Hearing Transcript

House Homeland Security Subcommittee on Border and Maritime Security Hearing on Border Security Technology

May 24, 2016

MCSALLY:

The Committee on Homeland Security, Subcommittee on Border and Maritime Security will come to order. Subcommittee is meeting today to examine CBP's procurement and use of technology to secure the Southern border. I recognize myself for an opening statement.

First, let me say thanks for your patience. I know we're now nearly an hour behind. We'll try and be as expeditious as possible. We value your time but you never know when votes are going to come up. So again, I appreciate your grace and your patience with that.

The Southwest border of the U.S. is home to nearly 2,000 miles of majestic, yet rugged and often treacherous terrain. Terrain that makes Border Patrol access in some remote areas a near impossible proposition.

Manpower alone, while essential, will never be enough to secure the border. In order to enhance a situational awareness, we need to leverage technological force multipliers that provide persistent surveillance across wide swaths of remote areas along the border.

Technologies such as cameras, night vision goggles, motion sensors, and surveillance equipment, have become critical elements of our border security operations. These technologies have enhanced agent safety, provided constant monitoring of difficult to access areas, and extended situational awareness and the ability to interdict criminal activity faster.

Aviation assets, such as Unmanned Aerial Vehicles or UEVs, often considered UASes, Unmanned Aerial Systems, equipped with advanced radar capabilities, have also refined our understanding of the significant threat that exists along the border. And helped reposition and redeploy assets as the flow and the vulnerabilities shift.

But technology cannot do any of those things if CBP's acquisition and procurement process cannot get these tools and the latest cutting edge technology in the hands of the men and women on the ground in a timely fashion.

Situational awareness is contingent on feeding information from centralized operations centers far from the border down to the individual agent level, so they can actually respond accordingly. Technology has to be focused on meeting the immediate needs of the agent and not stove piped into a command center.

And I speak to this from firsthand information. I have more experience than I'd prefer to have, in some cases on, you know, time- sensitive targeting, on operation centers in the military. And so these challenges are similar, as far as merging together information, providing a good common operational picture, situational awareness.

But not just to the Generals, but to the troops and those that are actually doing the missions. So that's always going to be my sort of frame of mind. Although it's not the same as in the military, there's similar challenges as far as using technology, fusing information, and providing real-time, near-time decision quality information to leadership and to those that are out there on the frontlines.

CBP's border technology procurement efforts, to put it mildly, have a bit of a checkered history of not delivering timely acquisitions that include more failures than successes, including the Secure Border Initiative, Coastal Interceptor Vessel, Ultralight Aircraft Detection, and Mobile Surveillance Capability, which have all become synonymous with a deeply troubled acquisition process.

These procurements have run over budget, behind schedule, have been subject to litigation, and wasted a good deal of taxpayer dollars to boot. In this time of limited budgets, we cannot afford to waste a billion dollars on a failed system to learn what not to do.

Border security cannot continue to be held back by a system that has an astonishing lack of urgency in getting it done for people on the ground. Our agents and officers in the field desperately need the capabilities they have asked for to do the job, but on the whole, I don't believe CBP's Office of Technology and Acquisition, OTIA, has delivered.

OTIA's mission is to identify and acquire products and services to improve CBP's performance in securing the borders. OTIA has been the lead agency responsible for acquiring technologies associated with the Arizona Technology Plan.

As far as I can tell, the only procurement that is working well and is on budget is the Integrated Fixed Tower program, located principally in my district. However, this comes after chronic delays and the cancellation of SBInet. Now on track, Chief Vitiello recently certified to Congress that the program meets its operational requirements.

With the exception of that outlier, industry officials we have spoken to tell us over and over again CBP's requirements are often poorly drafted, ill-defined and, perhaps most alarmingly, not stable.

Transparency is also a challenge, as is CBP's ability to forecast their needs so industry can spend the Research and Development dollars to mature technology for use in border security applications.

The Government Accountability Office, GAO, has on several occasions, criticized CBP for not following aspects of DHS's acquisition management guidance with the Arizona Border Technology plan, and the lack of performance metrics to determine if the cost is worth the border security improvement.

As a result of CBP's troubling procurement record, I authored the Border Security Technology Accountability Act that ensures border security programs are meeting cost, schedule, and performance thresholds and that technology is subjected to a rigorous independent verification and validation process.

This legislation is vital to restore accountability but it's being held up, for reasons unknown, in the Senate, even though it passed unanimously in the House. I am interested to hear from our witnesses on how CBP conducts market research, forages for emerging technology, repurposes existing Department of Defense equipment, and collaborates with DHS's office of Science and Technology to mature technology not quite ready for field deployment.

Congress repeatedly asks a very simple question when it comes to border security. What will it take to gain situational awareness and operational control of the southern border? Up until now, the answer we received has been limited, or not backed up by a requirements process similar to what the Department of Defense uses. In short, it was a guess.

The Border Patrol and Air and Maritime Operations are involved in an effort called the Capability Gap Analysis Process, or C-GAP, a scenario-based exercise designed to ferret out tactical weaknesses in our border security defenses and hopefully inform the technological budget process.

Congress expects the Border Patrol and Air and Marine to be able to quickly identify, and justify the resources needed to secure the border. I am optimistic the C-GAP process is a much needed step in that direction.

Finding solutions to CBP's procurement woes and quickly meeting the technological requirements of the men and women charged with securing the border is the reason I am holding this hearing today. I look forward to the witness' testimony.

The Chair now recognizes the Ranking Member of the Subcommittee, the gentleman from Texas, Mr. Vela, for a statement he might have.

VELA:

Thank you, Madame Chairman. I am pleased to join you for today's hearing examining U.S. Customs and Border Protection's efforts to enhance border security through the use of technology.

As a member of Congress representing a district in the U.S.- Mexico border, I understand the importance of technology to achieving improved situational awareness, enhanced security, and improved facilitation of legitimate traffic along our nation's borders.

The Department of Homeland Security has, for years, attempted to delay various kinds of technology to the borders with mixed results. To be fair, identifying, acquiring and deploying the right mix of border security technology is no easy task.

Technology evolves over time, a flow of border crossers and illicit traffic changes. And America's borders are varied places with different geography, terrain, and climate. Meaning that what works in Arizona may not work in South Texas, and likely will not work on our Northern borders.

It is important that this committee conduct careful oversight of CBP's ongoing border security through technology efforts. Including the Arizona Border Surveillance Technology Plan and deployment of integrated fixed towers in Arizona, procurement of mobile surveillance technologies, and the use of Predator B unmanned aircraft.

The Government Accountability Office has reported on the Arizona Border Surveillance Technology Plan, identifying management, scheduling, and cost concerns similar to those that contributed to SBInet's problems. I hope to hear from our GAO witness today about whether and how those issues are being addressed by CBP.

Given my particular interest in South Texas, I also hope to hear from our witnesses about the border security technologies in use or planned for the South Texas region. For example, I understand that there was a protest with the contract award for mobile video surveillance system units, which consist of short and medium range mobile surveillance equipment mounted on telescoping masts mounted on border patrol vehicles.

Many of the projected 297 units are slighted for deployment in the Rio Grande Valley and I hope to learn what the revised timeline is for deployment. I also know that the weather in Corpus Christie has proven challenging for flying CBP's Predator Bs, prompting the agency to fly the aircraft from other locations.

I hope to hear from CBP about how these issues have affected situational awareness along the border in South Texas, if at all. Finally, I hope we can have a frank discussion with our witnesses about how CBP can best position its ongoing Border Security Technology Programs for success. I thank the witnesses for joining us today. And I yield back.

MCSALLY:

Gentleman yields. Other members of the committee are reminded that opening statements may be submitted for the record. We are pleased to be joined by four distinguished witnesses to discuss the important topic today.

Ronald Vitiello, the Acting Chief of the U.S. Border Patrol. As its Chief Operating Officer, he is responsible for the daily operations of the U.S. Border Patrol and assists the Commission of U.S. Customs and Border Protection in planning and directing nationwide enforcement. Chief Vitiello began his Border Patrol career in 1985 and has served in the Swanton, Tucson, and Laredo sectors.

Randolph Alles is the Executive Assistant Commissioner for CBP's Office of Air and Marine, a position he has held since January 2013. In this role, Mr. Alles is charged with overseeing the AMO mission of using aviation and maritime assets to detect, interdict, and prevent acts of terrorism.

And the unlawful movement of drugs and other contraband from entering the United States. Before joining the AMO, he spent 35 years in the United States Marine Corp, Semper Fi, retiring in 2011 as a Major General.

Mark Borkowski became the Assistant Commissioner for the Office of Technology Innovation and Acquisition, or OTIA, at U.S. Customs and Border Protection, or CBP, in July 2010. In this role, he is responsible for ensuring technology efforts are properly focused on mission and well integrated across CBP. Prior to deployment as Assistant Commissioner, Mr. Borkowski was the Executive Director of the Secure Border Initiative, SBI.

Rebecca Gambler is the Director in the U.S. Government Accountability Office, Homeland Security and Justice Team, where she leads GAO's work on border security, immigration, and the Department of Homeland Security's Management and Transformation. Prior to joining GAO, Ms. Gambler worked at the National Endowment for Democracy's International Forum for Democratic Studies.

The witnesses' full written statements will appear in the record. The Chair now recognizes Chief Vitiello for five minutes.

VITIELLO:

Thank you, Chairwoman McSally, Ranking Member Vela, and distinguished members of the subcommittee. It is an honor to appear before you today on behalf of the dedicated men and women of the United States Border Patrol. And discuss the role of technology in our border security operations between the ports of entry.

This Saturday, the 28th, marks the Border Patrol birthday. Since 1924, the men and women of this agency have made significant contributions to securing the homeland. From mounted watchmen riding the line in 1924, to guarding Nazi prisoners of war. In 1961, securing domestic air flights as Marshals, and integrating universities in Oxford and Montgomery in 1962.

Proven to be a versatile and effective workforce, our agents have helped to capture escaped felons in New York in June of last year. On our borders, we've tried to innovate and use technology that enhances agent effectiveness and keeps them safe.

In 1935, we were advanced enough to install and use two-way radios in cars and stations. Today, the advanced technology deployed along our borders not only enhances the security of our nation by providing us with increased situational awareness of illegal activity. It also significantly increases the safety of our frontline agents.

While the basic Border Patrol mission to secure the nation's borders from illegal entry of persons and good has not changed in the past 92 years, the operational environment in which we work and the threats we face have changed significantly.

Today, our mission includes deterring acts of terrorism, detecting and intercepting human, drug, and weapon smuggling and trafficking, and preventing and responding to other criminal activity.

The effective deployment of fixed and mobile technology is critical to the Border Patrol operations. With these resources, our frontline agents are better informed, more effective, and safer.

There is no doubt that technology is a critical factor of the Border Patrol's strategic plan, which implements a security approach based on risk. And emphasizes unity of effort through integrated planning and execution with our partners.

Detection technology extends the visual range and awareness of frontline agents. Ground sensors alert agents to movement and activity, while mounted cameras and sensors on aircraft, fixed towers, and border patrol vehicles, can be controlled remotely to verify a target.

All of this technology works together and ultimately enables the Border Patrol to gain situational awareness, direct a response team to the best interdiction location, and forewarn agents of any danger otherwise unknown along the way. The Border Patrol continually evaluates our situational awareness posture, adjusts our capabilities as required to secure our borders.

We work closely with our operational, intelligence, and acquisitions colleagues within CBP and DHS to identify and develop technology, such as tunnel detection and monitoring technology, small unmanned aircraft systems, tactical communication upgrades and border surveillance tools tailored for the Southwest border and Northern borders.

In coordination with the DHS Joint Requirements process, the Border Patrol will continue to use the Capability Gap Analysis Process to conduct mission analysis and identify capability gaps and potential operational requirements over the short, medium, and long term.

With all our border technologies, CBP works closely with agents on the ground to develop operational requirements, conduct testing and evaluation, and obtain user feedback to assure the right tool is applied to the right capability gap.

Thank you again for the opportunity to discuss how technology enhances Border Patrol's capabilities and strengthens our efforts in securing the border. I look forward to your questions.

MCSALLY:

Thanks, Chief Vitiello. Chair now recognizes Major General Alles for five minutes.

ALLES:

Good afternoon, Chairwoman McSally and Ranking Member Vela, and members of the committee. It is an honor to appear before you today to discuss the critical role of technology and, specifically, CBP's Air and Marine assets in securing our nation's borders. CBP's Air and Marine Operation, or AMOs, as we call ourselves, is a critical component of CBP's layered border security strategy.

AMO's 472 law enforcement agents operate 243 aircraft and 306 vessels. And its sophisticated Domain Awareness network across the U.S., Puerto Rico, and the Virgin Islands. AMO's critical aerial and maritime missions fall into four core competencies. Domain awareness, investigation, interdiction and contingency operations, and national taskings.

AMO's a vital contributor to the security of our borders, interdicting illicit traffic in the air, on the land, and in the patrol waters of the United States to coordinate use of integrate Air and Marine forces. All our highly specialized law enforcement agents provide unique expertise and capability and domains in which we operate.

Since the consolidation of Air and Marine assets within AMO 11 years ago, we have transformed from a force composed primarily of light observation aircraft into a modern air and maritime fleet equipped with sophisticated surveillance sensors and communications systems.

We are working to increase the connectivity and networking among all our Air and Marine assets. AMO is continuing the efforts to reduce the number of our aircraft types and position our assets for highest utilization, which will increase both efficiency and effectiveness of our operations.

I'd like to take this opportunity to highlight a few of our key assets and describe how this technology furthers CBP's capabilities to detect, identify, monitor, and appropriately respond to threats at our nation's borders.

First, our multi-role enforcement aircraft are highly capable and equipped with sophisticated technology systems that enable it to be effective over both land and water. These aircraft are replacing several older single mission assets and enhancing CBP's interdiction in investigative capabilities.

Second, beyond our borders in the source and transit zone, CBP's P-3 long range aircraft had been instrumental in countering narcotic operations, targeting transnational criminal organizations, and vessels thousands of miles from the homeland. I might mention they just completed a rewinging of 14 aircraft, a $410 million program, which came in under cost and ahead of schedule.

Third, in the maritime environment, working in conjunction with aviation assets, our new coastal interceptor vessels are physically designed and engineered with the speed, maneuverability, integrity, and endurance to intercept and engage in a variety of suspect noncompliant vessels in offshore waters, as well as the Great Lakes and on the Northern border.

Finally, a vital component of our awareness is the Air and Marine Operations Center. AMOC leverages against surveillance systems and integrates information from federal, state, local, international law enforcement and intelligence sources to detect, identify, track, and direct the interdiction of suspect criminal use of non-commercial air and maritime conveyances approaching, crossing, or operating inside the borders of the U.S. and Puerto Rico.

We work closely with our operational and acquisition colleagues at CBP, including the DHS Science and Technology Director to identify and develop surveillance and detection technology.

AMO is also working with the Domestic Nuclear Detection Office at DHS to develop and test radiological and nuclear detection threats beyond -- threats aboard our small vessels.

Chairwoman McSally and Ranking Member Vela, and distinguished members of the committee, thank you for this opportunity to discuss AMO's technology assets, capabilities, and efforts in securing our borders. I look forward to your questions in a few moments. Thank you.

MCSALLY:

Thanks, General Alles. Chair now recognizes Mr. Borkowski for five minutes.

BORKOWSKI:

Thank you, Chairwoman McSally, Ranking Member Vela, and distinguished members of the committee. It's a pleasure to be back before you. As you suggested, Chairwoman McSally, it certainly has been a challenging few years.

And I share your frustration with the delays. The procurement system is very frustrating, I think, to all of us. And I look forward to a discussion of that. When I was last here before you two years ago, we were just getting to the point where we were awarding contracts.

And in many cases, there were two years of delays in getting to those contract awards. A number of reasons for that, some of it's cultural, some of its structural. But that has been a continuing frustration. However, since that time, actually, the performance on these contracts has been relatively good.

You cited the IFT, the Integrated Fixed Towers. As you may recall, that contract was awarded at a 75 percent cost savings compared to our original estimate. And continues to perform consistently with that. And has performed pretty well against its schedule.

The remote video surveillance system is the other large, significant program in Arizona. That program also has clicked along with a -- it was awarded at a reduced cost compared to our estimate. We have already deployed four AORs.

The fifth will be completed by this year. And it has performed well on its cost. The mobile surveillance capability is completely deployed to Arizona. And is now extending its deployment outside of Arizona. That was awarded below its estimated cost and performed on cost.

In addition, those systems have delivered on their performance. So I think one of the things I would say is that, as an acquisition person, I essentially have four degrees of freedom that I play with. Cost, schedule, performance, and risk.

And for the most part, I think we've not done well on schedule. I would have to acknowledge that. We've failed on schedule. We're trying to attack that. I'm still looking for more ways to do that.

But on the cost, schedule, and performance on these systems, I actually think we've done well once we got them going. So Arizona is well under way compared to the baseline. The next area of emphasis on the Southwest border has been Texas.

Because of the money we saved, we were actually able to free up resources to do what our -- they started out as pilots with DOD reuse, Department of Defense reuse systems. And I think the most visible of those are the tactical aerostats. We now have six flying in -- in Texas.

We are putting up 17 of the towers that are associated with those -- with -- with cameras and potentially radars in areas, that frankly would not have had technology 'til probably 2018, 2019 because we were able to generate savings, and by working with the Department of Defense we're able to get a little more speed in delivery.

Having said that though, that's not the long-term plan for Texas. The long-term plan for Texas has been remote video surveillance systems, mobile video surveillance systems. Those contracts are underway.

The challenge in Texas has to do with environmental land clearances, land acquisitions, those are challenges. We're working through those, but that's an 18-24 month problem that we're working through. We've gotten tremendous support from Congress on funding for that.

We're working our way through that. And sir, Congressman Vela, with respect to the mobile video surveillance systems, those are also as you suggested, designated for Texas. They're very critical there.

The current contract will provide about 127 of those. The protest has been resolved in our favor. The contract is underway. We expect to deliver the first four of those toward the end of this year for testing, and then over the next two years deliver 127 that will be covered under that contract. So, I think we've made some progress. Am I completely satisfied? No.

We do have some work to do in terms of, how do we handle this very, very slow acquisition process. How do we improve that? I look forward to discussions on that. Having said that, I do think the programs that we have awarded have largely been successful once we've gotten over that procurement hump. And I look forward to questions going forward.

MCSALLY:

Thank you Mr. Borkowski. The chair now recognizes Ms. Gambler for five minutes.

GAMBLER:

Good afternoon Chairman McSally, Ranking Member Vela, members of the subcommittee. I appreciate the opportunity to testify at today's hearing to discuss GAO's work reviewing DHS' efforts to acquire and deploy various technologies and other assets along U.S. borders.

DHS has employed a variety of assets in its efforts to secure the southwest border, including various land-based surveillance technologies, unmanned aerial systems or UAS, and tactical aerostats.

My remarks today will summarize some of GAO's past work on management and oversight of various surveillance technologies, and I will also share some preliminary observations from our ongoing work for this subcommittee, reviewing CBP's use of UAS and tactical aerostats.

First, GAO has issued numerous reports on DHS' efforts to plan for, deploy and manage land-based surveillance technologies under the former secure border initiative and the current Arizona Border Surveillance Technology Plan.

CBP has made progress in deploying programs under the plan, including fixed and mobile surveillance system, agent portable devices, and ground sensors, and these technologies have aided CBP's border security efforts.

However, we have also reported that CBP could do more to strengthen its management of the plan and technology programs and better assess the contributions of surveillance technologies to apprehensions and seizures.

For example, CBP has previously experienced delays in some of its surveillance technology programs and CBP's planned dates for initial and full operational capability for the integrated fixed towers, for example, have slipped by several years.

We have previously reviewed CBP's schedules and lifecycle cost estimates for the highest cost programs under the plan and compared them to best practices. Overall the schedules and estimates for the plan's programs reflected some but not all best practices.

And we found that CBP could take further action to better ensure the reliability of its schedules and cost estimates by more fully applying those best practices. CBP has taken steps toward our addressing our recommendations in these areas, such as recently providing us with updated schedules for some of the plan's programs.

And we will be reviewing them going forward to determine the extent to which they address our recommendation. Further, CBP has identified the mission benefits of its surveillance technologies, such as improved situation awareness and agent safety.

CBP has also begun requiring Border Patrol to record data within its database on whether or not an asset, such as a camera assisted in an apprehension or seizure. These are positive steps toward helping CBP assess the contributions of its surveillance technologies to border security.

However, CBP needs to develop and implement performance measures and analyzing data it is now collecting to be able to fully assess the contributions of its technologies to border security. Second, with regards to UAS and tactical aerostats, based on our ongoing work for the subcommittee, CBP is currently operating nine Predator B aircraft from four locations across the country.

These aircrafts -- these aircraft may be equipped with video and radar sensors and their use for a variety of functions, including patrol missions to support Border Patrol and other law enforcement agencies, and to monitor natural disasters like wildfires or floods.

CBP operates the aircraft in designated airspace and more than 80 percent of flight hours from fiscal years 2011 through 2015 were associated with designated airspace along border and coastal areas.

CBP also operates six tactical aerostats along the border in south Texas as Mr. Borkowski mentioned. And these aerostats assist Border Patrol and apprehensions and seizures. CBP's use of both UAS and tactical aerostats can be affected by various factors, such as airspace access and weather.

In closing we are continuing to examine CBP's use of UAS tactical aerostats and other assets and technologies as part of our ongoing work. We will also continue to follow up on actions taken by CBP in response to our recommendations from improving management and measurement of technologies deployed under the Arizona Border Surveillance Technology Plan.

This concludes my oral statement and I'm happy to answer any questions members may have.

MCSALLY:

Thanks Ms. -- thanks Ms. Gambler. I now recognize -- recognize myself for five minutes for questions. I want to start off with Ms. Gambler. Are you familiar with our Border Security Technology Accountability Act?

GAMBLER:

I am, yes Chairwoman.

MCSALLY:

And can you share from your perspective and your expertise whether that's going to assist in any of the challenges that you've raised in the past and continue to be issues.

GAMBLER:

Absolutely. That bill is -- is very consistent with the findings and messages from GAO's prior work looking at CBP's efforts to deploy surveillance technologies. For example, the bill calls for making sure that technologies have acquisition program baselines in place, that -- that the programs are monitored according to cost schedule and performance.

And those address a number of the key findings that we've had related to CBP's technology programs. And I might also add that it's reflective of leading practices and best practices for acquisition management.

MCSALLY:

Great, thank you. And I just wanna say again, this is unanimously passed in the House. It is being held up in the Senate. It was reported out of committee. I mean we're hearing, you know, rumors that it's being held up because our colleagues don't want us to have a win on any border security issue.

And I hope from just your comments today and from looking at the bill, that they would realize that this is a win for the taxpayers. This is a win for our improvement in processes of being able to secure a border. And I hope we could get past the partisan bickering and actually move this thing forward so we could put it into force.

OK. Next question I wanna ask really, Chief Vitiello, General Alles, Mr. Borkowski. As I open up and mention, I think some of the initiatives that you're doing are increasing a good common operational picture.

And, providing good information that might be good for intelligence assessment to understand kind of, you know, where the cartels are operating, but if it we're not getting it into the agent's hands, if they're not getting the information that the people back in operations center have, then, you know, we still have more steps to make.

Right, so that they can -- not have information overload, but actually have the best situation awareness possible. So, of the technologies mentioned or maybe some that are under development, which ones are actually in the hands of the agents that are out there intercepting the activity?

Or are they getting information over a radio? I just -- I wanna -- I just wanna have a sense of like where they are in getting that information, and what other initiatives might be in the pipeline in order to improve situation awareness for the agents that are out there.

VITIELLO:

Thanks for that question. The -- a lot of what the agents and what we've invested in, and what we've been able to take from the DOD reuse, our association with the Department of Defense to take some of their excess material and equipment and put that in the hands of agents.

So, obviously the things that they use -- the thermal binoculars, the long range assistance to their vision -- those are all handheld. Some of those are truck-mounted, so those are all in the hands of the agents.

And so, the agents that are operating that equipment can in real- time inform response teams that are deployed with them in -- in close proximity, the towers, the cameras, the RVSS. There's a combination of some of that being deployed at the sector level.

And so there is a command center at, you know, in Tucson where the sector is, and then those are -- that activity is then dispatched for response in that location, but a lot --

MCSALLY:

But is that by voice? That's what I'm trying to get at. You -- you might have a ground sensor, you got a Predator flying, you've got the information from the IFTs. We have perfect situation awareness in the command center.

Again, I've been there in the military where you understand exactly where the traffic is, but then you're telling a poor guy or gal on the run, on a radio, like here's what's happening. Is there -- are there tools that's actually getting that situation awareness to the agent that's not just a voice call?

VITIELLO:

Yes, so it is -- it is via voice but there are precise measurements being taken by the -- the -- the hits that the sensors get on the aircraft, our own towers, our own sensors are deployed. All of that material and those sensors are geo-referenced, and the agents are getting precise details about where that activity's occurring.

And then the classification, you know, what kind of threat do they face, how big are the groups, et cetera. That does go over voice to them, but their deployed in that same proximity as well, so there is a balance that has to be struck and how much goes over the air and then how much they get in their -- in -- in their hands as far as using tablets and all those kinds of things.

MCSALLY:

Right.

VITIELLO:

And we're doing some experiments about getting the information closer to them as it is occurring. And there's also a -- a -- an information stream that they need to be aware of, right, so when the classification comes through, that they prioritize the threat information versus just activity at large.

MCSALLY:

Great, is there anything Mr. Borkowski, in the works -- again, when I was flying my A-10, I'm actually talking to guys on the ground that are seeing what I'm seeing in my targeting pod, so their situation awareness has increased.

BORKOWSKI:

We are clearly, as you suggest, getting kind of this demand for, "Give me blue force tracking."

MCSALLY:

Right.

BORKOWSKI:

"Give me the picture that the camera's showing." And we don't have that today.

MCSALLY:

Right.

BORKOWSKI:

There are a couple reasons, one is we don't have the infrastructure to send it. So that's one of the things we're struggling with. Having said that, both with DHS S&T and with -- and with DOD, which has some of these technologies, our agents have been exposed and are piloting those things.

I still have to figure out how to get the pipe, you know, to send it. But we are creating a demand from that. We are looking at technologies that DOD has. We have a project with DHS S&T on border security awareness, which will look at this question. We have to handle the pipeline.

The one other thing I would add is, one of things that broke badly on SBInet was, there was a tremendous investment in this particular question that was not tightly defined. And we actually had to pull away from that in order to build the hardware.

Now that we have the hardware, we believe we're starting to get at the tighter definition. But you're right, we need to crack that. There are a couple things that are really in the way. The biggest one that bothers me is the -- is the bandwidth to get the signal across.

MCSALLY:

Yeah, OK. Thank you. All right, we're gonna do a couple rounds here, but I want to give opportunity for others to include the ranking member of the full committee, but first I'll represent -- or I will yield to the ranking member of the subcommittee, Mr. Vela for five minutes.

THOMPSON:

Thank you Madam, and thank you ranking member. Some of us have been around a little while and we've seen procurements come and go. And I'll guess I'll say -- ask Ms. Gamber, your review of the system.

Can you share with the committee your analysis of whether or not we're getting better at procurements or are we about where we've been all the time?

GAMBLER:

I think as it -- in this area, as it relates border security, I think there has been some progress made even relative to -- to -- to what we reported on two years ago as it relates to technologies under the Arizona Surveillance Technology plan.

CBP has been updating their schedules for some of the programs. They -- what's called re-basedlined the IFT program late last year. They are working on piloting an independent cost estimate for the RVSS program.

So I think in certain areas, ranking member Thompson, they have made progress. I think there's still some key area where we'd like to see some additional progress, including for them to be able to assess what they're getting out of the systems.

And we're also, as we're starting some new work in these areas, interested to see the results of some of the testing that's been done on the systems that have been recently deployed, so that's still, I think an open question for us.

THOMPSON:

Thank you, and I would -- Mr. Borkowski. Were you around with SBInet?

BORKOWSKI:

Yes, I was brought in to try to clean up SBInet, but yes, I was around for the end of it. Yes, sir.

THOMPSON:

So you -- so you know where I'm going right?

BORKOWSKI:

I have a suspicion, sir.

THOMPSON:

Can you tell me if your clean-ups been completed and can you give the committee assurance that the missteps made with SBInet won't be made again?

BORKOWSKI:

Well, I could never assure you that we would never make another misstep. I can tell you that the odds of such a misstep are much lower. The risk of such a misstep is much lower than it was.

We learned a lot from SBInet and we've accommodated as much as that lesson as we could into this process. Having said that, we are still in the process of training people to be skilled acquisition program managers.

They are getting better, but we are still in the process of training people. We are still...

THOMPSON:

How -- how much of a reliance in it -- excuse me -- are we -- are we relying on outside contractors to do that? Or have we been able to pull that capacity within the organization?

BORKOWSKI:

We do have contractors supporting us, but we have built organic, you know, government employee skills that probably did not exist four years ago. So we do have program managers who are skilled.

I wish I had more of them. I think that's part of the challenge, is having enough people to meet all of the demands. So we have a mix of contractors. But in the past, we were much more reliant on those contractors to augment our own lack of skills.

We've spent a great deal of time both in CBP and in DHS in building up the government employee workforce skills.

THOMPSON:

So is building up the government workforce capacity an issue of you not being able to find the people, or you don't have the money if you found them to employ them?

BORKOWSKI:

I think it's both but there are people out there. The money is a challenge. We compete obviously for border patrol agents, CBP officers, and frankly if you had to ask what the priority is, I think it's border patrol agents and CBP officers.

So we compete. We come after that, as I think we should. Money is an issue. There's also the hiring process if very long, for a whole variety of reasons. So when we do identify people, sometimes it's very difficult for them to wait out the hiring process. So there are those kinds of issues as well.

THOMPSON:

So how long does it take to hire somebody?

BORKOWSKI:

It can take a year plus in some cases, depending on where -- you know, how many people are in the queue. We're talking about border patrol agents, CBP officers, our own mission support people. We have background investigations. There are a whole bunch of people are competing for the resources to do background investigations.

So it can be months and go to a year.

THOMPSON:

Have you highlighted your lack of being able to get people in a reasonable period of time as one of the weaknesses in the operation?

BORKOWSKI:

I think CBP corporately has spent a great deal of time on that question and issue about being able to hire people. Yes, sir.

THOMPSON:

Madam Chair, I think at some point we might order from a Human Resources standpoint look at it because all of us run into people all the time, who are very qualified.

BORKOWSKI:

Yes.

THOMPSON:

Who want to work for the government. But if you tell the it takes a year, something like that, we ought to be able to come up with a better way of vetting people and getting them into the system.

BORKOWSKI:

I agree.

THOMPSON:

And I guess the last point is, it costs more to have outside contractors, right?

BORKOWSKI:

Not always, sir. It's actually a case by case, so not always. But I believe it's -- if I had my druthers, I'd have kind of a 2-to-1 ratio, government to outside contractors. And right now I'm at about 50/50. There are some skills that are very difficult to get frankly at government salaries.

But it depends. It's always cheaper to have government than contractors. It depends on case by case.

THOMPSON:

So you want it two-thirds, one-third?

BORKOWSKI:

My sense is that would be about ideal. And the reason for that is, I want the capacity to first of all have surge, right. Government employees are a good steady state. I want to be able to surge, and contractor employees are very good for that.

The other reason that I think contractors sometimes help, is there are some very, kind of scarce, highly technical skills that are more accessible through contractors, in many cases that through government employees.

THOMPSON:

Thank you Madam Chair.

MCSALLY:

Thanks. I want to thank the ranking member of the full committee and our last hearing here in D.C., we highlighted some of these manning issues for the CBP officers at the port of entry. It's about 18 months. The Border Jobs for Veterans Act, which we passed, which is my bill is supposed to fast track our veterans.

The goal would be 90 days but we -- there's still a lot of work to do and a lot of concerns and challenges for really every -- everybody on the subcommittee and across the committee that we've heard.

THOMPSON:

Right.

MCSALLY:

So I think we've still got a lot of work to do.

THOMPSON:

And I'm just trying to make sure that we don't lose sight of the fact that, that process is...

MCSALLY:

Still needs a lot of...

THOMPSON:

... laborus and what have you. And I'd like my full statement to be admitted into the record. Thank you.

MCSALLY:

Not objection. Thank you. The Chair now recognizes the ranking member of the subcommittee, Mr. Vela.

VELA:

So General Alles, what can you tell us about the issues in Corpus Christi with the Predator B and the weather?

ALLES:

So for Corpus Christi, sir, that -- actually for the Predator overall, weather is a challenge for the system. Generally it runs about a 20 percent IR cancellation rate than our manned aircraft for weather.

So one of the efforts we're making currently system-wide, is we're working with General Atomic on our automatic takeoff and landing system, which will improve the crosswind limitation of the aircraft. That's one.

And then secondly, we're looking at working out of divert fields. For instance, we used San Angelo this last year that are better winter weather operating locations. We've also deployed the asset to the transit zone during the wintertime where we get more effective operations on the platform.

We have two platforms right now in Columbia and Barren Key (ph) operating. So that's how we've looked at the challenges there in Corpus Christi. We get efficiencies out of that site. It is a P3 site also, so the P3 pilots not only fly the P3, but they fly the -- the Predator UAS at the same time.

That's a great efficiency for us in terms of operations. And if we split those sites up, we lose that efficiency. So that's how we tackle it so far, sir.

VELA:

So is the fog the issue basically or...

ALLES:

Generally, it's...

VELA:

... the winter?

ALLES:

Generally it's ceilings in the wintertime. I went through flight school actually in Kingsville and I remember many days sitting there playing Ace Deuce in the ready room while the fog and whatever it was hung over us.

So getting out of that kind of coastal interference zone I think is advantageous. San Angelo has been a good location. Our challenge, honestly, has been the FAA there. We've worked through those issues with them. They're very averse to us operating out of civilian airfields.

That's the first time an unmanned aircraft has operated out of a civilian airfield. So that's -- that's worked well.

VELA:

Now with respect to these tactical aerostats, how -- how are you dealing with the landowners?

VITIELLO:

So all of the sites need preparatory work. A little bit of what my colleague, Mr. Borkowski said, as it relates to our towers, real estate acquisition and permission to enter lands, et cetera.

So all sites that are operating now are with -- in conjunction with a landowner. Sometimes that's via a lease. Sometimes that's a different kind of agreement, but it's all structured and scheduled so that they're aware of our presence. And so far we haven't had any challenges with that.

It was difficult to move a couple of the ones that were up north. There -- there was a couple of operational decisions. We wanted to move the ones closer to the border because of their effect in the -- the efficiency that the agents were getting, but all is going well so far.

VELA:

So, Chief, I think you're well aware of the challenges that we have on the other side of the border in Tamaulipas, Mexico with respect to cartel activity, kidnappings and murders that have, you know -- it's made -- the state's deteriorated over, you know, the last several years.

What I'm curious about is there anything that we can do from your standpoint technologically to help in that area?

VITIELLO:

It's -- it's a difficult challenge. We feel bad for the people who are part of those communities. It's such -- it's unfortunate that they face that situation. I think as it relates to help from here is to strengthen our relationship and -- and provide Mexico with the mentorship, sharing the best practices, mechanisms to exchange information quickly.

And then support their efforts to reform their domestic and their federal law enforcement.

VELA:

And so following up on that, what kind of shared practices are you currently using with law enforcement in Mexico?

VITIELLO:

In its best form we have programs underway under the border violence prevention protocols. It's a systematic way for us to sit down and understand where the violence is taking place, what it means to our deployments at the border between the ports and at the ports as well, and then sharing information where it's critical.

And then it's -- in a deployment form, we do joint patrols with authorities in Mexico in places where we know that violence or smuggling is occurring. It's -- it's a great benefit for them to have us close by on our side and then doing the same in Mexico. Those have worked out very well when they have the resources available to do it.

VELA:

Well, thank you. And -- and before I yield, I will just add that I agree with the Madam Chair -- Madam Chair with your perspective on the use of veterans. And I think we need to have a much more robust approach around the country with respect to educating our veterans about the availability of these jobs.

I think it's something that I surely look forward to working with you on.

MCSALLY:

And I agree with the ranking members. As long as it doesn't take 18 months for them to get a job, but if we can get to that less than 90 days and while they're still on active duty, that would be ideal.

We've got to keep -- keep working on that bill being implemented for the intent that it was supposed to be. So I appreciate it. The chair now recognizes Mr. Rogers.

ROGERS:

Thank you, Madam Chairman. I want to revisit this issue of the aerostats. Can you tell me how many aerostats you have in -- that are deployed at present?

VITIELLO:

We have six deployed in --in the south Texas area.

ROGERS:

And are they the same model or version or do they differ?

VITIELLO:

There are two separate versions. They're both what we call the tactical version. They're both supported by mobile towers that also work the border environment that give us cameras and...

ROGERS:

What do you mean supported by mobile towers? I see the tower on the truck here. Does that have to go somewhere close to the aerostats?

VITIELLO:

The aerostats come -- it's -- it's a deployment package. They come with towers that can be put up remotely. So when the -- when the envelope is flying, when the balloon is up in the air, it has sensors hanging off of it, EOIR, and day cameras, high definition cameras.

And then there are towers that support in the areas as well that can monitor the border for us.

ROGERS:

They receive signals from the aerostat?

VITIELLO:

The --the signals go to a small command post and then the information that's obtained there has been dispatched to respond to units in the field.

ROGERS:

So it doesn't go to the truck that's carrying the tower?

VITIELLO:

So there are other vehicles that we have that are government equipment that are not DOD reused. The MBSS, MSS, which -- which are -- have similar equipment on masts in the back of mobile vehicles. Those are operated by border patrol agents who can then obtain the information from the screens and distribute it via radio to response teams as well.

ROGERS:

Are all six of the aerostats deployed at present?

VITIELLO:

They are.

ROGERS:

And -- and are they -- how long do they stay up?

VITIELLO:

There's -- there's maintenance that's required. There's recurring maintenance that's required. We've -- we are constantly evaluating the readiness rate. They have to be brought down to change envelopes that when something happens, when the wind is too high, things like that.

But, generally, I think we talked about the other day they're in the -- in the neighborhood of 80 percent up time, so, while they're available. They're available 80 percent of the time that they're deployed. But, there are conditions which cause us to either do maintenance or bring them down for weather events, etc.

ROGERS:

Are you keeping these in a particular sector?

VITIELLO:

Right now they're deployed in south Texas in what we call the Rio Grande Valley sector, which is the McAllen Rio Grande cities about the area. They are there as my colleague, Mr. Borkowski said, because our --we have a planned deployment there for integrated fixed towers for RVSS for more mobile trucks, et cetera.

But, that stuff has to catch up. Our work on the ground to get those sites ready to purchase land and do the environmental work is underway. In the meantime, we've deployed the aerostats to fill that gap given the activity levels that are in that part of the border.

ROGERS:

Are all six of these from the DOD?

VITIELLO:

They are all DOD reused equipment that we've gotten from them.

ROGERS:

Are there any remaining DOD aerostats available that you have not accepted?

VITIELLO:

I -- I believe they have more, but I'm not -- I'm not aware of any that -- that -- that they have that we are actually asking for. I think we have two that we're getting ready to deploy elsewhere.

BORKOWSKI:

Sir, there are -- there are three -- three incarnations of this. The two large ones, DOD owns them -- has not accessed them, but basically leases them to us. The smaller ones, which are called RAID, we own, I think, eight of them.

Two of them are deployed, so we have additional ones in storage. We also have towers that we can deploy independently of the RAID. So there are additional aerostats available that we have in storage. They cost like $3 million a year to run, so we're pretty judicious in how we apply them and where we apply them. But, we do have some of the smaller ones.

ROGERS:

Do you have a need for more than the six?

VITIELLO:

We -- we would prefer to deploy the mobile technology that's on its way to us and then...

ROGERS:

Why?

VITIELLO:

Excuse me?

ROGERS:

Why?

VITIELLO:

The -- the aerostats are a good gap filler. We -- we see them as a temporary asset. We may not continue to use them in south Texas. As the -- the technology plan -- the -- the fuller requirement gets deployed, we'll take them and use them in a place where the technology has to catch up.

So they're a good gap filler, but because of the expense of their operation - operations and maintenance is quite high. So we're looking forward to a time when we have more permanent infrastructure that's -- that's not dependent on the kinds of costs that these bring to us.

ROGERS:

All of these are tethered, correct?

VITIELLO:

They are.

ROGERS:

At -- at what altitude?

VITIELLO:

I believe there's one that's at 1800 feet and the other one is something less than at 12.

BORKOWSKI:

The smaller ones are around 1,000 feet.

ROGERS:

Have you all considered using some of the -- the non- tethered aerostats and they can loiter for long periods of time?

BORKOWSKI:

Like essentially blimps.

ROGERS:

Correct.

BORKOWSKI:

We have...

ROGERS:

The Marines use those.

BORKOWSKI:

Right. We've looked at that. Right now the problem is we'd probably have to buy those. Those haven't been accessed. The advantage of these tethered aerostats is that although we have to pay the operations and maintenance, we didn't actually have to buy the aerostat. We didn't have to buy the tower. We didn't have to buy the camera.

That's why these were so attractive to us. And-- they seem to be the sensible thing for the time being.

ROGERS:

Well, one of the reasons I'm so focused on these is -- is in my trips to the southwest border, we've had just a world of trouble with the cameras, whether cameras on poles or -- or trucks or whatever. And to my knowledge those problems still exist. And -- and also I like the fact that they're up higher.

You can see further across the border where there's people gathering. So I'm -- I'm just curious. And this will be my final question. I know my time's expired. What's the down side?

BORKOWSKI:

There are -- there are two. One is the cost. And we're trying to drive those costs down. But, it is $3 million or -- or more, for the bigger ones, a year for these things. The second thing is that they are very weather dependent.

You know, the Chief talked about 80 percent, but there are times of the year when we can have availability down to 60 percent depending on the weather. So you really kind of have to trade their availability for the mission and their cost. So our sense is that there are probably areas where aerostats will make sense, but they're probably not the right long-term solution.

We're using them like very high towers, as you suggested. And there are areas where they see over foliage. But, in the areas where we're using them, we actually think the lower cost more permanent, more highly available fixed infrastructure makes more sense for the long term. We're still studying where the aerostats might have a long-term future, but it'll probably be in spots.

ROGERS:

Yeah. I -- I won't ask any more questions, but I would, Madam Chairman, like to, at some point, revisit the idea of microstats to see if you're already using any of those. And with that, I yield back.

MCSALLY:

The Chair now recognizes Miss Torres from California for five minutes.

TORRES:

Thank you, Chairwoman. How is CBP measuring the effectiveness of the technology deployed at the border? And what metrics are used and how does that compare over time?

VITIELLO:

So we're collecting all -- several elements of what you might call output measures, the number of arrests that have been made, how often in a particular area, agency assaults, the kinds of seizures that are being made. And we look at that in conjunction with the kinds of deployments that exist in those areas.

And as our colleague from the GAO reported, we're looking at systems that allow us, at the time of arrest, as we're recording activity to then attribute the -- the - when -- when there is a seizure of an arrest made, attribute the assist of the technology in those areas.

And then over time you can start to look at the effect of certain kinds of deployments and how they contribute to seizures and arrests. And that way, we can see which are the -- the most valuable kinds of assets and how they're deployed or whether we need to make changes to those deployments.

TORRES:

So, over time is this technology going to be able to utilize over actual manpower?

VITIELLO:

So we -- our experience is, is that when we deploy in an area with the technology be it mobile or fixed, we start to see more activity because we turn the information -- the information is more available. You know more about an area once these deployments occur.

And, so, there's usually more activity in the beginnings of those deployments. But, over time smuggling patterns change. The activity changes. The arrests and effectiveness of the--- the deployments of the agents themselves and the responses start to change that activity. And-- and the smugglers look for other locations to enter in.

So we've --we've seen that sort of a spike in activity in the immediate aftermath of a robust deployment. And then we see the traffic shift and move. And then we -- that's why it's important to have these gap fillers. That's why it's important to have mobile technology, so we can be assured to -- to be in the right place at the right time.

TORRES:

I understand that there, you know, is a need to make a serious commitment, financial commitment. And it is going to be a lot or it is a lot more costlier in the beginning. But, over time -- you know, my question really is, is it smart to spend this much money up front?

Are we going to save it in -- in having actual personnel costs, you know, a few years down the road and -- and how long? I mean, are we really looking at that -- at those statistics?

VITIELLO:

When you look at where -- where we've gotten to on how we decided on the deployment -- the -- the Arizona technology plan is one. Our plans for the other border deployments we looked at -- and Mark can speak more precisely about the analysis of alternatives.

We looked at which technologies would be most advantageous. We used our experience and the feedback from users to decide, in the CGAP process, what technologies to use. But, you're going to have to have -- it's -- it's our opinion in our experience that you're going to have to have a mix.

It might be more expensive on the front end to install that technology, but over time you see benefits of that. And sometimes that's fewer deployments in particular areas, so that we can use the work force more efficiently.

TORRES:

Yeah, over time I can see where you can modify equipment a lot easier than personnel habits. How is CBP defining situational awareness and operational control?

VITIELLO:

So, on the situational awareness side, we -- we're looking at the border in a couple of different ways. Situational awareness as defined is us being able to understand what's happening, have a predictive analysis, like know where particular areas of the border are going to be problematic or where we know we're going to have traffic.

And then have the kinds of assets that are available. Technology and the resources, agents on the line in those locations to give ourselves real time information about what's going on in that area.

TORRES:

Are all these metrics that you are utilizing public -- made public -- this information?

VITIELLO:

So, CBP -- on the CBP side, the CBP.gov, there are output statistics about the kinds of activities, arrests. Those are usually posted at the end of each month. And, so, people can see that there.

TORRES:

So, this is where the public can better understand whether these investments are actually paying out and insuring, you know, that we have -- that we're minimizing the number of crossings?

(UNKNOWN)

So, the -- the statistics that are typically on the site don't attribute the work to the technology. It's more sort of an output measure of what's happening month by month.

TORRES:

Okay. Thank you.

MCSALLY:

All right, great. I'm going to continue on with another round here. I've got a lot of questions now that I -- now that I have you all here. So I want to follow up. The Arizona technology plan -- when fully complete. Well, let me start with this actually.

Chief Vitiello, our first hearing I had when I took over, you stated that of the 2,000 miles of the border you have situational awareness of about 56 percent of that border -- southern borders right now. So, for the Arizona technology plan, what percentage of that -- of the miles of the Arizona border, did we have situational awareness of?

And then when complete -- when it's fully rolled out, are we going to have 100 percent situational awareness? So, if it moves, we see it when the whole plan is -- is implemented?

VITIELLO:

Yeah. So, last time I was here I might not have been as precise as I wanted to be as it relates to situational awareness. The 56 percent measure at that time -- and this changes quarter by quarter -- was the areas of the border where the deployment itself advises the work force, advises the response agents, advises us of what's happening in real time.

So about -- at that time, about 56 percent of the border had a deployment that was responsive enough to know in real time when activity occurred at the border. So, response in real time within, you know, a shift. Agents knew about an entry and were able to command a response.

MCSALLY:

Well, to me -- okay, so I think maybe that's a definition issue. To me that's operational control. Like it's one thing -- situational awareness is if you see it. I mean, you can -- if it moves, you see it. That's like, you know, metric number one. The second metric is when you see it, you can get to it and stop it. That's the operational control piece, right?

So, we were just trying to get a sense of, of the 2,000 miles of the border, if it moves and it's coming across the border, it's trying to breach, you actually see it. You may not be able to get to it, but you at -- at least see it. So, is there a different number that's not 56 percent?

VITIELLO:

What we're trying to do in the state of the border reporting that -- that we're putting in our system and using for things like CGAP and using to inform our deployments, there's a level of situational awareness across the entire border. So, when the 56 percent number, whatever it is, that's happening in real time.

The sensors, the agents themselves, the deployments are picking up that activity in real time and being able to respond to it. The rest of the border we're using other technology to monitor it regularly, but there's not an immediate response in each of those cases. That other part of the border where we're using changed detection to monitor the border, it's not solely that.

We have other methods of being able to monitor what's going on in those areas, but there's not necessarily a deployment or a sensor that picks up that activity. It's more of this change detection using the UES, using other assets to monitor the border.

But, I would -- I would say that, as it relates to situational awareness how we see it, each and every zone of the border has some level of monitoring that -- that occurs in it. Whether it be our -- our assets directly deployed, whether it be the community informing us of things that are going on or our own assets that are doing the monitoring that are verified to us that there is or isn't activity going on.

MCSALLY:

Okay. Yeah, I think we just have different definitions of situational awareness. And, I mean, I appreciate that some of the invader stuff and change detection you're doing is -- is after the fact, being able to look back and kind of see some of the changes that have happened, which is really important for intelligence.

And, you know, predictive analysis and all that. Again, I'm just a fighter pilot and it's--- I'm just trying to get down to like a simple metric of if it's breaching, if it's about to cross the border, we see it in real time. In 2,000 miles of the border, where do we have -- we may not be able to get to it. We may lose it, but we see it happen in real time.

So, I mean, I don't want to waste a lot of time going back and forth on this, but I think that's one of the frustrations, I will say, of this committee and definitely of my constituents is, we don't know what the answer is as far as what can we see and then what can we actually get to?

And the price of drugs on the street is the best indication that supply and demand -- there's still a lot of stuff that's getting through. I think that's fair enough. And I think you said it yourself. Once we deploy technology, we all of a sudden see all the stuff that we didn't see before. It's not that they stopped -- they -- they just started coming. It's just you can now...

MCSALLY:

...we don't know what the answer is as far as what can we see, and then, what can we actually get to? And the price of drugs on the street is the best indication that supply and demand, there is still a lot of stuff that is getting through.

And I think that's fair enough. And I think you said it yourself, once we deploy technology, we all of the sudden see all this stuff that we didn't see before. It's not that they stopped -- they just started coming, it's just you can now see it. Is that a fair in it?

VITIELLO:

I, I think it's fair. As it relates to the State of the Border reporting.

MCSALLY:

Yeah.

VITIELLO:

And when we're using the GEO in it and when we're using our own deployment. So, so it's accurate to say that of the 56 percent number, that is a real time deployment so we know when it's happening in real time and respond directly.

In those other parts of the border, you may or may not need that kind of deployment. But in the -- in the aggregate you do -- you are aware of what's -- what's occurring over time.

MCSALLY:

OK. So going back to my original question. When the Arizona Technology Plan is complete, which I definitely want to make sure I understand when that is going to be complete based on all the different parts of it, what level of what you're, kind of, calling situational awareness.

But I guess what I'm calling operational control. Like, what will you be able to -- you see real time. You can see it moving across the border. What percentage of the, I think it's you know 360 miles of the Arizona border.

It's the Arizona Technology Plan, so you're focusing on better technology for a situation awareness in the Arizona border. What did -- what's the end goal? What's the end state?

VITIELLO:

So the -- that -- that deployment is informed by agents on the ground that know how the technology works and know our own tactics for deployment, and are aware of what the threat picture is.

And so when those AOR's are complete, we'll have 100 percent monitoring of that border, and being able to -- to react in real time to all activity. Now that there are limits to the technology. There are deep canyons.

You've been to these places in Nogales where it's really difficult to see on the ground, even with the technology. But those deployments are designed for us to be 100 percent successful.

MCSALLY:

OK. So 100 percent is the goal. So, can you give me the timeline of when all of the elements of the Arizona Technology Plan will be complete as of right now? I don't know if that's for you to answer, or you, Mr. Borkowski.

VITIELLO:

I think Mark's probably better --

MCSALLY:

OK.

VITIELLO:

-- to tell us the precise detail.

BORKOWSKI:

The -- the -- the long and short of it is, we believe Arizona will be done by FY19. Most --

MCSALLY:

End of FY19?

BORKOWSKI:

Yes.

MCSALLY:

OK.

BORKOWSKI:

And -- and that is due to two specific areas of responsibility in the Tohono O'odham Nation. Except for those, the remote video surveillance system will be done by the end of this year.

Three out of the five AORs in Arizona for IFT will be done by the end of FY17, and then it's those two areas of the Tohono O'odham Nation that lag in -- in getting complete.

MCSALLY:

OK. Just for expectations too, for our constituents, in F -- in this FY, what -- what else is going in? I mean, the ranchers I was talking to last week...

BORKOWSKI:

Right.

MCSALLY:

... we've, the, the IFT's, can we just get a rundown of what's going in this fiscal year?

BORKOWSKI:

Sure. So, all of the FY -- excuse me. The remote video surveillance system, which are cameras and towers, the last area for that is Yuma.

That's the last one to go in. That'll be done by the end of this year. For IFT, we are starting Douglas. Douglas should be complete toward the end of this year. Sonoita will start going contract this summer, so it should be done in about a year from that.

So that's what, those are the key activities going on between now and say, the summer of 2017.

MCSALLY:

OK. So, FY19, if everything is on track, the Arizona Technology Plan will be complete. I know one -- Ms. Gambler, one of the points that you've pointed out is that they don't have, there has not been an integrated schedule.

They've been, sort of, the piece meal schedules. Is that still something you think is needed for the Arizona Technology plan? Or for additional plans moving forward in Texas or other areas?

GAMBLER:

Yep, two points there Chairwoman McSally. One, we still continue to believe that a, -- that an integrated master schedule for the whole plan would help CBP better oversee the extent to which it's completing all of the programs under the plan within -- within expected timeframes.

I know CBP disagrees with that. We -- we continue tov-- to believe in that recommendation. Secondly, as I mentioned earlier, for the -- for two of the programs under the plan, CBP has updated their schedules just for those programs.

We'll be looking at those two schedules going forward. We just recently received them to see the extent to which they, they meet best practices, which have been some of our other recommendations. And so, again, that's sort of an open question for us. But it is progress that they have updated the schedules.

MCSALLY:

Great. Thank you. I want to switch to a different topic, which is the use of tactical, unmanned aerial systems, or aerial vehicles. I know we had talked about this in the first hearing I -- I held.

I -- I realize the Predator provided a situation awareness sort of at the operational or strategic level. But there is tools that are out there that we are currently using in the military where the agents could launch something that gives them situation awareness tactically.

I know you all mentioned that it's being looked into. But can I get a very specific answer as to whether there is a requirement and a move to provide tactical UAVs to our agents on the ground to improve their situation awareness?

VITIELLO:

So -- so we do have an operation requirements document. So the border patrol at CBP, our -- our partners at -- in the -- in CBP who are at large are convinced that this is a technology that needs to go into the hands of agents.

We have made operational requirements documents, or the, the official recognition of that. We're working with OTIA to understand what resources are available, and how we would deploy them.

We're in discussions with CBP Air and Marine Lift to make sure that we are not in conflict as it relates to the air space issues. And then we have two projects, as it's the same project underway with the Department of Homeland Security Science and Technology Directorate.

In which they've helped us identify what resources are available, what the limitations for some of that resource is, so we can start to narrow on which platforms that we -- will be available to us.

We're in discussions for a Memorandum of Understanding with the FAA on the Certificate of Authorization. Again, that's part of the de-confliction piece. And we're in a -- a relationship with Naval Systems Command about contracting vehicles.

And about their own experience and best practices with using these elements. And -- and we believe that we're very well on our way to start these deployments because we think they are necessary for agents in the field.

MCSALLY:

I agree. And is -- is one of the options -- I don't know if there's this -- there's any excess property from the DOD. Is one of the options excess property or just manufacturing capabilities that already are being deployed with the DOD as opposed to reinventing the wheel?

VITIELLO:

So, we're narrowing with S&T on this, what they call the RAPs Program to decide which of the things that are available, either through DOD, or through other vehicles, for us to use. Thank you.

MCSALLY:

So, what's the timeline we're looking at for that? And Major Alles, you can jump in. And then, Ms. Gambler, I want to make sure there's a -- you know we don't want to have lessons identified,.

But actually lessons learned from past procurement buffoonery. So is this going along based on the lessons learned from previous procurement issues? And General Alles, you want to pipe in for it?

ALLES:

I was just going to mention, one, we're gonna do a near term program with border patrols soon.

MCSALLY:

OK.

ALLES:

But that's really to develop a code in a particular area and apply the technology and see how it works before we move forward to any kind of procurement.

So that would be step one of the process. Just to note, the main problem here is -- is the FAA still. So we -- we can probably work out a code and call that a piece of air space to work these smaller platforms in. But there is still no rules issued to actually operate these things, big picture across the borders. That still is coming in and needs to be taken care of.

MCSALLY:

OK. Great. Ms. Gambler?

GAMBLER:

Yep. That's something that we're, that we are touching on as part of our -- our ongoing work. Looking at this you know -- this kind of small UAS Program.

And so that's something we can certainly follow up with you on and -- and try to give you some more information on going forward. But it will be you know important for them to proceed you know in line with, kind of, good acquisition management.

You know good testing best practices to ensure that you know what, to the extent that they do end up deploying some type of a system that it -- it meets requirements and that it's rolled out according to cost, schedule, and performance expectations.

MCSALLY:

Great. Thank you. And I know I mentioned it last time, but Cochise College in Southern Arizona is collocated there and they've got a great UAV program on the civilian side.

And they really want to have a conversation to partner on anything that might be rolled out, just to be able to you know not again having to reinvent training schools and operations that they already have ongoing.

So I just want to lay that out there again that I think these types of innovative partnerships like that would be really important if you're rolling anything like that forward. I want to switch to Ultra-light detection.

My first, I think it was my first week in office when I went back home I got -- a full day with the -- the Border Patrol Team in the Tucson sector to include a Blackhawk ride where there -- we actually picked -- they picked up -- our radar picked up a potential Ultra- light crossing.

And we flew around in circles trying to find it. I was helping looking out the window using my fighter pilot eyes trying to help, and it was like you know a needle in a haystack. It was -- it's -- it's -- it's impossible as you know, very difficult to be able to detect these low flying, light-weight Ultra-lights.

And you know the -- the intended program to address that pretty much failed. So, is there any additional technologies and programs we're looking at in order to solve this problem of the Ultra-light detection?

BORKOWSKI:

Yes. First of all, the Ultra-light threat when we started was high urgency. So we went after this program that was not successful. If the Ultra-light threat were as urgent as it was though, we would probably use those, because they actually could detect the radars.

It's just they were very -- the Ultra-lights, they were very labor intensive. So we're looking for options to that. The urgency for the program is not as high as it was. But one of the things we're looking at is a DOD reuse system. There is a --

MCSALLY:

Why -- why is it not urgent anymore?

BORKOWSKI:

We're seeing a tremendous decline in the number of ultra-lights.

ALLES:

I just mentioned the numbers -- the high -- the high was in FY10, 235. So far this year, 19.

MCSALLY:

Do we know why that is?

ALLES:

Other -- other methods of crossing the border to move the drugs, ma'am.

MCSALLY:

OK.

BORKOWSKI:

All right. So, again, I think if it jacked back up we'd probably go pull those Ultra-light aircraft detection systems and use them, because they would be worth it for that threat.

But the threat has gone down. Having said that, we have identified a couple of systems, one of which we have access to from DOD. It requires some modifications of software. It's called a light weight counter mortar radar that shows some potential here. We also continue to do market research with industry.

I don't always want to immediately go to DOD and you know foreclose opportunities for industry. And there are other radars at industry as well. But, that's what we're looking at is, and -- and that light weight counter mortar radar looks very promising.

MCSALLY:

OK. Great. Thanks. Do we know, I guess, this would be Mr. Borkowski. Are there -- are there any other DOD access property, or any other technology that we know exists within the DOD that you all are looking at to get your hands on in order to help -- help with the situation awareness?

BORKOWSKI:

For situational awareness? Well, they -- they obviously have kind of common operating picture command and control type systems that we look at.

And in fact, they have something called ART ASOA (ph) if you're familiar with it. Adaptive Red Team, where they bring a bunch of these -- these industries in and plug them in. So we participate in those and we look at those technologies with respect to though, situational awareness.

DHS S&T has what's called an APEX Program because they're trying to get their arms around this. As you can imagine, there's all kinds of stuff to sort through. So DS -- DHS S&T is doing a border situational awareness APEX program, basically to help us put all of that information together.

And to choose what's the right approach. And I think that's where we will rely to make some smart decisions going forward.

MCSALLY:

OK. Great. Thank you. Sorry I'm just firing -- firing off a bunch of questions here. But I think it was in our first hearing, I also asked a question about looking at putting VADER on manned aircraft.

This is something that has been done in the past in other departments. Is there any, any looking into that's due to the limitations both airspace and weather of you know the Predator ops?

ALLES:

So what we're looking at is a S&T effort is a lighter VADER type system to put on our, our smaller aircraft, not necessary that they are operating on the UAS now. So that's kind of been -- kind of the current direction we're looking at, and we're looking at that you know through different you know technological venues. So nothing substantial yet on that.

We're really exploring the options at this point.

MCSALLY:

OK. Thanks. And then is there -- in between the tactical UAVs and the Predator, is there, are there any other UAVs? There's a whole swath in that middle area there that are smaller, and potentially cheaper.

Is -- is there any investigation or requirement that you're looking at to procure any, sort of, mid-level UAVs? I just made up that terminology, but you know what I'm saying. Not quite the ones that the agents are deploying, but not quite the Predator.

ALLES:

So I think to answer that, until we get full use out of the Predator in the airspace, I would actually not want to move that direction. So in my mind, the Predator actually fills the high and medium gap.

What Chief Atella wants to do on the small side, which I think is a good effort, will fill the low altitude gap. But the real issue is, I can -- I can get a scan eagle or something like that. I can't operate it in the air space. DFA won't let me.

So the rules still prevent that until we can move beyond those and to really get open use of the air space with the Predator, that's going to be a limitation. We're moving in that direction of the Dewey Guard Radar. We have a single Predator now equipped with that. We're gonna test that and see if that's gonna help open up the envelope with the FAA.

MCSALLY:

Great. Thanks. I want to move into the kind of procurement process big picture. And I know a lot of the things that Ms. Gambler, the GAO has pointed out, trying to move DHS more in line with practices in the DOD. Although I serve on the Armed Services Committee.

And I'll tell you -- you know there are good things about the DOD acquisition process, but that can also be quite painful and slow and bureaucratic, and not nimble. And by the time we get through all the machinations of the process, the technology's already changed.

And you know we're late to the game. So we're actually putting in you know the defense bills some, an additional legislation, some changes to that process. So you don't necessarily want to mirror all of the DOD.

You want to take the best of it, but not the painful amounts of it. So, I mean, I -- is that part of what's being looked at? Or are we just trying to mirror the DOD? But one of the issues in the DOD is getting project managers.

Contracting officers, it's basically human resources, human development, making sure we're recruiting, training, equipping and keeping, retaining you know those that have this unique expertise that, thank God, I never had to have in the Air Force, myself.

But what, on the manpower side, in the development of expertise, I just wanted to hear perspectives on that and -- and what's being done to address that issue.

GAMBLER:

Sure. So, your first question first on, kind of, the DHS acquisition management process. I think the bottom line reporting on this has been that across the department, not just with CBP.

But across the department, DHS has a fairly sound knowledge based process for managing its acquisition. And so that -- though, that kind of foundational process from our perspective is in place. Where DHS has fallen down has been on the execution.

So, what I mean by that is ensuring that -- that acquisition programs go through that process have approved acquisition documents before they move to the next phases in the process. And that's where kind of DHS has fallen down in terms of implementation.

Again there are -- they're making progress, but they -- they still have a ways to go. And I might add that -- that DHS acquisition management challenges are a part of the reason why DHS management more broadly, is part of GAO's high risk list.

So -- so that's point one. The other point that I would make with regard to -- to having the right acquisition management personnel in place to manage these programs. That also has been a challenge the GAO has reported on across the department.

It's also been something we've reported on related to CBP. Some of the challenges that we identified in our last report regarding why some of the programs under the Arizona Technology Plan were not meeting schedule had to do with, with CBP.

And OITIA (ph) not having, not always having the resources in place they needed to, to manage the acquisitions, review some of the proposals and that kind of thing. So that, I think, has been a challenge in the past for DHS and for CBP.

MCSALLY:

Mr. Borkowski, do you want to add anything to that?

BORKOWSKI:

Yes. I think that's exactly right. Now, certainly, obviously, DHS is working on this. So for example, I understand this issue about documentation. But I will tell you that Under Secretary Deyo and Deputy Undersecretary Fulghum, have, frankly been beating the stuffing out of us. A lot of emphasis on getting that document current.

We had a big push at the end of the last year. Mr. Fulghum made a commitment to the congress, and we, we all got that word when we did that. So this is clearly an area of emphasis. This area of expertise and program management is a big threat issue. We have spent a great deal of time on it. We have a Homeland Acquisition Institute. We've sent people to school.

But the experience is the big thing. A lot of my time is occupied on running reviews of programs, not so much to collect status, but to start getting people to understand what it means to review a program.

What does cost even mean? You know, for example, cost in acquisition really means did you get for a dollar what you expected to get? But you'll get a lot of conversation about did -- do I have the budget? That's a different question.

So understanding what a baseline is, the basics of program management. I will tell you, I think we've made tremendous progress over the last few years. But you can imagine what that does to acquisition when you're doing the training while you're deploying.

Those are -- those have been challenges. And then, of course, getting enough people, and not burning people out is another, as we discussed with Mr. Thompson is another issue.

MCSALLY:

Are you actively recruiting from the DOD those that are separating or retiring?

BORKOWSKI:

In terms of acquisition positions, we don't actually go to DOD and ask for people. However, we get a lot of DOD applicants to our open applications. So, I think the word gets out.

MCSALLY:

I think that's where the experience would be, right?

BORKOWSKI:

Yes.

MCSALLY:

So, I mean, although maybe they're leaving and they want to go do something else. But it -- certainly if they've got the experience in program management that would be you know transferrable skills.

BORKOWSKI:

Right. Right.

MCSALLY:

OK. I'm gonna keep going here. I've got a couple more. Chief Vitiello, I don't know if it's for you or General Alles or both, can you let us know when the C gap analysis is going to be available or to be shared with us here in congress?

VITIELLO:

So, we're happy to work with you on a schedule to catch you up to where we think we are. But C gap by its design, and the work that we did with applied physics at John Hopkins is an iterative process.

MCSALLY:

OK.

VITIELLO:

So what we've done up until now is to, sort of, learn the process and learn the best practices, which comes from our own experience, plus what they've learned along with DOD to help us identify what the mission needs are, how to fill capability gaps.

And what the use case is for identified technologies, or changes in tactics et cetera. And so what we've done is we've changed, we've trained a majority of the work force that are deployed in an effort to understand that the process what C gap is, how to apply it in their own AOR.

And then feed us that information at the headquarters to then turn into requirements. And then we can push over with our requirements folks in our office, and then over into OTIA to move the process forward.

So I'd be happy to come back and give you a, sort of, a detailed brief about the number of people who have been trained, the kinds of discoveries that we've made, and asking agents for their feedback, how they would solve particular problems.

Look at the material resources, like, we need a tower, we need a sensor, we need a trip wire. And then the other, the nonmaterial things like, consequences and things that happened maybe post arrest, or information exchange with other departments et cetera.

So, we're happy to come back and give you sort of the full range of what's been trained and what it's designed to do. And then what the roll up report looks like. But recognizing that it is iterative.

As the threats change, as conditions change, we want to be able to update those plans so that we're not investing in last year's problem, but are -- are working on, ahead.

MCSALLY:

Great. General Alles?

ALLES:

I think on the Air Marine's side. We're in the early stages of it. We would expect our really first substantial output to be about a year away. So, there are currently at -- we're early in the process to discuss.

As the chief mentions, it is an iterative process, but that we would expect a more substantial output here really next summer.

MCSALLY:

OK. Great. Thank you. Yeah, let's follow up maybe, I don't know if some of its classified, but maybe with a briefing we could do later on just to, kind of, see where we're at.

And you mentioned it, Chief Vitiello, but the actual agents are part of that process, right? It's not just the sector leadership and above?

VITIELLO:

That's correct. So what we, the people who are involved in the planning for their particular area. So the station level of the people who are actually deploying on the ground are taking feedback from the people who are making the arrests, who are deploying, and they are looking at the line each and every day.

That feeds up into the station, rolled up to the Sector each, and then that comes back to us. And people are trained in each of those processes that then feed to us. And then that turns into a requirements. It turns into a forecasts for budgets and programming, et cetera.

MCSALLY:

Great, thanks. General Alles, I want to follow up on my earlier question on getting information to the agents. I know the big pipe allows the Predator feed to get to a desk top, but is there something in the works to actually get it to an iPad or something that's more mobile for the agents?

ALLES:

So, yes, ma'am. A couple things there. So first off, we're pursuing the Minotaur System. This is a Naval Air System's command system that's used on air patrol craft to distribute information.

So that's what's essential for us to take information off our platforms, radar information the EOIR signals information, and actually put it into a system that can redistribute it to other assets that had Minotaur.

It goes back to the AMOC and the Versailles. It can be sent back out. In terms of local agents, part of what is what Chief mentioned in terms of looking down the blue force tracker route, we can all resend video, we can distribute what's called a carry viewer to agents on the ground.

So they can actually see video if that's, if that's desired. Typically we're using you know actually radio information to -- to -- to queue the agents. There are a system we're looking at with the name Illusion which allows -- which will allow us to put that information on something like an Android phone or an iPhone.

Which can actually form its own local network which could be advantageous for us in terms of sending video from aircraft down to actual agents on the ground. So, those are the directions we're going.

I'd say there's a lot of work to be done there. I -- I think on the kind of investigation side supporting HSI or those that we're able to move the video very easily in those areas and give it to agents on the ground in the more remote areas. That's the winner that we need substantial work in.

MCSALLY:

Great, thanks. I also want to ask you, General Alles, about the National Guard's been supplementing with you know some of the air assets. But this last year, my understanding is that their number of hours or support was cut in half.

When you guys are doing those C gap analysis, are you, are there assumptions made on National Guard capabilities that are a part of your plan? Or are they assumed to not be there? How is that impacting your operations or the gaps?

ALLES:

So, I -- I mean, from our -- from our standpoint a couple things. First off, in the areas where we were using the National Guard hours, we have made a substantial move of our assets into those locations.

So in the -- the south Texas area, in particular we've increased our assets by over 50 percent, along with our flight hours have gone up proportionately also. In actually doing the C gap (ph) analysis, we're not necessarily counting on their support.

As you're aware from the Armed Services side, they've had substantial cuts it the DOD budget. I mean, I haven't written any articles on the Marine Corps and getting 30 to 40 percent readiness rates on their aircrafts, so they've got major challenges there.

So we aren't necessarily looking for that in the analysis, we're looking at support, the Border Patrol, and our other operations with our own internal assets, and to analyze the gaps in that method.

MCSALLY:

OK. And great. Thanks. Mr. Borkowski, can you talk about how you're sharing requirements with industry so they can spend their R&D dollars to meet you know agent's needs? Or, how do you engage with industry earlier in the process you know searching for new technology?

BORKOWSKI:

Well, we did that through a whole bunch of ways. So first of all, when I'm in town, I have probably a meeting a day with anybody who wants to come and talk to me.

Sometimes they want to tell me what they've got. Sometimes they want us to discuss generally our issues. We have reverse industry days where we talk to industry about our requirements.

We speak at any number of conferences where we list our technology interest for industry. We also work very closely with DHS S&T that has a very extensive outreach program, including to nontraditional industry, right? Because it's, kind of, easy to get to the traditional people because they know how to connect with us. But the non-traditionals.

So we have a whole bunch of ways that we talk to them. Now, the tricky thing is when we're getting ready for an acquisition. That is where we have a more focused discussion about what are the requirements, how should we depict them, what would industry be able to respond to?

Then things get a lot more detailed. But in advance of that, it's -- it's a more general discussion of these are our interests in technology areas, this is what we think we plan to do over the next few years and we do that through a number of mechanisms.

MCSALLY:

Great. Thanks. All right. I'm about to wrap up, but I want to give the opportunity for all of the witnesses. If there is anything else that you didn't get to share in your opening statement or through the questions that came out. Is there anything else that any of you want to present on the record for the committee? Chief?

VITIELLO:

Well, thank you for this opportunity. Just to reiterate, in some of the testimony and what's in the prepared remarks, we are interested in having the most effective and efficient sustainable technology that's available.

I think it's important, and I think we've heard this today that we'll never be as fast as the market to bring these things into the hands of agents. That wonderful men and women out there that have really great ideas about how to do the job more efficiently.

But the bureaucracy doesn't always support that rapid acquisition and putting those things in their hands as quickly as even we would like them to. But they are our best assets and it relates to that last -- what we call the last 50 meters.

You have to have people on the ground that support the technology that the technology has to support them. But at the end of the day they are the ones that have to make contact with whatever that thread is.

And so we appreciate them for that work. We appreciate you in your oversight role in helping us prepare them to give us the tools that they deserve to be successful. So thanks for that.

MCSALLY:

Great. Thanks Chief. General Alles?

ALLES:

I'd just like to thank the committee generally for the -- you know support they give to the agency in terms of us performing our mission. You know, not only the oversight part, but also the interest of the committee members.

Multiple trips, and you know, looking at the stuff that we're working on. I could list a list of things we want. We can provide that offline. But just appreciate the -- the -- the participation of the committee.

MCSALLY:

Absolutely, thanks General Alles. Mr. Borkowski?

BORKOWSKI:

I would just add that as recognizing the committee's frustration, we certainly have appreciated the continued support despite the frustration.

And it has been very significant to us and it has helped us a great deal. As we do go forward, I would like to have continued discussion about what do we do about the cultural and structural impediments?

Because the biggest beating I get is on time. Yes, cost and performance are important. I think we've done OK there. But the time is killing us all. Some of that, I think, will require a different thinking about how we accept risks. Because to innovate takes risks.

And that means occasionally we will have failures. What's the right risk tolerance? And frankly, the community that works in this business is very risk adverse, and that's one of the things we really have to crack. But I appreciate the opportunity to testify and I appreciate the committee's continued support.

MCSALLY:

Absolutely. And those are the same types of discussions we're having, by the way, on the Armed Services Committee related to the DOD. So, Ms. Gambler?

GAMBLER:

I just want to say thank you for inviting us to testify today. And just some of the last items that we were talking about here in terms of -- of Ultra-light detection, the C gap (ph) process, technology metrics.

We do have ongoing work for the subcommittee in a number of those areas. And so we'd be happy to follow up with you and your staff to brief you at any time. And look forward to that work coming out in the future here as well.

MCSALLY:

Great. Thanks Ms. Gambler. Appreciate it. All right. I want to thank all your witnesses for your valuable testimony, and the members for their questions.

The members may have some additional questions for the witnesses. We'll ask you to respond to these please in writing. Pursuant to committee rule 7E, the hearing record will be held open for ten days. Without objection, the committee stands adjourned.