Continuity of Government: Network Solutions in Peace and Crisis

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Communications and Continuity of Government: An Overview

Moderator: **Maj. Gen. James B. Armor**, USAF (Ret.), Founder – The Armor Group, LLC

Speakers: **Jim Corry**, Vice Chair, National Coordinating Center for Telecommunications, Information Sharing and Analysis Center, National Communications System – Department of Homeland Security

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Introduction brief to the ISCe Satellite and Communications Conference

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June10, 2008

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Introduction

- ***Established in 1963 in response to communications failures associated with the Cuban Missile Crisis***
- ***The mandate was redefined through Executive Order 12472***
- ***Comprised of 24 Federal Departments and Agencies***
- ***Executive and administrative oversight is assigned to the Department of Homeland Security***

Executive Agent	***Secretary of Homeland Security***
Manager	***Under Secretary for National Protection and Programs***

Mission

The National Communications System is responsible for assuring key national security and emergency preparedness (NS/EP) decision-makers have the ability to communicate through the full spectrum of crises

In order to effectively accomplish this mission, the NCS:

Leads and supports key **government and Industry forums**

Develops and manages **critical programs**

Maintains vital **analytical capabilities**

Creates **plans to protect the communications infrastructure**

Prepares for **future advancements in communication technology**

Government and Industry Forums

The NCS provides a forum for the exchange of ideas among Federal stakeholders with significant NS/EP communication responsibilities

Committee of Principals

- ***24 Federal Departments and Agencies***
- ***Forum to evaluate current and future NS/EP programs***
- ***Meetings are chaired by Manager, NCS***

Central Intelligence Agency	Department of State	Health and Human Services
Department of Agriculture	Department of the Treasury	NASA
Department of Commerce	Department of Transportation	National Security Agency
Department of Defense	Department of Veteran Affairs	NTIA
Department of Energy	Federal Communications Commission	Nuclear Regulatory Commission
Department of Homeland Security	Federal Reserve Board	ODNI
Department of Interior	FEMA	The Joint Staff
Department of Justice	General Services Administration	United States Postal Service

Government and Industry Forums

With the vast majority of the communications infrastructure owned by corporations, any successful strategy requires regular and meaningful interaction with industry

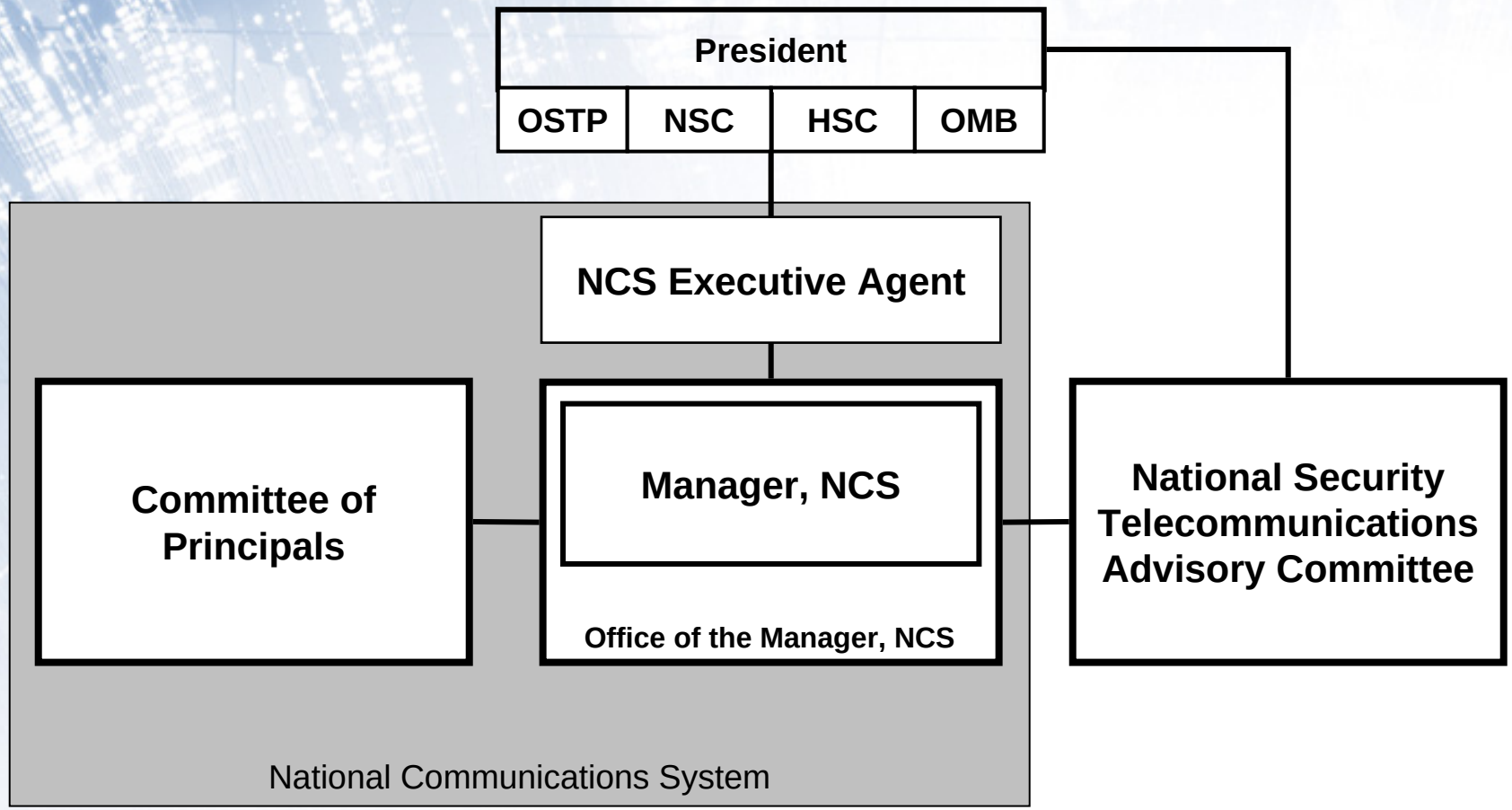
National Security Telecommunications Advisory Committee

- ***Executives of major communications and network services corporations***
- ***Provides advice to the President on NS/EP communication policy***
- ***NCS provides NSTAC with staff support and technical assistance***

Bank of America	Lockheed Martin	Rockwell Collins
Boeing	Microsoft	SAIC
CSC	Motorola	Telcordia
Harris	NCTA	Teledesic
Intelsat	Nortel	US Telecom
Juniper Networks	Raytheon	Verizon

Government and Industry Forums

As an interagency "system," the NCS has a unique reporting relationship with the Executive Office of the President



Government and Industry Forums

Interaction with the communications industry is vital in response to a disaster

National Coordinating Center (NCC) for Telecommunications

- ***Joint Industry/government operation***
- ***Focal point for restoration of the communications infrastructure during disasters***
- ***Over 40 industry representatives make up the Communications Information Sharing and Analysis Center***
- ***Operates the 24X7 NCC Watch***

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Critical Programs

Because access to the public communications network is often degraded in times of crisis, the NCS has developed programs to ensure priority access for critical users

- ***Government Emergency Telecommunications Service (GETS)***
  - ***Priority access to the public wireline network***
  - ***GETS is supported by all major service providers***
  - ***Eligible users span from National Security leadership to emergency responders***
  - ***Over 180,000 users***
- ***Wireless Priority Service (WPS)***
  - ***Priority access to the public wireless network***
  - ***WPS is available through AT&T, Edge Wireless, SouthernLINC, Sprint/Nextel, T-Mobile and Verizon***
  - ***Eligible users span from National Security leadership to emergency responders***
  - ***Over 70,000 users***
- ***Telecommunications Service Priority (TSP)***
  - ***Establishes priority for the restoration and provisioning of critical NS/EP circuits***
  - ***Supported by an FCC regulatory mandate***
- ***Emergency Support Function #2, Communications***
  - ***National Response Framework designates the NCS as Coordinating Agency for ESF #2***
  - ***National Coordinating Center is the focal point for government/Industry interaction during emergency response***
  - ***Accomplished through a partnership with Federal agencies (DOA, DOC, DOD, DHS, DOI, FCC, GSA) and industry partners***
- ***Shared Resources High Frequency Radio Program (SHARES)***
  - ***Providing a single, interagency message handling system with no reliance on the public network***
  - ***User community includes over 1,000 stations from over 90 Federal, State and industry organizations worldwide***

Analytical Capabilities

In order to effectively plan for a resilient communication capability, the NCS must have a deep understanding of the public communications network

- ***Network Design and Analysis Capability (NDAC)***
  - ***Enables modeling and analysis of the public switched network***
  - ***Assist in the identification of network vulnerabilities***
  - ***Provide a laboratory test bed for emerging technologies***
  - ***Perform scenario analysis for specific threats***
- ***Analysis Response Team (ART)***
  - ***Provide tailored analytical products to support decision making in advance of and during incidents of national significance***
  - ***Focused on tactical, operational analyses***
- ***Route Diversity Project (RDP)***
  - ***Provide technical and regulatory information to help increase the resiliency of their telecommunication networks***
  - ***Focused on "last-mile" connectivity between government facilities and telecomm providers***
  - ***Provide methodology and mitigation solutions sets***
- ***Advance Technologies Group***
  - ***Conduct Next Generation Network communications infrastructure Telecommunications Electromagnetic Disruptive Effects (TEDE) vulnerability studies.***
  - ***Analyze a broad range of concerns inherent in the communications sector's dependence on reliable operation of the electric power sector***

Recent Continuity Program Developments

- ***Continuity Communications***
  - ***NCS Directive 3-10***
  - ***National Security Presidential Directive 51/Homeland Security President Directive 20***
- ***Satellite Priority Service***

NCS Directive 3-10

National Communications System Directive 3-10, Minimum Requirements for Continuity Communications Capabilities, established minimum requirements to facilitate assured communications between the President, the President's staff, Executive office of the President personnel, Cabinet Secretaries (Executive Departments) and other senior leadership during a crisis

NCSD 3-10 is a set of communication requirements that all FEB departments and agencies must immediately begin to procure, install, maintain, test and operate

NSPD-51 / HSPD-20

National Security Presidential Directive 51/Homeland Security President Directive 20 (NSPD-51/HSPD-20), National Continuity Policy, established a comprehensive program designed to ensure survival of our constitutional form of government and the continuation of the performance of National Essential Functions (NEFs) under all conditions

- ***NSPD-51/HSPD-20 is a policy that kicks off a comprehensive review cycle of all D/As Primary Mission Essential Functions (PMEFs) and their ability to support NEFs. The review will culminate in a set of continuity requirements effecting leadership, staff, communications and facilities***

Satellite Priority Service

- *General Findings from Katrina after-action report point to the need to integrate satellite service into NS/EP communications*

- *Emphasis is on the use deployable satellite communications capabilities to augment NS/EP priority services for emergency responders*

- *Satellite Priority Service has been divided into two phases:*

  - *Phase I - Satellite Priority Service pilot offering*
  - *Phase II - Development of Satellite Access Industry Requirements for NS/EP Priority Services as well as prototype NGN NS/EP priority services over satellite*

- *Mobile Satellite Ventures (MSV) G2 satellite service with Sprint Emergency Response Team (ERT) as the distributor chosen to provide the initial Satellite Priority Service*

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Communications & Continuity of Government

– Leveraging Satellites to Eliminate Communications Barriers

Britt Lewis
Intelsat General Corporation
ISCe 2008

INTELSAT. General Corporation

Commercial satellites are an essential component to achieving immediate communications interoperability

- **"Response operations were impeded because of a lack of adequate satellite communications capability."**

Hurricane Katrina Task Force




INTELSAT General Corporation

Commercial satellite often is the only reliable and available communications media

- 2001 US-based Terrorist Attacks
  - **Provided space segment for 1st Responders, Disaster Relief organizations and Broadcasters.**
  - ***Corps of Engineers deployed their DTOS Network - first service greater than cell phone south of 14th St. NYC.***
- 2004 Tsunami
  - **Provided space segment and managed solutions for Disaster Recovery efforts.**
  - **Service supported relief organizations by providing connectivity for comms and DNA recognition efforts.**
- 2005 Hurricane Katrina / Rita
  - **Provided space segment services for relief organization, restored continuity for enterprise users and managed services for FEMA.**
  - **Provided space segment to Rescue 21, restored ship-to-shore radio service for the USCG.**
  - **Space segment for major recovery site at NASA Stennis**
- 2005 SeaMeWe3 Cable Failure
  - **Multiple E3 duplex ITS circuits to restore Internet access in South East Asia**
- 2005 Pakistan Earthquake
  - **Space segment and managed offerings to support the military & relief organizations in the rescue mission.**
- 2007 Taiwan Earthquake
  - **Space segment and large managed circuits to restore carriers and service providers who were effected by the undersea transoceanic cable disturbance.**
- 2007 California Fires
  - **Provided space segment to support Command Center ops in San Diego**

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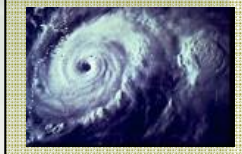
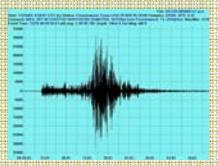
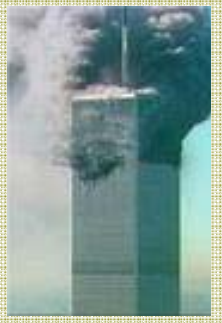
Government Continuity: Planning & Execution - Communications

Planning, Training, Preparation

Plan


Train


Prepare

Pre-position equipment for easy access during disaster

First Day

Land Mobile Radio

MSS

Disaster Response

First Few Days +

VSAT

Mobile Command Center

Cellular Backhaul via FSS

Situational Awareness



Damage assessment & situational awareness via satellite imaging and UAV surveillance

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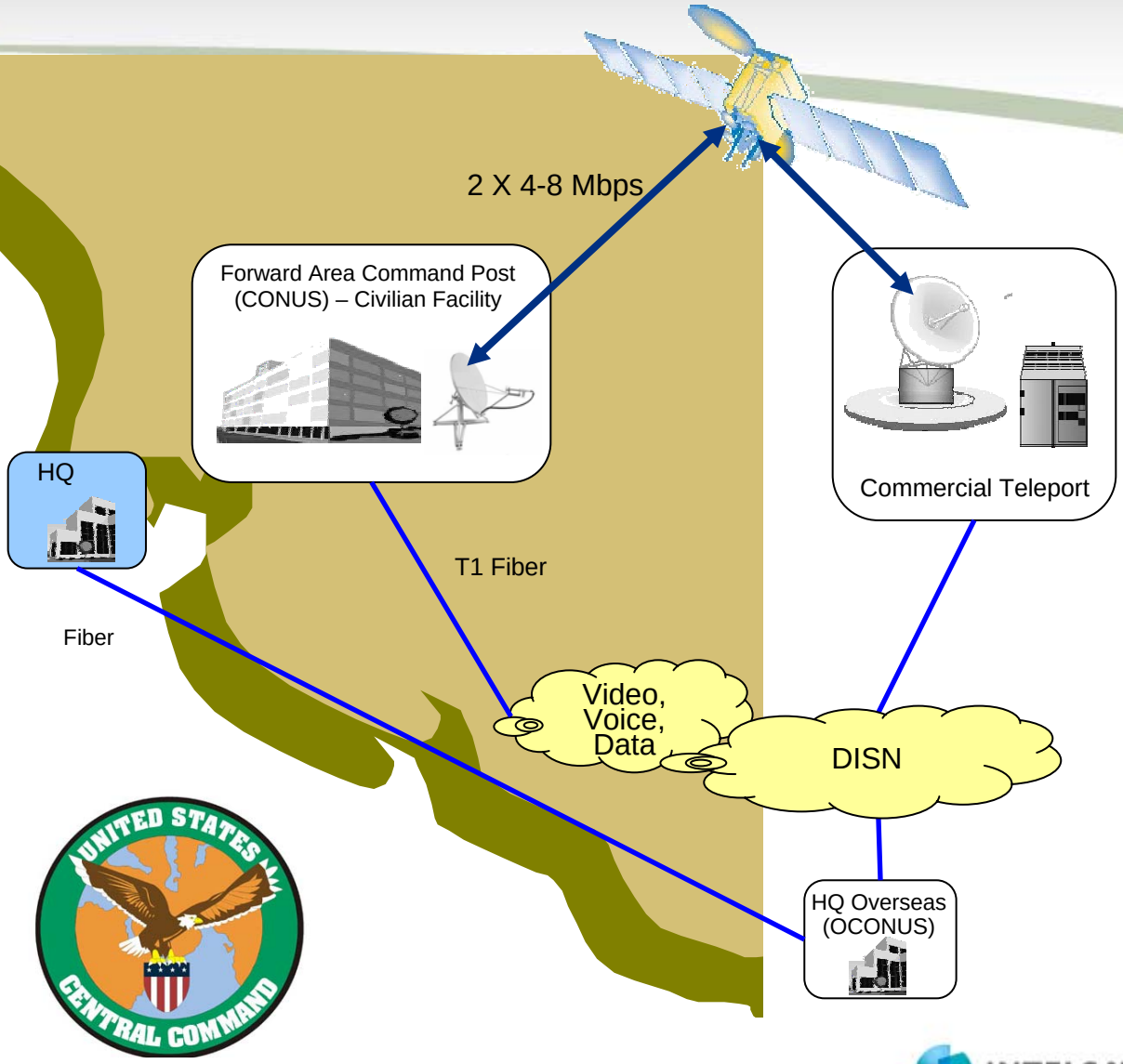
Government Continuity:

Protecting Critical Infrastructure

- HQ connected to HQ Overseas via fiber for data replication on regular basis
- During an event (e.g., hurricane), command is moved to the Forward Area Command Post
  - The Forward Area has redundant connectivity to DISN via terrestrial and satellite links
  - Necessary data can be replicated via connection to the DISN via HQ Overseas
- Requires both terrestrial and satellite links



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