I think part of the answer to the question is that we're still going to find ourselves in someplace where we're going to have to be doing, gateways like a bad word, but a way to translate from one waveform to another, to do it cleanly, to do it quickly, to do it effectively. And that's got to be part of this system in terms of the, as I use the C2 system element of the overall defensive system, system and systems. That's the best way I think I can touch on it now.

### RADM (Ret.) Mark Montgomery:

That was a good answer. Of course, it makes me think if only the Air Force had embraced cooperative engagement capability in the 1990s. But I digress. And also I think it's interesting watching SDA, the Space Defense Agency and Missile Defense Agency almost compete in they're launching of like that transport layer. You see them announcing almost the same things that could really enhance this capability going forward.

Lt Gen (Ret.) Jon "Ty" Thomas:

True. But even on that though, it's domain dependent. The environment for being able to use laser comm in space is a lot more benign than trying to do it [inaudible] So even there, we'll have huge gains, but there are going to be constraints somewhat by the domain over.

RADM (Ret.) Mark Montgomery:

Thanks. And I'm glad no one brought their pinky up to their lip saying laser. Brian, I want to give you a final word before Riki closes us.

MG Brian Gibson:

Okay, thanks sir. And obviously the least among all of you on this call, so Riki, thanks for the invite, letting me be part of it. Certainly Mahalo from General Thomas, your old headquarters. And yes, it's still in about the same state of array as we talk about timelines.

But no, seriously, it's great to be part of this discussion. Time matters, as you've all described. I sense it every day here. I field a ton of questions, as you can imagine, along with the joint team here to try inside of government lines to make this as good and as quick as we can. But it's a team sport that I started with upfront. And that team is inside the department and outside the department for shared understanding and understanding impact.

So thanks to each of you, Riki. Appreciate it.

Mr. Riki Ellison:

Do you want to go around or do you want me to close? Go ahead.

RADM (Ret.) Mark Montgomery:

I think you should close, Riki.

Mr. Riki Ellison:

So I think one of the strongest positions was done by Lieutenant General Dan Karbler last week, the three star, the highest ranking space missile defense commander who said our biggest need, our biggest challenge is capacity. Our infrastructure that makes capacity is our challenge. That's what we have to shift into for this urgency to work. And we've got to play with what we've got until the silver bullets come in. But there's got to be urgency to play with what we've got and mass it until that time comes. Because that is what we have to have to slow China down and to change that calculus.

So I appreciate you guys coming in. We are going to continue to fight the urgency of hitting this thing with what we've got instead of delaying this thing out 15 years to 20 years. We got to go get it. So thank you ladies and gentlemen, thanks for listening and hafa adai, aloha and good afternoon. Thanks.