CYBER SECURITY DIVISION 2013 PRINCIPAL INVESTIGATORS' MEETING

Crystal Gateway Marriott | Arlington VA September 16 – 18, 2013



Science and Technology

Meeting Logistics

- **Registration:** Check-in will begin at 7:30 a.m. daily. Please signin each day.
- General Session: Begins daily at 8:30 a.m.
- **Restrooms:** Located across from Salon A.
- Wi-Fi Access: Please limit access to one personal device Network: ibahn_conference Password: 09959d
- **Beverage Service:** Water stations will be in the Grand Ballroom Foyer. Coffee and other beverages are available at Einstein Bagels, located on the *Lobby Level*.
- Lunch: is on your own. Listing of nearby eateries (page 2) of the attendee packet

Meeting Logistics

- **Presentation Slides**: Available at the PI meetings website <u>http://events.SignUp4.com/2013CyberPIMeeting</u>
- **Q&A:** Questions must be spoken into the microphones. This will allow webcast attendees to hear the questions.
- End of The Day Wrap-Up: Please return your badge to the registration desk
- Survey: Please complete the electronic survey rating your experience at the CSD 2013 PI Meeting. <u>https://www.surveymonkey.com/s/CSD_2013_PI_Meeting_Sur_vey</u>
- **Questions?:** Please see the registration desk.

Live Webcast

• Webcast Link:

http://dhs.bizvision.com/2013CyberPlwebcast-registration

If you've already registered: http://dhs.bizvision.com/2013CyberPlwebcast

- General Session and Technical Tracks will be webcast
- The webcasted videos will also be available for viewing through the above link after the PI meeting.
- If you require any technical support, please contact the BizVision Helpdesk at 1-800-747-1719 or <u>support@bizvision.com</u>

Homeland Security Advanced Research Projects Agency

S&T's Role in Cyber Security and the Way Forward

September 16, 2013

DHS S&T Principal Investigator Meeting

Douglas Maughan Division Director



Science and Technology





Presentation Outline

- Why We Are Here
- International Involvement
- National / Federal Activities
- DHS Activities
- Cyber Security Division (CSD) Overview
- What's Ahead
- Summary
- Administrative Items
- Q&A



Environment: Greater Use of Technology, More Threats, Less Resources



MORE THREATS



systems that can be connected directly or indirectly to networks. International Telecommunications Union X.1205, Overview of from disruption or unauthorized access, use, disclosure, modification, or destruction." Federal Plan for Cyber Security and Information Assurance Research and Development, Apr 2006



Cybersecurity Requirements Historical Timeline

2011

TRUSTWORTHY CYBERSPACE: STRATEGIC PLAN FOR THE FEDERAL CYBERSECURITY

RESEARCH AND

DEVELOPMENT PROGRAM

Executive Office of the President

National Science and Technology Council



Homeland Security

Science and Technology



Call for Action -Secure Protocols DNSSEC Secure Routing -DETER security testbed - PREDICT data repository



2008

Beginnings of CNCI - Call for NICE (Education) - Call for NSTIC (Trusted Identities) - Reinforced need for PREDICT data repository



2009

S&T Produced National R&D community input Source for DHS S&T BAA, SBIR, and other solicitations CNCI Tasks 4&9 S&T led via cochair of CSIA IWG Significant interagency activities (More later) Implementation plan to accomplish goals of DHS QHSR 24 high priority capabilities needed NPPD-led, S&T involved RFI intended to guide S&T's future investments

2012

Blueprint for a

Security

Secure Cyber Future

PPD - 21 CNCI Way

Ongoing

EO - 13636

Forward



Cybersecurity Strategies – International (1 of 2)

Science and Technology

Natural Isonog An Internation Ionosity in die Unich Regula	Protection Comparison National strategy for Switzerland* protection against cyber risks	The UK Cyber Security Strategy Protecting and promoting the UK in a digital world	<text><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></text>	<section-header><section-header><text><text><section-header><text><text><text><text><text></text></text></text></text></text></section-header></text></text></section-header></section-header>	INTERNATIONAL STRATECY FOR CYBERSPACE Property, Security, and Openenss in a Networked World Max 2011	Stratégie nationale en matière de cyber sécurité
Slovakia	Switzerland	United Kingdom	Hungary	Japan	USA	Luxembourg
India 🛞	Uganda	South Africa	European Union	Poland	Romania	Russia
Durant of Automatic Automa	APART OF ASSESS APART OF ASSES APART OF ASSES APART OF ASSES APART OF ASSES APART OF ASSESS APART OF ASSES APART OF ASSES APART OF ASSES APART OF ASSES APART OF ASSES APART OF ASSES APART OF ASSESS APART OF ASSES APART OF	Government Gazette Status Koerant Name - Marine III No. 1999		ELADOVY PROCESSI BELOVY PROCESSI BELOVY PROCESSI BECTOPORTILI POLISEI BECTOPORTILI POLISEI SALATA 2011-2016	COMERT IN LIGHT	COORDENTION SECTORY OF THE REVIEW OF THE RE
11 Sanay Astrona and annexes 12 Sanay Astrona y en anti-Mattin 13 Sanay Astrona y en anti-Mattin 14 Sanay Astrona Yanaya 14 Astrona Yangi Cayman 14 Astrona Yangi Cayman Materi Carolondo May (12 Mill 2017)	Book SH4		EN	Nog 11 	S	of the attenuation spinor, which represents an analoging of dimension, and means and interpret or active resping on the attenuation, and analogi- ment and a strength on the attenuation of the attenuation of the respingent of their conditions. The attenuation spinor is a strength defense and allow conditions. The attenuation spinor is attenuated before and and the attenuation of the attenuation spinor is attenuated attenuation of the formation behaviory attenuation of the ford of a strength of the formation behavior and strength of the attenuation of the formation of the distribution of the strength of the strength of strength of the formation behavior of the strength of the strength of strength of the formation of the strength of the strength of the strength of strength of the formation of the strength



Cybersecurity Strategies – International (2 of 2)

Science and Technology





~	Establish a front line of defense									
Focus Area	Reduce the Number of Trusted Internet Connections	Deploy Passive Sensors Across Federal Systems	Pursue Deployment of Automated Defense Systems	Coordinate and Redirect R&D Efforts						
2	Resolve to	Resolve to secure cyberspace / set conditions for long-term success								
Focus Area	Connect Current Centers to Enhance Situational Awarenes	Develop Gov't-wide Counterintelligence Plan for Cyber	Increase Security of the Classified Networks	Expand Education						
с	Shape future environment / secure U.S. advantage / address new threats									
⁻ ocus Area	Define and Develo Enduring Leap Ahea Technologies, Stratea & Programs	p ad gies Strategies & Programs	Manage Global Supply Chain Risk	Cyber Security in Critical Infrastructure Domains						

http://cybersecurity.whitehouse.gov





http://cybersecurity.whitehouse.gov



U.S. Federal Cybersecurity Operations Team National Roles and Responsibilities

Science and Technology

DOJ/FBI

- Investigate, attribute, disrupt and prosecute cyber crimes
- Lead domestic national security operations
- Conduct domestic collection, analysis, • and dissemination of cyber threat intelligence
- Support the national protection, prevention, mitigation of, and recovery from cyber incidents
- Coordinate cyber threat investigations

PROTECT

DOJ/FBI

LEAD FOR

Investigation and

Enforcement

FBI, NSD, CRM, USAO

DHS

- Coordinate the national protection, prevention, mitigation of, and recovery from cyber incidents
- Disseminate domestic cyber threat and vulnerability analysis
- Protect critical infrastructure
- Secure federal civilian systems
- Investigate cyber crimes under DHS's jurisdiction

DHS

LEAD FOR

Protection

NPPD, USSS,

ICE

DoD

- Defend the nation from attack
- Gather foreign cyber threat intelligence and determine attribution
- Secure national security and military systems
- Support the national protection, prevention, mitigation of, and recovery from cyber incidents
- Investigate cyber crimes under military jurisdiction

DoD

LEAD FOR National Defense

USCYBERCOM, NSA, DISA, DC3

INTELLIGENCE COMMUNITY: Cyber Threat Intelligence & Attribution SHARED SITUATIONAL AWARENESS ENABLING INTEGRATED OPERATIONAL ACTIONS

PREVENT

MITIGATE

RESPOND

RECOVER

Coordinate with Public, Private, and International Partners

* Note: Nothing in this chart alters existing DOJ, DHS, and DoD roles, responsibilities, or authorities

UNCLASSIFIED



NITRD Participating Agencies











National Institute of Standards and Technology



Networking Information Technology R&D

Office of

U.S. DEPARTMENT OF ENERGY

AHRQ







Federal Cybersecurity R&D Strategic Plan

- Science of Cyber Security
- Research Themes

Homeland Security

Science and Technology

- Tailored Trustworthy Spaces
- Moving Target Defense
- Cyber Economics and Incentives
- Designed-In Security (New for FY13)
- Transition to Practice
 - Technology Discovery
 - Test & Evaluation / Experimental Deployment
 - Transition / Adoption / Commercialization
- Support for National Priorities
 - Health IT, Smart Grid, NSTIC (Trusted Identity), NICE (Education), Financial Services



Released Dec 6, 2011

http://www.whitehouse.gov/blog/2011/12/06/f ederal-cybersecurity-rd-strategic-plan-released



DHS S&T Mission Guidance



7



Cybersecurity for the 16 Critical Infrastructure Sectors

DHS provides advice and alerts to the 16 critical infrastructure areas ...



In the future, DHS will provide cybersecurity for ...

□ The .gov and critical .com domains with a mix of:

- Managed security services
- Developmental activities
- Information sharing

□ Linkages to our U.S. – CERT (Computer Emergency Readiness Team)

National Cybersecurity and Communications Integration Center (NCCIC) is a 24x7 center for production of a common operating picture ...



- In February 2013, the President issued two new policies:
 - 1) Executive Order 13636: Improving Critical Infrastructure Cybersecurity
 - 2) Presidential Policy Directive 21: Critical Infrastructure Security and Resilience
- America's national security and economic prosperity are dependent upon the operation of critical infrastructure that are increasingly at risk to the effects of cyber attacks
- The vast majority of U.S. critical infrastructure is owned and operated by private companies
- A strong partnership between government and industry is indispensible to reducing the risk to these vital systems



Integrating Cyber-Physical Security

- Executive Order 13636: Improving Critical Infrastructure Cybersecurity directs the Executive Branch to:
 - Develop a technology-neutral voluntary cybersecurity framework
 - Promote and incentivize the adoption of cybersecurity practices
 - Increase the volume, timeliness and quality of cyber threat information sharing
 - Incorporate strong privacy and civil liberties protections into every initiative to secure our critical infrastructure
 - Explore the use of existing regulation to promote cyber security

- Presidential Policy Directive-21:
 Critical Infrastructure Security and Resilience replaces Homeland Security Presidential Directive-7 and directs the Executive Branch to:
 - Develop a situational awareness capability that addresses both physical and cyber aspects of how infrastructure is functioning in nearreal time
 - Understand the cascading consequences of infrastructure failures
 - Evaluate and mature the publicprivate partnership
 - Update the National Infrastructure Protection Plan
 - <u>Develop comprehensive research</u> and development plan (CSD / RSD)

DHS S&T Mission

Strengthen America's security and resiliency by providing knowledge products and innovative technology solutions for the Homeland Security Enterprise

- 1) Create new technological capabilities and knowledge products
- 2) Provide Acquisition Support and Operational Analysis
- 3) Provide process enhancements and gain efficiencies
- 4) Evolve US understanding of current and future homeland security risks and opportunities

FOCUS AREAS

- Bio
- Explosives
- Cybersecurity
- First Responders
- Resilient Systems
- Borders / Maritime



Homeland Security





Cyber Security Focus Areas

- Trustworthy Cyber Infrastructure
 - Working with the global Internet community to secure cyberspace
- Research Infrastructure to Support Cybersecurity
 - Developing necessary research infrastructure to support R&D community
- R&D Partnerships
 - Establishing R&D partnerships with private sector, academia, and international partners
- Innovation and Transition
 - Ensuring R&D results become real solutions
- Cybersecurity Education
 - Leading National and DHS cybersecurity education initiatives



Trustworthy Cyber Infrastructure

- Secure Protocols
 - DNSSEC Domain Name System Security
 - Govt and private sector worked together to make this happen
 - Started in 2004; now 111 top level (gTLD) and country code (ccTLD) domains adopted globally including the Root
 - SPRI Secure Protocols for Routing Infrastructure
- Internet Measurement and Attack Modeling
 - Geographic mapping of Internet resources
 - Logically and/or physically connected maps of Internet resources
 - Monitoring and archiving of BGP route information
 - Co-funding with Australia

ccTLD DNSSEC Status on 2013-01-29







- Experimental Research Testbed (DETER)
 - Researcher and vendor-neutral experimental infrastructure
 - Used by over 200 organizations from more than 20 states and 17 countries
 - Used by over 40 classes, from 30 institutions involving 2,000+ students
 - http://www.deter-project.org
- Research Data Repository (PREDICT)
 - Repository of network data for use by the U.S.- based cyber security research community
 - More than 200 users (academia, industry, gov't); Over 600TB of network data; Tools are used by major service providers and many companies
 - Phase 2: New datasets, ICTR Ethics, International (CA, AUS, JP, EU)
 - https://www.predict.org
- Software Assurance Market Place (SWAMP)
 - A software assurance testing and evaluation facility and the associated research infrastructure services



R&D Partnerships

Oil and Gas Sector

LOGIIC – Linking Oil & Gas Industry to Improve Cybersecurity

Electric Power Sector

TCIPG – Trustworthy Computing Infrastructure for the Power Grid

- Banking and Finance Sector
 - FI-VICS Financial Institutions Verification of Identity Credential Service
 - DECIDE Distributed Environment for Critical Incident Decision-making Exercises (recent Quantum Dawn II exercise)
- State and Local
 - PRISEM Public Regional Information Security Event Management
 - PIV-I/FRAC TTWG State and Local and Private Sector First Responder Authentication Credentials and Technology Transition
- Law Enforcement
 - SWGDE Special Working Group on Digital Evidence (FBI lead)
 - CFWG Cyber Forensics Working Group (CBP, ICE, USSS, FBI, S/L)

S&T International Engagements

International Bilateral Agreements

- > Government-to-government cooperative activities for 13 bilateral Agreements
- Canada (2004)

Homeland

Science and Technology

Security

- Australia (2004)
- United Kingdom (2005)
- Singapore (2007)
- Sweden (2007)
- Mexico (2008)
- Israel (2008)
- France (2008)
- Germany (2009)
- New Zealand (2010)
- European Commission (2010)
- Spain (2011)
- Netherlands (2013)

Over \$6M of International co-funding

n (2010)	Moto	Kingdom Spain Prence	Cernany	singour Austral	
COUNTRY	PROJECTS	MONEY IN	JOINT	MONEYOUT	
Australia	3	\$300K	\$400K		
Canada	11	\$1.8M			
Germany	1		\$300K		
Israel	2		\$100K		
Netherlands	7	\$450K	\$1.2M	\$150K	
Sweden	4	\$650K			
United Kingdom	3	\$1.2M	\$400K		
European Union	1				
Japan	1				



CSD R&D Execution Model



Example: DARPA has provided \$9M to CSD for development and transition of Military Networking Protocol (MNP) technology and has started discussions for testing and evaluation of Automated Malware Analysis technology

Successes

- Standard Issue to S&T employees
- Komoku Rootkit Detection
- HBGary Memory and Malware
 - Over 100 pilot deployments as
- Endeavor Systems Malware
 - Open source; most browsers have included Stanford R&D
- Secure Decisions Data Visualization
 - Pilot with DHS/NCSD/US-CERT; Acquisition

Cyber Security R&D Broad Agency Announcement (BAA)

- Delivers both near-term and medium-term solutions
 - To <u>develop new and enhanced technologies</u> for the detection of, prevention of, and response to cyber attacks on the nation's critical information infrastructure, based on customer requirements
 - To perform research and development (R&D) aimed at <u>improving the</u> <u>security of existing deployed technologies</u> and to ensure the security of new emerging cybersecurity systems;
 - To <u>facilitate the transfer of these technologies</u> into operational environments.
- Proposals Received According to 3 Levels of Technology Maturity

Type I (New Technologies)

- ✓ Applied Research Phase
- ✓ Development Phase
- ✓ Demo in Op Environ.
- ✓ Funding \leq \$3M & 36 mos.



Homeland Security Type II (Prototype Technologies)

- ✓ More Mature Prototypes
- ✓ Development Phase
- ✓ Demo in Op Environ.
- ✓ Funding \leq \$2M & 24 mos.

Type III (Mature Technologies)

- ✓ Mature Technology
- ✓ Demo Only in Op Environ.
- ✓ Funding \leq \$750K & 12 mos.

Note: Technology Demonstrations = Test, Evaluation, and Pilot deployment in DHS "customer" environments



R&D Sources

- DOE National Labs
- FFRDC'S (Federally Funded R&D Centers)
- Academia
- Small Business

Transition

processes

- Testing & evaluation
- Red Teaming
- Pilot deployments

Utilization

- Open Sourcing
- Licensing
- New Companies
- Adoption by cyber operations analysts
- Direct privatesector adoption
- Government use

Implement Presidential Memorandum – "Accelerating Technology Transfer and Commercialization of Federal Research in Support of High-Growth Businesses" (Oct 28, 2011)

A NATIONAL PROBLEM

- The Nation needs greater cybersecurity awareness and more cybersecurity experts.
- There is a lack of communication between government, private industry, and academia.
- Many cybersecurity training programs exist but there is little consistency among programs, and potential employees lack information about the skills needed for jobs.
- Cybersecurity Career development and scholarships are available but uncoordinated, and the resources that do exist are difficult to find.

NICE was established in support of the Comprehensive National Cybersecurity Initiative (CNCI) – Initiative 8: Expand Cyber Education – Interim Way Forward and is comprised of over 20 federal departments and agencies.





Cybersecurity Education

- Cyber Security Competitions (http://nationalccdc.org)
 - National Initiative for Cybersecurity Education (NICE)
 - NCCDC (Collegiate); U.S. Cyber Challenge (High School)
 - Provide a controlled, competitive environment to assess a student's depth of understanding and operational competency in managing the challenges inherent in protecting a corporate network infrastructure and business information systems.



- DHS Cyber Skills Task Force (CSTF)
 - Established June 6, 2012 Homeland Security Advisory Council
 - Over 50 interviews (DHS internal and external)
 - Identify best ways DHS can foster the development of a national security workforce capable of meeting current and future cybersecurity challenges;
 - Outline how DHS can improve its capability to recruit and retain sophisticated cybersecurity talent.
 - 11 recommendations in 5 key areas

DHS Cyber Skills Task Force (CSTF) - Objectives

- Objective I: Ensure that the people given responsibility for mission-critical cybersecurity roles and tasks at DHS have demonstrated that they have high proficiency in those areas.
- Objective II: Help DHS employees develop and maintain advanced technical cybersecurity skills and render their working environment so supportive that qualified candidates will prefer to work at DHS.
- Objective III: Radically expand the pipeline of highly qualified candidates for technical mission-critical jobs through partnerships with community colleges, universities, organizers of cyber competitions, and other federal agencies.
- Objective IV: Focus the large majority of DHS's near term efforts in cybersecurity hiring, training, and human capital development on ensuring that the Department builds a team of approximately 600 federal employees with mission-critical cybersecurity skills.
- Objective V: Establish a "CyberReserve" program to ensure a cadre of technically proficient cybersecurity professionals are ready to be called upon if and when the nation needs them.





Secure Federal Networks

ICAM, Cloud Exchange, Fed-CERT

- Protect Critical Infrastructure
 - Public-Private Cyber Coordination, EO/PPD Initiatives

Improve Incident Response and Reporting

- Information Sharing among Federal Centers
- Capacity Building for SLTTs

Engage Internationally

- Foreign Assistance Capacity Building
- Build Workforce Capacity to Support International Cyber Engagement

Shape the Future

- National Strategy for Trusted Identity in Cyberspace (NSTIC)
- National Initiative for Cybersecurity Education (NICE)
- Cybersecurity R&D EO/PPD R&D Plan, Federal R&D Plan, Transition To Practice, Foundational Research



DHS S&T CSD Budgets

- Cybersecurity Research Infrastructure \$7.3M
- Software Assurance \$7.6M
- Network Security \$9.1M
- Mobile, Web, and Cloud Security \$2.2M
- Identity Management and Privacy \$5.0M
- Usability and Metrics \$4.5M
- Cyber Security Education and Training \$2.3M
- CNCI \$17.3M
- Securing Critical Infrastructure \$9.9M
- Law Enforcement Needs \$9.0M
- Total \$74.2M



CSD New Starts – FY13-14

- Security for Cloud-Based Systems
 - Ed Rhyne
- Data Privacy Technologies
 - Karyn Higa-Smith
- Mobile Wireless Investigations
 - Megan Mahle
- Mobile Device Security
 - Luke Berndt
 - Collaboration Session on Tuesday



- Next-Generation DDOS Defenses
 - Dan Massey
- Cyber-Physical Systems
 - Dan Massey
- Application Security Threat Attack Modeling (ASTAM)
 - Kevin Greene
- Static Tool Analysis Modernization Project (STAMP)
 - Kevin Greene
- Network Reputation and Risk Analysis
 - Manish Karir, Ann Cox
- Data Analytics Methods for Cyber Security
 - Joe Kielman
- Cyber Security Education
 - Scott Tousley
- Designed-In Security TBD
- Finance Sector Cybersecurity TBD



- Cybersecurity research is a key area of innovation to support our global economic and national security futures
- DHS S&T continues with an aggressive cyber security research agenda

Summary

- Working to solve the cyber security problems of our current (and future) infrastructure and systems
- Working with academe and industry to improve research tools and datasets
- Looking at future R&D agendas with the most impact for the nation
- Need to continue strong emphasis on technology transfer and experimental deployments
- Must focus on the education, training, and awareness aspects of our current and future cybersecurity workforce



Douglas Maughan, Ph.D. Division Director Cyber Security Division Homeland Security Advanced Research Projects Agency (HSARPA) <u>douglas.maughan@dhs.gov</u> 202-254-6145 / 202-360-3170



For more information, visit <u>http://www.cyber.st.dhs.gov</u> <u>http://www.dhs.gov/cyber-research</u>



Homeland Security

Science and Technology



PI Meeting Planning Comm.

- Jean Camp, Univ of Indiana
- KC Claffy, UC San Diego
- Anita D'Amico, Secure Decisions
- John Goodall, Oak Ridge National Lab
- Dimitris Pendarakis, IBM
- Kathryn Perrett, Canada DRDC
- Ann Cox, Kevin Greene, Joe Kielman CSD PMs
- Melissa Ho, Shelby Smith, Kyshina Chandler, Michael Reagan – CSD Support Staff



- FY13 has been an incredible year Budget / Contracting
- Due to the FY13 continuing resolution and sequestration, CSD did not get its final budget until May 24th.
- With a condensed budget execution schedule and overwhelming number of funding documents, our CFO has had issues sending FY13 funds to AFRL and SSC-PAC.
- For those of you still waiting for your FY13 funds, please be patient. AFRL should have money in October. SSC-PAC will likely be November or December.
- We realize this has already caused some of you issues and we're doing everything we can to send your funds.



- 52.232-22 Limitation of Funds 75 percent notice LIMITATION OF FUNDS (APR 1984)
- (c) The Contractor shall notify the Contracting Officer in writing whenever it has reason to believe that the costs it expects to incur under this contract in the next 60 days, when added to all costs previously incurred, will exceed 75 percent of (1) the total amount so far allotted to the contract by the Government or,
 (2) if this is a cost-sharing contract, the amount then allotted to the contract by the Government plus the Contractor's corresponding share. The notice shall state the estimated amount of additional funds required to continue performance for the period specified in the Schedule.

• IF YOU HAVEN'T DONE THIS, THEN PLEASE DO SO!!



- 5252.232-9210 LIMITATION OF LIABILITY--INCREMENTAL FUNDING (JAN 1992)
- This contract is incrementally funded and the amount currently available for payment hereunder is limited to <your contract value>. It is estimated that these funds will cover the cost of performance through <POP – incremental>. Subject to the provisions of the FAR 52.232-22 "Limitation of Funds" clause of this contract, no legal liability on the part of the Government for payment in excess of <your contract value> shall arise unless additional funds are made available and are incorporated as modifications to this contract. The total remaining unfunded amount is <some amount>.
- What that means is: PERFORMERS CANNOT SPEND WHAT THEY DO NOT HAVE



Bottom Line:

- Performers MUST avoid unauthorized commitments
- PIs MUST know what has been INVOICED and what still needs to be invoiced
- Pls must know if subcontractors have been billing or NOT
- PMs must ensure performers do not work if they are out of funds! No overruns.
- Government NEVER encourages Working at Risk
- Working at Risk is a discussion/decision made ONLY by the performer. Future payment by the Government is NEVER guaranteed.



- The allotted briefing times are as follows: 15 minutes per PI plus 5 minute Q&A (new contracts are 10 minutes)
- Slide Formats Use Presentation Format provided
 - NABC Format Customer Need, Approach, Benefit, Competition
- Confidence Monitor
- NO questions during presentations
 - Save them for the end or talk during the breaks



- Rule #1: Expect all to participate, ask questions, provide feedback (both online and offline – use tact)
- Rule #2: Take opportunities to talk with others about collaborative opportunities
 - Seven international partners (AUS, CA, DE, EU, NL, SW, UK) are present. Some have already co-funded projects and others are interested in possibly co-funding future work
 - Especially interested in identifying possible experiments with integration of multiple technologies
- Rule #3: Comments/Critique of agenda
 - Planning Committee did an excellent job. Trying many new things this year with webcasting, collaboration sessions, mini-PI meetings, etc.
 - <u>ACTION</u>: If you have other ideas for format, content, etc., please let us know.



- PR Public Relations and/or Press Releases
 - Anytime you have something that appears in the press, please coordinate with your PM and SETA. If you mention DHS S&T (which you should), then we need to see it.
 - Pre-publication review Anytime you will be presenting or publishing a paper, please send it to your PM and SETA in advance for review and clearance. If you are receiving international co-funding, you need to factor even more time for pre-pub review. Coordinate with your PM and SETA.