

Middleton, Robert

From: (b) (4), (b) (6) <(b) (6), (b) (4)>
Sent: Wednesday, September 24, 2014 7:16 AM
To: Middleton, Robert
Subject: DRAFT of white paper
Attachments: FAST White paper DRAFT_rev2.docx

Good morning Bob,
Attached is the Draft of the white paper, the official white paper will be sent by contracts hopefully today.
Best Regards,

(b) (4), (b) (6)

Middleton, Robert

From: Ryn, Charles (CTR)
Sent: Thursday, May 31, 2012 10:43 AM
To: Middleton, Robert
Subject: FW: Outline of FY13 FAST/Passive
Attachments: FAST Fy13 14 outline.docx

Bob,
I think they may be way off base for the (b) (4), (b) (5) nothing there as to Passive development, biometrics is already a program that I'm sure Arum would have issues with, and I'm sure TSA would have issues with S&T running the Trusted Traveler Program.
We might want to talk to them.
Chuck

Chuck Ryn (b) (6)
Program Support, S&T Directorate
Department of Homeland Security
Office: (b) (6) BB (b) (6)
Pager: (b) (6)

This communication, along with any attachments, is covered by federal and state law governing electronic communications and may contain confidential and legally privileged information. If the reader of this message is not the intended recipient, you are hereby notified that any dissemination, distribution, use or copying of this message is strictly prohibited. If you have received this in error, please reply immediately to the sender and delete this message.

From: (b) (6), (b) (4)
Sent: Thursday, May 31, 2012 10:34 AM
To: Middleton, Robert; Ryn, Charles (CTR)
Cc: (b) (6), (b) (4)
Subject: Outline of FY13 FAST/Passive

Bob, Chuck,

Attached is the outline we plan to work towards for FY13 and FY 14. Please review and comment.

Best Regards,

(b) (6), (b) (4)

Middleton, Robert

From: Middleton, Robert
Sent: Friday, September 21, 2012 4:39 PM
To: (b) (6), (b) (4)
Cc: Ryn, Charles (CTR)
Subject: Re: A question for you

Hi, Dan. It's DODI 5210.91 dated August 12, 2010 and is one of the attachments to the e-mail from (b) (6) that I cc'd you on when I forwarded it to (b) (6) and (b) (6) on 14 September. Please let me know if you need anything else and have a great weekend.

Very Respectfully,
Bob

From: (b) (6) [mailto:(b) (6)]
Sent: Friday, September 21, 2012 03:41 PM
To: Ryn, Charles (CTR); Middleton, Robert
Subject: A question for you

Bob, Chuck,

Do you know the name or the number of the DoD directive that mandates that NCCA validate any/all credibility assessment technology before it goes to the field?

Working on a DARPA pitch...

Thanks,
(b) (6)

Middleton, Robert

From: Middleton, Robert
Sent: Tuesday, July 23, 2013 9:04 AM
To: Smith, Darryl M
Subject: FW: Minutes from 15 July 2013 Discussion re: FAST Operational Pilot

Hi, Darryl. My second attempt; please let me know when you've received this. I hope you enjoyed your weekend. Thanks.

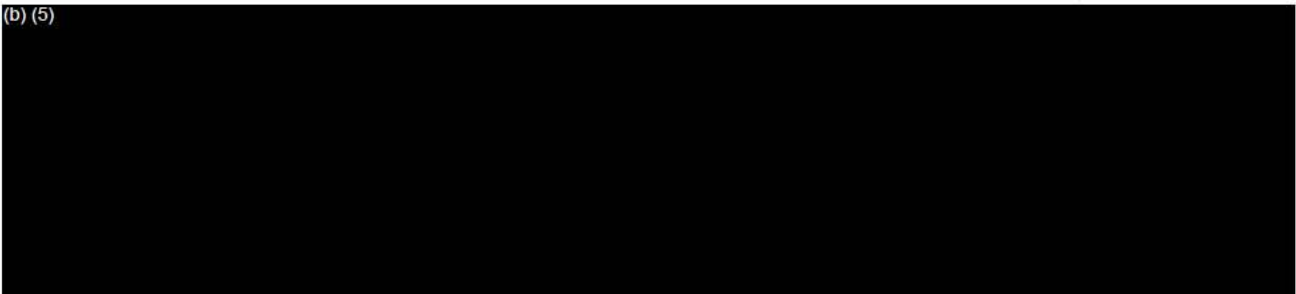
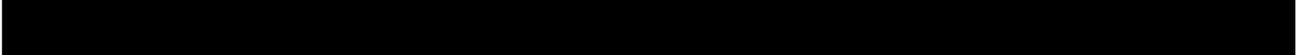
Very Respectfully,
Bob

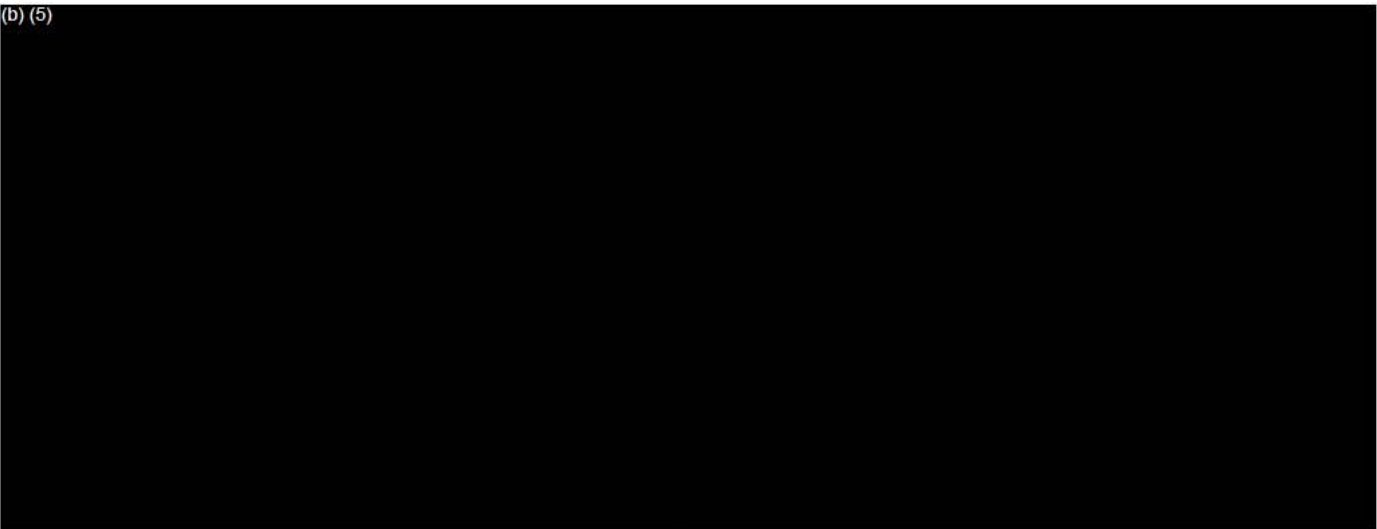
From: Middleton, Robert
Sent: Friday, July 19, 2013 3:38 PM
To: Smith, Darryl M
Subject: Minutes from 15 July 2013 Discussion re: FAST Operational Pilot

Good afternoon, Darryl. Per my previous correspondence, please find my notes below from our 1300 meeting on Monday, 15 July in your office. Please review, correct any inaccuracies/misunderstandings, and return at your convenience. Thanks again for your time this week.

Very Respectfully,
Bob

Simplified Concept of Operations:

- (b) (5) 
- 

(b) (5) 

Middleton, Robert

From: (b) (4), (b) (6) <(b) (6)>
Sent: Wednesday, September 24, 2014 7:16 AM
To: Middleton, Robert
Subject: DRAFT of white paper
Attachments: FAST White paper DRAFT_rev2.docx

Good morning Bob,
Attached is the Draft of the white paper, the official white paper will be sent by contracts hopefully today.
Best Regards,

(b) (4), (b) (6)

Middleton, Robert

From: Middleton, Robert
Sent: Monday, February 04, 2013 10:18 AM
To: (b) (4), (b) (6)
Cc: Ryn, Charles (CTR)
Subject: Re-Start Brief
Attachments: Passive Re-Start Brief - 29 January 2013.pptx

Hi (b) (4), (b) (6). Please find my Passive Methods re-start brief attached. It's been through my new Division Director, Jalal Mapar, and he remains supportive. If you have any feedback, I'm happy to consider it. As it stands now, we're on Paul Benda's calendar on either 14 or 15 February (exact date/time still TBD). More to follow as I learn more. Thanks.
Very Respectfully,
Bob

New Start/Restart Pitch

Passively Activated Screening System (PASS)

(formerly Passive Methods for Precision Behavioral Screening)

Robert Middleton
Program Manager

February, 2013



Homeland
Security



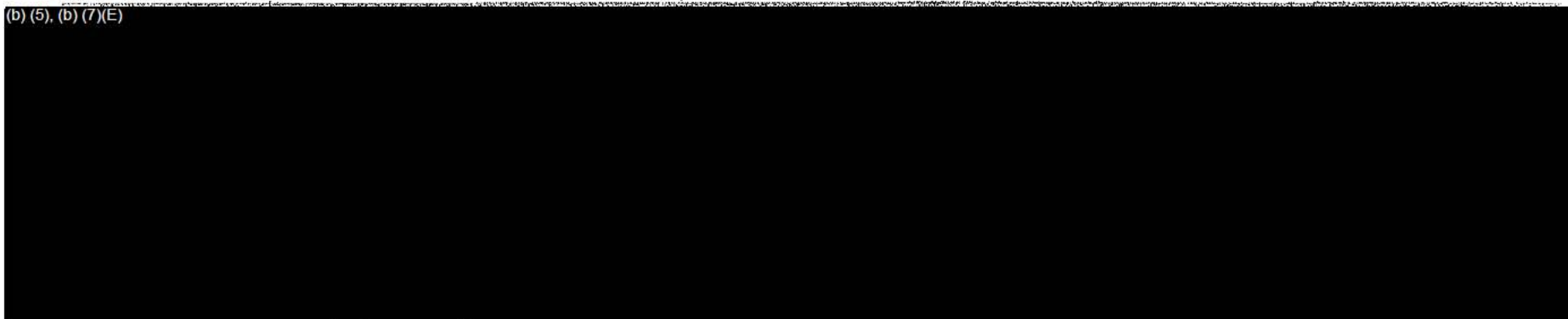
Alignment and Impact



- What is the component's current operation?
 - See "As Is" Operational Context Chart
- Explain their current mission needs:
 - March 2011 Aviation Security Technology Research and Development Strategy *Goal 5: Apply science and technology breakthroughs to advance security solutions.*
- Explain operational and technical requirements. How did you collect/generate these requirements?

FY	TRL	False Positive	False Negative	Increase in Security Perimeter*	Screening Opportunity Time	Screening Time	Personnel Requirements
----	-----	----------------	----------------	---------------------------------	----------------------------	----------------	------------------------

(b) (5), (b) (7)(E)



- March 2011 Aviation Security Technology Research and Development Strategy
- 12 August 2011 TSA Technology Research & Development Requirements Document
- DRAFT Apex AEER Charter
- USSS R&D Strategic Plan
- NUSTL Data Collection
- SME WGs/Advisory Panels
- Research Protocols
- DRAFT R&D Strategies: TSA, Chem-Bio, FPS



Alignment and Impact (cont'd.)



- How does this technology align to the component's priorities?
 - **Highly complementary to ongoing initiatives in TSA, CBP, elsewhere**

- How does this technology align to the component's operations?
 - **Dovetails with Risk-Based Screening Strategy**

- What is the impact to the component's operations? Explain the ROI (efficiency and/or capability): **Improves both efficiency and capability**
 - **Increased accuracy of the screening process with a concurrent decrease in false alarm rates;**
 - **Increased stand-off distance at which screened personnel are evaluated;**
 - **Increased time during which screened personnel are evaluated by remote, non-contact sensors;**
 - **Increased screening throughput by utilization of passive stimuli to evoke responses without direct questioning; and**
 - **Decreased attempts by screened persons to alter their behavior as a countermeasure to the screening process.**



Alignment and Impact (cont'd.)



Tremendous Potential Return-on-Investment (ROI) for Traveling Public:

- **FAA estimates 1 billion fliers per year by 2021**
 - **Up from 712M in 2010**
- **Estimates of Time Spent in Airports Due to Security Procedures has Cost the Nation ~\$8B/year since September, 2011**
 - **Assumes Business Travelers' Time = \$50/hour**
 - **Others' Time = \$15/hour**
 - **5 minutes saved could translate into ~\$1.3B/year saved in travelers' wait time**



Robert Middleton, Robert

From: [redacted] (b) (6)
Sent: Thursday, December 21, 2012 10:53 AM
To: Middleton, Robert
Subject: RE: Request for Time on Your Calendar

Bob,

Thank you for the email.

As an PM, I called Pat and explained TSA's support for the effort. Please let me know if there is anything I can do to help for that front.

Enjoy the remainder of the week.

Respectfully,
 John

From: Middleton, Robert (b) (6)
Sent: Tuesday, January 23, 2013 11:51 AM
To: Sanders, John P., <JPSA@DHS>
Subject: RE: Request for Time on Your Calendar

Good evening, Mr. Sanders. I just wanted to drop you a short note to thank you for your time today. I also appreciate that you are supportive of my efforts to get the Passive Methods for Precision Behavioral Screening program and I look forward to keeping you abreast of TSA's development of future efforts with the program. I will certainly ensure that you are kept apprised of my progress. Also, please pass along my thanks to (b) (6) who was an absolute pleasure to work with.

Very Respectfully,
 Bob Middleton
 Chief, Human Behavior and Identification Branch (PHB)
 Resilient Systems Division
 DHS S&T/HSARPA
 (b) (6)
 (b) (6)

From: Middleton, Robert (b) (6)
Sent: Monday, December 24, 2012 11:51 AM
To: Middleton, Robert
Cc: Tashiro, Shiro; Taylor, Sam; King, Jennifer L; Hillard, Nicole; Harvey, Melissa; Drury, Jill
Subject: RE: Request for Time on Your Calendar

Bob,

I'm very interested in behavior detection and welcome the opportunity to learn more about developments that might enhance TSA's capabilities. Please coordinate with Nicole Hillard on these issues or contact me next time at St. Martin's and Mt. Vernon in Washington, DC.

Mary McDevitt

From: [redacted] (b) (6)
Sent: Friday, December 21, 2012 10:53 AM
To: Sanders, John P., <JPSA@DHS>
Subject: Request for Time on Your Calendar

Good afternoon, Mr. Sanders. If your time permits, I'd like to discuss over and brief you after the New Year on what's been accomplished with the Future Airports Screening Technology (FAST) and Passive Methods for Precision Behavioral Screening program since you were up in California back some ago. While we haven't had much funding, work has been proceeding and I have to assure that you're kept abreast of our efforts including some work we've done through the small business innovative research program and other work we're starting with our partner and sponsors.

I'd also like to ensure that I have a current understanding of your efforts since I'm providing my new PHB Director with a program report brief in the coming weeks. Great to see you at the S&T Strategic Review, the Human Behavior/Behavioral Sciences Division has merged with the Infrastructure Preparedness and Disaster Management Division to form the Resilient Systems Division with Mr. John Cooper as our Director. Please find a slide outlining our new organizational structure attached.

I know there are many demands on you so I will not take up more than 30 minutes of your time and do so as early as possible next week. If possible, I'd also like to bring the principal researcher, (b) (6) and (b) (6) from Cooper's team to discuss the two of us three co-authors of the "Threat of..."

Please let me know if your schedule can support a brief visit and in the meantime, I hope you enjoy a very Merry Christmas and a safe and happy New Year. Thank you for your consideration.

Very Respectfully,
 Bob Middleton
 FAST/Passive Methods for Precision Behavioral Screening Program Manager
 Resilient Systems Division
 DHS S&T/HSARPA
 (b) (6) office
 (b) (6) cell

Questions?

Please Contact:
Robert Middleton

FAST/Passive Methods for Precision Behavioral Screening Program Manager
Resilient Systems Division
DHS S&T/HSARPA

(b) (6) office)
 (b) (6) cell)

Middleton, Robert

From: Smith, Darryl M (b) (6)
Sent: Thursday, July 25, 2013 8:47 AM
To: Middleton, Robert
Subject: RE: Minutes from 15 July 2013 Discussion re: FAST Operational Pilot

Comments are below in yellow highlight.
-D

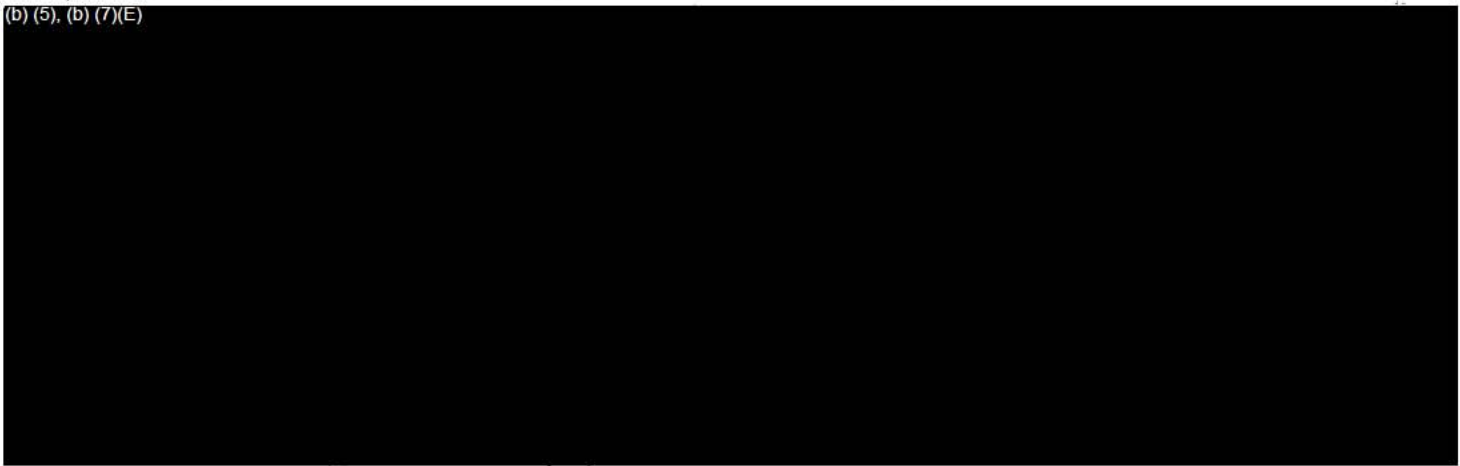
From: Middleton, Robert (b) (6)
Sent: Friday, July 19, 2013 3:38 PM
To: Smith, Darryl M
Subject: Minutes from 15 July 2013 Discussion re: FAST Operational Pilot

Good afternoon, Darryl. Per my previous correspondence, please find my notes below from our 1300 meeting on Monday, 15 July in your office. Please review, correct any inaccuracies/misunderstandings, and return at your convenience. Thanks again for your time this week.

Very Respectfully,
Bob

Simplified Concept of Operations:

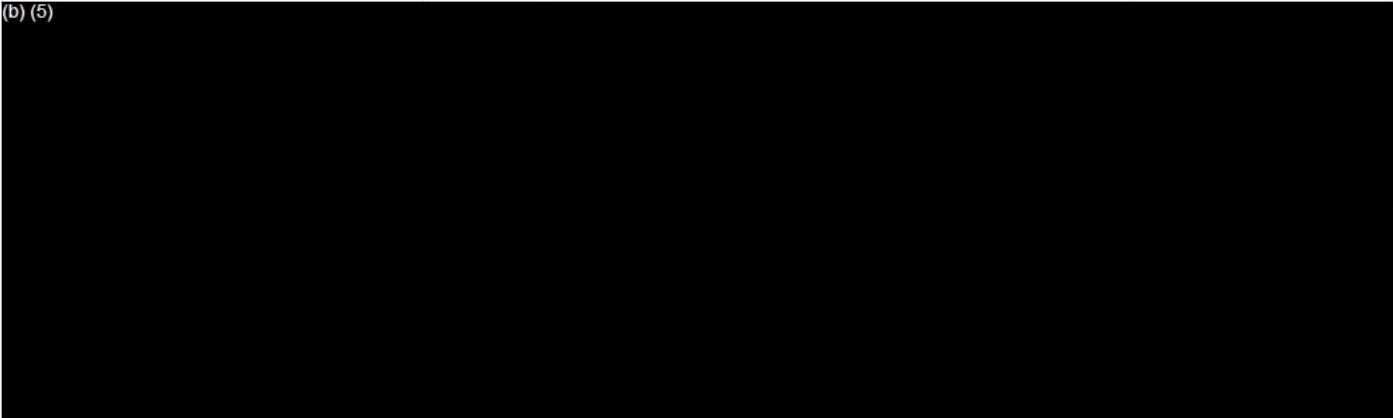
(b) (5), (b) (7)(E)



(b) (5)

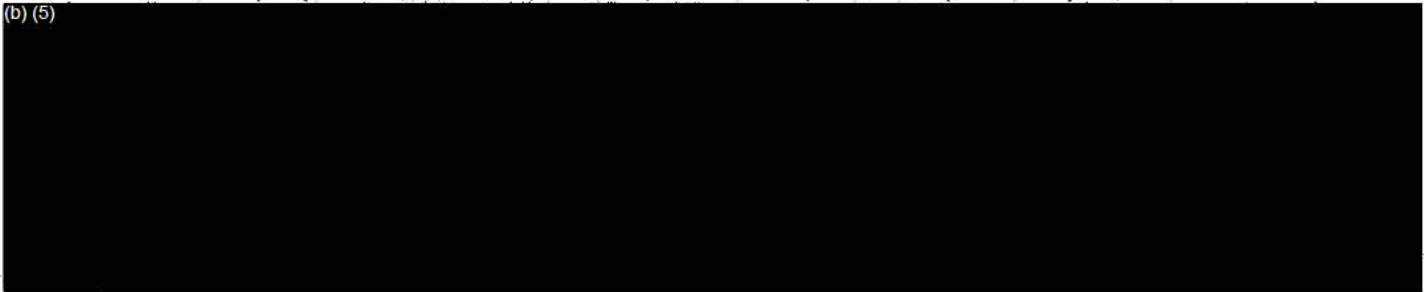


(b) (5)



- o Darryl will brief/seek concurrence from his counterpart in the TSA Office of Security Operations (OSO).
- o It is anticipated that OSO will provide liaison to (b) (7)(E) FSD. No word yet from OSO but they are a little busy trying to get ready for the massive growth, another 100 PreCheck airports which means all CAT X and CAT I airports (BDL is CAT I)
- I will draft a Privacy Threshold Assessment (PTA) and route via the DHS S&T Privacy Office in order to determine if the Privacy Impact Assessment requires an update to incorporate the operational pilot.

(b) (5)



Notional Schedule:

(b) (5)



(b) (5)



Budget:

Task	PoP	
	1 July 2013 - 31 December 2013	1 January 2014 - 30 September 2014
(b) (5)		
		\$ (b) (5)
		\$
		\$
		\$

(b) (5)			\$	(b) (5)
			\$	
			\$	
	Subtotal	\$	(b) (5)	\$

- Per previous discussions between Mr. Benda (Director, HSARPA) and Mr. Sanders (Assistant Administrator, Office of Security Capabilities), HSARPA will match TSA funding "dollar for dollar."

- (b) (5)

Other Questions/Issues:

- (b) (5)
-

Middleton, Robert

From: (b) (4), (b) (6) <(b) (6)>
Sent: Monday, September 23, 2013 10:56 AM
To: Middleton, Robert
Subject: FW: (b) (7)(E) Overview
Attachments: 130923 (b) (7)(E) Pictures.pptx

Good Morning Bob,
Attached is the scouting report that (b) (6), (b) (4) did when travelling through (b) (7)(E)

Best Regards,

(b) (4), (b) (6)

From: (b) (4), (b) (6) [mailto:(b) (6)]
Sent: Monday, September 23, 2013 10:50 AM
To: (b) (4), (b) (6)
Cc: (b) (4), (b) (6)
Subject: (b) (7)(F) Overview

(b) (4), (b) (6)

At (b) (7)(E) there are two separate locations where you can go through screening. One has four main lanes, the other has one. I took pictures last week and put them together in the attached PowerPoint.

Once you get through the four lanes, there are several stations that each have (b) (7)(E) (See pictures.) At the end of each station they can perform (b) (7)(E) They also have an overflow area with several more stations for when it gets busy. (Last picture in the PowerPoint.)

I went through screening at 5 am. Each lane was about 6 people deep. It took me about 5 minutes to get through. Usually the lines are a bit longer. None of the overflow stations were open. When I returned on Friday morning at 10 am, there were only a few people being screened and no one was waiting in line.

(b) (7)(E)

(b) (4), (b) (6)

From: (b) (4), (b) (6) (b) (6), (b) (4)
Sent: Wednesday, September 18, 2013 1:44 PM
To: (b) (4), (b) (6)
Subject: RE: Latest from Bob M

Great:
How many screening lanes?
What type of screening do they have? Metal detectors, full body scanners, puffers, residue analysis, etc?
Can you detect (b) (7)(E)
What time of day are you travelling? What is the screening time? Was it busy, long lines?

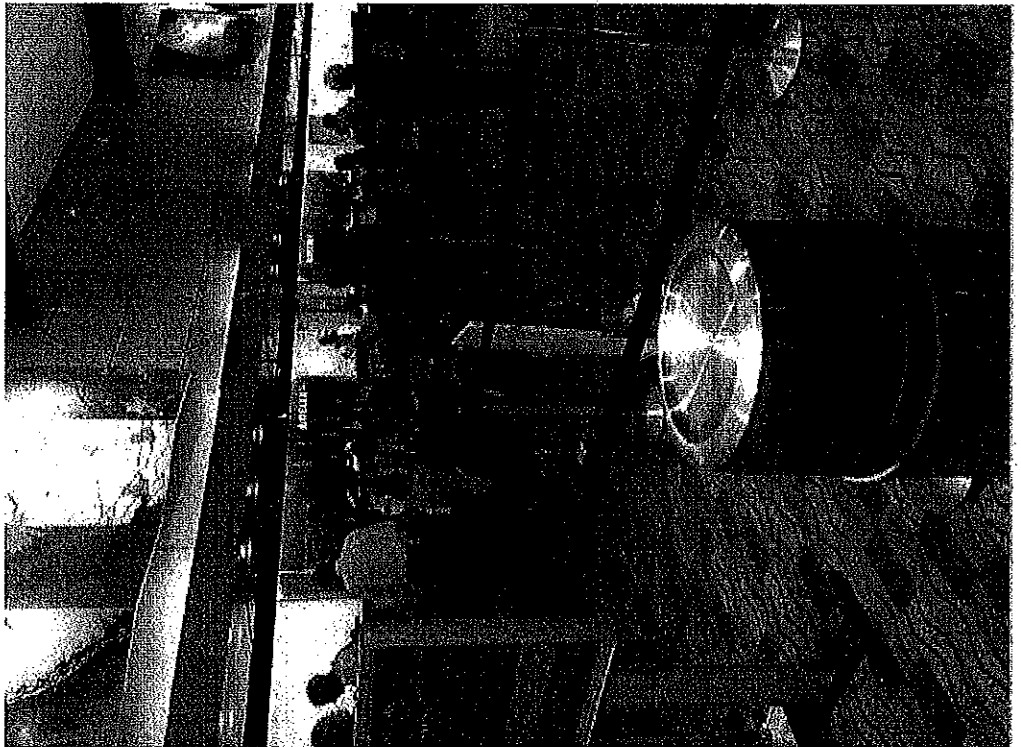
Did you use a Kiosk to get a boarding card? How long did you spend at the kiosk?

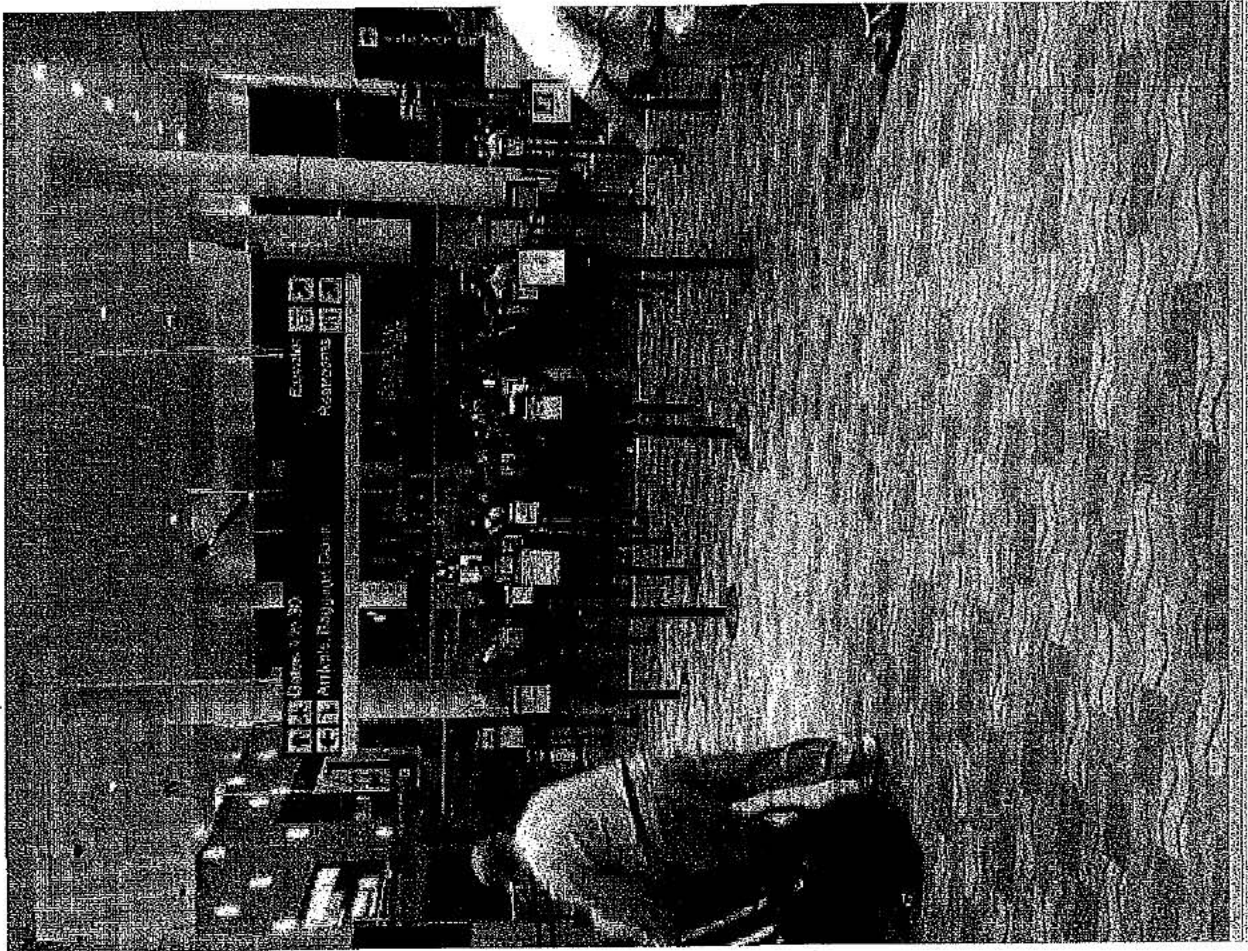
From: (b) (4), (b) (6) [mailto:(b) (6)]
Sent: Wednesday, September 18, 2013 1:39 PM
To: (b) (4), (b) (6)
Subject: RE: Latest from Bob M

I am flying out (b) (7)(E) tomorrow and returning on Friday. Same thing next week.

Let me know if you want me to do any recon.

Delta Counter

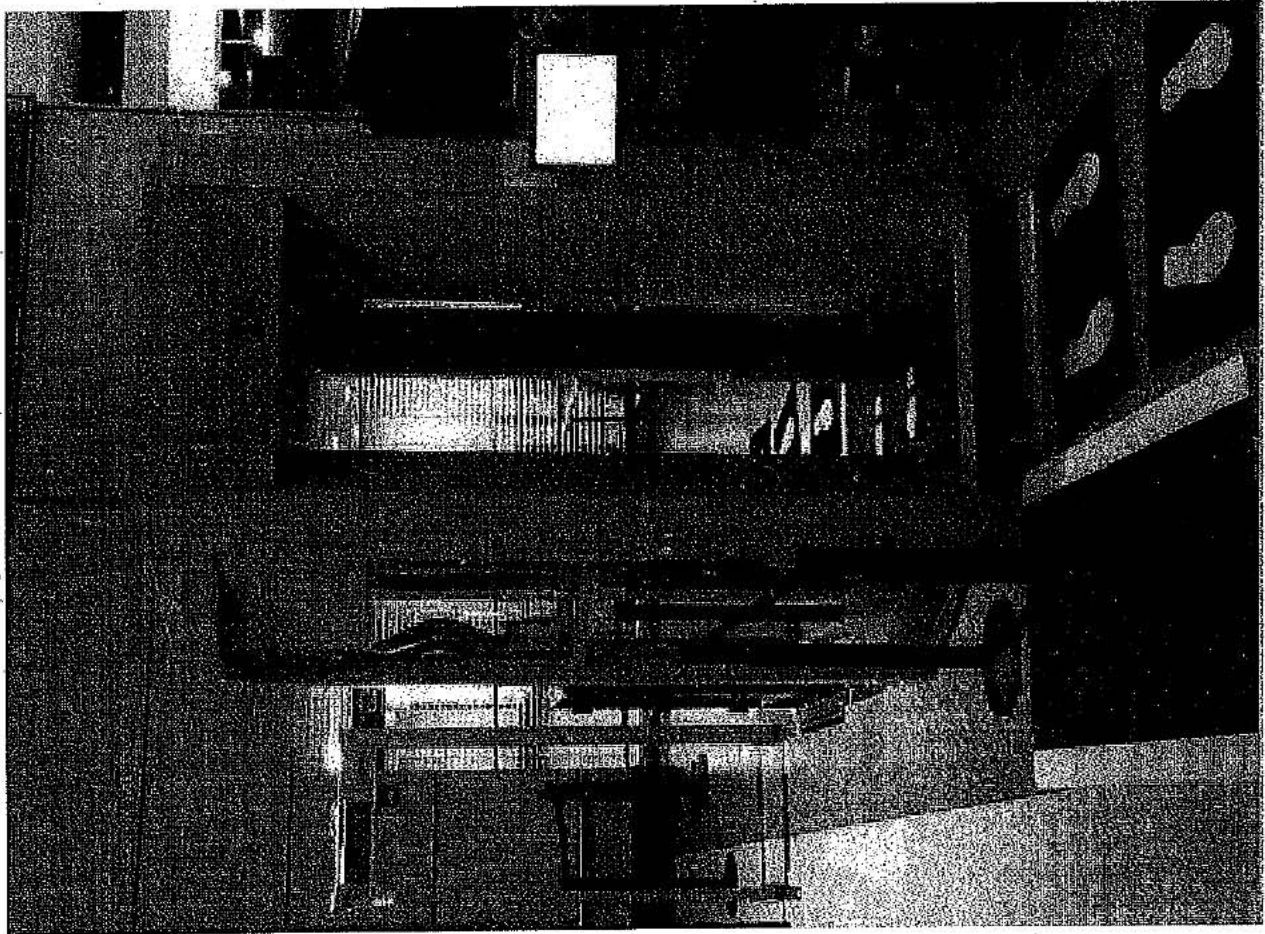
















Middleton, Robert

From: Middleton, Robert
Sent: Tuesday, November 05, 2013 5:44 PM
To: (b) (4), (b) (6)
Subject: FW: (b) (7) use as an August 2014 FAST test site -- site visit Nov 2013 requests

Hi, (b) (6). Some progress regarding a site visit at (b) (7)(E). More to follow once I get synched up with Matt. Thanks.
Very Respectfully,
Bob

From: Cobey, Matt (James) (b) (6)
Sent: Tuesday, November 05, 2013 4:37 PM
To: Middleton, Robert
Cc: Mancuso, Donald; King, Jennifer L
Subject: FW: (b) (7) use as an August 2014 FAST test site -- site visit Nov 2013 requests

Hi Bob, no worries but we probably won't get Draper there until the 19th or 20th. We have to get the airport authority onboard too before we get the final green light. Give me a call tomorrow or Thursday if you can otherwise we can wait until next week.
matt

Matt Cobey
Office: (b) (6)
Cell: (b) (6)

From: Cobey, Matt (James)
Sent: Tuesday, November 05, 2013 4:34 PM
To: Bassett, David <FSD>
Cc: Tauber, Sarah; King, Jennifer L; Maola, Marisa; Schmid, Richard
Subject: RE: (b) (7) use as an August 2014 FAST test site -- site visit Nov 2013 requests

Thanks David, I enjoyed our call and I look forward to working with you and your team. I'll coordinate with DHS S&T (who for some of you are out of pocket this week at a conference out west) to schedule a visit on either the 19 or 20th. I'll work with Rich if we're not able to get it done prior to your leave next week.

I've got a pretty good track record when selling airport authorities, no worries on my end. I enjoy hearing from our stakeholders.

Thanks again,
Matt

Matt Cobey
Office: (b) (6)
Cell: (b) (6)

From: Bassett, David <FSD>
Sent: Tuesday, November 05, 2013 1:37 PM
To: Cobey, Matt (James)

Cc: Tauber, Sarah; King, Jennifer L; Maola, Marisa
Subject: RE: (b) (7) use as an August 2014 FAST test site -- site visit Nov 2013 requests

Hi Matt,

We welcome the opportunity to support you and your program. Our POC here will be AFSDS Rich Schmid who I will copy in on this note. If you have a moment I may circle back with you later today though to get a better sense of your needs.

W/R,

David

David Bassett
Director - Department of Homeland Security

(b) (6)



Transportation
Security
Administration

Middleton, Robert

From: (b) (4), (b) (6) <(b) (6)>
Sent: Monday, November 18, 2013 11:24 AM
To: Middleton, Robert
Cc: (b) (4), (b) (6)
Subject: RE: (b) (7)(E) /visit
Attachments: 131118 FAST Overview.pptx

Here is the presentation.

From: Middleton, Robert [mailto:(b) (6)]
Sent: Thursday, November 14, 2013 2:08 PM
To: (b) (4), (b) (6)
Cc: (b) (4), (b) (6)
Subject: RE: (b) (7)(E) /visit

Hi, Dan. I'm not sure of the time since my travel hasn't been approved yet. I'll keep you posted once I find out.

I'll also be happy to discuss budgets once I'm there. Maybe we can have a splinter discussion without the TSA folks at Draper.

Finally, if you can put some slides together, I'd really appreciate it. We can test run these on (b) (6) and (b) (6) and use them again on Wednesday at (b) (7)(E). Thanks.

Very Respectfully,
Bob

From: (b) (4), (b) (6)
Sent: Wednesday, November 13, 2013 11:05 AM
To: Middleton, Robert
Cc: 'Trainor, Christopher V.'
Subject: (b) (7)(E) /visit

Bob,

Here are some questions for you based on our meeting today:

What time will you be arriving on Tuesday?

Will we be able to discuss planning and budget issues on Tuesday with the TSA guys present?

Do we need slides for Wednesday at (b) (7)(E) or will we just be talking? If we need slides, will you be putting them together or will we?

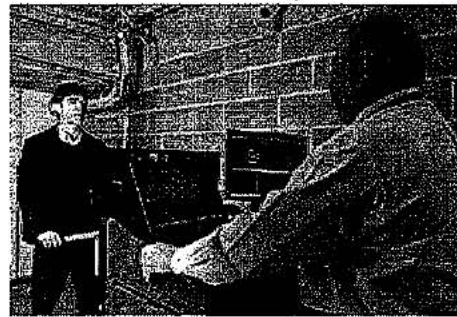
Looking forward to seeing you.

(b) (4), (b) (6)

(b) (6), (b) (4)

Future Attribute Screening Technology (FAST)

An Overview of the Program, Research Protocols, and Results



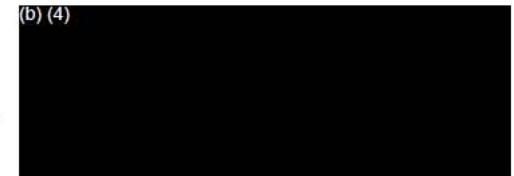
November 20, 2013



Homeland
Security



(b) (4)



Program of research aims to develop technologies to enhance and streamline the screening process.

Goals:

- Create a screening system to aid security officials
- Increase throughput and minimize impact on public
- Increase validity of referral to secondary screening

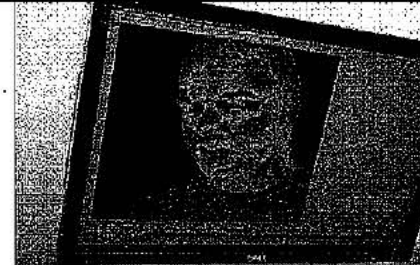
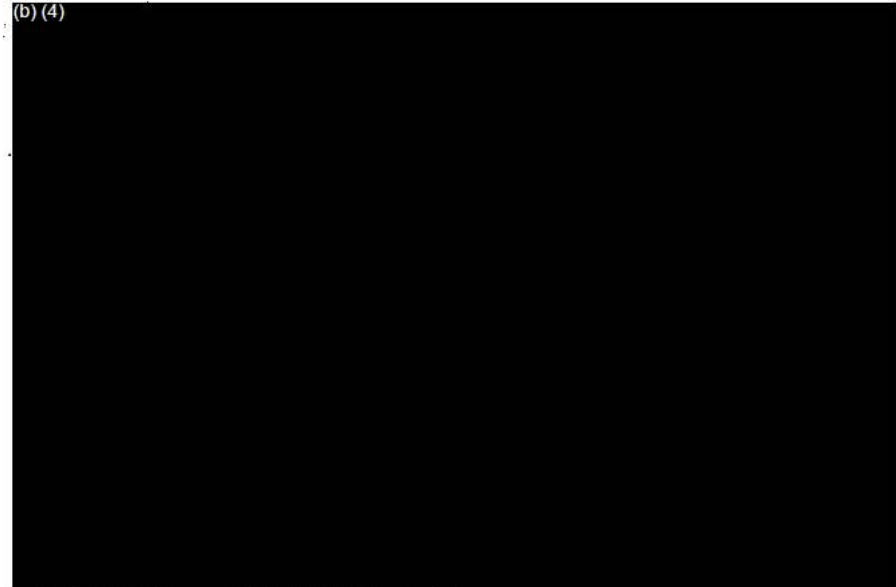
(b) (4)



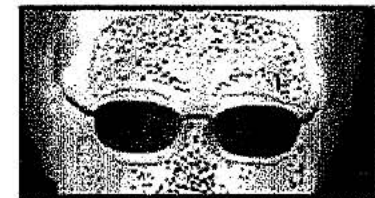
Vision is to identify individuals with malintent *before* they pass through a screening checkpoint.

FAST system detects malintent via an off-body screening system.

- FAST uses innovative, non-intrusive sensors to detect physiological and behavioral cues
- The FAST program developed a prototype system which can screen people in near real-time

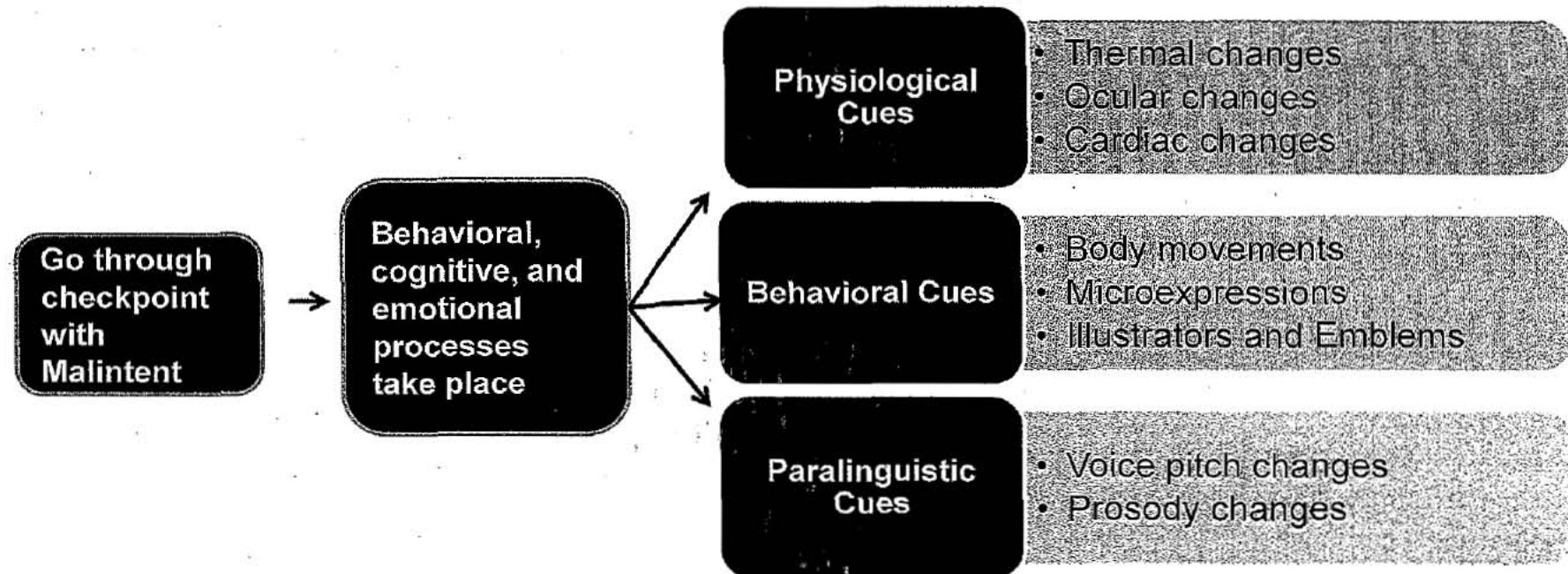


Minimal Pores



Increased Pores

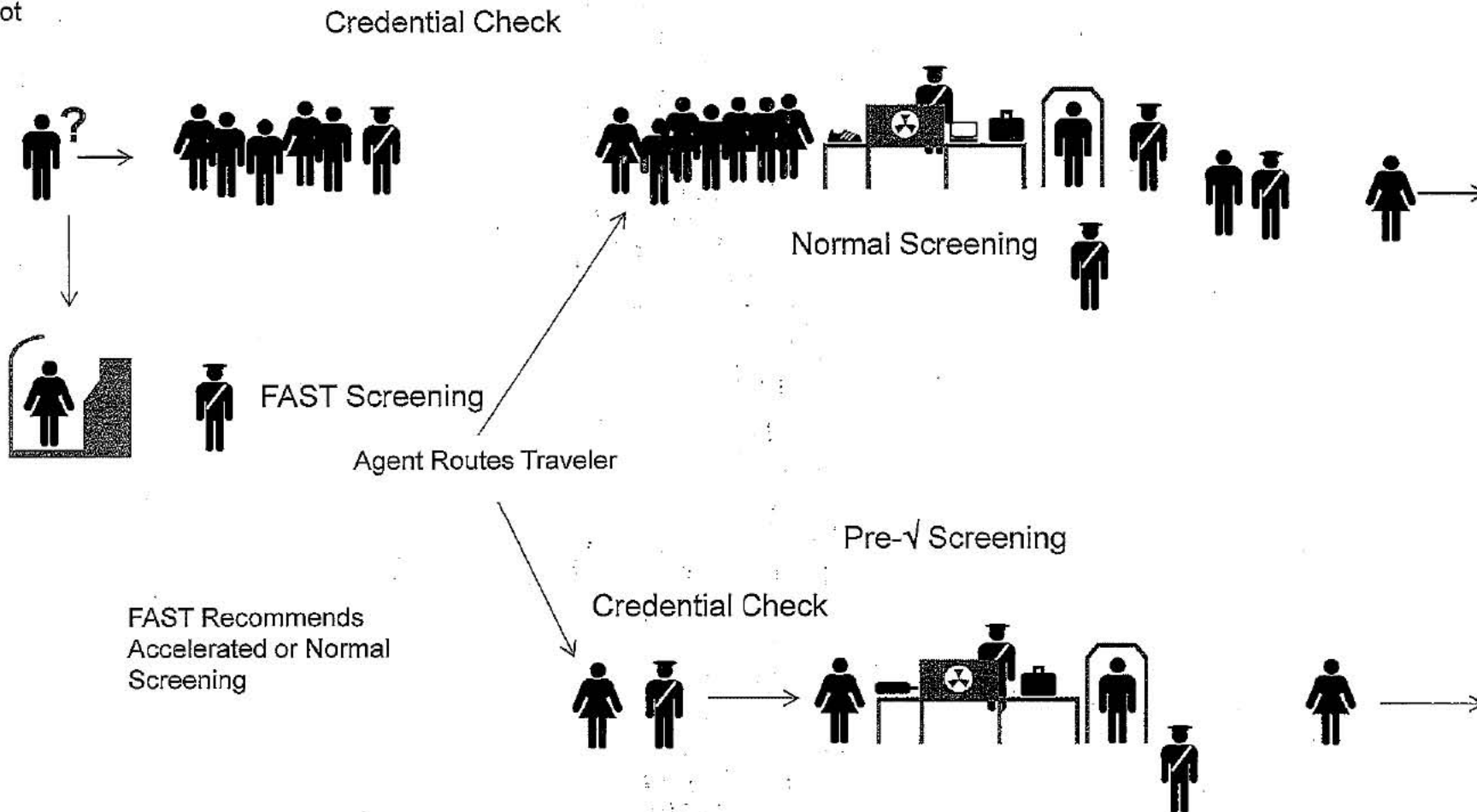
Malintent theory assumes three types of processes exhibited via three types of cues.



Malintent: The mental state of individuals intending to cause harm, specifically in the realm of intending to disrupt or negatively affect the security of a specific location or infrastructure.

Traveler Flow Concept

Traveler
Decides to
Use FAST or
Not



Middleton, Robert

From: Cobey, Matt (James) (b) (6)
Sent: Tuesday, November 19, 2013 2:42 PM
To: Middleton, Robert; (b) (4), (b) (6)
Subject: Fw(E) (b) (7) use as an August 2014 FAST test site -- site visit Nov 2013 requests

Address
Sent from BB

----- Original Message -----

From: (b) (6)
Sent: Tuesday, November 19, 2013 02:32 PM
To: Cobey, Matt (James)
Subject: RE: (b) (7) use as an August 2014 FAST test site -- site visit Nov 2013 requests

Thank you, Matt:

The physical street address is:

(b) (6)

The Director's office is on the third floor - please park in any space of the rear parking lot. We will be looking for you around 0900 hours.

Shall I forward this information to the other members of your team?

Question? Can you take a call at this time and if so which number shall I use?

(b) (6)

----- Original Message -----

From: Cobey, Matt (James)
Sent: Tuesday, November 19, 2013 2:12 PM
To: Schmid, Richard
Subject: Re: (b) (7) use as an August 2014 FAST test site -- site visit Nov 2013 requests

(b) (6) Everyone is driving. Probably three vehicles.
Sent from BB

----- Original Message -----

From: (b) (6)
Sent: Tuesday, November 19, 2013 02:04 PM
To: Cobey, Matt (James)
Subject: RE: (b) (7)(E) use as an August 2014 FAST test site -- site visit Nov 2013 requests

Hello Matt,

I presume some of your team will be driving while others will be taking flights to (b) (7)(E)

Based on individual schedules we can arrange for a pick-up at the airport - lower level - outside curb for those arriving via flights while those arriving by ground transportation can drive to our office location.

I will provide you with the physical street address of the office.

(b) (6)

-----Original Message-----

From: Cobey, Matt (James)

Sent: Tuesday, November 19, 2013 1:59 PM

To: (b) (6)

Subject: Re: (b) (7) use as an August 2014 FAST test site -- site visit Nov 2013 requests
(E)

(b) (6) Can you confirm the time and location tomorrow morning?

Thanks

Matt

Sent from BB

Middleton, Robert

From: Cobey, Matt (James) (b) (6)
Sent: Wednesday, December 04, 2013 9:08 AM
To: Middleton, Robert
Subject: FAST

Hi Bob,

I believe (b) (5)

Any chance you could give me a call before 0930 on my desk or after 0930 on my BB? I have to be in Georgetown at 1000 to meet with Sharon H from the UK.

BTW, (b) (5)

Matt

Matt Cobey
Manager, Threat Assessment Capabilities Branch
TSA Office of Security Capabilities
Office: (b) (6)
Cell: (b) (6)

Middleton, Robert

From: Bassett, David (b) (6)
Sent: Friday, December 06, 2013 2:50 PM
To: Cobey, Matt (James); Schmid, Richard; Maola, Marisa
Cc: King, Jennifer L; Middleton, Robert; Tauber, Sarah; Harvey, Melanie; Mancuso, Donald
Subject: RE: Canceling FAST Testing this August (b) (7)(E)

Thanks Matt and the is also for the kind word a out our staff. If you would like we could let the airport know of the change or if you would like to contact them directly by email or phone just let me know. Have a great weekend!

Best regards,

Dave

Sent with Good (www.good.com)

-----Original Message-----

From: Cobey, Matt (James)
Sent: Friday, December 06, 2013 02:41 PM Eastern Standard Time
To: Bassett, David ; Schmid, Richard; Maola, Marisa
Cc: King, Jennifer L; Middleton, Robert; Tauber, Sarah; Harvey, Melanie; Mancuso, Donald
Subject: Canceling FAST Testing this August (b) (7)(E)

Good Day Marisa, David, Rich,

Due to several new constraints that have arisen since our last visit we are forced to postpone our plans for using (b) (7)(E) August of 2014 as a data collection site for FAST. We will not be taking the FAST (b) (5)

(b) (5) I am very appreciative of the hospitality your team showed to mine and would love to entertain you in the future as other projects arise. This change was in no way due to anything at (b) (7)(E) or with the (b) (7)(E) team. (b) (5)
 (b) (5)

Can I ask the best way for us to communicate with the airport authority that we won't be using their facility after all? Should we send something or leave it up to you?

David, I was impressed with our site visit, you got a good shop up there and should be proud of the impression they leave.

Thanks again for the time your people were willing to share with us,
 Matt

Matt Cobey
 Manager, Threat Assessment Capabilities Branch
 TSA Office of Security Capabilities

Office: (b) (6)
Cell: (b) (6)

Middleton, Robert

From: Cobey, Matt (James) (b) (6)
Sent: Monday, December 09, 2013 1:34 PM
To: (b) (6)
Cc: Bassett, David <PSD>; Schmid, Richard; Middleton, Robert; Mancuso, Donald
Subject: TSA canceling request to use (b) (7) (E) as test site for FAST

Good Afternoon Chrissy, I hope this email find the holidays treating you well,

Thank you for hosting my DHS and TSA colleagues and me a couple of weeks ago to discuss using (b) (7) (E) as a test site for a prototype screening technology. I am very appreciative of the time you gave us on 20 Nov. We have decided to adopt a different strategy with FAST, one that will preclude utilizing (b) (7) (E) as a data collection site as we had anticipated for August 2014. Therefore, I am rescinding our request to your leadership to collect field data in August.

This decision is specific to the FAST program and is by no means a reflection of the airport or its staff. You and David have a great team up there and I am glad to have made your acquaintance. In fact, your facility is so impressive I would include it on my list as a candidate site for other projects in the future.

Thank you again for your hospitality,
Matt

Matt Cobey
Manager, Threat Assessment Capabilities Branch
TSA Office of Security Capabilities
Office: (b) (6)
Cell: (b) (6)

Middleton, Robert

From: (b) (4), (b) (6)
Sent: Friday, May 02, 2014 10:33 AM
To: Middleton, Robert
Subject: RF: TSIF Testing Strategy

Bob,

Looks good to me.

(b) (4), (b) (6)

From: Middleton, Robert (b) (6)
Sent: Friday, May 2, 2014 10:02 AM
To: (b) (4), (b) (6)
Subject: RF: TSIF Testing Strategy

Good morning, (b) (6) Here is my proposed revision. Please feel free to adjust/revise as necessary. Thanks.

Very Respectfully,
Rob

The original plan for FY14 was to conduct an operational demonstration at an actual airport and the venue selected (b) (7)(E) in (b) (7)(E) TSA and S&T briefed the (b) (7)(E) Aviation Administration in November, 2013 but changing TSA priorities prompted a shift to the TSA Systems Integration Facility (TSIF). This, in turn, required a change in the program priorities; accordingly, revised outcomes at TSIF in FY14 include:

(b) (5)



- Allows the research team to determine whether the study's cover story is believable and whether participants agree to engage in the malintent activity.
- Accuracy assessments will not be made.
- Build confidence among stakeholders.
- Evaluate the feasibility of using TSIF for future research.
- Collect opinions about the screening system from participants.
- Assess the testing strategy in preparation for validating the system in an airport environment.

From: (b) (4), (b) (6)
Sent: Thursday, May 01, 2014 7:47 AM
To: Middleton, Robert
Cc: (b) (4), (b) (6)
Subject: TSIF Testing Strategy

Bob,

Here is a draft of our current testing strategy.

Let me know if you would like anything clarified or expanded upon.

(b) (4), (b) (6)

TSIF Testing Strategy

In order to evaluate the FAST system at TSIF and maximize resources, the team has proposed a testing strategy that will include both a data collection exercise and a small pilot test.

(b) (5)



(b) (5)



Middleton, Robert

From: Middleton, Robert
Sent: Wednesday, May 28, 2014 2:36 PM
To: (b) (4), (b) (6)
Cc: (b) (4), (b) (6)
 (b) (4), (b) (6)
Subject: Passive Methods Quad Chart
Attachments: Passive Methods for Precision Behavioral Screening - Updated 2 May 2014.....pptx; FAST and Passive Heilmeier Questions.docx

Good afternoon (b) (4), (b) (6) As discussed, here is the quad chart for Passive for your review. Please feel free to mark-up/revise; I'm interested in hearing your feedback. Thanks.

Very Respectfully,
 Bob

P.S. I included the Heilmeier questions since Dr. Brothers asked for this prior to the Bottom Up Review he conducted with all of the divisions here in S&T earlier this month. You can mark them up, too! ☺

Future Attribute Screening Technology (FAST)/ Passive Methods for Precision Behavioral Screening

Division: Resilient Systems Division (RSD)



Homeland
Security

Project Description

The overall goal of the Future Attribute Screening Technology (FAST) program was to validate the *Theory of Malintent* (November, 2007) by reliably and remotely detecting behavioral and physiological indicators of malintent (the intent to cause harm to our nation or its citizens). Collateral benefits of this technology include reduced inconvenience to the travelling public which enables travelers to move more freely and quickly within screening environments and serves as a quantitative complement to other qualitative screening methodologies. The Passive Methods for Precision Behavioral Screening program will reduce the interaction time between subject and screener while maintaining or improving current screening performance. Future plans include the addition of other stimuli; e.g., pictures, to precede, complement, or replace altogether the current questioning used in the FAST screening paradigm to evoke cues diagnostic of malintent. HSARPA has established a leadership position in this field of research which is likely unequalled in the federal enterprise.

(b) (4)

Describe the potential outcome(s)

The overall program goal is to enable the identification and interpretation of a screened individual's physiological and behavioral cues without the need for operator-induced stimuli which may allow for security personnel to remotely and more safely identify cues diagnostic of malintent. This will lead to:

- Potential elimination of the need for face-to-face interaction (a key driver of time and resources);
- Reduced manpower requirements;
- Increased screening throughput; and
- Decreased attempts by screened persons to alter their behavior as a countermeasure to the screening process.

Potential Users: TSA OSC, CBP OFO, USSS, Transit Authorities



Passive Methods for Precision Behavioral Screening

1. What is the research need?

- This program is intended to address vital national priorities; e.g., the National Security Strategy (Strengthen Aviation Security) and the Quadrennial Homeland Security Review Report (Mission 1: Preventing Terrorism and Enhancing Security; Mission 2: Securing and Managing Our Borders).
- Further, this program will bridge the gap between time-consuming/costly Q&A-based security screening requiring interaction with a security screener and the safer, more accurate, less intrusive, less time-consuming, and less resource-intensive passive screening envisioned as the direct result of this program.
- DHS requires more effective primary screening in a variety of venues including critical infrastructure, high profile special events, and transportation hubs .
- There is a significant amount of literature available in this area but operationally-relevant application of this knowledge for potential use by a DHS component is still in its infancy and could yield a potentially large return-on-investment in terms of time and money saved.

2. What is the technical/scientific approach?

- The theory states that those persons with malintent can be identified in primary screening by physiological and behavioral signals. The program's goal is to increase our ability to differentiate malintent through the inclusion of passive stimuli (presented within the individual's awareness) which are tentatively defined as *the activation by the environment of an individual's mental representations of malintent and associated behavioral and physiological responses*.
- This program's approach is to focus on passive stimuli that augment direct questioning, passive stimuli that replace direct questioning, and passive stimuli that precede primary screening. A series of research studies will allow us to develop passive methodologies to simulate real-world situations.
- This direction was chosen specifically to leverage preexisting FAST hardware/software and maximize the directorate's return on its previous investments in FAST – especially in view of the fact that this is the first known attempt to characterize, understand, and operationalize this body of knowledge.
- A redesigned FAST “kiosk” employed as part of the FAST Limited User Evaluation comprises the core technology that will enable this effort.
- Collaborators to date are comprised chiefly of subject matter experts in the field from Yale, University of Utah, San Francisco State, Ohio State, and MITRE.
- Key technical barriers to be overcome include identifying the correct stimuli (i.e., auditory, visual, tactile) and the manner of their presentation to individuals to evoke the desired physiological and behavior cues and then determining the manner in which this knowledge can be transformed into an operational capability usable in a primary screening context. Also, it will be necessary to be able to provide stimuli to specific individuals, monitor their response, and keep track of that individual as he/she transits through the security perimeter.
- The chief reason why this problem has not been solved yet is that, to date, there has been little capability to exploit physiological and behavioral signals diagnostic of malintent. The success of the FAST program has enabled DHS S&T to take this next step in advancing primary screening's state-of-the-art.
- The performers listed in this brief represent the breadth of national capability in primary screening research given their relatively long history (by the standards of this field of research) and success in defining and understanding the primary screening problem and demonstrating the ability – through the partnering of rigorous systems engineering with sound fundamental research – to deliver operationally-relevant solutions.

3. What are the anticipated results and value of this research?

- Significance/impact of success in this program is a dramatically-improved understanding of the cognitive processes underlying the state of malintent for use by DHS components with a screening mission.
- Success will be determined through the use of unambiguous quantifiable metrics such as Probability of Correct Classification, False Alarm Rates, and screening time. When successful, there will be a significant increase in the first metric and significant decreases in the other two.
- This program provides the opportunity for the submission and publication of numerous scholarly articles in refereed journals and a significant contribution to the scientific body of knowledge with the concurrent likelihood of a tremendous advance in primary screening technology.
- This program will build upon DHS S&T's leadership in primary screening technology research in which, we continue to “lead from the front.”

The U.S. Department of Homeland Security (DHS) is acknowledged as the sponsor of this work – For Official Use Only

Passive Methods for Precision Behavioral Screening

4. What is innovative about this work?

- There are many novel aspects of this project including identification of passive stimuli that can evoke the physiological and behavioral cues diagnostic of malintent instead of or in addition to using a questioning paradigm; and determining the best means of presenting those stimuli; e.g., visual, auditory, or tactile. This also offers the potential to re-allocate security officers from primary screening allowing them to focus on secondary screening as necessary.

5. What are the next steps?

- (b) (5), (b) (7)(E)

[REDACTED]

- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]

6. [REDACTED]

- [REDACTED]

7. What is the history of this project?

- This program was initiated in FY11 and through FY12 (based on the most current FY12 RAP), \$7.64M will have been invested.

8. (b) (5)

- [REDACTED]

1. What are you trying to do? Articulate your objectives using absolutely no jargon.

The overall goal of the Future Attribute Screening Technology (FAST) program was to validate the *Theory of Malintent* (November, 2007) by reliably and remotely detecting behavioral and physiological indicators of malintent (the intent to cause harm to our nation or its citizens). Benefits of operationalizing this technology include reduced inconvenience to the travelling public which enables travelers to move more freely and quickly within screening environments and serves as a quantitative complement to other qualitative screening methodologies. While much work remains, it is also gender-, age-, and culture-neutral since each individual undergoing screening serves as his/her own baseline. The Passive Methods for Precision Behavioral Screening program, which utilizes other stimuli; e.g., pictures, to precede, complement, or replace the current question set used by FAST to evoke responses, will reduce the interaction time between subject and screener while maintaining or improving current screening performance.

2. How is it done today, and what are the limits of current practice?

Current behavioral screening uses a qualitative approach; e.g., Screening Persons through Observation Techniques (SPOT) with human Behavioral Detection Officers (BDOs). FAST and Passive Methods are intended to be quantitative complements.

3. What's new in your approach and why do you think it will be successful?

This program uses commercial off-the-shelf (COTS) sensors to remotely detect behavioral and physiological indicators diagnostic of malintent. Having run several thousand consenting, informed, compensated human subjects indicates that the theory is valid and that accuracy in an operationally realistic setting is approximately 70-74%.

4. Who cares (in terms of Components and first responders)?

(b) (7)(E) TSA and FPS-GSA Research Strategies executed with DHS S&T that could, if successful, be filled by this research. CBP's Office of Field Operations (OFO) is also interested in the outcome of this research.

5. If you're successful, what difference will it make?


Benefits of this technology include:

- Reduced inconvenience to the travelling public;
- Travelers are able to move more freely and quickly within screening environments;
- Screening is quantitative vice qualitative;
 - While much work remains to confirm, this technique is also potentially gender-, age-, and culture-neutral since each individual undergoing screening serves as his/her own baseline.
- Complement to other qualitative screening methodologies.
- Inclusion of other stimuli; e.g., audio, visual, tactile, reduce the interaction time between subject and screener while maintaining or improving current screening performance.

6. What are the risks and the payoffs?

Technology involved is very low risk; there are no active sensors which might harm an individual undergoing screening. Risks are largely based on perception of "Big Brother," "Minority Report," or other nefarious technique being used to unnecessarily intrude upon the traveling public's privacy. Of note, however, the Privacy Impact Assessment (PIA) is up-to-date and publicly available online and the program has completed a Civil Rights/Civil Liberties Impact Assessment (CLIA) which indicates no violation of the 4th amendment. If successful, this could be a quantum leap forward in screening capability that is cost-effective, does not employ profiling, and is sensitive to individual privacy and civil liberties.

7. (b) (5)



Total funding in the spend plan is \$11,720K but the end of each fiscal year represents a potential "off ramp" and operational component contributions/cost sharing represent potential offsets. Of note, over the past two fiscal years (FY13-14), TSA has contributed \$0.82 to every dollar contributed by S&T.

8. How long will it take?

As currently structured, the program is scheduled to complete in FY19. However, as mentioned in the previous question, each year represents a logical "off ramp" or stopping point.

9. What are the midterm and final "exams" to check for success?

Using a measured approach as documented in the quad chart, the research agenda includes a data collection event, a data collection pilot, two basic and applied research protocols and a verification and validation event. If sufficiently resourced, I would add SME working groups and/or advisory panels to serve as independent checks and balances on the research plan.

Middleton, Robert

From: (b) (4), (b) (6)
Sent: Friday, September 05, 2014 3:56 PM
To: Middleton, Robert
Cc: (b) (4), (b) (6)
Subject: read ahead slides for Monday
Attachments: White Paper Outline.pptx

Bob,
Attached please find read ahead slides for our telecon on Monday. We look forward to discussing these with you.
Have a great weekend,

(b) (4), (b) (6)

Middleton, Robert

From: (b) (4), (b) (6)
Sent: Wednesday, September 24, 2014 5:44 PM
To: Middleton, Robert
Cc: (b) (4), (b) (6)
Subject: ASK White Paper
Attachments: ASK White Paper - DRAPER.pdf

Good Evening Mr. Middleton,

Please find the subject White Paper attached. Let us know if you have any questions.

Thank you,

(b) (4), (b) (6)

The Charles Stark Draper Laboratory, Inc.
555 Technology Square, MS 07 | Cambridge, MA | 02139-3563

(b) (4), (b) (6)

www.draper.com



Middleton, Robert

From: (b) (4), (b) (6)
Sent: Monday, November 17, 2014 9:37 AM
To: Middleton, Robert
Cc: (b) (4), (b) (6)
Subject: FW: FAST/AVATAR IMS: Documents for Meeting
Attachments: 2014-11-04 RoadMapSchedule.mpp

Good Morning Bob,

Enclosed is the latest Roadmap Schedule for ASK. It was taken directly from the proposal that is in process. I am sending the entire schedule so you can pick and choose which elements you wish to use to populate your higher level schedule. Please let me know if you need anything further.

Best Regards,

(b) (4), (b) (6)

From: Middleton, Robert (b) (6)
Sent: Friday, November 14, 2014 10:46 AM
To: (b) (4), (b) (6)
Subject: FW: FAST/AVATAR IMS: Documents for Meeting

Good morning (b) (6), (b) (4) Can you and the team help me populate the FAST schedule through FY15 and as far into FY16 as feasible based on our discussions regarding the POA&M for FAST over the next several years? Please let me know if you can accommodate and thanks.

Very Respectfully,
 Bob

From: (b) (6)
Sent: Friday, November 14, 2014 9:11 AM
To: (b) (6)
Cc: (b) (6)
Subject: FAST/AVATAR IMS: Documents for Meeting

Hello All,

Please see the attached FAST and AVATAR IMS' for our meeting at 10:30 AM. Please remember that these are initial drafts only. (b) (4)

(b) (4) I have also attached the schedule's in PDF for those who do not have Microsoft Project.

Please let me know if you have any questions,

(b) (6)

(b) (6)

(b) (6)
 (b) (6)
 (b) (6)
 (b) (6) | www.deloitte.com

This message (including any attachments) contains confidential information intended for a specific individual and purpose, and is protected by law. If you are not the intended recipient, you should delete this message and any disclosure, copying, or distribution of this message, or the taking of any action based on it, by you is strictly prohibited.

v.E.1

Notice: This email and any attachments may contain proprietary (Draper non-public) and/or export-controlled information of Draper Laboratory. If you are not the intended recipient of this email, please immediately notify the sender by replying to this email and immediately destroy all copies of this email.

Middleton, Robert

From: (b) (4), (b) (6)
Sent: Wednesday, July 10, 2013 1:24 PM
To: Middleton, Robert
Subject: FW: FAST photo of white board from first day
Attachments: IMG_0002.jpg

Bob
It was great seeing you again.
Here is the white board photo from the first meeting.
Best Regards,

(b) (4), (b) (6)

From: (b) (6)
Sent: Wednesday, July 10, 2013 6:46 AM
To: (b) (4), (b) (6)
Subject:

Middleton, Robert

From: (b) (4), (b) (6)
Sent: Wednesday, July 10, 2013 1:25 PM
To: Middleton, Robert
Cc: (b) (4), (b) (6)
Subject: Second day photo
Attachments: IMG_0004.jpg

Bob
Attached is the second FAST meeting day white board photo.
Best regards,

(b) (4), (b) (6)

From: (b) (6)
Sent: Wednesday, July 10, 2013 1:21 PM
To: (b) (4), (b) (6)
Subject: