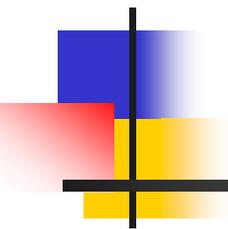
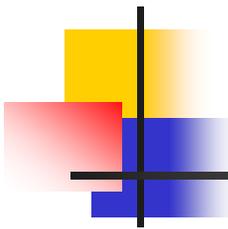


# The HIFLD Experience



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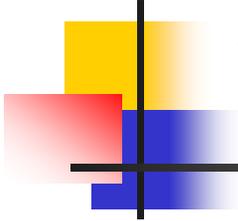
## A Review of the Homeland Infrastructure Foundation Level Database Working Group



# Outline

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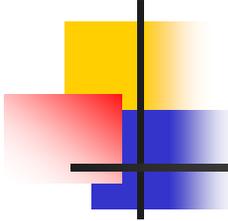
- Why we started
- What is the HIFLD?
- Who participates
- Leadership and Context
- HIFLD accomplishments
- Next Steps
- Take Aways
- Contacts



# Why we started

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- Maps for decision makers were Wrong
- Powerpoint Clip Art was default map of US
- Needed a common geospatial foundation for multiple uses
- Needed partnerships to accomplish



# What is the HIFLD?

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## (Adjective)

- A community of interest of willing Federal organizations (and supporting organizations)
  - Concerned with homeland defense and security, CIP, AT/FP, crisis and consequence management efforts, and the use of GIS to support such efforts
  - Working to promote information sharing and knowledge management among its members
- Started with no formal charter or membership agreement; membership has been based on participation

## (Noun)

- A monthly, two-day meeting of 50 to 130+ participants
  - Summary of individual efforts (and status updates)
  - Focus on special topics
  - Collaboration opportunities
- An on-line collaboration community
  - E-mail, spin-offs
  - Interactive Web Pages
    - <https://www.hifldwg.org>

## (Verb)

“HIFLD it!!”

*“The Most Inclusive Geospatial Homeland Security Forum!”*

# HIFLD Participants: Public

**ATF/DoT**

**CBIRF**

**CIAO**

**CNO and CFFC**

**CADD/GIS Center**

**CDC**

**DARPA**

**DC EMA**

**Des Moines, IA**

**DHS**

**DIA**

**DOE**

**DoJ**

**DOT**

**DoN CIO**

**DTRA**

**Fairfax County**

**FAA**

**FEMA**

**FGDC**

**GSA**

**HLS C2 ACTD**

**JCAG/CIFA**

**JCS/J8 & J6**

**JFCOM-JBC, JWFC**

**JFHQ-HLS**

**JFIC**

**JITC**

**JPO-STC**

**JPSD RTV**

**JTF-6**

**JTF-CM**

**JTF-CS**

**JTF-NCR**

**JWAC**

**Loudon County**

**Maryland**

**MTMCTEA**

**NACo**

**NASA**

**NAVFAC**

**NAVLANTMETOCCEN**

**NAVOCEANO**

**NAVSPACE**

**NCIS**

**NGIC**

**NGS**

**NIMA**

**NIPC**

**NOAA/NCDDC**

**NORTHCOM**

**NRL**

**NRO**

**NSA**

**NSGIC**

**NSSA**

**NSWCDD**

**OASD HD & NII**

**OSIS/HIBL**

**Pennsylvania**

**SOUTHCOM**

**TSA**

**TSWG**

**USA/1st Army**

**USACE/ERDC**

**USA/FMSO**

**USA/HQ**

**USACE**

**USACHPPM**

**USAF**

**USACE TEC**

**USCG**

**USGS**

**USMC/HQ**

**USTRANSCOM**

**Virginia**

**Key**

**DoD**

**Civil (Federal)**

**State/Local**

11/18/200311/18/20

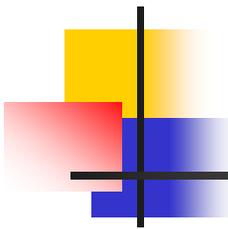
03

UNCLASSIFIED/FOUO

*“The Most Inclusive Geospatial Homeland Security Forum!”*

# HIFLD Participants: Private

<b>Anser</b>	<b>Harris Corp</b>	<b>Planning Systems</b>
<b>AGI</b>	<b>HDM</b>	<b>Polexis</b>
<b>APL</b>	<b>IDA</b>	<b>PTI</b>
<b>BAE</b>	<b>Alion</b>	<b>PWC</b>
<b>Battelle</b>	<b>IBM</b>	<b>RAND</b>
<b>Boeing</b>	<b>INRI</b>	<b>Razavi Application Developers</b>
<b>Booz Allen Hamilton</b>	<b>iMapData</b>	<b>Raytheon</b>
<b>Calibresys</b>	<b>Intergraph</b>	<b>SMEI</b>
<b>Camber</b>	<b>JHU LLAGIS</b>	<b>Science and Technology</b>
<b>CEG</b>	<b>Maximum Controls</b>	<b>Space Imaging</b>
<b>Dewberry</b>	<b>Michael Baker Jr., Inc.</b>	<b>SYBASE</b>
<b>Digital Globe</b>	<b>MITRE</b>	<b>System of Systems Analytic</b>
<b>ESRI</b>	<b>NIBS</b>	<b>Titan</b>
<b>FIU</b>	<b>Neptune Sciences</b>	<b>TerraFly</b>
<b>GeoDecisions</b>	<b>Northrup Grumman</b>	<b>Vredenberg</b>
<b>GEO Centers</b>	<b>OGC</b>	<b>Zekiah Technologies</b>
<b>General Electric</b>	<b>Pixia</b>	



# Transitioning “Leadership”

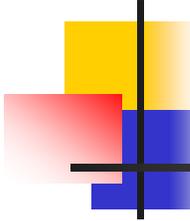
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## Founding Partners

- Joint Force Headquarters for Homeland Security
- Joint Task Force for Civil Support
- Joint Program Office for Special Technology Countermeasures
- NIMA: North America & Homeland Security Division

## New Leadership

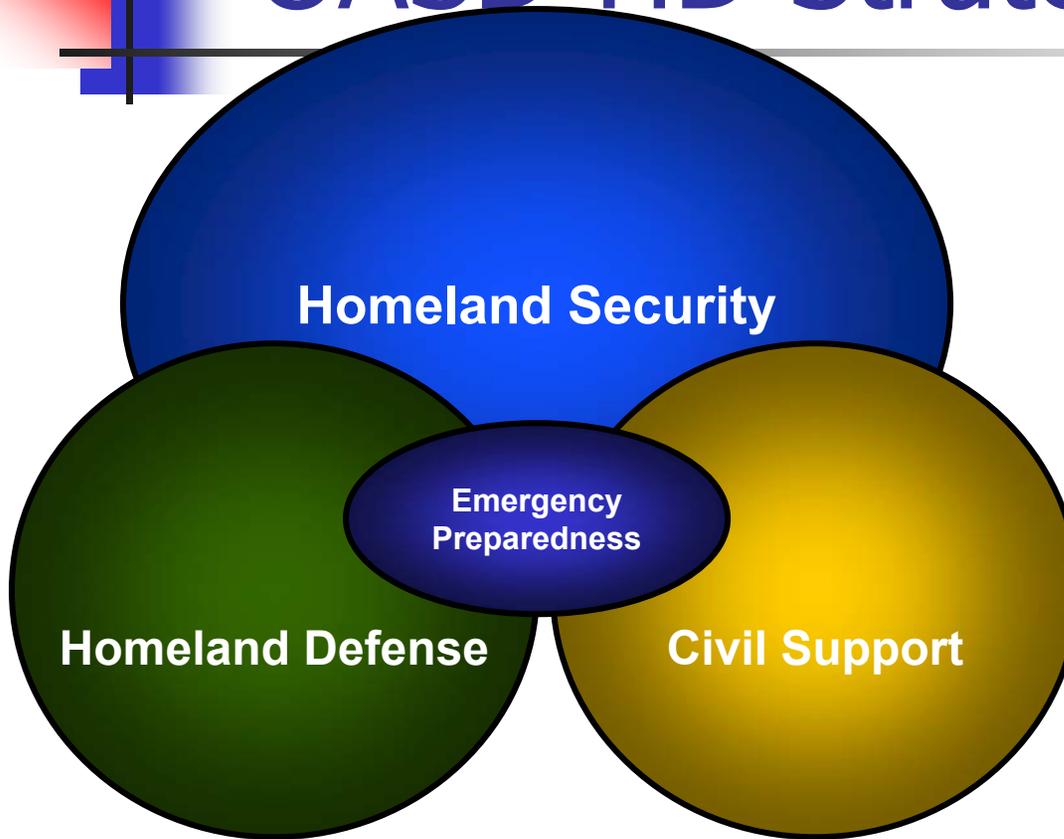
- Office of the Assistant Secretary of Defense – Homeland Defense Critical Infrastructure Protection Office
- Founding partners plus US Northern Command, USGS and DoD Installation Visualization Team
- Desire strong ties with DHS Geospatial Management Office



# DOD CIP – HIFLD Implications

- OASD(HD) Recognizes That HIFLD Provides A Useful Technical Forum For Infrastructure Information Collaboration
  - Active participation by Department of Defense, Other Executive Departments, Federal Agencies, State and Local Entities
  - Broad recognition of value added
  - Positively supported by Federal, State, and Industry representatives
  
- OASD(HD) Has Oversight Of All DOD HLD Activities
  - Homeland Defense, Civil Support, and Emergency Response
  - Now includes DOD CIP
  - GIS capabilities and integration central to HD and CIP efforts
  
- OASD(HD) Is Central POC Between DOD And DHS
  - Working relationships between DOD HLD and DHS HLS activities and programs. Capitalize together on National Geospatial Efforts

# OASD-HD Strategic Construct



**Overlapping Mission Sets  
Require Common GIS Foundation**

## Homeland Security

A concerted national effort to prevent terrorist attacks within the US, reduce America's vulnerability to terrorism, and minimize the damage and recover from attacks that do occur. (*Nat'l Strategy for Homeland Security*)

## Homeland Defense<sup>1</sup>

The protection of US sovereignty, territory, domestic population and critical defense infrastructure against external threats and aggression.

## Civil Support<sup>1</sup>

DOD support to US civil authorities for domestic emergencies and for designated law enforcement and other activities. CS missions are undertaken by DOD when its involvement is appropriate and when a clear end state for the DOD role is defined.

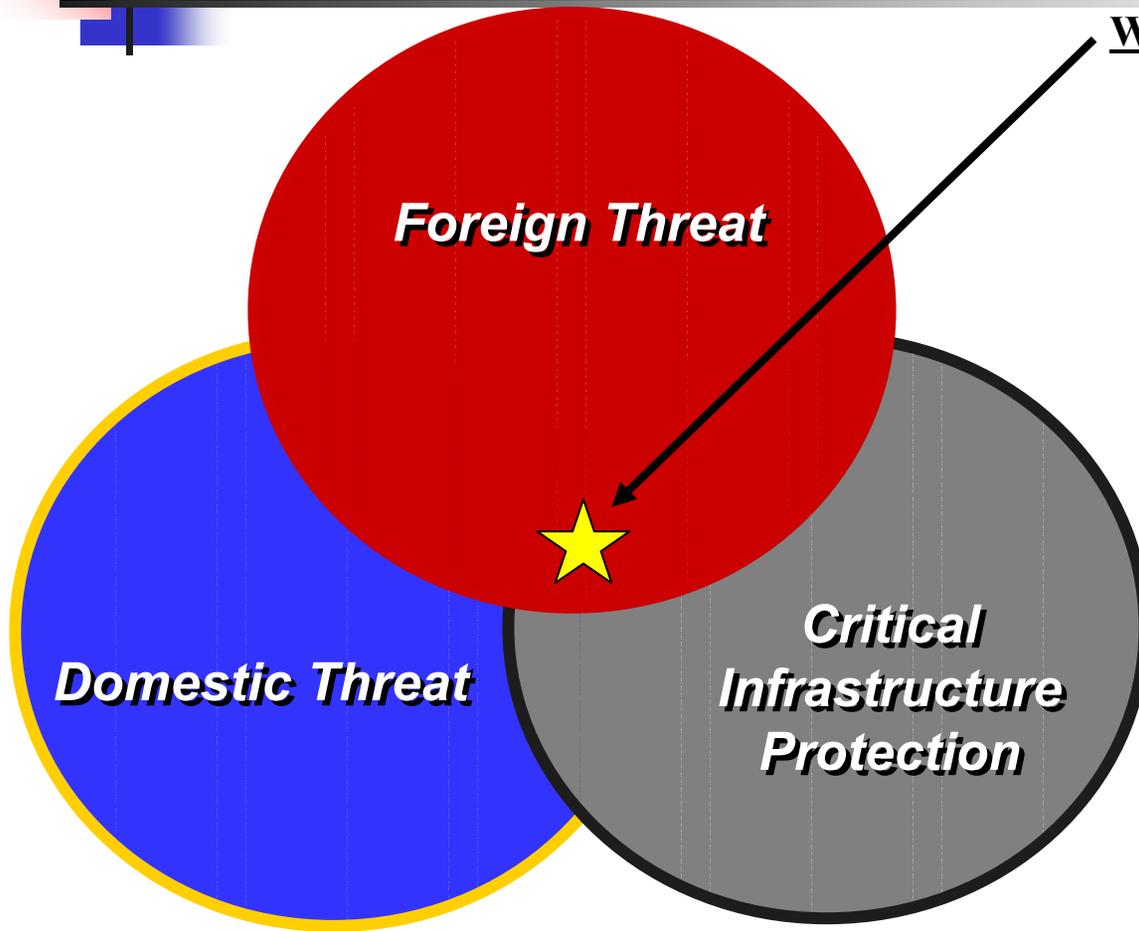
## Emergency Preparedness<sup>1</sup>

Those planning activities undertaken to ensure DOD processes, procedures and resources are in place to support the President and Secretary of Defense in a designated National Security Emergency.

1: As defined in DOD's Joint Operating Concept (JOC) for HLS, tasked by JCS, coordinated by JCS/J3/J5/J6/J7/J8/J9/J10/J11/J12/J13/J14/J15/J16/J17/J18/J19/J20

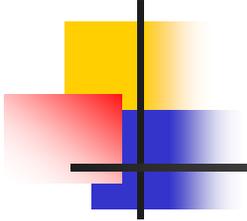
# Information Fusion for Homeland Defense

## Building National Situational Awareness



### WHO DOES INFORMATION FUSION?

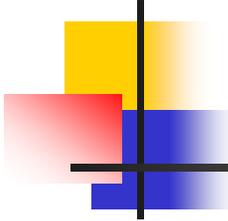
- **WHO and HOW - Foreign Threats, Intentions, and Capabilities**
- **WHO and HOW - Domestic Threats, Intentions, and Capabilities**
- **WHERE and SO WHAT - Infrastructure Dependencies, Vulnerabilities, Weather and Mission Impacts**
- **Visualization and Applying GIS facilitates information sharing and analysis**



# Issues Covered (Illustrative)

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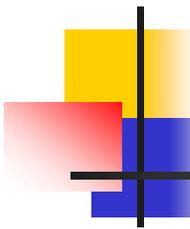
- Who has what
  - Within DoD and Military Services
  - Other Federal Departments & Agencies
  - State and local levels (NSGIC, NACo,)
- Who does what
  - “Base” Map in all its meanings (USGS National Map, GeoBase, GeoReadiness, USA GIS-R, NIMA Palanterra)
  - Dispersion modeling (DTRA, Other Labs)
  - Integration services (DMIS, DIA Enterprise Portal, NIMA GeoScout and NGB)
  - Visualization (NIMA Palanterra, Geo One Stop, NORTHCOM Interagency, JPO-STC)
  - Analysis (NORTHCOM CIFC, JPO-STC, USGS GeoMAC, CIFA, FEMA MAC)
- We collaborate on
  - GIS Architectures
  - Info Sharing & Protection
  - Standards and Symbology
  - Policy
  - Leveraging existing work
- Related Projects
  - DMIS, HLS ACTD and Joint Protection Enterprise Network, NCR GIS
  - DoD Installation Visualization Team and Service GIS Efforts
- Operational experience
  - NSSEs and Special Events



# What ALL have accomplished

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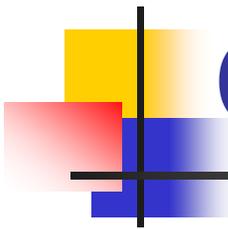
- Gone from wrong paper maps to web maps
- Integrated infrastructure information requirements
- Broad informal collaboration, vertical and horizontal
- Identified opportunities for programmatic and project coordination
- Recognition of the need to obtain, share and protect accurate data from validated sources for visualizing and analyzing geospatial information



# Specific Collaboration Successes

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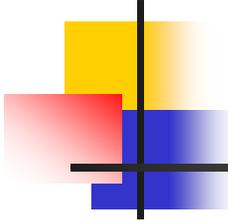
- JPO-STC Mission Assurance Portal
- Homeland Security Infrastructure Program Tiger Team Report
  - Joint NIMA – USGS effort - Version 1.1 Complete
    - Full-time, May-June 2002
  - Key Elements
    - Identified Urban area Geo-Extents
    - Identified Minimum Essential Data Sets (MEDS)
  - NIMA, USGS and CADD/GIS Center harmonizing HSIP with SDSFIE (data schema)
- Brought Together NCR GIS Working Group
- NIMA Palanterra and USGS GeoMAC



# Charter and Institutionalize

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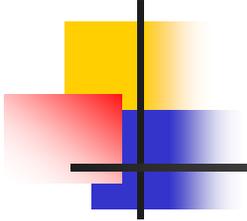
- OASD(HD) Sponsoring and Overseeing HIFLD
  - Administered under OASD(HD) CIP office
  - Coordinate with broader OASD(HD) activities
  
- Functional Goals For HIFLD Supporting HD and CIP:
  - Assist OASD(HD) to develop, integrate, and oversee HD-related GIS policy
  - Assist OASD(HD) in the coordination and guidance of HD-related GIS strategic planning analysis and technical support within DoD
  - Assist OASD(HD) in the coordination and guidance of HD- and HLS-related GIS strategic planning analysis and technical support between DoD and National efforts
  - Assist OASD(HD) to collect, refine, and validate GIS requirements related to HD activities, addressing:
    - Foreign threat information and I&W
    - Domestic threat information and I&W
    - CIP informational layers
  - Assist OASD(HD) to prioritize possible GIS technological solutions for assessment by DoD GIS community



# Next steps

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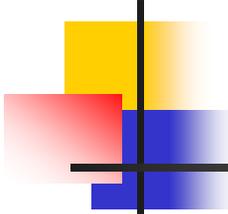
- **Draft OASD(HD) Sponsorship and Charter For HIFLD**
  - Develop roles & responsibilities within forum
  - Solidify relationships within GIS community
  - Develop mid-term HIFLD POA&M
  - Evaluate National and Regional Level Working Groups
  
- **Integrate HIFLD into OASD(HD) Strategic Construct**
  - Assist in CIP enterprise architecture development and synchronization
  
- **Continue outreach to DHS**
  - Longer term: possible co-charter for HIFLD between DOD and DHS
  - Establish regional level consortia to interface with HIFLD



# Take Aways

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- Partnerships with purpose are the key to success
- Adopt common geospatial information foundation methodology and visualization for the nation
- Requires resources to organize national efforts, constant communications and coordinated leadership



# Contact Information

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- OASD HD: Jeffrey McManus, [jeffrey.mcmanus@osd.mil](mailto:jeffrey.mcmanus@osd.mil) , 703-693-1877
- JFHQ-HLS: LCDR Kevin Kurtz, [kevin.kurtz@jfc.com](mailto:kevin.kurtz@jfc.com) , 757-836-8437
- JPO-STC: John Keenan, [keenanjp@nswc.navy.mil](mailto:keenanjp@nswc.navy.mil) , 540-653-8730
- NIMA: Joe Drummey, [drummeyj2@nima.mil](mailto:drummeyj2@nima.mil) , 301-227-3093
- USGS: Mark Naftzger, [mnaftzge@usgs.gov](mailto:mnaftzge@usgs.gov) , 703-648-4653
- NAVFAC: RADM (ret) Larry Baucom, [baucomlc@efdlant.navy.mil](mailto:baucomlc@efdlant.navy.mil) , 757-322-4810
- USAF: Col Brian Cullis, [brian.cullis@pentagon.af.mil](mailto:brian.cullis@pentagon.af.mil) , 703-604-5267
- Justin Sherin Jr, [sherin\\_justin@bah.com](mailto:sherin_justin@bah.com) , 757-893-6120



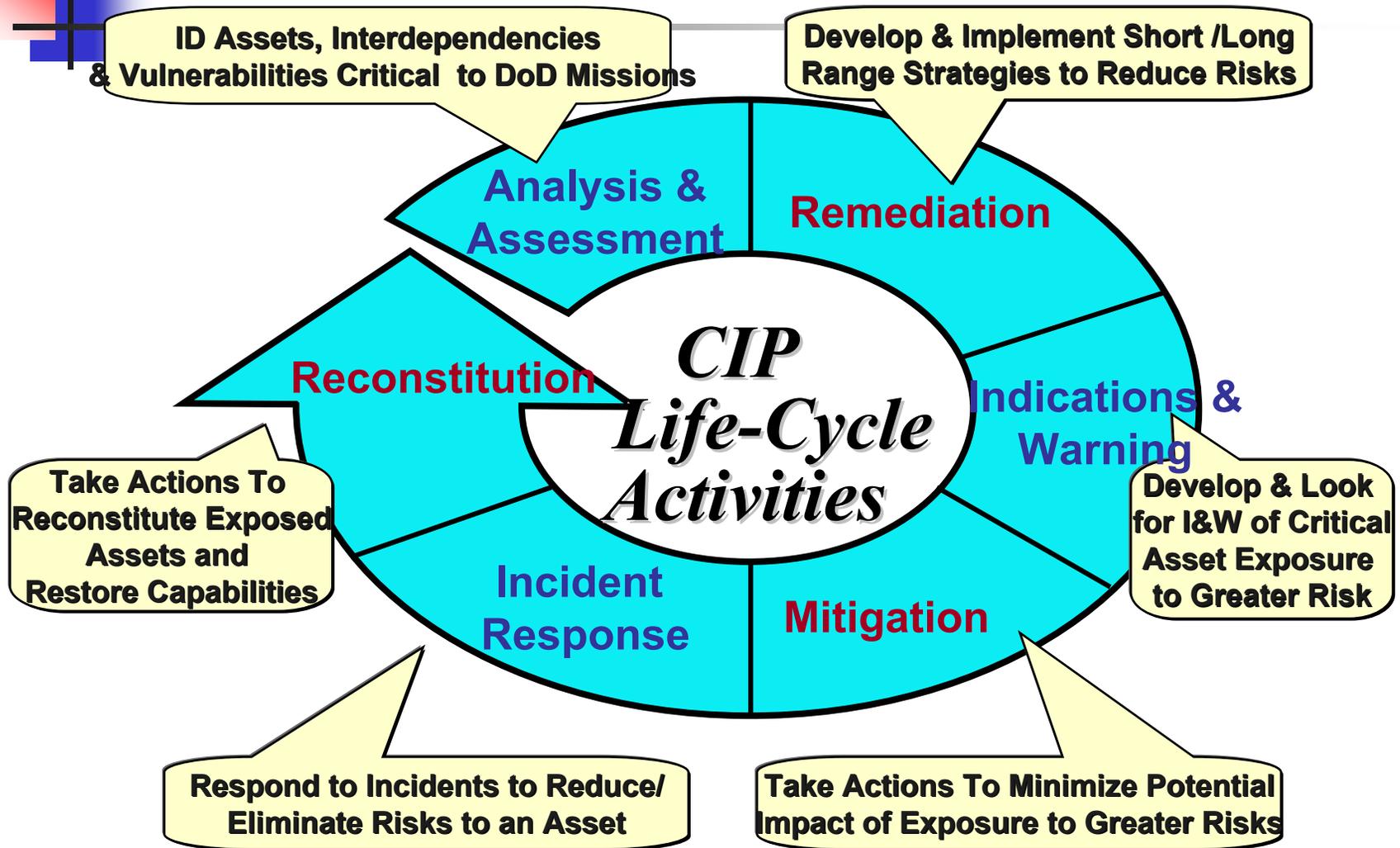
Thank-you for your time

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Questions and Guidance

# Supporting Critical Infrastructure Protection

## CIP Life Cycle Requires Information Fusion and Visualization



# Context: HLS Blue Dot / Red Dot

