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1			Defense Innovation Board Public Meeting

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5			Moderated by Colleen Laughlin

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7			2:00 p.m.

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10			Remote Meeting

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17	Reported by:	Shondra Dawson

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1   A P P E A R A N C E S

2   List of Attendees:

3   Colleen Laughlin, Executive Director and Designated

4   Federal Officer, Defense Innovation Board

5   Michael R. Bloomberg, Defense Innovation Board Chair

6   Reid Hoffman

7   Gilda Barabino

8   Mike Mullen

9   Charles Phillips

10   Will Roper

11   Mac Thornberry

12   Sue Gordon

13   Ryan Swann

14   Warren Kat

15   DIB Staff

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 1   P R O C E E D I N G S

 2   MS. LAUGHLIN: Welcome everyone and

 3   thank you for tuning in to the Defense Innovation

 4   Board's Summer Public Meeting. My name is Colleen

 5   Laughlin, and I am the executive director and

 6   designated federal officer for the Defense Innovation

 7   Board.

 8   For those in the room, please make sure

 9   to silence your phones if you haven't. Today's

10   meeting is being recorded and live streamed to allow

11   members of the public to attend virtually.

12   Thank you to DMA for providing their

13   expert support to this event. The Board will now

14   begin now begin its public session. And Mike, I will

15   now hand it over to you, please.

16   MR. BLOOMBERG: Well, thank you,

17   Colleen. And hello to everyone who is watching

18   online. Thank you call for joining us.

19   On behalf of my fellow board members,

20   let me begin by saying that we're all grateful for the

21   continued opportunity to serve and to support the U.S.

22   service members as they carry out their very important

1   missions in an ever changing and dangerous world,

2   where they're risking their lives to protect our

3   country. We should never forget that.

4   And the purpose of our work is to bring

5   innovative, new ideas, and recommendations to help

6   them and help the Department of Defense leadership.

7   Today's meeting is another important step, we think,

8   in that process, as we release our first official set

9   of recommendations to the public.

10   Our reports, which we'll share with you

11 in a few moments, represent the combination of six

12 months of work together. Our board is grateful for

13 the insights of leaders from across the armed services

14 and government agencies, as well as entrepreneurs,

15 investors, and contractors.

16   And I think it's important for the

17 public to know, while we're all -- we've all heard

18 about the many complex, persistent challenges of

19 protecting our national security, we've also seen a

20 strong readiness and willingness to meet those

21 challenges head on, as evidenced by the department's

22 commitment to working closely with us.

1   We've had the opportunity to sit down

2   with people from all military ranks and backgrounds,

3   and we've seen how they are working tirelessly to

4   solve problems. Our job is to advise the department

5   and help facilitate more of the public/private

6   partnerships that we think can support its missions.

7   For example, just last month, officials

8   from the United States and India announced a new

9   initiative during Prime Minister Modi's visit here.

10 That initiative can strengthen defense industry

11 startups in both our countries, and hopefully, serves

12 a model with more of the public/private partnerships

13 that we need to follow.

14   Today our Board's task -- two task

15 forces will report on our findings in two specific

16 areas that Secretary Austin directed us to consider.

17 One, science and technology strategy, and two,

18 strategic investment capital.

19   We've asked Mac Thornberry to chair the

20 former, and Will Roper to do the second one, so I'll

21 ask Mac to update us first on what you and the other

22 board members have done. Thank you for your service.

1   If you would take it away.

2   MR. THORNBERRY: Thank you, Mr.

3   Chairman. And it's our pleasure to present to the

4   full board our report titled An Innovation Strategy

5   for the Decisive Decade.

6   And first and foremost, I want to

7   express my appreciation and admiration for the other

8   members you appointed to this task force. To have the

9   president of a leading college of engineering, a data

10   and analytics specialist from industry who spent time

11   in government and also in uniform, not to mention a

12   former chairman of the joint chiefs of staff, was an

13   incredible wealth of experience and insights that was

14   tremendously helpful.

15   Each of them, as well as our wonderful

16   staff, led by Zac and Elliot, put a lot of time into

17   this over the last six months, talking with all sorts

18   of folks inside and outside the building. Inside and

19   outside government, industry, academia, thing tanks,

20   tried to draw on the best of the ideas that -- that

21   are out there.

22   As you mentioned, we were asked to

1   assess the department's first ever national defense

2   science and technology strategy, and assess whether it

3   met the requirements of law, as defined by the FY22

4   National Defense and Authorization Act, passed by

5   congress. And also, whether it aligned with the

6   national defense strategy.

7   We did not approach this as a regular

8   paper sort of exercise. We tried to step back and

9   say, "Okay. What's the purpose of a strategy and will

10   this one achieve that purpose." And if you think

11   about it, the purpose of any S&T strategy is pretty

12   straight forward. It's to get the very best into the

13   hands of our war fighters so that they can do the job

14   that our country asks them to do.

15   But we -- but they deserve the very

16   best from the whole country, not just a few labs or

17   companies, the -- the whole nation. Does this

18   document do that? Well, we've got our doubts. Not

19   that we disagree with any of the objectives or

20   aspiration that is written in here, but we also heard

21   very clearly, and all of us have experienced that

22   there is a culture that makes it very difficult to

1   draw on the best of the whole country to assist and

2   enable our -- our war fighters.

3   And -- and it resists other attempts to

4   move faster and take non-traditional approaches. As a

5   matter of fact, it was suggested to us that the

6   culture of obstructionism will not change until it is

7   explicitly called out. And if we do nothing else in

8   our report, we want to call out that culture that

9   resists change, resists moving faster, and resists

10   taking non-traditional approaches.

11   We think for any S&T strategy to

12   actually achieve those objectives, you've got to have

13   three things. One of them is a sense of urgency. And

14   -- and we have seen that the department can move fast,

15   but usually it didn't work. So you got to have the

16   sense of urgency of wartime without the casualties of

17   war. And it's really more about culture than anything

18   else. Where do the incentives lead you, what's

19   rewarded, what's punished, and I would suggest that is

20   a topic that deserves further exploration from us or

21   -- or other entities.

22   So you've got to have a sense of

1   urgency, and secondly, you've got to have

2   accountability to force through countercultural change

3   through the system. And what really strikes me is

4   that there are lots of studies on this topic, and they

5   all say basically the same thing. And yet, change

6   only happens at the margin.

7   So the problem is not knowing what the

8   problems are or knowing what to do, the problem is

9   making the change. And -- and that's where we came

10 back to accountability. And ultimately, only the

11 Secretary and the Deputy Secretary have the authority

12 within DoD to push through change that is being

13 resisted at a number of levels. And that requires

14 their personal, persistent, relentless involvement.

15   Now, obviously, there's a -- there's a

16 big role for congress here. There's obviously a role

17 for the service secretaries, the joint staff, but

18 without those top two leading the way, it's not going

19 to happen.

20   So you've got to have a sense of

21 urgency, accountability, and third you've got to have

22 the talent. And they are as fundamental here as they

1   are anywhere else. They're our key advantage, and

2   yet, we make it too hard to work in government, and

3   too hard to work with government.

4   One of the key points that was

5   emphasized to us in our session with institutions of

6   higher learning was that there needs to be a clear,

7   more persistent call, to all Americans, to -- to serve

8   this national security mission. It may be in that

9   uniform or out of uniform. It may be in the lab; it

10   may be out on the front lines. But we have not heard

11   as much about what's at stake, why it's important.

12   And that's one of the requests -- or one of the

13   suggestions we make in our report.

14   So I'm just saying, Mr. Chairman,

15   there's a lot at stake. Our war fighters deserve our

16   best, and we have challenges today in getting them our

17   best. And -- and that's what I think all of us, and

18   the department, and others need to focus on.

19   And with that, I would turn to other

20   task force members, if they have "implifications" or

21   corrections that they'd like to make.

22   MR. BLOOMBERG: Keeping down on this

1 report it would seem. Before we take a vote on it, I

2 just wanted to thank you and all of the people on your

3 team for doing the best you can for our country.

4   We are the most wonderful country in

5 the world, but we're always being threatened.

6 Particularly now, and anything that we can do to help

7 them do their mission and have careers so that they

8 stay in and keep serving is well worth the effort that

9 we put in. And I think the public should know we all

10 feel honored to have been asked to do this and

11 thrilled to be able to do it.

12   We need a vote on this, so I would ask

13 each of you to vote yea or nay.

14   Gilda Barabino?

15   MS. BARABINO: Yea.

16   MR. BLOOMBERG: Susan Gordon?

17   MS. GORDON: Yea.

18   MR. BLOOMBERG: Michael Mullen, the

19 former joint -- head of the joint chiefs of staff?

20   MR. MULLEN: Yea.

21   MR. BLOOMBERG: Okay. Charles

22 Phillips?

 1   MR. PHILLIPS: Yea.

 2   MR. BLOOMBERG: Will Roper?

 3   MR. ROPER: Yea.

 4   MR. BLOOMBERG: Ryan Swann?

 5   MR. SWANN: Yea.

 6   MR. BLOOMBERG: Mac Thornberry, who

 7   better vote yes.

 8   MR. THORNBERRY: Okay.

 9   MR. BLOOMBERG: Reid Hoffman?

10   MR. HOFFMAN: Yea.

11   MR. BLOOMBERG: Will, it is your turn.

12   We've finished with the science and technology

13   segment. Now you're going to brief us on the

14   strategic investment capital side; right?

15   MR. ROPER: Thanks, Mike. And I'm

16   going to start as well by thanking everyone that was

17   involved with the study. Charles Phillips, Sue

18   Gordon, Reid Hoffman, and Warren Katz, who are all of

19   our task force participants.

20   I want to thank Colleen and the DIB

21   staff who had to facilitate a lot of meetings. We met

22   with over -- met or surveyed 310 different startups,

1   64 different venture capitalists, and 56 different

2   established DoD companies to really understand a broad

3   set of perspectives about challenges of DoD acting as

4   investor.

5   I also want to thank Joan Higby [ph]

6   who pointed a provided to help support, and

7   significantly improved the document. We wouldn't have

8   gotten this study done without all of you, so thank

9   you for that.

10   So we took our study to mean the DoD

11   wants to be an investor, it just doesn't know how to

12   do that. It's created the Office of Strategic

13   Capital, it wants this to be successful. But we

14   realized as a team that unless we pulled back and

15   looked at the whole ecosystem around which DoD

16   investment takes place, you could create something

17   that's really good, put it into an otherwise bad

18   system, and have it fail.

19   And the term "Valley of Death" came up

20   so recurringly in our study, we decided to embrace it,

21   and to call our study Terraforming the Valley of

22   Death. We systematically walked from one side of the

1 valley to the other and identified reforms that we

2 thought were needed so that companies can routinely

3 get to recurring revenue in the FPS [ph], that's the

4 goal line that we're trying to reach. And we need a

5 place for them to start with early stage investment.

6 That's the starting line.

7   We need a transparent, predictable

8 process that can scale investment from one side of the

9 valley to the other. And universally, from people

10 outside of the government, investments, government

11 officials that we talk to, no one believes that the

12 process that we have today can scale those investments

13 and succeed.

14   And there's a reason to treat this with

15 a high degree of urgency. There are a lot of

16 companies and investors that, at really a historic

17 acme are wanting to work in defense who haven't

18 before. And if the Defense Department does not get

19 them to recurring revenue, this window may not be

20 repeated, and this is the decisive decade against

21 China, so we need to get new companies into the

22 pipeline that are somewhere in between the defense

1 industrial base and the commercial industrial base,

2 that doesn't work with us at all. A dual use

3 industrial base with a process that makes sense for

4 them.

5   The way we framed our problem is that

6 there are three components of the valley. There's the

7 investment side of the valley, where R&D money is

8 spent. There's the middle of the valley that's

9 currently empty, and I'm going to get to that in a

10 second. Then there's the procurement side of the

11 valley. That's the big palm budget, the big money

12 that is spent in defense, but with a lot of

13 restrictions and a lack of flexibility.

14   You -- you have to make reforms in all

15 three, or else you can die at any point in the valley.

16 You either don't get started, you die of dehydration

17 in the middle, or there's no fertile ground on the

18 other side. So you have to do them, and if you're not

19 willing to do all three, you're not likely going to

20 achieve that -- that goal of getting companies to

21 recurring revenue.

22   So our macro-conclusion is that the

1   DoD's going to have to care about the future

2   industrial base as much as it does about war fighting

3   readiness today.

4   If it doesn't do that, then it will

5   keep defaulting more and more to readiness at the cost

6   of not growing the industrial base, and this window of

7   opportunity with VCs and startups that could well be

8   lost.

9   So let's start on the investment side

10   of the valley. There was a great study we referenced

11   that we called the Bressler Study. It was by Amanda

12   and Alex Bressler, and presented at the Naval Post

13   Graduate School's Acquisition Research Symposium. It

14   had a lot of great data.

15   So you might ask, "Well, why aren't

16   companies succeeding in the system?" Well, only 16

17   percent of companies that got an early stage

18   investment type contract actually made it to the next

19   step of phase 3 that can put them into procurement.

20   So it's not -- it's not really a high

21   percentage rate. And if you drill down inside of

22   that, .53 -- .53 percent of the 4,703 companies that

1   were awarded these investment type contracts dominated

2   -- where's my number --

3   MR. THORNBERRY: Eighteen.

4   MR. ROPER: Eighteen percent of the

5   entire amount. So .53 percent are taking 18 percent

6   of the total. And the study by the Bresslers

7   concludes that this system is not going to get

8   companies across the valley, and we agreed.

9   Some of the systemic issues we saw was

10   not leveraging the total, addressable market potential

11   of the DoD. There's a lot of overlap between military

12   needs and commercial ones. That's part of the DoD's

13   value proposition that it's not leveraging.

14   It's not generating product market fit

15   via its investments. A lot of its R&D is spent

16   completely separately from the palm process. And so

17   just because you have an R&D contract doesn't tell you

18   anything about whether you're moving towards recurring

19   revenue, and that's harmful for companies and

20   investors.

21   The DoD, as a whole, is not tiering its

22   investments like the private sector does. They go

1   from C to series AB; the investments get fewer as they

2   get bigger because investors are growing companies

3   that can go change the world. The DoD does way too

4   many small investments that are not capable of growing

5   those world changers.

6   We found for every service the research

7   lab was an impediment for working with the dual use

8   ecosystem. And though we didn't look at reforming the

9   lab, we highlighted as something that should be looked

10   at as a following step.

11   And then across the board, not having

12   timely and predictable correspondence. Companies

13   don't know when they're going to be told when they're

14   selected or not. So getting a fast no instead of a

15   very slow maybe is desperately needed for companies to

16   plan for DoD on their growth path.

17   And generally, not using modern

18   development practice, especially digital ones, cuts

19   off a lot of companies that are working in digital

20   tech and AI because the DoD hasn't caught up yet with

21   the -- the internet age, much less the AI age.

22   We looked at all of the innovation

1   organizations, the DIUS, the OSCs, the service

2   research hubs, and we identified 10 best practices

3   that we saw, in at least one of them, but that were

4   not co-located in any one of them. Leveraging outside

5   presence, getting outside fence lines, focusing on

6   dual use, having non-contractual mechanisms so that

7   you're not falling inside the far.

8   Training, staffing, and equipping for

9   the mission, across the board, the innovation mission,

10 was under resourced. It's the passionate few that

11 were trying to do this on behalf of their much larger

12 organization. That passionate few was getting --

13 getting burned out.

14   Rapid contracts and payments,

15 public/private investment matching. We can pool

16 funding together as a way to show a company it can be

17 successful in defense, as well as in the commercial

18 ecosystem.

19   There just wasn't enough. There were

20 examples of this, but it is not the way the DoD does

21 business as a whole. And in some cases, authority was

22 lacking. It was either granted or lacking. Where it

1   was granted, the results were much better.

2   User centricity, getting users and

3   developers together almost always led to great

4   results. And finally, risk taking culture. Where it

5   existed in places like special operations command, the

6   results, creativity, and innovation were much better.

7   You can probably guess, our

8   recommendation really centered on taking these 10 best

9   practices and just centering them in every

10   organization. If it worked for one, everyone will

11   have the same playbook. And the DoD needs to

12   standardize its correspondence process with industry

13   so they can be on the critical path. If it doesn't do

14   this, it's just going to be this -- this wildcard for

15   companies. And that's not going to make DoD an

16   investment partner of choice.

17   We looked at DIU and OSC. We were very

18   supportive of both organizations. We think they need

19   empowerment. They need a strategic role that works in

20   a complimentary way with the services, and we outline

21   some ideas about how to do that in our report.

22   And so, you know, the investment side

1   of the valley, the money is there. There's 1.7

2   billion in early stage investment type funds, plus the

3   30 something billion in the research lab. The money

4   is there, there's just not the want to. There

5   certainly isn't the process if the want to is there to

6   make winners in a systematic and sustainable basis.

7   The middle of the valley is where

8   things were interesting. There's nothing there. You

9   go from R&D into the palm, and that doesn't work

10   because R&D really funds a portfolio of companies on

11   an almost yearly basis. And the palm, at best, is a

12   two-year process, often a three- or four-year process.

13   And so if you go into a year of

14   execution with a portfolio of companies, you don't

15   know which ones are going to succeed, how do you

16   possibly palm for them? You're left with this awkward

17   situation of trying to find money to keep them alive

18   or having them go back to their -- their private

19   investors, not knowing if there's a future check, and

20   especially a recurring one.

21   So we recommended an oasis of funding

22   be put in the middle of the valley so that if you are

1   a successful prototype, and a service is making a good

2   faith commitment to put you into the palm, there is a

3   line of accounting that does a couple of things.

4   Get you funding so that you're not

5   worried about, you know, payroll and things of that

6   nature. It allows you to keep productizing, so that

7   you'll be more successful going into the palm. It

8   sends a clear signal to private investors that these

9   are going to be the winners this year in the DoD

10   market, and it also provides congress a means of

11   oversight.

12   You're not asking for a blank check;

13   you're telling them every year we've got 20 or 30

14   companies and a handful of them are going to be the

15   winners that are going to go into this fund. So

16   you're not overseeing in a programmatic way, the way

17   that the palm is, but you can oversee it a portfolio

18   way, at a portfolio level, that we thought was

19   acceptable.

20   Without it, the mismatch in timing in

21   between R&D and procurement and service contracts in

22   the palm is never going to let a company across the

1   valley with a high degree of confidence. And we'll

2   find the bones of a lot of great companies right there

3   in the middle because there wasn't any way to keep

4   them alive.

5   And finally, on the procurement side of

6   the valley, that's been looked at a lot. And it's

7   being looked at both from acquisition reforms, from

8   the PPDE process. We echo many, many of those

9   recommendations. And I'll highlight a few that we

10   thought were -- were important for fixing and

11   terraforming the valley.

12   Producing headquarters oversight across

13   the board is so hard to move at the pace of industry

14   because the time gets taxed and a thousand little cuts

15   that do not make the government capable of working at

16   industry speed. Tech scouting and market research are

17   just absent across the board because programs are

18   funded late and with staffs that are smaller than they

19   need to be, they don't have time to go survey the

20   world of technology the way that like a major investor

21   would.

22   This was a role we felt DIU could

1   especially help with being on the front lines,

2   bringing a lot of great companies into the department

3   and exposing them to services. One of the ones I

4   worked with during my time in the air force did come

5   from DIU, they found them first and took them to the

6   next -- the next level.

7   IT's got to be treated differently.

8   Your digital companies are not going to be able to

9   transition to normal DoD programs because we don't

10   have anything like the internet. And we've got to

11   adopt modern industrial practices, or else our

12   industry base will diverge from the one that's, you

13   know, serving the rest of them.

14   So these -- these are important because

15   if you don't change these things then there's no place

16   for industry to go. They could productize, but it

17   won't end up being for us. They'll end up going out

18   and trying to be successful on the commercial market

19   and leave us behind.

20   So if you put these together, it's

21   really doable. There's a lot to be done, but there's

22   not a lot that we've said that's outside of DoD's

1   authority. If it makes the investment side of the

2   valley look more like private investment, where it's

3   tiered, it places big bets. Where there is

4   communication that companies can depend on, we should

5   expect it to be successful. It's often the first

6   mover and it controls its market to a high degree.

7   If there was a place those successful

8   companies could go to that signals they're the winners

9   that are going to be going into the palm, and there

10   was someone to manage those companies and that money,

11   then you'd get the benefit of DoD money and

12   incentivizing private investment to come in to scale.

13   Finally, if you don't make the

14   procurement side of the valley more receptive for

15   companies that are transitioning across, great, you

16   build a product that there's no place for you to go.

17   So programs are going to have to be more frequent in

18   their opportunities, or else these generational

19   programs are not going to be well timed for many

20   companies. And if you miss that boat, the next one's

21   30 years later.

22   So all told, those were our findings,

1   our recommendations and we put a lot of the things we

2   didn't get to, but we thought were good ideas in the

3   appendices as a potential for future study items. And

4   again, I really enjoyed doing the study, enjoyed all

5   the participants. And I hope the conclusions are

6   valuable to the Department and to the Secretary.

7   MR. BLOOMBERG: Will, thank you, and

8   Mac, thank you. You've done such a great job that

9   we'll lean on you to do another study. That's the

10   nicest compliment we can pay.

11   We have to take a vote on this, so I

12   ask each member to say yea or nay.

13   Gilda?

14   MS. BARABINO: Yea.

15   MR. BLOOMBERG: Sue?

16   MS. GORDON: Yea.

17   MR. BLOOMBERG: Mike?

18   MR. MULLEN: Yea.

19   MR. BLOOMBERG: Charles?

20   MR. PHILLIPS: Yea.

21   MR. BLOOMBERG: Will?

22   MR. ROPER: Yea.

1   MR. BLOOMBERG: Ryan?

2   MR. SWANN: Yea.

3   MR. BLOOMBERG: Mac?

4   MR. THORNBERRY: Yea.

5   MR. BLOOMBERG: Reid?

6   MR. HOFFMAN: Yea.

7   MR. BLOOMBERG: Fabulous. Thank you

8   both for your hard work and for the committees that

9   did it all. And these are the recommendations to the

10   Pentagon. The studies are done at the request of the

11   Secretary of Defense, and I'm sure he will use them to

12   make this country better and safer.

13   Let us talk for a few seconds about our

14   next set of tasks. Colleen, will you share more

15   information about the next priorities with the Defense

16   Innovation Board, otherwise known as DIB, as well as

17   any public comments that we have received?

18   MS. LAUGHLIN: Absolutely. Absolutely.

19   So thank you so much, board members. So today the

20   studies we voted on, we'll be meeting with the

21   secretary here. I know some things have shifted, so

22   our board meeting will be a little shorter than we

1   anticipated.

2   But already talking about lowering

3   barriers to innovation mapping incentives. I know

4   that had come up numerous times, I think in both

5   reports. And then also in some of the conversations

6   and briefs you received today really focusing on

7   regenerative AI, large language models, AIDA, that

8   underpins all of that. So I think there's a lot of

9   issues that will be right, also talent. Education and

10   talent we know is something too, that was brought up

11   in all of these.

12   So, Mr. Chair, as we go and speak with

13   the Secretary here in a bit, I think those will be

14   some of the -- virtual connectivity interruption --

15   and we'll be well postured to deliver them.

16   With that, I will read -- we did

17   receive public comments. I will read through a few of

18   them here. We don't need to respond to them. We will

19   be posting these online, of course.

20   So the first one was, "Can we please

21   talk about implementation ideas for these two

22   studies." So if you guys want to get out the report,

1   there's a lot of great information. And so you

2   mention the appendices, but I don't know if there's

3   anything else you want to?

4   MR. ROPER: We try to be very, I mean,

5   having served in government myself, there's some

6   recommendations you can implement and some you can't.

7   We try to be focused within the bounds of the possible

8   things that the services and that the Secretary of

9   Defense can go do.

10   There are only a couple of times that

11   we created like a recommendation around how to like

12   source the money for the oasis fund in the middle of

13   the valley where we said, "well, you could fund it a

14   variety of ways." Some are directly within the

15   department's control; others are potential legislative

16   change requests from congress.

17   But as a whole, we scoped the study to

18   be implementable. It doesn't mean it won't be

19   painful, it's going to cut against everything.

20   Culturally, process-wise, budget-wise in this

21   building. But I -- I think we felt like doing that

22   was more important than doing it perfectly on a clean

1   sheet of paper because there is this window of

2   opportunity with investors from companies.

3   The DoD finds themselves lacking as a

4   partner, who knows when this will improve.

5   MS. LAUGHLIN: Okay. I know with your

6   study culturalism is a big theme around. Do you have

7   some ideas on implementation?

8   MR. THORNBERRY: I would just say, one

9   of the points we made in our report was that as DoD

10 looks to implement an implementation plan for the S&T

11 strategy, that it be as unclassified as possible so

12 that the bright light of public opinion and help with

13 the accountability and the urgency that we call for.

14   There has been some talk to make it all

15 classified, and that would remove it from that sort of

16 personal scrutiny we discussed.

17   MS. GORDON: The other thing that I'd

18 add is is that I'm so heartened by the collective

19 recognition of the moment and the attention of all the

20 parties to do something to move us forward.

21   You know, Colleen, you mentioned next

22 studies. I think some of the good opportunities we

1   have is to take some of the recommendations from the

2   first two studies and look at some of the

3   practicalities. Because oft times there's an

4   impedance mismatch between processes that have been

5   developed for good reason, but are inadvertently

6   impediments to doing some of the things.

7   So I think one of the opportunities we

8   have with this next set of studies is to take those

9   and look at the more mundanities that actually can

10   impede the progress we intend.

11   MR. HOFFMAN: Is mundanities a word?

12   MS. GORDON: It just became one, sir.

13   MR. LAUGHLIN: The second comment here,

14   "Thank you very much for your work in helping DoD in

15   its digital transformation. I'm curious where you see

16   the priority over placing legacy systems, relative to

17   producing modern systems as a player?"

18   MR. ROPER: Well, since I've lived it,

19   I'm happy to - I'm happy to take a stab at it. But I

20   mean, it's really hard getting new programs. That

21   goes back from the -- how there can be competing

22   ideas, members of congress, there are always competing

1   ideas here in the building, even within the same

2   service.

3   Just a lot of -- a lot of competition.

4   And I think that that plus funding things late to

5   need, which doesn't give you any time for new ideas

6   and opportunities because you don't have the risk

7   tolerance, so you go back. It -- it puts this

8   flywheel spinning where we kind of build something

9   that's a little bit better version of what we had

10   before. That's all that we have time to do.

11   And because it's so difficult to get

12   things into the palm, we keep things longer than we

13   should. And in some cases, is stretches to like a

14   generation where people are flying the same airplanes

15   that their -- their parents flew, even their

16   grandparents flew. Well, that's not going to keep us

17   up with China, so we felt that if you didn't treat the

18   expiration date of a platform as importantly as the

19   day it has like its initial operational capability

20   declaration, then we're going to keep defaulting to

21   generational programs and that's just a losing

22   strategy.

1   How -- how does that happen? You've

2   got to be wiling to fight. You've got to be willing

3   to make it important. That's the only thing that

4   changes anything in this building. It doesn't change

5   because you rework or create a different process. It

6   changes because leaders are willing to carry the

7   message and fight for change. No other solution to

8   that other than putting the calories into the fight.

9   MS. GORDON: I still think there's a,

10   you know, Mac mentioned in this study the impact of

11   culture. And we talk a lot about risk and risk

12   management. I think one of the things you have to

13   start deciding, are you going to take the risk with

14   the present or are you going to take the risk with the

15   future? And here to for, we tend to take risk with

16   the future. Right?

17   That is -- so we find everything we're

18   doing to completion, and we try and achieve the future

19   with the rest, with what's left over. And I think

20   that mindset has to change. So I think that's an

21   element of what you talked about, is that's a --

22   that's a big concept and it's hard because the machine

1   is designed to assure. But it really is something

2   we're going to have to invest because if you do

3   everything you've been doing and try and change with

4   the remainder, you just won't get there. Just won't

5   do it.

6   MR. MULLEN: We -- we actually allow

7   the Secretary of Defense -- executioner. And that's

8   an execution. Those are huge jobs. You have to

9   prioritize. But at the core of it is to change the

10   culture in every aspect of this, not -- not just you

11   do the S&T, or the grunt work of casualties.

12   As less they do that, we'll keep doing

13   more -- we'll do -- we'll figure out down the road, we

14   get down the road, we'll fund the here and now. And

15   we won't be able to make the change.

16   You just have -- you have to have

17   leadership, which is really good, give you permission

18   to take risks, quite frankly, and not punish them when

19   they miss the target. That -- if they do that over a

20   period of time that will be infectious, you know. And

21   other people will figure it out.

22   That will also bring more innovators in

1   here --

2   UNIDENTIFIED SPEAKER: Yeah.

3   MR. MULLEN: -- and into the -- into

4   the community at large.   And the opposite.   The

5   opposite is true as well.   If you don't do that,

6   certainly the innovators aren't going to show up.   The

7   small companies with great ideas aren't going to show

8   up, and in many cases don't know because that risk

9   tolerance is so low, in that, you know, they're

10   willing to stay riskless.   It's so low and the

11   bureaucracy wins time and time again.

12   So this is what I've always worried

13   about with these -- not just these studies, but

14   studies at large, is with great ideas in them, and

15   these do but, you know, will the leadership be able to

16   actually take them, prioritize them, and -- them up.

17   That's really critical.

18   MS. GORDON: Yeah, it always was.

19   MR. ROPER: Two -- two cases, maybe

20   more than that, that when for an innovation in an

21   organization, that when the leaders change and top

22   cover changed, their ability to do mission, you know,

1   when from hero to zero.

2   MR. HOFFMAN: Yeah. Yeah.

3   MR. ROPER: You know, having leaders

4   that are not just, you know, good managers, and

5   operators, and efficient types keep the train running

6   on time. You know, you also have to concede to build

7   the airplane while you're making the trains run. And

8   I think that's one of the biggest risks for all of

9   this is we'll get leaders who are for this and are

10   risk takers, and then we'll get elite -- because you

11   can't have perfect leaders, not in -- not in

12   government, and there'll be changes.

13   It only takes one or two that are mis-

14   timed to put things on ice. And I don't know how we

15   fix that other than asking congress to make it this

16   important when they confirm people.

17   MR. PHILLIPS: I would say in addition

18   to the culture changes and process changes, we need to

19   make it easier for companies to interface with the

20   DoD. We talked to a lot of companies, I forget how

21   many now, but that was a consistent thing that there

22   are lots of different buying points, lots of different

1   procurement organizations, different formats, and it's

2   just difficult to navigate the ecosystem and know

3   where to start, how to get to, and much less answer

4   what are they looking for, plus priority. And so

5   there's no clear way to get started. And so a lot of

6   people, the "navigationable" that it puts off some

7   startups as too risky to do business.

8   You had two that the RFPs, the

9   proposals, the response needed is so complex up front

10   it's a high cost just to respond to try to get in the

11   game. And so I do think a lot of qualified people

12   just decide to look elsewhere.

13   So what they asked for was simplicity,

14   is there a way to get a single starting point? Lots

15   of organizations -- innovation organizations in DoD,

16   we just can't track them all. Is there a way to

17   aggregate that in a portal or somewhere for us to

18   navigate this ourselves?

19   Expressed a clear need and then some

20   consistent funding. To your point, once we get

21   started that there's something on the other side of

22   this if we actually are successful. So I guess some

1   sort of client service, customer service aspect to

2   this. People want to know how do I do business with

3   the DoD in a way that makes sense for a company my

4   size.

5   MR. MULLEN: Can we talk a little bit

6   about what you find, this is what I would call the

7   fate of startup in the ecosphere is the timing of our

8   decisions in the building versus the timing of when

9   they need capital, when they have to make decisions

10   and how disconnected that it seems to me that it

11   really is?

12   MR. ROPER: It's the -- the money in

13   the laboratories and the SBIRS, Small Business

14   Innovative Research, which you know, 1.7 in the

15   latter, 30 some odd billion in the former. It's

16   pretty -- pretty flexible. It's there every year.

17   It's --it's maintained by congress, it's well

18   supported. It was way to peanut butter. It's like

19   the DoD investment was just C series A. And there's

20   no one that's going to productize.

21   Now, the services, and I'd say

22   obviously I was there. But you know, part of what we

1   did at the air force, and they contained is tiering

2   the investment so that you can -- you can get really

3   small, entry level, to some larger prototyping things

4   to some bigger contracts that can be as big as 60

5   million that will let you productize. Although, you

6   can't productize everything for 60 million. There

7   will still be gaps there. And that was as big as you

8   could get by law.

9   What we found is even if you did all of

10   that and got it right, okay. So we're coming into

11   this year, let's say we take 10 big bets each year as

12   a department. We got 10 companies; we don't know

13   which ones are going to succeed. How you do palm for

14   that?

15   You can't put it in like a line item,

16   by type, by company, 'cause you don't know who's going

17   to win. And if you have to go back and fund them out

18   of R&D, there's only so much resource you can get.

19   Now, you're not keeping your flywheel spinning.

20   So we really thought that this is a

21   case where we need something to bridge between. Where

22   we can tell congress, this isn't a blank check. It's

1   one of these 10 companies and we'll come tell you

2   which one succeeded and why.

3   And when we put them into the oasis

4   account, which is a little reminder that the valley's

5   barren in the middle, it would tell those companies

6   you're moving towards the palm. It may not tell them

7   at a hundred percent confidence, but it's certainly

8   better than being in R&D.

9   It tells private investors, "Oh, this

10   is a good investment." It's like a Good Housekeeping

11   seal of approval and still gives oversight. Now,

12   where to find the funding, right? There are several

13   different mechanisms, moneys' always hard.

14   But if there were only one thing to be

15   done, like that's something that has to be done if you

16   ever want to have a startup to say, "Hey, I won a big,

17   recurring revenue contract. I was in a process I

18   understood, I knew which phase I was in, and I knew

19   when the next decision would be." Those decision

20   gates don't exist in any formal way. So you're

21   basically having to get a Ph.D. in DoD to try to have

22   any money from it.

1   If walking down the hall to the

2   acquisition undersecretary, there's a huge slide of

3   the DoD acquisition system at the J system. You know,

4   that's all documented. There's nothing like that for

5   -- for innovation. There needs to be, and it needs to

6   be radically something.

7   MS. LAUGHLIN: Okay. We'll look at

8   this here, one last question. "What does the future

9   of U.S. national security look like between public and

10   private partners?"

11   MR. HOFFMAN: Shared responsibility.

12   MR. ROPER: Yeah. It has to.

13   MR. MULLEN: If you're not sharing,

14   your absolutely not -- in terms of meeting the needs

15   of generating technologies and getting out to the war

16   fighters; right? I think if not growing, or not

17   allowing it to grow or making it grow, whatever the

18   right terms is, then that impairs. It just has to be.

19   MS. GORDON: I -- I think -- I think

20   it's both parties value propositions are important and

21   have to recognize the responsibility and -- and

22   certainly the digital environment kind of obliterated

1   some boundaries, made the private sector part of the

2   threat surface. Our adversaries and competitors

3   certainly realize what a great strength of America and

4   her allies and our partners are. So I just -- it has

5   to grow. It has to be faster; it has to be seamless.

6   It has to come from a shared perspective of value.

7   MR. SWANN: I think it also, building

8   on the point, I think it also -- it has to increase

9   from a talent perspective --

10   MS. GORDON: Yes.

11   MR. SWANN: Right? From a people

12   understanding our culture, understanding their

13   culture. The -- the sharing of ideas to kind of get

14   through the people, process, technology of the built

15   in all to me, that's going to deliver capability. So

16   it's definitely got to grow. Definitely got to

17   evolve.

18   MS. BARABINO: I'll just add to that,

19   like an enabler for all of those things to happen

20   should be a compelling narrative that wraps around

21   that, to tie in the mission to bringing the best

22   talent to understand the importance to all of us. The

1 national security and what comes out of national

2 security for the benefit of society, basically.

3   MR. ROPER: Gilda, during your tech

4 years, what would be your message today to students?

5 After your time during the last six months, have you

6 found a good nugget while you've been here that we can

7 use?

8   MS. BARABINO: Yeah. I actually have

9 been thrilled by have the activity just stay here

10 because what's really clear, the -- the young people

11 in particular want to make a difference in society.

12 They want to use their education in important ways.

13 And for the young people to see that to be innovative,

14 to use technology in creative ways, they could use

15 their education that way in service of their country.

16 In service of society and humanity.

17   And that's why I was bringing up the

18 part about the compelling narrative because many times

19 our young people don't see that. We can help them see

20 how they can be contributors to their education and

21 the importance of technology and innovation.

22   And we need all the ideas coming from

1   everywhere. So this time here to see that and to see

2   the wealth of opportunities in national security, to

3   use those creative minds and innovative ways of

4   thinking and doing has been really exciting.

5   MS. LAUGHLIN: Reid, we haven't

6   forgotten about you if you had any thoughts or

7   comments.

8   MR. HOFFMAN: Okay. Well, I mean, I --

9   a strong plus one to a number of the comments that

10   have been made. And, you know, I think this is just

11   reiterating some of the excellent things that have

12   been said, but it's -- we both have, you know, a

13   number of, you know, amazing people that we've had the

14   honor and the pleasure of interacting within the DoD.

15   And you know, people who are, you know,

16   committed to, you know, having a kind of a health

17   innovation culture. But it's important, obviously, to

18   make sure that we continue to, you know, do things

19   that are a little unnatural, like take innovation

20   risk, experiment with things that may or may not work

21   in order to discover the right one.

22   I, you know, it's been an honor to be

1 part of this process.

2   MS. LAUGHLIN: Mr. Chair? I'll turn it

3 over to you.

4   MR. BLOOMBERG: Colleen, thank you.

5 And to our viewers, thank you for tuning in. We hope

6 you find the results informative and agree with them.

7 And you can certainly write in, we love to have

8 comments, no matter how good a job our two committees

9 did. Even they will admit, we can always add to that.

10   I also want to say one thing that we

11 can't forget, that we do have the most competent,

12 dedicated, military in the world today. Our objective

13 is to make them even better and to make them be able

14 to continue to keep us safe.

15   We appreciate that they devote their

16 careers, and in some cases, even their lives to

17 letting us enjoy what is wonderful about America, and

18 giving us the freedom to, while we enjoy what's

19 wonderful about America, to work internally and eve

20 make America better for everybody.

21   It is the country where I grew up in,

22 and I'm enormously proud of it. My daughters will

1   live here for the rest of their lives, grandchildren.

2   And I just wanted to say, on behalf of all of the

3   committee here, thank you. And I think a nice thing

4   might -- everyone could do is as you walk down the

5   street and you see somebody in a military uniform, a

6   quick one-handed handshake or a fist bump and just

7   say, "Thanks for keeping us safe," might be

8   appropriate.

9   So thank you and we have our next

10   meeting in the fall.

11   MS. LAUGHLIN: Yes, we do.

12   MR. BLOOMBERG: See you then.

13   MS. LAUGHLIN: All right. Thank you.

14   And with that, this meeting is adjourned. Thank you

15   very much.

16   (Whereupon, the meeting concluded at

17   2:47 p.m.)

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1   CERTIFICATE OF DEPOSITION OFFICER

2   I, SHONDRA DAWSON, the officer before whom

3   the foregoing proceedings were taken, do hereby

4   certify that any witness(es) in the foregoing

5   proceedings, prior to testifying, were duly sworn;

6   that the proceedings were recorded by me and

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19   Shondra Dawson

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