Emerging Threats and Challenges for Homeland Air Security

Presentation to National Defense Industrial Association (NDIA) Missile Defense

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Homeland Security *(National Strategy for Homeland Security)*: Homeland security is a concerted national effort to prevent terrorist attacks within the United States, reduce America’s vulnerability to terrorism, and minimize the damage and recover from attacks that do occur.

Homeland Air Security Prevent terrorist air attacks against the United States, reduce America’s vulnerability to air terrorism, and minimize the damage and recover from attacks that do occur. (Interagency Mission)

Homeland Air Defense Protect US territory, sovereignty, domestic population and critical infrastructure against external air threats and aggression. (DoD Mission)

The mission of preventing and countering terrorist or unconventional air attacks in the US is not assigned solely to one agency
Department of Homeland Security (DHS) and Department of Defense (DoD)
Primary DOD HLD Organizations

• OSD: ASD - Homeland Defense
• NORAD
• USNORTHCOM
• JFCOM
• Joint Staff: J-3 and J-8 (JTAMDO)
• Each Service has own Directorate
Evolving Threat Spectrum
Cruise Missile Threat

• Represents the most stressing type of military threat
  – Low Altitude
  – Highly maneuverable
  – Could be launched from a container on a ship, truck or train

• State-of-the-Art technology used in CM development is becoming readily available to a wide range of players
  – Many countries have them today
  – Easy to produce, cheap and potentially lethal
  – Could pose a serious threat in the next decade
  – Likely to become the “poor man’s air force” of the future
    • With $50M, an adversary could buy 100 off-the-shelf CMs
Homeland Air Security Threat Spectrum

- Threat Platforms capable of air terrorism, smuggling, or other illegal activities:
  - Concept Emphasis on Use of an Air Vehicle as a Terrorist Weapon

- Characteristics:
  - Externally or Internally Launched
  - Not Easily Differentiated from Normal Air Activity
  - Only Subtle Indications of Intent
  - Targeted to Produce Terror, Fear, and Financial and / or Political Instability
National Radar Surveillance
• Support the North American Air Surveillance Council (NAASC), in evaluating FAA radar deactivation plan

• Identify FAA en route radars that provide redundant coverage
  – Assessment focused on interior en route long range radars as candidates for shutdown
  – Joint Surveillance System (JSS) long range radars and Airport Surveillance (ASRs)/terminal radars not candidates for shutdown
  – Assessment based strictly on defense of CONUS Region (CONR) One critical assets

Interagency Homeland Air Defense (IHAD) National Radar Needs
5,000', 0 dBsm Current Surveillance
Interagency Efforts
Facilitated by JTAMDO
“JTAMDO will assume the lead role for developing long-range joint operational concepts and architectures for this mission area in coordination with NORAD and the Services.”

“JTAMDO, working in concert with its constituent membership, will be responsible for the Interagency Homeland Air Defense (IHAD) operational concept and integrated architecture and those integrating interagency requirements not covered by the NAASC.”

White House Homeland Security Policy Coordination Committee on Domestic Protection
National Airspace Management and Protection Working Group

(Jan 2002)
Interagency Participants

Dept of Justice  Secret Service  FAA  Customs Service  JFCOM  Military Services

FBI  TSA  Department of Homeland Security  Joint Staff  CIA

NORAD  NORTHCOM  Air National Guard  DIA  Agriculture  National Nuclear Security Administration

Major challenge requiring Interagency and bi-national solutions
Key Enablers to Maximize Interagency Cooperation & Coordination Necessary to Execute Homeland Air Security
An Ops Concept describes high level goals and objectives…

…To make an Ops Concept functional you must develop a formalized structure…

…An Ops Architecture allows you to visualize and identify the specific framework or environment for the essential processes necessary for attaining these goals and objectives.
Homeland Air Security Ops Architecture

Video: “Securing the Skies”
Homeland Air Security Challenges

• Radar Surveillance Coverage Requirements and Strategy
  – Adv technology plan critical to address strategy (including SLEP with FAA)
  – NASCC tasking to JTAMDO covering redundant areas / altitudes
  – Noble Eagle Critical Asset List

• Homeland Air Security Developing Structure
  – Develop Interagency Cooperation and Leadership
  – HAS Ops Concept
  – HAS Ops Architecture
  – National Center and evolving National Capitol Region Coordination Center

• Additional Items
  – Joint Staff Reorganization created Functional Control Boards
    – RADM Mathis - Force Protection
NCR Demonstration – Industry Day

September 10, 2003
Interagency Homeland Air Security
National Capitol Region Demonstration Industry Day

Presented by: Joint Theater Air & Missile Defense Organization (JTAMDO) and National Defense Industrial Association (NDIA)

• Where: Kossiakoff Center, Laurel, MD; Classification: SECRET, US-only

• Demo Purpose: Facilitate development of a Homeland Air Security (HAS) capability addressing technology in advanced technology sensors, correlators, communications, automated decision support and intelligence/info sharing

• Industry Day Purpose: JTAMDO and Interagency to present HAS concepts and technology requirements for the Demo. Industry will be offered the opportunity after the conference to submit “White Papers” describing their concepts and technologies, as candidates for demonstration and evaluation.
Questions?