A Design Language for EOC Facilities
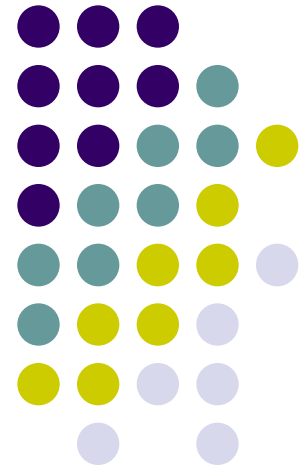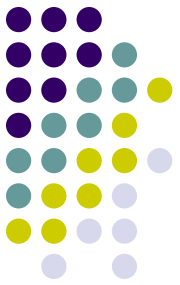
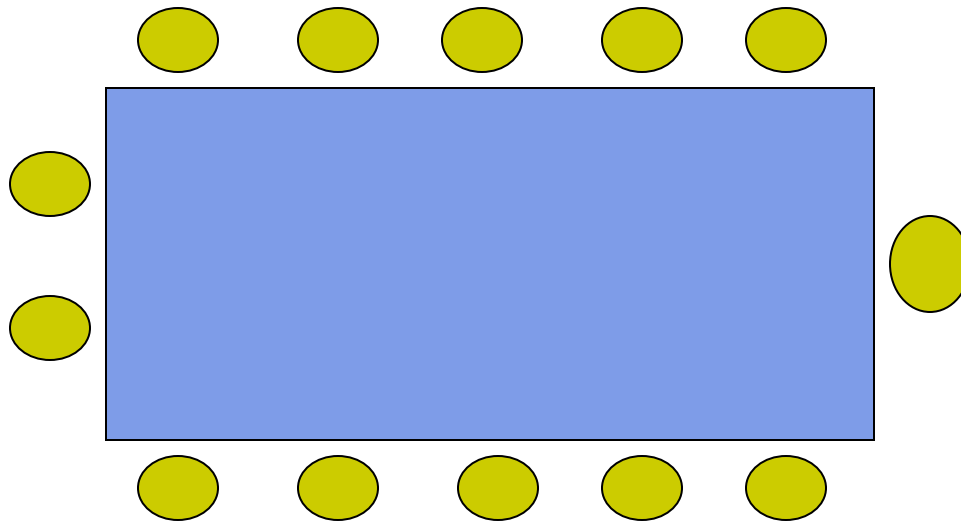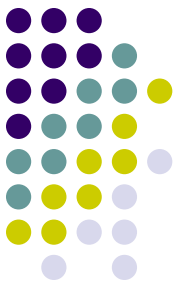"Some thoughts on basic design approaches by Art Botterell"

Boardroom

- All staff gathers around single table, or horseshoe- or oval-shaped groupings of tables
- Emphasizes interaction and collaboration
- Visuals are at one end of table
- Appropriate for small groups; additional staff sits along the walls
- Example - President's Cabinet

Boardroom

Mission Control

- Technology-based command and control centers (military, network control rooms)
- Rows of tables with side-by-side seating facing one wall with large visual displays
- Technology "mediates" EOC staff interactions through technological "knowledgebase"
- De-emphasizes direct interaction among staff
- Can support operation with break-out rooms laid out as Boardrooms
- Minus technology –"lecture hall" layout
- Example: NASA

Mission Control

MarketPlace

- Collection of small Boardroom-style tables
- Each table group has specialized function
- Coordination by communicating
- Emphasizes close collaboration and flexible interaction between specialists
- Maintains high level of autonomy for each specialty
- "Management by Walking Around" by command/decision-makers
- Example: ERT-A Center, FEMA Headquarters

MarketPlace
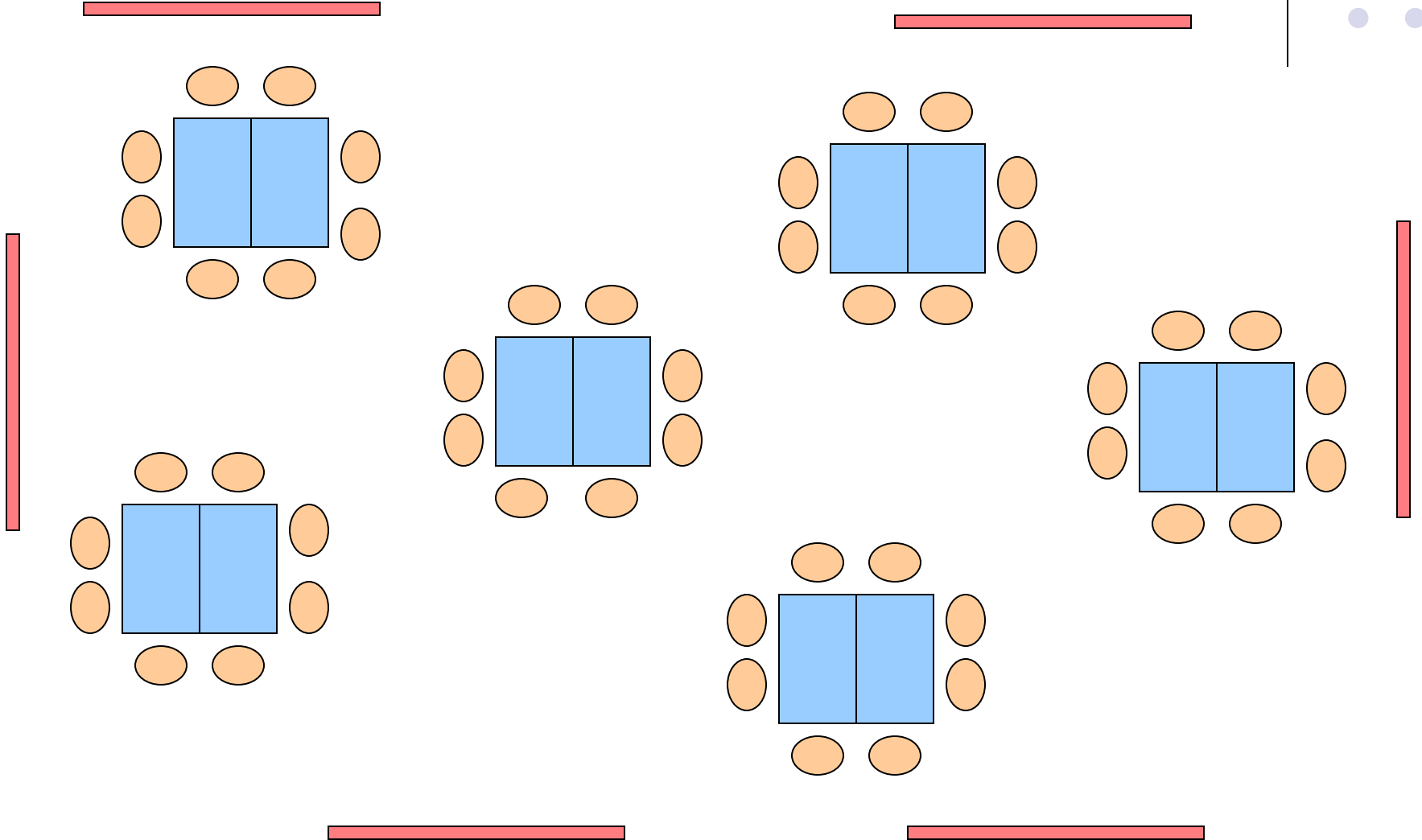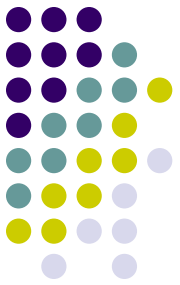
Bulls-Eye

- Boardroom – Expanded
- Staff sits behind their representatives at main table
- Focus is on main-table decision-makers
- Facilitates consultation within staff
- Reduces interaction at main table
- Requires a lot of floor space
- Example: UN Security Council chambers

Bulls-Eye
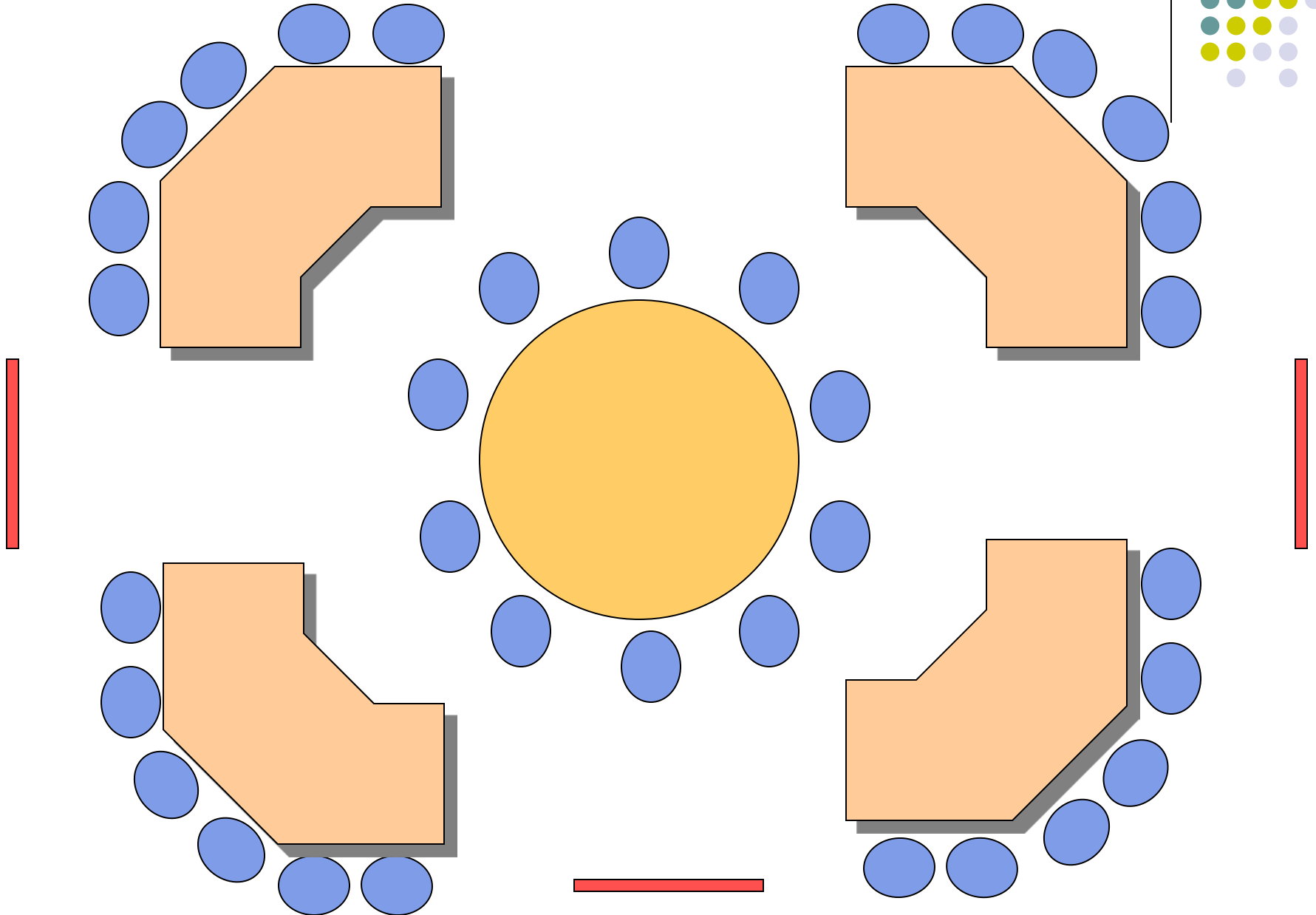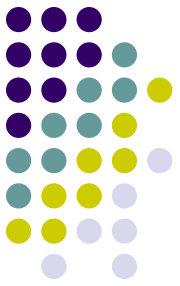
Virtual

- Doesn't require physical co-location
- Tasks conducted by phone, computer, video conferencing, etc.
- Not a good substitute for the real thing, but can be an alternative to enhance flexibility.
  - EOC team
  - Coordination with remote locations (i.e. on-scene commanders)
  - Allow a phased process for activation

Virtual EOC
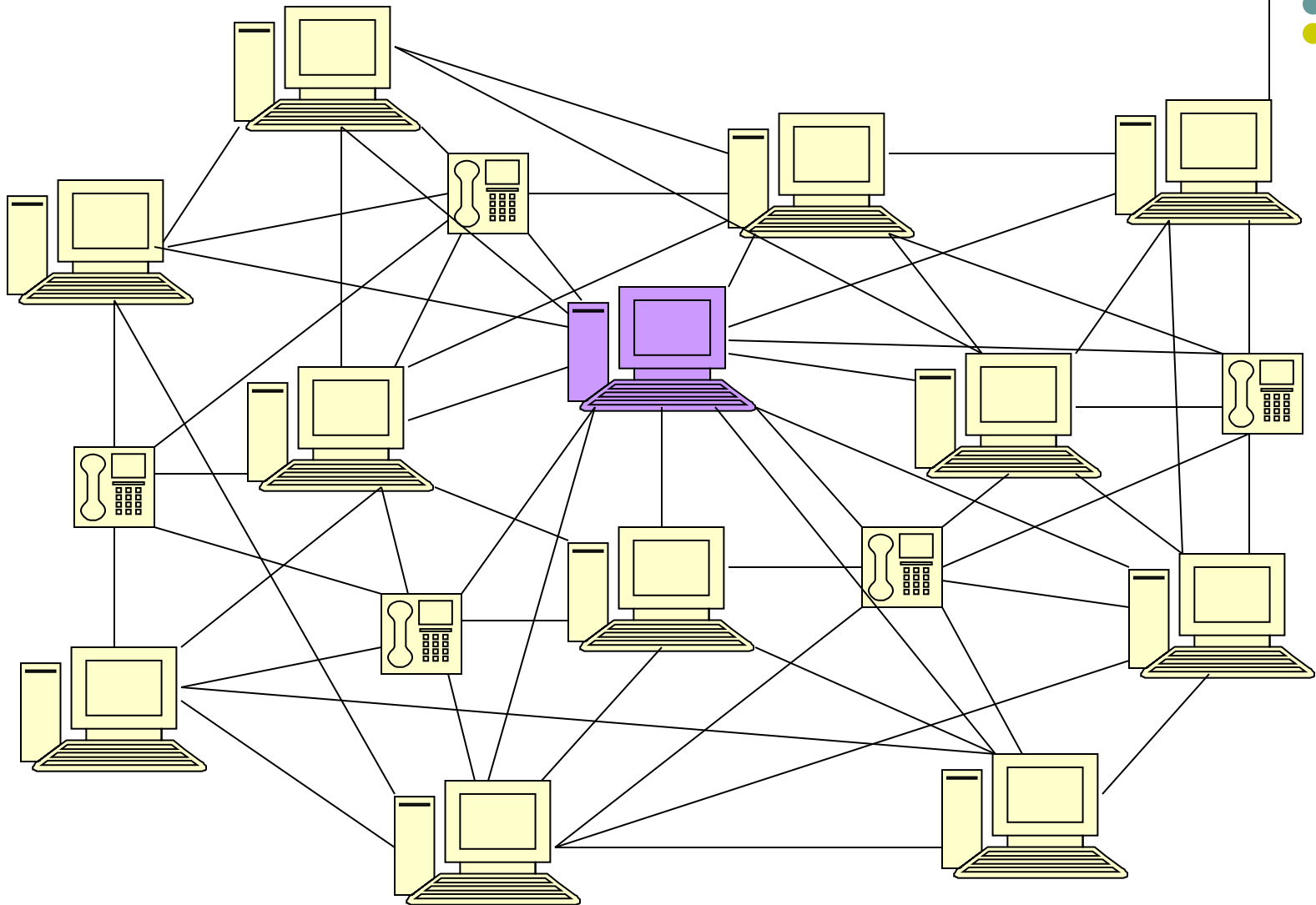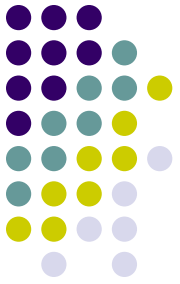
Virtual

- Challenges
  - Reliability and security of technology
  - Limits of connectivity
  - Loss of nuance in face-to-face communications
  - Need for sophisticated tools to manage online group processes

Sardines
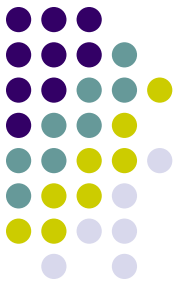
- More a phenomenon than a design!
- Work spaces arranged for maximum density, but may reveal informal organizational structures within EOC
- Layout stems from shape of space, available furniture, and wiring configuration
- Once established, hard to reconfigure to more functional design

Sardines
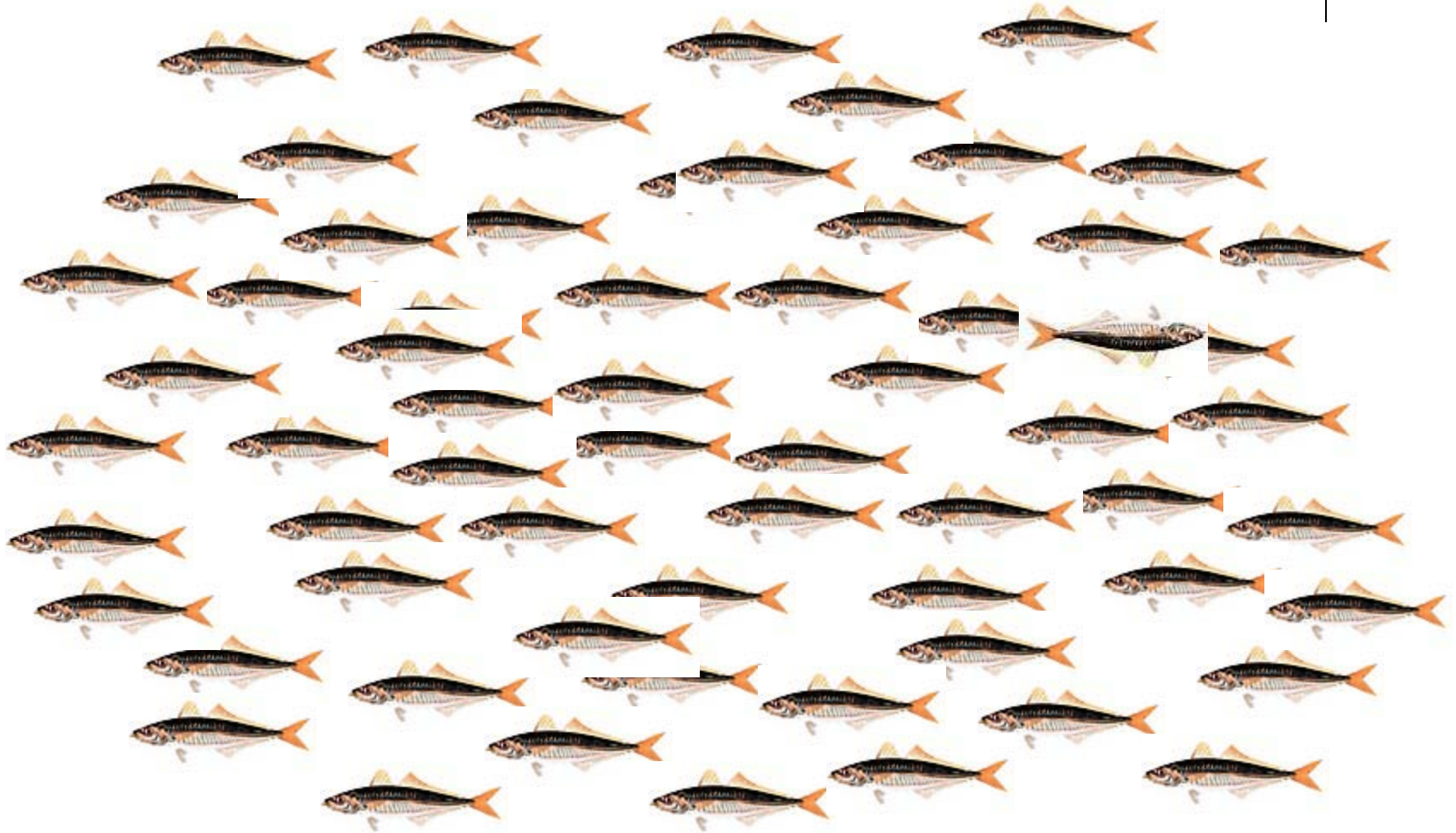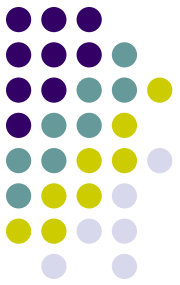
Summary

- The physical layout of your EOC should reflect the organizational processes the EOC needs to support.

- Non-emergency uses of the facility may influence the layout.

- Determine who in your jurisdiction has the decision-making authority to establish the EOC layout.

- Periodically, re-assess the functionality of your layout.

Unit 1:
Introductions and Course Overview

FEMA

Please silence all phones and pagers

Emergency Exits

Rally Point

Medical Emergency

Call 911

Notify Instructor

Medical Kit

FEMA

Severe Weather

Watches & Warnings

Safe Locations

Today's Forecast

Housekeeping

Restrooms

Smoking Areas

Kitchen/Vending

Take breaks!

Eat Well

ASK FOR HELP!!!

Student Introductions

Please present your:

- **Name.**

- **Job title and jurisdiction.**

- **Experience in EOC management and operations.**

- **Greatest challenge in EOC ops.**

Course Objectives (1 of 2)

- **Relate EOC operations to National Incident Management System (NIMS) requirements.**

- **Describe the role that EOCs play in overall multiagency coordination.**

- **Describe the relationship between the EOC and the on-scene Incident Command System (ICS) structure.**

- **Identify staffing, information, systems, and equipment needs at the EOC.**

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Course Objectives (2 of 2)

- **Determine whether their EOC organizations are conducive to effective coordination.**

- **Identify potential alternate locations suitable for EOC operations should the primary EOC facility become damaged or inoperable.**

Course Agenda

1. Introductions and Course Overview 2. EOCs and Multiagency Coordination 3. EOC Staffing and Organization	6. Designing the EOC 7. Activating and Deactivating the EOC 8. EOC Operations
3. EOC Staffing and Organization (Continued) 4. Determining Communications Needs 5. Determining Information, System, and Equipment Needs	8. EOC Operations (Continued) 9. Testing, Training, and Exercising the EOC 10. Course Summary and Final Exam

Course Materials

- **Student Manual**
- **Job Aids**
- **FPC-65 (Optional)**
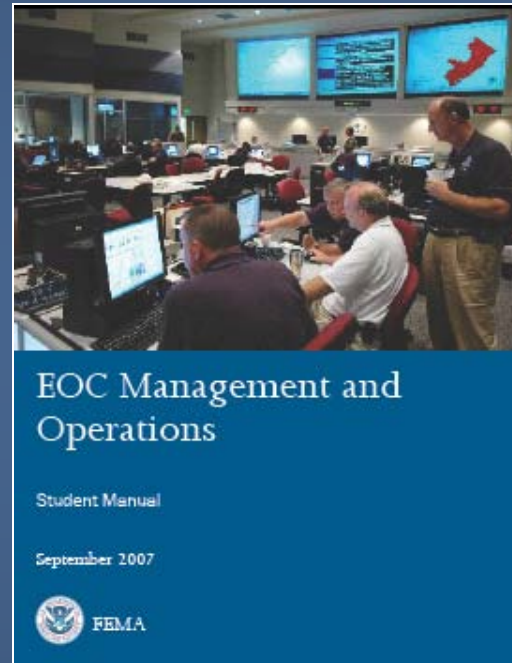
EOC Management and Operations

Student Manual

September 2007

FEMA

Course Overview

2. EOCs and Multiagency Coordination

3. EOC Staffing and Organization

4. Communications Needs

5. Information, Systems, and Equipment Needs

6. EOC Design

7. Activating and Deactivating the EOC

8. EOC Operations

9. Testing, Training, and Exercising EOC Operations

10. Course Summary and Final Exam

What is the role of the EOC?

The EOC

> **. . .provides a central location from which government at any level can provide interagency coordination and executive decisionmaking in support of the incident response.**

Support From the EOC

The EOC plays a critical role in support of the on-scene response.

An EOC is…

"An unfamiliar place where uncomfortable officials gather to make unpopular decisions based on incomplete information allocating inadequate resources for unanticipated requirements in too little time."

-Unknown

Summary and Transition

Unit 1 introduced:

- The instructors, students, and course materials.

- The course objectives, agenda, and materials.

- The overall role of the EOC.

Unit 2 will cover EOCs and multiagency coordination.

Unit 2:
EOCs and Multiagency Coordination

Unit Objectives

- **Relate EOC operations to National Incident Management System (NIMS) requirements.**

- **Describe the role that EOCs play in overall multiagency coordination.**

- **Describe the relationship between the EOC and the on-scene Incident Command System (ICS) organization.**

- **List the key factors for an effective EOC operation.**

Why do you think EOCs are the critical link in emergency response?

EOCs coordinate with on-scene incident managers and other MAC System entities to:

- Acquire, assign, and track resources.

- Manage information.

- Set response priorities.

- Provide legal and financial support.

- Liaison with other jurisdictions and other levels of government.

Advantages of EOCs (1 of 2)

What are the obvious advantages of the role that EOCs play?

Advantages of EOCs (2 of 2)

EOCs:

- **Allow Incident Commanders to focus on the needs of the incident.**

- **Provide a conduit between the Incident Command and higher-levels of MACS entities.**

- **Promote problem resolution at the lowest practical level.**

EOCs are part of the larger multiagency coordination system that is integral to the National Incident Management System (NIMS).

What NIMS Is

NIMS is. . .

- **A flexible framework of:**
    - **Doctrine**
    - **Concepts**
    - **Principles**
    - **Terminology**
    - **Organizational processes**
- **Applicable to all hazards and jurisdictions**

NATIONAL INCIDENT MANAGEMENT SYSTEM

Homeland Security
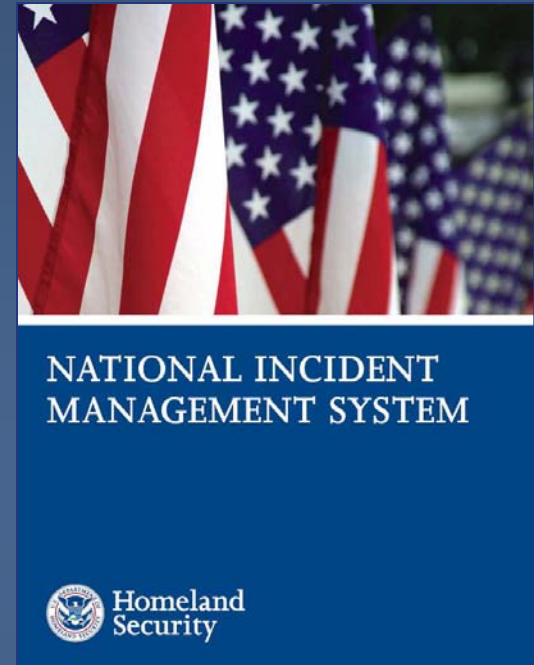
What NIMS Is Not

NIMS is <u>not</u>. . .

- An operational incident management plan.

- A resource allocation plan.

- A terrorism- or WMD-specific plan.

- Designed to address international events.

NIMS Components

NIMS integrates existing best practices into a consistent, nationwide approach to domestic incident management within the framework of five components:

- **Preparedness**
- **Communications and Information Management**
- **Resource Management**
- **Command and Management**
- **Ongoing Management and Maintenance**

Incident Command System
Multiagency Coordination Systems
Public Information Systems
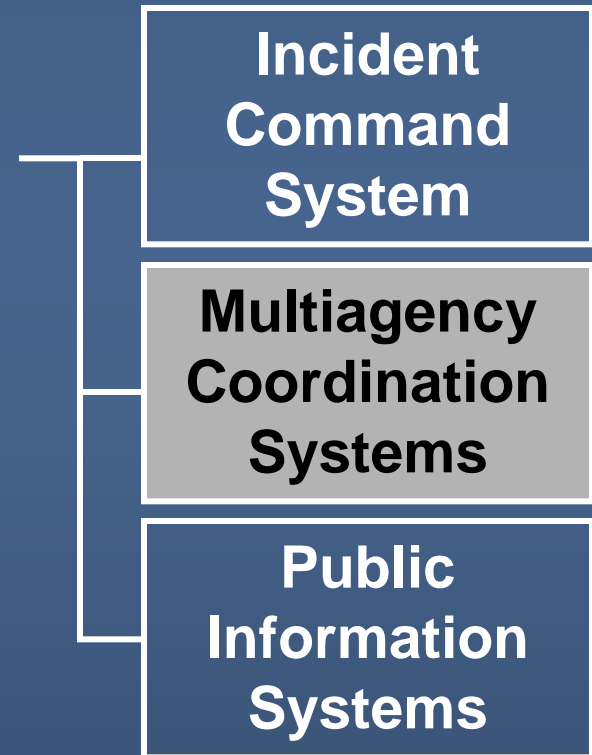
Command (1 of 2)

Command: **The act of directing, ordering, or controlling by virtue of <u>explicit</u> statutory, regulatory, or delegated authority.**

> **Who has the <u>explicit</u> authority for the management of all incident operations?**

Command (2 of 2)

- **In most cases, the <u>Incident Commander</u> has the explicit authority to manage on-scene incident operations.**

- **A basic premise of ICS is that the Incident Commander has been delegated the authority to assume command.**

Coordination

Through coordination:

- **Priorities and associated resource allocations are established.**

- **Differences among agencies are resolved.**

- **Strategic guidance and direction to support incident management are provided.**

During an emergency, the efforts and activities of multiple agencies must be coordinated.

MACS Origins

2006 Fire history data from
California Department of Forestry (CDF)
Map produced 01/24/2008, SAMO GIS

1970		1975	
1971		1976	
1972		1977	
1973		1978	
1974		1979	

National Recreation Area Boundary

North

0   2.5   5   10
Kilometers

0   2.5   5   10
Miles

Fire History 1970-1979
Santa Monica Mountains
National Recreation Area

NATIONAL PARK SERVICE
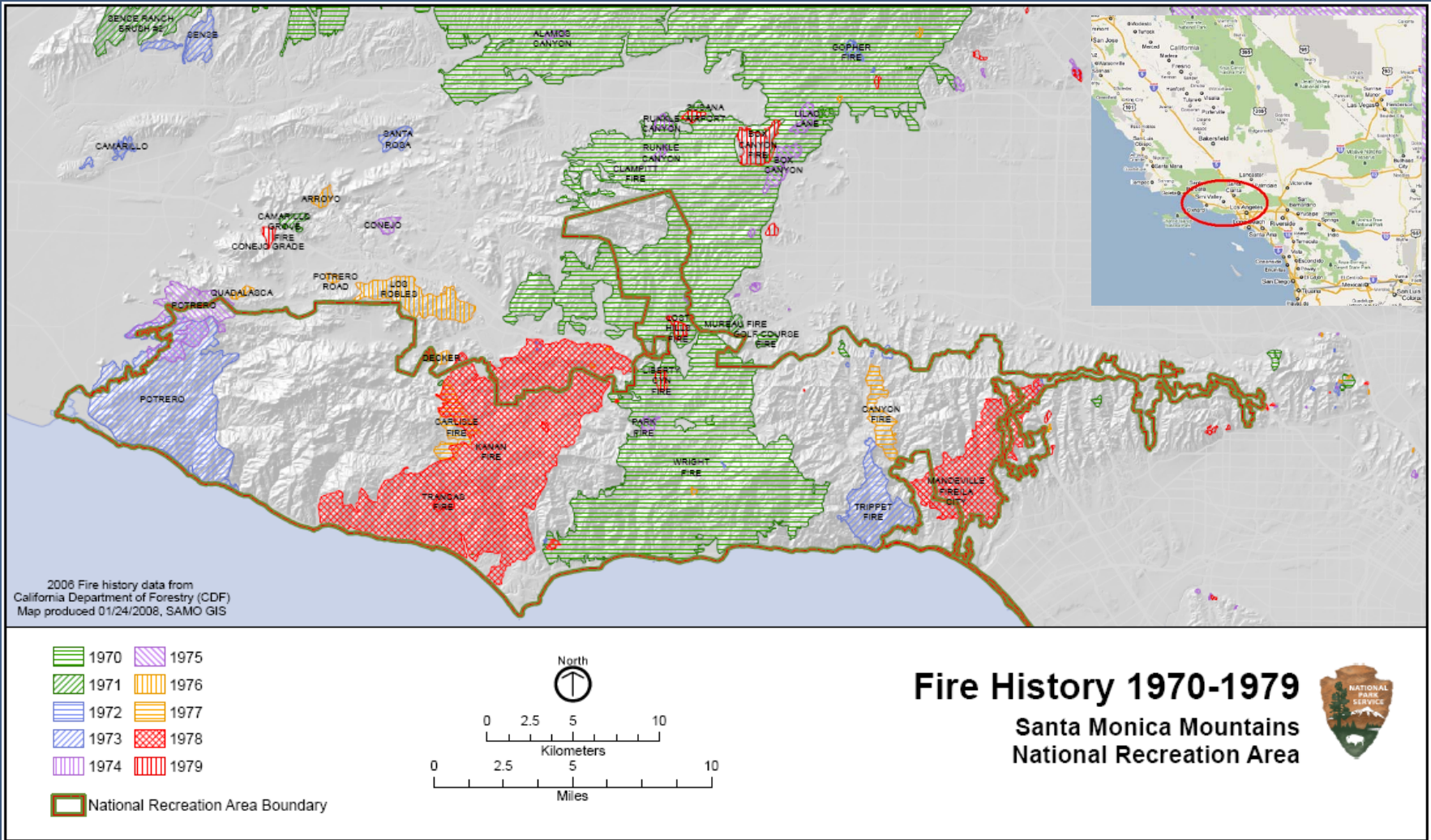
Multiagency Coordination Systems

Multiagency Coordination Systems are a combination of:

- Facilities.

- Equipment.

- Personnel.

- Procedures.

MACS Elements

MAC System elements include:

- **Multiagency coordination systems.**
- **Emergency Operations Centers (EOCs).**
- **Resource centers.**
- **Dispatch centers.**

A System . . . Not a Facility

Dispatch

On-Scene Command

Coordination Resource Centers

Multiagency Coordination System

Coordination Entities/ Groups

Emergency Operations Centers

MAC Systems: Simple To Complex

MAC Systems:

May be as simple as a teleconference

May require an assembled group and associated support systems

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What are the main MACS/EOC functions?

MACS/EOC Functions (2 of 2)

MACS/EOC functions include:

- Information collection and evaluation.

- Coordination.

- Priority setting.

- Resource coordination.

- Facilitation of communication.

EOC Purpose

. . .to provide a central location where government at any level can provide interagency coordination and executive decisionmaking in support of the incident response.

Local EOC	State EOC

Incident Command	Incident Command	Incident Command
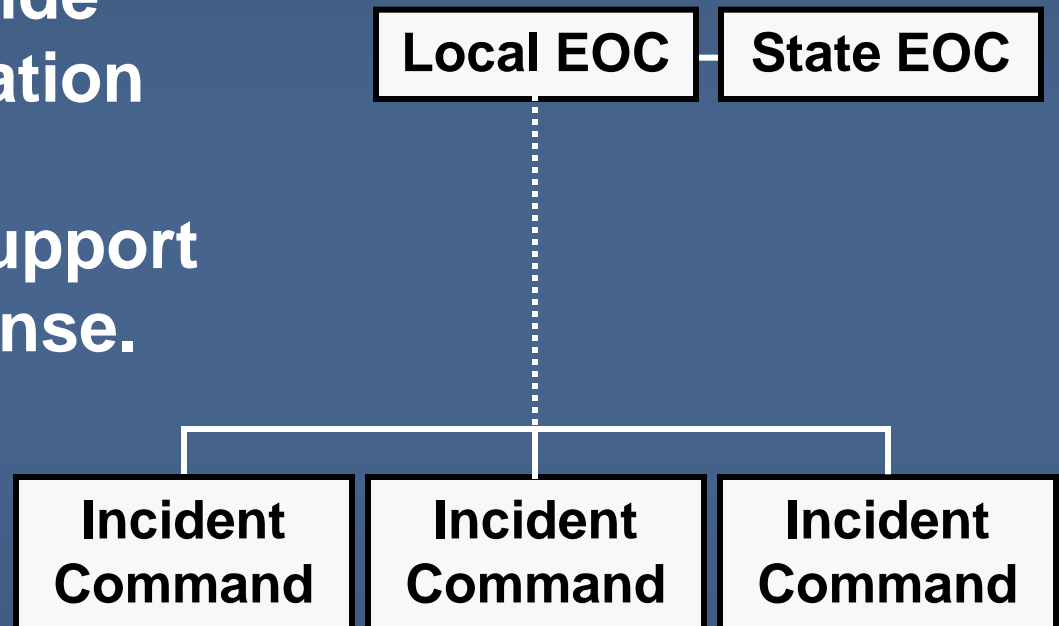
What are the benefits of an EOC?

EOC Benefits (2 of 2)

- **Helps establish a common operating picture**

- **Facilitates long-term operations**

- **Improves continuity**

- **Provides ready access to all available information**

- **Simplifies information analysis and verification**

- **Promotes resource identification and assignment**

What are the Incident Command's critical needs during a response?

The Incident Command needs:

- **A common operating picture.**

- **Policy direction.**

- **Communications support.**

- **Resources.**

- **Information analysis.**

- **Strategic planning.**

- **Legal and financial support.**

How can the EOC help meet incident needs?

EOCs help meet critical needs by:

- Establishing or resolving conflicting policies.

- Providing communications/messaging support.

- Providing and prioritizing resources.

- Managing public information issues and media requests.

- Authorizing emergency expenditures, when appropriate.

- Providing the "big picture" of the incident through:
  - GIS
  - Computer analysis
  - Strategic planning

What factors make an EOC effective?

Factors for an Effective EOC (2 of 2)

To ensure effective EOC operations, focus on:

- The facility.

- Equipment.

- Personnel.

- Procedures.

EOCs and Continuity of Operations

- **The concepts of EOC operations and continuity of operations (COOP) are similar.**

- **Federal Preparedness Circular (FPC) 65 describes critical aspects of COOP planning.**

- **Using FPC 65 as a tool can improve EOC operations.**
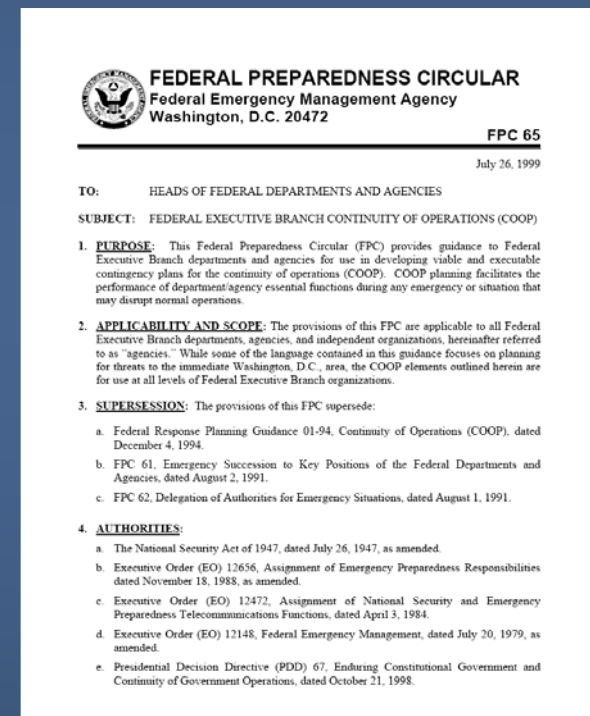
Summary and Transition

Unit 2 reviewed:

- **EOCs as part of the larger multiagency coordination system.**

- **The relationships between EOCs and the Incident Command.**

- **The factors that contribute to an effective EOC.**

Unit 3 will focus on EOC staffing and organization.

Unit 3:
EOC Staffing and Organization

Unit Objectives

- **Identify key EOC operations for your jurisdiction.**

- **Determining staff to meet the requirements of key EOC operations.**

- **Describe four ways to organize the EOC staff.**

- **Select the EOC organization that best meets operational requirements.**

Who has coordinated EOC staffing?

What factors did you consider?

EOC Staffing: Factors To Consider (2 of 2)

- What must be done?

- Over what period of time?

- Who has the skills, knowledge, and abilities to do it?

- Who has the authority to do it?

What Must Be Done? (1 of 3)

Consider <u>essential functions</u>:

. . .those functions that enable agencies to provide vital services, exercise civil authority, maintain the safety and well being of the general populace, and sustain the industrial/ economic base during an emergency.

Given this definition,
what are some essential
functions at an EOC?

What Must Be Done? (3 of 3)

- **Damage analysis**
- **Resource acquisition, assignment, and tracking**
- **Spatial and data analysis**
- **Information coordination (including public information/media affairs)**
- **Contracting and contract management**
- **Cost accounting**
- **Public safety (evacuation, sheltering, food distribution, etc.)**
- **Support services (food, water, utilities, etc.)**

Activity: Identifying Essential EOC Functions

Instructions:

1. **Work individually or in groups assigned by the Instructor.**

2. **Identify as many essential EOC functions as possible.**

You have 20 minutes to complete this activity.

What KSA's do you consider when determining EOC staffing?

Staffing To Support Essential Functions (2 of 2)

- **Knowledge of the critical tasks involved**

- **Skill in performing the tasks**

- **Ability to work under pressure**

- **Ability to interact well with others**

- **<u>Authority to perform the tasks assigned</u>**

Delegations of Authority

- **Delegations of authority designate individuals who are <u>authorized</u> to enact policy or make decisions in an emergency.**

- **Clearly established delegations of authority:**

  - **Help to ensure a rapid response to any emergency.**

  - **Are vital to ensuring that all personnel know who has the authority to make key decisions.**

Orders of Succession

- **Take effect when jurisdiction or agency leadership is incapacitated or unavailable in an emergency requiring EOC activation.**

- **Should be sufficient in depth to ensure that the jurisdiction or agency can continue managing and directing its operations while remaining viable during an emergency.**

Alternate and Support Staff

Be sure to consider:

- Alternate staff

- Support staff

Training and Cross-Training (1 of 2)

Plan for training and cross-training of all EOC staff.

Why is cross-training necessary?

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U.S. DEPARTMENT OF HOMELAND SECURITY

Training and Cross-Training (2 of 2)

- Some primary staff may be injured or may not be available.

- Transportation routes to the EOC may be disrupted.

It may be necessary to conduct EOC operations with reduced staff. Remember that essential functions must continue regardless of staffing!

Activity: Identifying Staff Requirements

Instructions:

1. Work individually or in groups assigned by the Instructor.

2. Select a function from the list of essential functions you identified earlier.

3. Identifying the staffing requirements for the function.

You have 20 minutes to complete this activity.

Characteristics of Effective Organizations

- Ability to acquire, analyze, and act on information

- Flexibility in the face of rapidly changing conditions

- Ability to anticipate change

- Ability to maintain public confidence

- Reliability over time

Organizing for Effectiveness (2 of 2)

- **There is no specified organization for an EOC**

    BUT

- **The EOC should be organized to maximize the characteristics of an effective organization given the uniqueness of each jurisdiction.**

NIMS requires all jurisdictions to adopt ICS as its incident management system.

Are EOCs required to be organized according to ICS?

Types of Organizations (2 of 2)

Four ways to organize:

- **Major management activities**

- **Incident Command System (ICS)**

- **Emergency Support Functions (ESFs)**

- **MAC Group structure**

Organizing by Major Management Activities

Chief Executive

Policy Group

Agency/Dept. Heads

Emergency Manager

Public Information

Military Liaison

Communications

Message Coordinator

Coordination Group

Operations Group

Resource Group

Incident Analysis

Agency Reps. (as needed)

Agency Reps. (as needed)

Damage Assessment

ICS Organization


```
                          Command
    ┌──────────────┬──────────────┬──────────────┐
Operations      Planning       Logistics      Fin/Admin
    │               │               │               │
 Branch I      Resources Unit   Supply Unit    Comp/Claims
    │               │               │               │
 Group 1       Situation Unit  Ground Spt. Unit    Cost
    │               │               │               │
 Group 2       Document. Unit    Com. Unit     Procurement
    │               │                               │
 Branch II      Tech. Spec.                     Time Unit
    │
 Group 1
    │
 Group 2
```

Functional Organization

Operations Management

Operations
- Public Works/ Engineering
- Firefighting Branch-ESF#4
- Public Health Services
- Public Safety/ Law Enforcement
- Urban Search and Rescue

Planning
- Situation Analysis Unit
- Documentation Unit
- Advance Planning Unit
- Technical Services Unit
- Damage Assessment
- Resource Status Unit
- GIS

Logistics
- Situation Analysis Unit
- Communications Unit
- Food Unit
- Medical Unit
- Transportation Unit
- Supply Unit
- Facilities Unit

Finance/ Administration
- Compensation Claims Unit
- Cost Unit
- Purchasing/ Procurement Unit
- Time Unit
- Disaster Financial Assistance

MAC Group Organization

```
┌─────────────────────┐
│     MAC Group       │
│─────────────────────│
│      Agency         │
│  Representatives    │
└─────────────────────┘
            │
            │        ┌─────────────────────┐
            └────────│     MAC Group       │
                     │    Coordinator      │
                     └─────────────────────┘
                                │
        ┌───────────────────────┼───────────────────────┐
┌─────────────────┐   ┌─────────────────┐   ┌─────────────────┐
│   MAC Group     │   │   MAC Group     │   │     Joint       │
│   Situation     │   │ Resource Status │   │   Information   │
│   Assessment    │   │   Information   │   │  Center (JIC)   │
│     Unit        │   │     Unit        │   │                 │
└─────────────────┘   └─────────────────┘   └─────────────────┘
```

Activity: Selecting an EOC Organization

Instructions:

1. Work individually or in groups assigned by the Instructor.

2. Consider your essential functions and staffing.

3. Select the EOC organization that meets your needs best.

 You have 15 minutes to complete this activity.

Summary and Transition

Unit 3 covered:

- A method for identifying EOC staffing based on essential functions.

- The four potential ways of organizing an EOC.

Unit 4 will focus on meeting EOC communications needs.

Unit 4:
Determining Communications Needs

Unit Objectives

- **Describe the NIMS requirements for communications and information management.**

- **Develop a communications map to identify who needs to communicate with whom in an emergency.**

- **Identify primary and backup means of communicating among key personnel, both on-scene and within the MACS.**

NIMS Requirements (2 of 2)

NIMS requirements for communications:

- **Interoperability**

- **Redundancy**

What is interoperability?

Interoperability: Definition (2 of 2)

Definition. . .

the ability of public safety service and support providers to communicate with staff from other responding agencies and to exchange voice and/or data communications on demand and in real time.

--National Task Force on Interoperability

Interoperability (1 of 2)

How many of you think your jurisdictions' communications are interoperable?

How do you know?

Interoperability (2 of 2)

According to recent studies:

- **Only 6 of 75 U.S. of the largest metropolitan areas received the highest interoperability ratings (*Tactical Interoperable Communications Scorecards Summary Report and Findings,* January 2007).**

- **Emergency workers from only 2/3 of 6,800 communities surveyed claim that they can talk to each other on a routine basis (*2006 National Interoperability Baseline Survey,* December 2006).**
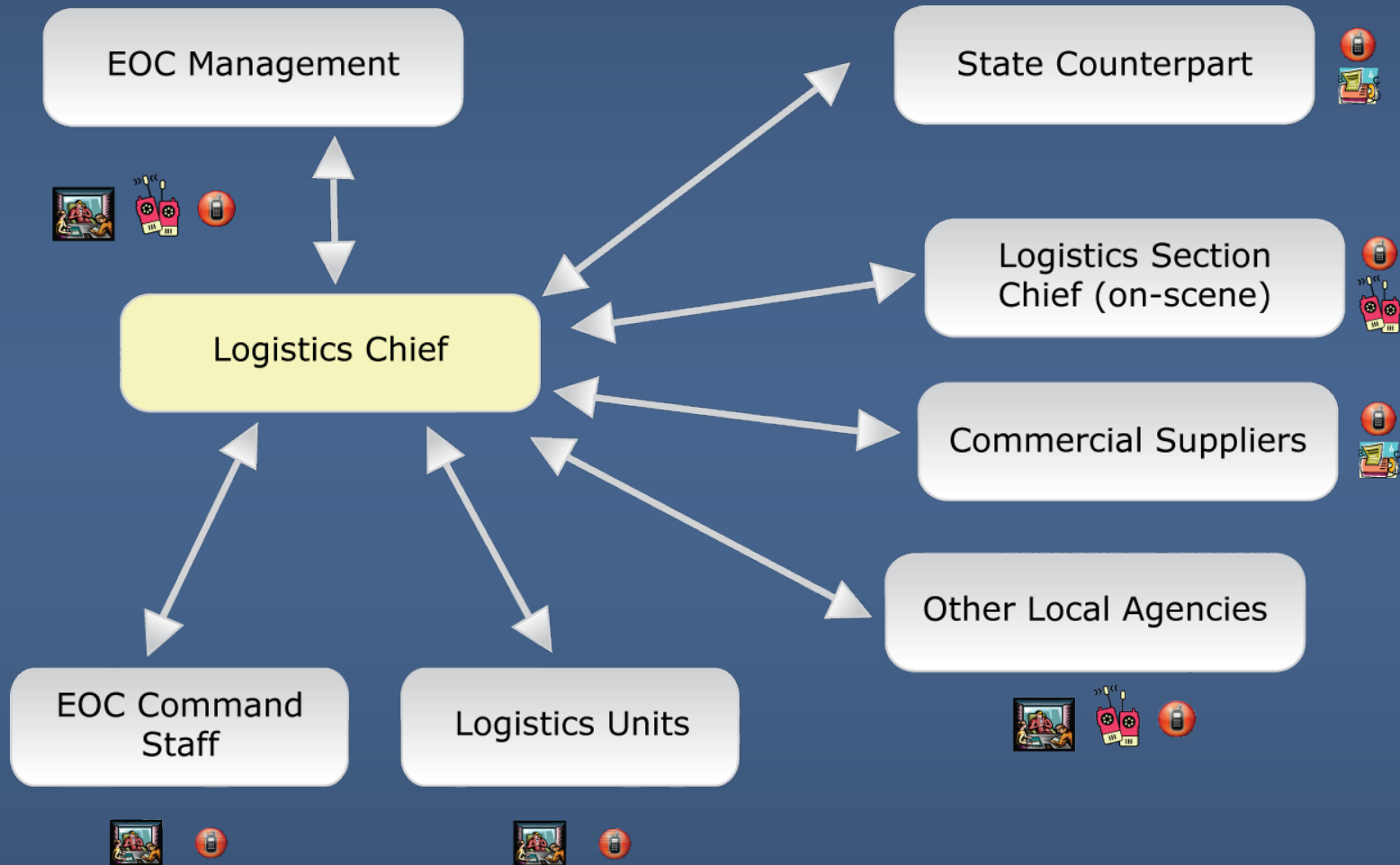
Who Needs To Communicate?

- **Who (by function or position) needs to communicate?**

- **To whom?**

- **What needs to be communicated?**

- **How?**

Mapping EOC Communications

Activity: Developing a Communications Map

1. Work in groups as assigned by the Instructor.

2. Select an EOC function or position.

3. Create a communications "map" for the function or position.

4. Participate in a class discussion of your jurisdiction's level of interoperability.

You have 30 minutes to complete this activity.

Assessing Radio Communications

Radio is the main means of communication among agencies during an emergency.

What factors affect your ability to communicate by radio?

Factors Affecting Radio Communications

- **Geography and topography**

- **Presence of high-rise buildings or other concrete and/or steel structures**

- **Frequencies allocated to emergency communications**

- **Incompatible systems**

Activity: Assessing Radio Communications

1. **Work in your table groups to complete this activity.**

2. **Complete the worksheet, *Determining Radio Communications Capability.***

3. **Participate in a class discussion about the issues you identify that affect your radio communications capability.**

You have 30 minutes to complete this activity.

Determining Interoperability

You now know:

- **Who needs to communicate. . .**
- **With whom. . .**
- **When. . .**
- **How. . .**

But are your communications interoperable?

Redundancy

What will you do if your primary communication system fails?

Backup Systems (1 of 3)

- What are they?

- When will they be used?

- How will notifications be made?

What kinds of communication systems do you use as backup systems?

Backup Systems (3 of 3)

Remember. . .

- **All agencies assisting in a response must be able to switch to a backup system when required.**

- **A system may work in one situation but not in another.**

- **Backup systems must accommodate secure communications, where necessary.**

Communicating With the Media

Don't forget public information!

NIMS requires that public information be organized around a Joint Information System (JIS) that is overseen by a Public Information Officer (PIO).

Public Information Systems

- Who is the public?

- What does the public need to know?

- Who will provide that information?

- Who will manage the information flow?

- How will the information be transmitted?

- When?

- How often?

Joint Information System

- **Provides the mechanism to ensure delivery of information to the public.**

- **Includes:**
  - **Plans**
  - **Protocols**
  - **Structures**

Public Information Officer

- **Represents and advises the <u>Incident Command</u>**

- **Handles:**

  - **Media and public inquiries**

  - **Emergency public information and warnings**

  - **Rumor monitoring and response**

  - **Media monitoring**

Summary and Transition

Unit 4 covered:

- How to determine the communications needs for an incident.

- Key features of a Public Information System.

Unit 5 will cover how to determine information, systems, and equipment needs.

Unit 5:
Determining Information, Systems, and Equipment Needs

Unit Objectives

- **Identify the information needs for EOC operations.**

- **Determine the systems and equipment needed to support the EOC staff's information needs.**

Information Management (2 of 2)

- What information do you need?

- What will you do with it?

- How will you protect it?

- How will you preserve it?

What types of information do you manage during an emergency?

Types of Information (2 of 2)

Emergency Operating Records:

- **EOP**
- **SOPs**
- **Orders of succession**
- **Delegations of authority**
- **Maps**
- **Call-down rosters**
- **Resource assignments**

Legal and Financial Records:

- **Contracts**
- **Accounting records**
- **Timesheets**
- **Property management records**
- **Maintenance records**

Using Information

How you <u>use</u> information affects how you <u>manage</u> it.

How do you keep key personnel in the EOC rather than at the incident scene?

Providing Information To Key Personnel (2 of 2)

Provide key personnel with the information they need to make decisions:

- **Email**

- **Phone/radio**

- **Access to operational data**

- **Access to information needed from other key personnel throughout the MACS**

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Providing Information To Key Personnel (2 of 2)

How do you ensure support personnel have the information they need?

Support Personnel Information Needs (1 of 2)

- **Static information maintained in EOC**

- **Dynamic information maintained by jurisdiction or individual agencies (police, fire, etc.) or created at the EOC during each emergency**

- **"Go" kits maintained by individual agencies and updated as necessary**

Both electronic and paper files should be backed up whenever possible.

Meeting Information Needs

- **Address information needs as part of the emergency planning process.**

- **Address information needs for <u>the entire EOC operation</u>.**

Meeting the Public's Information Needs

- **Develop a Joint Information System that includes:**

  - **Protocols for coordinating information dissemination.**

  - **Templates for warnings, public-service announcements, and other emergency information.**

- **Establish a Joint Information Center (JIC).**

- **Staff the JIC with trained PIOs as directed in the EOP.**

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Activity: What Do You Have, What Do You Need?

Instructions:

1. Work in your table groups to complete this activity.

2. Identify information needs and gaps for the EOC function assigned by the instructor.

You have 30 minutes to complete this activity.

Equipment and System Needs

Depend on:

- **How information is stored and maintained.**

- **Who stores and maintains it.**

- **The number of people needing to access it.**

- **How often the information is updated.**

- **The sensitivity of the information.**

Selecting Equipment and Systems

What methods have you used to meet your equipment and system needs?

Getting What You Need

Funding <u>is</u> an issue but not being able to support a response is a bigger issue! Some suggestions:

- Develop joint specifications with neighboring jurisdictions and purchase jointly.

- Require represented agencies to provide a percentage of their budgets for equipment/systems purchase.

- Approach the governing body for purchases through an emergency services tax.

Summary and Transition

Unit 5 covered:

- **Meeting information needs at the EOC.**

Unit 6 will focus on the physical EOC facility.

Unit 6:
Designing the EOC

Unit Objectives

- **Analyze your current EOC facility for functionality.**

- **Articulate the need for an alternate EOC and describe the minimum requirements for the alternate facility.**

EOC Location (2 of 2)

- **Accessibility**

- **Safety**

- **Size**

- **Systems capability**

- **Survivability**

- **Versatility**

EOC Accessibility

- **Can key personnel get to the EOC within the required timeframe?**

- **Can suppliers and support personnel get to the EOC without delay, when needed?**

Analyzing Accessibility (1 of 2)

What should you consider when analyzing accessibility?

Analyzing Accessibility (2 of 2)

Review the hazard/vulnerability analysis to determine whether:

- The EOC is accessible regardless of hazard.

- Key personnel can walk to the EOC if necessary.

- New threats pose a risk to the EOC.

What do you look at when you consider safety?

EOC Safety (2 of 2)

- **Is the EOC in a location that is safe from:**
  - **Natural and other hazards?**
  - **Cascading events?**
- **Is the EOC located in or near a terrorist target?**
- **Can EOC personnel safely walk:**
  - **To report to the EOC (if necessary)?**
  - **For meals and other amenities?**

How do you determine if your EOC is large enough?

EOC Size (2 of 2)

- **How many staff members do you need?**

- **What equipment will they use?**

- **How is the equipment configured?**

- **How much additional equipment is required to ensure interoperability and redundancy?**

- **Is there space for:**
  - **Conferences?**
  - **Eating?**
  - **Sleeping?**

A Design Language for EOC Facilities

"Some thoughts on basic design approaches by Art Botterell"

Boardroom

All staff gathers around single table, or horseshoe- or oval-shaped groupings of tables

Emphasizes interaction and collaboration

Visuals are at one end of table

Appropriate for small groups; additional staff sits along the walls

Example - President's Cabinet

Boardroom

Mission Control

Technology-based command and control centers (military, network control rooms)

Rows of tables with side-by-side seating facing one wall with large visual displays

Technology "mediates" EOC staff interactions through technological "knowledgebase"

De-emphasizes direct interaction among staff

Can support operation with break-out rooms laid out as Boardrooms

Minus technology –"lecture hall" layout

Example: NASA

Mission Control

MarketPlace

- Collection of small Boardroom-style tables

- Each table group has specialized function

- Coordination by communicating

- Emphasizes close collaboration and flexible interaction between specialists

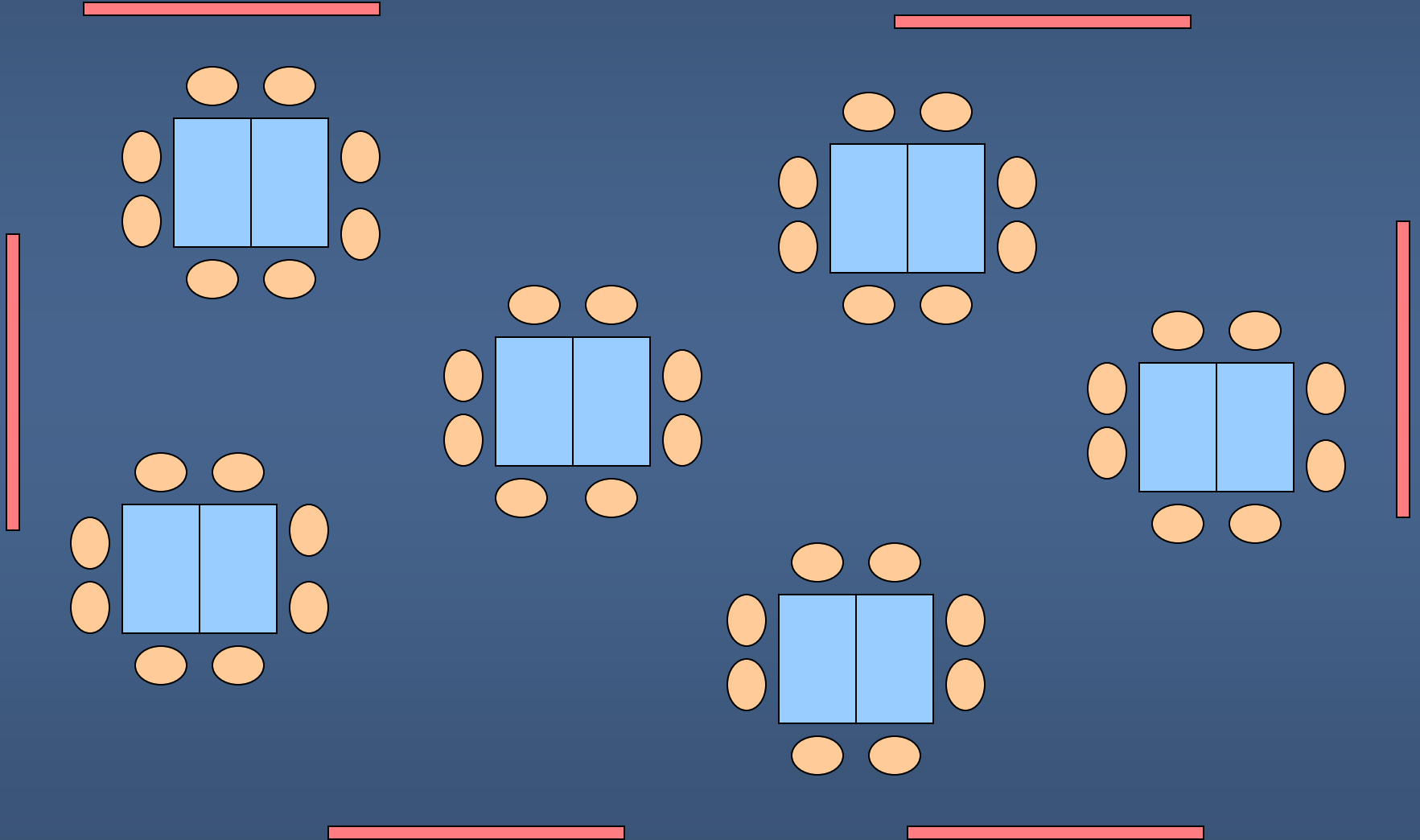- Maintains high level of autonomy for each specialty

- "Management by Walking Around" by command/decision-makers

- Example: ERT-A Center, FEMA Headquarters

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MarketPlace

Bulls-Eye

Boardroom – Expanded

Staff sits behind their representatives at main table

Focus is on main-table decision-makers

Facilitates consultation within staff
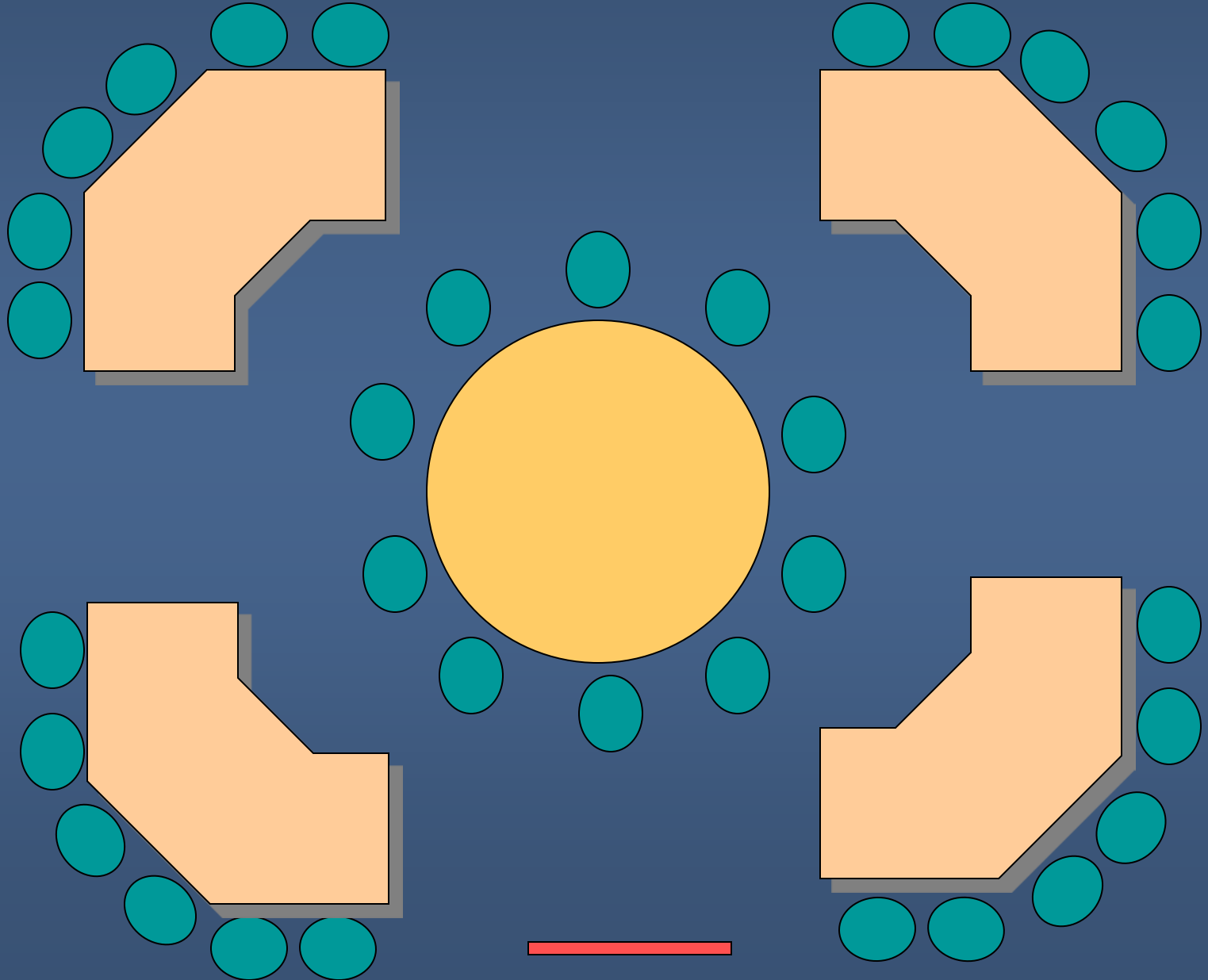
Reduces interaction at main table

Requires a lot of floor space

Example: UN Security Council chambers

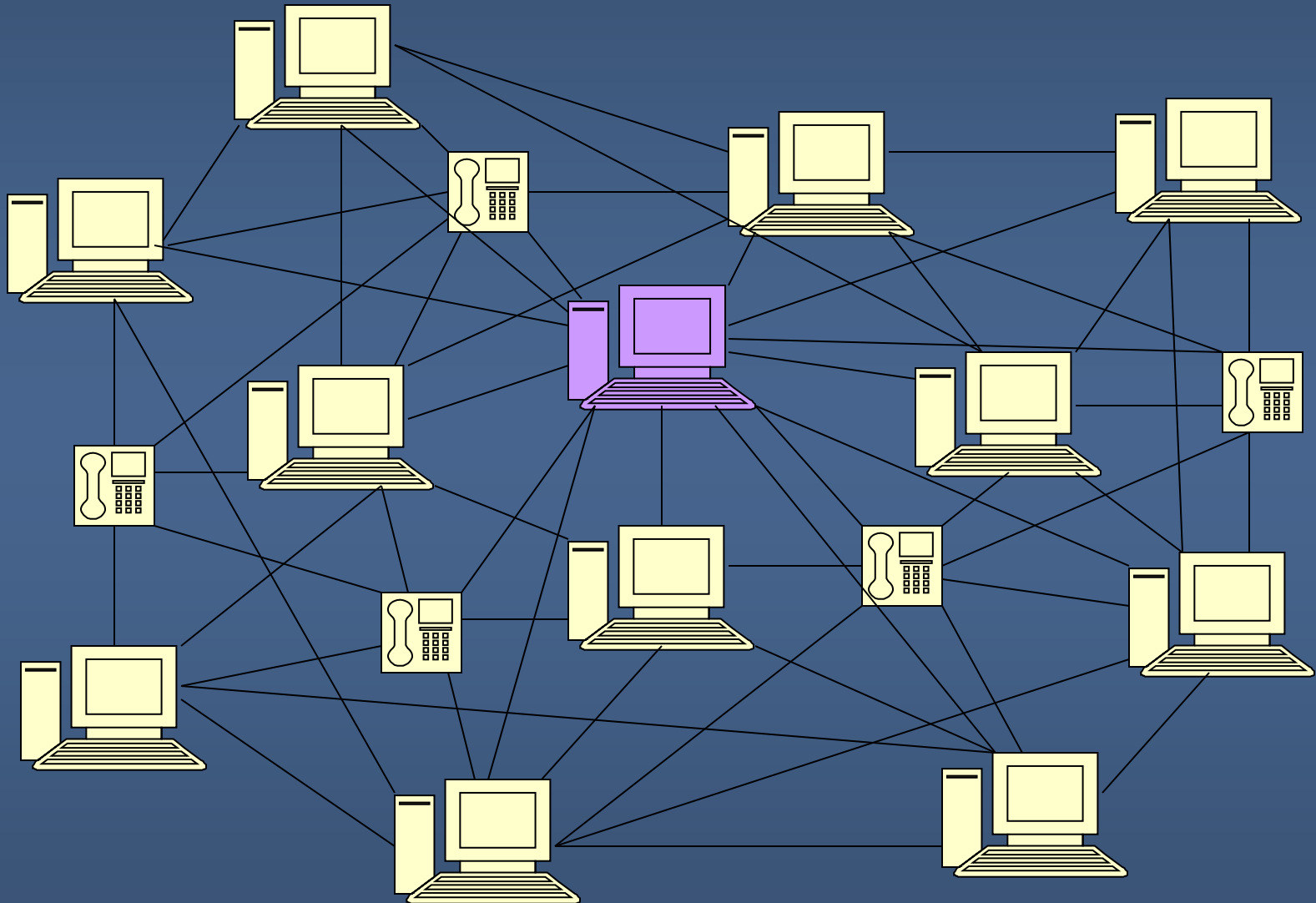# Bulls-Eye

Virtual

Doesn't require physical co-location

Tasks conducted by phone, computer, video conferencing, etc.

Not a good substitute for the real thing, but can be an alternative to enhance flexibility.

- EOC team

- Coordination with remote locations (i.e. on-scene commanders)

- Allow a phased process for activation

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Virtual EOC

Virtual

Challenges

- **Reliability and security of technology**
- **Limits of connectivity**
- **Loss of nuance in face-to-face communications**
- **Need for sophisticated tools to manage online group processes**
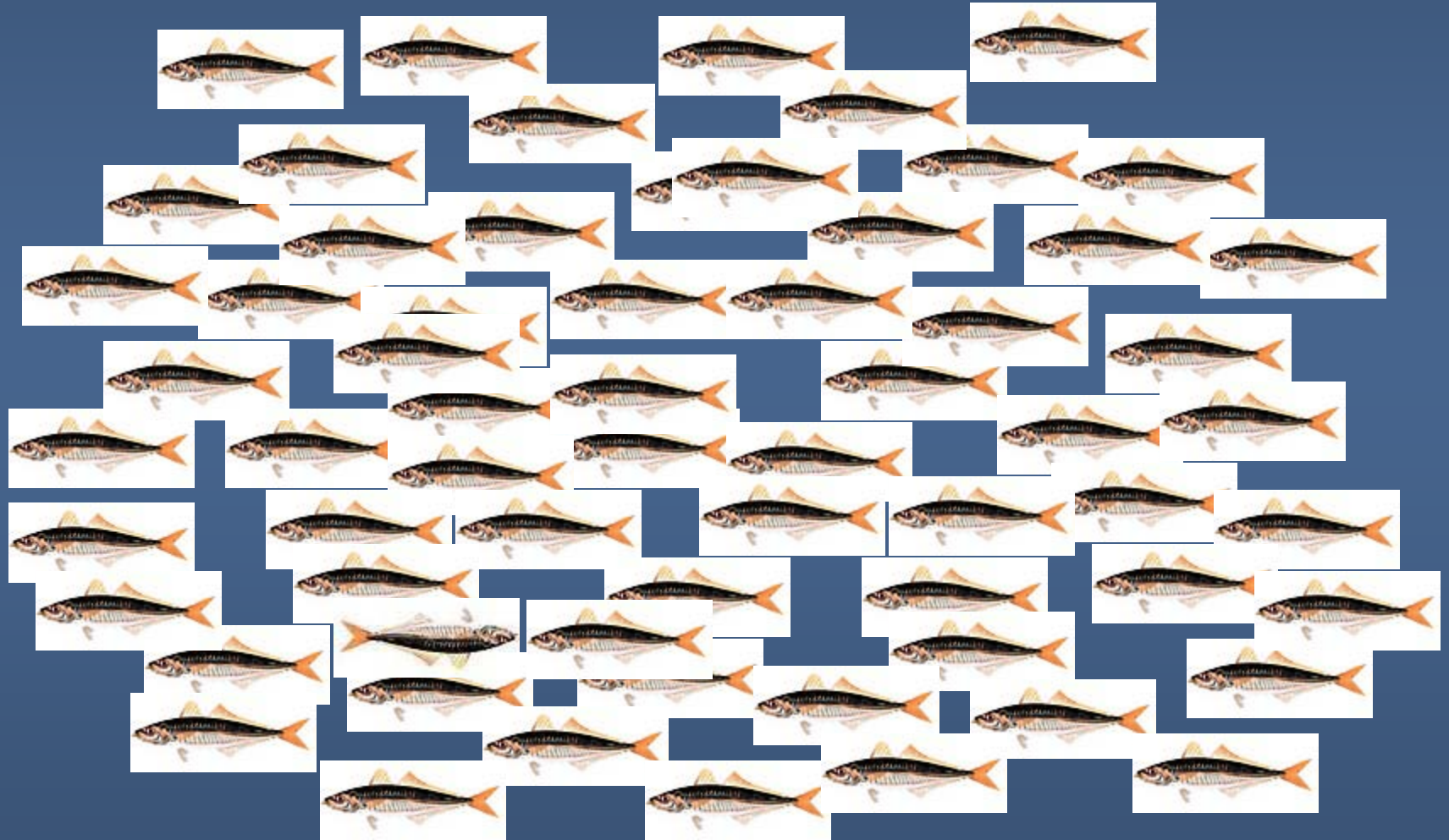
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Sardines

More a phenomenon than a design!

Work spaces arranged for maximum density, but may reveal informal organizational structures within EOC

Layout stems from shape of space, available furniture, and wiring configuration

Once established, hard to reconfigure to more functional design

Sardines

Summary

The physical layout of your EOC should reflect the organizational processes the EOC needs to support.

Non-emergency uses of the facility may influence the layout.

Determine who in your jurisdiction has the decision-making authority to establish the EOC layout.

Periodically, re-assess the functionality of your layout.

What are some options when the EOC is too small?

When the EOC is Too Small (2 of 2)

- Look at the entire MACS.

- Consider Departmental EOCs (DEOCs).

EOC Systems Capability

- **Heating, ventilation, air conditioning (HVAC)**

- **Water**

- **Electricity and natural gas**

- **Telephone**

What does survivability in an EOC mean?

Survivability:

- **Is the culmination of all factors in the EOC location and design.**

- **Means the EOC can remain operable for an extended period of time regardless of:**

  - **The incident.**

  - **Other damage to the infrastructure.**

Activity: Reviewing EOC Physical Configuration

Instructions:

1. Work in your table groups to complete this activity.

2. Review your EOC's physical configuration. Determine whether and how it can be improved.

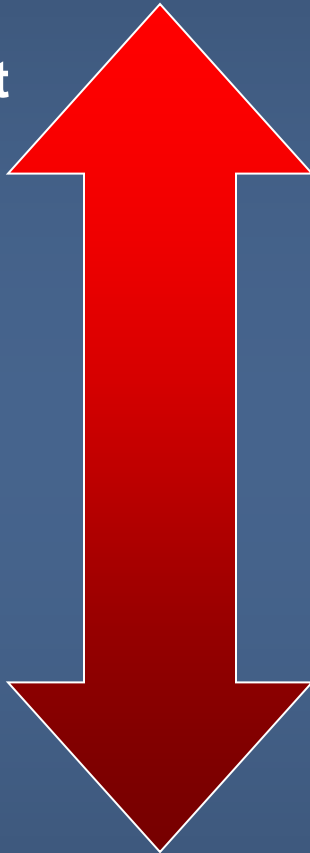You have 30 minutes to complete this activity.

Hot, Warm, and Cold Facilities

Highest Cost

Lowest Cost

<u>Hot</u>: Fully equipped, utilities working, shortest startup period required.

<u>Warm</u>: Some systems/equipment in place, moderate startup period required.

<u>Cold</u>: Not equipped, utilities not working, longest startup period required.

Alternate EOCs (1 of 2)

How many of your jurisdictions have alternate EOCs?

Alternate EOCs (2 of 2)

- **<u>All</u> jurisdictions should have an alternate EOC!**

- **Selection of an alternate EOC location should be based on the same factors as the primary EOC.**

  - **Accessibility**

  - **Safety**

  - **Size**

  - **Systems capability**

  - **Survivability**

Summary and Transition

Unit 6 covered:

- EOC design and configuration considerations.

Unit 7 will focus on activating and deactivating the EOC.

Unit 7:
Activating and Deactivating the EOC

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Unit Objectives

- **Determine when, how, and by whom the EOC will be activated.**

- **Define "time-phased" activation and determine when it might be appropriate.**

- **Analyze incident needs to determine if EOC staffing should be increased or decreased.**

- **Determine when and how to deactivate the EOC.**

What is your policy for activating the EOC?

Activating the EOC (2 of 4)

- **When a Unified Command or Area Command is established.**

- **When more than one jurisdiction becomes involved in the response.**

- **When the Incident Commander indicates that the incident could expand rapidly.**

- **If similar incidents have required EOC activation.**

- **When the CEO directs EOC activation.**

- **When threshold events described in the EOP occur.**

Who makes the decision to activate the EOC?

Activating the EOC (4 of 4)

- **The decision to activate the EOC will vary by jurisdiction.**
- **The decisionmaking process should be documented in policy.**
- **All personnel must understand:**
  - **Who makes the decision.**
  - **The circumstances for activation.**
  - **The timeframes for activation.**
  - **Level of activation.**

Activation Procedures

Do you activate your EOC all at one time?

Time-Phased Activation

May be appropriate when:

- **An incident occurs that is expected to build over time.**

- **There is a warning period before the emergency.**

- **In preparation for planned events.**

Activation Phases

Level 1 (Full): All Personnel

↑

**Level 2 (Partial): Key Personnel
and Personnel from
Responding Agencies**
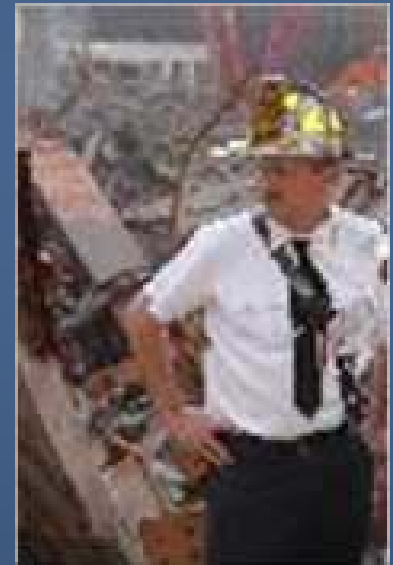
↑

**Level 3 (Monitor): Key
Personnel Only**

How do you determine the level of activation required?

Activation Phases (2 of 2)

- **Activation levels should be based on the jurisdiction's hazard analysis.**

- **The decision about the level of EOC activation should be based on:**

  - **Established "triggers."**

  - **Communication with the Incident Commander or Unified Command.**

Activity: Analyzing Activation Procedures

Instructions:

1. Work in your table groups to complete this activity.

2. Review the EOC activation procedures in your EOP. Determine if they meet the guidelines described in this unit.

You have 10 minutes to complete this activity.

Deactivating the EOC (2 of 2)

Communication with the <u>Incident Commander</u> or <u>Unified Command</u> is the best way to determine when to deactivate the EOC. The on-scene commander(s) know:

- **The current incident status.**

- **What is required to meet incident objectives.**

- **How long it will take to meet incident objectives.**

- **When the demand for resources slows down.**

Phases of Deactivation

Do you **deactivate** your EOC in phases?

Post-Incident Activities

What post-incident activities do you undertake regarding the EOC?

After-Action Analysis and Reporting

Involve:

- **All key EOC personnel.**

- **The Incident Commander(s).**

- **Jurisdiction leadership.**

- **Others as appropriate.**

Summary and Transition

Unit 7 covered:

- EOC activation and deactivation.

Unit 8 will focus on EOC operations.

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Unit 8:
EOC Operations

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Unit Objectives

- **Describe the attributes of an effective ICS/EOC interface.**

- **Develop strategies to resolve common operational problems at the EOC.**

- **List the physical, cognitive, and behavioral signs of stress.**

- **Provide effective psychological support to EOC staff.**

Small, Routine Incident Structure

Foreman

Watch Cdr

Battalion Chief

Equipment Operators

Law Enforcement Officers

Firefighters

ICS

Command and Operations

Larger, Complex Incident Structure

EOC

Policy and Coordination

Director, Public Works

Police Chief

Fire Chief

Foreman

Watch Cdr

Battalion Chief

Equipment Operators

Law Enforcement Officers

Firefighters

ICS

Command and Operations

ICS/EOC Interface Issues

What are some of the issues you've faced with the ICS/EOC interface?

ICS/EOC Interface Issues

EOC

Policy and Coordination

Communication

SOPs

Resource Management

Trained Personnel

ICS

Command and Operations

Does everyone have SOPs for your EOCs?

What do your SOPs cover?

Standard Operating Procedures (1 of 2)

- SOPs should be developed for <u>every</u> EOC position.

- Each SOP should cover:

  - What the position requires.

  - When the SOP becomes effective.

  - A list of key tasks during each phase of operations.

  - When the SOP ceases to be effective.

Who develops your SOPS?

SOP Development and Update (2 of 2)

- **EOC SOP development should be a team effort.**

- **SOPs should be:**

  - **Developed as part of the planning process.**

  - **Reviewed and revised after each activation or exercise or annually.**

Resource Management: CP vs. EOC

Command Post:

- **Identify needs**
- **Order resources**
- **Check in resources**
- **Assign resources**
- **Track resources**
- **Demobilize resources**

EOC:

- **Receive requests**
- **Prioritize requests**
- **Locate/order resources**
- **Assign according to priorities**
- **Track resource use**
- **Pay for resources**

How does the Incident Commander know when to begin requesting resources from the EOC rather than dispatch?

Resource Management (2 of 2)

Triggers will vary by jurisdiction and incident type. Some may include:

- **EOC activation.**

- **Dispatch workload increases beyond a specified threshold.**

- **The establishment of a Unified Command or Area Command.**

- **When normal mutual aid resources have been exhausted.**

Making the Switch to the EOC

Regardless of the triggers to switch resource management to the EOC, resource management system activation must be:

- Clearly stated.

- Easily implemented.

- Supported by dependable communications.

Activity: Resource Management Annex Review

Instructions:

1. Work in your table groups to complete this activity.

2. Review your Resource Management Annex as you complete the Resource Management Assessment in the Student Manual.

You have 10 minutes to complete this activity.

Day-To-Day Staffing (1 of 2)

How many of you staff the EOC on a 24/7 basis?

How did you determine staffing levels?

Day-To-Day Staffing (2 of 2)

Population	Full-Time Equivalent Staff
Over 1,000,000	6-20
250,000 to 1,000,000	4-8
100,000 to 250,000	3-5
25,000 to 100,000	2-3
Under 25,000	1-2

Emergency Staffing

Staffing depends on the:

- **EOC organization selected.**

- **Size and/or complexity of the emergency.**

- **Level of EOC activation required.**

Ensuring Qualified Staff (2 of 2)

- The EMC may not have control over every staff member.

- He or she should:
  - Ensure that Position Descriptions are developed for every EOC position.
  - Work closely with other key personnel to ensure that external staff are fully qualified.
  - Provide training opportunities for common tasks.
  - Use information from exercises and operations to determine additional training needs.

Coordinating With Other Parts of the MACS

When do you coordinate with other parts of the MACS Systems?

MACS Coordination

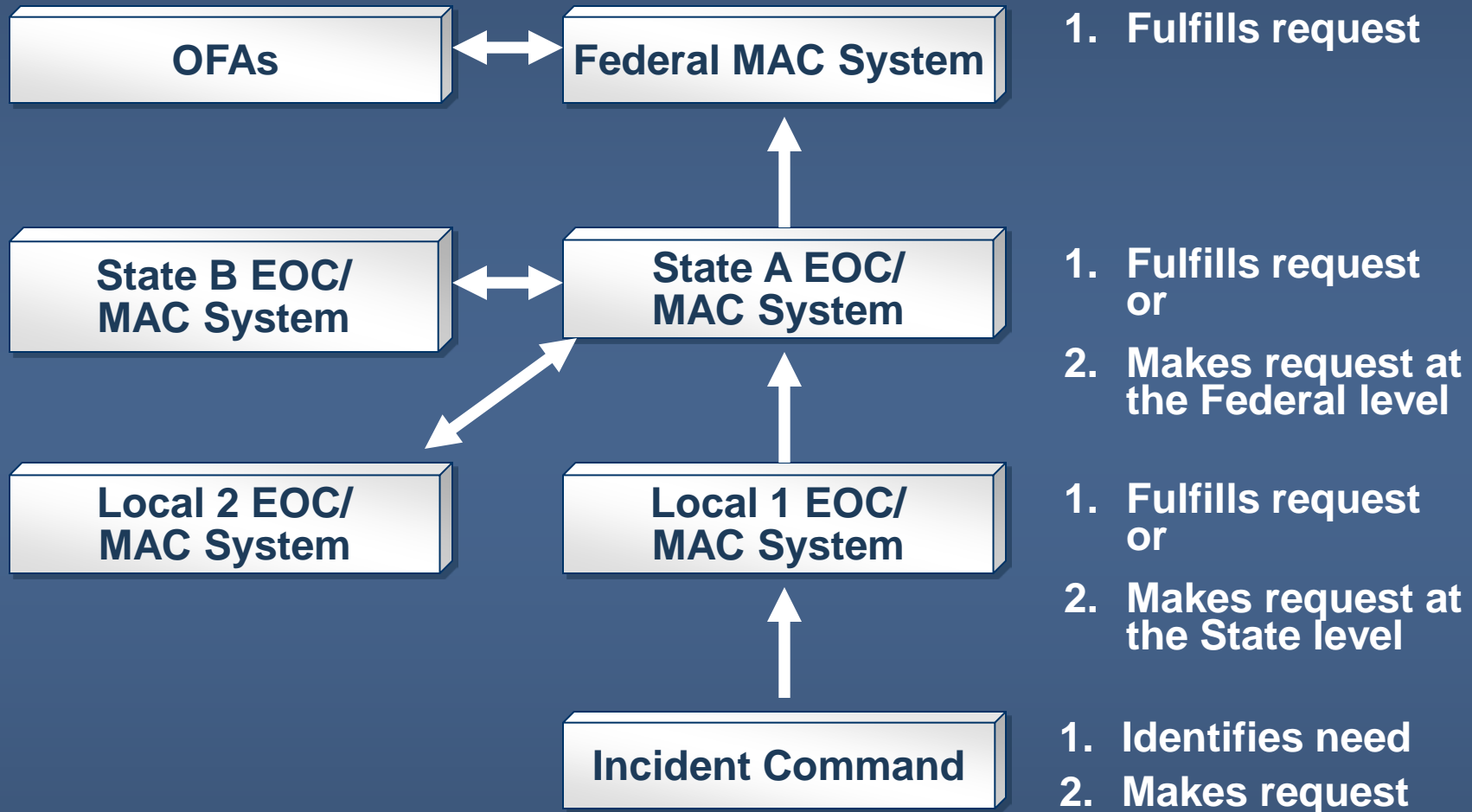Coordination points will vary by State and jurisdiction. Common coordination points are when:

- Mutual aid is requested.

- Technical specialists are required.

- The emergency is widespread or a Federal disaster is declared.

How To Request External Assistance

| OFAs | ←→ | Federal MAC System |

1. Fulfills request

| State B EOC/ MAC System | ←→ | State A EOC/ MAC System |

1. Fulfills request or
2. Makes request at the Federal level

| Local 2 EOC/ MAC System | | Local 1 EOC/ MAC System |

1. Fulfills request or
2. Makes request at the State level

| Incident Command |

1. Identifies need
2. Makes request

What information should you include in your formal request for assistance?

How To Request Assistance (1 of 2)

Include:

- **The type of incident.**

- **The time that the incident occurred or is expected to occur.**

- **Actions already taken.**

- **Areas and number of people involved.**

- **Estimates of loss of life, injuries, and extent of damage.**

- **The type and amount of assistance required.**

- **A contact for followup questions.**

When You Request Assistance

- **Ask sooner, rather than later.**

- **Focus on mission, task, objectives, and priorities.**

- **Follow established procedures.**

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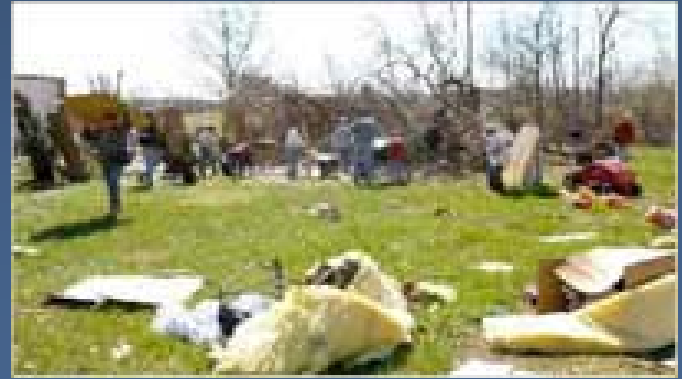
What issues have you encountered during long-term operations?

Long-Term Issues (2 of 2)

Documentation Issues

Resource Issues

Staffing Issues

Cost Issues

Long-Term Issues Resolution

Do you have any suggestions for resolving these issues?

Resolving Issues

- Have all decision-makers at the EOC.

- Provide the authority to resolve issues.

- Mediate, when necessary.

When Mediation Becomes Necessary

- **Suspend judgment.**

- **Listen carefully.**

- **Analyze the discussion and make suggestions.**

Maintaining a Positive Climate

- **EOCs can be a pressure cooker, especially in long-term operations.**

- **Tension is inherent in the environment.**

You may not be able to prevent tension, but you can take action to mitigate it.

What are some signs that stress levels are rising at the EOC?

Identifying Signs of Stress (2 of 2)

- **Personality changes**

- **Restlessness**

- **Changes in diet or failure to eat**

- **Inability to make decisions**

- **Reluctance to take breaks**

What strategies have you used to reduce stress levels?

Resolving High Stress Levels (2 of 3)

- **Before operations:**
  - **Become a team.**
  - **Provide all personnel with information about:**
    - **What causes stress.**
    - **How to reduce stress.**
- **During operations:**
  - **Be alert for behavior changes.**
  - **Act sooner rather than later.**

Resolving High Stress Levels (3 of 3)

After operations:

- **Conduct stress debriefings.**

- **Follow up over time.**

- **Involve other people.**

- **Provide professional help if necessary.**

Stress and Decisionmaking (1 of 2)

How do stress levels translate to decisionmaking?
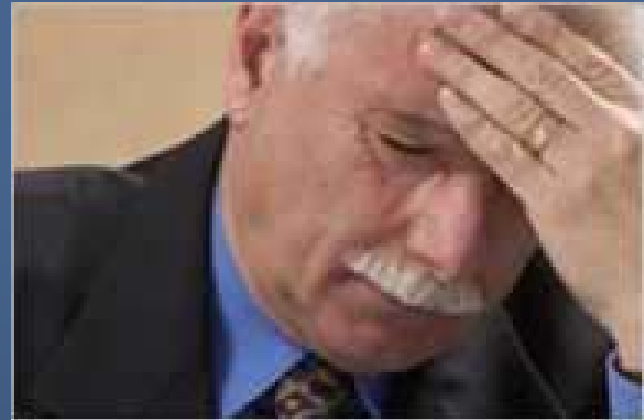
Stress and Decisionmaking (2 of 2)

Impediments to making good decisions under stress:

- Perceived or real time pressure

- Political pressures

- Swings in blood sugar

- Increased caffeine intake

- Conflicting information

- Uncertainty

- Sleep deprivation and fatigue

- Lack of information

How can you improve decisionmaking when under stress?

Improving Decisionmaking (2 of 2)

- Establish a routine and follow it to the degree possible.

- Use a model for decisionmaking.

Summary and Transition

Unit 8 covered key aspects of EOC operations, including:

- The ICS/EOC interface.

- Maintaining a positive climate in the EOC.

- Improving decisionmaking under stress.

Unit 9 will cover testing, training, and exercising EOC operations.

Unit 9:
Testing, Training, and Exercising the EOC

Unit Objectives

- **Define the terms tests, training, and exercises.**

- **Explain how tests, training, and exercises are used to ensure effective EOC operations.**

- **Describe the Homeland Security Exercise and Evaluation Program (HSEEP).**

- **Select the type(s) of tests, training, and exercises that are appropriate to a given scenario.**

Who can define tests, training, and exercises as they relate to the EOC?

Measures to ensure that a jurisdiction's EOC is capable of supporting response and recovery throughout an incident period.

TT&E Should Be Integrated

TT&E should be part of a __program__ that:

- **Ensures that all TT&E events share the common goal of mission readiness.**

- **Provides a framework for readiness activities that will ensure consistency and uniformity.**

Attributes of an Effective TT&E Program

An effective TT&E program:

- Provides training in the appropriate functional areas of mission readiness.

- Provides opportunities to acquire and apply the skills and knowledge needed for EOC operations.

- Builds team unity.

TT&E and Mission Readiness

To achieve the goal of mission readiness TT&E should:

- **Be comprehensive.**

- **Reflect lessons learned.**

What constitutes a test?

Tests (2 of 2)

A <u>test</u> is an evaluation of a capability against an established and measurable standard.

Examples of tests include:

- Communication tests.
- Alert and notification tests.
- Deployment tests.

Training

- **Instruction in core competencies and skills.**

- **Provides the tools needed to:**

  - **Accomplish a goal.**

  - **Meet program requirements.**

  - **Acquire a specified capability.**

Exercises

Exercises are events that allow:

- **Participants to apply their skills and knowledge.**

- **Planners to evaluate effectiveness of simulations and tests.**

HSEEP

The Homeland Security Exercise and Evaluation Program (HSEEP):

- **Provides common exercise policy and program guidance.**

- **Constitutes a national standard for homeland security exercises.**

- **Uses consistent terminology that can be used by all exercise planners.**

Homeland Security
Exercise and Evaluation
Program (HSEEP)

Volume I: HSEEP Overview and Exercise Program Management

February 2007
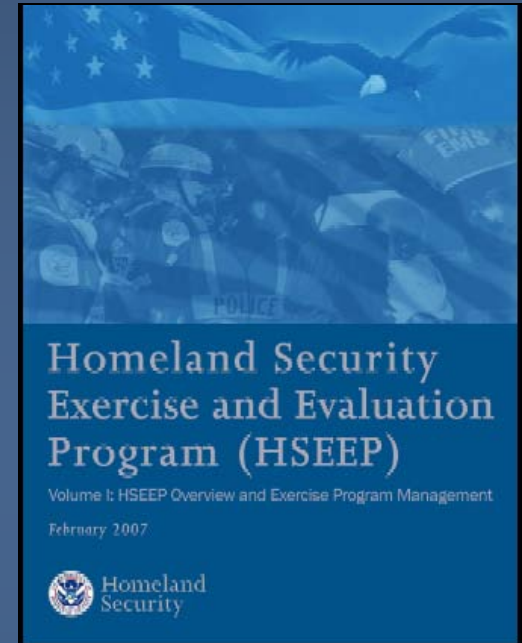
Homeland Security

HSEEP Strategy

- **HSEEP was developed in accordance with Homeland Security Presidential Directive (HSPD) 8 and the National Preparedness Goal.**

- **HSEEP uses a capabilities-based approach to:**

  - **Individual exercises.**

  - **Exercise program management.**

HSEEP provides the Nation with a common, consistent platform for its homeland security exercise needs.

Types of Exercises

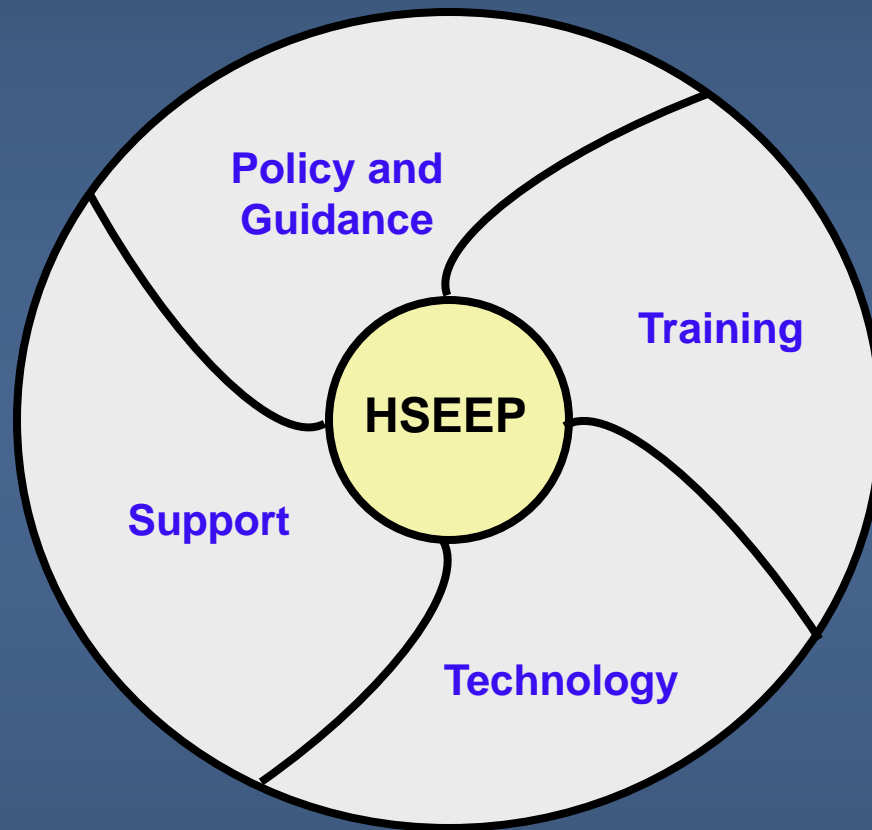**Discussion-Based:**

- Seminars

- Workshops

- Tabletop Exercises

- Games

Operations-Based:

- Drills

- Functional Exercises

- Full-Scale Exercises

HSEEP: A Blended Approach

- **Personnel have the opportunity to practice their roles.**

- **Jurisdictions can measure their actual capabilities in specified areas.**

- **Jurisdictions can improve their overall emergency management systems.**

Other Benefits of Exercises

- **Identification of planning weaknesses**

- **Improving coordination and communication**

- **Clarifying roles and responsibilities**

- **Revealing resource gaps**

- **Gaining public support**

Your jurisdiction is planning an exercise to see how long it takes for all personnel to report to the alternate EOC and become fully operational from a warm start.

What kind of exercise would you plan?

Your jurisdiction has recently updated its EOP. As part of that process, several new policies were implemented to streamline decisionmaking at the EOC. You want to do a preliminary evaluation of whether the policies work.

What kind of exercise would you plan?

Your jurisdiction has recently purchased a new communications system. The system facilitates interoperability but is more complex than the jurisdiction's previous system. Training is complete, and you want to test the communications function.

What type of exercise would you plan?

Summary and Transition

Unit 9 covered:

- Testing, training, and exercising the EOC operation.

Unit 10 will present a brief course review and include the final exam.

Unit 10:
Course Summary and Final Exam

Unit Objectives

You should be able to pass the final course exam.

Activity: Identifying Essential EOC Functions

Instructions:

1. Work individually or in groups assigned by the Instructor.

2. Identify the most important points learned.

You have 20 minutes to complete this activity.

Final Exam

1. Complete the identifying information on the score sheet.

2. Read each exam question carefully, and record your answers on the score sheet.

3. You have 30 minutes to complete this exam.

4. When you finish, give your exam and score sheet to the instructor.

Course Evaluation

- Your evaluation of the course content, materials, and delivery is important.

- <u>Every</u> comment is read and discussed for possible improvement to the course.

Thank you for participating in the EOC Management and Operations course!