



# Thunderstorm Program General Overview

# Report Documentation Page

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14. ABSTRACT <b>Thunderstorm provides OSD, interagency partners, Combatant Commanders, Services, academia, government laboratories and commercial vendors with an enduring multi-Intelligence technology demonstration venue. New and existing ISR technologies can be integrated, evaluated and assessed under real world conditions with scripted and unscripted scenarios.</b>					
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# Thunderstorm Program

## Methodology & Venues



Conducts a series of events each fiscal year for DoD selected areas of interest

### Analytical Gaming Workshop

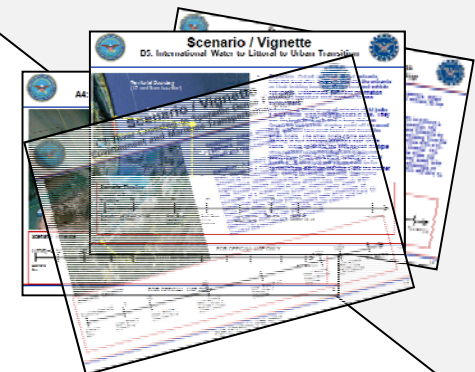
- Think Tank Forum for Subject Matter Experts (SMEs) to refine threat concepts to inform future Thunderstorm demonstrations
- Increases understanding of threats and technologies to increase effectiveness of mitigation approaches
- Broadens consideration of implications/ impacts
- Increases interagency relationships and engagement and raises Thunderstorm Program focus awareness
- Design of event tailored to each specific challenge
- Participants invited based on expertise and to ensure diverse perspectives
- NeXTech framework used as lens to analyze impact of convergence
- Considers a broad range of potential threat concepts

### Tabletop Experiment (TTX)

- Scenarios are used to focus on process, procedures and potential capabilities
- SMEs attend from various DoD agencies and operational partners from across the government
- Can be conducted at a any classification level
- Can be held at one location or distributed to multiple locations via a secure network
- Assists in identifying current or potential challenges and gaps across the operational partners' respective organizations
- Capability gaps are selected and prioritized in order to be considered for technology demonstrations

### Technology Field Demonstrations

- Potential capabilities are solicited through FedBizOpps and word of mouth
- Selected demonstrators must "Pay-to-Play"
- Evaluates and assesses new and emerging technologies to address identified gaps
- Conducted in geographically relevant areas which provide an operational environment
- Uses scripted scenarios and actors to mimic threat activities observed within the Area of Responsibility (AOR)
- Explores low cost solutions, technologies, information sharing, and improved techniques, tactics, and procedures at the Technology Readiness Levels (TRLs) 3-7
- Not a formal test event or substitute for developmental or operational test and evaluation; No Penalty if it doesn't work (gives tech developers value feedback/insights from potential customers)





# Thunderstorm Intent

## *Current Guidance*



- **Focus on DOD's Ability to “Deter, Predict, and Interdict” Threats**

- Deter - Influence target audiences through quickly understanding local environments and populations and leveraging key influence nodes
- Predict - Demonstrate the capability to predict threats using “Big Data” and other non traditional sources and the fusion/pairing of these sources
- Interdict – Exploit sensor capabilities to develop actionable intelligence and cue appropriate response actions

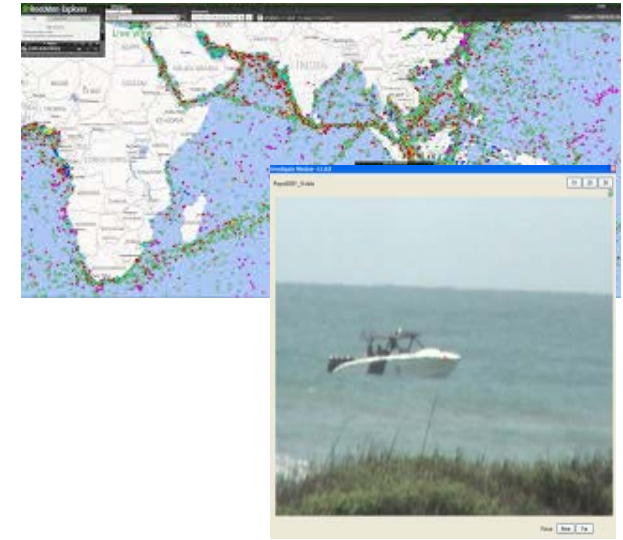
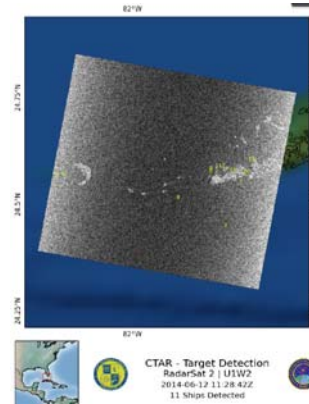


- **Focus on Emerging/Asymmetrical Threats and Environments to enhance Warfighting Architectures and Interagency Collaboration**
- **Best match Key Operational/Supporting Partnerships, Venues and Technologies within Thunderstorm based on Strategic Intent and the Operational Plans.**

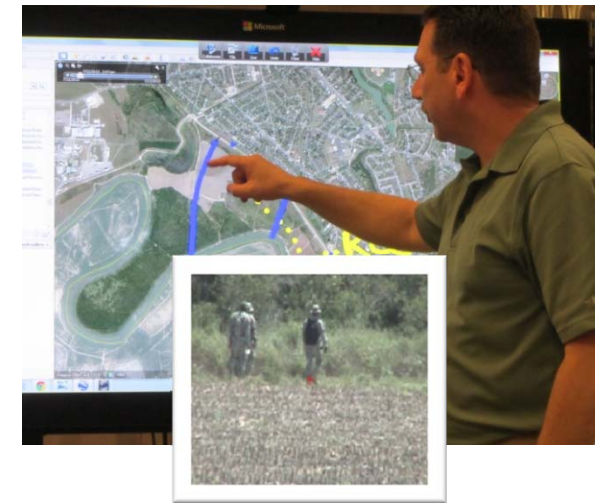
***“Thunderstorm is our Match.com which connects the best technology to our challenges.”*** Colonel Daniel Ermer, USMC



# Benefits the Operational Partners

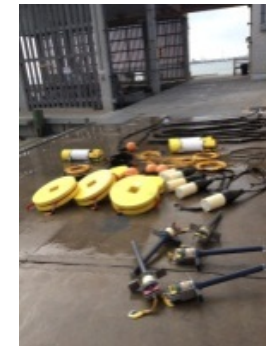


- Collaboration for addressing operational environment challenges
- Opportunity to brainstorm and war-game in a controlled setting
- Venue to observe new and emerging technologies in the AOR
- Opportunity to pair technologies for improving effectiveness





# Benefits the Demonstrators

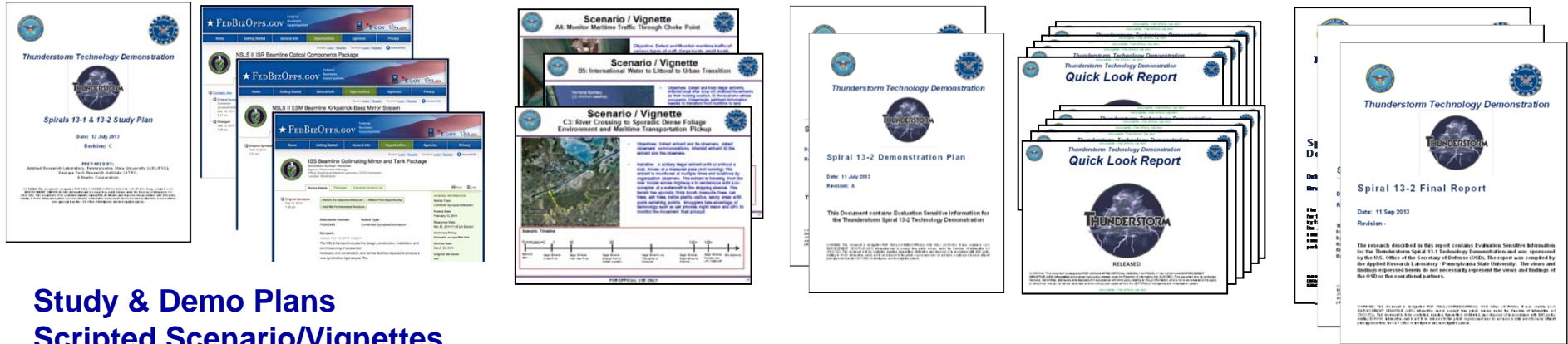


- Realistic technology deployment
- Ability to demonstrate low TRL technologies
- End user interaction
- Constructive feedback
- Insight to operational environment challenges
- Opportunity to interact and collaborate with other demonstration technologies





# Conduct of Demonstration



**Study & Demo Plans**  
**Scripted Scenario/Vignettes**  
**Requests & Permits (Land, Frequency, FAA)**

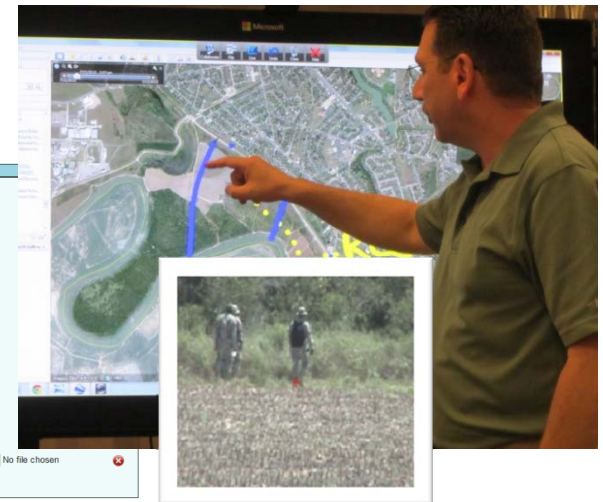
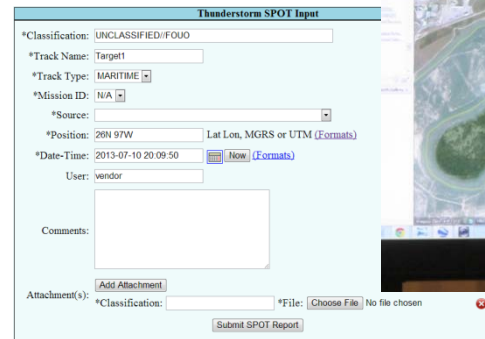
**Capabilities Solicitation (FedBizOpps)**  
**Technologies Selected**

**Coordinate with Operational Partners (Blue Cell)**  
**Provide Demo Controllers' Roles (White Cell)**  
**Establish Scripted Actors (Red Cell)**

**Technology Coordination Visits**  
**Demonstration Site Visits**  
**Senior Steering Group - Program Reviews**

**Link-In Data Sharing Nodes**

**Reports (Daily Quick Looks & Final Reports)**





# Previous Thunderstorm Spirals



Demonstration	Operational Partner(s)	Focus	Location	Demonstrated Technologies
Spiral 2 Field Demonstration (9-20 Jun 2009)	JIATF-S	Maritime Domain Awareness	Key West, FL; US SOUTHCOM AOR	14
Spiral 3 Field Demonstration (1-16 Mar & 19-27 Mar 2010)	JIATF-S	Maritime Domain Awareness	Key West, FL; US SOUTHCOM AOR	10
Spiral 4 Field Demonstration (2-13 May 2011)	CBP, JIATF-S	Border Security	Southern AZ; CBP, Tucson Sector	4
Spiral 5 Field Demonstration (13-24 Aug 2012)	CBP, USCG, JIATF-S	Border Security	Southern TX; CBP, RGV Sector	6
Spiral 13-1 Field Demonstration (6-17 May 2013)	10 Operational Partners	Border Security	Southern TX; CBP, RGV Sector	13
Spiral 13-2 Field Demonstration (15-26 Jul 2013)	10 Operational Partners	Border Security	Southern TX; CBP, RGV Sector	16
Spiral 14-1 Threat Convergence Analysis (TCA) Panel (26-27 Mar 2014)	<i>(25 organizations participated)</i>	TCA on Robotics, Cyber, Bio, EW	Reston, VA	N/A
Spiral 14-2 Tabletop Experiment (TTX) (26-28 Feb 2014)	18 Operational Partners	Countering Chem/Bio WMD via South East Maritime Pathways to CONUS	Key West, FL and Reston, VA	N/A
Spiral 14-3 Field Demonstration (27 May – 6 Jun 2014)	18 Operational Partners	Countering Chem/Bio WMD via South East Maritime Pathways to CONUS	USCG Base, Key West, FL	36





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Vendors with relevant technologies and capabilities are encouraged to respond to the Thunderstorm FEDBIZOPS postings.

**For more information on the program and how to engage, please contact the:**

Rapid Reaction Technology Office

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