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# *US Army Reserve Information Operations*



## *29th Annual Signal Regimental Symposium*

### *The United States Army Reserve Information Operations Structure*

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# Information Operations

Actions taken to affect adversary information and information systems while defending one's own information and information systems (JP 3-13).

**Elements**

OPSEC	Physical Destruction	Information Assurance	Counter-PSYOP
Military Deception	Computer Network Attack	Physical Security	Counter-Intel
PSYOP	Special IO	Counter-deception	Public Affairs
EW			Civil Affairs

**Offensive IO**

Employ IO elements to affect and/or influence leader perceptions/decisions.

- Inform, influence or deceive leaders.
- Deny, disrupt, destroy or control adversary info, info systems & C4ISR.
- Exploit timely, precise information and/or attack targets.

**Defensive IO**

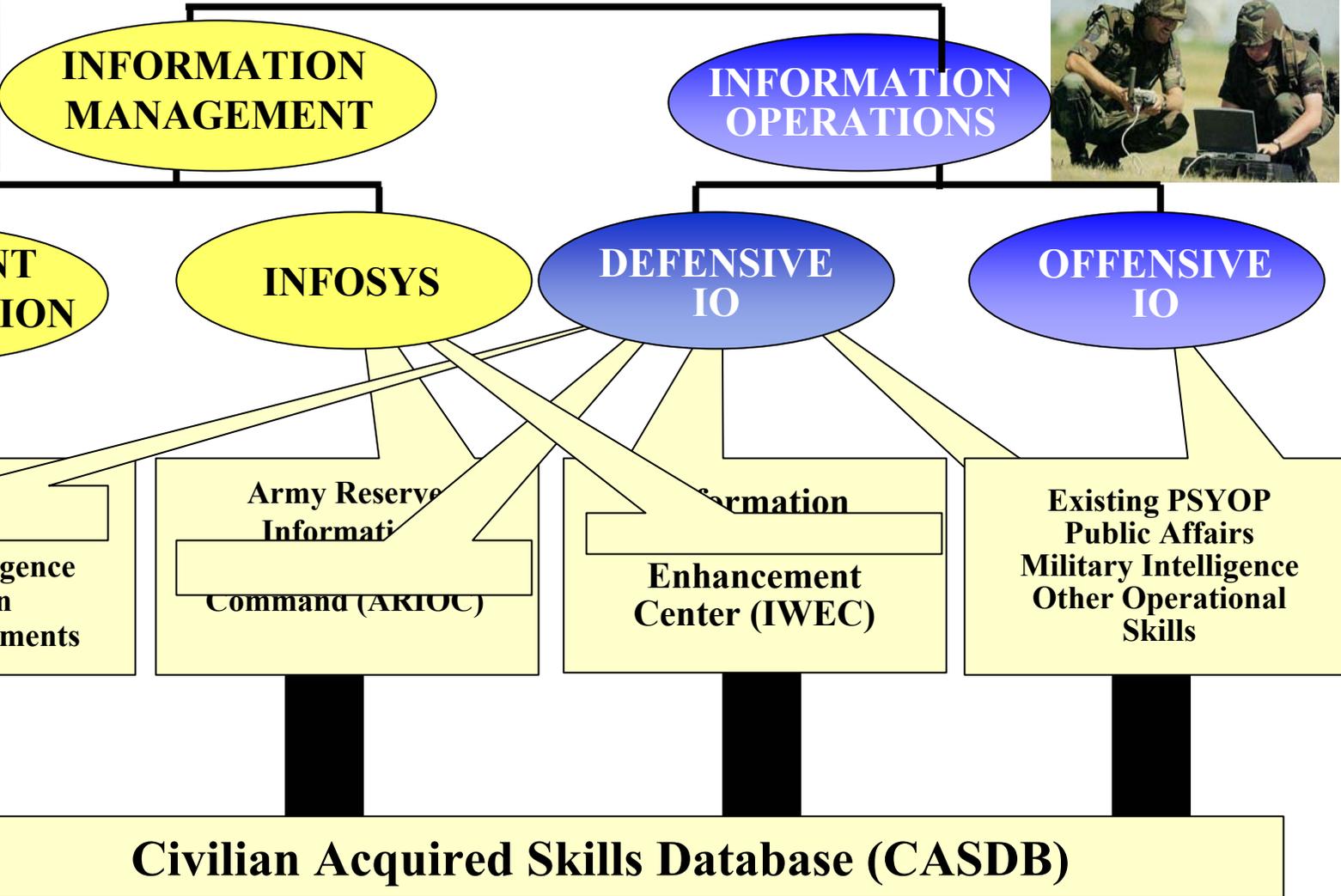
Employ IO elements to protect friendly info, info systems and C4ISR:

- Protect, detect, restore and respond .
- Manage risk and deter attacks.
- Protect C2 process, info, personnel, facilities and equipment.
- Influence leader perceptions/decisions.



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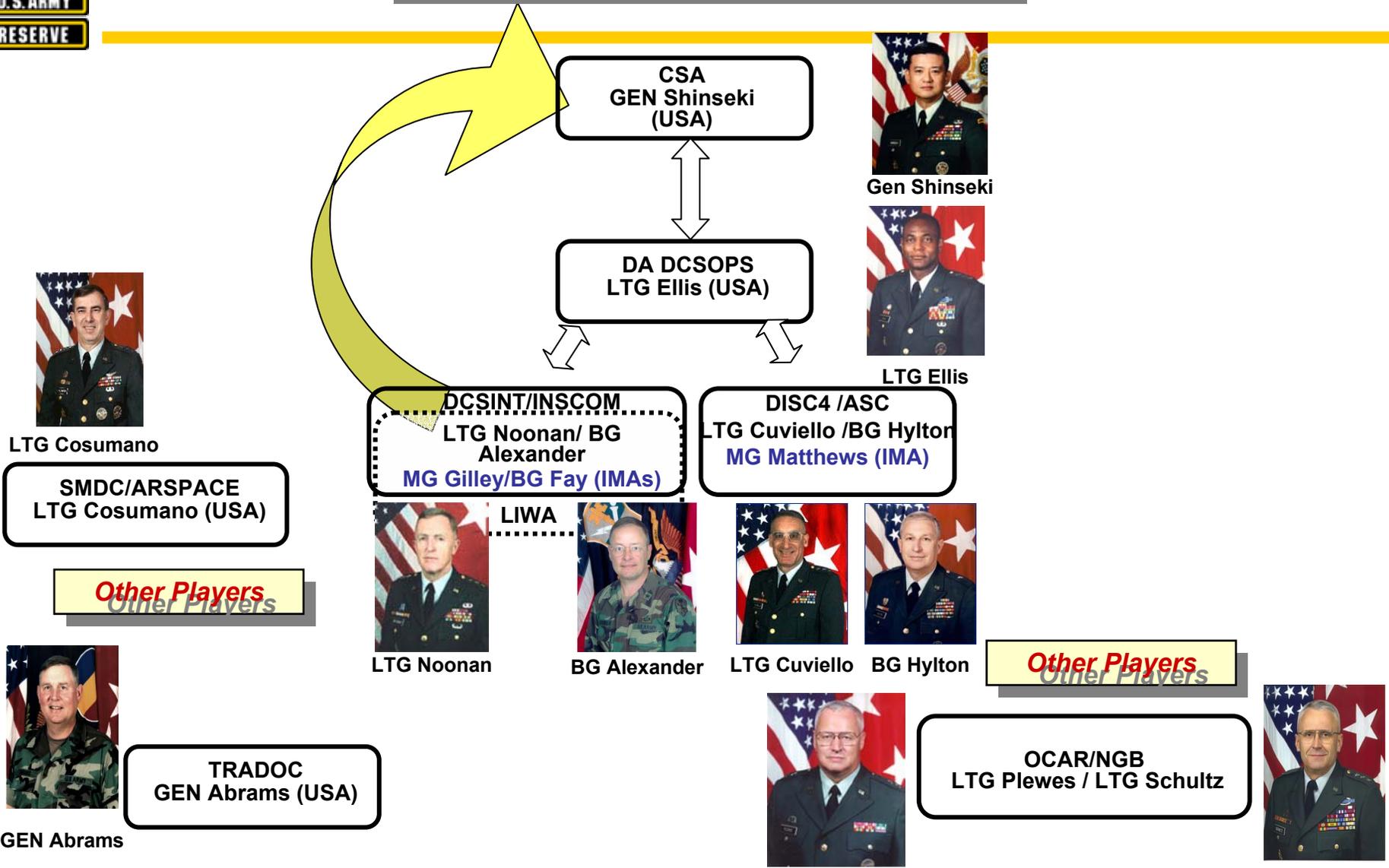
# Army Reserve Support to Information Superiority





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# Who is driving IO in Army?



LTG Cosumano

SMDC/ARSPACE  
LTG Cosumano (USA)

*Other Players*



GEN Abrams

TRADOC  
GEN Abrams (USA)



LTG Noonan



BG Alexander

LIWA



LTG Cuiello



BG Hylton

DISC4 /ASC  
LTG Cuiello /BG Hylton  
MG Matthews (IMA)

*Other Players*



OCAR/NGB  
LTG Plewes / LTG Schultz





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# ***US Army Reserve Information Operations Command Structure***

## **IO Capability**

**Information  
Operations Centers  
(IOCs) x5**

◀ **Defensive IO: Provide IA/CND direct support to ACERT, ARL, DISC4, CECOM, USARC and others**

**Information  
Warfare  
Enhancement Center  
(IWEC)**

◀ **Full-spectrum IO direct support to LIWA**

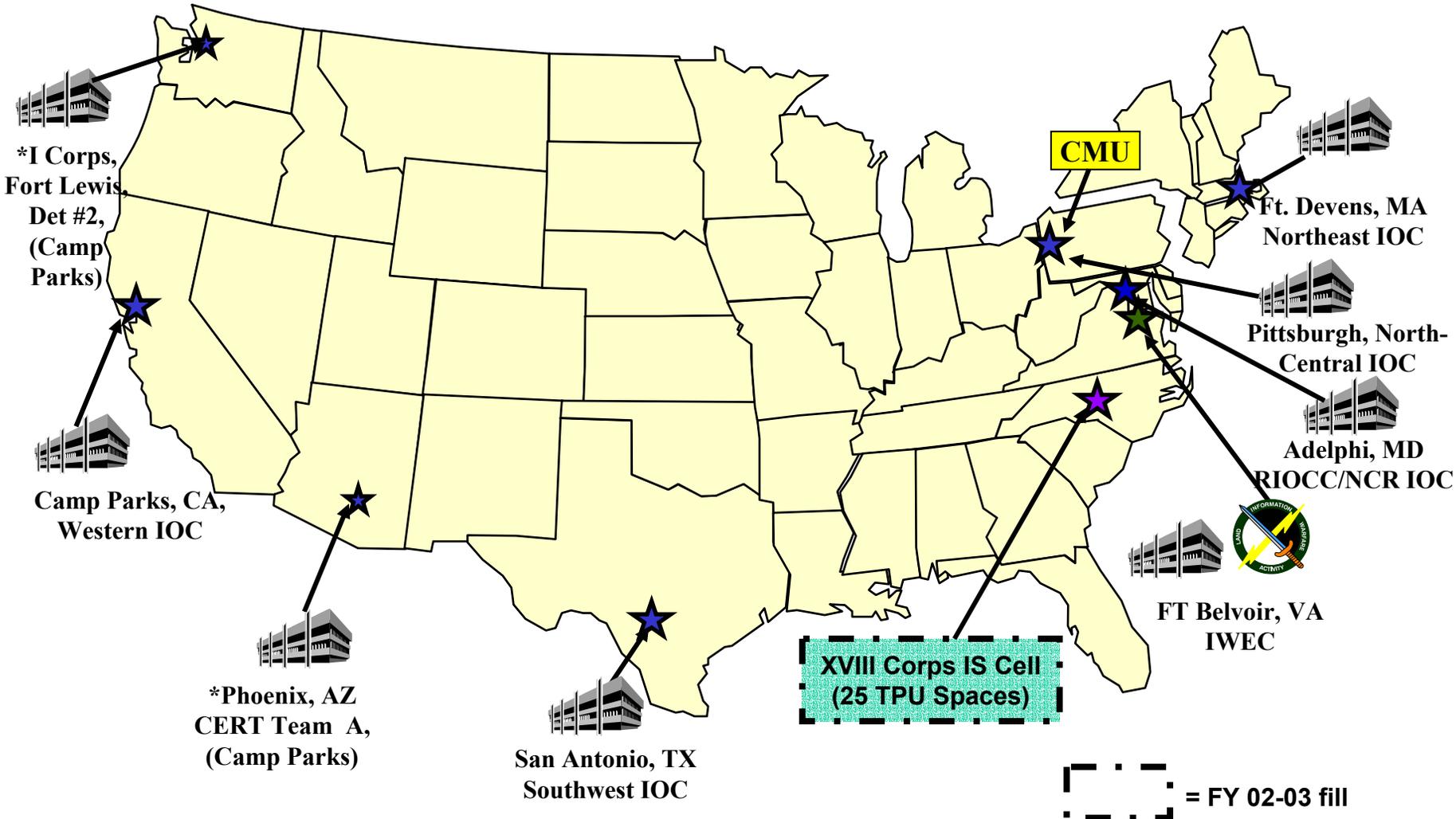
**Reservists'  
Civilian  
Acquired  
Skills**

◀ **Leverage Reservists' civilian acquired technology skills**



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# Army Reserve Information Operations Locations





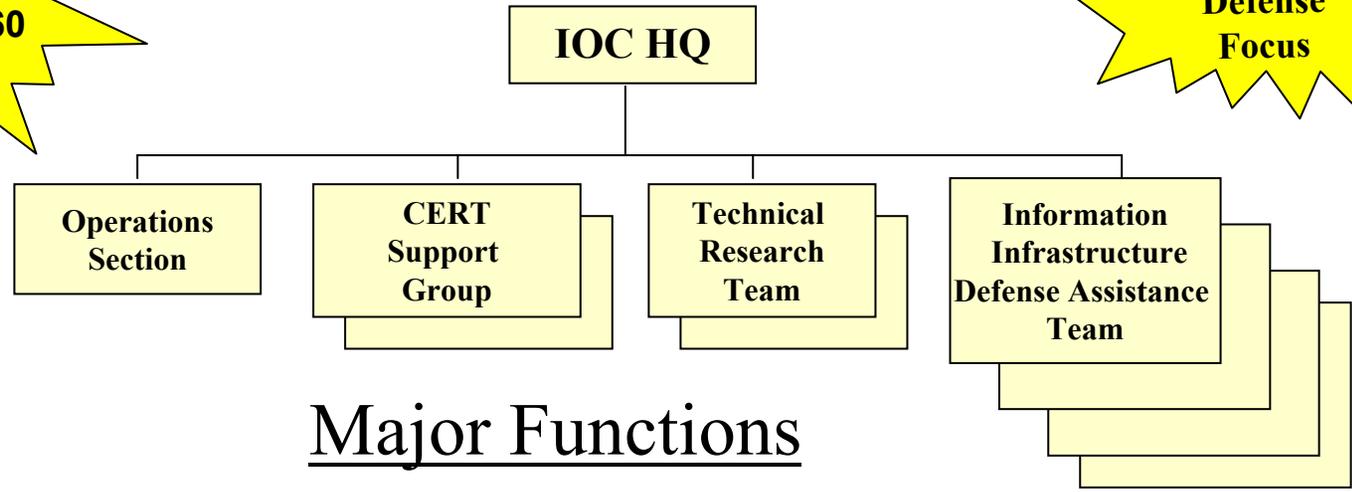
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# Information Operations Center (IOC)

**90 Spaces**  
(Authorized 60 spaces)

**Computer Network Defense Focus**



## Major Functions

- Information Assurance
- Viral Detection and Protection
- Vulnerability Assessment
- Intrusion Detection & Response
- Incident Analysis
- Vulnerability Database
- High Performance Computer Monitoring



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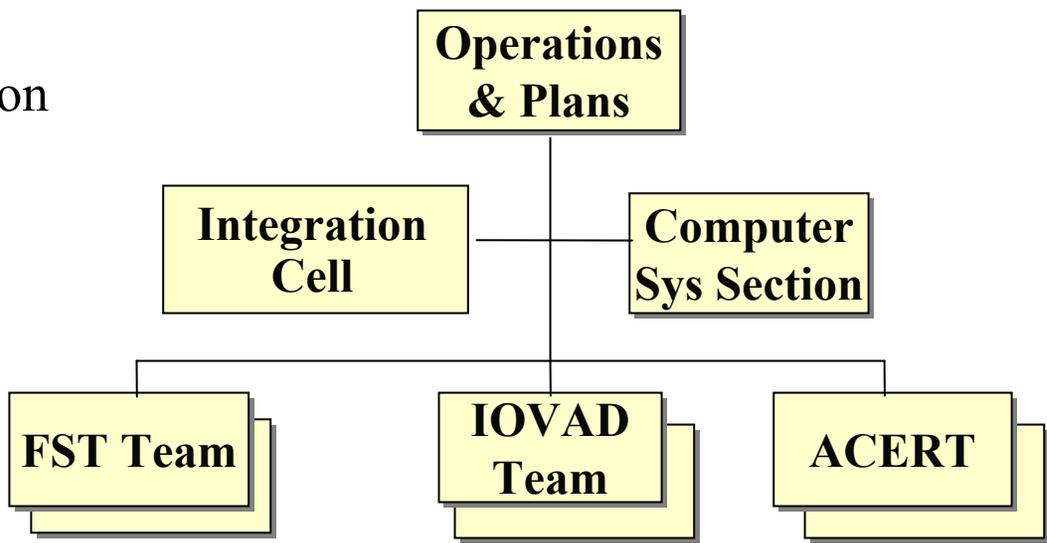
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# Information Warfare Enhancement Center (IWECC)

Missions & Functions correlate with LIWA's and include:

- Field Support
- Vulnerability Assessment
- Viral Detection and Protection
- Vulnerability Intrusion Detection & Response
- Information Assurance

**73 Total Spaces**



**Augments LIWA**



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# ***ARIOC IA Capability***

## ***Protect, Detect & Assess Restore, Respond***

- Enhance DOD Computer Network Defense
  - Viral Detection and Protection
  - Intrusion Detection and Protection
  - Predictive Analysis
  - Vulnerability Analysis and Assessments
  - Document Advisories
  - Training and Education
- Help DOD Transition Corporate Improvements
  - Civilian Acquired Skills



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# Army Reserve IO Mission FY 2000/2001

## Technical Missions

- Joint Staff (J8) Network Scans
- Army Computer Emergency Response Team (ACERT) Monitoring

Army Research Lab (ARL)  
Computer Intrusion Monitoring  
Program

JTF-CNO Support

CECOM Survivability Lethality  
Analysis Directorate (SLAD)  
Vulnerability Assessment and  
Database Support

Vulnerability  
Assessment Teams  
(VAT) in Balkans

**Joint Reserve  
Virtual Information  
Operations (JRVIIO)  
Organizations**

## Operational Missions

- Field Support to Corps and Joint Exercises
- Individual IO Support to Army and Joint Commands

CORPS Warfighter Exercise  
Support

DISC4 Information Assurance  
Vulnerability Assessment (IAVA)  
Compliance

**Army Reserve IO Support primarily at  
Corps, Theater, DA, and Joint level**



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## ***ARIOC Soldier Skills***

- Corporate IT Executives
- Microsoft Certified Systems Engineers (MCSE)
- Defense Messaging System (DMS) Specialists
- Corporate Software Developers
- Computer Network Defense Experts
- Corporate and Government Computer Security Professionals
- System/Network Administrators
- Soldiers with advanced Computer Science Degrees

***Reduces Army's Critical IA Skill Shortfalls***



## *Summary*

- *The Army Reserve* supports Information Superiority:
- Full-spectrum offensive and defensive IO
- IO units, augmentation, and skilled soldiers
- Enhances Army organizations with flexible capabilities
- Leverages USAR Information Operations core competencies
- Capitalizes on citizen-soldiers' high-technology civilian skills
- Expanding and developing new capabilities

**Army Reserve Supports Information Operations**



# Information Operations (IO) Program

## Definitions

➤ **Information Operations (IO):** *Actions taken to affect an adversary's information and information systems while defending one's own information and information systems* **DOD Directive S-3600.1/JP1-02/JP 3-13**

➤ **Army's Definition of Information**

**Operations (IO):** *Continuous military operations within the MIE that enable, enhance, and protect the friendly force's ability to collect, process, and act on information to achieve an advantage across the full range of military operations; IO include interacting with the GIE and exploiting or denying an adversary's information and decision capabilities.* **FM 100-6 Aug 1996**

➤ **Army Elements (Branches/Functional Areas) of Information Operations (IO):**

*Armor/Infantry/Field Artillery, Military Intelligence, Signal, Civil Affairs, Psychological Operations (PSYOPS), Public Affairs, Special Operations Forces* **FM 100-6, Aug 1996**

➤ **Joint Reserve Virtual Information Operations (JRVI) Organizations:**

- ✓ *Defense Information Systems Agency (DISA)*
- ✓ *JTF-Computer Network Defense (CNO/DISA)*
- ✓ *Information Operations Technology Center (IOTC/NSA)*
- ✓ *Joint COMSEC Monitoring Activity (JCMA/NSA)*
- ✓ *Joint Information Operations Center (JIIOC/USSPACECOM)*

➤ **Computer Network Defense (CND):** *Actions taken to protect, monitor, analyze, detect, and respond to unauthorized activity within DOD information systems and computer networks. CND protection activity is a subset of information assurance protection activity and includes deliberate actions taken to modify assurance configuration or condition in response to a CND alert or threat information.* **JTF NETOPS CONOPS**

➤ **Computer Network Attack (CNA):** *Operations to disrupt, deny, degrade, or destroy information resident in computer and computer networks or the computers and the networks themselves.* **DOD Directive S-3600.1**

➤ **Information Assurance (IA):** *The element of Information Operations (IO) that protect and defend information and information systems by ensuring their availability, integrity, authentication, confidentiality, and non-repudiation. This includes providing for restoration of information systems by incorporating protection, detection, and reaction capabilities.* **DOD Directive S-3600.1**