OHIO FUSION CENTER NETWORK (OFCN)

Statewide Terrorism Analysis & Crime Center
Capt. Ron Raines
1-877-OHS-INTEL (647-4683)
Email: STACC@dps.ohio.gov
Website: https://stacc.ohio.gov/

Northeast Ohio Regional Fusion Center (NEORFC)
Mike Herb, Director
Phone: (216) 515-8477
Email: info@neorfc.us
Website: http://www.neorfc.us/

Greater Cincinnati Fusion Center (GCFC)
Lt. Jennifer Mitsch, Director
Phone: (513) 263-8000
Email: gcfc@gcfc.org
Website: http://www.gcfc.org/

STATEWIDE TERRORISM ANALYSIS & CRIME CENTER (STACC)

- Ohio EMA building (EMA Watch Desk information sharing)
- Ohio National Guard
- OSP Watch Desk Commanders
- OSP Intel
- DHS Intel and Analysis; CISA
- OACP; BSSA
- Columbus PD – CTU and Columbus Fire

TERRORISM ANALYSIS UNIT (TAU)

➢ Facilitates the collection, analysis and dissemination of intelligence information

➢ Provides first responders, the private sector and other partners with quick, accurate, actionable intelligence

TAU SPECIALTY AREAS

➤ Domestic Terrorism/HVE/RMVE/AGAAVE

➤ Foreign Terrorism

➤ Transnational Terrorism/Organized Crime

➤ Counterterrorism/Counterintelligence

➤ Chemical, Biological, Radiological, Nuclear, Explosives (CBRNE)

➤ Sovereign Citizens

➤ Infrastructure Protection

➤ Economic Intelligence

➤ Cybersecurity

OSHP CRIMINAL INTELLIGENCE UNIT

OSHP Intelligence Analysts are trained in a number of disciplines and provide analytical support for a wide variety of criminal activities.
The Intelligence Unit currently provides 24/7 support to internal and external law enforcement customers
Areas of Focus:
- ➤ Human Trafficking
- ➤ Money Laundering/Fraud
- ➤ Drugs/Criminal Patrol
- ➤ Criminal Organizations/Gangs
- ➤ Force Protection

PRIVATE INVESTIGATOR SECURITY GUARD SERVICE (PISGS)

Private Investigator Security Guard Services (PISGS), a component of Ohio Homeland Security, licenses and regulates the private investigator and security services industry in Ohio. There are nearly 900 licensed providers who employ more than 24,000 registered employees throughout Ohio.

CRITICAL INFRASTRUCTURE
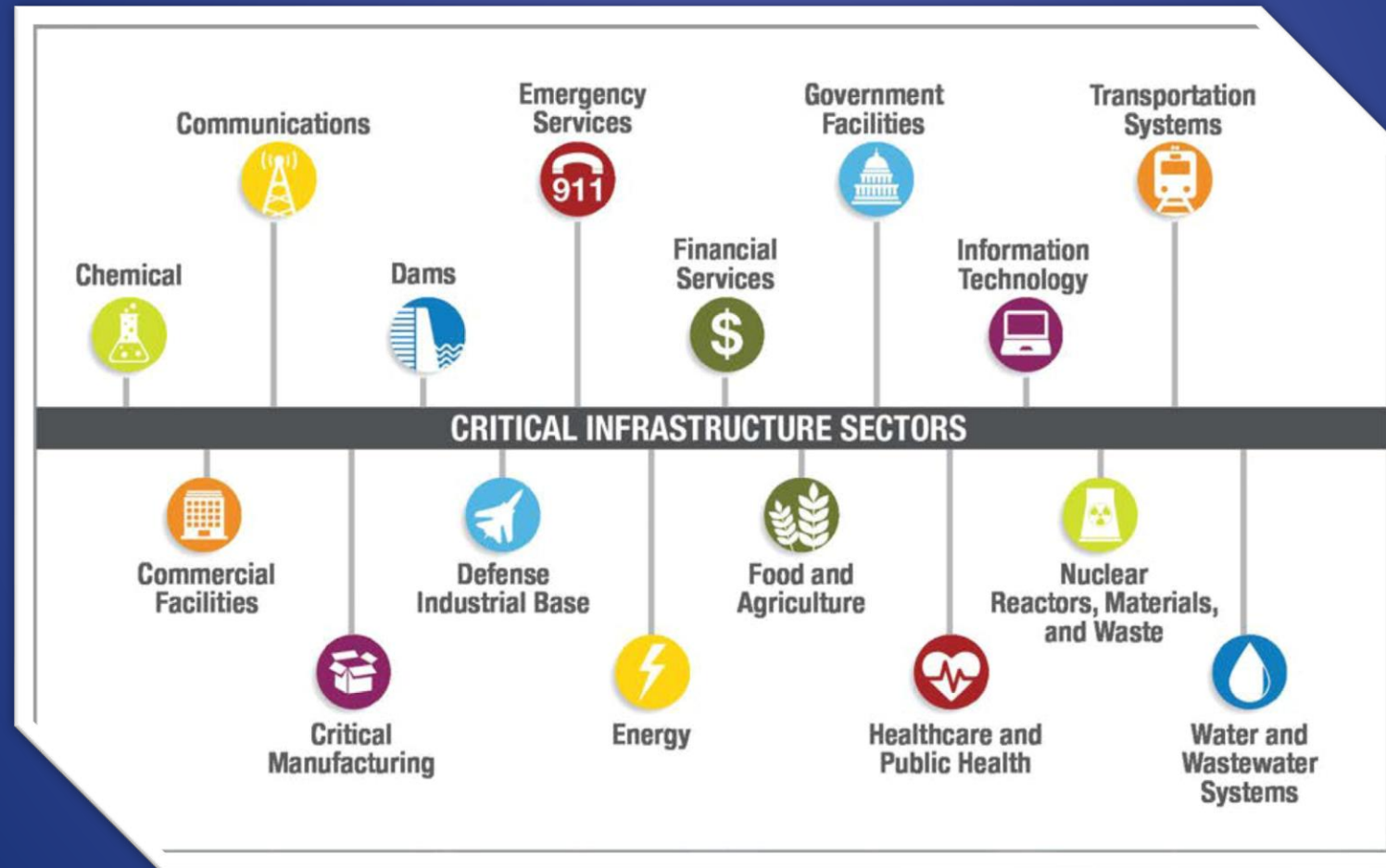
CRITICAL INFRASTRUCTURE

➢ Threat assessments and security surveys
➢ Administration of OHS's Communication & Information Management System (CIMS)
➢ Skywatch Tower deployments to enhance security at large events
➢ General consultation regarding physical security and operational security

THREAT ASSESSMENTS AND SECURITY SURVEYS

➢ The CIU threat assessment and security survey process consists of an all hazards approach to identifying threats to a facility or infrastructure, followed by an onsite examination of protective measures, operations, systems and procedures to assess the current level of security, identify existing vulnerabilities, and ultimately provide mitigative recommendations for consideration.

➢ Non-regulatory

➢ Available to both public and private organization… at zero cost

COMMUNICATION AND INFORMATION MANAGEMENT SYSTEM (CIMS)

➢ Ohio Homeland Security's primary information dissemination tool

- Houses LES/FOUO intelligence products impacting healthcare, public health, government facilities, cybersecurity, and more

➢ Free to sign up:

- https://services.dps.ohio.gov/CIMS/Login.aspx

- CIMS Administration will verify your role and contact information with a supervisor to vet level of access.

CIMS PROGRAMS & INFORMATION

➢ LE Bulletins

➢ Emergency Response Plans

➢ Critical Infrastructure

➢ Trainings throughout Ohio

➢ Law Enforcement Sensitive Product Designations

➢ Cyber Alerts

➢ Terrorism / Criminal Alerts

SKYWATCH TOWER

➤ SkyWatch Towers deploy to special events to assist with event security
- Up to two towers may be requested and depends on availability

➤ 4 PTZ cameras and communication capabilities with local Law Enforcement

➤ Mitigates and deters fights, traffic, general crime, and crowd chaos

➤ It provides an observation platform roughly 30 feet in the air

➤ Past events include the Toledo Air Show, Taste of Cincinnati, several marathons in Columbus/Cleveland, Circleville Pumpkin Show, OSU football games and County Fairs

EDUCATION AND OUTREACH UNIT

➢ Programs:
- Ohio Public Private Partnership (OP3) Program
- Intelligence Liaison Officer (ILO) Program

➢ Overall Mission:
- Foster local, statewide and regional intelligence and information collaboration
- Build relationships with local representatives

OHIO PUBLIC PRIVATE PARTNERSHIP (OP3)

➢ The OP3 program assists <u>information sharing</u> across public and private sectors.

➢ The mission of OP3 is to <u>build a network</u> of government agencies, businesses, associations, education institutions, and non-profits in order to *assist* in disaster prevention, protection, mitigation, response, and recovery efforts that *collaborate* in building business continuity, a speedy recovery, quality of life, and an overall safer Ohio.

OP3 BENEFITS

- Membership to secure databases
  - Communication & Information Management System (CIMS)
  - Homeland Security Information Network (HSIN)
- Information Sharing
  - Unclassified Briefs
  - Monthly newsletter updates and ad-hoc bulletins / emails
- Annual conference, regional gatherings, forums, exercises, and workshops
- Connect and network with other OP3 partners
- Little or no-cost training opportunities
- Be a collective force for good (force-multiplier)

OP3 AMBASSADORS

- ➢ Bruce Hennes – Hennes Communications

- ➢ David Hosier – Oswald Companies

- ➢ Jay Johnson – Voinovich Academy: Ohio University – Dublin

- ➢ Laurie Zaccaro – Walgreen's

- ➢ Matthew Keefe – Department of Public Safety: Bowling Green University

- ➢ Sean Miller, Ohio EMA

- ➢ Shane Schaefer – Kentucky Petroleum Marketers Association & Accounting Financial Women's Alliance

INTELLIGENCE LIAISON OFFICER (ILO) PROGRAM

Goal

Increase local, statewide and regional intelligence collaboration by building relationships on a grass-roots level with local representatives.

Mission

Foster timely reporting of information to the Ohio Fusion Center Network (OFCN) for the purpose of analysis, sharing, and dissemination of intelligence.

Overall

The ILO Program provides local agencies and first responders an increased overall intelligence awareness.

ILO PROGRAM

Fire/EMS

EMA

Public Health

Community Health / Health Care Facilities

Law Enforcement

Corrections

Private Sector

Education

Military/ National Guard

Faith Based

CONTACT INFORMATION

➢ OP3: OP3@dps.ohio.gov
➢ ILO: ILO@dps.ohio.gov
➢ Critical Infrastructure:
➢ PISGS: pisglr@dps.ohio.gov
➢ STACC: STACC@dps.ohio.gov

April 8, 2024 Total Solar Eclipse

T-167 Days

Colin Campbell, Planner
Planning, Training, & Exercise Branch

OHIO EMERGENCY
MANAGEMENT AGENCY

Eclipse Pathway

- First eclipse in Ohio since 1806

- Impacts 3 countries and 13 states in the United States

- Eclipse will travel across Ohio from southwest to northeast

- 55 counties will experience Totality

- 2-4 minutes of totality in 55 counties

Ohio Eclipse Areas
- Centerline Totality Area
- Full Totality Area
- Partial Totality Area
- Outside Totality Area

Total Solar Eclipse 2017 vs. 2024

	August 21, 2017	April 8, 2024
Population in path	12 million	32 million
Max Duration	2 min 40.2 secs	4 min 28.1 secs
Path width	71 miles	124 miles

The Great American Eclipse - 2017

What are the Impacts?

- Ohio is within a one-day drive of 70% of the U.S. population

- Local population in totality communities could double or triple

- Extreme demand for hotels, campsites, restaurants, entertainment facilities, parks, etc.

- Extreme traffic, stresses to local infrastructure

- Potential for local income generation

- Educational opportunities

How many people live inside and near the path of total solar eclipse?

298.5 million people live within 1000 miles
262.8 million people live within 800 miles
239.0 million people live within 600 miles
217.9 million people live within 400 miles
189.4 million people live within 300 miles
149.5 million people live within 200 miles
75.3 million people live within 100 miles
31,625,000 people in the USA live inside the path of total solar eclipse

Total Solar Eclipse
April 8, 2024

Great American Eclipse

GreatAmericanEclipse.com

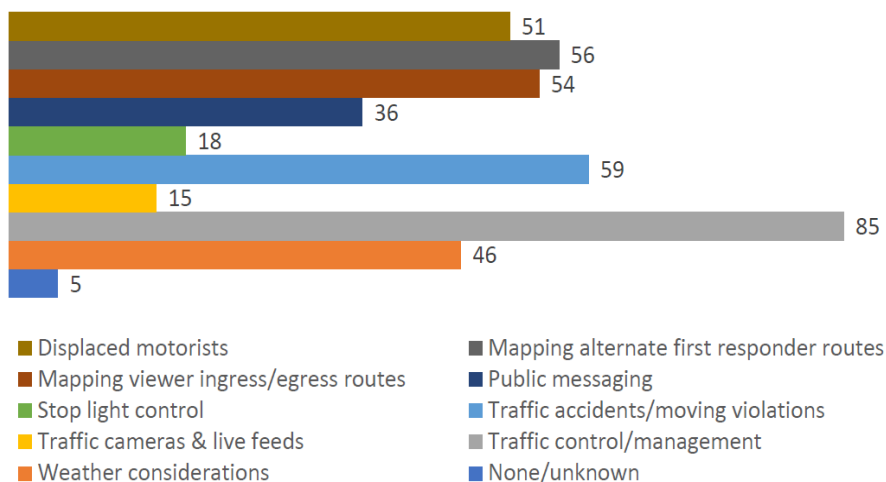# Areas of Concern: Messaging

- Ohio counties concerns:

QUESTION: What are your concerns involving potential transportation issues during the eclipse?

Top three responses:
1. Traffic control
2. Traffic accidents/moving violations
3. Mapping alternate first responder routes

- 51
- 56
- 54
- 36
- 18
- 59
- 15
- 85
- 46
- 5

- Displaced motorists
- Mapping viewer ingress/egress routes
- Stop light control
- Traffic cameras & live feeds
- Weather considerations
- Mapping alternate first responder routes
- Public messaging
- Traffic accidents/moving violations
- Traffic control/management
- None/unknown

- 2017 lessons learned
  - Unified messaging for before and after the eclipse was part of multiple state plans
  - Usage of statewide message boards was helpful in messaging to motorists
  - Webpages and social media were the main methods of providing information to residents and visitors
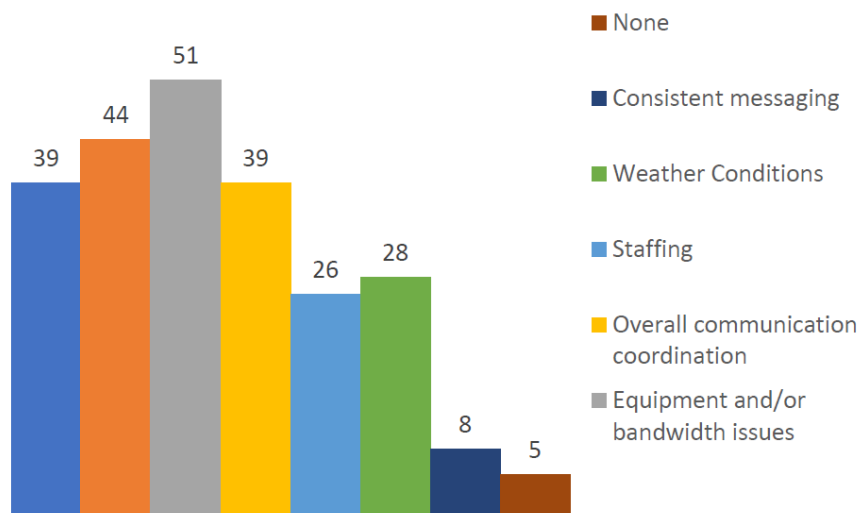
Areas of Concern: Operational Communications

- Ohio counties concerns:

QUESTION: What communication concerns do you have for eclipse response?

Top three responses:
1. Equipment and/or bandwidth issues
2. Communication with external partners
3. Communication with internal partners

- 2017 lessons learned
  - Large crowds impacted interoperable communication
  - Intra and interstate communication support was used
  - Impacted communication areas included public safety, public health, and air/ground transportation
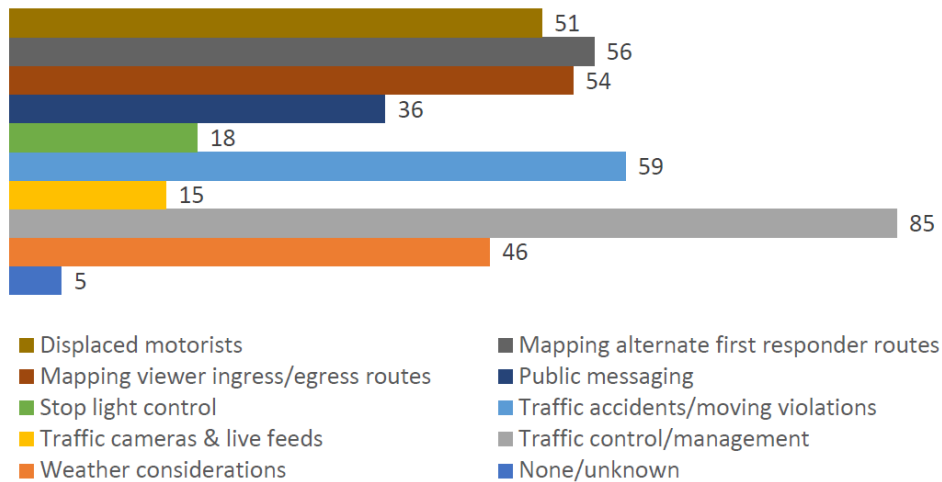
Areas of Concern: Traffic Management

- Ohio counties concerns:

QUESTION: What are your concerns involving potential transportation issues during the eclipse?

Top three responses:
1. Traffic control
2. Traffic accidents/moving violations
3. Mapping alternate first responder routes

- Displaced motorists
- Mapping viewer ingress/egress routes
- Stop light control
- Traffic cameras & live feeds
- Weather considerations
- Mapping alternate first responder routes
- Public messaging
- Traffic accidents/moving violations
- Traffic control/management
- None/unknown

- 2017 lessons learned
  - Large scale traffic congestion immediately after the event
  - Traffic congestion was experienced on all major traffic routes
  - Airport traffic drastically increased
   - 2,700 flights along path
    - 240 general airfields

Planning Considerations

- Local eclipse festivals and viewing parties – "Arrive Early, Stay Late"

- Population surge in short time period

- Traffic management

- Local emergency operational support
  - Public works
  - Law enforcement
  - Supplies
  - Sanitation
  - Communications

- Health, **safety,** and welfare
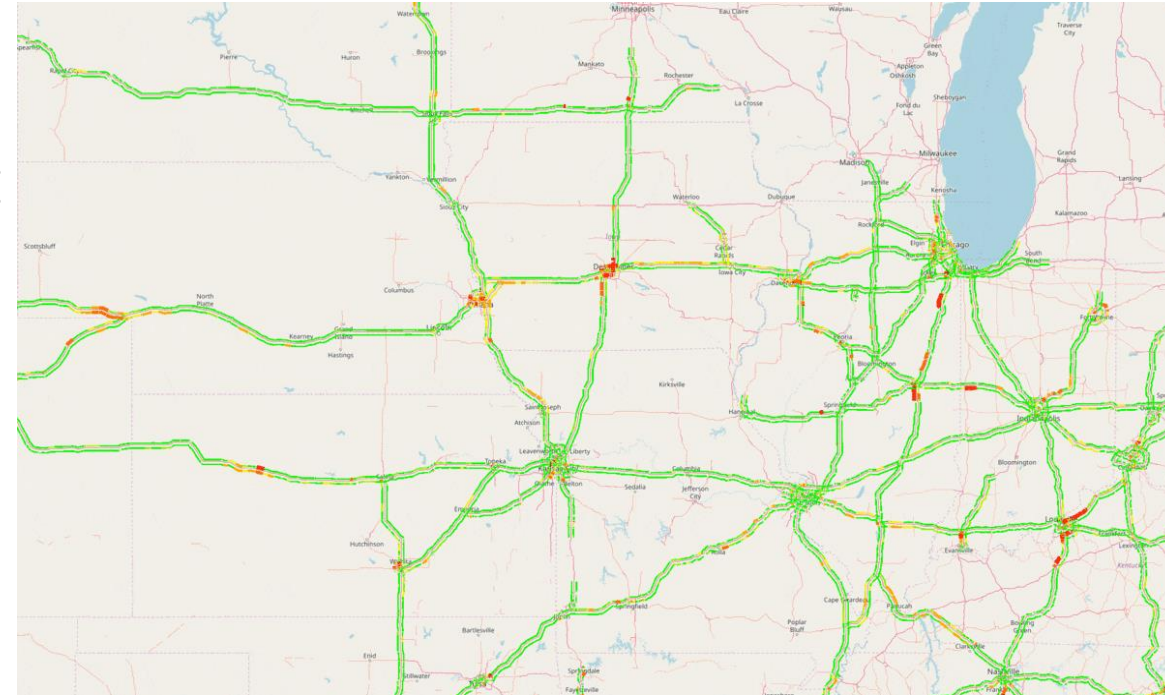
Weather in Ohio in April – Clouds or Not?

- The weather in Ohio in April is mild with temperatures between 39°F and 53°F

- You can expect rain for roughly half of the month of April in Ohio; expect roughly 8 to 15 days of rain

- You can expect a few days of snow in Ohio in April

- Historically, areas around Lake Erie in April experience less cloud cover than other parts of Ohio
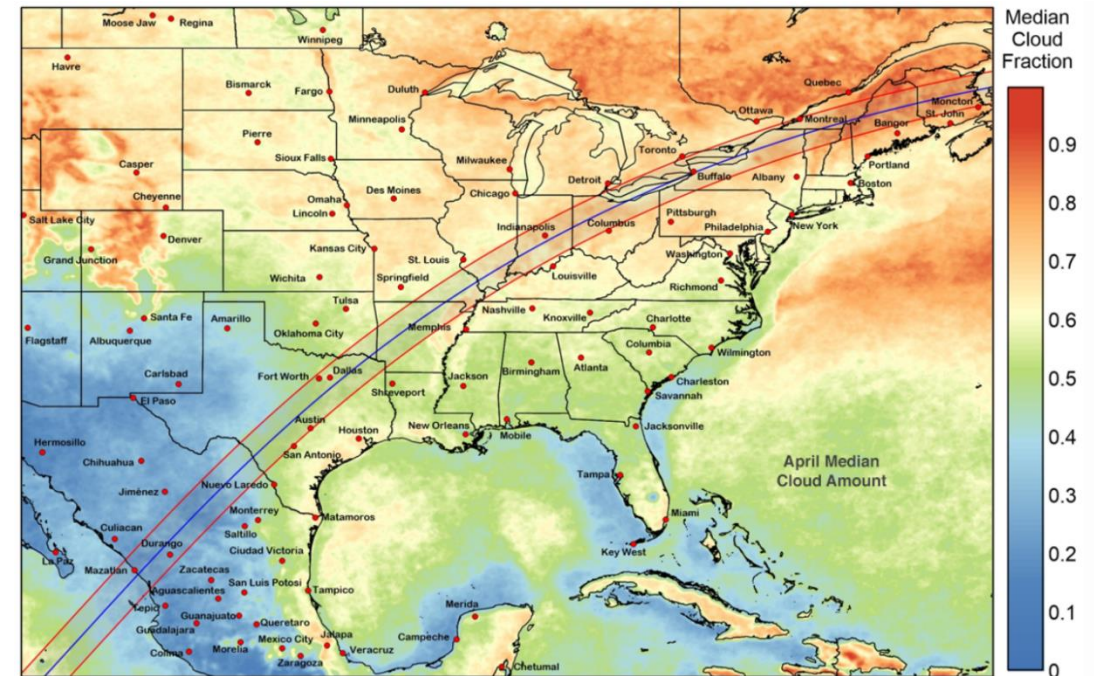
Typical April (2000-2020) cloud cover measured from the Aqua spacecraft at approximately 1:30 p.m. local time from 2000 to 2020. The path of totality on April 8, 2024, is shown with red lines marking the northern and southern limits and a blue line up the center. Note the large number of major cities within the path or only a short drive away. Based on this map, Mexico and southern Texas offer the best prospects for a clear view of totality. Data: NASA. Eclipse track: Fred Espenak. Courtesy Jay Anderson, Eclipsophile.com.
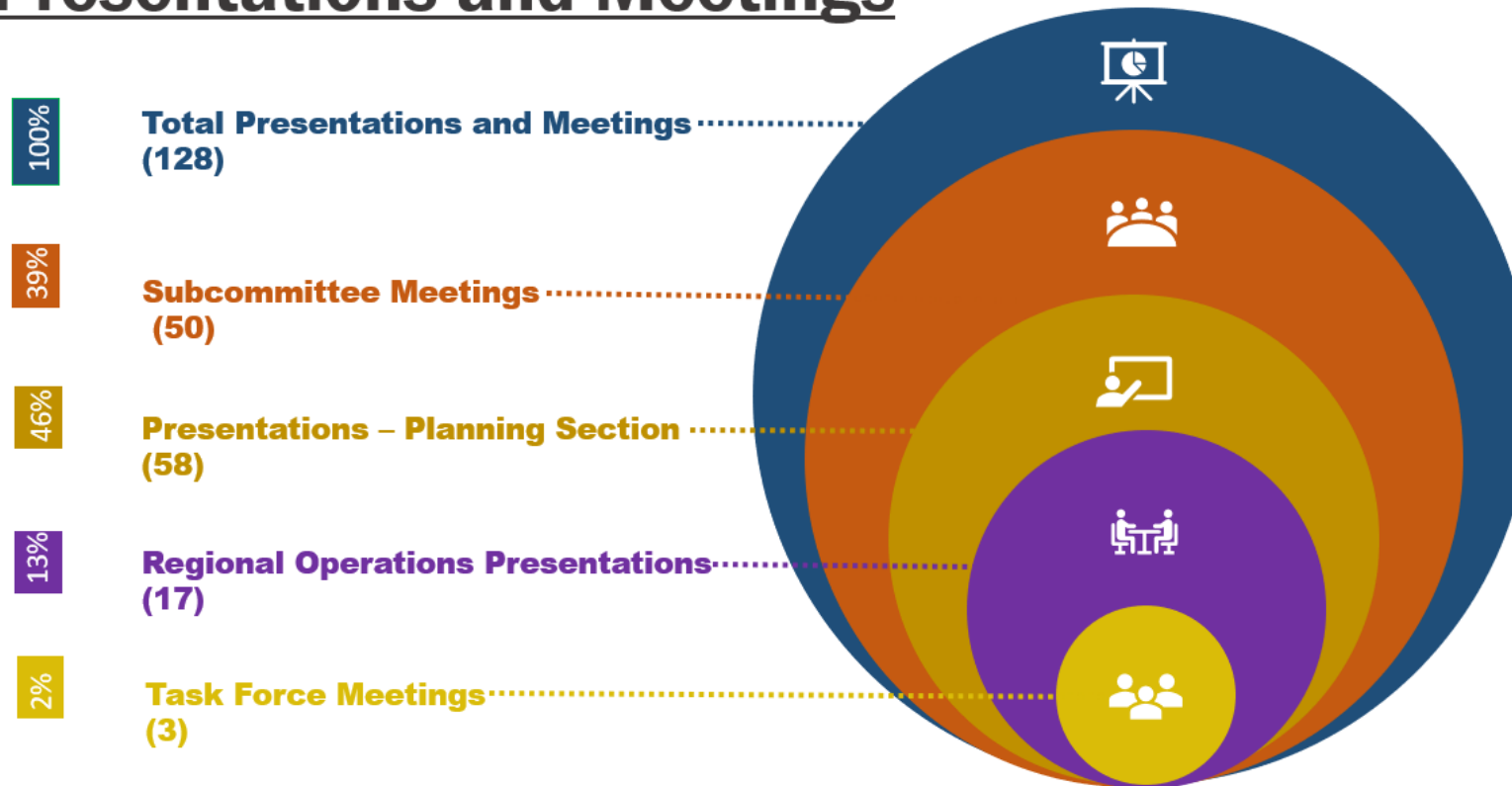
Statewide Planning Efforts

- Formed a State-level Eclipse Planning Task Force
- Bring awareness to partners - local/state & private/public
- Development of state level plans, guidance documents, and agency specific plans
- State eclipse website – Eclipse.Ohio.gov

Ohio TOTAL SOLAR ECLIPSE — APRIL 8, 2024

Ohio EMA and Eclipse Planning TF Engagements

Presentations and Meetings

- 100% — **Total Presentations and Meetings (128)**
- 39% — **Subcommittee Meetings (50)**
- 46% — **Presentations – Planning Section (58)**
- 13% — **Regional Operations Presentations (17)**
- 2% — **Task Force Meetings (3)**

July 2021 – October 2023

Task Force Partners

Questions

T-167 Days until April 8th, 2024

Colin Campbell, Planner – cecampbell@dps.ohio.gov
Christen Swayer-Cunningham, Planning Supervisor - cbcunningham@dps.ohio.gov

COMMUNITY EMERGENCY RESPONSE TEAM
CERT
BUSINESS RESILIENCE STRATEGY

U.S. POPULATION VS FIRST RESPONDER RATIO

U.S. POPULATION / FIRST RESPONDER RATIO

5,231,191

329,500,000

■ POPULATION   ■ FIRST RESPONDERS
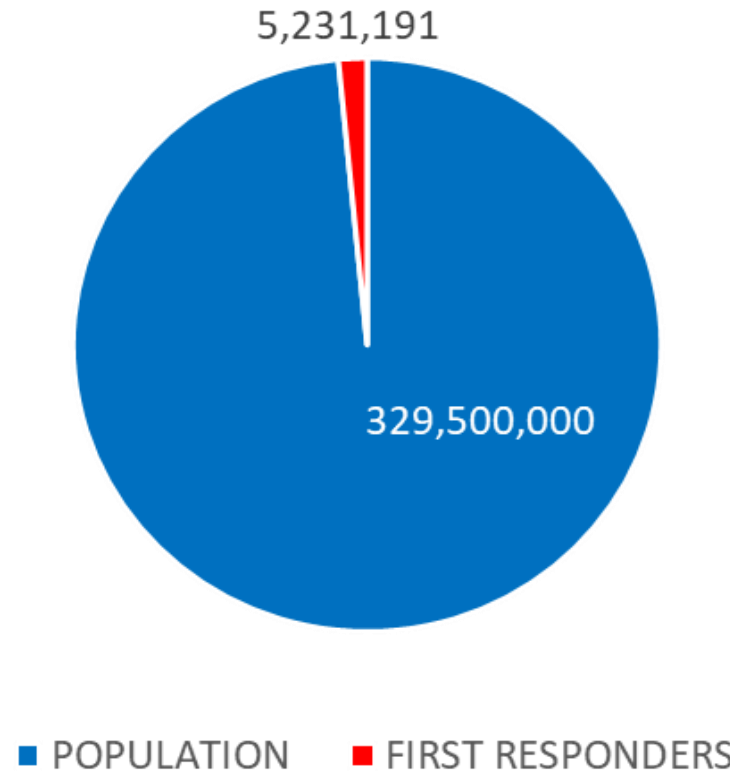
2020 RISK ASSESSMENT

WHAT ARE THE RISKS?

2020 FRANKLIN COUNTY RISK ASSESSMENT

1. **Flooding**
2. **HAZMAT (Transportation)**
3. **Pandemic**
4. **Cyber Threat**
5. **Extreme Cold**
6. **Severe Weather (Summer)**
7. **Active Shooter**
8. **Extreme Heat**
9. **Tornado**
10. **Terrorist Incident**
11. **Severe Weather (Winter)**
12. **HAZMAT (Fixed Facility)**
13. **Radiological Incident**
14. **Drought**
15. **Civil Disturbance**
16. **Dam Failure**
17. **Earthquake**

PREPAREDNESS AS A BUSINESS STRATEGY AT WORK

Preparedness as A Business Strategy

Employees rely on companies to provide a safe and economically resilience work environment.

What if your business is shut down for an emergency?

What if your business is damaged or destroyed?

Disaster resilient companies mitigate business impacts by preparing the workplace

BUSINESS IMPACTS

NATURAL DISASTER IMPACT

IMMEDIATE	ONE YEAR LATER	THREE YEARS LATER
40% OF SMALL BUSINESSES WON'T REOPEN	**25%** MORE SMALL BUSINESSES WILL CLOSE	**75%** OF BUSINESSES WITHOUT A CONTINUITY PLAN WILL FAIL

Source: 2014 data from the Federal Emergency Management Agency (FEMA) and US Department of Labor
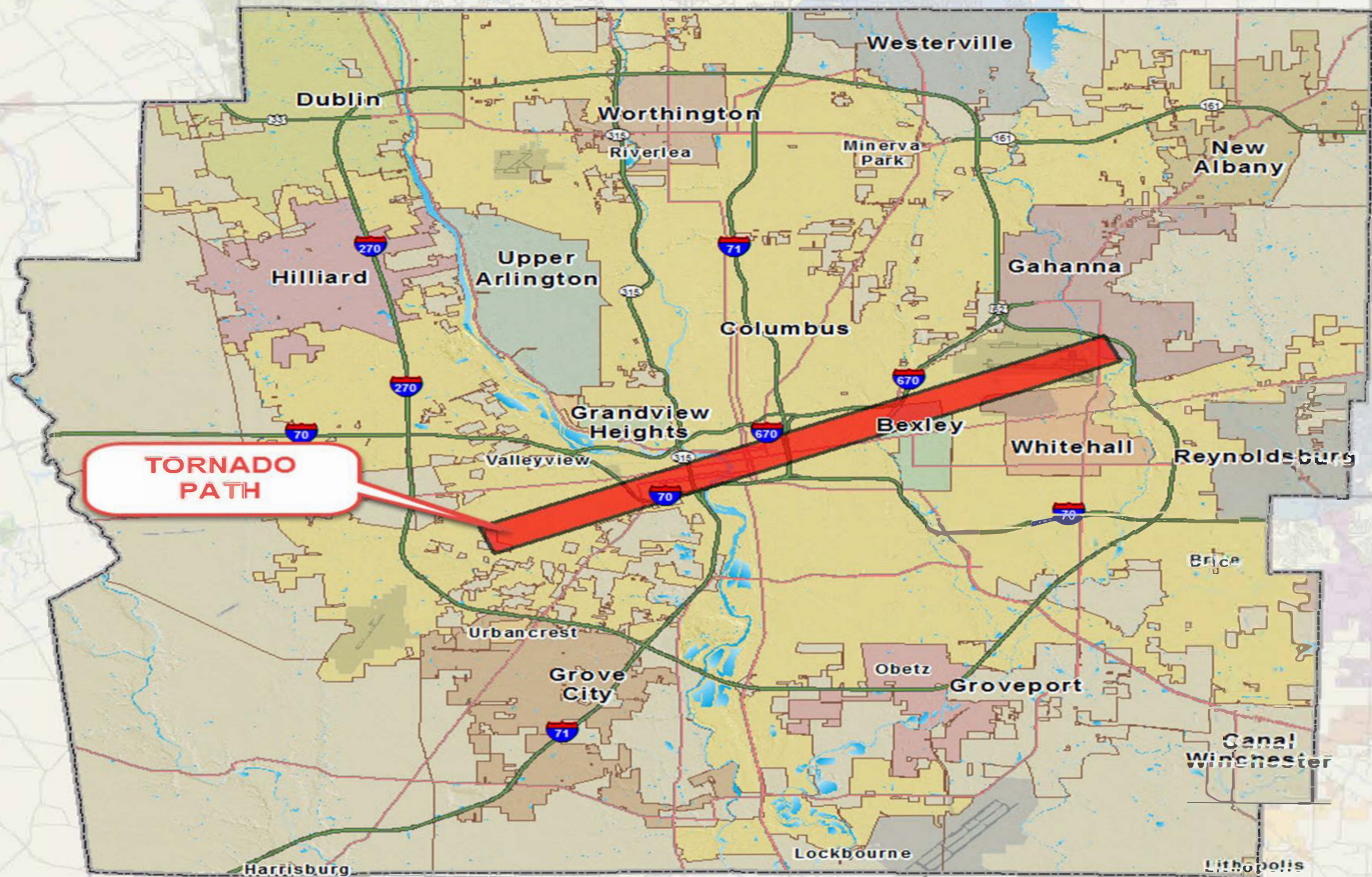
Tornado Scenario – Damage

- This is based on an EF-5 tornado scenario similar to the Joplin, Missouri tornado.

- This tornado reached a mile wide at one point, had winds of greater than 200 MPH, peaking at 250 MPH, and remained on the ground for 46 minutes leaving a scar on the ground for 22 miles, with 6 of those miles destroying virtually everything.

Community Impacts

Impacts on Population:

Residential Population: 67, 751

Single Parents: 7,634

Minority: 28,529

Median Household Income: $38,093.00

Below poverty: 36,574

Impacts on Property:

Number of properties: 23,179

Number of Buildings: 30,826

Property valuation: 3,311,651,100

Impacts on Emergency Services:

Fire Stations: 7

Police Stations: 8

Sirens: 7

Impacts on Community:

Jurisdictions: 8

Public schools: 37 (5 school districts)

Noticeable places: 16 (COSI, Columbus Museum of Art)

Public Libraries: 6

Care Centers: 22 (senior/assisted living centers, Red Cross shelters, dialysis centers)

Regional Hospitals: 3 (Mount Carmel, Ohio State University Hospital East, Grant)

Downtown Buildings: 40 (16 governmental buildings)

Critical infrastructure: Port Columbus International Airport

Preparedness as A Business Strategy

Active shooter incidents: Where you're most at risk

Number of incidents, 2000-2013

- Businesses: 73 — 45.6%
- Schools: 39 — 24.4%
- Government properties: 16 — 10%
- Open spaces: 15 — 9.4%
- Residences: 7 — 4.4%
- Houses of worship: 6 — 3.8%
- Health care facilities: 4 — 2.5%
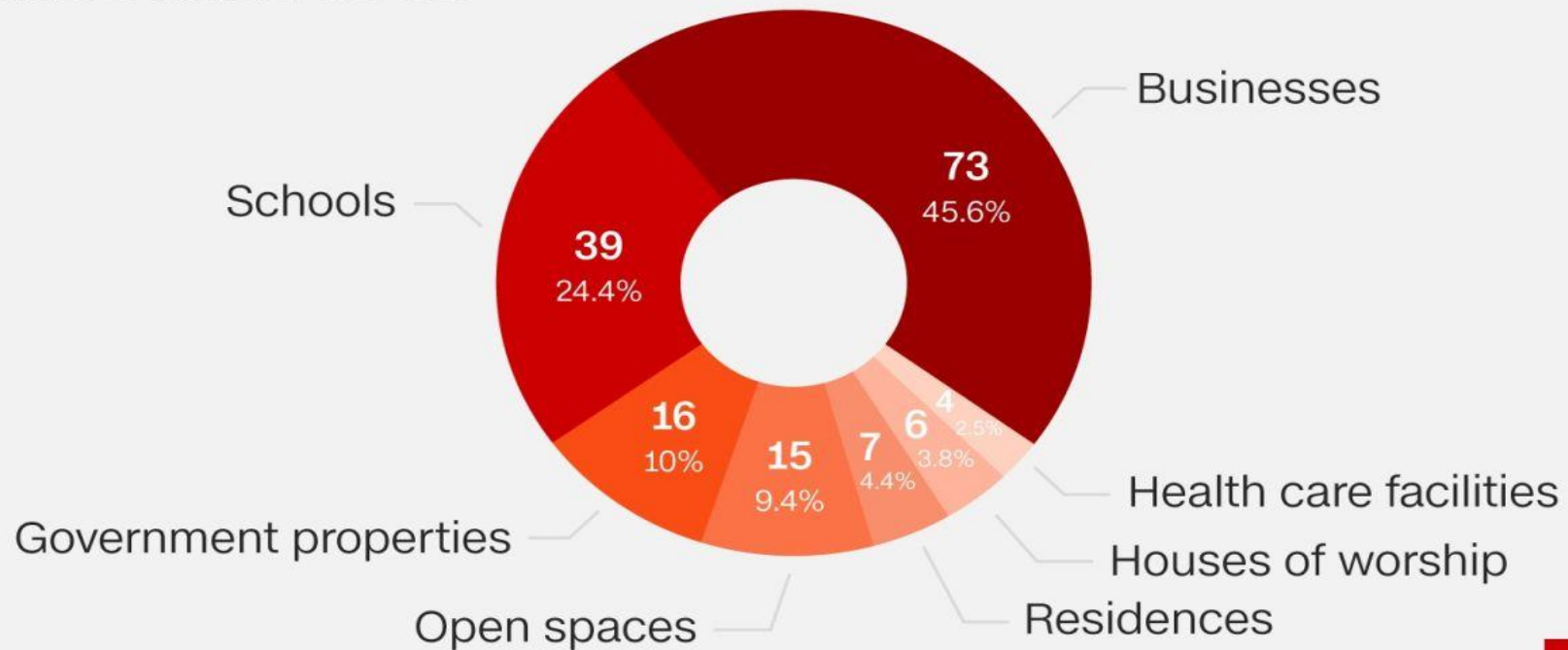
Source: FBI, A Study of Active Shooter Incidents in the United States Between 2000 and 2013

Preparedness as A Business Strategy

Preparedness as A Business Strategy

Are You Ready?

An In-Depth Guide to Citizen Preparedness

P-2064 | September 2020

FEMA

Preparedness as A Business Strategy

YOU ARE THE HELP
UNTIL HELP ARRIVES

5 Essential Actions:

Call 9-1-1
Stay Safe
Stop the Bleeding
Position the Injured
Provide Comfort

PREPAREDNESS AS A BUSINESS STRATEGY AT HOME

Preparedness as A Business Strategy

Companies rely on employees to run their business.

What if employees do not or cannot come to work?

What happens to your company with lack of labor?

Did the demand for your goods and services change?

Preparedness as A Business Strategy

Disaster resilient employees mitigate business impacts by preparing at home.

WHAT IS CERT?

CERT is neighborhood or workplace-based citizen volunteers preparing to help themselves, their family, and potentially their neighbors or coworkers.

CERTs respond after a major emergency or disaster for up to 72 hours, or longer, when first responders are not immediately available.

CERT Basic Training
Participant Manual
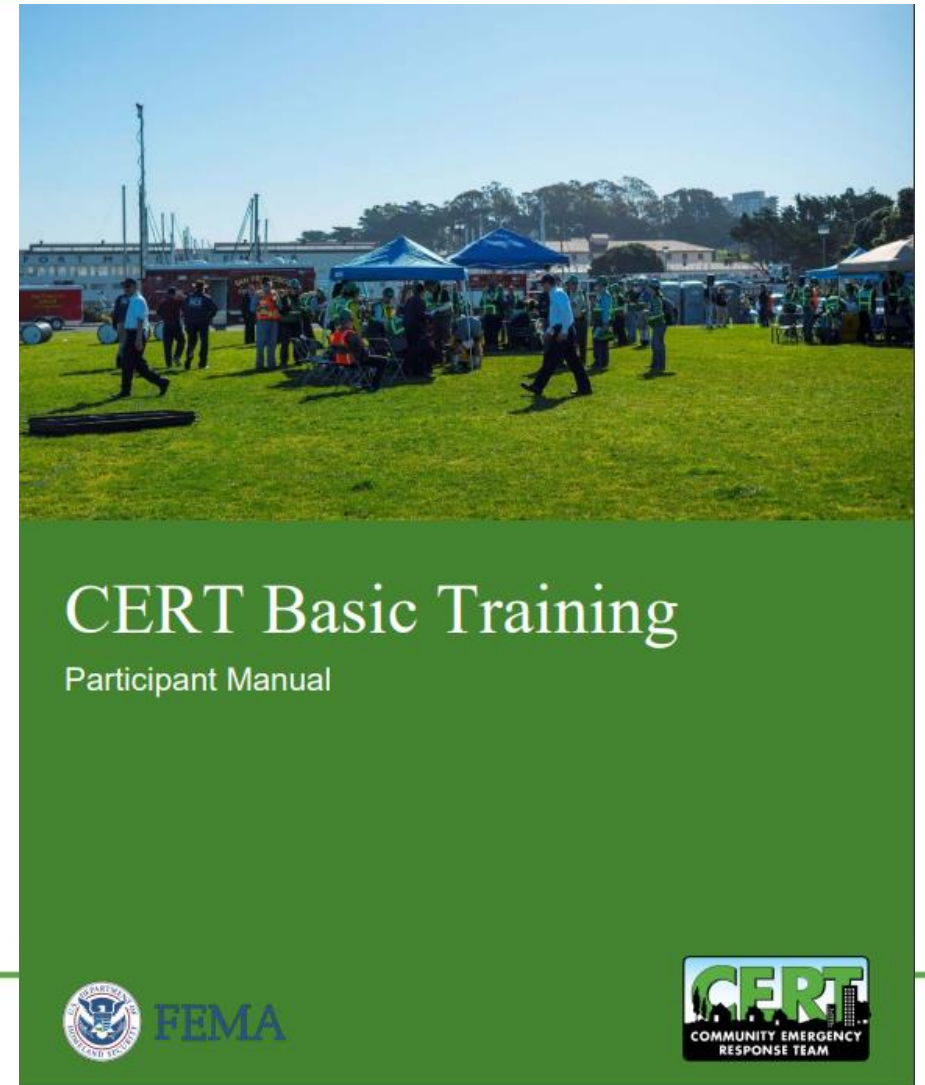
TWO TYPES OF CERT TRAINING
IN-CLASSROOM
HYBRID ONLINE / CLASSROOM

CERT BASIC TRAINING

- Disaster Preparedness
- CERT Organization
- Disaster Medical Operations
- Disaster Psychology
- Fire Safety and Utility Controls
- Light Urban Search & Rescue
- CERT & Terrorism
- Disaster Simulation

CERT BASIC TRAINING

HYBRID CERT BASIC TRAINING

STARTING A CERT

Community Emergency Response Team (CERT) Program Guide

November 2022
FEMA P-2321

FEMA

COMMUNITY EMERGENCY RESPONSE TEAM

STARTING A CERT

Step 1: Identify a Program Sponsoring Organization and Build Partnerships

Step 2: Secure Resources

Step 3: Develop a Set of Goals and Objectives

Step 4: Develop a Training Plan

Step 5: Market your Program and Recruit CERT Volunteers

Step 6: Deliver CERT Training

Step 7: Run Your CERT Program

Step 8: Track and Evaluate Your Program

Starting a Community Emergency Response Team (CERT)

Guidelines and Recommendations

November 2022
FEMA P-2322

FEMA

QUESTIONS?

Chris Williams

Operations / Resource Manager

614-794-0213

chriswilliams@franklincountyohio.gov

Preparing Public Leaders to Effectively Lead in a Crisis: A Collaborative Experience

Presented by
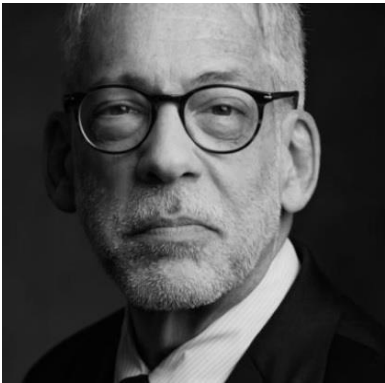
Bruce Hennes

Scott Newell

John Born

www.crisiscommunications.com

Voinovich School of Leadership and Public Service

Voinovich Academy for Excellence in Public Service

OHIO UNIVERSITY

www.crisiscommunications.com

Preparing Public Leaders - Handouts

Preparing Public Leaders to Effectively Lead in a Crisis:
A Collaborative Experience

Resource Guide

NFPA 1600®: Standard on Continuity, Emergency, and Crisis Management

The University of Memphis Crisis Management Plan CRISIS

Leadership and Professional Local Government Managers: Before, During and After a Crisis

Disaster Recovery Essentials: A Tool for Preparing Your Community to Face the Unexpected

Department of Homeland Security Center for Faith-Based and Neighborhood Partnerships Resources

HENNES
COMMUNICATIONS
www.crisiscommunications.com

Ohio Cyber Collaboration Committee (OC3)

Ohio's cyber community working together to help Ohio's citizens and organizations achieve world class cyber security

https://www.oc3.ohio.gov/

Ohio Cyber Collaboration Committee (OC3)

Ohio must posture itself with an enterprise-wide approach that allows for a statewide cyber governance structure. More importantly, Ohio must develop and implement the appropriate authority to provide the capability to respond to and prevent cyber-attacks.

https://www.oc3.ohio.gov/

Ohio Cyber Collaboration Committee (OC3)

Our Mission: To provide an environment for collaboration between key stakeholders, including education, business and local government to strengthen cyber security for all in the State of Ohio and to develop a stronger cyber security infrastructure.

Our Goals/Committees: OC3 has established four subcommittees to help it achieve its primary goals: Education/Workforce Development, Cyber Range, Cyber Protection and Preparedness, and Governance and Public Awareness. The committees are composed of Ohioans with a wide range of cyber and educational expertise dedicated to making Ohio a leader in how to integrate public-private partnerships into solving the cyber security problem.

https://www.oc3.ohio.gov/

Ohio Cyber Collaboration Committee (OC3)

Education/Workforce Development Subcommittee:

Grow the workforce and improve the training and education of users and students in cyber security by:

a. Encouraging individuals of all ages to consider cyber security as a career, help individuals to further develop their cyber security skills at the K-12 and higher education level or as adult learning.

b. Identifying critically needed skills and developing training and educational paths to meet the growing need for skilled workers in the cyber security field. Giving students the hands-on experience needed to be ready to work on day one.

c. Training users/students at all levels in good, age appropriate, cyber hygiene and best cyber security practices.

d. Provide educators the skills and tools needed to support this growing workforce.

https://www.oc3.ohio.gov/

Ohio Cyber Collaboration Committee (OC3)

Ohio Cyber Range/OCRI:

Provide a secure cyber security test and training environment, known as a cyber range, to:

a. Support the education of students at the K-12 and University level.

b. Conduct cyber security exercises and competitions to hone cross organizational incident response capabilities and develop future cyber security professionals.

c. Research and test industry-standard best practices, evaluate and test innovative technologies and processes.

d. Enable a training environment for the current and future cyber security workforce, including National Guard personnel, state and local government personnel, faculty and students in the education community, and private sector entities.

e. Provide a Cyber Portfolio for learners, and support internships.

f. Will be able to connect from any location with OARnet access.

https://www.oc3.ohio.gov/

OCRI Ecosystem

17 RPCs / 25 Institutions:

- University of Cincinnati
- University of Akron
- Ohio State University
- University of Dayton
- Ohio University
- Rio Grande
- Eastern Gateway CC
- Cin-Day Cyber at SOCHE
- Cedarville University
- Owens CC
- Lorain County CC
- Stark State CC
- PAST Foundation
- Cleveland State/Case Western IoT Collaborative
- Tiffin University & Findlay Partners
- Shawnee State University
- **Cuyahoga Community College**

https://www.ohiocyberrangeinstitute.org/

OCRI Regional Programming Center

Core Service Site

Potential OCRI-RPC Location

Virtual Access Point
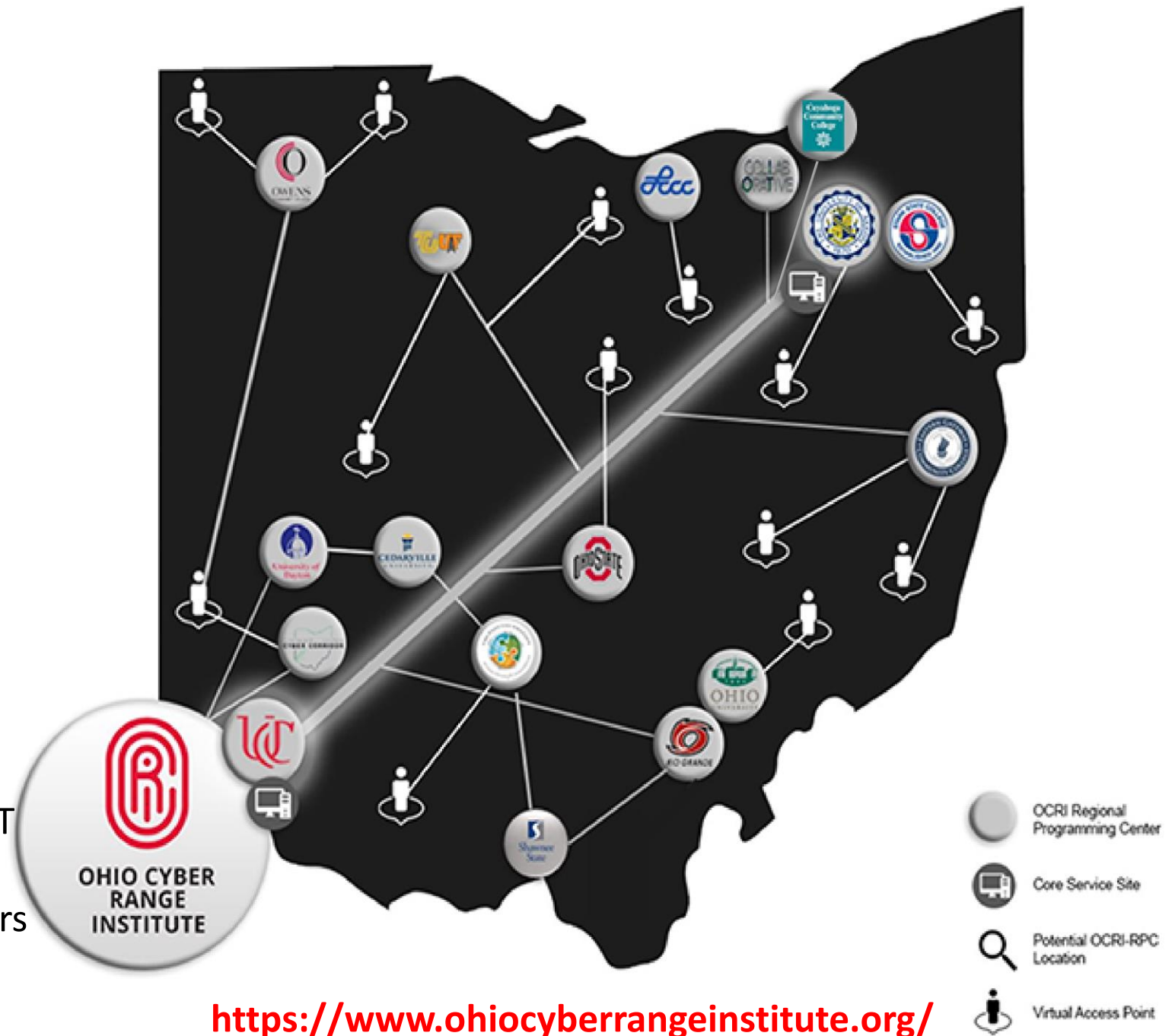
Virtual Learning Environments

Structured lab environments

Real world examples

Project based learning

WAN

SPAN

DMZ

LAN

Security Onion

Linux

Windows Server

dows Do   ntroller

https://www.ohiocyberrangeinstitute.org/
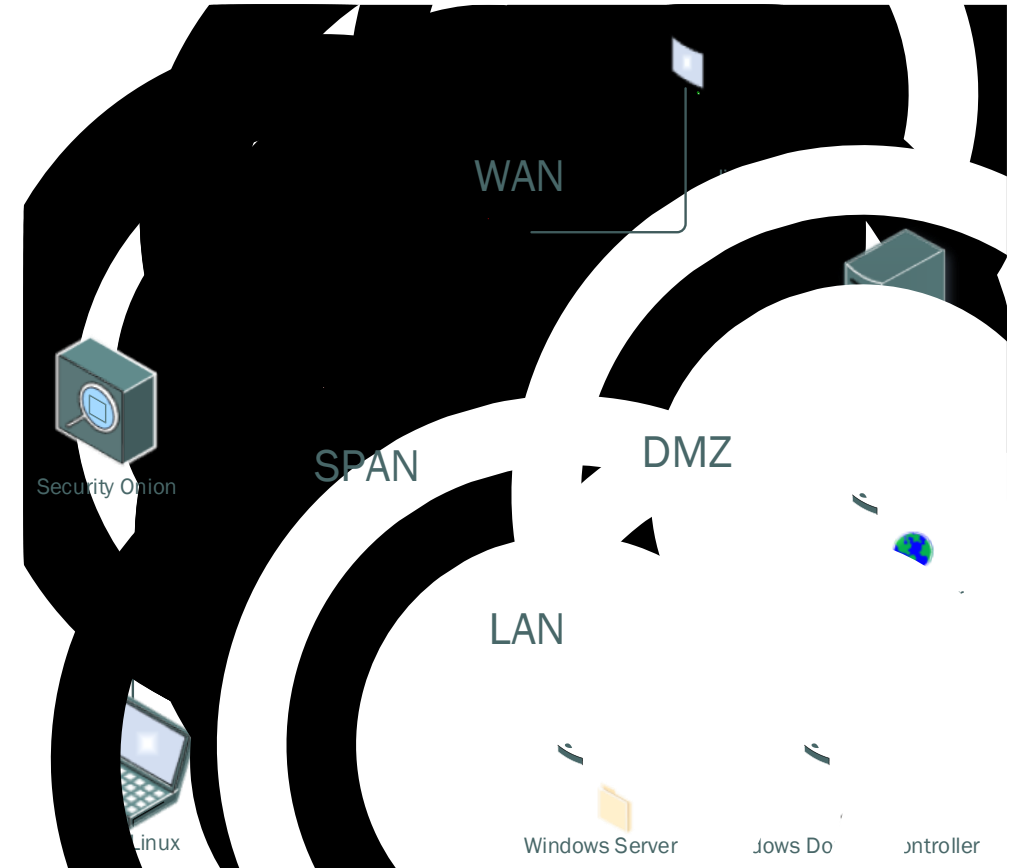
OCRI Education Module Library

- A collection of learning materials
  - Instructional materials
  - Assessment materials
  - Hands-on component
- Geared towards K-12, Higher Ed, and/or Workforce Development
- Developed to be shared
  - Choose parts to develop your own courses
  - Build upon what others have created
  - Contribute and collaborate

https://www.ohiocyberrangeinstitute.org/

OCRI Education Resources

Handling Data Breach Incident Through Communication	IoT LEGO-Style Security Labs	Capture the Flag Assessment Module	Introduction to Digital Forensics
Router's Configuration, Access, and Security	Cybersecurity Awareness PSA's	Encryption	Network Monitoring & IPS
Basic Linux Systems Administration Module	Basic Windows Server Administration Module	Introduction to Ethical Hacking	Defense In Depth Network Security

OHIO CYBER RANGE INSTITUTE
UNLOCKING POTENTIAL, SECURING THE FUTURE

Exercises:
Ohio Cyber Guardian

Capture the Flag (CTF)

Red Team vs. Blue Team

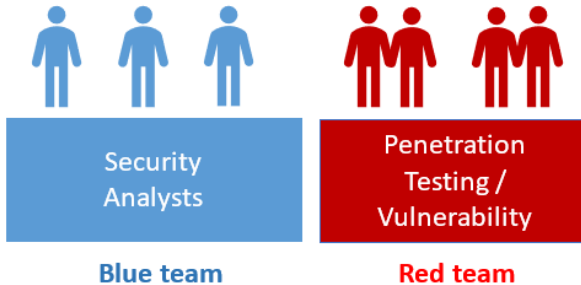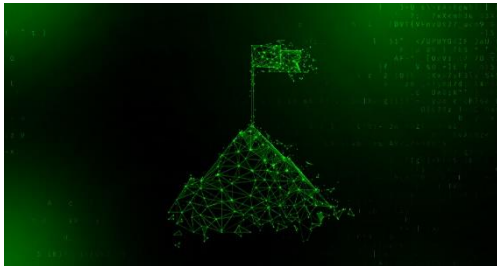Security Analysts
Blue team

Penetration Testing / Vulnerability
Red team

https://www.ohiocyberrangeinstitute.org/

The Ohio Cyber Reserve

OC3

Bringing Cyber Talent to the Fight

The Ohio Cyber Reserve

The Ohio Plan

1. Created a volunteer firefighter style Cyber Reserve made up of trained civilians nested under the Adjutant General's Department

2. Legislatively modeled after the Ohio Military Reserve ORC Chapter 5920

3. The Adjutant General's Department has developed appropriate policies to support and regulate the teams

   - Members are volunteer civilians subject to state call up in a cyber emergency to support the Ohio National Guard's cyber response efforts

   - While in training status, volunteers are not be paid, but when activated will be paid as state civilian employees

   - Volunteers are vetted with appropriate background checks, training requirements

   - Volunteers are organized into regionally based teams

   - The teams are provided training, equipment and IDs and work out of ONG armories

   - When fully trained and certified will be available for call up to assist in cyber response

   - Volunteers who are not fully trained, but who have been vetted can be used to support student mentoring efforts under the Ohio Cyber Collaboration Committee (OC3)

The Ohio Cyber Reserve

OhCR Mission Set

1. **Assist** - While in a volunteer status, the Cyber Response Teams will provide outreach, training, education, and security assessments to eligible governmental entities and critical infrastructure to reduce cyber vulnerability and increase resiliency.

2. **Educate** - While in a volunteer status, the Cyber Response Teams will assist K-12 educational efforts supporting cyber clubs and mentoring students in support of the Ohio Cyber Collaboration Committee's (OC3) Education and Workforce Development efforts.

3. **Respond** - When called to paid state active duty status, the Cyber Response Teams, under the direction of the Adjutant General's Department will be available to respond to cyber incidents at eligible governmental entities and critical infrastructure.

The Ohio Cyber Reserve

Want to be a member?

1. Register for an account @ APAN.org

2. Navigate to the link below and register. Volunteer Registration Site:
   https://wss.apan.org/ng/ONG_CPT/OHCR/SitePages/Home.aspx

3. This site will have all the information of prerequisites, ideal candidates, etc.

4. For more information contact:

Craig Baker

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NIST Framework

https://www.oc3.ohio.gov/
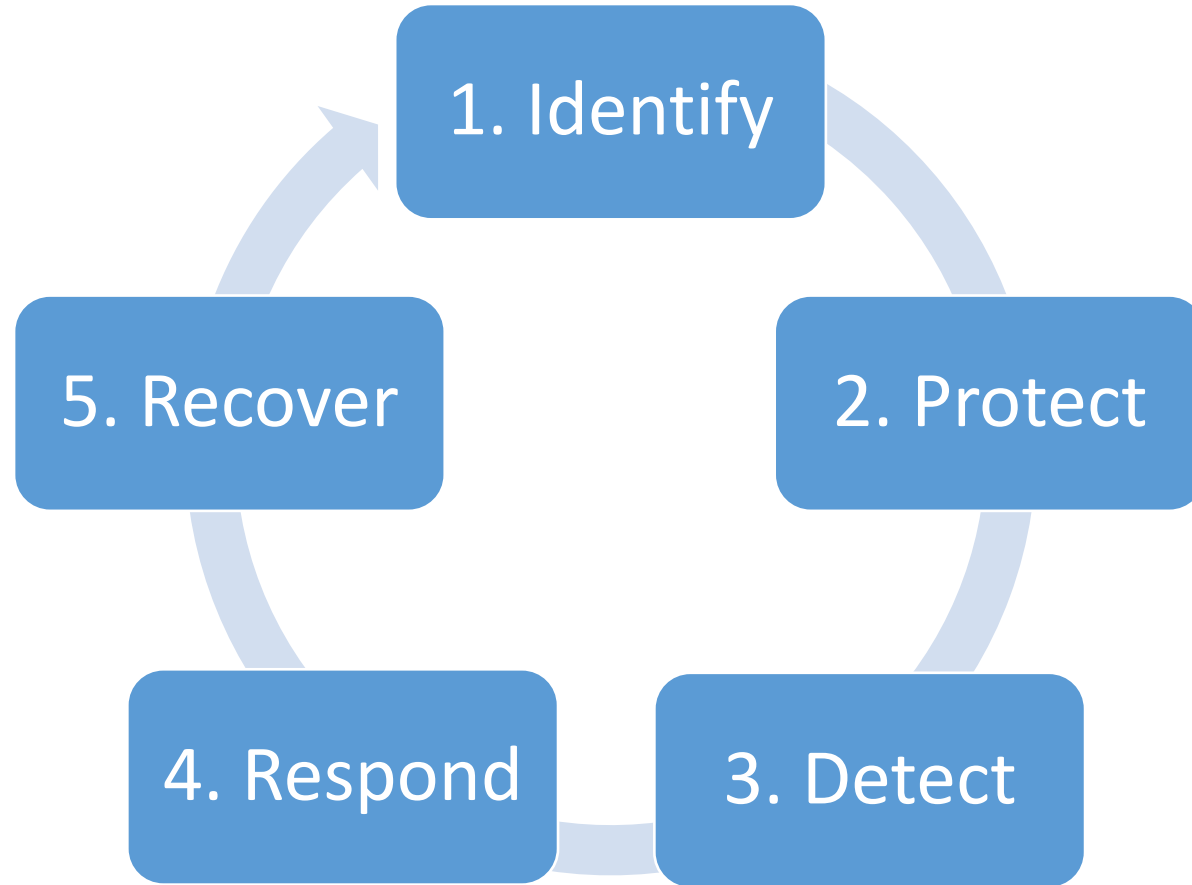
Problem Statement
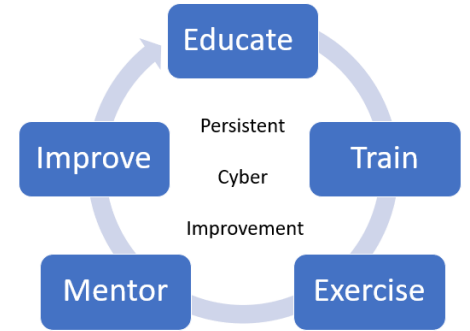
- Large number of eligible entities in Ohio

- 88 Counties, 1308 townships, 250 cities, 688 villages, 264 places, 611 school districts, 211 colleges and universities = 3420 entities

- Critical infrastructure – number in Ohio 11,440

- Currently maxed at about 100 events per year. OhCR and CISA spending a lot of time teaching basic concepts.

- Need to scale our efforts to maintain an ongoing and persistent effort to educate/evaluate/test cyber skills and preparedness of Ohio's eligible entities.
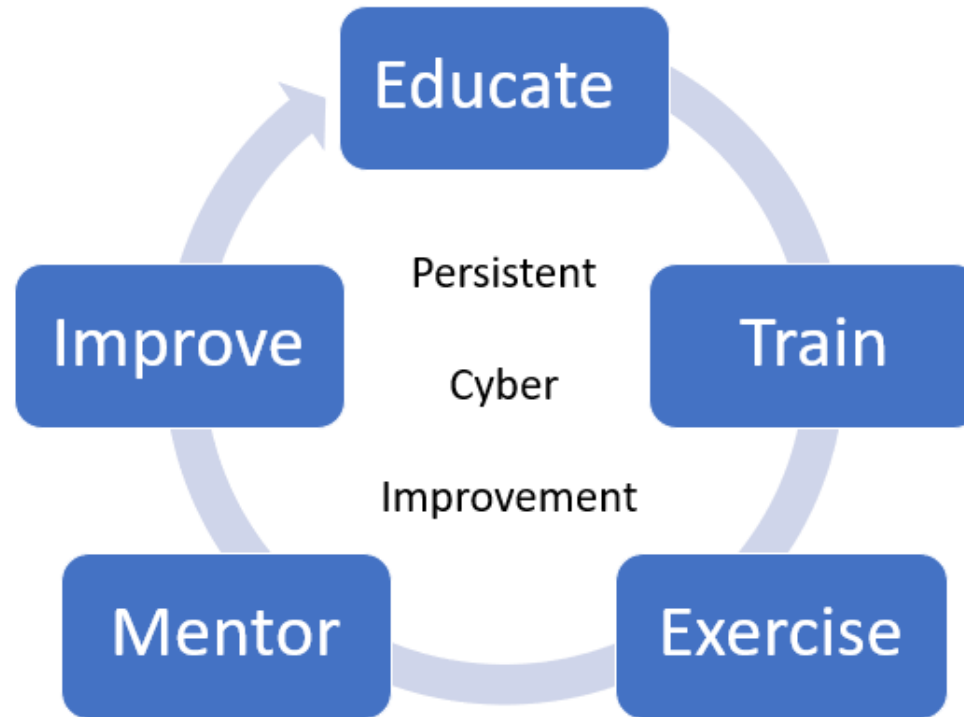
Gateways

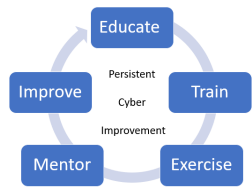|	Gateway 1 (Core)			Gateway 2 (Standard)			Gateway 3 (Advanced)		
	Classes	Products/actions	End Point	Classes	Products/actions	End Point	Classes	Products/actions	End Point
All Users	Cyber Awareness		Annual Cert	Cyber Awareness		Annual Cert	Cyber Awareness		Annual Cert
IT Professionals	Cyber 101	Cyber Inventory Best practices/NIST Internal Auditor	OhCR visit and review AAR	Cyber 102	Cyber anticipation/response recovery plan Continuity of Effort Plan TTX SOP/OPLAN Plan Manager	Usable Plans TTX AAR	Cyber 103	Red on Blue X plan	Complete Red on Blue AAR
Managers	Cyber 101	Cyber Inventory Best practices/NIST Internal Auditor	OhCR visit and review AAR	Cyber 102	Cyber anticipation/response recovery plan Continuity of Effort Plan TTX SOP/OPLAN Plan Manager	Usable Plans TTX AAR	Cyber 103	Red on Blue X plan	Complete Red on Blue AAR
C Suite	Cyber 101 Legal/Risk management	Internal Auditor Review Provide resources	Org. Badge	Cyber 102 Legal/Risk management	Cyber anticipation/response recovery plan Continuity of Effort Plan TTX SOP/OPLAN Plan Manager	Org. Badge	Cyber 103 Legal/Risk management	Red on Blue X plan	Org. Badge

Persistent Cyber Improvement: Educate, Train, Exercise, Mentor, Improve

Ohio Cyber Collaboration Committee (OC3)
Resilience is the Key

- Will never be 100% safe from cyber attack
- Protect as best you can - minimize threat
- Segment network and limit horizontal movement
- Least privilege - limit access to servers and data
- Monitor network in real time/review logs
- Back up data daily / in real time 3/2/1
- Encrypt sensitive data
- Be ready, you will get malware!
- Have a Response and Recovery Plan
- Have a Continuity of Effort Plan
- Practice Plan – TTX
- Goal - Have malware be rare, with limited spread, and fast, full recovery

Persistent Cyber Improvement

Educate
Train
Exercise
Mentor
Improve

https://www.oc3.ohio.gov/
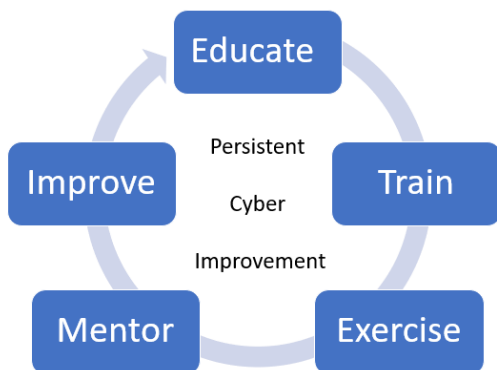
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Resources you can use

- OC3 – https://www.oc3.ohio.gov
- Ohio Cyber Range – https://ohiocyberrangeinstitute.org
- Ohio Cyber Reserve/ONG – Use ema process (assist/educate - OhioCyberReserve@ucmail.uc.edu)
- Ohio Homeland Security/CISA – https://www.cisa.gov
- FBI/Department of Public Safety/Secret Service/NSA
- NIST – https://www.nist.gov
- Trusted vendors
- OARnet – Survey - https://oar.net/securitysurvey

TIME IT TAKES A HACKER TO BRUTE FORCE YOUR PASSWORD IN 2022

Number of Characters	Numbers Only	Lowercase Letters	Upper and Lowercase Letters	Numbers, Upper and Lowercase Letters	Numbers, Upper and Lowercase Letters, Symbols
4	Instantly	Instantly	Instantly	Instantly	Instantly
5	Instantly	Instantly	Instantly	Instantly	Instantly
6	Instantly	Instantly	Instantly	Instantly	Instantly
7	Instantly	Instantly	2 secs	7 secs	31 secs
8	Instantly	Instantly	2 mins	7 mins	39 mins
9	Instantly	10 secs	1 hour	7 hours	2 days
10	Instantly	4 mins	3 days	3 weeks	5 months
11	Instantly	2 hours	5 months	3 years	34 years
12	2 secs	2 days	24 years	200 years	3k years
13	19 secs	2 months	1k years	12k years	202k years
14	3 mins	4 years	64k years	750k years	16m years
15	32 mins	100 years	3m years	46m years	1bn years
16	5 hours	3k years	173m years	3bn years	92bn years
17	2 days	69k years	9bn years	179bn years	7tn years
18	3 weeks	2m years	467bn years	11tn years	438tn years

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<u>Password Strategies</u>

- Never reuse or duplicate passwords

- use long complex passwords – 12 minimum with numbers, upper- and lower-case letters, and symbols - longer is better (74 characters per slot)

- Avoid words in the dictionary, part of your name, where you work, your school, the current year, DOB, anniversaries, pets' names, etc.

- Use embeds

- Use the first letters of phrases i.e. The Beatles The Long and Winding Road – $TlAwRtLtYdWnDiStRb76 21 characters, all 4 options, no dictionary words - (trillions of years to brute force attack!)

- Use a password manager (does have some risks)

- Add multi factor authentication (something you know with something you have) i.e. password plus cell phone and pin number

- Set maximum number of tries, then lock out or freeze account

- Change password any time something bad happens

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Simple Solutions

- Update OS and Programs, Delete old or unused programs (Windows 10, Big Sur)
- Change default usernames and passwords on hardware/systems (Mirai malware)
- Use strong passwords and Use Multi Factor Authentication (MFA)
- "Least Privilege" Separate admin accounts from work accounts
- Use/turn on firewall and antivirus programs
- Inventory your network, block unknown devices
- Isolate internet of things/wireless devices from computers (segmentation)
- Have a separate guest network accounts for visitors/IOT/kid's accounts/old tech
- Don't click links in emails or on web pages – look it up, type it in (use bookmarks)
- Treat outside/unknown thumb drives/CDs/DVDs as highly risky
- Treat outside attachments as risky
- Don't go to sketchy web sites
- Beware of free stuff
- Don't trust something just because you think you know someone
- Backup your data everyday – Use encryption on sensitive data, airgap backup (3-2-1)
- Don't forget physical security, screen locks etc. – "windows L" - don't lend your phone
- Be careful on social media, don't give up your PII - GPS in pictures

Ohio Cyber Collaboration Committee (OC3)

OC3 is supported by a "whole of government" approach to ensure its success. Primary sponsors are the Adjutant General's Department/Ohio National Guard, the Department of Higher Education, The Department of Education, The Department of Administrative Services, The Department of Public Safety, and The Department of Transportation.

OC3 has over 120 organizations who are active members who support the OC3 mission and objectives

https://www.oc3.ohio.gov/

OHIO CYBER COLLABORATION COMMITTEE (OC3)

Ohio's cyber community working together to help Ohio's citizens and organizations achieve world class cyber security

Points of Contact

Primary

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Cybersecurity Skills Crisis

Too Many Threats

62% INCREASE IN BREACHES

1 IN 5 ORGANIZATIONS HAVE EXPERIENCED AN APT ATTACK

US $3 TRILLION TOTAL GLOBAL IMPACT OF CYBERCRIME

8 MONTHS IS THE AVERAGE TIME AN ADVANCED THREAT GOES UNNOTICED ON VICTIM'S NETWORK

2.5 BILLION EXPOSED RECORDS AS A RESULT OF A DATA BREACH IN THE PAST 5 YEARS

Too Few Professionals

62% OF ORGANIZATIONS HAVE NOT INCREASED SECURITY TRAINING IN 2014

1 OUT OF 3 SECURITY PROS ARE NOT FAMILIAR WITH ADVANCED PERSISTENT THREATS

<2.4% GRADUATING STUDENTS HOLD COMPUTER SCIENCE DEGREES

1 MILLION UNFILLED SECURITY JOBS WORLDWIDE

83% OF ENTERPRISES CURRENTLY LACK THE RIGHT SKILLS AND HUMAN RESOURCES TO PROTECT THEIR IT ASSETS

Alternate

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Thank you for attending!