# NICE Webinar Series

NATIONAL INITIATIVE FOR CYBERSECURITY EDUCATION

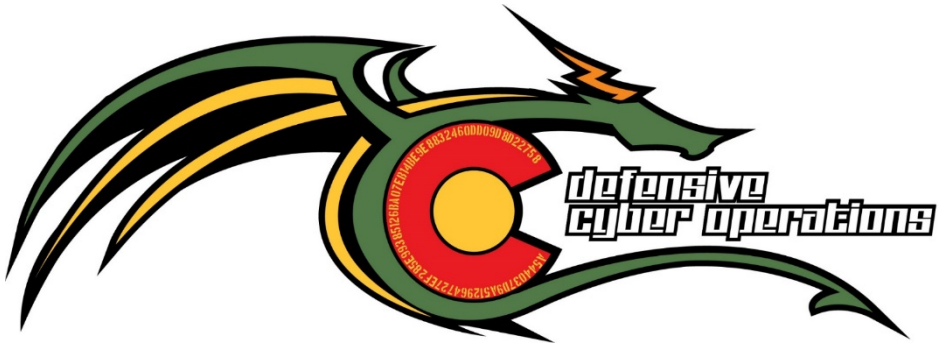
## Positioning the National Guard and Civilian Organizations to Augment the Cybersecurity Workforce

June 21, 2017

# National Guard Cyber


LTC Brad Rhodes

21 June 2017

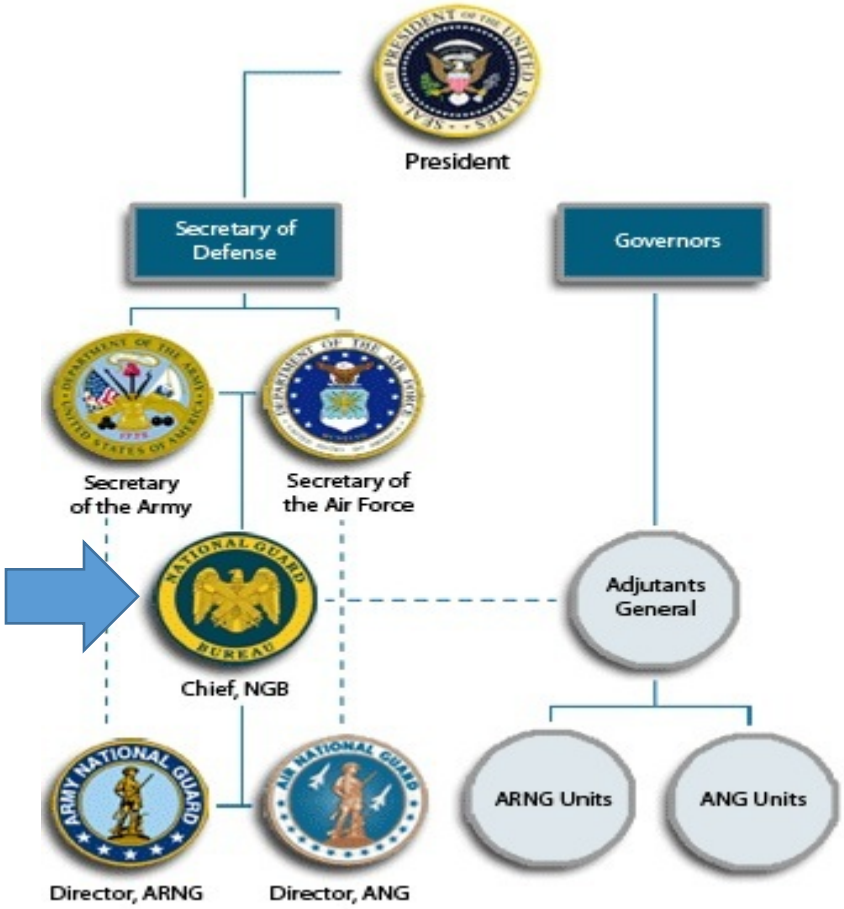


# Outline

- National Guard Bureau
- Colorado Army National Guard Cyber Teams
- CPT and DCO Comparison
- Exercises & Kinetic Cyber Demo
- Training & Certifications

# National Guard Bureau

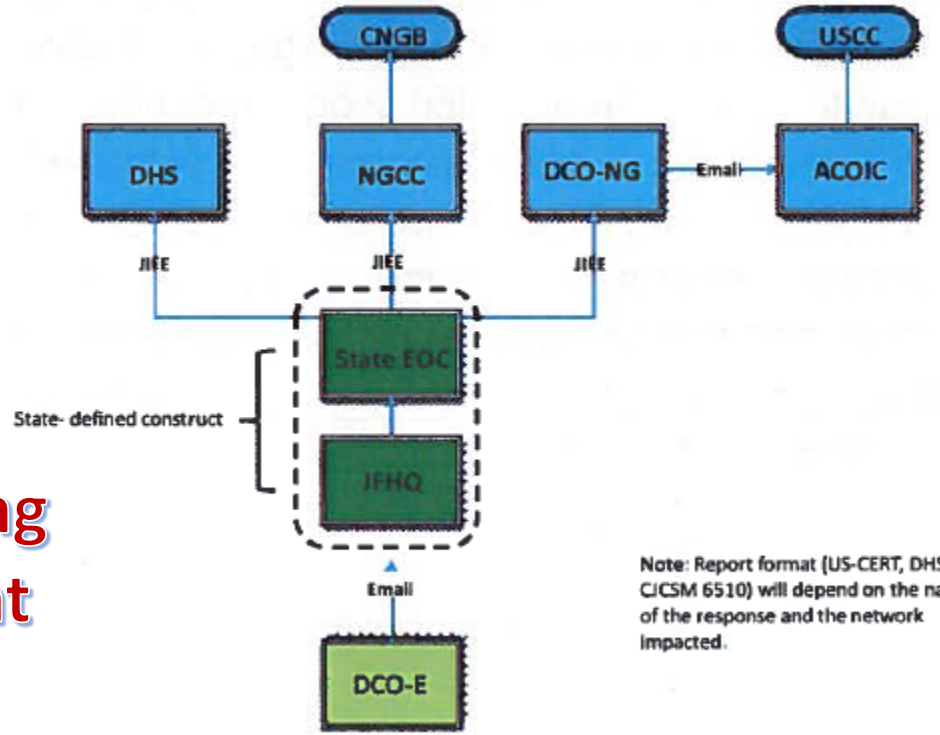
THE JOINT STAFF




**Public Private Partnerships**

**Coordinate, Train, Advise & Assist**

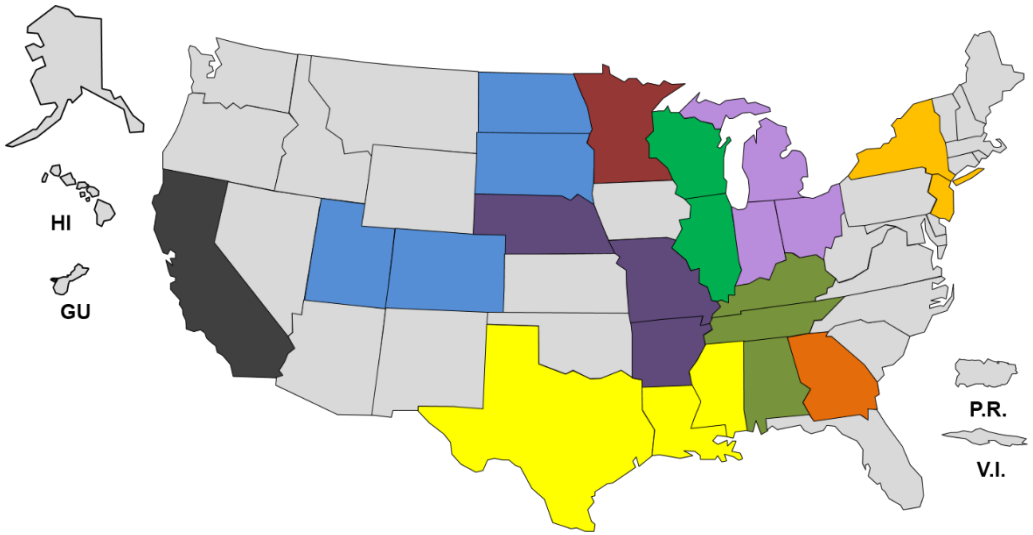
**Relationship Building BEFORE an Incident**

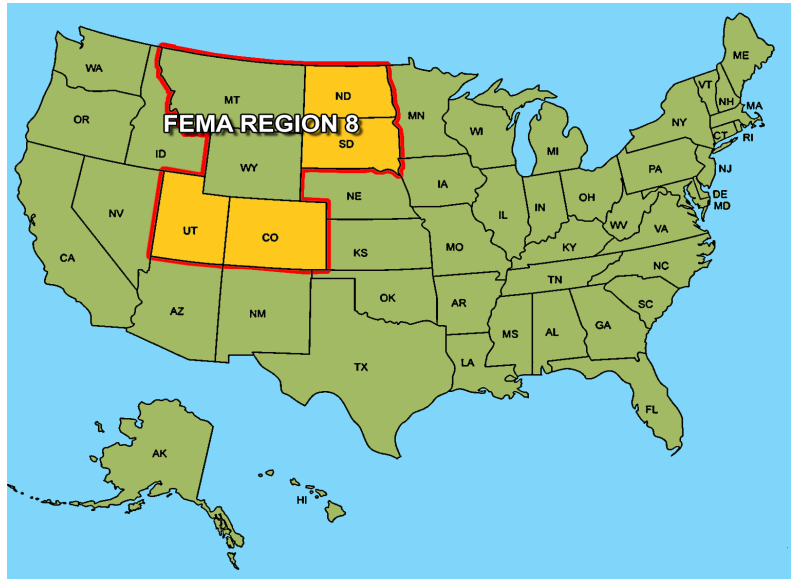



Note: Report format (US-CERT, DHS, CJCSM 6510) will depend on the nature of the response and the network impacted.

# Colorado Army National Guard Cyber Teams

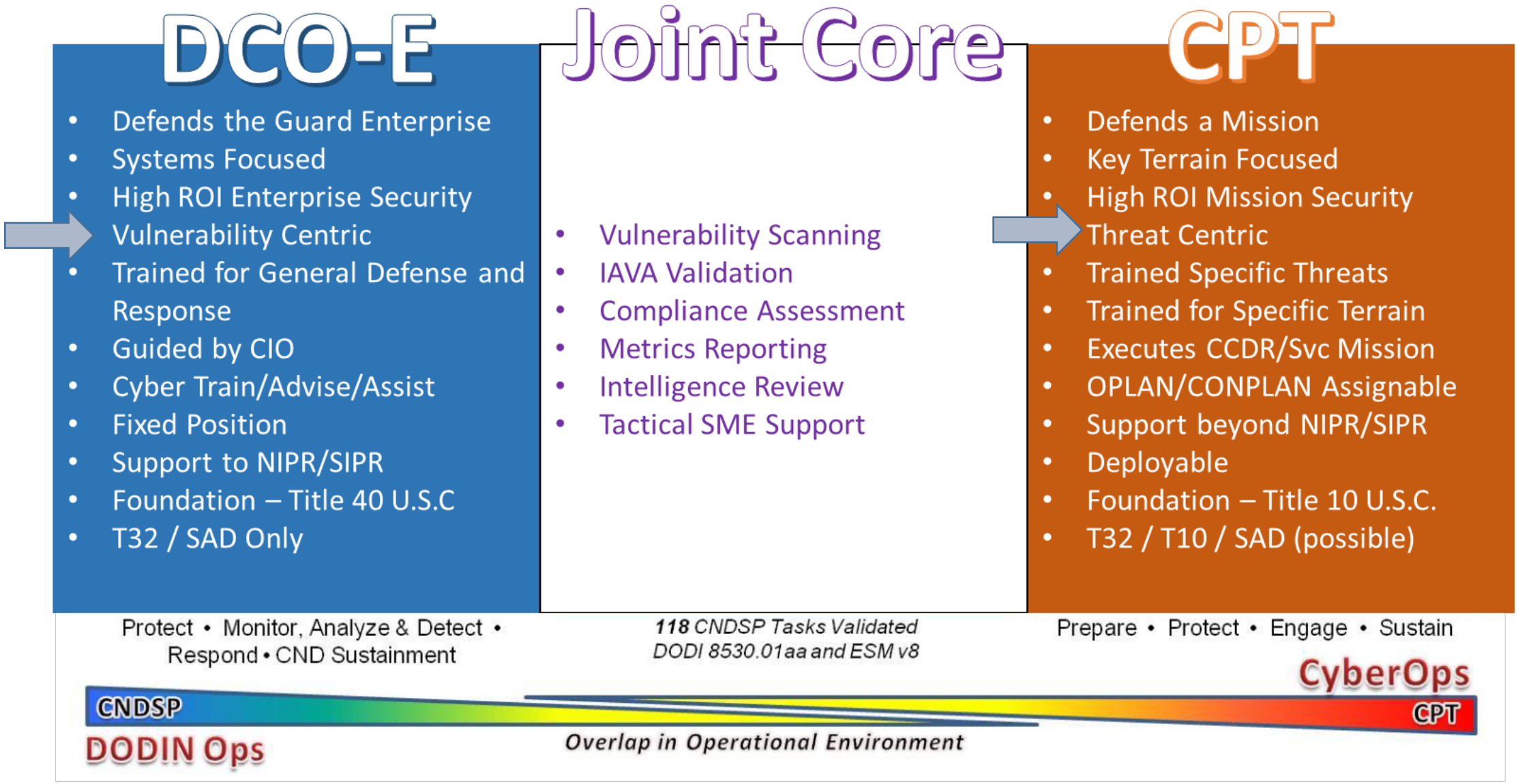
## Cyber Protection Team (CPT) 174

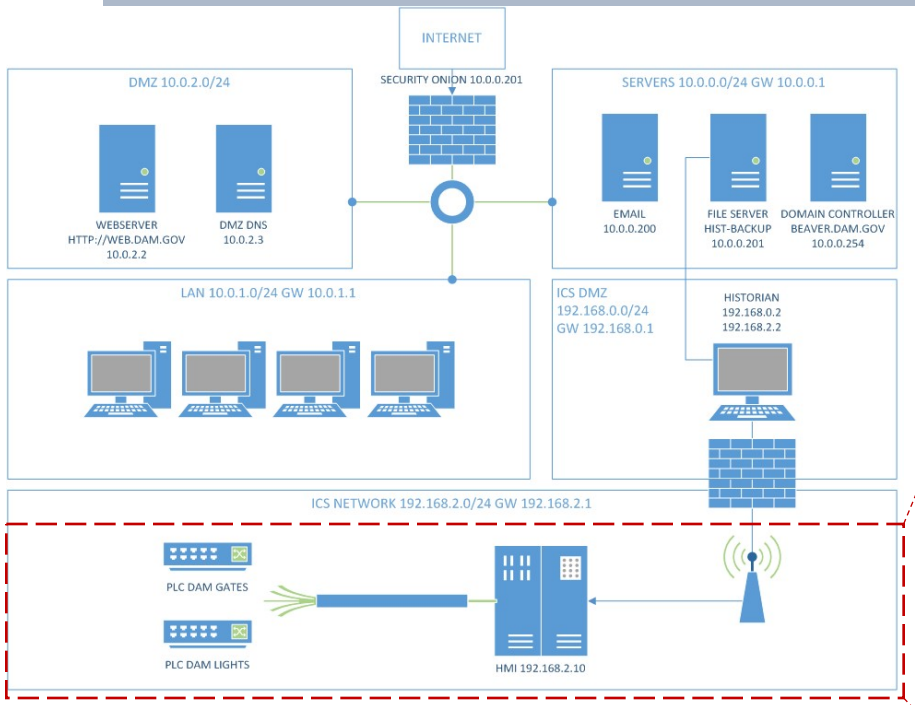

## Defensive Cyber Operations-Element (DCO-E)

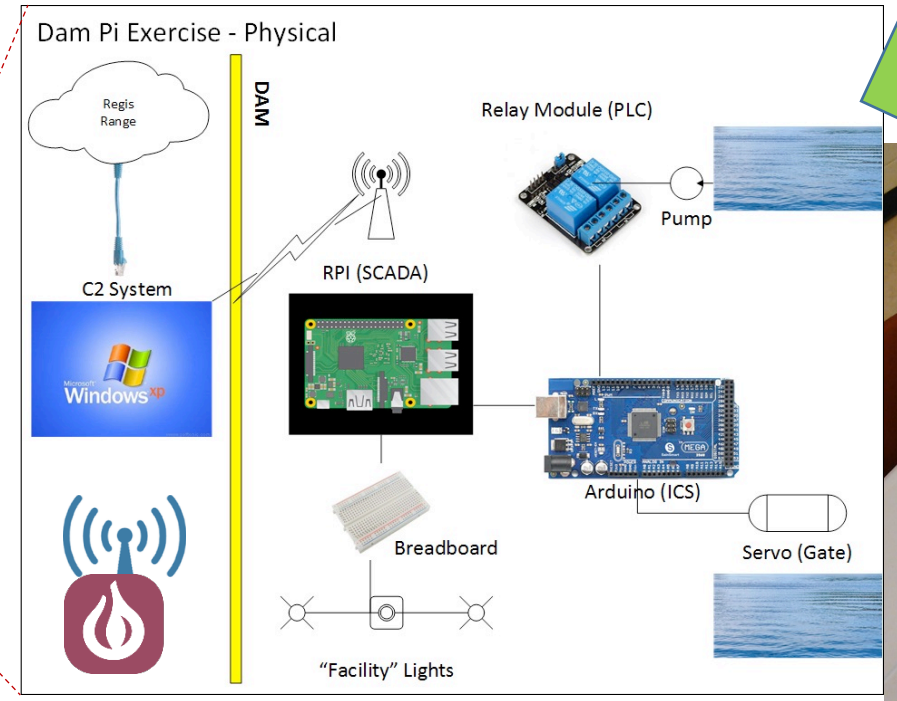
# CPT and DCO-E Comparison



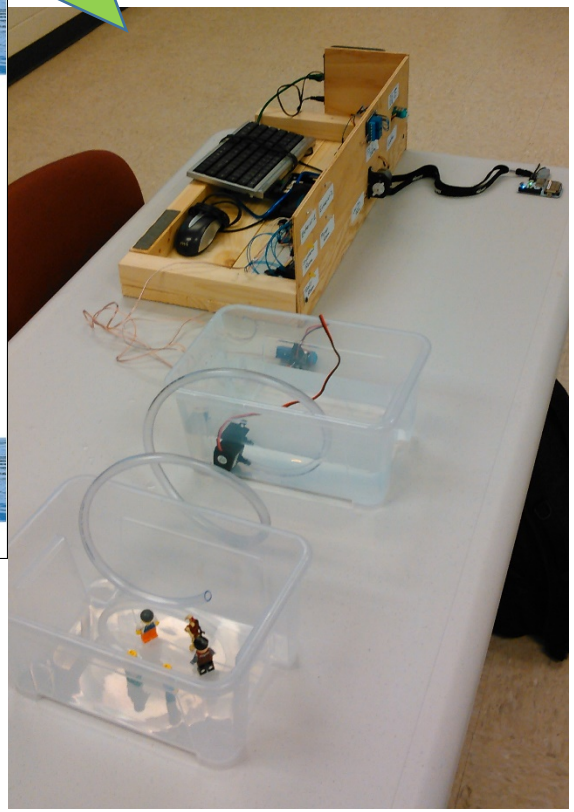

*Computer Network Defense Service Provider

# Exercise & Kinetic Cyber Demo




Kinetic Cyber Simulator

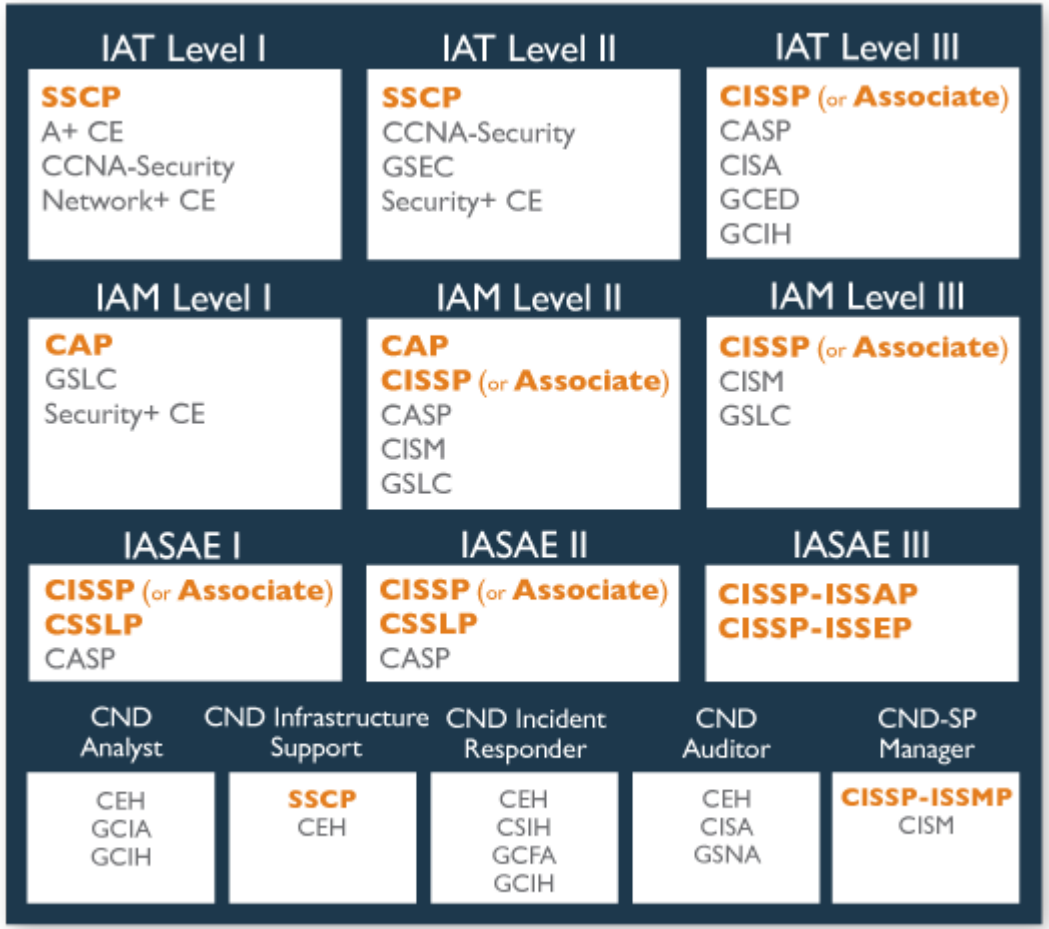


- Dam Simulator Vulnerabilities
- Rogue Access Point
- WAP with a Critical Vulnerability
- Attack Vectors
- Live Exploits
- Aftermath…

Engagement with Mission Partners including:
State, County, Local Governments; Academia;
Critical Infrastructure Owners; Industry

# Certifications & Training

**DoD 8570-M (soon to be replace by DoD 8140-M)**




## Training Sources:

- Cyber Center of Excellence (Fort Gordon, GA)
- National Guard Professional Education Center
- Cyber Center of Excellence Mobile Training Teams
- Academia
- Contracted (e.g. SANS Institute)

## Cyber Exercises:

- Cyber Shield (National)
- Cyber Guard (National)
- Cyber Yankee (Regional)
- Local/State (e.g. Vital Connection in Colorado)

Many Soldiers from industry with skills such as: Penetration Testing, Coding, Auditing, Systems Administration, Systems Engineering, Network Security, Routing and Switching, Application Development, etc…

# Contact

LTC Brad Rhodes

- Email: brad.e.rhodes.mil@mail.mil

# Q & A

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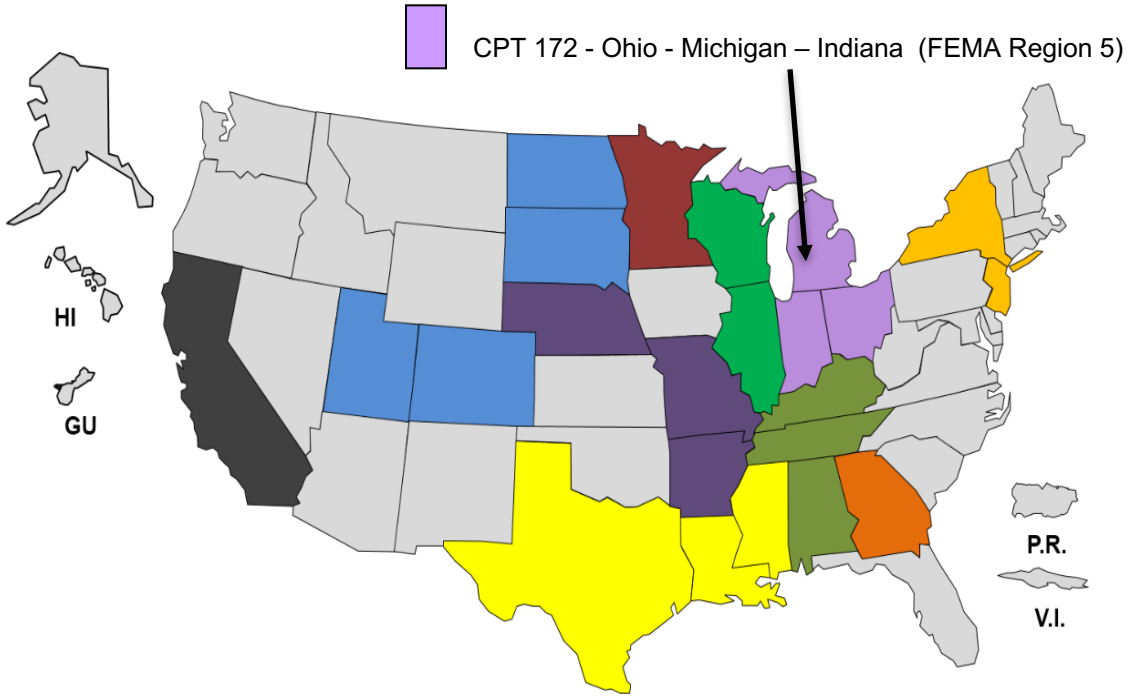
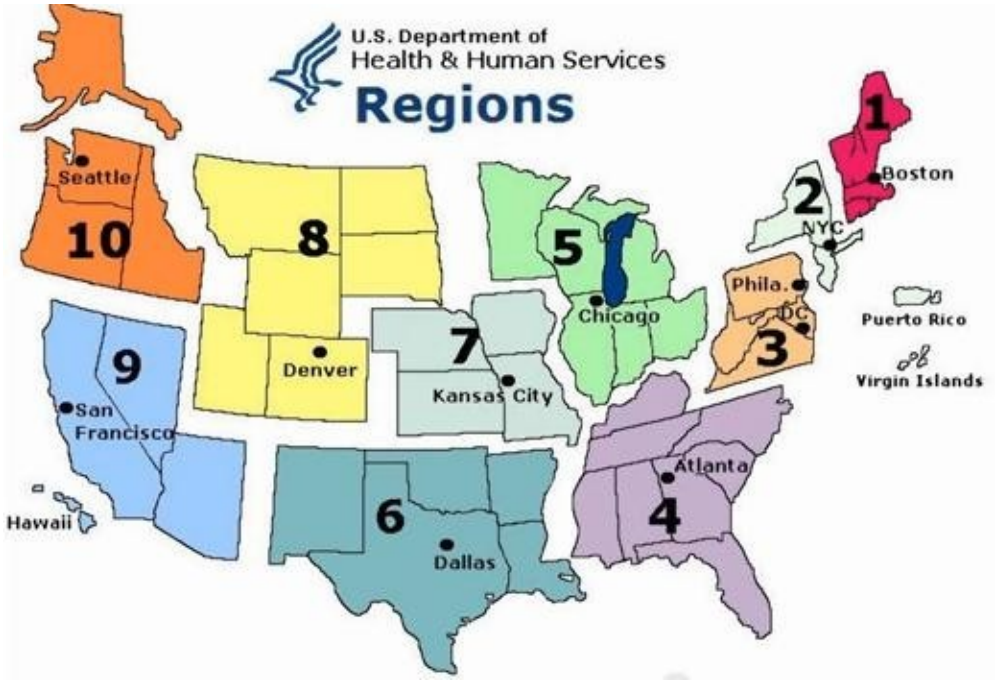
# Michigan Army National Guard Cyber Operations

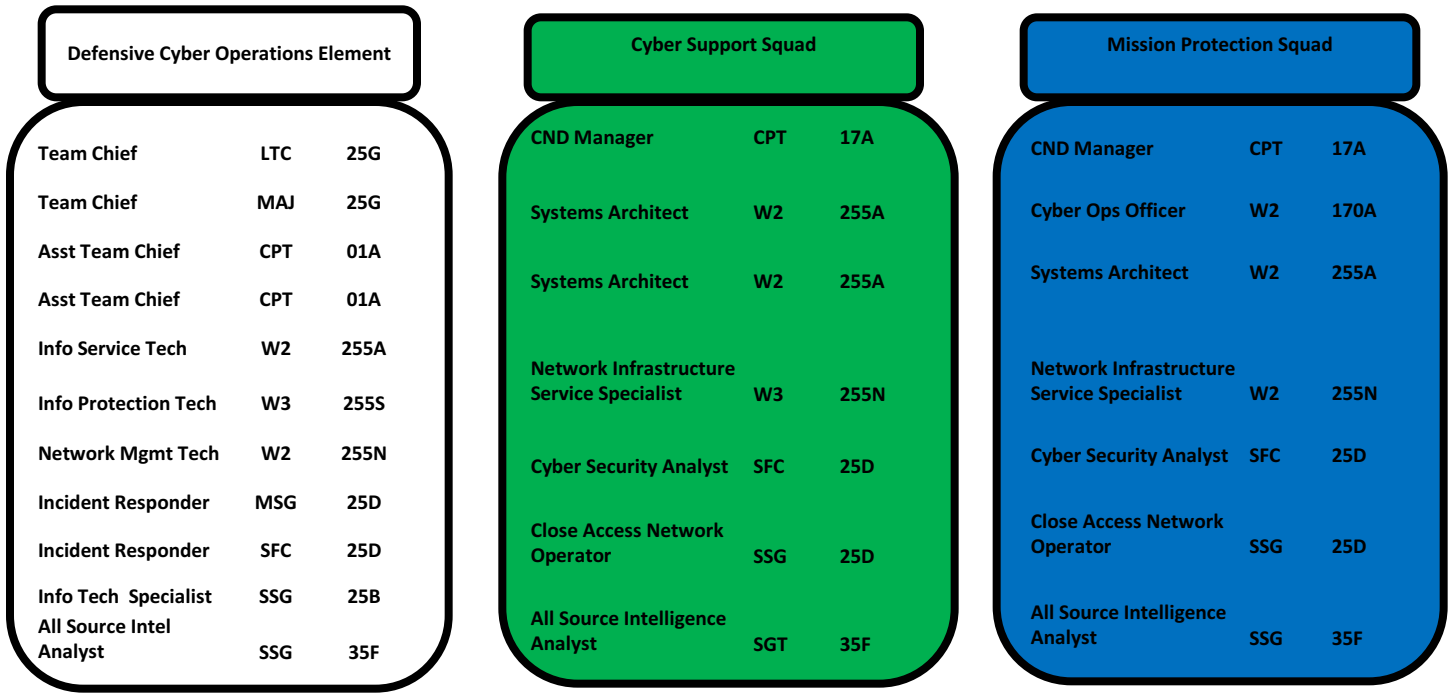


# Training Approach

- Army and Air Guard train in similar fashion
- Often we attend exercises with a joint team (Cyber Shield 2018 we expect to take a multi agency team)
- Both teams are stretched thin and recruiting and training as fast as we can
- Army is currently working toward recruiting 150% - 200% strength

# Michigan Army National Guard Task Organization

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# Training Approach

Though we have distinct Task Organization, the we (Army) view our 3 sections as one team and train everyone to function on all teams.

Advantages:

- Can leverage expertise across the teams for internal training
- Allows Leadership to spread the wealth when ad-hoc missions come down
- Team is exposed to wide range of training

Disadvantages:

- Training may not be as in depth as it may otherwise be
- Team is expected to maintain a broader range of knowledge

# Support in Michigan

**Defend the Guard Military Network in Michigan**

- We can be activated to supplement the full time organization if the need arises
- By doctrine, this is the mission of the DCO-E.  However, we reach across all teams
- We were recently activated to respond to an incident

**Support Local Industry**

- State Police are the lead agency
- Guard can be activated by the Governor using State Active Duty funding
- Guardsmen can only Coordinate, Train, Assist, and Advise
- We have been activated one time to assist a hospital during the Flint Water Crisis

# External Support

**Federal Government**

- Members of the National Guard can be activated under Title 10
- By doctrine, this is the mission of the CPT
- Currently have 9 pax on Title 10
- Will not necessarily mobilize a total unit, may ask for eaches
- Annual rotations for the foreseeable future

**Challenges**

- Security Clearances – Top Secret takes a year or more to get approved
- Amount and length of training
  - Takes roughly 2 years to train a Warrant Officer
  - Takes roughly 15 months +/- to train a Cyber Operations Officer
- Retention – private sector wants our people as they are highly skilled

# Contact Data

**Major Robert A. Maciolek,**
**Team Chief, Defensive Cyber Operations, Michigan Army National Guard**

Army: robert.a.maciolek2.mil@mail.mil

Civilian: mac@staticlinesoftware.com

# Q & A

# Michigan Cyber Civilian Corps

21 June 2017

Ray Davidson PhD, CISSP, GIAC 0x0B

# MiC3: Overview

Information security professionals who volunteer to provide expert assistance to enhance the State's ability to rapidly resolve cyber incidents when Activated under a Governor declared State of Emergency

- Operate under state Cyber Disruption Response plan
- Legislation in process
  - Provides tort immunity; indemnity
  - Lower threshold to Activate
  - Provide for Advisory Board
- Community Service

# MiC3: Overview

**Unique:**

- Only state sponsored all-volunteer force of cyber defenders (to date)(that we know of!)
- 56 Members (as of today; 200 by YE 2018)
- Half of members meet DoD Directive 8570 for skills Certifications (GCIH and others)

# MiC3: Requirements to Apply

- **Members must have:**

- At least two years of information security, incident response, and/or digital or network forensics
- One foundational Security certification
  - (Security+, C|EH, CISSP, or GIAC, etc.)
- 10 days of support from employer (a signed letter of agreement is required)
- 5-6 days for training, 1-2 exercises, community volunteering, etc. (weekends possible in the count)

# MiC3: Membership Requirements (1)

## Pass a series of Security Competency Assessments

- Series of tests to demonstrate basic and advanced knowledge of networking and security concepts, as well as basic IR (Incident Response) and Forensics skills

# MiC3: Membership Requirements (2)

## Background Check

"Ten-Print" (FBI National) background check

## Confidential Disclosure Agreement

To address potential conflicts of interest

# MiC3: Membership Benefits

**Training**

- Significant Training Opportunities
  - 2016: SANS SEC504, 2017: SANS SEC511
- Collaboration with National Guard & State Police

**Prof Dev**

- Networking throughout Michigan
- Collaboration with IT security professionals across multiple economic verticals, industries, the academy, public sector, local government, and private sector

**Civic Duty**

- Providing members a platform to aid the state in crisis (or preventing it!) while doing what they love

# MiC3: History

Governor Rick Snyder's idea: MiC3, announcement at 2013 North American International Cyber Summit

Partnership between the State of Michigan, the Merit Network Inc., and Mich Health and Humans Services

Decision was made to consolidate the program management with the State of Michigan, with Merit as a partner

21st Century Infrastructure Commission Report (Communications) Gov. Snyder sets goal of expanding MiC3 to 200

**2013** **2015** **2016** **2017**

# MiC3: Calendar


**Planned 2017 Events**

**April 12**

Ferris State University Day-Long and Exercise

**July 24-29**

SANS Training
SEC511

**October 30**

North American International Cyber Summit

# MiC3: Contact Us

- **Contacts**

- Ray Davidson, Ph.D., CISSP, ETC (Program Manager)
  DavidsonR5@michigan.gov,
  ray@kzodavidsons.org Twitter: @raydavidson
- Patrick Chandler (Project Coordinator) - ChandlerP@michigan.gov
- Paul Groll, MS, CISSO, CISSP, CCSE (Executive Sponsor) - GrollP@michigan.gov

- **Links**

- MiC3 Website https://www.micybercorps.org

# Q & A

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