BCARES Training Development NIMS, ICS, NRF, & Exercise Design Overview

with aspects, topics, and guidance from

FEMA IS-100, 139, 200, 244, 288, 700, and 800

for BCARES Members

BCARES Training Development
- Objectives -

- To present a general overview of Emergency Communications aspects of the Amateur Radio Service
- Highlight Incident Command System, National Incident Management System, and National Response Framework (formerly NRP) principles and how they relate to the Amateur Radio Service, more specifically, BCARES, a Voluntary Organization Active in Disaster (VOAD) / Non-Governmental Organization (NGO)
  - Not a replacement of BCARES training recommendations for completing IS-100, 200, 700, & 800

Acronym Alphabet Soup

- ARES® - Amateur Radio Emergency Service
- ARRL – American Radio Relay League
- RACES – Radio Amateur Civil Emergency Service
- MARS – Military Affiliated Radio Service
- SEC – Section Emergency Coordinator
- DEC – District Emergency Coordinator
- EC – Emergency Coordinator
- AEC – Assistant Emergency Coordinator
- EMA – Emergency Management Agency
- EmComm – Emergency Communications

Acronym Alphabet Soup

- FEMA – Federal Emergency Management Agency
- PEMA – Pennsylvania Emergency Management Agency
- ICS – Incident Command System
- IC – Incident Commander
- IAP – Incident Action Plan
- NIMS – National Incident Management System
- NRF – National Response Framework
- SM – Section Manager
- TTE – Table Top Exercise

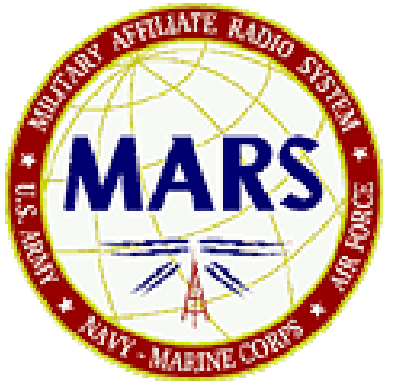
Amateur Radio Service

- Title 47 CFR §97.1 (a) Recognition and enhancement of the value of the amateur radio service to the pubic as a voluntary noncommercial communication service, particularly with respect to providing emergency communications.
- Title 47 CFR §97.407 Radio Amateur Civil Emergency Service (RACES)

RACES

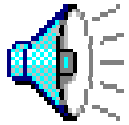
- Radio Amateur Civil Emergency Service or RACES is a service program active only during emergencies and/or during brief drills as outlined in Title 47 CFR §97.407.
- RACES is a “top down” operation.
- The Amateur Radio Service becomes “deputized” by local, state, or federal government during declared emergencies.
  - Volunteers are often covered under the EMA’s worker compensation insurance.

MARS



- Military Affiliated Radio Service was created by the Department of Defense to provide communications support for the military in time of need.
- The three branches of MARS are Army, Navy/Marines, and Air Force.
- MARS operators are Amateur Radio Operators and are often current or former Military personnel.

MARS



- MARS Exercises often integrate with ARES®/RACES communications
- MARS frequencies are often close to or immediately adjacent to Amateur Radio bands, hence the ease of interoperability with the same or similar equipment
- MARS Call signs are similar in format to Amateur Call signs and are issued by the respective military branch (Department of Defense)

ARES®

- Amateur Radio Emergency Service® or ARES® is an organization created and managed by the American Radio Relay League (ARRL)
- It is a “bottom up” grassroots organization.
- Civic minded Amateur Radio Operators constitute the ARES® membership
- Organized locally, usually at the County or City level

ARES®

- ARES® organizations provide training, structure, and guidance for their members in preparation for emergencies
  - Directly supports NIMS requirements
- ARES® promotes the benefits of the Amateur Radio Service, from an EmComm perspective, for served agencies and for public service activities (e.g. walk-a-thons)

ARES®

- ARRL
  - ARRL Section Manager — Eastern PA
    - Section Emergency Coordinator — Eastern PA
      - District Emergency Coordinator — Southeastern PA (5 County)
        - Emergency Coordinator — Bucks County
          - Assistant Emergency Coordinator — Bucks County Sections

Source: Adopted from ARES Field Resources Manual, ARRL, December 2000

Incident Command Principles

- BCARES recommended FEMA Courses
  - IS-100 – Incident Command System – An Introduction
  - IS-200 – Incident Command System – Basic (Single Resources & Initial Action Incidents)
  - IS-700 – National Incident Management System (NIMS)
  - IS-800 – National Response Framework (NRF)

FEMA

Incident Command – What is it?

- A standardized, on-scene, all-hazard incident management concept.
- That allows its users to adopt an integrated organizational structure.
- It possesses internal flexibility to expand or contract its organizational structure based on situational needs.
- A proven management system based on successful business practices.
- The result of decades of lessons learned in the organization and management of emergency incidents.

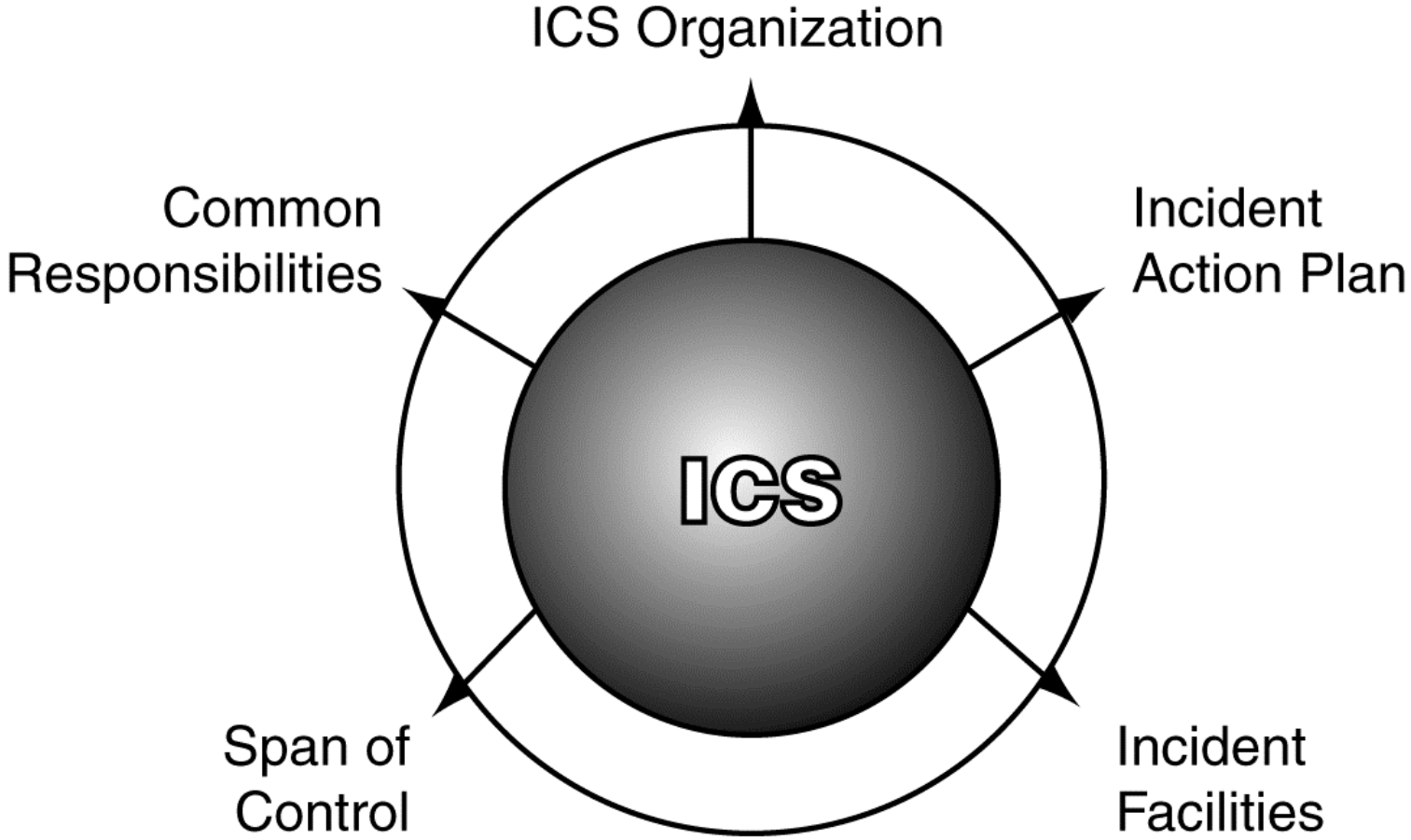
Incident Command – Provides Solutions for…

- Lack of accountability, including unclear chain of command and supervision.
- Poor communication, including system and terminology problems.
- Lack of an orderly, systematic planning process.
- No common, flexible, pre-designed management structure.
- No predefined methods to integrate interagency requirements into the management structure and planning process.

Incident Command - Facilitates

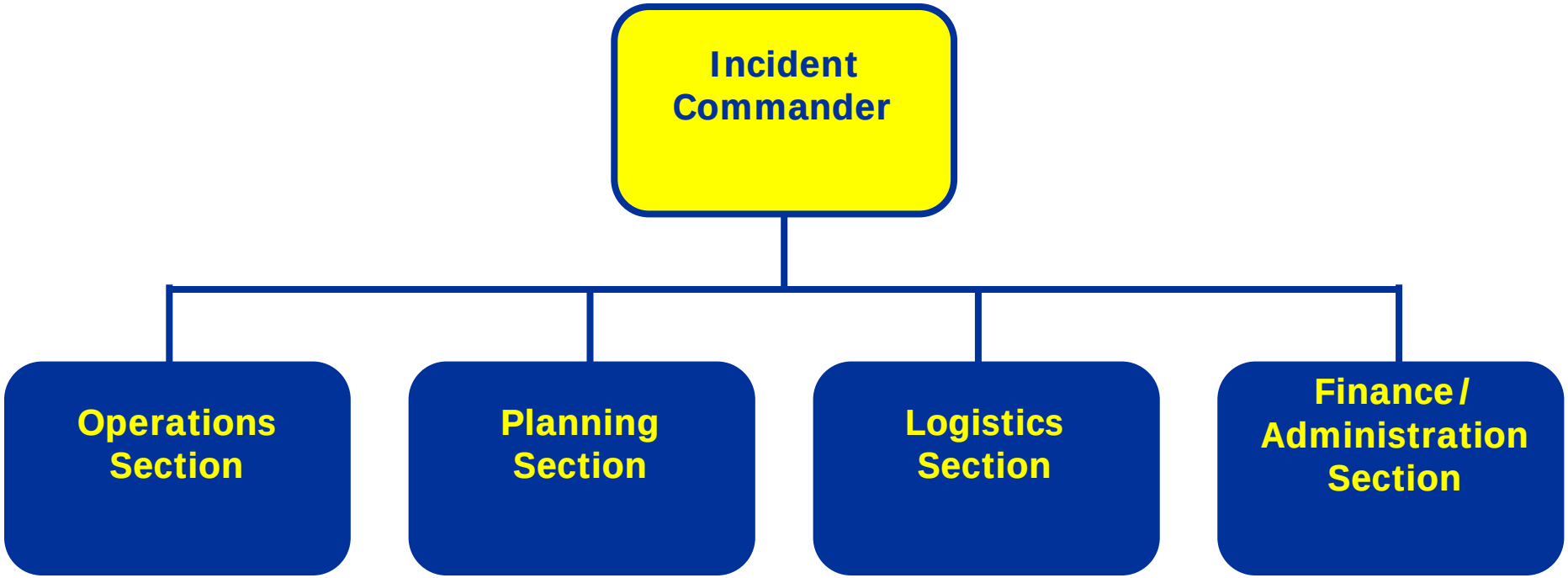
- Meeting the needs of incidents of any kind or size…as it provides guidance on escalation/expansion and contraction of resources.
- Allows personnel from a variety of agencies to meld rapidly into a common management structure.
- Provides logistical and administrative support to operational staff.
- Improves cost and resource effectiveness by avoiding duplication of efforts.

Incident Command – Provides Management Structure



Source: Incident Command System IS-100 for Federal Workers, FEMA, PowerPoint

Incident Command – Five Major Management Functions



Source: Incident Command System IS-100 for Federal Workers, FEMA, PowerPoint

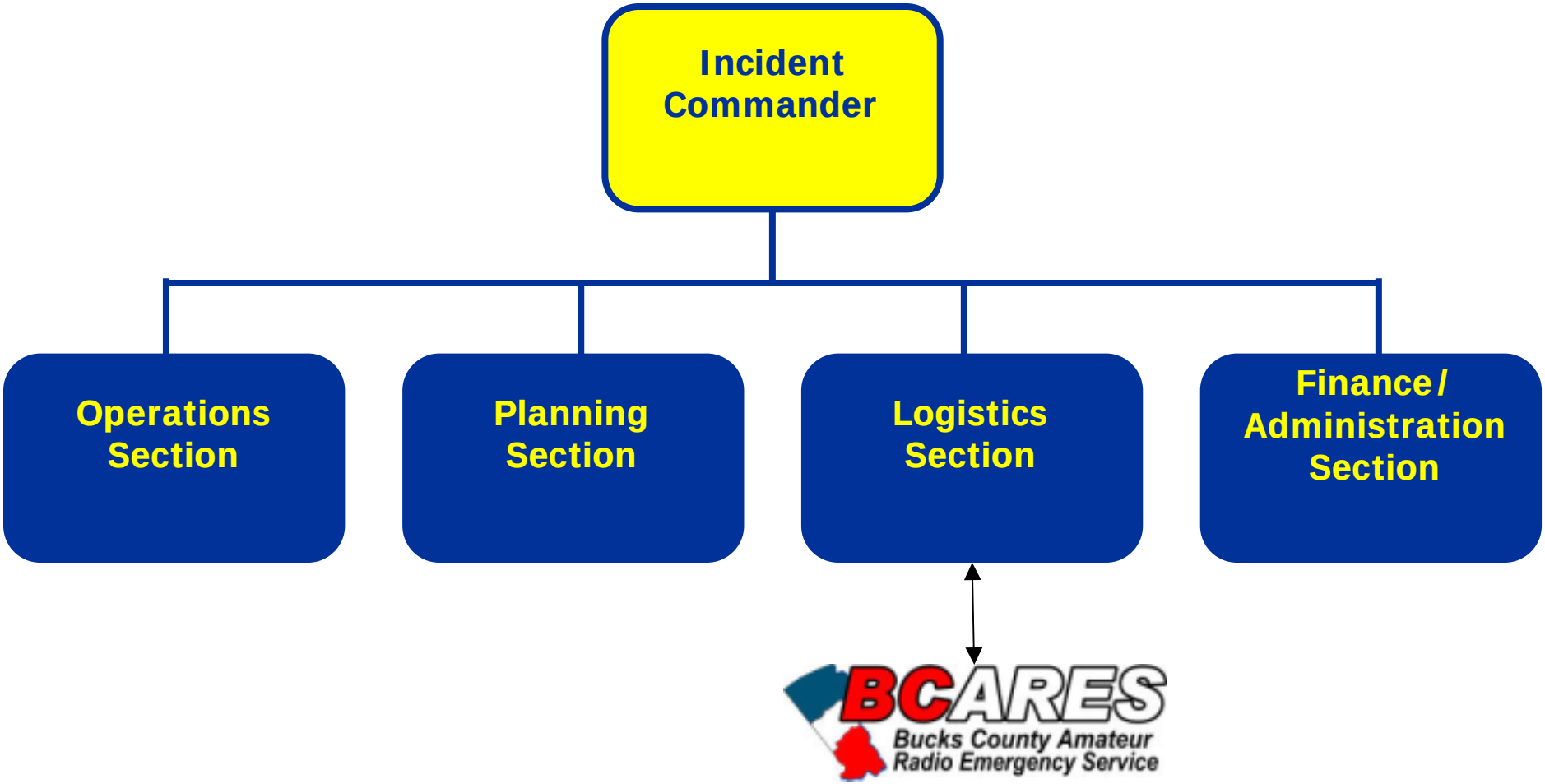
Incident Commander's Role

- Has overall responsibility for managing the incident.
- Must be fully briefed, and should have a written delegation of authority.
- Personnel assigned by the Incident Commander have the delegated authority of their assigned positions.
- Only position that is always filled.

Incident Commander's Role

- Overall command and control.
- Ensures incident responder safety.
- Protects health and safety of the general public and the environment.
- Provides information to internal and external stakeholders.
- Maintains liaison with other agencies.

Incident Command – Five Major Management Functions



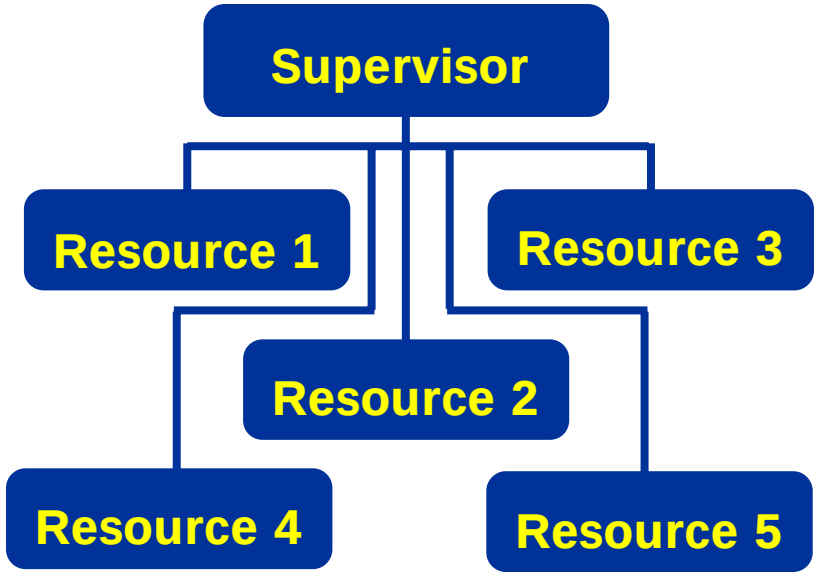
Source:Adopted from Incident Command System IS-100 for Federal Workers, FEMA, PowerPoint

Incident Command - Logistics

- Provides resources and services to support the incident.
- Develops portions of the Incident Action Plan (IAP).

Incident Command - Span of Control

- **Span of control** pertains to the number of individuals or resources that one supervisor can manage effectively during emergency response incidents or special events. Maintaining an effective span of control is particularly important on incidents where safety and accountability are a top priority.



Source: Incident Command System IS-100 for Federal Workers, FEMA, PowerPoint

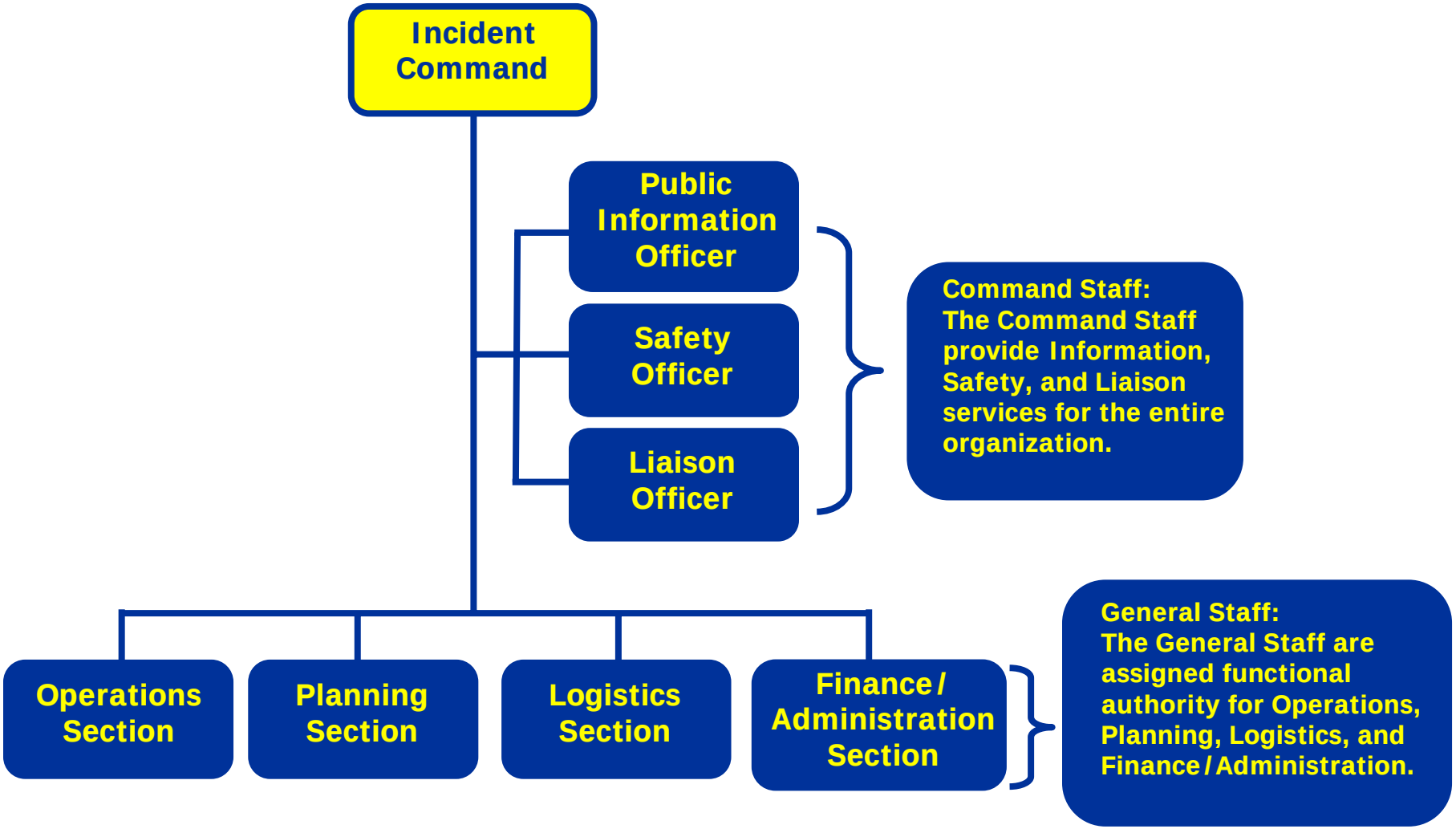
Incident Command - Span of Control

- Maintaining adequate span of control throughout the ICS organization is very important.
- Effective span of control on incidents may vary from three (3) to seven (7), but **a ratio of one (1) supervisor to five (5) reporting elements is recommended**.
- If the number of reporting elements falls outside of these ranges, expansion or consolidation of the organization may be necessary. There may be exceptions, usually in lower-risk assignments or where resources work in close proximity to each other.

Incident Command – Position Titles

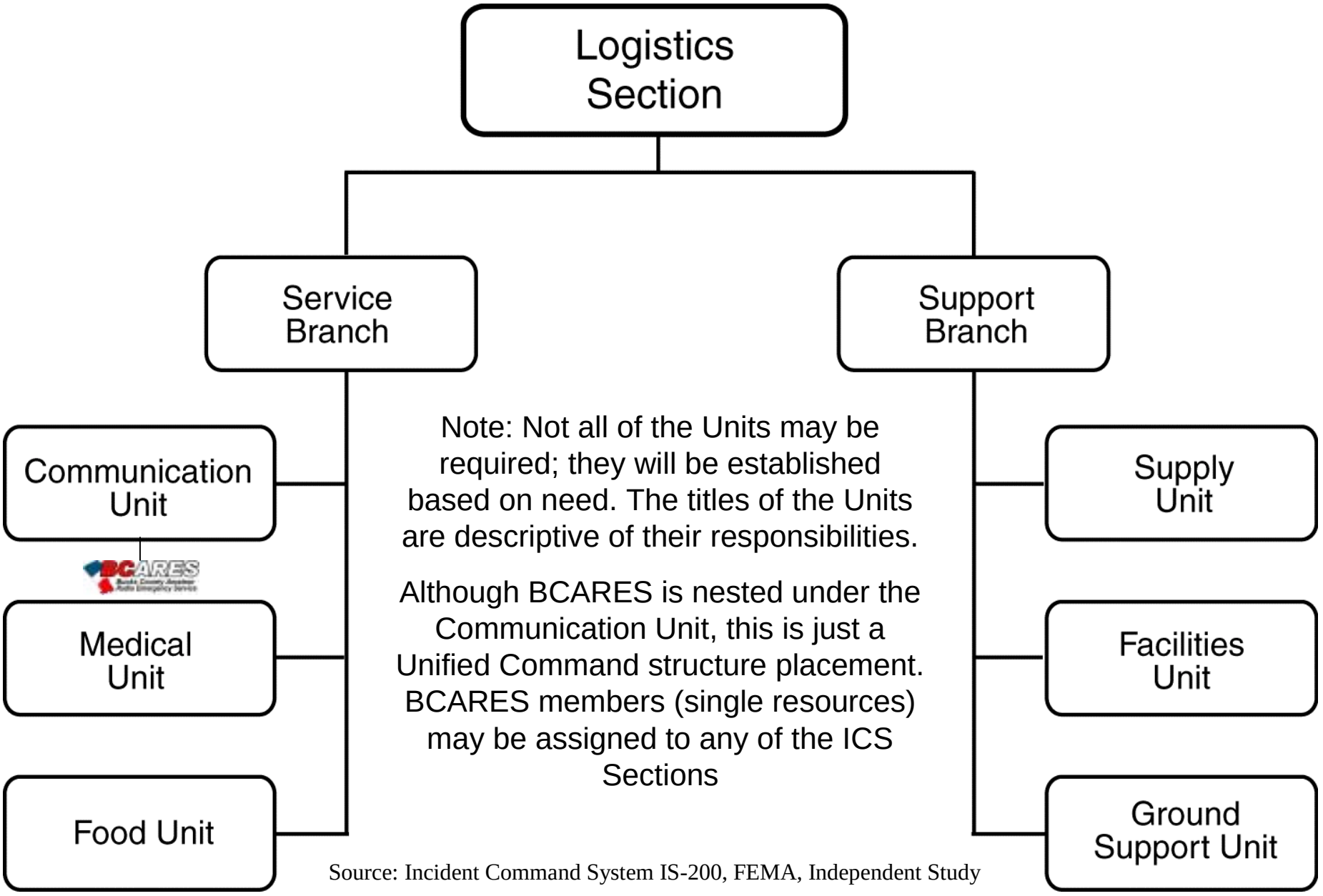
- Provide a common standard for all users.
- Distinct titles allow for filling positions with the most qualified individuals.
- Useful when requesting personnel.

Incident Command – Roles and Titles



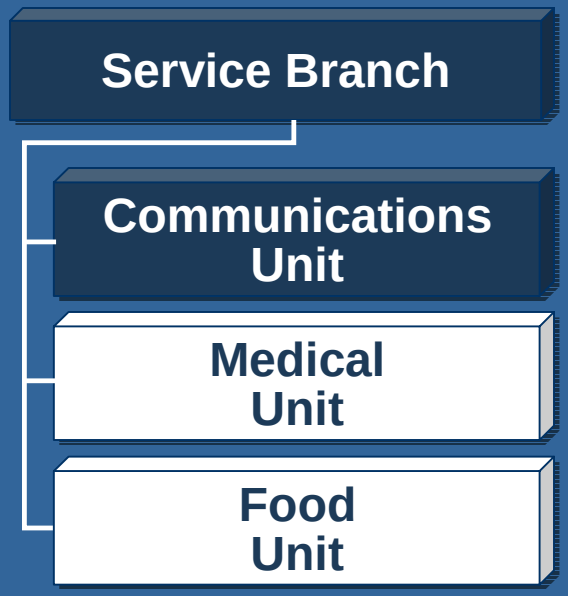
Source: Incident Command System IS-100 for Federal Workers, FEMA, PowerPoint

Incident Command – Logistics



Source: Incident Command System IS-200, FEMA, Independent Study

Service Branch: Communications Unit



- Prepares and supports the Incident Communication Plan (ICS Form 205).
- Distributes and maintains communications equipment.
- Supervises the Incident Communications Center.
- Ensures adequate communications over the incident.

Source: Incident Command System IS-100, FEMA, Instructor Guide September 2005, Unit 5, PowerPoint Presentation

Knowledge Review

If your radio was not working properly, which Unit would you go to?

Answer – Communications Unit

Source: Incident Command System IS-100, FEMA, Instructor Guide September 2005, Unit 5, PowerPoint Presentation

The Incident Action Plan (IAP)

- Purpose of the IAP is to provide all incident supervisory personnel with appropriate direction for that operational period.
- An IAP is developed for each operational period (example, every 12 hours)
- An IAP is best written and reviewed prior to handing off to the next operational period supervisor.

Incident Action Plan (IAP) Elements

The What, Where, When, Who, and How's of an incident

- What do we want to do?
- Where do we stage?
- When are we going to do it?
- Who is responsible for doing it?
- How do we communicate with each other?
- What is the procedure if someone is injured?

The Incident Action Plan (IAP)

- An IAP for a BCARES activation may include:
  - A list of operators
    - Their availability for the next or subsequent operational period
      - Contact information and also, indicate those operators on standby for immediate assignment for unforeseen situations
    - Their equipment resources / limitations
    - Their personal preferences / abilities / limitations
    - Their training level / experience
  - Current staff assignments and operations
  - Information for expected Incident Command expansions / contractions (e.g. new shelters opening / existing shelters closing)

National Incident Management System - NIMS IS-700 -

- What is NIMS?
  - It provides a flexible framework that facilitates government (Federal, State, and Local) and private entities at all levels working together to manage domestic incidents. This flexibility applies to all phases of incident management, regardless of cause, size, location, or complexity.
  - It provides a set of standardized organizational structures as well as requirements for processes, procedures, and systems designed to improve interoperability.

National Incident Management System - NIMS -

- The Components of NIMS are
  - Command and management
  - Preparedness
  - Resource management
  - Communications and information management
  - Supporting technologies
  - Ongoing management and maintenance

National Incident Management System - NIMS -

- Command and management
  - Depending on the nature of the incident, NIMS employs two levels of incident management structures
    - Incident Command System (ICS)…as discussed earlier.
    - Multiagency Coordination Systems are a combination of facilities, equipment, personnel, procedures, and communications integrated into a common framework for coordinating and supporting incident management.
      - Multiagency Coordination Systems more often employed when there Federal agencies are involved through the National Response Framework…more on that later.

National Incident Management System - NIMS -

- Command and management
  - Incident Management Variations
    - Unified Command for more than one responding agency within a jurisdiction or incidents cross political jurisdictions.
    - Area Command for oversight of multiple incidents that are individually being managed by ICS or for oversight of large incidents that cross jurisdictional boundaries.
      - Particularly relevant to public health emergencies because the incidents are typically:
        - » Nonsite specific
        - » Not immediately Identifiable
        - » Geographically dispersed and evolve over time

National Incident Management System
- NIMS -

- Preparedness
  - Planning, Training and equipping, Exercising, Evaluating and making improvements.

- NIMS focuses on guidelines, protocols, and standards necessary to facilitate preparedness…hence the purpose of this training!

National Incident Management System
- NIMS -

- Intended Audience – Stakeholder personnel directly involved in the planning…and execution of NIMS training at all levels (including NGOs)

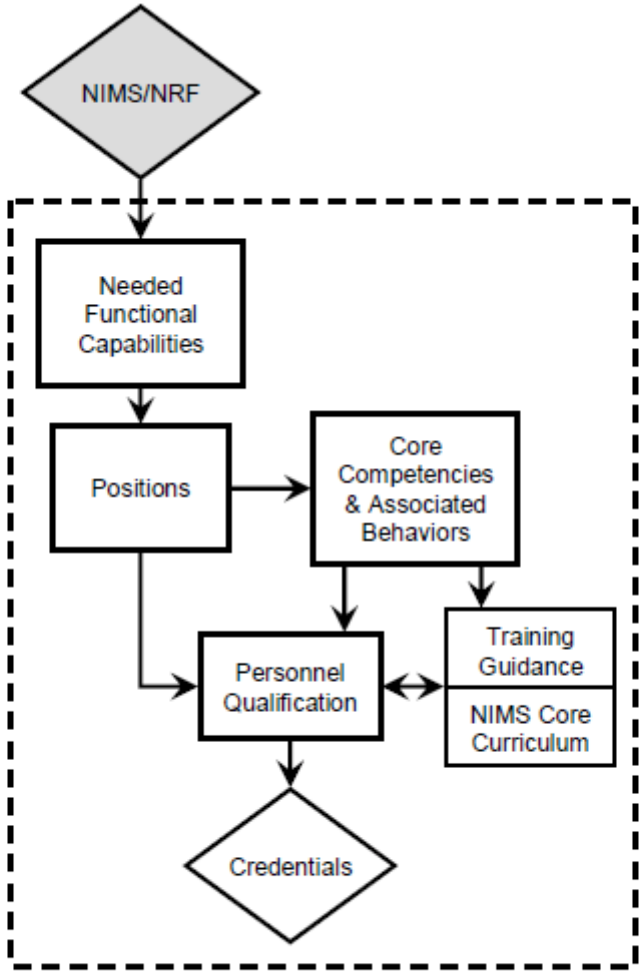
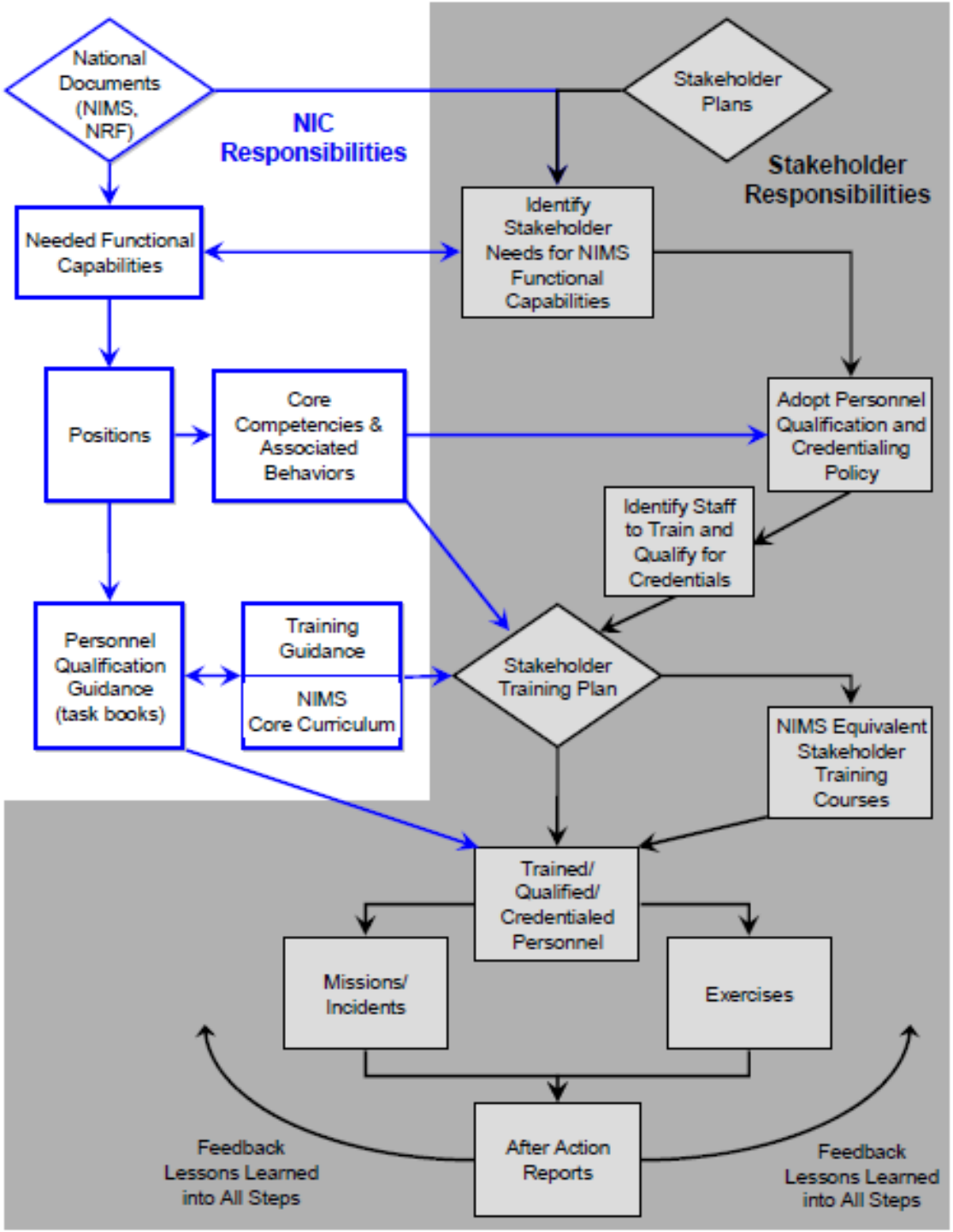


Figure 1: Operational Foundation for NIMS Training and Personnel Qualification Guidelines

Source: NIMS Five Year Training Plan: National Integration Center, Incident Management Systems Integration Division, February 2008

NIMS

- Coordinated responsibilities to support NIMS training and personnel qualification



Source: NIMS Five Year Training Plan: National Integration Center, Incident Management Systems Integration Division, February 2008

National Incident Management System
- NIMS -

- Resource Management
  - Establishing systems for describing, inventorying, requesting, and tracking resources.
    - What is a tactical BCARES Station…have it ready!
  - Activating those systems prior to, during, and after an incident.
    - Get your tactical BCARES Station…give it a once over
  - Dispatching resources prior to, during, and after an incident.
    - Take your tactical BCARES Station to your assignment
  - Deactivating and recalling resources during or after an incident.
    - Bring home your tactical BCARES Station

National Incident Management System - NIMS -

- Communications, information management, and supporting technologies
  - NIMS requires standards for communications, information management, and supporting technology that have a common operating picture that is accessible across jurisdictions and agencies.
  - The lines of communication are direct, as possible, and the data shared is of a common “language”.

National Incident Management System - NIMS -

- How BCARES supports the NIMS Communications component?
  - Flexibility
    - Wide range of frequencies - bands (that have their own unique properties that can be utilized for the situation at hand)
    - Wide range of modes (that have their own unique properties that can be utilized for the situation at hand)

National Incident Management System
- NIMS -

- How BCARES supports the NIMS Communications component?
  - Interoperability
    - Equipment is not of a proprietary technology…a VHF radio, is a VHF radio, is a VHF radio.
    - Communication link not limited by jurisdictions (Township, County, State, or Country)

National Incident Management System - NIMS -

- How BCARES supports the NIMS Communications component?
  - Flexibility and Interoperability, GREAT!
  - ....BUT DON'T GET LOST! LOST???
  - Have a plan…a Frequency Plan!
    - For intra-county communications – inside the county
    - For inter-county communications – with our neighbors

National Incident Management System
- NIMS -

- So much for being flexible and interoperable if we cannot utilize our resources!
  - Know your equipment!
  - Invest some time, at least ½ hour a month going over all your equipment.
    - Is it functional?
    - Does it need some TLC/maintenance (i.e. is it barely functional)?
    - If you have a tactical station…is it complete?

National Incident Management System
- NIMS -

- This is ***not*** how to support NIMS Communication component!
  - …UM, NET CONTROL, I DON'T KNOW HOW TO USE THE VFO ON MY RADIO
  - PL TONE? WHAT'S A PL TONE?
  - MY RADIO CAN CROSSBAND REPEAT…JUST THAT I DON'T KNOW HOW TO TURN IT ON
  - …UM, NET CONTROL, I ARRIVED AT MY ASSIGNMENT, BUT I DON'T HAVE THE CONNECTOR I NEED TO SET UP MY STATION
  - SELF DEPLOYING or SELF RE-DEPLOYING
  - USING BANDS/MODES OR COMMUNICATING OUTSIDE THE SCOPE OF THE INCIDENT OR EXERCISE

National Response Framework – IS 800 - NRF -

- The NRF was developed to align Federal coordinating structures (government agencies), capabilities, and resources into a unified, all-discipline, and all-hazards approach to domestic incident management.
- The NRF uses the NIMS framework to “roll out” Federal resources before, during, and after an incident.

National Response Framework – IS 800 - NRF -

- The NRF is always in effect.
- When can NRF can be implemented?
  - The vast majority of incidents are typically managed at the lowest possible geographic, organizational, and jurisdictional level.
  - Incidents include actual or potential emergencies or all-hazards events that range from accidents and natural disasters to actual or potential terrorist attacks.
  - They include events wholly contained within a single jurisdiction and others that are catastrophic in nature and national in their scope or consequences.
- “Incident of National Significance”

National Response Framework – IS 800 - NRF -

- Considerations for declaring an Incidents of National Significance
  - A Federal agency, responding under its own authorities, requests DHS assistance
  - Resources of State and local authorities are overwhelmed
  - More than one Federal department or agency is involved
  - The President directs DHS to assume responsibility for incident management

National Response Framework – IS 800 - NRF -

- An example NRF may be used…considering the scenario…
- An oil tanker unloading heating oil in the River, unexpectedly explodes, catches fire to the on-shore tank facility (which is near 2,000 homes that are immediately evacuated), and eventually sinks.
  - Three workers killed and several injured
- 60 miles of the River, affecting 3 states, is contaminated with oil.

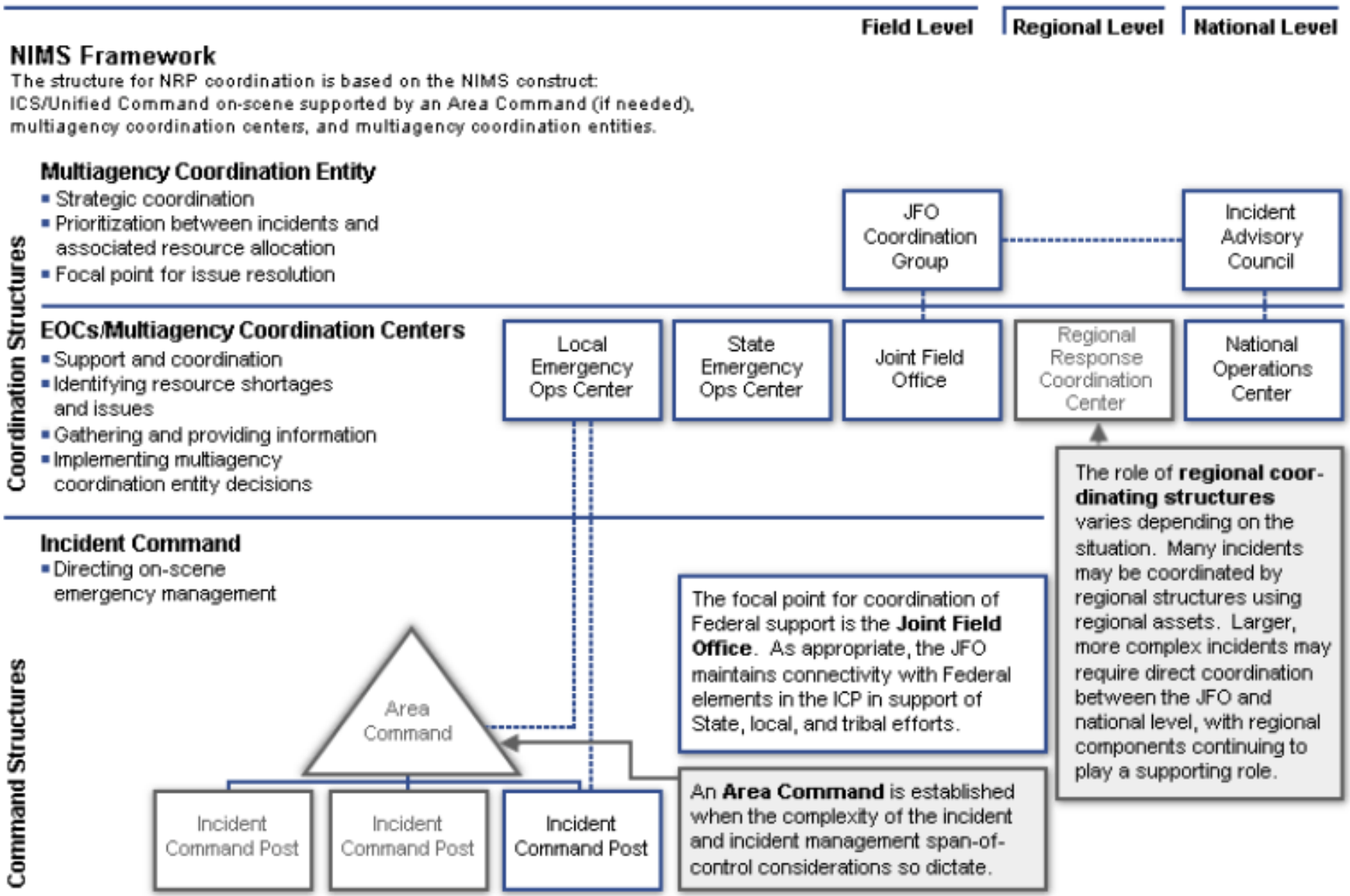
National Response Framework

- ICS Players (Initial response for simplicity)
  - Local Fire, Police, EMS, Water Authority
  - County
    - Hospitals
    - HAZMAT
    - Health Department (Environmental Health and Engineering Divisions)
    - National Disaster Service Agency (for evacuees and canteen operations)
- NIMS Players (Initial response for simplicity)
  - The three affected States would coordinate
    - Affected Counties in their respective State

National Response Framework

- NIMS Players (Post NRF implementation)
  - States coordinating with Federal Agencies
    - EPA (Environmental Clean-up), FBI (Law Enforcement Investigation), OSHA (Employee Health and Safety), Coast Guard (Navigational Waters Policing), NGO – Disaster Services Agency (Additional support for all the response personnel), etc…

NIMS / National Response Plan Framework



Source: NIMS Framework Chart IS-800, FEMA, Independent Study

Exercises and Drills IS-139

- Exercises are a practical, efficient, and cost-effective way for organizations to prepare for emergency response and recovery.
- Exercises identify areas that are proficient and those that need improvement.
- Exercising enables people to practice their roles and gain experience in those roles.
- Lessons learned from exercises can be used to revise operational plans and provide a basis for training to improve proficiency in executing those plans.

Exercise Types

- Orientation – An overview or introduction to familiarize participants with roles, plans, procedures, or equipment. Also used to resolve questions of coordination and assignment of responsibilities. (Technically not a formal exercise type)
  - Example – Introducing new policy or plans. Facilitate a group discussion on a topic or problem.
- Drill – A coordinated, supervised exercised activity, generally used to test a single specific operation or function of a single organization.
  - Example – Passing scripted messages, using ICS-213 forms, under a simulated multi-agency multi-frequency net.

Exercise Types

- Table Top – A facilitated analysis of an emergency situation in an informal, stress-free environment. Designed to elicit constructive discussion as participants examine and resolve problems based on existing operational plans and identify where the plans need to be refined. Group participation in identifying problem areas is the key to success. A narrative is used to set the scene with supporting audio/video enhancement aids.
  - Example – Low-stress discussion environment for key agencies to become acquainted with one another, their interrelated roles, and their respective responsibilities.

Exercise Types

- Functional – Geared for policy, coordination, and operations personnel. Fully simulated interactive exercise that tests the capability of an organization to respond to a simulated event. Personnel are *stressed* to respond in real time, with on-the-spot decisions and actions (everything except actually deploying) to complex messages.
  - Example – County EOC (Part 1 or 2) branch of an evacuation exercise

Exercise Types

- Full-Scale -A full-scale exercise is as close to the real thing as possible. It is a lengthy exercise that takes place on location, using - as far as possible – the equipment and personnel that would be called upon in a real event.
  - In a sense, a full-scale exercise combines the interactivity of the functional exercise with a field element.
  - It differs from a drill in that a drill focuses on a single operation and exercises only one organization.
  - Example – Pandemic Flu Exercise

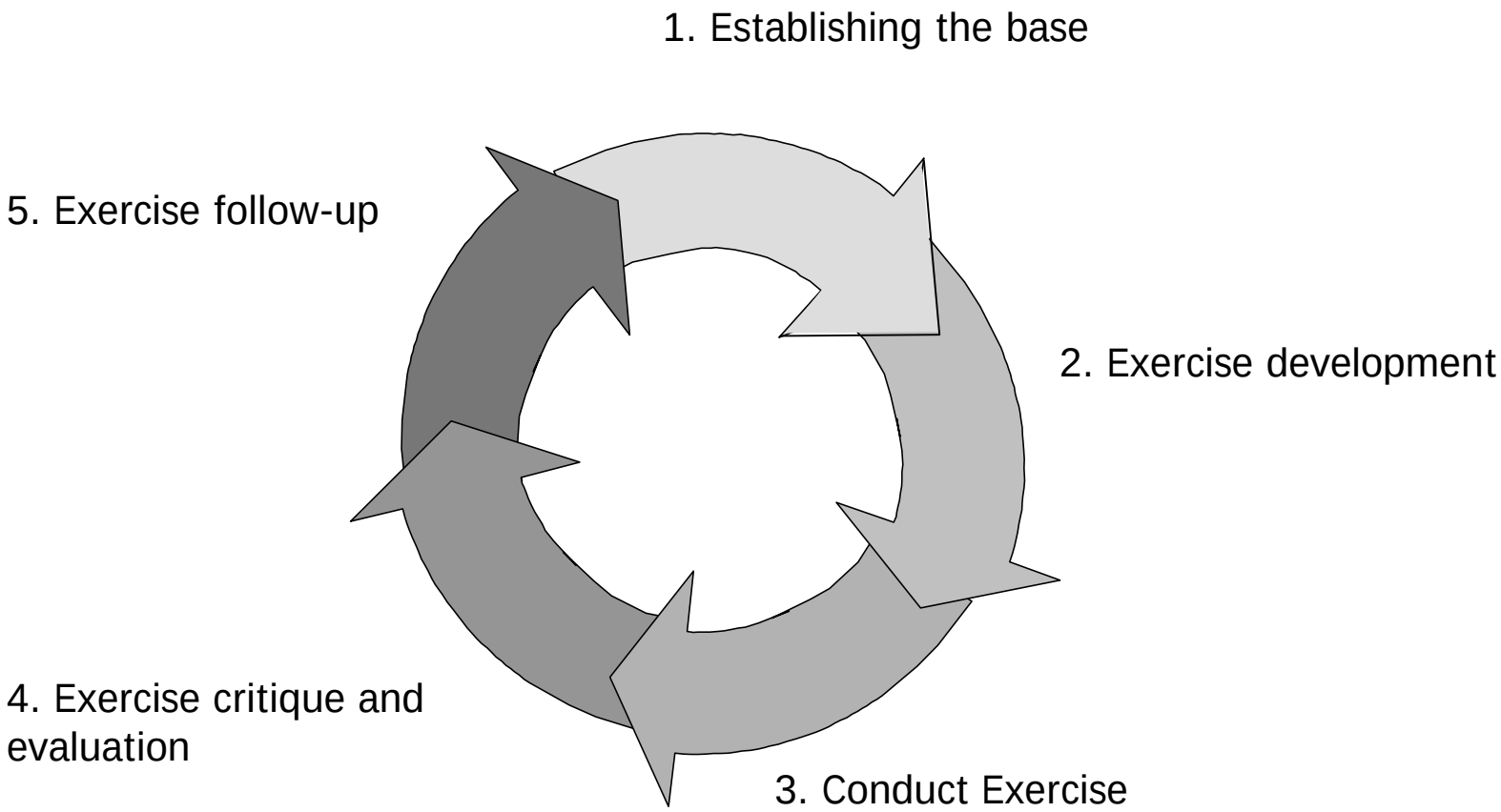
Exercise Improvement Process

- Exercises often have experts that observe, interview, and take notes to facilitate improvement.
- They are called Evaluators.
- If approached by an Evaluator…
  - …don't panic…
  - answer their questions clearly and concisely
  - if you do not know something don't be afraid to say "Sorry, I do not know" and refer them to the appropriate person who may know the answer…(this shows you understand ICS!)

Exercise Improvement Process

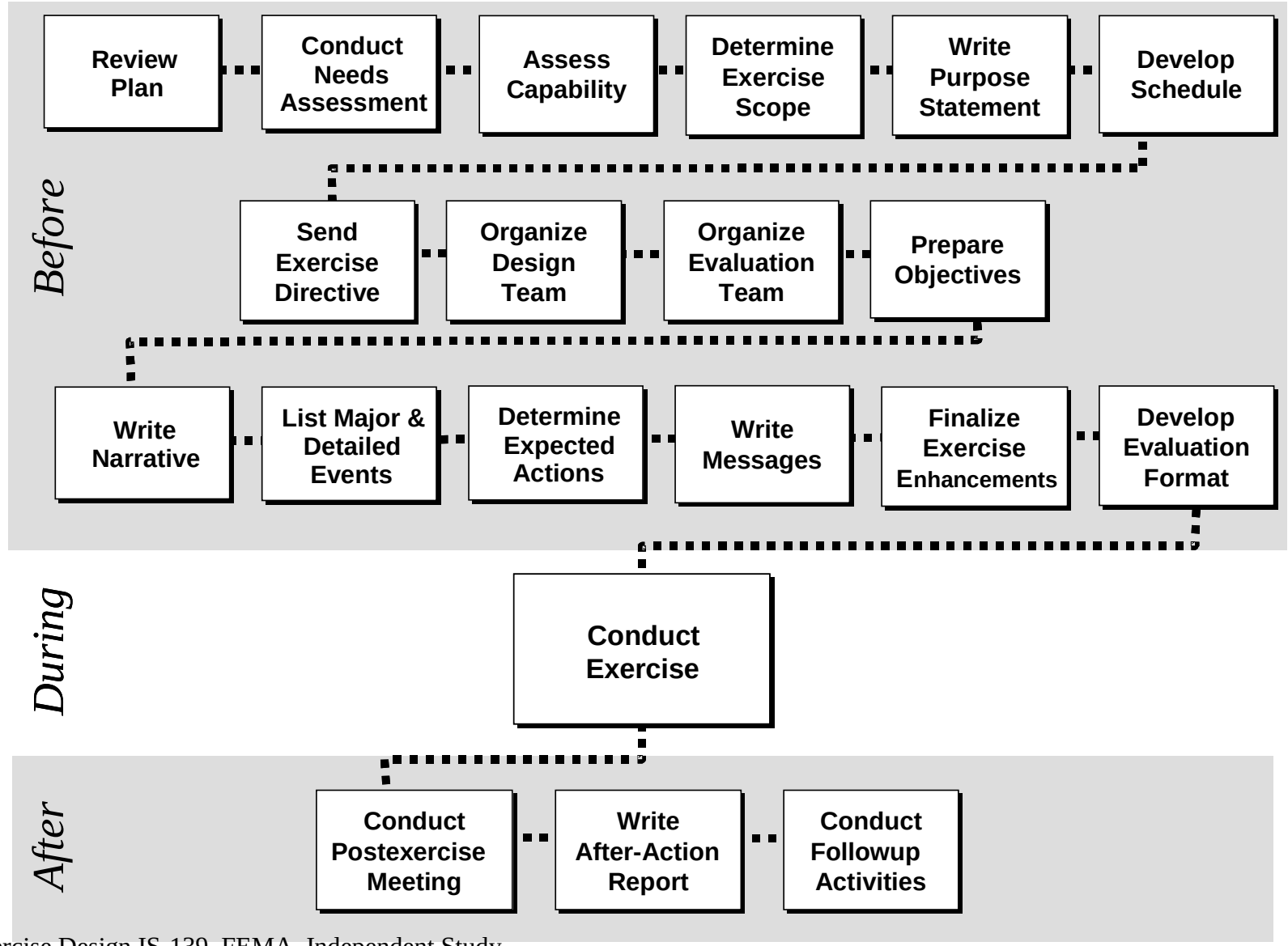
- If approached by an Evaluator…
  - Do not speculate, ramble, or offer extraneous, irrelevant, or deceptive information
  - Remember they are PROFESSIONAL EXPERTS
    - First impressions are lasting impressions, you have only one chance to make a good impression and little time to make up for it
    - They are trained to recognize untruthfulness, false claims, and deception
    - A lack of respect will reflect badly on BCARES in their report
- In the grand scheme they are there to help you

Exercise Improvement Process



Source: Exercise Design IS-139, FEMA, Independent Study

Exercise Design Basic Schematic



Source: Exercise Design IS-139, FEMA, Independent Study

Post-exercise Meeting

- Post-exercise meeting or Debriefing is to be conducted immediately following the exercise with the exercise participants.
- This forum will provide opportunity for participants to…
  - have their say in how things went
  - express what they think how things should be changed
  - and commitments that they may make
- Comments should be captured in an After Action Report.

Exercise Improvement Process

- In addition to the participants comments, the exercise evaluators will also compile their observations into the After Action Report.
- An After Action Report may contain…
  - An Introduction
  - Purpose of the Exercise
  - Exercise Summary
  - Accomplishments and Shortfalls
  - Recommendations

Exercise Improvement Process

- An After Action Report is important…
  - as it documents the organization's involvement in the exercise
  - to exhibit a level of professionalism expected of an Emergency Management Volunteer Organization
  - because it provides the opportunity to formally recommend improvements