

Interoperable Communications and Concept of Operations (CONOPS)



Maine Emergency Management Agency

Agenda

- Part 1
 - Communications Interoperability
- Part 2
 - CONOPS
- Part 3
 - CONOPS Examples
- Part 4
 - Maine ICS Form 205-A (Optional)
- Part 5
 - CONOPS Practical Exercises

Part 1

Introduction to Interoperability



SAFECOM Definition of Communications Interoperability

“The ability to exchange voice and data information across disciplines and jurisdictions on demand, in real time, and when authorized.”

What is Interoperability ?

- Interoperability is the ability to exchange information.
- Follow your command structure.
- Prior planning, procedures and training eliminate most issues.
- Know who you need to talk with.

Levels of Communication

- Each agency has multiple ways that they communicate
- Different responders use different means of communication
- Goal of interoperable communications is to identify means of communication between responders and how to use them effectively

Agency

Radio

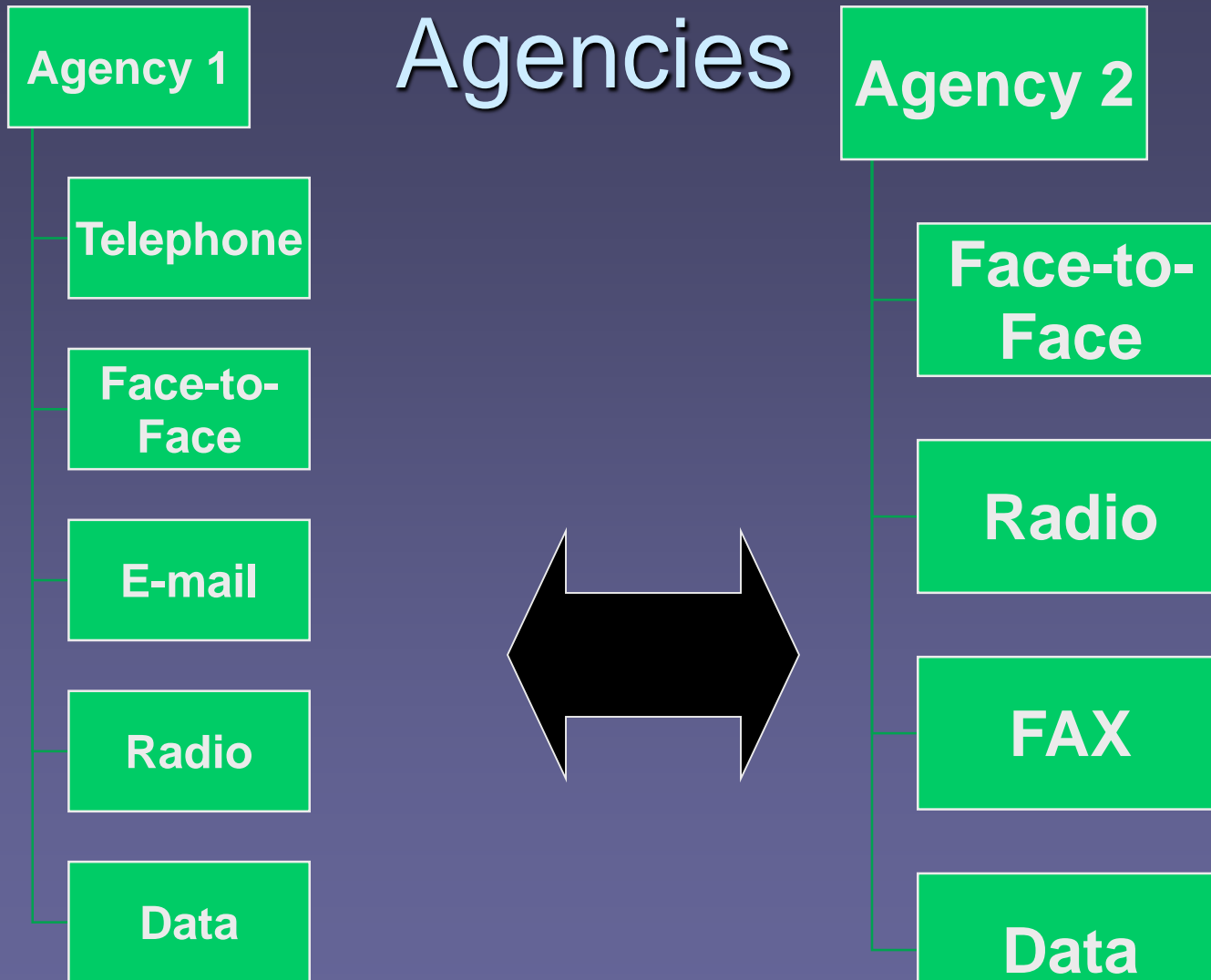
Face-to-Face

Cell Phone

E-mail

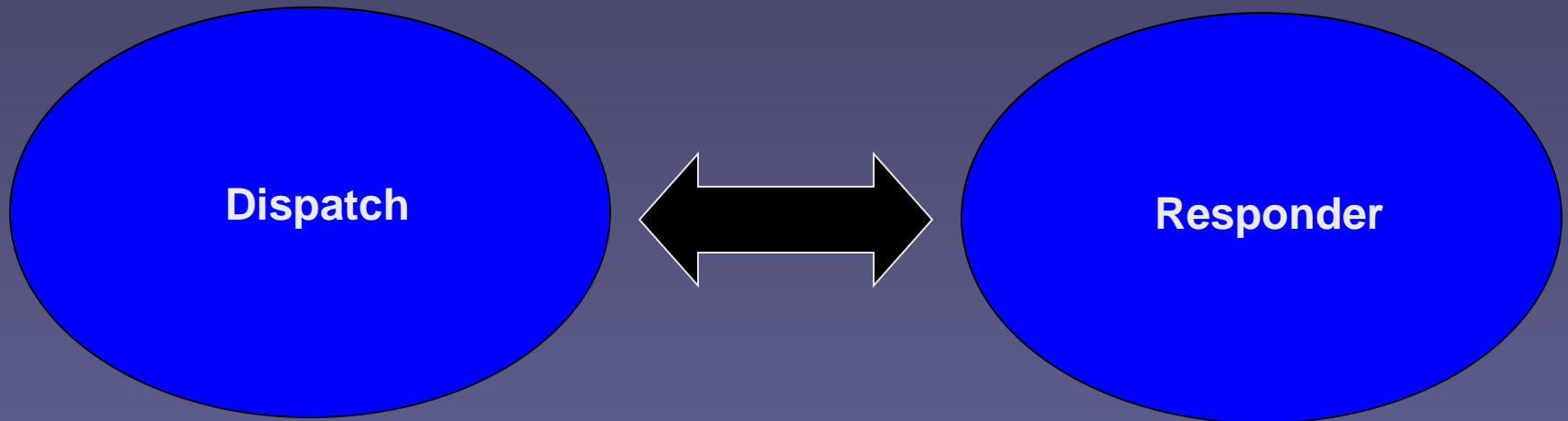
Data

Levels of Communication Between



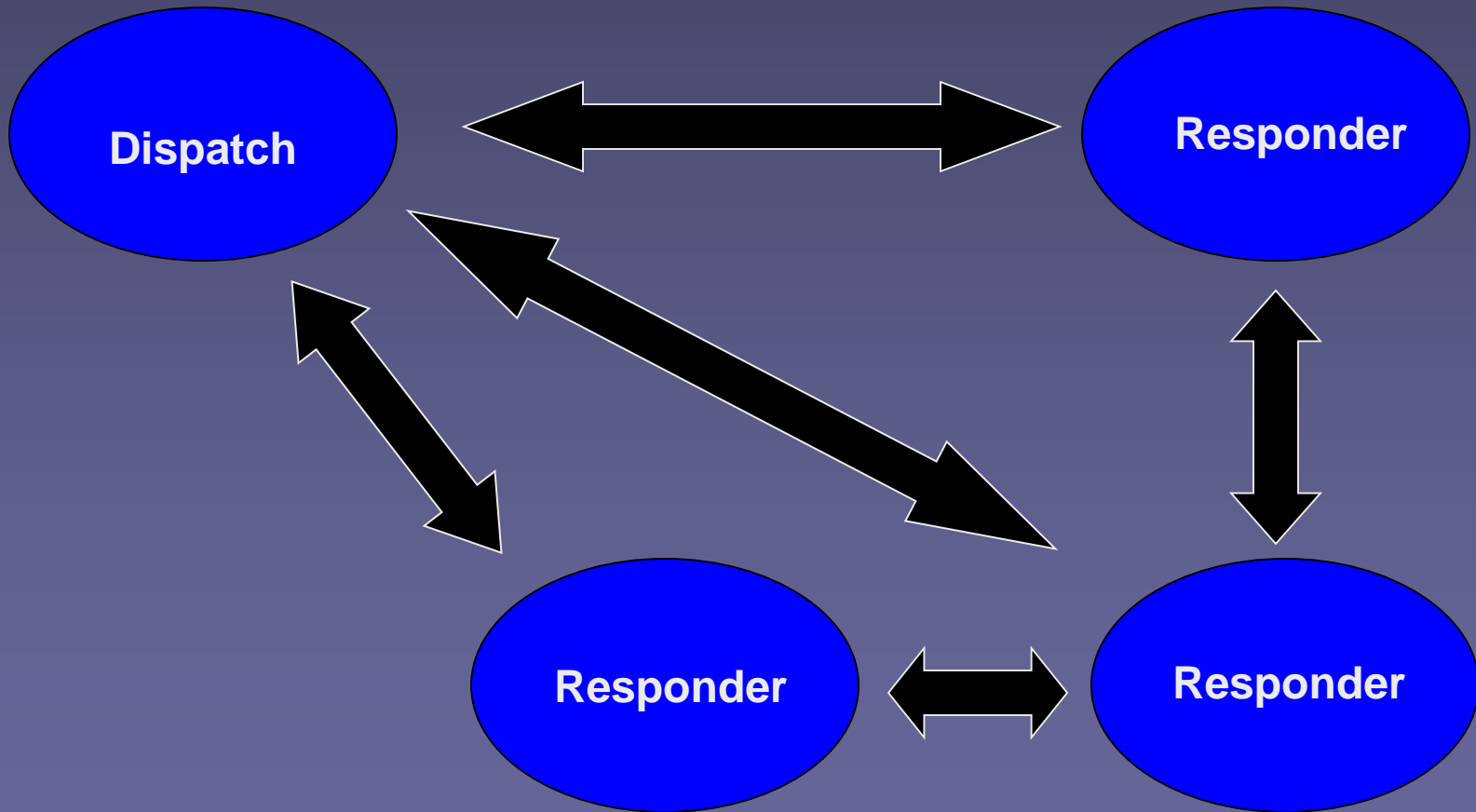
Know the means and methods of communication between the people you need to communicate with.

Communications Within One Agency

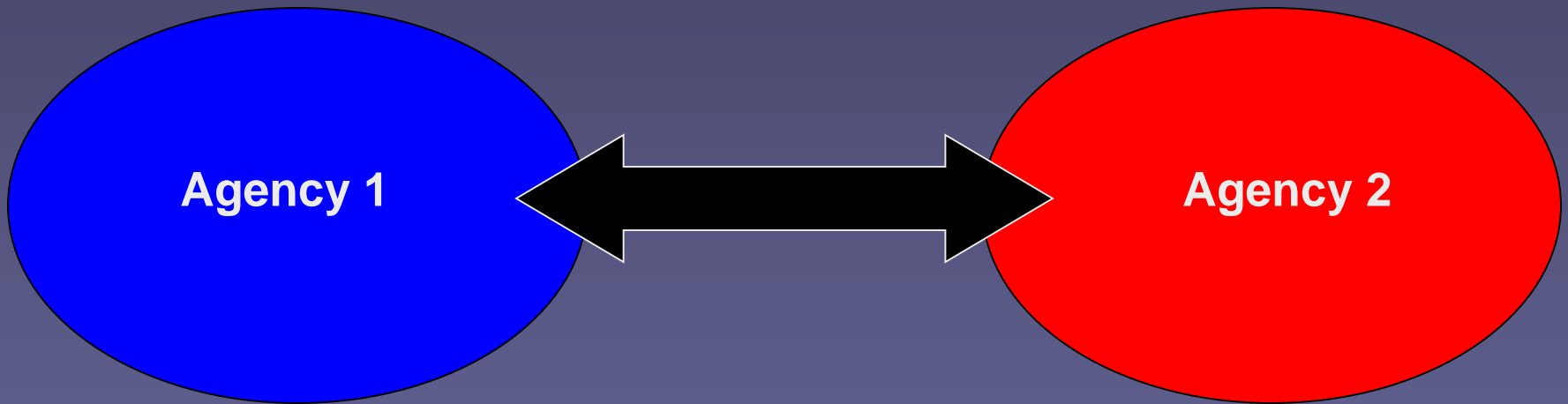


First you must be able to communicate effectively within your own organization

Communications Within One Agency

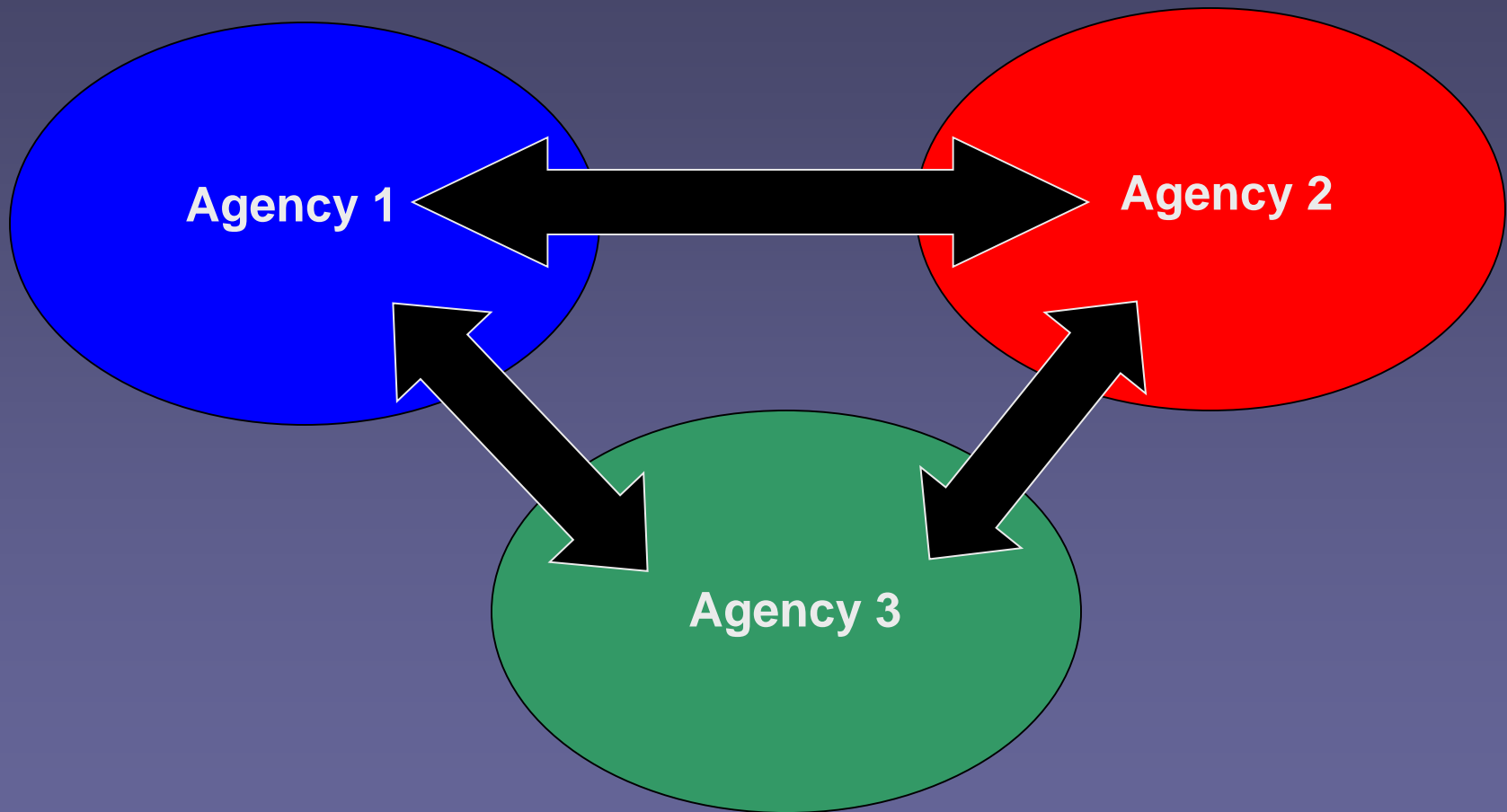


Communications Methodology Between Two Agencies



When on scene you may have to communicate with partner agencies

Interoperability Between Agencies



As the situation expands more agencies are involved

Interoperability Examples

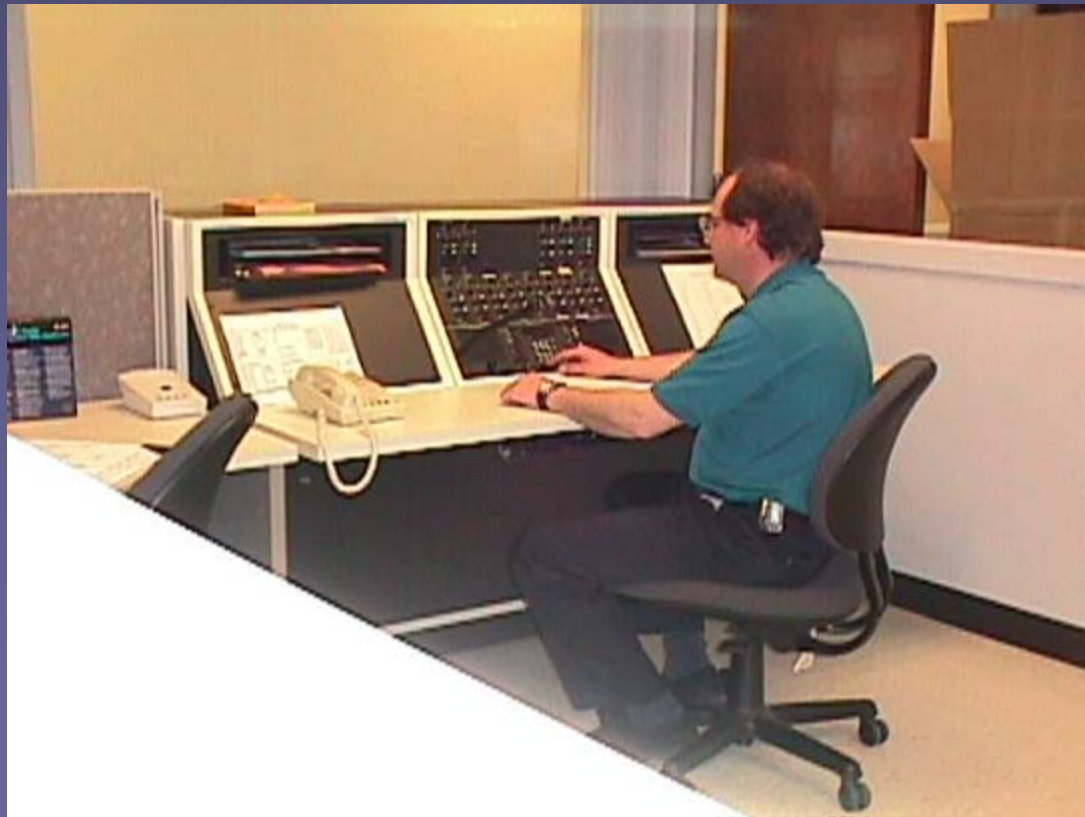
- ICS Command
- Focus on communicating one level above and one level below.
- Multi-Agency communication takes place at command level. There may be some cases where you may need to communicate with other levels.

On Scene Interoperability Response

- Fire coordinating with Police
- Hazardous Materials (HAZMAT) team coordinating with Civil Support Team (CST)
- Emergency operations coordinating with public works or utilities
- EMS coordinating with hospital
- Police escorting EMS in a dangerous situation

Part 2

CONOPS



Communications Examples



- Ice Storms
- Multi-agency events
- Multiple Incidents
- Flooding
- Terrorist events
- Transportation system issues
- Credible Threats
- Large scale evacuation
- Cross Border Incidents

CONOPS Overview

- Goal is to bring all parts of state together through communication.
- NIMS Compliance.
- Designate channels for a common line of communications to manage incidents.
- Maintain Incident command locally.
- Request resources globally.

What is CONOPS??

The State has developed a voluntary communications radio plan that identifies the following state-wide "simplex" frequencies currently in use and licensed for large scale emergency incident management.

These frequencies are commonly programmed and available state-wide and may be requested by incident commanders to provide a communications plan for expanding incidents.

▪ CONOPS 1	State-Wide State Police (SWSP)	154.710 MHz
▪ CONOPS 2	Nation-Wide Car to Car (NWCC)	155.475 MHz
▪ CONOPS 3	Emergency Medical Services / Land/Air Search & Rescue (EMS/LASAR)	155.160 MHz
▪ CONOPS 4	State Police Car to Car (SPCC)	154.935 MHz
▪ CONOPS 5	State Fire (SF)	154.310 MHz
▪ CONOPS 6	State-Wide Car to Car (SWCC)	154.695 MHz

What CONOPS Activation Should Not Be Used For

- Routine Emergency Responses (Type 5)
- Mass Gatherings and Festivals
- Routine use of assigned CONOPS frequencies such as mutual aid Fire, EMS and Law Enforcement coordination unless it is part of your normal mutual aid agreements

Regional Multi Agency Response



Blue Print for Coordination

- **CONOPS is “coordination of effort.” It is a blue print which outlines how we utilize the frequencies available to us today in a given situation of a pre-defined magnitude. It also tells non-traditional agencies how they can communicate when coordinating with first responder agencies.**
- **It does not take anything away from what is utilized for communications in the performance of your daily responsibilities. As a first responder community we are agreeing to utilize current frequencies and protocols in a predefined manner should an event occur which is far beyond our normal operating parameters.**

Blue Print for Coordination

How would CONOPS Work?

- Currently, there are 6 frequencies, which have been identified to support “on-scene” communications during a CONOPS situation.
- Agencies that do not currently have these frequencies programmed into their radios will now be allowed to do so.
- For CONOPS to work all channels must be programmed into a radio prior to an incident

CONOPS Criteria

- An event/incident involving response from four (4) or more agencies.
- An event/incident involving a duration of at least six (6) or more hours.
- An event/incident involving response from at least three (3) levels of government.
- An event/incident where normal use of common simplex (local talk-a-round) channels will not support the incident commander's needs.

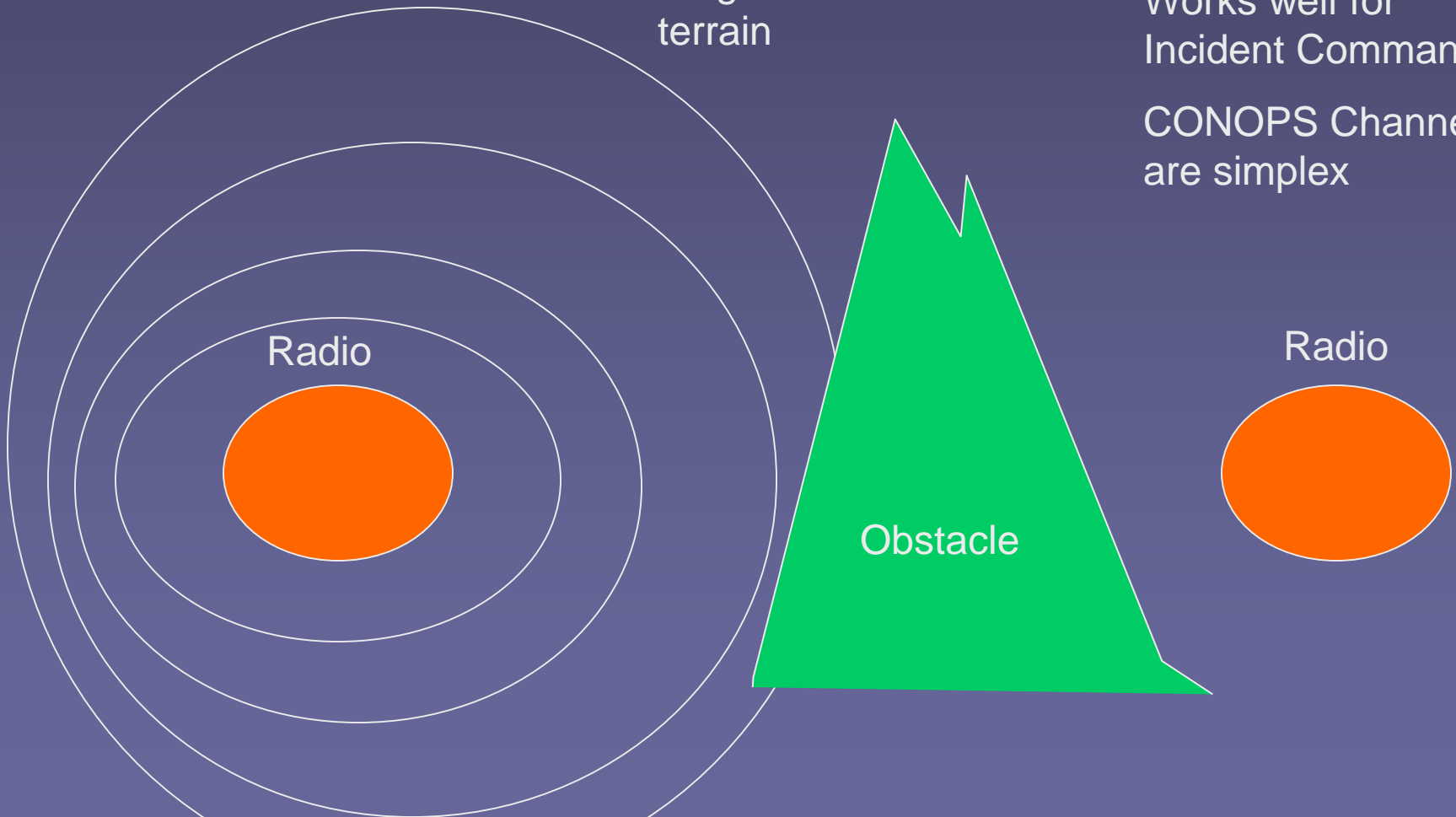
Simplex and Repeated/Duplex Frequency

- CONOPS channels are simplex and the effective distance directly relates to the power, terrain, and line of sight
- Simplex channel means you transmit on the same frequency you listen on
- Repeated Frequency involves an antenna and requires a frequency pair to operate one to transmit, one to receive.

Simplex Example

Not effective for long range and mountainous terrain

Works well for Incident Command
CONOPS Channels are simplex

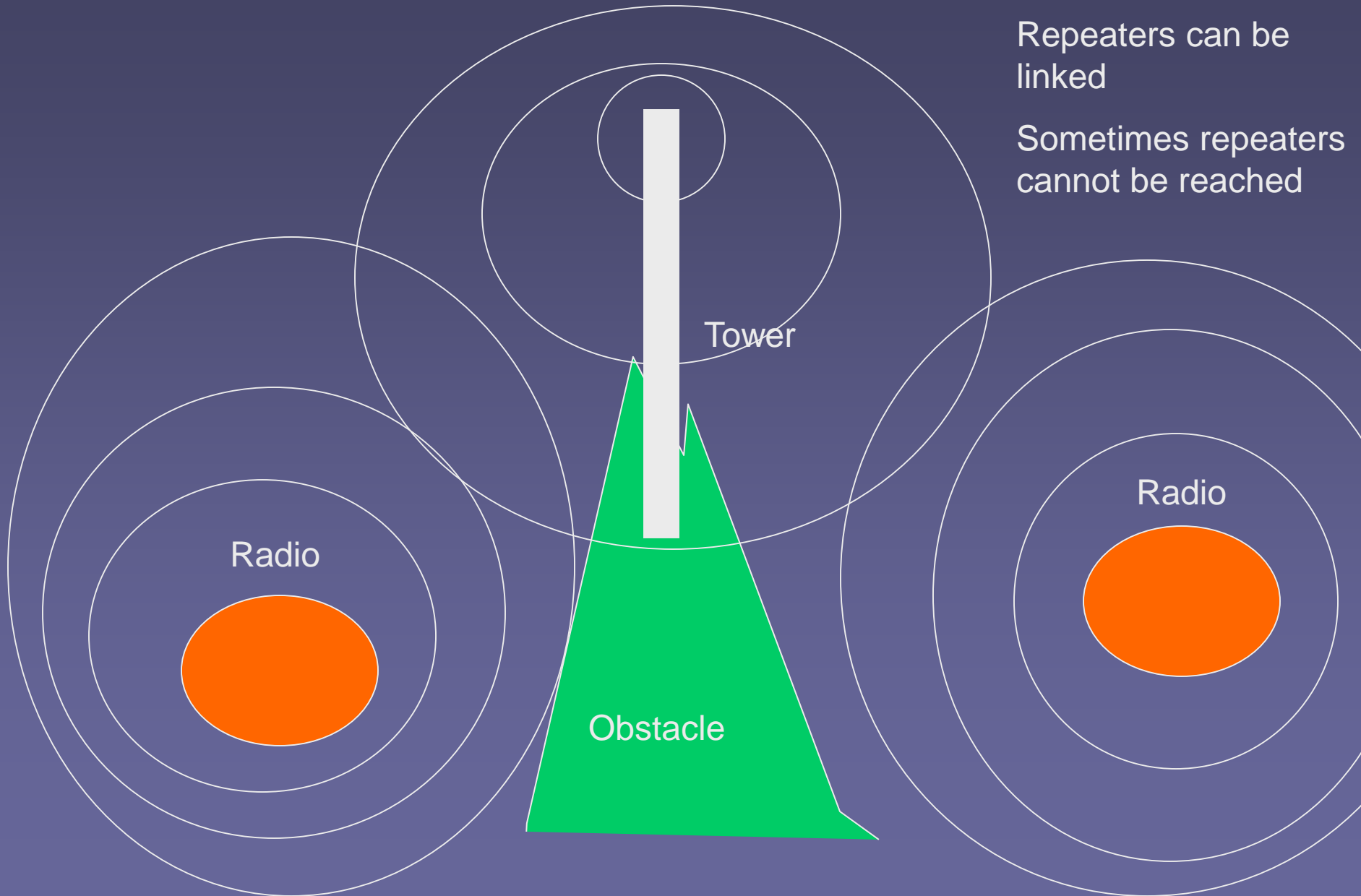


Repeated/Duplex

Can cover more distance

Repeaters can be linked

Sometimes repeaters cannot be reached



Base Station Restriction of CONOPS

- Base Station Restriction:

The use of these frequencies is intended for on-scene tactical communications among first responders for interoperability. This use does not include base to mobile communications and does not authorize transmitting on the frequencies from base stations.

How to Request CONOPS



How to Request CONOPS

Step 1:

The incident commander calls MEMA to make the request to the MEMA Director, or their designee. Be prepared to identify yourself **summarize the situation, request specific frequencies, identify the incident inbound calling frequency and give contact information.** The MEMA contact will immediately engage the MEMA Director for decision-making.

The incident commander can call MEMA at:

1-800-452-8735 or 207-624-4400

(Available 24/7/365)

How to Request CONOPS

Step 2: The MEMA Director/designee will consider the request and approve or disapprove in accordance with the criteria listed in this CONOPS document. (The decision criteria are guidelines and therefore flexible. In the After-Action review, the guidelines may be modified by the signatories to this agreement. The purpose is to remain open, assimilate lessons learned, and to be better prepared for future events.)

How to Request CONOPS

Step 3: MEMA will request that State of Maine Public Safety Dispatch immediately issue a teletype requesting a general broadcast alert for the region where the incident is occurring, which channels has been designated as the in-bound frequency for all units responding to the incident.

Once on scene, in-bound units will be redirected to the appropriate frequency by the incident commander, or their designee. MEMA will also notify the incident commander when this has occurred. The teletype will also indicate the name, position title, organization, and contact information for the incident commander to whom the authority has been granted; the purpose of the CONOPS authorization; and the location of the incident.

How to Request CONOPS

Step 4: All communications centers within the incident region shall immediately broadcast that a CONOPS incident is in effect, and shall indicate the inbound calling frequency and which channels the IC has requested so that responders know what channels are now dedicated to the IC in charge of that incident.

NOTE:

Assign a Communications Officer and complete ICS 205 Incident Communications Plan. A copy should be furnished to all agencies involved.

How to Request CONOPS

Step 5: As the incident escalates, or deescalates the incident commander may again call MEMA to adjust the request. If the CONOPS authorization is no longer required, the incident commander will contact MEMA to request a stand-down of the CONOPS, which in turn will be broadcast by MEMA to all pertinent stations.

How to Request CONOPS

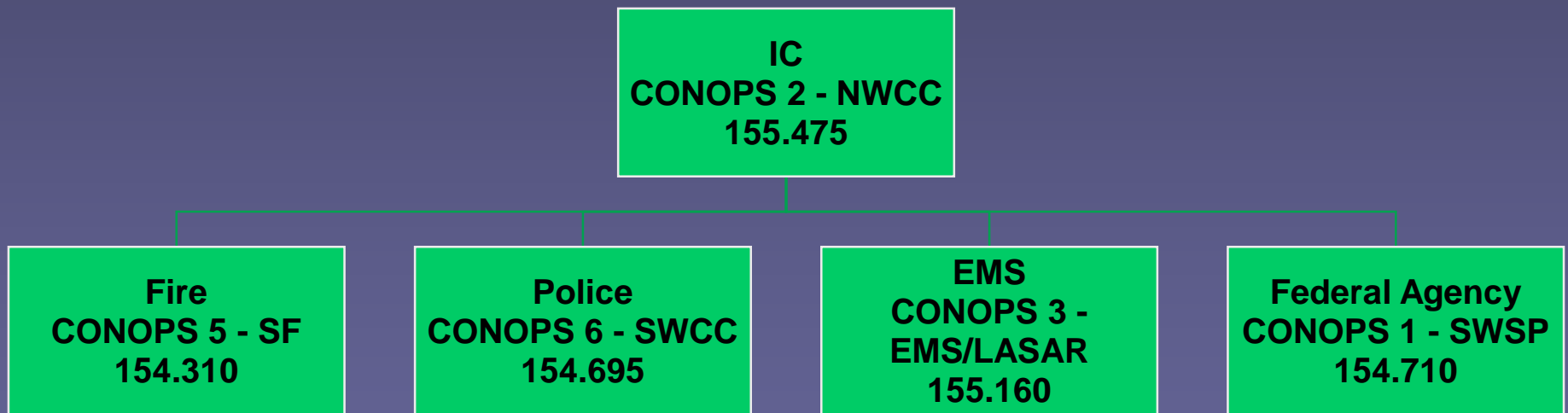
Step 6: Upon completion of an authorized CONOPS event, the MEMA Director will ensure that an after-action review (AAR) is conducted within a reasonable time. The purpose will be to review the CONOPS process and procedures and to modify the plan as necessary to ensure improved performance for future events.

SAMPLE FORM 205 (CONOPS)

STATE OF MAINE FORM 205 INCIDENT RADIO COMMUNICATIONS PLAN FOR CONOPS		1. Incident Name	2. Date/Time Prepared	3. Operational Period Date/Time	
4. Basic Radio Channel Utilization					
Agency/Group	Radio Channel	Function	Frequency/Tone	Assignment	Remarks
			CONOPS 1 SWSP 154.710		
			CONOPS 2 NWCC 155.475		
			CONOPS 3 EMS/Laser 155.160		
			CONOPS 4 SPCC 154.935		
			CONOPS 5 SF 154.310		
			CONOPS 6 SWCC 154.695		
5. Prepared by (Communications Unit)					

IC / CONOPS ORG CHART

Sample Chart



State-Wide Responders

- No new requirements for current licensees
- Continued use for mutual aid incidents
- Disciplines utilize their own mutual aid channels first before expanding to other frequencies

OPEN DISCUSSION

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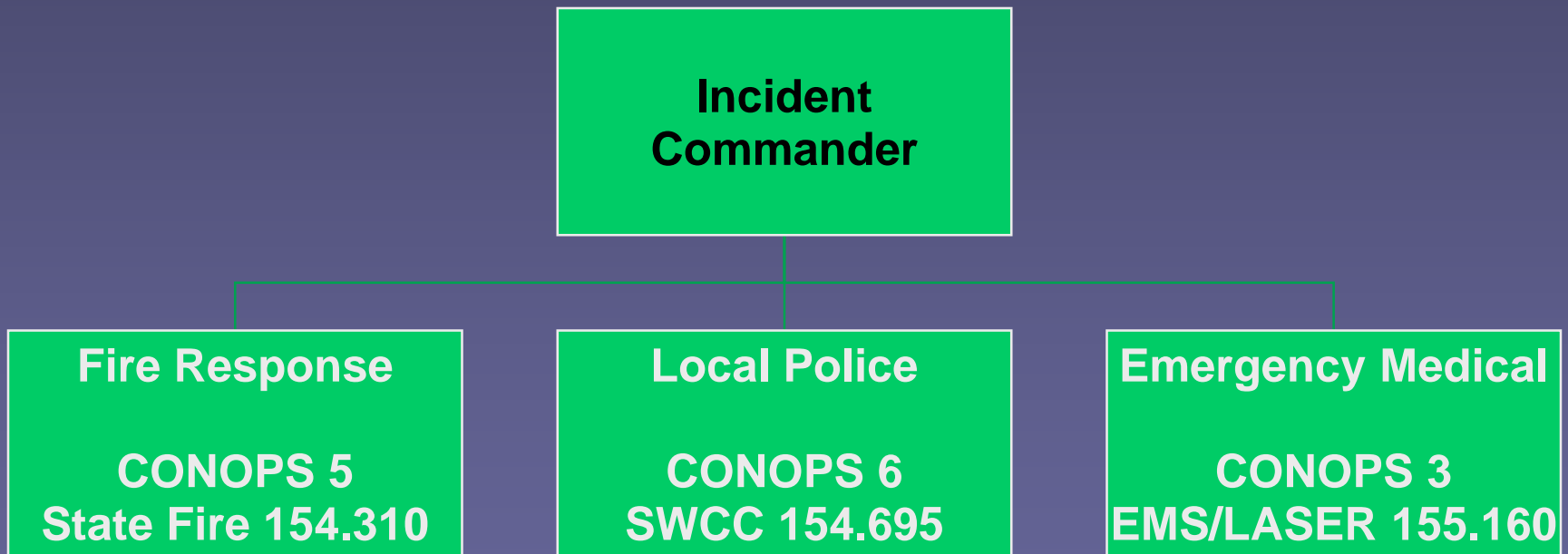
Q & A

Part 3

CONOPS Examples

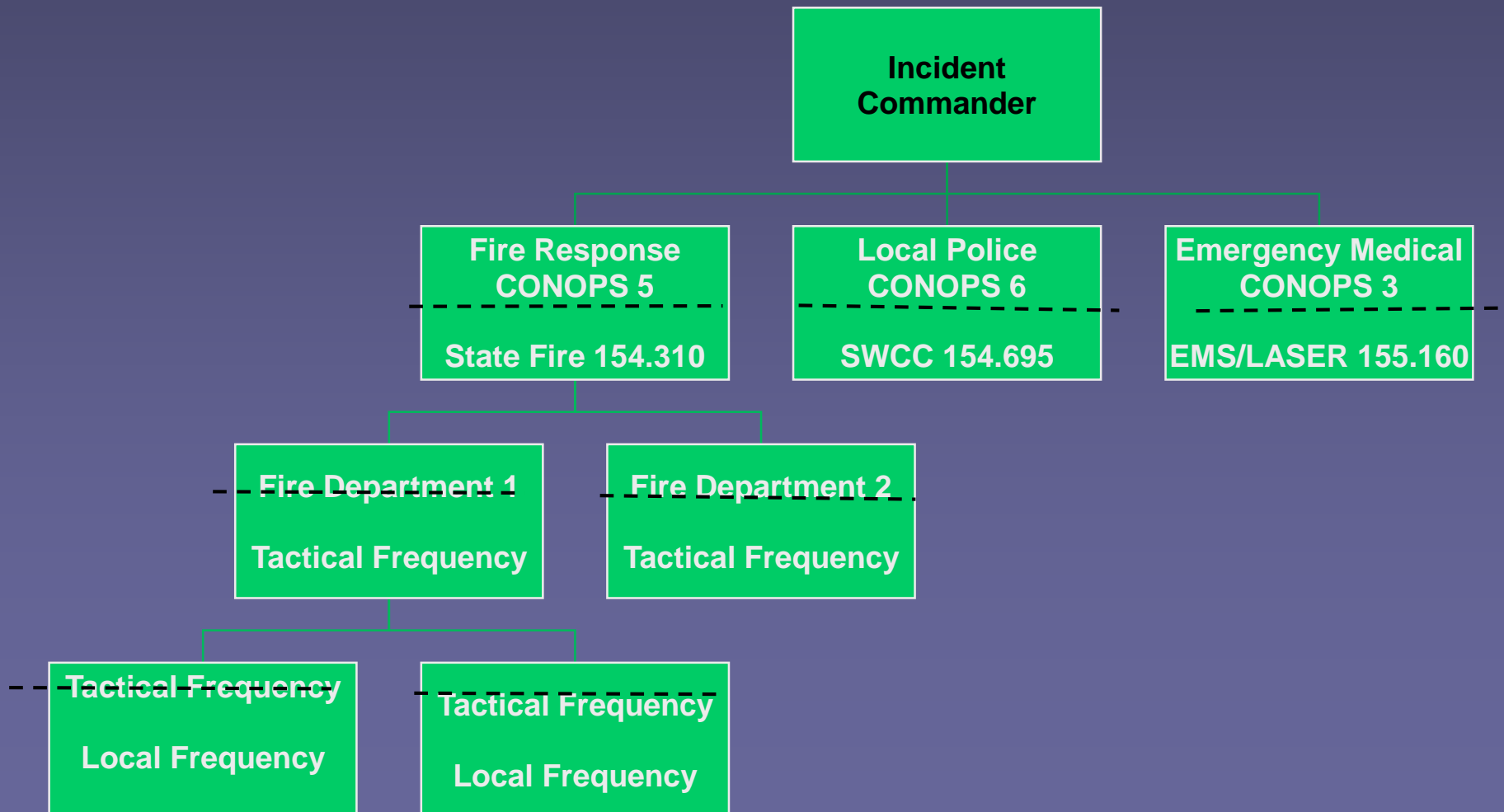
Implementation of CONOPS Utilizing ICS

Example 1



Implementation of CONOPS Utilizing ICS

Example 1 - Expanding Situation



Example 1 ICS Form 205 Integration with Com Plan

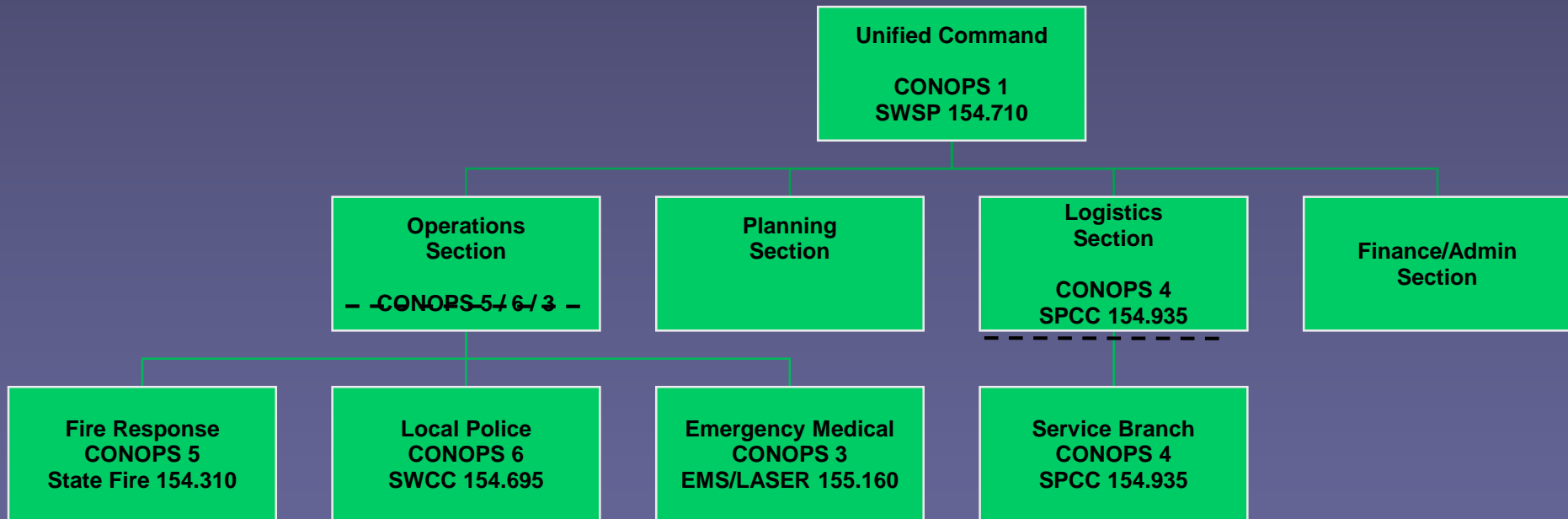
STATE OF MAINE FORM 205 INCIDENT RADIO COMMUNICATIONS PLAN FOR CONOPS		1. Incident Name	2. Date/Time Prepared	3. Operational Period Date/Time	
4. Basic Radio Channel Utilization					
Agency/Group	Radio Channel	Function	Frequency/Tone	Assignment	Remarks
No Change			CONOPS 1 SWSP 154.710	NOT Implemented	
No Change			CONOPS 2 NWCC 155.475	NOT Implemented	
Emergency Medical Services		IC Coordination with EMS	CONOPS 3 EMS/Laser 155.160		Interoperable Channel for Incident Commander
No Change			CONOPS 4 SPCC 154.935	NOT Implemented	
Fire Response		IC Coordination with Fire	CONOPS 5 SF 154.310		Interoperable Channel for Incident Commander
Police Response		IC Coordination with Police	CONOPS 6 SWCC 154.695		Interoperable Channel for Incident Commander
Fire Tactical 1		Fire Command & Dispatch	Fire Tac 1 154.250		Fire Command Channel Shared channel with Dept 1 & 2
Fire Tactical 2		Fire Interior Command	Fire Tac 2 154.350		Fire Team Coordination Shared Channel with Dept 1 & 2
5. Prepared by (Communications Unit)					

Example 1 Talking Points

- CONOPS did not change the function of existing procedures.
- ICS Form 205 Clearly identifies purpose of each frequency/channel.
- Did all agencies need to talk on same channel?
- There are additional frequencies for expansion of incident.

Implementation of CONOPS Utilizing ICS

Example 2



Example 2 ICS Form 205 Integration with Com Plan

STATE OF MAINE FORM 205 INCIDENT RADIO COMMUNICATIONS PLAN FOR CONOPS		1. Incident Name	2. Date/Time Prepared	3. Operational Period Date/Time	
4. Basic Radio Channel Utilization					
Agency/Group	Radio Channel	Function	Frequency/Tone	Assignment	Remarks
Unified Command			CONOPS 1 SWSP 154.710		Interoperable Channel for Unified Command
Operation Section			CONOPS 1 SWSP 154.710		Interoperable Channel for Unified Command
Not Implemented			CONOPS 2 NWCC 155.475	NOT Implemented	
Emergency Medical Services		Unified Command Coordination with EMS	CONOPS 3 EMS/Laser 155.160		Interoperable Channel for Incident Commander
Logistic Branch			CONOPS 4 SPCC 154.935		Hailing Frequency and Staging Area
Fire Response		Unified Command Coordination with Fire	CONOPS 5 SF 154.310		Interoperable Channel for Incident Commander
Police Response		Unified Command Coordination with Police	CONOPS 6 SWCC 154.695		Interoperable Channel for Incident Commander
5. Prepared by (Communications Unit)					

Example 2 Talking Points

- How did the functions for the CONOPS 3, 5 and 6 change between example 1 and 2?
- Did this plan allow enough separation between functional areas as to not create too much radio traffic?
- Were the decisions made by the Unified Command create a sufficient communications plan?
- Do all agencies involved need a separate frequency or can some share? This depends on level of use or like entities.

Part 4

Maine ICS Form 205- A
(Optional)

Maine ICS 205-A (Optional)

- On scene communications does not only consist only of radio communications. Some incidents have very little radio traffic but use multiple means of communication.
- ICS 205 form only identifies one type of communication mode Maine ICS 205-A accommodates all means of communication for incident command

<p>STATE OF MAINE FORM 205-A (Optional) INCIDENT COMMUNICATIONS PLAN</p>	<p>1. Incident Name</p>	<p>2. Date/Time Prepared</p>	<p>3. Operational Period Date/Time</p>
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4. Incident Communications Roster

ICS Command Description	Agency/Group	Function	Individual Contact	Method of Communication and Details

5. Prepared by _____

Sample ICS 205-A (Optional)

STATE OF MAINE FORM 205-A (Optional) INCIDENT COMMUNICATIONS PLAN		1. Incident Name Gulf Area Distaster	2. Date/Time Prepared 31 March 2008 1200h	3. Operational Period Date/Time
4. Incident Communications Roster				
ICS Command Description	Agency/Group	Function	Individual Contact	Method of Communication and Details
Unified Command	Town Fire	Interior Fire Suppression	Chief Joe	Radio: State Fire 154.310, Cell Phone 207.555.1212
Unified Command	Town Police	Area Security	Chief Smith	Pager 207.555.1212
Safety Officer	County Sheriff		SGT Johnson	Blackberry/Instant Email 207-555-1212, fire.guy@yourtown.us
Medical Unit	Hospital	Medical control	Dr. McGillicuddy	Emergency Room phone 207-555-1212
5. Prepared by				

Part 5

Practical Exercises



Scenario 1

A train derails on the tracks between Maine and New Brunswick, Canada. Evacuations are ordered on both sides of the border.

First responders will need to communicate with:

- ME and NB Emergency Management staff
- Hazardous Materials teams on both sides
- Customs and Border Protection Officials
- Railroad personnel from Canada
- ME and NB Fire & EMS personnel
- ME and NB Law Enforcement Agencies

How will you organize communications for this event?

Scenario 2

A cruise ship experiences an explosion and fire off the Coast of Maine. Medical crews are requested on board and evacuation to land is also ordered.

First responders will need to communicate with:

- Coast Guard, Marine Patrol and other watercraft.
- Port Authorities and Harbormasters.
- Mutual aid Emergency First Responders.
- Military, State, and Federal Agency Responders.
- Emergency Management Officials.

How will you organize communications for this event?

Scenario 3

A lost child is reported at a popular campground. There is a possibility the child may have been abducted. First responders will need to conduct an area search as well as investigate a possible crime and preserve the scene.

Communications will be necessary between:

- State Warden Service and Conservation
- State, County, and Local Police
- Aircraft involved in the search
- Emergency Management Officials
- Volunteer Searchers and other SAR assets
- Mutual aid fire and EMS personnel

How will you organize communications for this event?

Scenario 4

A commercial passenger aircraft with 12 persons on board crashes in a remote area. The area is also a National Park and access is limited.

Communications will be necessary between:

- Federal Park/Conservation Agencies.
- Federal Aviation/Transportation Officials.
- Multiple Law Enforcement Agencies.
- Investigating Agencies.
- Emergency Responders and ME staff
- Land and Air Transportation Assets.

How would you organize communications for this event?

Course Summary

Where do I find out more?

Maine Emergency Management Website

www.maine.gov/mema/

- You may also download the Maine ICS Forms
- Download CONOPS Complete Policies and Procedures