

# All-Hazards Communications Technician (COMT)

## Training Course

### Unit 5: Incident Communications Systems



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## Unit 5: Objectives

- Define the needs and solutions of an incident communications system
- Define various system designs, their procurement, and management
- Describe the various commercial resources suitable for incident communications support



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## Determine Incident Needs

- Obtain the following incident information from Communications Unit Leader (COML) – normally obtained from the Incident Action Plan (IAP), Incident Briefing Form (Incident Command System [ICS] Form 201), or command and general staff interviews
  - Frequencies/talk groups in use
  - Current and anticipated communications resources
  - Current and anticipated issues of operational or communications nature
  - Anticipated incident duration

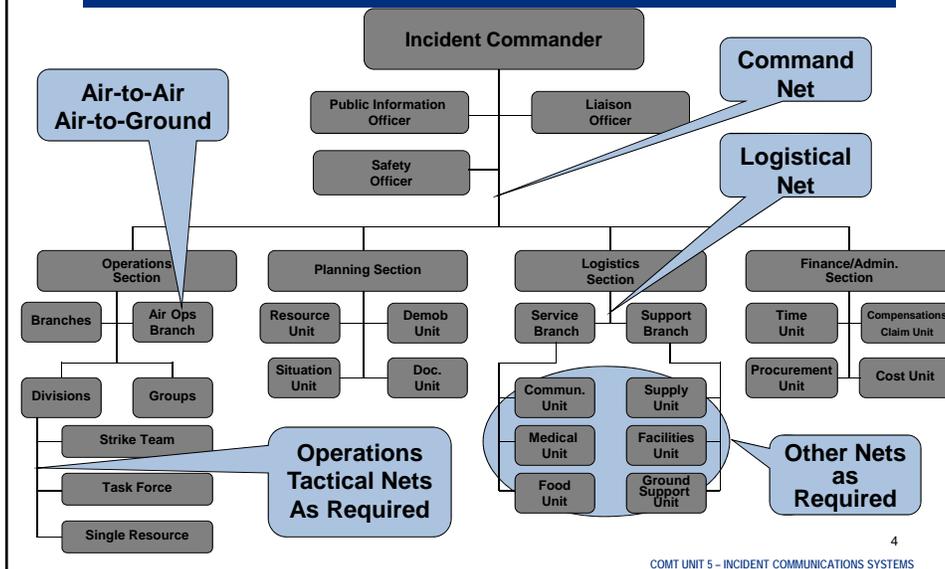


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## Function-Specific Radio Solutions



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## Telephone/Data Solutions

- Determine solutions for telephone and/or data networks via:
  - Terrestrial wired
  - Terrestrial wireless services
  - Satellite services



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## Design for a Solution

- Shared system
- Shared channels
- Radio caches
- Gateways
- Mobile communications centers
- Portable towers
- Repeaters
- Base design on the ICS 205 plan



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## Use Temporary System Equipment

- Use of temporary equipment
  - Obtain/assign frequencies or talkgroups
  - Order equipment
  - Determine required coverage areas
  - Locate and accurately document equipment sites



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## Equipment Distribution and Tracking

- Management of distribution and tracking of equipment
  - T-card (exercise - fill out)
  - Resource tracking database (see NIFC)
  - Coordinate with Logistics Section
  - Form 214 (exercise – fill out)

UNIT LOG	
1. Unit Name/Designation	2. Incident Name
3. Agency	4. Unit Leader/Commander and Position
PERSONNEL ROSTER ASSIGNMENT	
5. Name	6. Position
ACTIVITY LOG	
7. Time	8. Description of Activity



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## Security and Accountability

- Provide for equipment security
  - Provide for radio cache accountability



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## Commercial Services

- Application of commercial services:
  - Radio systems
  - Telephones
  - Cell phone caches, Cellular on Wheels (COWS)
  - Telephone hard-line connections
  - Satellite
  - Data
  - Voice over Internet Protocol (VoIP)
  - Contract technicians



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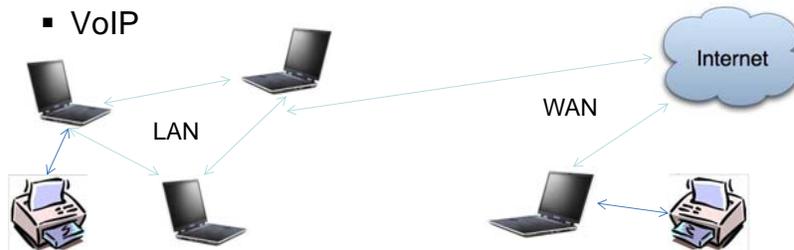
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## Implementing Information Technology Services

- Implementation of Information Technology (IT) Services
  - Data devices
  - Internet connectivity
  - Local Area Network and Wide Area Network (LAN/WAN)
  - VoIP



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## Manage for Performance

- Managed performance of the systems
  - Monitor complex systems to ensure continued efficient operation and gauge improvements made
  - Monitor operational performance systems during entire incident
  - Identify required repairs, perform minor field repairs, obtain replacement equipment
  - Continuously monitor all active gateways
  - Plan for battery replacement
  - Plan for generator refueling
  - Minimize system interruptions during all activity



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## Personal Accountability

- Maintain personal accountability
  - Periodically check in with Operations or Communications (as directed by supervisor) to maintain personal accountability



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## ICS Form 217A – Communications Resource Availability

- The ICS 217A Communications Resource Availability Worksheet
  - Purpose
    - Template completed prior to an incident
    - Readily available to the COML/COMT



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## ICS Form 217A – Communications Resource Availability (Cont)

- Preparation
  - Prepared in an administrative setting
  - Contains a standardized presentation of frequencies or talkgroups that may be considered for use during an incident
- Distribution
  - It is duplicated and given to authorized personnel prior to an incident
  - Examples of authorized personnel include the COML, COMC, or COMT



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## ICS 217A – Communications Resource Availability (Cont)

- The ICS 217A Communications Resource Availability Worksheet
- Instructions for completion
  - Practice exercise
    - ICS Forms –

[http://training.fema.gov/emiweb/is/icsresource/icsrescntr\\_forms.htm](http://training.fema.gov/emiweb/is/icsresource/icsrescntr_forms.htm)

Agency Name	Frequency	Priority	Mode	Notes
1 Repetitor - PM	DISPATCH	County fire	151 0200 W	158.7
2 Simplex - MA	TACTICAL 1	County fire	154 3000 N	none
3 Simplex - MA	TACTICAL 2	County fire	156 0400 N	none
4 Simplex - MA	TACTICAL 3	County fire	153 8100 N	none
5 Simplex - MA	TACTICAL 4	County fire	153 8000 N	138.5
6 Simplex - MA	TACTICAL 5	County fire	155 8000 N	141.3
7 Repetitor	COMMAND 1	County fire	158 8000 N	158.5
8 Repetitor	COMMAND 2	County fire	158 7500 N	159.0
9 Repetitor	EAST CONTROL	City 2 fire	156 2000 N	none
10 Repetitor	WEST CONTROL	City 2 fire	151 0100 N	none
11 Repetitor	NO CONTROL	City 2 fire	154 2000 W	none
12 Simplex - MA	STATE TAC	All fire	154 2000 W	none
13 Simplex - MA	STATE MAT	All fire	154 2000 W	none
14 Simplex - MA	STATE MAT	State public safety	159 0700 W	156
15 Simplex - MA	STATE MAT	County fire	151 0200 W	156
16 Repetitor	DISPATCH	County fire	151 0200 W	156



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## ICS Form 205 Incident Radio Communications Plan

- Purpose
  - Provides incident radio communications plan
- Preparation
  - The COML completes and gives to the Planning Section Chief
- Distribution
  - All recipients of the Incident Action Plan (IAP)



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## ICS Form 205 Incident Radio Communications Plan (Cont)

- The ICS 205 is the critical planning document for the COMT
  - Used to implement the incident communications system

The image shows a sample of ICS Form 205, titled 'INCIDENT RADIO COMMUNICATIONS PLAN' with a subtitle 'DELTA (Example)'. The form is a table with columns for 'System', 'Name', 'Frequency', 'Power', 'Mode', 'Bandwidth', 'Channel', 'Access', 'Priority', 'Status', and 'Remarks'. It lists various communication systems for different levels of the incident command structure: COMMAND (COMMON, GOLD STAR), TACTICAL (FD TAC 1, EMS TAC 1), and EMERGENCY (VCALLS). A red note in the middle of the table states 'THIS INFORMATION IS FOR EXAMPLE ONLY'. At the bottom, there is a disclaimer: 'This information is for example only and should not be used for training or operational purposes. The information is for example only and should not be used for training or operational purposes. The information is for example only and should not be used for training or operational purposes.' The form number '012006' and date '10/06' are visible in the top right corner.



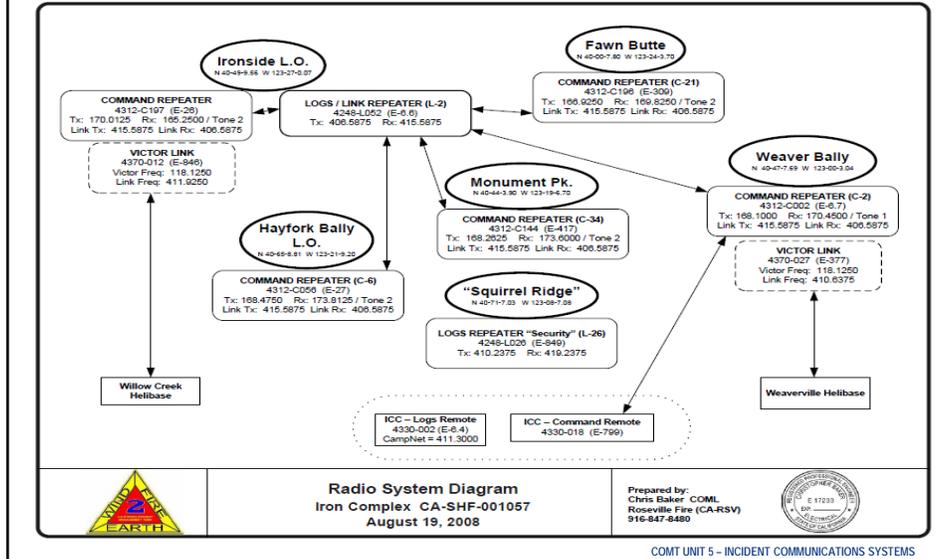
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## Radio System Block Diagram Support for ICS Form 205



## Communications Plans Distribution

- Security
  - Consider documents for official use only
  - Recognize that some frequencies will not be published due to security issues
- Distributed by the COML

Plan	Frequency	Mode	Other
1	154.5000 W	None	154.5000 W
2	154.5000 W	None	154.5000 W
3	154.5000 W	None	154.5000 W
4	154.5000 W	None	154.5000 W
5	154.5000 W	None	154.5000 W
6	154.5000 W	None	154.5000 W
7	154.5000 W	None	154.5000 W
8	154.5000 W	None	154.5000 W
9	154.5000 W	None	154.5000 W
10	154.5000 W	None	154.5000 W
11	154.5000 W	None	154.5000 W
12	154.5000 W	None	154.5000 W
13	154.5000 W	None	154.5000 W
14	154.5000 W	None	154.5000 W
15	154.5000 W	None	154.5000 W
16	154.5000 W	None	154.5000 W
17	154.5000 W	None	154.5000 W
18	154.5000 W	None	154.5000 W
19	154.5000 W	None	154.5000 W
20	154.5000 W	None	154.5000 W



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## Unit 5 Questions



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