Headquarters U.S. Air Force

I n t e g r i t y - S e r v i c e - E x c e l l e n c e

Air Force Cyber Operations Command

Mission: Warfighting

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5 Jan 2007

This Briefing is:
UNCLASSIFIED

Presentation Overview

- **Cyberspace Command Mission Analysis**

- **Cyberspace Operations**

- **Global Effects C2**

Integrity - Service - Excellence

Mission & Intent Brief Back

- **CSAF Intent: Redefine Airpower by** extending our global reach and global power into a new domain … of electronics and the electromagnetic spectrum.

- **Warfighting Mission: Integrate AF's global** kinetic and non-kinetic **strike capability** … through the full range of military operations … with authority to become COMAFFOR for all USAF cyberspace.

- **Administrative Mission: Develop an "on** ramp" to transition the Mighty Eighth into a **MAJCOM Component** responsible for … the **full spectrum of integrated global effects.**

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Endstates & Key Tasks

- **Present forces to STRATCOM for global operations or … through COMAFFOR/JFACC for theater operations.**

- **Provide COCOM with viable military options … and execution in air, space, and cyberspace.**

- **Organize your NAF around an AOC, able to operate 24x7x365, interoperable with all other AOCs**

- **Advocate your requirements to ACC and Air Staff functional elements to ensure they are given equal weight to other warfighting capabilities**

- **Synchronize activities of other organizations … such as AFCA, AIA, AFC2ISRC, and AFRL**

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Missions/Phases

Missions

➢ **Integrate AF's global kinetic and non-kinetic strike capability**

➢ **OT&E to provide full spectrum of integrated global effects**

Phases

1. **Change culture from cyber as force enabler to warfighting force**

2. **Organize and present forces for full spectrum, integrated operations—peacetime through combat, global and theater**

3. **Advocate for Cyber manpower, resources, and a requirement CONOPS to provide Cyber forces and capabilities to COCOMS**
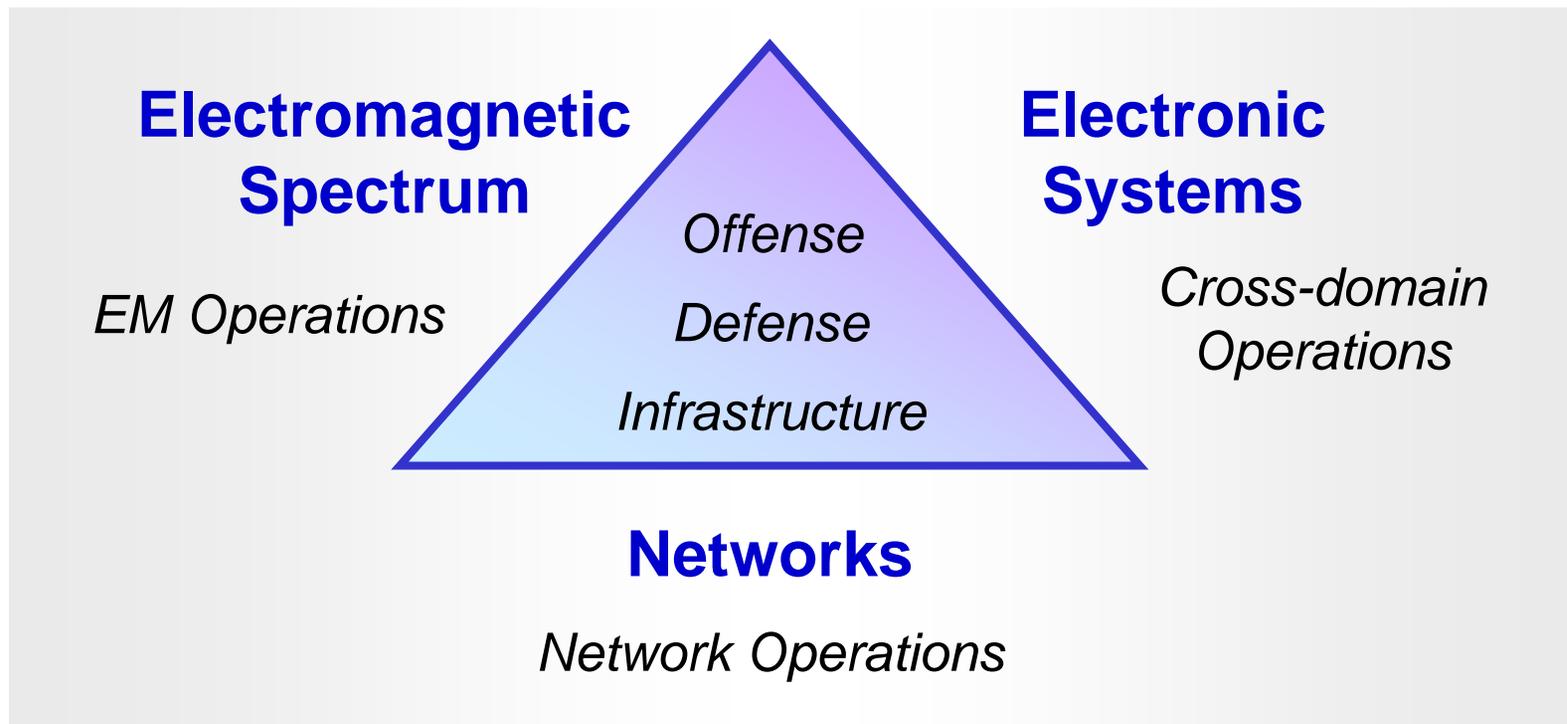
4. **Transition to the Cyber force provider (MAJCOM)**

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Prioritized Essential Tasks

- ❑ **Build CONOPS/CONEMP**
- ❑ **Baseline Global Effects Force – Define Gaps/METLs**
- ❑ **Identify Manpower Requirements**
- ❑ **Identify Resource and Support Requirements**
- ❑ **Develop Cyber COP**
- ❑ **Baseline Capabilities/ Threats (EOB/FOB)**
- ❑ **ID Intelligence Requirements**
- ❑ **Integrate with Theater Commanders and Functional POCs**
- ❑ **Resolve CD & "fratricide" issues (ROE & Authorities)**
- ❑ **Stand up a Cyber PE & advocate in AF Corporate Structure**
- ❑ **Develop initial POM capability (with Air Staff support)**

Background: Cyberspace

Electromagnetic Spectrum

EM Operations

Offense

Defense

Infrastructure

Electronic Systems

Cross-domain Operations

Networks

Network Operations
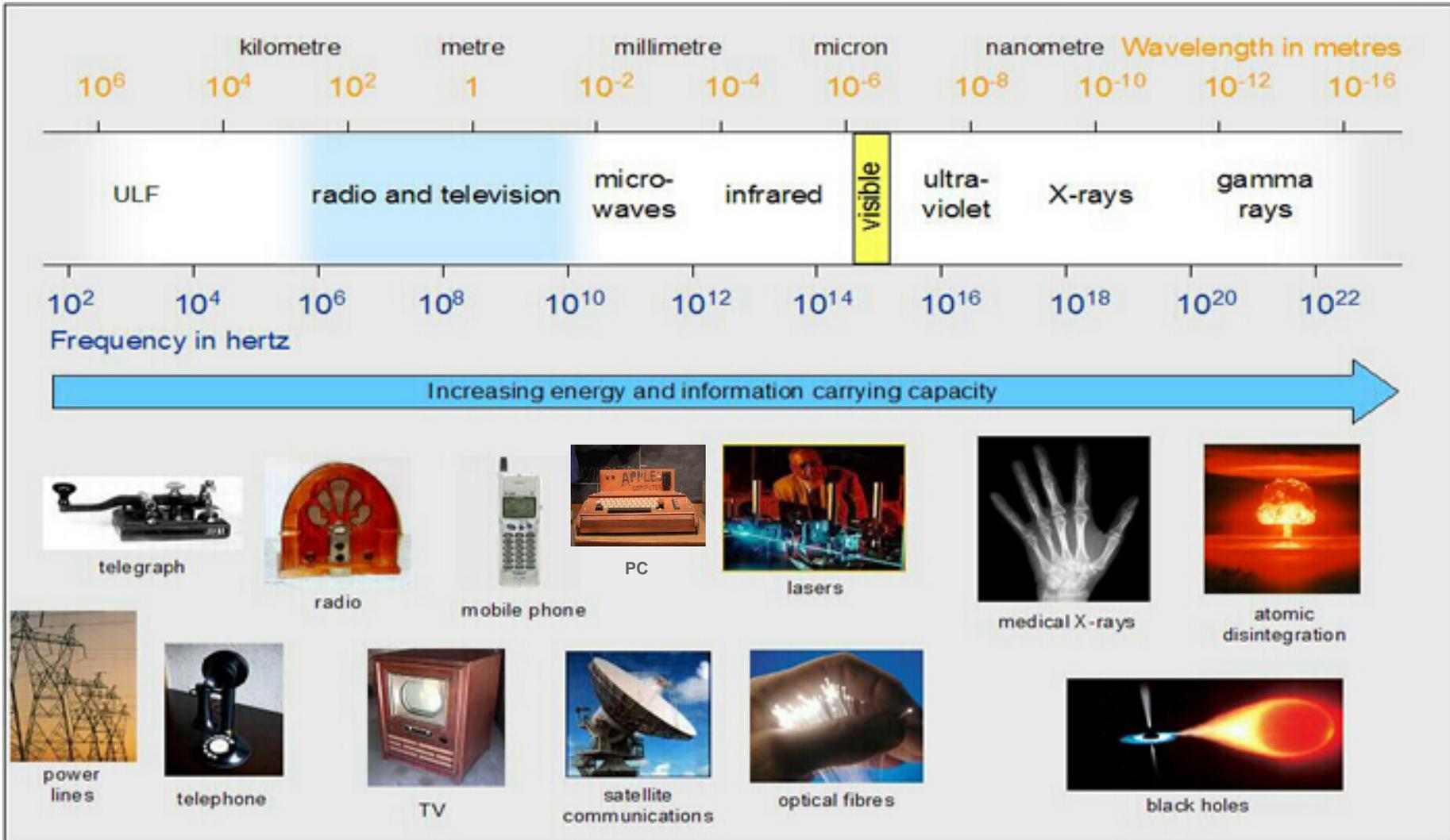
DoD Definition: Cyberspace is a domain characterized by the use of <u>electronics</u> and the <u>electromagnetic spectrum</u> to store, modify, and exchange data via <u>networked systems</u> and associated physical infrastructures

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Exploiting the EMS

DC to Daylight to Gamma Rays and Beyond

The Battle in Cyberspace

Intelligence

Observe

Orient

Sensor Ops

Battlespace Awareness

Conventional Ops

Land/Sea Aerospace Domains

Cyber Domain

Cognitive Domain

Influence Ops

Integrated Effects (EMS, EA, Net-A)

Act

Decide

Command Control

GIG Ops

Offense, Defense, Infrastructure Elements

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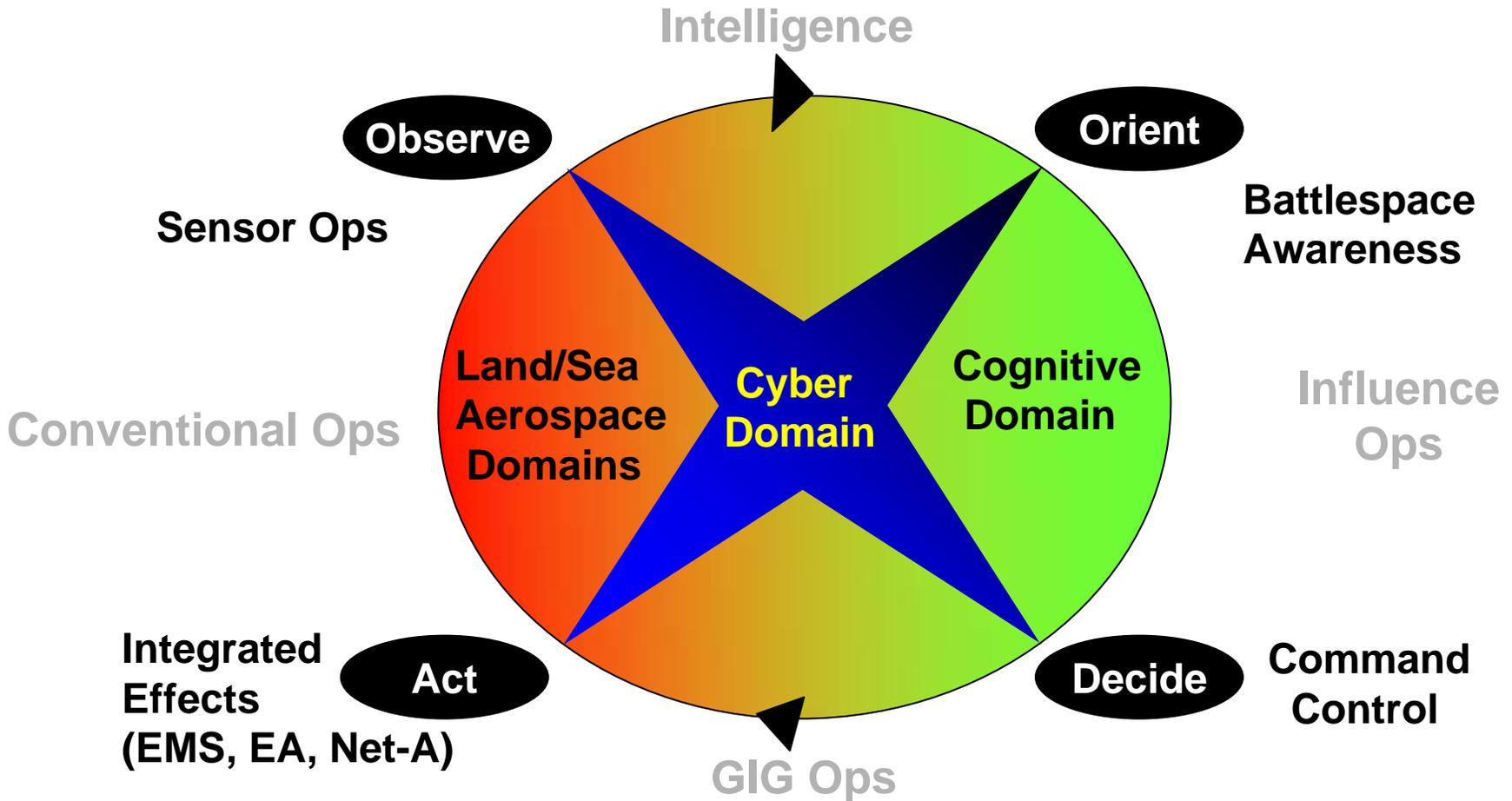
"Fly & Fight" in Cyberspace

Cyber Ops

WARFIGHTING

- **Operational Freedom of Action**
  - Networked Systems Survivability
  - Counter-cyber (Defense) Ops

- **Global Effects Integration**
  - Surveillance/Reconnaissance
  - Battlespace Awareness
  - Command & Control
  - Combat Systems Effectiveness

- **Offensive Cyber Ops**
  - IADS, C2, Control Systems
  - Adversary Combat Systems
  - Adversary Information Systems

- **Enabling Ops:** Intel, GIG Ops, IFO

For USAF, Cyberspace is a *Warfighting* Domain

Global Effects C2 Concept

```
COCOM ········· USSTRATCOM ········· COCOM
```

Legend:
- ═══════ COCOM
- ─────── OPCON
- ─ ─ ─ ─ TACON
- ·········· COORD

```
AF Component          8 AF          AF Component

   AOC    ········· STRAT AOC ·········   AOC
```

GLOBALLY LINKED AOCs

Global Air Force Capabilities

INTEL	S&R	GIG OPS	NW OPS	STRIKE	EW

> **"Leverage, consolidate and integrate AF-unique cyber capabilities and functions across the spectrum of conflict from peace to crisis to war"**
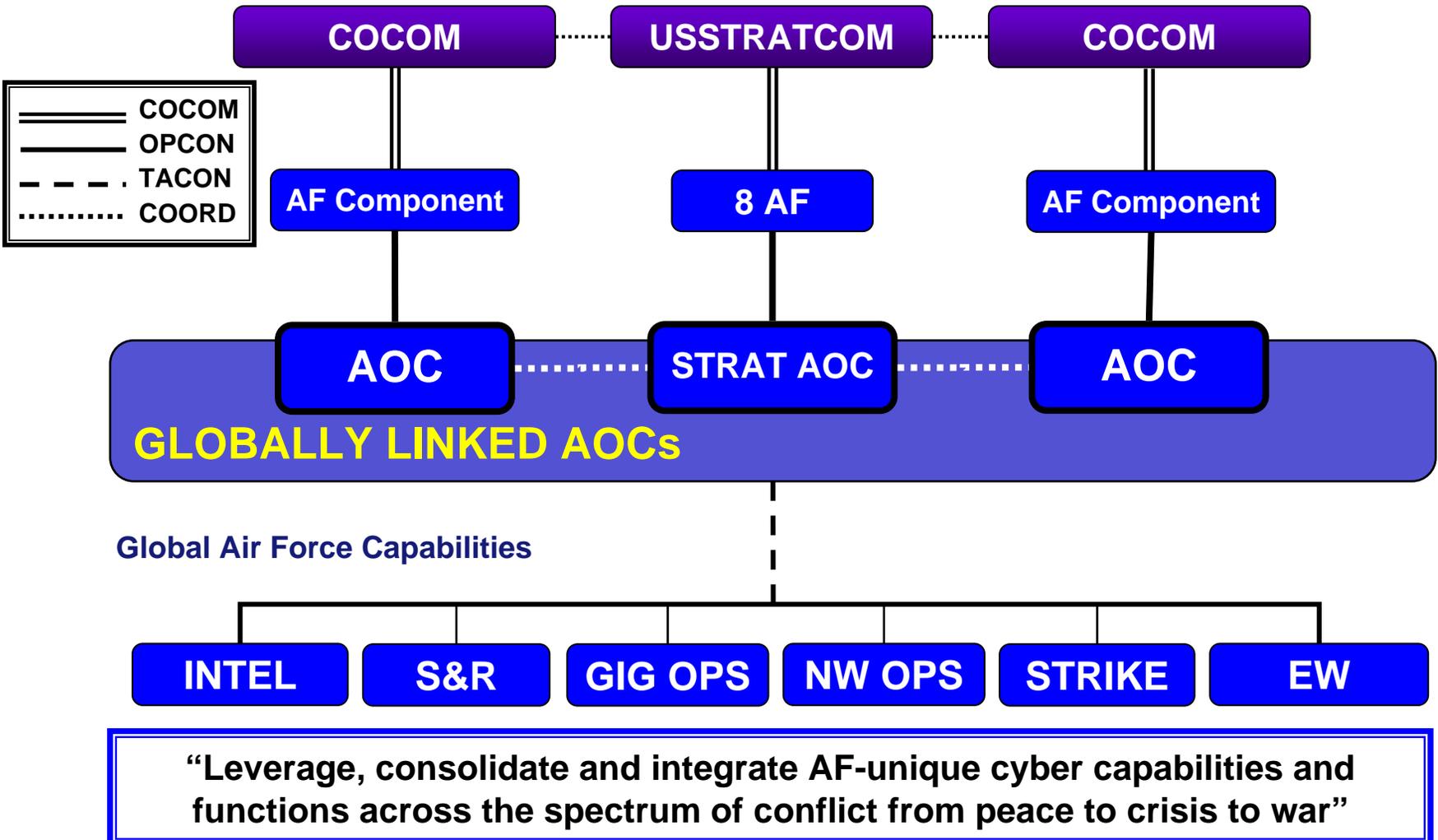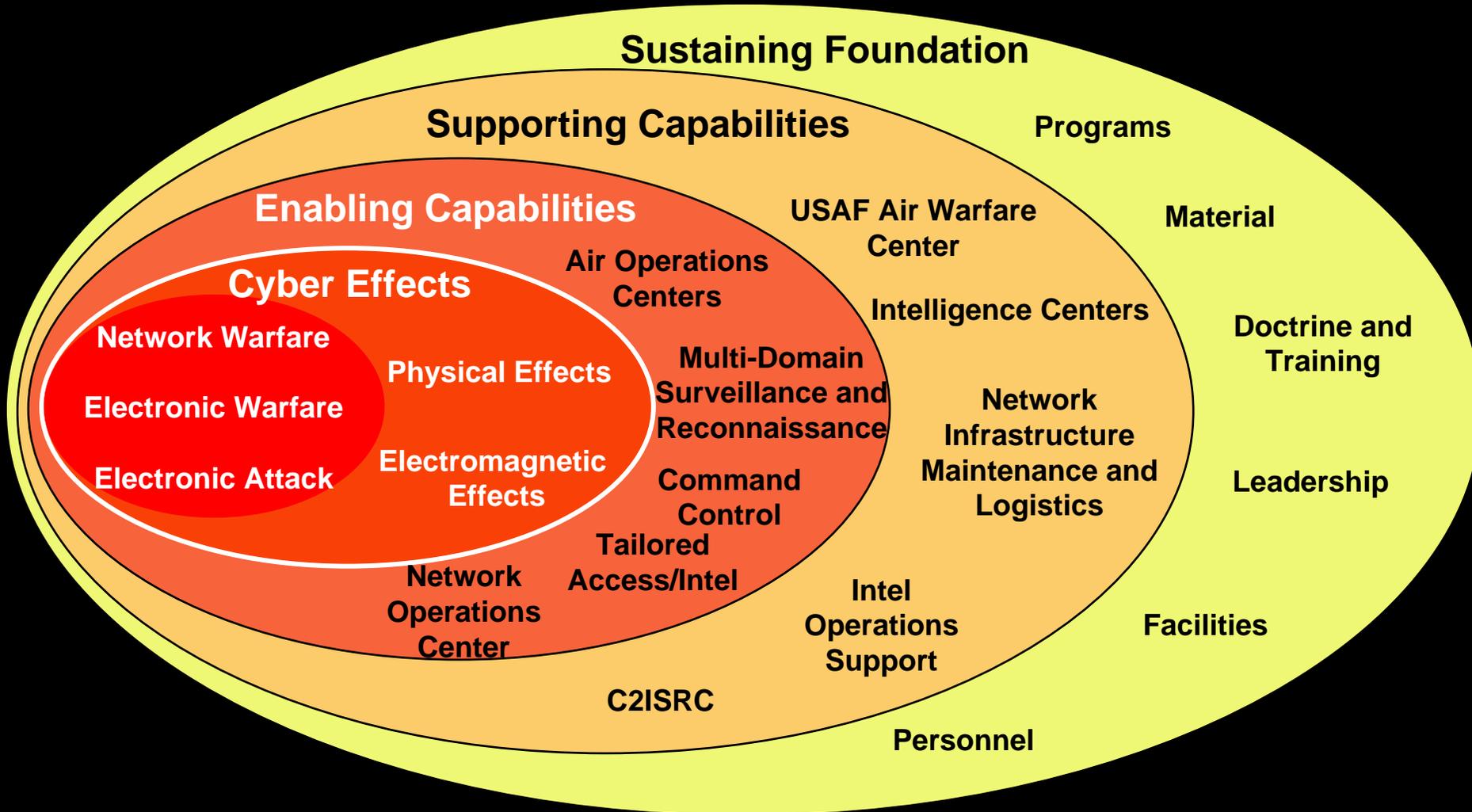
8 AF and Cyber Ops

- **Global Strike: B-2, B-52**

- **Network Operations: AFNOC, I-NOSC, Network Warfare Wing**

- **Surveillance/Reconnaissance: RC-135, U-2, Global Hawk**

- **C2/Battle Management: AWACS, JSTARS, CAOC, ASOG, E-4**

- **Electronic Warfare: EC-130 Compass Call**

- **Intelligence: Distributed Common Ground Station (DCGS)**

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Effects-based Cyber Enterprise

Sustaining Foundation

Supporting Capabilities

Programs

Enabling Capabilities

USAF Air Warfare Center

Material

Cyber Effects

Air Operations Centers

Intelligence Centers

Doctrine and Training

Network Warfare

Physical Effects

Multi-Domain Surveillance and Reconnaissance

Network Infrastructure Maintenance and Logistics

Electronic Warfare

Electronic Attack

Electromagnetic Effects

Command Control

Leadership

Tailored Access/Intel

Network Operations Center

Intel Operations Support

Facilities

C2ISRC

Personnel

Summary

- **AF conducts Cyber Ops to *ENSURE OUR FREEDOM OF ACTION* and *DENY FREEDOM OF ACTION TO OUR ADVERSARIES***

- **Air Force views Cyberspace as a warfighting domain on par with the air, space, ground, and maritime domains**

- **DoD views Cyberspace as much more than the Internet … a domain characterized by the use of <u>electronics</u> and the <u>electromagnetic spectrum</u> to store, modify, and exchange data via networked systems and associated physical infrastructures**

- **Sensors, C2 elements, and shooters are networked together via Cyberspace to produce integrated cross-domain effects**

- **Cyberspace ops require secure, survivable, and resilient networks, infrastructure, and electromagnetic spectrum**

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