Center for Strategic and International Studies

"Press Briefing: Analysis of the FY 2019 Defense Budget"

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TODD HARRISON: OK. Well, welcome, everyone. We're going to go ahead and get started here. I'm Todd Harrison. I'm senior fellow here and director of defense budget analysis at CSIS. My co-author in the study that we're releasing today is Seamus Daniels. He's a research assistant here working on defense budget issues.

So today we're going to talk about what's been going on in the 2019 defense budget. Right now Congress is – they're putting the final touches on the appropriations bill for FY '19. We're not planning to go into a lot of detail on kind of the ins and outs of what the appropriations bill does relative to the request. We're going to be looking at kind of the broader trends of what's been going on on the budget and what it means for the future. We're going to try to answer these questions: How did we get to where we are? And what's next? Which is probably what this soldier in Syria was asking himself when this picture was taken. (Laughter.)

So, with that, start with a little context here. So the blue lines that you see on this chart are the defense budget projections that came out in successive budget requests. The blue ones were in the Obama administration. So you can see going back to the president's budget for FY '12, through '13, '14, '15, '16, '17, you can see that the projections got lower and lower.

And then the green lines you can see PB '18 was the first budget submission of the Trump administration, and PB '19 was the most recent submission. So PB '18 and '19 are higher than the later budget submissions of the Obama administration, but they are still not back up to the Obama PB '12 budget request and the projections that came with that.

Now the red dash line here, those are the original budget caps that were put into effect in the Budget Control Act. The – I'm sorry, the yellow line – dash line – is how the budget caps have been modified by successive budget deals over the years. You can see that the budget caps were raised significantly for FY '18 and FY '19 above the original level. That was the budget deal we go back in the spring. It increased the cap by 80 billion (dollars) in FY '18, 85 billion (dollars) in FY '19. And of course the budget request for FY '19 is at the revised cap level.

The problem, though, is that budget deal only applied to '18 and '19. The budget caps will return to their original level – you see here – for '20 and '21. So right now the department is planning – they are assuming that they will get increases in the budget caps in future years of 84 billion (dollars) in 2020 and 87 billion (dollars) in 2021. Now the caps for defense, at least for now, they end in FY '21. They don't continue after that, but you never know what Congress might do to modify that in the future. So this is kind of the landscape that we're at right now. We had a big budget increase from this budget deal, but there is no guarantee on the future of what's going to happen.

Now there are other ways of looking at the defense budget, of course. I want to point this out to begin with. So you hear people all the time talk about defense as a percent of GDP – gross domestic product. That's the yellow line you see here, so defense as a percent of GDP has been going down over time. That trend continues in this budget request.

People also like to talk about defense as a percentage of the overall federal budget. That's the green line you see here. That has been going down as well. That also will continue to go down in this budget request. Why is that? It's not because defense spending is going down; it's because the denominators are growing. So GDP is growing faster than defense, and the overall federal budget is growing faster than defense. That's why they keep going down as a percentage.

But if you look at defense in inflation-adjusted dollars, you see a very different picture. Now I've shown it two ways here. What you see reported by DOD is the blue line you see here. They adjust for inflation using their own deflators. I don't like their deflators because what they end up doing is they count a lot of the growth in labor costs as inflation. So it's – they count it as price growth; it's actually cost growth.

So if you do it the – OMB, CBO, the rest of the federal government, they all use the chain GDP price index to adjust for inflation. That's what I like to use. It's a neutral measure of inflation in the overall economy. It's what a dollar is worth. If you use that measure of inflation – you see the red line here – similar trend, but the farther back you go in history, the greater of a difference that you see between these two measures of inflation. So sometimes if you see – I get questions from you periodically, different ones of you, about why my inflation-adjusted numbers for something way back in time don't match up to what's in the Green Book in constant dollars. This is why. DOD is using their own measure of inflation that counts labors costs as part of inflation, and I'm using the chain GDP price index. But you see the trend here is defense spending is cyclic; it has been going up over time, not down.

And this is just for your reference, looking at the overall defense budget, when we talk about defense, normally we either talk about DOD's budget or we talk about national defense. So DOD's budget, there's a discretionary part of it, a mandatory part of it, and then there is OCO and emergency funding. Sometimes we talk about broader national defense funding. That includes funding that goes for atomic energy defense activities. Most of that is in the Department of Energy, and there's other related defense activities across the federal budget. A lot of that actually goes to the FBI for work the FBI does to support DOD.

So these things are outside of DOD, but they are still supporting national defense. The things we hardly ever include in defense spending, but they are defense related, are veterans benefits and services. That totals over a hundred and ninety billion dollars a year now. It's one of the fastest growing areas of the federal budget – is for veterans benefits and services. If you look at the projections, it's going to continue growing like that in the future.

And then there are some hidden things in the budget that you don't see. So one of them is the amortization of unfunded liabilities in the Military Retirement Trust Fund. There's a trust fund for pensions and there's a trust fund for retiree health care. There are huge unfunded liabilities in those accounts. That is directly a result of we didn't set aside enough money in defense in the past to pay for these things.

So now that unfunded liability is being paid down by transfers directly from the treasury into these accounts. It's not an insignificant amount of money. We're talking over $91 billion a year to pay down these unfunded liabilities. It's not coming out of DOD's budget. It's coming straight out of the treasury.

And then there are defense-related tax expenditures, because certain parts of military compensation and veterans' benefits and services are not subject to federal tax, and so that means we lose about $23 billion a year in revenue. It's considered a tax expenditure in the budget, not a direct expenditure.

So if you actually add all of that stuff up together, we spend over a trillion dollars a year on defense. And this is – FY '18 was the first year we broke a trillion dollars using that total defense-related expenditure. And it's projected, you can see here, to continue growing for the next five years.

Now, for the rest of this report, we're going to just focus on the DOD budget, the DOD part of the budget. And so that's what you're looking at here. You can see in blue it's the base budget, and red is what is categorized separately as Overseas Contingency Operations funding, OCO funding.

Also – we may get to this later if you guys are interested – in this budget request, the administration says that in the future they're going to move some of that OCO funding back into the base budget. We'll see if that really happens. But you can see that little shaded area there represents that transfer they're talking about.

Now, what's interesting about this is if you overlay it with the size of the force, both active-duty end strength and DOD civilians, so you see the budget cycles up and down, but overall it's growing over time. You see the size of the force is going down over time. So a lot of times I refer to this as my getting-less-for-more chart. We're spending more. We are spending more now in the base defense budget than we were at the peak of the Reagan building, just looking at the base budget – if you add OCO, it's even more than that – for a much smaller force than we had at that time. So what's going on? Well, that's the subject of a lot of the analysis in the report.

So I'm actually going to stop here. And we will not have enough time to go through everything that's in the report. We're not going to try to do that. So I don't know if you guys, when you were kids, liked to read Choose Your Own Adventure books. I used to read them all the time. I'm going to let you guys choose where we go in looking at different parts of our analysis. So let me know what's of interest to you.

I see the first hand right here.

Q: (Off mic) – about OCO funding and – (off mic) –

MR. HARRISON: OK.

Q: – and sort of in the context of, obviously – (off mic) – Budget Control Act still actually being – (off mic).

MR. HARRISON: All right. I love OCO.

Q: Like, this great positive, you know –

MR. HARRISON: (Laughs.)

Q: (Eaten by a yeti ?).

MR. HARRISON: (Laughs.) Tony knows I love OCO.

Yeah. So OCO funding is a funny thing, right; that, you know, we've had OCO funding around since the beginning of the war in Afghanistan. This is not usual in our history. If you look back at

previous wars, we did have supplemental funding for the first few years, like in Korea and Vietnam, but they quickly just started rolling this into the regular budget for every year.

But these wars are different. We've funded it a different way than we have in the past. OCO funding really started to change once the Budget Control Act went into effect because OCO funding doesn't count towards your budget caps. And that creates a loophole. If you can get something into OCO, that frees up money under the base – in the base budget, under the budget caps. So there's a real incentive for DOD and Congress to move things.

Now, you look at funding for Afghanistan. Now, this is what DOD labels as funding being used for Afghanistan. I've been tracking it for years. You see the blue line here is a trendline from FY '05 all the way through FY '13. It's pretty good correlation following this trendline here. It's about 1.3 million (dollars) per troop, per year. And if you have no troops, you'd still have fixed cost of about 7 billion (dollars) per year.

We've been following that trendline for a while. The BCA goes into effect, and then, next thing you know, in FY '14 we jumped to a new trendline that we've been following ever since then. It's still about 1.3 million (dollars) per troop, per year. But now our fixed costs have jumped up to about $32 billion. So why did our fixed costs jump from 7 billion (dollars) to 32 billion (dollars)? I would suggest that that's base budget funding that migrated into OCO of about 25 billion (dollars) per year and we're labeling it as Afghanistan.

Now, there's evidence for this all throughout the budget and DOD has talked about this. And they've admitted before that about, they say, 25 (billion dollars) to 30 billion (dollars) of the budget actually belongs – of Afghanistan funding actually belongs in the base budget.

Now, the Trump administration, they proposed moving some of this base budget funding out of OCO back into the base budget where it belongs. They have a much broader definition. They weren't just looking at the funding that migrated into Afghanistan. They were also looking at all sorts of other things like the European – what do they call it now – the European Deterrence Initiative, things like that that have been funded through OCO because it doesn't count towards the budget caps, that's an easy way to get it funded. But that's not a war-related expense, it doesn't really belong there. That's a long-term initiative, it belongs in the base budget.

So they apparently went through and they estimated that it's about 53 billion (dollars) per year right now. But if they move that – this is the same chart as before – if they actually move all of that OCO funding that's for base activities that they've identified back into the base budget, it now counts against the budget caps. So not only do they need an 84 billion (dollars) increase in the budget caps for next year – for FY '20 I should say – they need another 53 billion (dollars) on top of that to cover all that OCO funding coming back into the base.

So if it was going to be a heavy lift to get another budget deal, this is going to make it even more difficult to get a budget deal. It's going to be a much larger budget deal.

Q: Do you a version of this chart that actually includes the OCO spending, which is a huge chunk?

MR. HARRISON: The OCO spending on top of that?

Q: Yeah, because the lines –

MR. HARRISON: Yeah.

Q: – would be very different, and that's actually – (off mic).

MR. HARRISON: Yes. Yeah. Well, if you put the – yeah, if you include the base budget funding that migrated into OCO. So this actual line here, bump it up by 25 (billion dollars) to 30 billion (dollars) and that gives you an idea of what they've reshuffled. Yeah.

All right, who's next?

Q: An update on the Space Force costs?

MR. HARRISON: Yea. (Laughter.) I listed these as bonus because it's not in the report, it's stuff that happened this week. But, yeah, we will – we'll go to the Space Force costs.

So I'm sure you've all seen the leaked memo, the September 14th memo from secretary of the Air Force back to the deputy secretary of defense, which basically said you asked us to talk about how to create a Space Development Agency. We'll do that, but we'll also give you an entire cost estimate for the cost of a Space Force and how we think it should be scoped. So answering a lot more than they were asked to answer, so that's interesting that they did that.

So we took a look at this. This is straight out of what they put in that report. And I will credit Seamus here. We were sitting looking at it and I was focusing on the manpower and I was thinking, like, wow, that's a lot of additional manpower considering how small they've told us that our space forces are. That's a lot of extra overhead. And then Seamus said I wonder what they're assuming is a cost per person. So got out the calculator and started looking at it and then we realized something: All they did is assume a number of people, they multiplied it by 175,000 (dollars) per person and that's how they get these costs right here. Take out your calculator and try it. Literally, if you multiply that number by 175K, you will get that number all the way across exactly. That's all it is.

The last line is different because they assumed that you'll need to build a billion-dollar building, a building that costs a billion dollars. So it doesn't look like a lot of effort or –

Q: (Off mic) – space, right?

MR. HARRISON: Yeah. Well, the other thing, too, is this – what they put out is not the cost of the Space Force. This actually includes the costs of standing up U.S. Space Command as well. So it's Space Command and Space Force together here.

Q: The 175(,000 dollars), is that the standard number that other people use?

MR. HARRISON: Yeah. So I haven't seen that particular number before. I'm not sure why they picked that number. I wouldn't take issue with that number, though, because a lot of these positions would be higher level. Now, that's higher than the average cost per person, either civilian or military, but you're probably – these people would be higher-ranking people, so 175K total loaded cost per person is not that unrealistic.

Q: So if you look at how many space people they have in DOD, that's close to that number of people. So are they actually duplicating that? I mean, that sounds crazy to me.

MR. HARRISON: Yeah, so that's what I think is unrealistic about it, is how many additional people they assume you need for like a headquarters element, for these direct reporting units. I'm not even sure what they're talking about. The Space Force element, that's almost 8,000 additional people. They don't define what that is, but it's in addition to what we already have today, and then your combatant command personnel.

And also, I mean, building a billion-dollar building for U.S. Space Command? We already have buildings where these people, where the Joint Functional Component Command is housed. I don't know why we need a billion-dollar new building.

The other thing, if you read the details of that report, they scoped the Space Force as broad as anyone could imagine. So it doesn't just include taking the space forces from the different services. It also includes taking space components out of the Missile Defense Agency, taking all space components out of DARPA – like, pulling that all out of DARPA, which I don't think anyone would ever allow that – pulling in the National Reconnaissance Office and space components in other intel agencies. It even includes taking parts of NASA into the Space Force, and parts of the Department of Commerce that deal with space, including NOAA, into the Space Force. So this is the broadest possible definition of how you could scope a Space Force that anyone could possibly conceive.

Q: So we've got on the record the secretary. She actually thinks 13 billion (dollars) is a conservative – very conservative estimate. In your expert opinion, that's not true, this is not a conservative estimate?

MR. HARRISON: This is not a conservative estimate.

Q: This is a broad estimate.

MR. HARRISON: This is the highest estimate I think you could possibly come up with.

Q: So it's –

Q: I'm sorry, go ahead.

Q: In short, Todd Harrison says this is bullshit. (Laughter.) Yes?

MR. HARRISON: I am not using profanity. (Laughs.)

Q: But you would if you did. (Laughter.) Yes/no?

MR. HARRISON: I've chosen my Darth Vader mug today, so I guess I'm on the dark side. But no, I don't – I don't think that there's a lot to this cost estimate. I mean, number one, the methodology here is not very sophisticated. They're giving no indication of where they got the numbers of people here, and this all hinges on the numbers of people that we're talking about. So I don't – I don't give a lot of credibility to this.

Q: Do you suspect that this is kind of the classic tactic of charging – or a price estimate so unseemly high that they back off?

MR. HARRISON: I would say this is an example of malicious compliance.

Q: Got you.

MR. : Just a sec, everyone. If you could turn on your table mics when you're asking questions, that'll really help out the camera and audio.

Q: Also, speaking of malicious compliance, is this a way for the Air Force to, like, hold on to like a good chunk of its budget? Like their fear of like, oh my God, we're going to have to give up a lot of money if we don't suggest –

MR. HARRISON: Yeah, I mean, I – you know, I wouldn't want to, you know, try to assume what the reason is why they're doing this. The Air Force has been on the record all along as opposing any kind of space reorganization that takes it either out of the Air Force or even within the Air Force.

So last year the proposal in Congress was to create a Space Corps within the Air Force. That would have kept it under Secretary Wilson, but she, you know, was adamantly opposed to that at the time on the Hill. So we know that, you know, there are folks in the Air Force that do not like this idea at all. And, you know, this cost estimate, it just really looks like they're trying to come out with a highball estimate to shift the debate into how expensive this is going to be.

Yeah?

Q: So do you – is this going to compete with the Air Force's other plan to increase its squadrons? How much room in the budget is there for both of these initiatives, do you think?

MR. HARRISON: So I don't think this directly competes with the Air Force's own internal plans because keep in mind, if this came to pass, it would be outside of the Air Force's budget. It's still under the total DOD budget, but at that point it then competes with all of the services equally, not just the Air Force.

I think the Air Force's challenge in the plan to grow the force – and we can talk about that as well if you guys like – I think the biggest, you know, competitor to growing the size of the Air Force is the Air Force's own modernization bow wave. I don't see how the Air Force is going to be able to grow the force and modernize the force at the same time in the 2020s given any kind of realistic fiscal constraints.

Q: I'm just thinking from Congress' perspective they're going to have a specific pot of money to deal with to fund the Pentagon, so they're going to be looking at both of these initiatives. And I'm wondering, you know, how much competition you think is –

MR. HARRISON: Yeah, I mean, but the Space Force, you know, any additional funding needed for that is going to compete with the other services as well, not just the Air Force. That's really the point I was making.

Yeah, Marcus?

Q: Do you have an estimate on what the Space Force will cost?

MR. HARRISON: No. I haven't put together a full estimate yet. The first thing that we're actually working on is trying to figure out what are we really spending today and how many people are there that are doing space-related activities in DOD because DOD hasn't even reported that yet, and I'm not quite sure they know. It's not just in the Air Force. There's significant space funding and personnel in the other services as well. And –

Q: (Off mic) – the Space Force?

MR. HARRISON: Well, not entirely. It depends how you scope it, right? (Laughs.) And all the people and the bases and facilities that go with it.

So that's one of the things that we're actually working on here in the background, is trying to go through and figure out where are those bases; how many people are assigned there; what are your military, your civilians; you know, and depending on how you scope it, what all are you including? And they don't release MFP-12 anyway, so we don't have that to go by.

Yeah?

Q: Got a non-Space Force question.

MR. HARRISON: All right.

Q: If people are good? OK.

So you mentioned with the OCO stuff that you're thinking that might make it a little bit harder for the next budget fight. What are the factors that you're looking at now ahead a couple years to – what are the hurdles you're going to see with the next budget fight, with the potential for actually getting rid of the caps again?

MR. HARRISON: Yeah. Yeah, so, you know, you've got to – it's going to be a huge increase in the budget caps that are going to be needed. With the election, we may see a change in party control of either the House or the Senate or both, and so that's going to change the dynamics of this debate.

I actually – personally, I don't think it changes it that much because it was already the case – it was this year – that to get any kind of budget deal to raise the budget caps you can't use reconciliation in the Senate, so you've got to have 60 votes in the Senate. Regardless of what happens in the election, neither party is going to have 60 votes in the Senate. So this is going to have to be a bipartisan deal of some kind, and the track record of this suggests that we're probably going to get a two-year budget deal because it takes them so long to negotiate it.

But, you know, if you look at those costs – and, you know, let me go back to that OCO slide here – the costs that we're talking about here of increasing the budget caps, that's significant. We know that to give bipartisan support, to get Democrats onboard with this, you're going to have to give a similar if not an equal increase on the non-defense side of the budget caps. That doubles the cost of what you're doing here. So I think it's going to be a long, hard, drawn-out fight over the next year.

So the FY ’20 budget request will come out in February, or it’s supposed to. We’ll see if it comes out on time. And I don’t think we’re going to have a resolution to that for probably, you know, a year and a half from now. I’d be looking at the spring of 2020 as when we might actually get close to a budget deal.

Q: After a nice, long CR.

MR. HARRISON: After a nice, long CR. That’s been the history here of these budget deals.

Q: So then just can you explain a little bit in your mind what that does to the whole Trump administration’s grand plan? I mean, we’ve heard from – Shanahan has said himself, you know, this budget was a placeholder; the next budget, 2020, is going to be the one that actually implements the National Defense Strategy. That doesn’t get done until 2021. I mean, how does that all play in? Is the NDS dead, essentially, just –

MR. HARRISON: I wouldn’t say it’s dead. I’m going to say it’s going to have to be paused. You know, they better build an FY ’20 budget request that does not require to be enacted exactly on time because that’s unlikely to happen. And they better build it in a way that it’s flexible, that’s dynamic, that can scale, because there’s no telling exactly what number they’re going to end up with in that budget deal.

I mean, you’ve heard comments from Adam Smith, who’s the ranking member of the House Armed Services Committee. If the House flips he will be the chairman of the Armed Services Committee. And he has said, you know, that he’s got doubt that they can continue to provide this much money for defense and continue this level of funding going forward. So that may mean that, you know, DOD could be looking at less than what they’re planning on right now, not even getting the full amount.

All right, let’s go back here.

Q: I wanted to go to the grow the Air Force bonus question.

MR. HARRISON: All right.

Q: How realistic is their plan for 386 squadrons, in your mind?

MR. HARRISON: Well, so first of all let’s talk about what a squadron is, right? (Laughs.) It’s an interesting unit of metric that they’ve decided to start using because, like an Army BCT, the size of a squadron varies quite a lot. It’s varied over time. It varies among squadrons. So it’s interesting that they chose that as a unit because it’s not really a fixed point. You could grow the number of squadrons without adding any aircraft. You could just divide them up differently. I don’t think that’s what they are suggesting to do, but this would be a little less than a 25-percent increase in the number of squadrons, and they said it’s going to add about 40,000 airmen to the force. That’s a big increase.

You know, as a reference here, the secretary has said that the peak during the Cold War was 401 squadrons, so we’re talking about going back near to the level, the size of the Air Force that we had at the peak of the Cold War.

Now –

Q: When was that peak in the Cold War?

MR. HARRISON: That was in the late 1980s, like around ’87, ’88. We have some other charts on Air Force force structure we can go to in a minute if you are interested.

But, you know, if you just make some simplifying assumptions, if you say, OK, the size of squadrons, the mix of them, active reserve component – let’s just assume that all stays roughly the same – a 24-percent increase in the number of aircraft, that means about a 13 billion (dollar) increase in the annual cost of operating forces, so that’s just the cost of operating these aircraft. Adding 40,000 to the active duty ranks, that costs you about 5 billion (dollars) annually. I would note that not all of that personnel cost has to be paid by the Air Force. Part of it is healthcare that gets paid out of Defense-wide accounts that aren’t Air Force accounts. But that’s not all of the costs. So that’s 18 billion (dollars) right there.

You’ve also got to add in costs for training, bases, other support functions. That depends a lot on where they choose to put these additional squadrons. And you’ve got the acquisition costs because presumably you’re going to be buying, you know, 1,100-1,200 or so new aircraft to grow to this size. That’s going to depend on what type of aircraft you are talking about buying and what you are doing with legacy aircraft. So part of this could be that they stop retiring legacy aircraft they had planned to retire – that could make up part of it – and then buying some new aircraft.

They could buy current generation aircraft or they could be focusing on buying next-generation aircraft. None of that is really defined yet. I think we’re going to have to wait and see once they come out with their final report sometime in the spring.

Q: OK, but where would that money come from exactly?

MR. HARRISON: That is an excellent question, where that might – this is all going to be additive to what they already planned in their budget, and it would be ramping up throughout the 2020s.

Now, you know, I point out here the last bullet you see here. Growing the force is going to compete directly with modernizing the force. You’ve probably all heard me, you know, brief, you know, on the budget in the past. I’ve talked about the modernization bow wave, that that modernization bow wave in DoD is largely in the Air Force. They’ve got a lot of major programs that are planned to ramp up in procurement at around the same time, in the mid-2020s. We’re talking the B-21 bomber, the KC-46, the F-35 will be at full rate production. Things like GBSD, the new Minuteman ICBM replacement – you know, you can just go down the list – and the new trainer, the TX, which, you know, maybe the award is going to be announced in the next week or two.

You know, they’ve got all of these major acquisition programs that are planned, and now they are talking about growing force structure on top of that. I just think that that’s going to be an incredible increase of funding that will be required in the 2020s and, you know, I think it would behoove the Air Force to come up with a good analysis of what this is going to cost and what kind of tradeoffs they can make in their own budget to pay for this.

We had a question here.

Q: Probably unsurprisingly, this will be a Navy-type question. But, you know, the bow wave is coming with the Air Force –

MR. : That doesn't make it a Navy question. (Laughter.)

Q: – in the 2020 – what? Oh. And – but then the Navy is also talking about a small surface combatant, it's getting heavy into the Ohio replacement class, it's talking about a large surface combatant now. It's got a lot of priorities. This year the budget, I believe, is something like – the shipbuilding budget out of 2019 was $24 billion, which is really high.

They also have a whole class of amphibs they are building. Are we going to be able to sustain a one-third, one-third, one-third if they really want to do all this? It seems to me that having a 550,000-person Army, and modernizing the Air Force, and building up the Navy, that that's not a – doesn't strike me as sustainable, but I'm interested in your thoughts.

MR. HARRISON: Yeah so I'm going to start with that one-third, one-third, one-third, so what you were referring is the idea that the services basically split the budget, a third, a third, a third each.

So I want you to look at this chart. That is not true; that has never been true. It's a persistent myth in defense. So the first reason it's not true. This red line here? This is funding in DOD that does not go to any of the services. It goes to Defense-wide, and it's about 20 percent of the budget. It's starting to go down a little, but about 20 percent of the budget is already going to Defense-wide.

The other lines you see here are the shares of the budget that go to each of the services, and they vary from time to time, from year to year. There was a point at which the Air Force was getting 49 percent of the total DOD budget and the Air Force was a very young service at that time, only about 10 years old.

Q: (Off mic.)

MR. HARRISON: Yeah, I know. (Laughs.) I'm ready.

So, you know, it varies over the time. So, yeah, going forward, the share of the budget among the services – I think, you know, whenever you see any kind of shift in strategy – and they're saying that the NDS, the National Defense Strategy, that they just released in January is a shift in strategy – you should see a shift in the budget, you should see a reallocation of resources to implement that strategy. So I would fully expect that in the future we're going to see the services' shares of the budget start to vary some out of their norm. We already see indications that the Navy and the Air Force are increasing in recent years. They've increased their share of the budget, particularly the Air Force.

If you look at the FYDP – so this chart just shows the percentage change for each of the services baseline FY '17 and then looking out what's projected. In the five-year projection DOD comes out with, the Air Force grows the most over the next five years in this budget projection. So the Air Force is winning.

The red line you see here on the bottom, that's defense-wide, it's not growing, it's basically staying flat. So that is consistent with what they've been talking about cutting the fourth estate within the Pentagon. It looks like that they are planning on doing that, at least in this budget request it was assumed in there. So, yeah, I think we're going to see the Air Force start to take on a greater share of

the budget, but that was already planned before the Air Force announced this change and trying to grow the force structure.

Q: And do you think that that ultimately means that – I mean, that the money will flow to all these different programs and the balance will shift? Or does it ultimately mean that some programs are only going to end up – some large-scale programs are going to end up on the chopping block?

MR. HARRISON: You know, I think once you get out into the 2020s, depending on the total level of budget that the country chooses to provide for defense, then, yeah, you know, you're going to have to start making choices. And, you know, the more constrained that budget is, the more likely it is you're going to have to cut some big programs. And so that'll be true for each of the services. And they ought to be looking at that right now.

And that's the – the thing is, when you get into a budget crunch, the most expedient thing to do to save money is to cut back on your acquisition programs, cut back on modernization and you can just tell yourself I'm delaying it, I'm going to wait, I won't buy as many this year.

The harder thing to do is cut force structure because that's people, that has constituents. It's hard to get rid of force structure politically and it takes longer. And so, you know, that's why I would be wary for any of the services of growing force structure right now because you may put yourself in a situation in the coming years where you're having to make some cuts and now you've limited your options, you've limited the range of options available to you by adding the force structure now.

Q: Just a quick question. I think the plan to go up to 386 squadrons included adding about five bomber squadrons. I would assume that would require just buying more B-21s once that gets in production because I wouldn't think they'd be buying B-52s or B-2s since those production lines have stopped.

MR. HARRISON: Yeah. I mean, I think that's a safe assumption, but they've not been very clear about that. There had been a planned retirement of some of our legacy bombers, like the B-2 which is our newest bomber, you know, B-1s. And so, you know, one thing they could do is not retire some of the legacy bombers. But I think it's no secret that the Air Force has been saying for a while that they want to buy more than a hundred of the B-21 bombers and a hundred was the baseline on the program. So I fully expect that when we see the final report, it's going to call for a greater production, greater number of bombers in production.

But, you know, the thing there is the production, you know, capacity for that program is likely – it's a black program, right, so we don't know all the details – but it is likely already set since that program, they've already awarded the contract and even have, you know, fixed price options for buying the aircraft.

So they probably can't ramp up the production rate of the aircraft. So if they're going to buy more of them, they probably have to do most of that at the end of the production run, so that will take longer to get into the force structure.

All right, go here. We'll start working our way around.

Q: I just wanted to get back to OCO for a second. Do you think, as Congress thinks about putting OCO back in the base budget, there will ever be an accounting for all of the (eaches ?) that OCO has been used to purchase in the last 10 years or so?

MR. HARRISON: Yeah. So looking back on how the OCO funding – that was appropriated as OCO funding, how it was actually used, no. And I don't think it's possible, because the way it works is the differentiation between base and OCO, that happens in the appropriations. But the money goes into the same accounts.

So if you have, like, an Army Operation and Maintenance account and it has some base-budget funding that goes into it and some OCO funding, once that money goes in, you can't really distinguish it. They're the same treasury accounts. And so when the money is spent, it's just – you know, if someone was keeping track of it at the time and keeping a ledger and saying, well, this was base, this was OCO, sure. But they weren't, because they weren't required to. So I don't think we'll ever be able to account for how the money was actually used, if it was really used for base activities or OCO activities.

Now, going forward, that is something that I know the GAO, the Government Accountability Office, has been tasked at looking at. Is there a better way of doing this going forward? I think the most straightforward answer would be create separate treasury accounts for base and OCO, and then whatever is taken out of that account, it better be for the intended purpose.

All right, Sandra (sp).

Q: Thanks.

What do you make of the Missile Defense Agency's forecast? I mean, they have some pretty ambitious plans; no money in the budget right now, so they're anticipating money in the future.

MR. HARRISON: Yeah.

Q: Have you looked at their so-called unfunded requirements for these new sensors that they want for hypersonic defense?

MR. HARRISON: Yeah. No, I think that's likely to be a priority area in this administration is funding new missile-defense capabilities. We've seen all indications of that. The thing that we're waiting to see to get specifics is the Missile Defense Review.

Q: Right.

MR. HARRISON: They're supposed to be connecting this Missile Defense Review and are supposed to have released it months ago. We're still waiting to see that. And that document is supposed to have those detailed plans on what kind of capabilities, what size force that they're going to need going forward for missile defense.

You know, it may include a space – a low-earth-orbit space layer for tracking and target discrimination, which would be a new space program of pretty significant size.

It's also been discussed – you've probably all heard Undersecretary Griffin discuss the idea of space-based interceptors. So these are missile interceptors that would be stored in orbit and could be used to fire at an incoming missile. That's an idea that's been, you know, toyed with in previous Republican administrations. It's had different names in the past; you know, Brilliant Pebbles, Star Wars. But that's something that they are looking at again. That could be part of what's in the Missile Defense Review. But we don't know yet.

Q: But is that going to have new money or is that going to have to come from – internally from some other DOD accounts?

MR. HARRISON: We don't know. I mean, if you look at the budget projections, they're talking about basically a flat budget. If they stick with that flat topline budget, then any additional funding for missile defense will have to come out of the services, out of other areas.

It could be, though, that – and we've seen this in 2018 – they submitted a supplemental request, emergency supplemental funding, that included a lot of missile-defense funding. So they could try to do this outside the normal budget process. The key thing about emergency supplemental funding is it's like OCO. It doesn't count toward your budget caps. So they could go that route for some of this, because, you know, missile defense, they could – they have made the argument in the past that it is an emergency, you know, that we've got to build out these capabilities quickly because of the rate of the threat.

Let me keep going around here.

Q: What kind of impact do you think the coming audit will have on any of this? I mean, the Pentagon and Mac Thornberry love to talk about finding savings and putting it back into lethality. But I'm just kind of curious how you project that.

MR. HARRISON: So the purpose of an audit is not to find savings. The purpose of an audit is accountability. It's to, you know, make sure that money was spent how it was supposed to be spent. Now, in the process of doing that, you may find that, you know, money was not spent the way it was supposed to be spent, and maybe there's more money sitting somewhere than you thought there was. But I would not count on the audit of the DOD generating any savings.

If anything, we know that the audit is going to cost a little less than a billion dollars per year going forward. And it will probably be a while before DOD has a clean audit. This is going to be, you know, an iterative process of trying to audit, finding, you know, things that do not meet the standards, going back and correcting them, and then auditing again. That's going to continue for years. And they've acknowledged that. So it's going to cost money. Probably not going to save much money, if any.

But is it worth it? In my opinion, yes, because it's a matter of accountability. And, you know, other parts of the government have been auditable for years. DOD has lagged behind on this. And it is just a matter of public trust and accountability that DOD should be able to pass an audit.

Q: I wanted to follow up to this because – about the DOD ongoing efficiency effort that's – (comes on mic) – the ongoing DOD efficiency effort that's gone kind of dark out of the CMO's office. They claim they can maybe get $4 billion in FY '18. They haven't accounted for that yet. GAO has recently dinged them for about a half-dozen efficiencies since 2011 that have gone nowhere, that they

haven't demonstrated at all. What is your take on, you know, the internal efficiency efforts to find billions of dollars? And will they be able to demonstrate that and put it toward the tip of the spear?

MR. HARRISON: So there's a long history of new administrations coming in and saying, you know, the Pentagon has a lot of waste and inefficiency, which we all know to be true, and saying that they're going to cut some of that and generate savings, and they don't need to grow their budget as much because they can use all these internal savings. When Rumsfeld came in I think he said it was about 5 percent savings on the overall budget that he could generate. In the Obama administration they had a whole efficiency initiative. I remember folks from the comptroller's office walking around with these binders where they were serious about how they were going to track each and every one of these efficiency initiatives.

The problem is, you know, their track record is – folks just don't have a lot to show for it. You can try to eliminate the waste and inefficiency in the budget, but a lot of it is there for a reason. May not be a good reason, but it's there for a reason.

So a great example is we've got a lot of excess bases and infrastructure in DOD. The military has acknowledged this. You know, they've been up on the Hill. They've asked for a round of base closures again and again and again. Congress says no. It's politics. You know, those excess bases, that waste, generates jobs in someone's district, which is almost always the case when you're talking about waste in government. That money that's being wasted is going to someone. It is benefitting someone, and that someone probably has a vote. (Laughs.) And so that's what makes it difficult.

But also, in the military, you have some inefficiencies that are built in because it's the military, because you don't have a lot of room for failure. And so we have – you know, like take, for example, we have four air forces, right? (Laughs.) We have the Air Force. We have the Navy's air force. We have the Army's air force. And we have the Navy's army's air force, which is Marine Corps aviation. You know, why do we have all of this, right? And a lot of times they're buying similar platforms, you know, but they're buying them separately. You know, a lot of redundancy in there, but that's by design, right?

And so, yeah, it's good that they're trying these efficiency initiatives. But, you know, experience says that you can't bank on the savings.

Now, you know, one of the things that they said, you know with this budget release over the past year, I think Jay Gibson was on the record – the chief management officer – as saying that they were planning on $46 billion in efficiency savings over the next five years. That's baked into their budget. They are already assuming that. If they can't generate 46 billion (dollars) in efficiencies over the next five years, then they either have to come back and ask for $46 billion more in funding or they have to find $46 billion in cuts. And so, you know, that was an ambitious target, you know, and they set, you know, targets for FY '18 and FY '19 which they don't appear to be even close to meeting. But the bigger issue looming for FY '20 and beyond is they already assumed a lot of efficiencies in that topline. And so they're either going to have to come back and ask for more or they're going to have to make some cuts internally. They're going to have to cut meat instead of fat if they can't find the fat. (Laughs.)

All right? Yep?

Q: Since you brought up BRAC, do you see any momentum for another BRAC round growing as these other pressures on the budget grow?

MR. HARRISON: (Laughs.) So, as the budget – (laughter) – has been growing, people talking about BRAC have gone silent. And, you know, last year there – you know, there was some movement on the Hill to really, you know, be serious about possibly getting a round of BRAC. Part of that was led by Senator McCain. Senator McCain was coming out and saying, you know, we do have excess infrastructure, we do need to cut it, and he was trying to push his colleagues to be forward-leaning on authorizing another round of base closures. And, you know, God bless him, now that he's not going to be there in the Senate, I don't know who the champion is going to be that's going to have the same credibility as John McCain had on this issue. So, for the foreseeable future, I don't think BRAC is going to be a real possibility.

Q: Just to follow up quickly on that, what do you think the tangible impact of John McCain's departure will be? Or is the jury – is the jury still out on that?

MR. HARRISON: Yeah. I mean, you know, he – John McCain obviously had a huge impact not just on the Senate Armed Services Committee, but, you know, broader on defense issues. You know, he was a champion of acquisition reform. He, you know, had the credibility and the will to hold military leaders accountable when there was a failure in an acquisition program. I think everyone dreaded having to go before John McCain to talk about that. So, yeah, it's going to be hard to fill his shoes in the Senate. Yeah, it's going to be hard.

Yes?

Q: I was wondering if you could go back and talk about the personnel issue. I don't know, the Navy – the Navy and the Air Force, I guess, and assuming Army, too, have all been trying to keep growing the size of their force. And the Navy especially is very open about how they want more people –

MR. HARRISON: Yeah.

Q: – at the same time that they want more ships and the idea is they need more people to be on their ships.

MR. HARRISON: Yeah. You need to put people on the ships.

Q: But it doesn't – right, but it doesn't seem to square with kind of what you're saying, the decision they're going to have to make.

MR. HARRISON: Yeah. So that's one of the things that we look at in some detail in this analysis is the people cost. And so on the left-hand side here, what you see is the cost of military personnel adjust for inflation over time. You can see military personnel on a per-person basis, so the cost per active duty service member grew by 64 percent over the past two decades – 64 percent growth above inflation. Our people are a lot more expensive than they used to be. On the right-hand side, DOD civilians, the average cost per DOD civilian grew 31 percent over the past two decades above inflation. So both have grown. Military personnel costs have grown substantially more.

There are a lot of reasons behind that, but, you know, economists will tell you labor costs are sticky. Once you give people a raise or give them a new benefit, it's very hard to roll that back.

So the chart here – a senior political leader in our country has tweeted that – (chuckles) – I'll let you guess who that is – has said that, you know, this year in the – in the FY – I think the FY '19 budget that the military got its first pay raise in 10 years, which is not true. The military has gotten a pay raise every year since FY '64, I believe. Every single year there's been a raise. It might not have been a good raise, but it's been more than zero. So this chart here just shows pay raises.

Now, to understand how good a pay raise is, you've got to compare it to something because you've got – you know, it depends on what's going on in the economy at the time. So the comparison that you're supposed to make in law, the DOD pay raise is supposed to be pegged to the employment cost index. That's the dashed-green line that you see here. So when you see the bars go above the green line, that means DOD is getting a higher pay raise than the employment cost index. That's a measure of pay raises in the overall economy. If it's below the ECI, that means that the military is falling behind civilian compensation.

So you can see here, going back in the 2000s, DOD, both military and civilian employees, started getting pay raises that were above the ECI year after year. Now, what that means is you have a compounding effect because each additional pay raise is on top of last year's higher pay raise, so it starts to grow over time, all the way through until we get to around FY '10, FY '11, then we start to see Congress start cutting back on pay raises going below the ECI.

You'll notice the blue bar for civilian pay raises is missing in a few years here. That's because civilians got a zero pay raise in those years. So civilians really took a hit when the Budget Control Act was going into enforcement here.

The FY '19 budget request also proposed a zero percent pay raise for DOD civilians, although the pay raise for the military was equal to the ECI. So this is, you know, the pay raise this year is not higher than the ECI, it's not better than, you know, the private sector, it's not less, it's right at the level that it's supposed to be at.

Now, what this means, though, is all these pay raises that happened in the 2000s, that's part of what drove up the cost of military personnel. You know, you could have lower pay raises like we did for a few years below the ECI to try to bring that back, but I would argue that that's not the right way to go. The bigger source of cost growth and where we're probably spending our money less effectively is in benefits, looking at health care benefits and all of the other types of benefits that servicemembers get.

Cash compensation for the troops has improved quite a bit, and a lot of people forget this. I know when I went into the military back in 1998 pay was not much – (laughs) – but it's much better now than it was. So if you look at just the cash compensation – so not including the fact that you get free health care for your entire family, you get, you know, college benefits and things like that – just looking at cash compensations, if you're an officer, you're coming right out of college, you're going to be making a little over 70,000 (dollars) a year in cash compensation. You fast forward four years into your career, you make captain, you're going to be making a little over 110,000 (dollars) in cash compensation, four years out of college. You're enlisted, you come right out of high school, you're going to be making a little over 45,000 (dollars) a year in cash compensation. Four years later you'll

be closer to 70,000 (dollars) a year in cash compensation, four years out of high school. So compensation's not bad for the military right now. This is pretty good compared to private sector.

But where the real cost driver is in military personnel costs is still – it's health care. We got to get control of the health care costs. And a lot of that is health care costs for military retirees, not the people who are currently serving, so.

Yeah?

Q: If we can go back to – (comes on mic) – if we can go back to the choose your own adventure for acquisition funding.

MR. HARRISON: All right.

Q: This is something that the deputy secretary talked about yesterday, talking about – seemed to telegraph that we need to make tough choices and trades.

MR. HARRISON: Yeah.

Q: At the moment we haven't really seen a trend in that direction about tough choices and trades. Going into FY '20, they do – sort of now politically they've got to at least signal that we're going to change the trajectory of what we're investing in in some way, right, to sort of at least make it look more like we're changing the enemy, now we're going to change what we're spending the money on, yes? So where are those trades, do you think, going into FY '20, at least that they could – even if it's tokenism, what would it be? What would they – what would they do?

MR. HARRISON: Yeah, I mean, I don't want to, like, handicap individual programs or anything, but you're right that if they want to say that this really is a shift in strategy you should see that reflected in the types of weapons systems that we're buying. I don't know that there's a lot of opportunity to do that, though, just because given the programs that are currently in production and programs that are ramping up, I don't know that there are – there's not a lot that they could start right away, and the programs that are underway I don't know that they have a lot of flexibility in them.

Let me show you a few things here. So one is if you look at RDT&E – so this is the research and development part of the budget – these are the different types of RDT&E. So this blue line on top is classified. I wish we knew what was in it, but we don't, but there's a lot of classified R&D funding going on there. But you can see the other parts of this are pretty cyclic. When the budget was growing here in 2000s, we saw a lot of RDT&E go up. But before the budget started to come down, the RDT&E started coming down. And that's because we had a lot of programs that were started under, you know, the Rumsfeld Pentagon, started ramping up, and they either were successful programs that moved into production – so now they're getting procurement funding rather than RDT&E – or they got canceled. And so we see a ramp down and not a lot of new starts on new programs in the early 2010s.

Now, the other part I'll point out here is your science and technology funding. That's the green line that you see here mixed in with all this. It's not quite as cyclic as the other. So science and technology funding, that goes for like basic research, applied research. A lot of it goes to universities and different labs, government labs and university labs around the country. It tends to not be as cyclic. Now, that's something they've talked a lot about, that they want to do more in S&T.

But what's interesting is it's Congress that loves S&T funding. So we went back in the data and we looked at – the red bar shows what they requested in S&T funding every year. The blue bar is what was ultimately enacted by Congress. You can see that Congress added additional S&T funding every single year except one, FY '13. And who knows why FY '13 is the odd year, hmm?

Q: (Off mic.)

MR. HARRISON: No, wasn't that. That's when we had the sequester. So you had automatic cuts – (laughs) – in all of these accounts. So you had an automatic sequester here, so it wasn't in the control of Congress. But every other year that you see here, Congress has added more S&T funding than requested. So, if you're DOD and you – you know, even if you think this S&T funding is important, you don't necessarily need to request it all because Congress is probably going to give you more anyway.

Q: (Off mic.)

MR. HARRISON: Yeah, I'm going to turn it over here to Seamus for a second to talk about different types of procurement funding.

SEAMUS P. DANIELS: So if we're looking at aircraft procurement, obviously, we're seeing a bit of an uptick here from 2013 and 2014 to today. But the interesting thing to note on this chart is actually back, 2009, when we're seeing a shift in that the Navy is actually spending more money on aircraft procurement than the Air Force is. And so we can look at, you know, the Navy is buying two variants of the F-35, for the Marine Corps and for the Navy, in addition to, you know, more Super Hornets, as well as the P-8. So that's kind of the interesting trend that we're seeing now.

Aircraft procurement spending was one of the major winners in the conference report. That's something that we should note.

Moving on, so one area – missiles and munitions was one of the losers within the 2019 conference report. We really saw – that was basically a tradeoff for buying more weapons systems, buying more aircraft. But if we're looking here at the long-term trends, we can see that from FY '15 onwards there is an uptick, and notably that's for increased involvement in Syria. So, for example, we can look at the Army here, and the Army is really skyrocketing. But the question is, you know, if we're cutting – and that is why DOD is essentially saying, look, we have shortages of munitions, we have shortages of ammo. But the question is, if they're making the tradeoff in FY '19, does that have any impact on our participation and involvement in Syria going forward?

Moving on, if we look at classified procurement funding, you'll notice a distinct trend here that we saw a major uptick after 2001. But you'll notice that it's continued to increase and it's largely not subject to any fluctuations. It hasn't really been subject to the Budget Control Act. If we're breaking this out by service, obviously, we can tell that it's almost all in the Air Force's budget. This is the non-blue part of the Air Force budget. It's essentially a passthrough to intel agencies.

And finally, space procurement, another loser in this year's conference report. And it's been, you know, decreasing noticeably since FY '12-FY '13. The major question here with the Space Force is how is the Space Development Agency going to impact space procurement going forward.

MR. HARRISON: All right. Any other questions on –

Q: Yeah.

MR. HARRISON: Yeah.

Q: So I know it'll straddle a couple of those categories there, but do you have any sense, given the attention on hypersonics, as to how much money is actually going into that direction?

MR. HARRISON: Yeah, so that's hard to track because that would largely be in RDT&E funding right now in a lot of different program lines. And that's something that, you know, we've tried to look at before, but it's hard to do because you have some program elements that will fund multiple technologies and some of those technologies could be applied for hypersonic weapons, but they could also be applied to other things. So it depends on how you categorize it. But, yeah, so I don't have a good number for you. It's not as if there's a hypersonics budget in DOD.

Q: Getting back to the conference report, so we've got now – instead of the 77 F-35s that DOD requested, we've got 93 F-35s. Do you have an understanding of what kind of stress that's going to put on the O&M budget, then, for the services? Or did that – did that money show up in the conference report? Or sort of what happened there with procurement and O&M to sustain these new aircraft that they did not plan on buying?

MR. HARRISON: Yeah, so that'll happen in a future budget. (Laughs.) So, yeah, you add, you know, additional aircraft this year. It'll be a few years before they're actually delivered and DOD actually has to start to pay for the O&M for it. So DOD has plenty of time, the Air Force has plenty of time to go back and plan and revise O&M for the future to account for these additional aircraft.

This is not new, Congress adding more F-35s than DOD has requested. That has happened year after year now for a while. So you can probably count on that happening in future years as well.

Q: But still a bill that will come due that they –

MR. HARRISON: It is, yeah.

Q: – they haven't necessarily planned for, although they seem to get it every year.

MR. HARRISON: That's right, yeah. All right, Sidney (sp)?

Q: Can I make this work? (Comes on mic.) Yes! I'm very smart.

The – we have – the Navy has its 355-ship thing, which is probably not going to happen. Now the Air Force has its 386 thing, which is probably not going to happen. Is the Army losing the implausible-numerical-target race now? Do they –

MR. HARRISON: (Laughs.)

Q: Do they need to come up with, you know – I don't know – something in the 300s, clearly, and just figure out what unit of Army is – they have – they want – (inaudible) – and just come up – throw it against the wall? It seems like there's –

MR. HARRISON: Maneuver battalions or something, yeah. Yeah.

Q: Yeah, yeah. I mean, how can the Army – how can the Army make sure it's not overlooked? Obviously these targets aren't going to be reached, but they at least, you know, push the debate upwards. The Army has never been able to do that.

MR. HARRISON: Yeah. So, you know, I fully expect the Army is going to – you know, they're going to go back and retool and think about this and, you know, what's the single metric they can come up with for force structure that's going to work for them?

I would caution that in all of this, whenever you try to come up with a single metric for something as complex as military force structure, it is going to be fraught with issues. So you look at Navy ship count. It's not a good way to measure, you know, our Navy force structure. You know, anyone in the Navy will tell you that.

I know former Deputy Secretary Bob Work has talked about this, that the number of ships is not what's important. It's what you can do with them. It's the capabilities that you have on them. The same is true for a number of squadrons. You know, what really matters is what can you do with them. What kind of capabilities do you have in the squadrons? What kind of aircraft are we talking here? And how many aircraft, not squadrons?

And so, you know, the Army, they may want to play catch-up and try to come up with that single perfect metric. But I would hope they would come up with something better, which is a basket of metrics that show how you're going to improve in a lot of different areas.

You know, a big area for the Army, if they want to be tied to this strategy – and this strategy talks about focusing more on near-peer competitors in Russia and China – if they really want to play in that, they ought to be looking at their longer-range forces, like long-range fires brigades, you know. What are those capabilities that they can bring to the fight that would actually play in Russia and China scenarios, not the, you know, typical infantry and armor battalions that probably won't be able to get into that kind of fight. So –

Q: So just, in order to circle back to O&M real quick, the SECDEF and Chairman Dunford have talked a lot about dynamic force employment. And I sometimes wonder if that's kind of code for spending a little less on operations. We certainly saw the Truman just recently spent two weeks or two months in port and then, you know, came back out. Clearly that saves money for the Navy not having the carrier out.

I'm wondering just basically, as you look out at the O&M budget, are you seeing trades like that being made? Or is it staying pretty steady and growing for operations anyway?

MR. HARRISON: So in the budget, they don't provide – they don't do any level of detail in terms of actual operations. O&M pots of money are big accounts without a lot of detailed justification within them. So they'll give some justification, like, you know, number of flying hours, number of steaming days, things like that; not seeing, you know, huge shifts there that are, you know, abnormal, given, you know, the trends over the past 10, 20 years. But, no, you can't see that from the budget.

I think – I would take – I would take Secretary Mattis at his word that part of this dynamic approach that they're using is more to just be unpredictable and to try to lessen some of the stress on

the force; be unpredictable to adversaries, but better take care of our own troops by not necessarily keeping them deployed quite as often.

Yeah.

Q: Hi. Going back to sustainment real quick, I was wondering if you guys did any overall trend, looking at any overall trends for sustainment overall, and specifically – I don't know where this would be – but in relation to FMS programs, because I know this week the Air Force was talking about how about 70 percent of their sustainment funding is for FMS programs right now; so just to know if you guys were tracking that much.

MR. HARRISON: Did not look at FMS, and wonder how they come up with that. But we did look at overall Operation and Maintenance costs. And one of the trends you see is if you normalize your O&M cost for the size of the force – and this is imperfect, but if you look at O&M per person in the active-duty military – this is adjusted for inflation – you see pretty steady growth over time, growing at, like, 2 to 3 percent above inflation year after year after year. The anomaly here is OCO funding drove those costs way up. But if you take out OCO and just look at base budget O&M, it pretty much continues along the same trendline we've been on for decades.

Now, one thing that we did dive into in a little more detail was looking at different portions of our force, their operating costs of these operating forces, and how much they increased. So the blue bars show the total percentage increase in operating forces over the past 20 years, so this a 20-year comparison. The red bar shows the increase on a per-plane or per-soldier or per-ship basis.

So you see that, you know, the per, you know, unit of force that we have, we've had tremendous growth in costs. So take the Navy, for example, the costs of operating our ships has doubled over the past 20 years. It costs twice as much to operate ships as it used to. For Air Force air operations, it's even more than that, it's close to 160 percent increase above inflation in the costs of operating our aircraft.

Now, there's no, like, one reason for any of this. With the Air Force, one of the things you can look at is the number of fleets of aircraft where we have small numbers of the aircraft. Small fleets tend to cost more to operate because there are a lot of fixed costs with having a fleet of aircraft. So, you know, just think about this. For example, every aircraft is unique in terms of the tooling that you need to do the maintenance, the training of the people to do the maintenance. If you have a small number of them, you still have to have all that tooling, you still have to have the facilities, you still have to have the trained people and you have to have the trainers to train the people. Right? So you've got a whole pipeline, a maintenance pipeline, for every different type of aircraft. And when you have a lot of different types of aircraft and small numbers of each, that drives the cost per plane up.

If you look at the types of aircraft where we have very large numbers of them, like F-16s, the costs of those aircraft or the operating costs of those aircraft is much lower because you can take that, you know, fixed cost that you have of all the training and the personnel and everything and disburse it over a much larger number of aircraft. So that's part of the issue that we're seeing here, but it doesn't explain it all. Our equipment is just getting more expensive to maintain is the bottom line.

Q: I wanted to ask to look ahead to the bow wave in the mid-2020s. And in each service, if you had to pick one weapon system that you think will either fall off or be cut significantly because of having to rack and stack spending, what would it be?

MR. HARRISON: Oh, that's predicting the future there. Yeah. So, you know, if you look at – well, the Army, it's too hard to tell because they're changing up a lot of their modernization programs. And so it's always a safe bet that any new ground vehicle program in the Army is probably going to get delayed or canceled. They have a good track record of that.

In the Navy, so the Navy actually, you know, despite the metaphor being a naval one of a bow wave, the Navy doesn't have as much of a bow wave simply because they have a finite capacity in shipyards so they can't plan for a huge spike in shipbuilding, they're limited in what their shipyards can build in any one year. There are going to be fluctuations from year to year, but not as much as you could see in the other services.

But with the Navy, the big thing that they have is the Columbia class, so that's the new nuclear submarine to carry nuclear sub-launched ballistic missiles. That program, I think, is actually very protected because that's the most survivable leg of the nuclear triad. I think they're going to keep that on schedule as much as they possibly can because the current fleet of ships, the Ohio-class ships that they're replacing, they're reaching the end of their life. They've already had their service life extended. You're just not going to be able to get much else out of them, so you've got to keep production of the Columbia class going. But to do that, then you're going to have to find, potentially, offsets in other shipbuilding programs.

Probably the most natural offset, even though it may not be a good idea, would be Virginia-class subs. Instead of, you know, trying to stay at two subs per year, they had in the past planned on going down to one sub per year in some years. The Navy has talked about going up to three subs per year. I just don't think that's going to be realistic. And then, you know, there's this new frigate program that they're trying to get started, a new small-surface combatant, a frigate. You know, that's one that, since it doesn't have a constituency yet, is going to be more at risk politically.

Now, with the Air Force, they've got the F-35. You know, as we discussed before, Congress keeps adding more planes for the total F-35 program than are requested each year. I think that's a sign that the program has a lot of political support now. It probably helps that it's built in the Dallas/Fort Worth area and the representative of that area is on, you know, the House defense – she's the chair of the House Defense Appropriations Subcommittee, so it's got some high-level backing there. But, you know, I think they're going to have to – whether the Air Force wants to or not, they're going to continue along their current plan with the F-35 and maybe continue to get plus-ups from Congress.

The bomber, I think, is probably a pretty well-protected program right now because you see the Air Force leadership coming out saying not only do we need it, we need more of them. And that program, you know, it's not going to get the same level of public scrutiny because so much of it is classified.

You know, one of the programs that's probably at some risk is the Ground Based Strategic Deterrent, GBSD, the new ICBM. And Adam Smith, again, who, you know, if the House flips, he could be the chairman of the House Armed Services Committee, he's expressed some skepticism on that program.

And, you know, there are other options to the GBSD program right now, things that, you know, could involve a reduction in the number of active missile forces and shifting those to other parts of the nuclear triad, so keeping more bombers on alert or keeping more missiles in our – in the tubes of our

subs. And there are things that you could do to extend the life of the existing missiles and slow the test rate so you don't run out of missile bodies as quickly. I will refer you to a report that we published a couple of years on this that outlined alternatives to GBSD. So I think that that may come back up and that is a big program for the Air Force, it's ramping up in funding in the early 2020s.

Q: Do they have pressure within – the Navy has, frankly, with Columbia that, you know, as you say, the Ohio class, the predecessor, is their hull life is literally running out, it can't go any – it can't be extended any further.

MR. HARRISON: Yeah.

Q: I mean, is the Minuteman III force in similar shape or it's going to just wither on the vine? Or is there actually a lot more leeway to keep it going?

MR. HARRISON: So there's two forcing functions on the existing fleet of Minuteman III missiles. So one of them is the fact that the missiles themselves, the solid propellant, these are solid propellant missiles, starts to degrade over time and becomes unreliable. So that is something the missiles, at a minimum, would have to be re-cored to put new solid propellant in them and that's a pretty expensive proposition.

The other limiting factor in the Minuteman III is that we're running low on missile bodies because we generally test, you know, five or six of these missiles per year to make sure that they're reliable. As you're doing that, you're running out of missile bodies, so even if you re-core them and put new solid propellant in them, you don't have enough missile bodies at some point to, you know, have your full fleet of missiles. And right now we're at 400 missiles that are active. So those are the two limitations.

So how you could address that is, first, you could pay for the re-coring of the missiles. We've done that before on these, we could do it again, but then you have to do something about the missile cores. So you could slow the test rate and you could reduce the size of the force, so don't stay at 400, you could allow yourself to go down to 350 or 300 or whatever you want to on that, which is, of course, allowable under the treaties. You can go below it and you can shift those launchers under the treaty to another leg of your triad if you want.

Q: New START.

MR. HARRISON: Under New START, right. Well, if it stays in effect that long. Yeah.

This should be our last question, we are already over our time here. But after this, I'm happy to take other questions from folks, but we'll do that after the meeting.

Q: I can't promise it's a good one. We know the industrial base – defense industrial base report is coming out at some point, hypothetically in the near future. Have you done any number crunching or looked at anything about what the department is spending or could spend in the future, it has available to spend in the future, given the budget constraints on either trying to bring some of this stuff in-house, more foundry programs, doing more with the ManTech program or even just spending to keep certain parts of the industrial base alive?

MR. HARRISON: Yes, that is a tricky one. You know, increasingly, we're at a point – it depends on what type – what part of the defense industrial base you're talking about, but more and more of it is becoming commercial, and so it's not fully captured by DOD like it used to be in many areas. And so more and more I think we're seeing that DOD is just one customer of a larger defense industrial base. There are certain areas where there are things that only DOD will ever buy and only DOD will ever need these capabilities from industry, like nuclear-powered ships and subs, you know, ICBMs, you know, large solid propellant missiles and rockets. Not a lot of market for that outside of defense. And, you know, types of aircraft – so supersonic aircraft, stealthy aircraft, long-range bombers, you know. These are things that have no commercial equivalent and don't have – the technology doesn't tie that much to commercial.

Q: The iBomber.

MR. HARRISON: The iBomber, yeah. (Laughter.) Don't give Apple any ideas. They might dominate this in a few years.

But, yeah, so I don't see that there are a lot of great options in terms of nationalizing those capabilities, bringing them in. I mean, we used to have great arsenals in this country where, you know, DOD – the government owned and operated this section of the defense industrial base. There are still pockets of that around where we do that, like in ammunition production and things and some of the ships – shipyards. But, you know, I don't think there are going to be a lot of opportunities to do that going forward, quite frankly.

So I think a lot of it is more DOD needs to have better insight and awareness into what's going on in the industrial base. The hardest part, and probably the most important part to look at, is not the prime contractors, because you can see those directly in your contracts. What's harder is looking at the second tier of subcontractors and the third tier of the subs to the subs. That's where I think, you know – in the previous administration they did look quite a bit at that second and third tier of contractors and tried to map that part of the industrial base, but it's very difficult to do. And, you know, they never got to anywhere close to a complete mapping. And so I think that's where some of the vulnerabilities might lie. And that – if you can identify where that is and where the vulnerabilities are, then you may use targeted funding to help keep some of these operations – you know, these companies that you may be critically dependent on, to keep them going if you know that they are there and you're dependent on them.

All right. So, with that, we'll end the formal briefing. And again, if you have any additional questions, please come see us here at the front and Seamus will be happy to talk about our force structure analysis in the paper that we didn't really get to in this briefing. But I hope you all read it all, and of course you can download a copy of the report online, CSIS.org website, analysis of the FY 2019 defense budget. Thank you all for coming.

(END)