

# *USSOUTHCOM Capability Requirements: A Science, Technology, and Experimentation Perspective*

11<sup>th</sup> Annual Science & Engineering Technology Conference and  
DoD Tech Exposition

April 15, 2010



**UNITED STATES SOUTHERN COMMAND**  
P A R T N E R S H I P F O R T H E A M E R I C A S



# Our Focus: A Diverse Region

- 1/6<sup>th</sup> of Earth's surface
- 41 countries / territories / protectorates
- 470 million people
- Varied ethnic heritage
- Multiple languages
- Full socioeconomic spectrum



# Challenges

## Security Challenges...

- *Illicit trafficking*
- *Crime/urban gangs*
- *Transnational terrorism*
- *Forgery/money laundering*
- *Mass migration*
- *Narco-terrorism*
- *Natural disasters*

## ...Warfighter Capabilities

- *Domain awareness*
- *Obscured targets*
- *Cooperation and collaboration*
- *Humanitarian assistance and disaster relief*

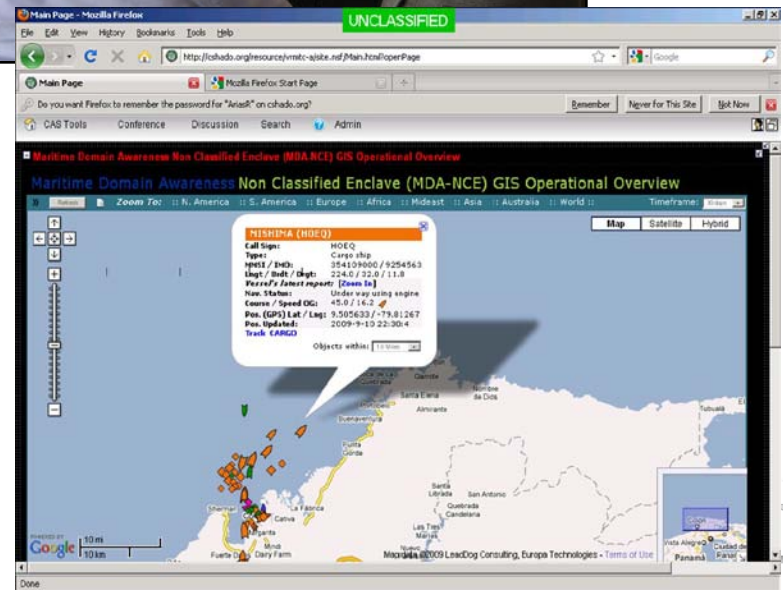




# Science, Technology, & Experimentation

## A Diverse Portfolio For Diverse Requirements:

- **Experimentation**  
*(shortest term)*
- **International R&D**  
*(medium term)*
- **Technology Demonstrations**  
*(longer term)*





# Domain Awareness

Domain Awareness Non Classified Enclave (MDA-NCE) GIS Operational Overview

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View To: :: N. America :: S. America :: Europe :: Africa :: Mideast :: Asia :: Australia :: World ::

Timeframe: 30 days

Map

Satellite

Hybrid

## MISHIMA (HOEQ)

**Call Sign:** HOEQ  
**Type:** Cargo ship  
**MMSI / IMO:** 354109000 / 9254563  
**Lngr / Brdr / Drgt:** 224.0 / 32.0 / 11.8  
**Vessel's latest report:** [\[Zoom In\]](#)  
**Nav. Status:** Under way using engine  
**Course / Speed OG:** 45.0 / 16.2  
**Pos. (GPS) Lat / Lng:** 9.505633 / -79.81267  
**Pos. Updated:** 2009-9-10 22:30:4  
[Track CARGO](#)

Objects within: 10 Miles

Spanning Air, Land, Water,  
Space, and Cyberspace...

- *Virtual Regional Maritime Traffic Center – Americas (VRMTC-A)*
- *Virtual Integrated Domain Awareness (VIDA)*
- *Riverine and Intercoastal Operations (RIO)*



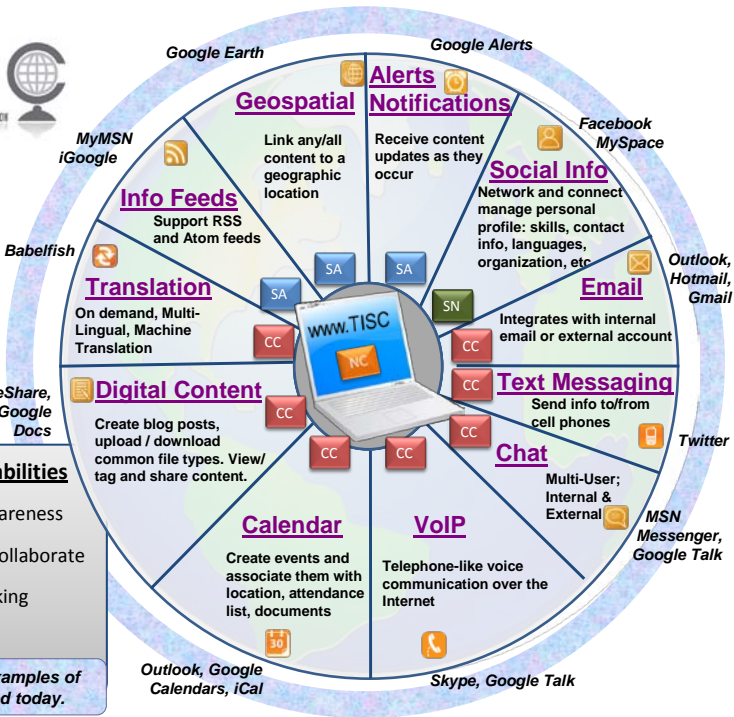
# Obscured Targets

- Foliage Penetration (FOPEN) ACTD  
*Residuals in operational use*
- DARPA FORESTER / A-160 (YMQ-18A) UAV  
*Operational testing in progress*
- NGA PENLIGHT  
*Operational testing in progress*
- RIO CWP & JCTD  
*Key enabler – priority program*
- JMMES JCTD  
*Integrating multiple technologies*
- MASTIF ACTD  
*Fusion engine*
- AFSOUTH/IA JUNGLE CALL





# Cooperation & Collaboration



- *Transnational Information Sharing & Cooperation (TISC) JCTD*
  - All-Partners Access Network (APAN)
- *Cooperative Security (CS) JCTD*



## Stakeholders:

- DoD
- USG Interagency
- Partner nations
- NGOs / PVOs / IOs
- Private sector
- Individuals





# Humanitarian Assistance / Disaster Relief

**Provide deployable, distributed essential services...**

- *Prepositioned Expeditionary Assistance Kits (PEAK)*



**US  
SOUTH  
COM**





# The Way Ahead...

- Investigate
- Integrate
- Prioritize
- Assess, Plan, Execute, Evaluate
- Persistence!



# Questions?