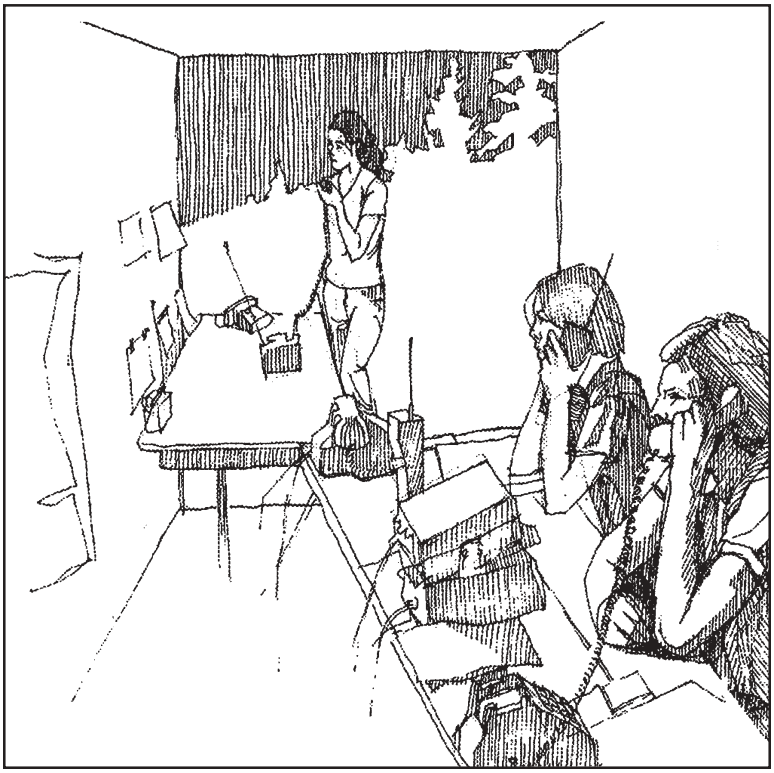
INCIDENT COMMUNICATIONS CENTER MANAGER

J-257



Job Aid
October, 2003
NFES 1533

CERTIFICATION STATEMENT

on behalf of the

NATIONAL WILDFIRE COORDINATING GROUP

The following training material attains the standards prescribed for courses developed under the interagency curriculum established and coordinated by the National Wildfire Coordinating Group. The instruction is certified for interagency use and is known as:

Incident Communications Center Manager, J-257
Certified at Level I

This product is part of an established NWCG curriculum. It meets the COURSE DEVELOPMENT AND FORMAT STANDARDS – Fifth Edition, 2001 and has received a technical review and a professional edit.

Member NWCG and Training Working Team Liaison

Date 10/23/03

Chairperson, Training Working Team

Date 10/16/03

Description of the Performance Based System

The NWCG Wildland and Prescribed Fire Qualifications System is a "performance-based" qualifications system. In this system, the primary criterion for qualification is individual performance as observed by an evaluator using approved standards. This system differs from previous wildland fire qualifications systems which have been "training based." Training based systems use the completion of training courses or a passing score on an examination as a primary criteria for qualification.

A performance-based system has two advantages over a training based system:

- Qualification is based upon real performance, as measured on the job, versus perceived performance, as measured by an examination or classroom activities.

- Personnel who have learned skills from sources outside wildland fire suppression, such as agency specific training programs or training and work in prescribed fire, structural fire, law enforcement, search and rescue, etc., may not be required to complete specific courses in order to qualify in a wildfire position.

1. The components of the wildland fire qualifications system are as follows:

   a. Position Task Books (PTB) contain all critical tasks which are required to perform the job. PTBs have been designed in a format which will allow documentation of a trainee's ability to perform each task. Successful completion of all tasks required of the position, as determined by an evaluator, will be the basis for recommending certification.

      IMPORTANT NOTE: Training requirements include completion of all required training courses prior to obtaining a PTB. Use of the suggested training courses or job aids is recommended to prepare the employee to perform in the position.

   b. Training courses and job aids provide the specific skills and knowledge required to perform tasks as prescribed in the PTB.

   c. Agency Certification is issued in the form of an incident qualification card certifying that the individual is qualified to perform in a specified position.

2. Responsibilities

   The local office is responsible for selecting trainees, proper use of task books, and certification of trainees, see appendix A of the NWCG Wildland and Prescribed Fire Qualification System Guide, PMS 310-1, for further information.

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Sponsored for NWCG publication by the NWCG Training Working Team

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Comments regarding the content of this publication should be directed to: National Interagency Fire Center, National Fire Training Support Group, 3833 S. Development Ave., Boise, Idaho 83705. Email: nwcg_standards@nifc.blm.gov.

Additional copies of this publication may be ordered from National Interagency Fire Center, ATTN: Great Basin Cache Supply Office, 3833 South Development Avenue, Boise, Idaho 83705. Order NFES 1533.

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INCIDENT COMMUNICATION CENTER MANAGER (INCM) JOB AID, J-257 INTRODUCTION

The Incident Communications Center Manager has been identified as a position within the Incident Command System (ICS). The J-257 job aid, which supports this position, is part of the National Wildfire Coordination Group's (NWCG), Wildland Fire Suppression Curriculum. The subjects within the performance based curriculum may be administered by either an instructor led formal training course or by the use of job aids. It is highly suggested that the trainee have previous incident experience.

Job aids are "how to" books that assist an individual in performing specific tasks associated with a position. They may be used by an individual, in a trainee position, who has met all of the prerequisites, but has not completed the position task book for that position. They are also used after the individual has become qualified, as an aid or refresher in doing the job.

The performance based qualification system stipulates that an individual must complete a Position Task Book prior to becoming qualified for that position. Refer to the "Wildland and Prescribed Fire Qualification System Guide, PMS 310-1" for the established standards for this position. *It is recommended that this job aid be issued when the position task book is initiated.*

This job aid has been developed by an interagency development group with guidance from the National Interagency Fire Center, Fire Training under authority of the NWCG, with coordination and assistance of personnel from the following agencies:

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We appreciate the efforts of those people associated with the development and review of this package.

Sponsored for NWCG publication by the NWCG Training Working Team, October, 2003.

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I. GENERAL

Obtain and Assemble Materials Needed for Kit.

Kit will be assembled and prepared prior to receiving an assignment. Kit will contain critical items needed for functioning during the first 48 hours. Kit will be easily transportable and within agency weight limitation. Web gear or briefcase (not both) should not exceed 20 pounds.

- ❑ Proof of Incident qualifications (Red Card)
- ❑ Position Task book, NFES 2351
- ❑ Fireline Handbook, PMS 410-1, NFES 0065
- ❑ National Incident Radio Support Cache User's Guide, NFES 0968

Documentation Forms:

- ❑ ICS 210, Status Change, NFES 1334
- ❑ ICS 213, General Message, NFES 1336
- ❑ ICS 214, Unit Log, NFES 1337
- ❑ ICS 219, Resource Status Card (T-Card), NFES 1342 and holder (optional)
- ❑ ICS 226, Individual Performance Rating, NFES 2074
- ❑ SF-261, Crew Time Report, NFES 0891 and/or OF-288 Emergency Firefighter Time Report, NFES 0866

- ❑ Radio Station Log, NFES 0370
- ❑ Agency specific forms

Miscellaneous Items (optional):

- ❑ Assorted pens, pencils, felt tip markers, highlighters, thumb tacks, string tags, pads of paper, clipboard, masking/strapping tape, duct tape, envelopes, surveyor flagging, file system supplies, hole punch, etc.
- ❑ Calculator
- ❑ Flashlight (extra batteries)
- ❑ Alarm clock
- ❑ Camera
- ❑ Calendar
- ❑ Tape measure
- ❑ Insect repellent
- ❑ Local area maps
- ❑ Road atlas
- ❑ Cloning cable (King®)

II. MOBILIZATION

A. Obtain Complete Information From Local Dispatch Upon Initial Activation.

1. Obtain a copy of the order form which contains:

- Incident/Project name
- Incident/Project order number
- Office reference number (cost code)
- Descriptive location/response area
- Legal location (township, range, section)
- Incident frequencies (if available)
- Incident base/phone number (contact)
- Request number
- Reporting date/time and location, e.g., Incident Command Post (ICP)
- Transportation arrangements and routes
- Special instructions

Retain a copy of this order form for your personal fire experience record.

2. The individual will have:

- Frameless soft pack containing personal gear, not to exceed 45 lb.
- INCM kit, not to exceed 20 lb.
- Proper Personal Protective Equipment (PPE) for the job.

B. Gather Information

Gather all available information necessary to accurately assess incident; make appropriate decisions about immediate needs and actions including:

- Type of incident
  - Planned operations, e.g., multiple remote camps, burnout operations, water handling operations.
- Current situation status
- Expected duration of incident
- Terrain
- Weather (current and expected)

III. INCIDENT ACTIVITIES

A. Arrive at Incident and Check In

- Locate supervisor (communications unit leader [COML] or logistics chief [LSC]).
- Report to status check-in recorder and complete ICS 211, Check-in List.
- Report to the finance/administration section for time keeping procedures.

B. Obtain Initial Briefing from the COML

1. Determine personnel status

   - Personnel currently assigned to the communication unit.
   - Their qualifications.
   - Length of time assigned.
   - Additional personnel that have been ordered.
   - Operational period requirements.
   - Day and/or night operational needs.

2. Discuss preferred "check out" procedures for communications equipment (CMD/TAC radios, camp net radios).

3. Discuss the specifics of the ICS 205, Incident Communications Plan, located in the Incident Action Plan (IAP).

   See Appendix A, ICS 205, Incident Communications Plan.

4. Discuss radio procedures:

   - Type of radio being used (King®, NIFC, R5).
   - Nature of use (tactical, command, support, camp).

- Frequencies in use.
- Channel assignments.
- Frequencies which may need to be passed on to air or operations personnel.
- Air to air frequencies.
- Additional formats (narrowband analog, digital).

5. Net/comm links established or to be established:

   - Tactical - fireline work coordination (line of sight).
   - Command - ties operations to ICP (requests for additional resources).
   - Support - support requests from fireline (hose, transportation, lunches).
   - Logistics Net - ties ICP to expanded dispatch in the absence of phone lines.
   - Camp Net - used in camp to tie all ICP units together.

6. Phones:

- Hard line, cellular or satellite
  - Compile information about who currently has or should have access to the phone system.

7. Discuss the current organization of the incident (section chiefs, unit leaders, operations staff).

- Fill out and post an ICS 207, Organization Chart, in the Incident Communications Center (ICC).

See the Appendix B. (If there is an IAP, the ICS 203, Organization List can be used and posted.)

8. Communication Procedures:

Message delivery incorporates use of the items below. Discuss how messages from the incident area are handled (orders from the line, emergency). Establish message routing system.

a. ICS 213, General Message:

- The purpose of filling out the ICS 213, General Message form is to record incoming messages.

See Appendix C, ICS 213, General Message, example and instructions).

- Transmit messages to the ICC for retransmission via radio or telephone to the addressee.
- The ICS 213, General Message form may be initiated by the radio operator (RADO) and any other personnel on an incident.
- Upon completion, it may be hand carried to the addressee or the ICC for retransmission.

b. ICS 210, Status Change Card:

- The purpose of filling out the ICS 210, Status Change card is to record status change information received on resources assigned to the incident.

See Appendix D, ICS 210 Status Change, example.

- The compiled information is used by the communications unit RADO and the resources unit.
- The form is completed by the radio/telephone operators who receive status change information from individual resources, task forces, strike teams, and divisions/group supervisors.
- Status information could also be reported by staging area and helibase managers and fixed-wing facilities.
- The status change card is a two-part form. The original copy is given to the resources unit and the second copy is retained by the communications unit.

c. ICS 214, Unit Log:

- The ICS 214, Unit Log is used to record details of unit activity.

See Appendix E, ICS 214, Unit Log.

- The file of these logs provides a basic reference from which to extract information for inclusion in any after action report.
- It is no longer a requirement that just unit leaders and above fill out these forms.
- Every supervisor should get into the habit of completing one every operational period.
- Activity Log: Enter the time and briefly describe each significant occurrence or event (task assignments, task completion, injuries, difficult encounters).

d. Radio Station Log:

- Use this form to document radio conversations.

See Appendix F, Radio Station Log, example.

e. Public address system

f. Message board/box

g. Obtain a map of the camp area with locations of units.

9. Ordering procedures:

- Supplies for operating communications center use ICS 213, General Message.
- COML will order communications equipment.
- Fireline ordering - find out who has authority to order from line.

10. Incident Action Plan (IAP):

Obtain a copy of the IAP and other informational documents from COML (maps, transportation plans). Receive items on a daily basis. The IAP will contain the following critical information needed by the incident communications center personnel:

a. ICS 206, Medical Plan and procedures:

- Medevac plan: has the COML already coordinated with the medical unit leader (MEDL) on a medevac plan?
- Discuss medevac plan with MEDL, if this has not occurred.
- Discuss medevac procedures with MEDL and RADOs working for you.

b. ICS 204, Division Assignment List:

- Names of individuals assigned to division, if name is difficult to understand, verify spelling.
- All ICS 204's Division Assignment Lists, should be available to RADO staffing the command post.

c. ICS 220, Air Operations Summary:

Note: tail numbers of aircraft may change daily. Air traffic should be on air frequencies. Notify COML if air traffic is on the command net.

d. Incident objectives, fire behavior forecast, weather forecast, demobilization plan.

e. Safety Message - ICC staff should read daily about safety hazards.

f. ICS 205, Incident Radio Communications Plan:

- Provides information on all radio frequency assignments for each operational period.
- Prepared by the COML.

g. Discuss timing and location of unit planning meetings and operational period briefings.

C. Establish the Incident Communications Center (ICC).

1. Coordinate with the facilities unit leader on location of the ICC.

2. Follow parameters outlined by COML for physical establishment of the ICC.

a. Location of ICC:

- Adjacent to the planning section.
- Adjacent to the ordering manager (ORDM).
- Away from vehicle and personnel traffic.
- Away from noise, e.g., generators, helibase, food unit.
- Should be flat.
- Should be enough room to allow for expansion.
- May be determined by radio equipment limitations, e.g., telephone lines, remotes or power needs.

b. Ensure the orderly arrangement of supplies and equipment.

- Arrange the ICC to provide minimal conversation interference between the radios and phones.
- Keep radio checkout away from net radios.
- Arrange to keep people traffic to a minimum.

c. Order sufficient RADOs to meet the need of the incident.

Example:

3 Divisions require:	6 Divisions require:
1 each INCM	2 each INCM
4 each RADO	8 each RADO

NOTE: If there is an active night operational period, may need to order additional INCM and RADO(s).

d. Order supplies, through the supply unit, to set up and operate the ICC.

- Acquire forms (Radio Station Logs; ICS 213, General Message; ICS 210, Status Change card; ICS 214, Unit Log).

D. Assist the COML with the Following Duties:

1. Maintain equipment accountability and inventories.

2. Maintain or, if desired, establish issue accountability system and issue hand-held radio resources.

- There are different systems for tracking equipment.
  - Ensure that the whole incident runs on one system. Utilize integrated electronic resource tracking systems if available.
  - Example: Resource locator/ T-cards.
  - Sign out communication's unit radios on T-cards. Empty one radio kit before starting another.

3. Checkout procedures are to be complete and accurate.

   a. Check the issue/return and/or the National Incident Radio Support Cache (NIRSC) issue.

   b. During radio checkout:

      - Check out radios only according to the uses identified on the ICS 205, Incident Radio Communication Plan. Compare radio serial numbers with those on the checkout list.

- Try to give the same type of radio to each crew.
- Try to have two people doing the checkout. (One person to prepare the radio and one to do the paperwork.)
- Put on antenna.
- Put the radio on the right channel and turn it on.
- Check the radio for proper working order by comparing it to a known working radio.
- Check batteries and hand out spare. Do not issue radios with used batteries.
- Fill out accountability sheet of T-card with the person's name, crew name, request number, home unit, and home unit phone number. Ensure the person checking out the radio will be the user.
- List accessories (external speaker microphone, mobile magnetic mount).
- Radio and equipment accountability forms (Radio Record Card).

- Assist user in interpreting the ICS 205, Incident Radio Communication Plan.

c. During radio check in:

- Ask the operator if the radio worked properly.
- Check the condition of the battery. It is good practice to replace the batteries.
- Place the radio back in the proper kit box in the proper slot.
- If the radio did not work properly, check for obvious problems:
  - Is the power switch on?
  - Is it on the right channel and group?
  - Is the antenna OK?
  - Is the battery OK?
  - Anything else? Look carefully.

NOTE: Different types of radios have colored tape - red for command, blue for logistics (NIRSC). Be careful of same assigned numbers in different boxes (radio K118-01 is in kit K118, slot 01). Other kits such as K018 or K218 also have a slot 01. Make sure you double check. NEVER play catch up with inventory!

d. If you cannot find the problem with the radio make sure to:

- Tag nonfunctional equipment upon return.
- Flag the radio, place it upside down in its original kit and slot.
- Put a note on the radio with symptoms of the problems the operator was having with the radio.
- Identify this to the communications technician (COMT) or COML when convenient.

e. Order needed equipment (batteries), if directed.

- Reconcile battery orders by checking the order against the ICS 213, General Message.
- Keep an up-to-date inventory of batteries.
- Battery information can be found in the radio kit inventory sheet or the NIRSC User's Guide.
- Set up "dead battery box." Ensure proper recycling procedures are followed.
- Notify the COML when the supply reaches a prearranged level.

f. Clone radios

See Appendix G, Handheld Radio Operation, Procedure for Cloning Handheld Radios.

g. Recognize basic communications network malfunctions (low battery on repeater, intermittent repeater transmissions, dead spots), and alert COML.

- Familiarize yourself with the normal operations of the equipment.
- Note which field units and locations you can normally communicate with, chart areas of poor communications and pass this on to the COML.
- Notify the COML or the COMT if you think a problem is developing in your ability to talk to the field personnel.
- If you hear the squelch tail on the repeater getting longer, notify the COML or COMT.

h. Fill out lost radio reports.

- Use OF 289, Property Loss or Damage Report, NFES 1864, or agency specific form.

4. Implement a document filing system.

   a. Documents for daily filing:

      - ICS 210, Status Change card
      - ICS 213, General Message
      - Radio Station Log/Phone Log
      - ICS 214, Unit Log
      - Crew Time Report

   b. Reasons why documentation is important:

      - Fire reviews
      - Claims
      - Complaints
      - Freedom of Information Act (FOIA)

   c. Documents for final incident package, organized by date:

      - ICS 213, General Message
      - Radio Station Log/Phone Logs
      - Medevac form (if used)
      - ICS 214, Unit log
      - Notes not appearing on above forms.

5. Ensure information regarding communications restrictions or coverage limitations is disseminated to operations and ICC personnel.

   a. Be sure user understands what operational channel to be on (air operations channel, emergency channel, any other frequencies which user needs).

   b. Status of communication equipment currently at the incident:

      - Is this equipment functioning?
      - Is additional equipment on order or to be ordered?

   c. Capabilities, limitations and restrictions:

      - Field personnel cannot be communicated with.
      - Congestion (other incidents on the same frequency, temporary use of the administrative unit).
      - Interference, e.g., skip, cross talk, unknown conversations.

d. Location of repeater:

- Current location - Repeater use (command, logistics, camp net)
- Planned location - Coverage area of repeater(s)
- Additional repeaters

E. Supervise and Manage the Incident Communications Center (ICC).

Ensure that proper radio and documentation procedures are followed in the event of an emergency situation (medevac/accidents, blowups, critical weather events).

1. Medevac procedures:

a. Review your medevac procedure with all ICC staff BEFORE a medevac occurs.

b. Follow these steps: (It is important to document this situation even when the medical unit leader has control of the situation. However, ICC staff maintains control of the radio traffic.) Have experienced radio operators (or yourself) handle medical emergency situations.

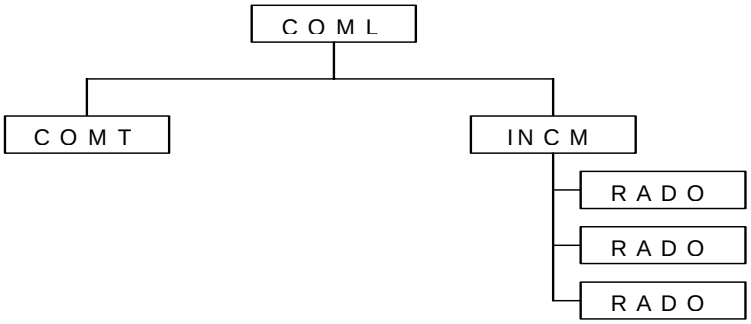
- One person talks on the radio.
- A second person writes down all traffic.
- A third person either serves as runner to the medical unit or contacts them on camp net.

2. Carry out established policies, priorities and operational procedures.

3. Provide for safety and general welfare of ICC personnel. Maintain work/rest compliance.

4. Ensure the ICC work environment is managed in a professional and efficient manner. Do not allow it to become a “gossip” center.

5. Depending on the size of the incident the ICC could vary in size. A typical operational period staffing situation may be as follows:



6. Directly supervise each RADO position (the use of radio/telephone logs, proper radio procedures and protocols).

The RADO has the primary responsibility to pass accurate and timely information from the sender to the receiver and follow through with an accurate and timely response. Other duties may be documentation of all calls, filing of documentation, radio check-out/in, equipment checks, etc.

a. Priority duties for the RADO are as follows:

(1) Respond to emergencies.

(2) Emergency traffic ALWAYS has priority over routine traffic. The following are steps to handle emergency situations:

- Stop and/or control other traffic until the message is delivered. Routing traffic should cease until the termination of the emergency.
- Obtain identification of the caller.
- Identify the nature of the emergency and location.
- Send the nearest help.
- In cases of ANY injury/ fatality on the incident notify: medical unit leader, safety officer, comp for claims. Notify IC if safety or medical does not.
- Use the clear text phrase, "Emergency Traffic," when an emergency occurs.

b. Radio traffic priority (listed in order):

(1) Injury, life hazard, medical aid, or well being of any person.

(2) First report of a new emergency.

(3) Initial attack dispatch to a new fire start

(4) Air operations

(5) Normal communications, i.e., report on conditions, crew placement, tactics and strategy, additional equipment orders and dispatch.

c. Report radio misuses:

- Address any misuse concerns of radio nets to the COML.
- Abusive language
- Hogging of air time (chitchat)
- Unauthorized use of assigned frequencies
- Unauthorized use of radio
- Inappropriate use of command net for tactical uses.

7. Brief subordinate(s) and relief personnel.

   Direct communication is critical. Information is to be given periodically and with every change from planned work.

   a. Current activities:

      - Orders that haven't been filled
      - Messages not delivered
      - Messages awaiting reply
      - Phone number change(s)

   b. Equipment status:

      - Incoming order(s)
      - Equipment being demobilized
      - Frequency change(s)

   c. Any unusual communication situations:

      - Operational period changes
      - New people
      - Recent medical emergencies

d. Briefings occur:

- Between operational period changes
- When new personnel come on
- Any time significant activity occurs.

8. Maintain an incident message board.

Just outside the ICC on a board or put a box in the ICC for the messages. Mark the names off as people retrieve their messages. The preferred method is to deliver the messages.

9. Develop and maintain an incident telephone directory.

- Be sure it is distributed to all who need it.
- Collect cell phone and pager numbers of incident personnel.
- Hosting unit and expanded dispatch phone numbers.
- If crew phones are available, consider using toll restrictors on the line, to ensure third party billing and time constraints are conformed to.

10. Plan and implement an operational period staffing schedule.

    a. Assure that the unit is staffed at all times:

        - During meals
        - Both night and day operational periods.

    b. For security:

        - Assess personnel numbers
        - Determine size and complexity of incident geography.

    c. INCM's operational period options:

        - Decrease or increase personnel based on operational periods.
        - Consider overlapping operational periods and being available during peak activity (burning period or shift change). Options: 1000-2200, 0600-1800, 1200-2400.

- Determine experience and abilityof RADOs. If they are uncomfortable speaking on the radio, they can perform other duties (keeping log books, running messages, checking out radios).

11. Personnel considerations:

    a. Sleeping area:

    - Noise - generators, vehicles, kitchen
    - Shade - especially for day sleepers

    b. Food and facilities:

    - Provide breaks (1/2 hour minimum for meals).
    - Provide refreshments (juices, snacks).
    - Make sure meals aren't missed (odd operational period trips to the field).
    - Dust free (as much as possible).
    - Shade for day operations - tent and/or fly.
    - Lights and heat for night operations.

c. Safety:

- Make sure there is good ventilation for heaters.
- Don't lift radio boxes alone.
- Beware of antenna cables, ropes and wires, identify them with flagging.
- Always take fireline clothing with you.
- Know the location of key personnel in case of an emergency, e.g., COML, MEDL, security manager (SECM).

F. Maintain ICS 214 Unit Log.

ICS 214, Unit Log will be kept current, legible and all major activities will be documented.

- Ensure that proper radio and documentation procedures are followed in the event of an emergency situation (medevac/accidents, blowups, critical weather events).

G. Evaluate performance of subordinates as required by agency policy.

- Continue on-going assessment of performances for task book checklists.
- Performance evaluations are done for all unit personnel prior to their release from the incident.
  - Performance evaluations are discussed with the individual.

H. Demobilization of Incident Communications Center Personnel.

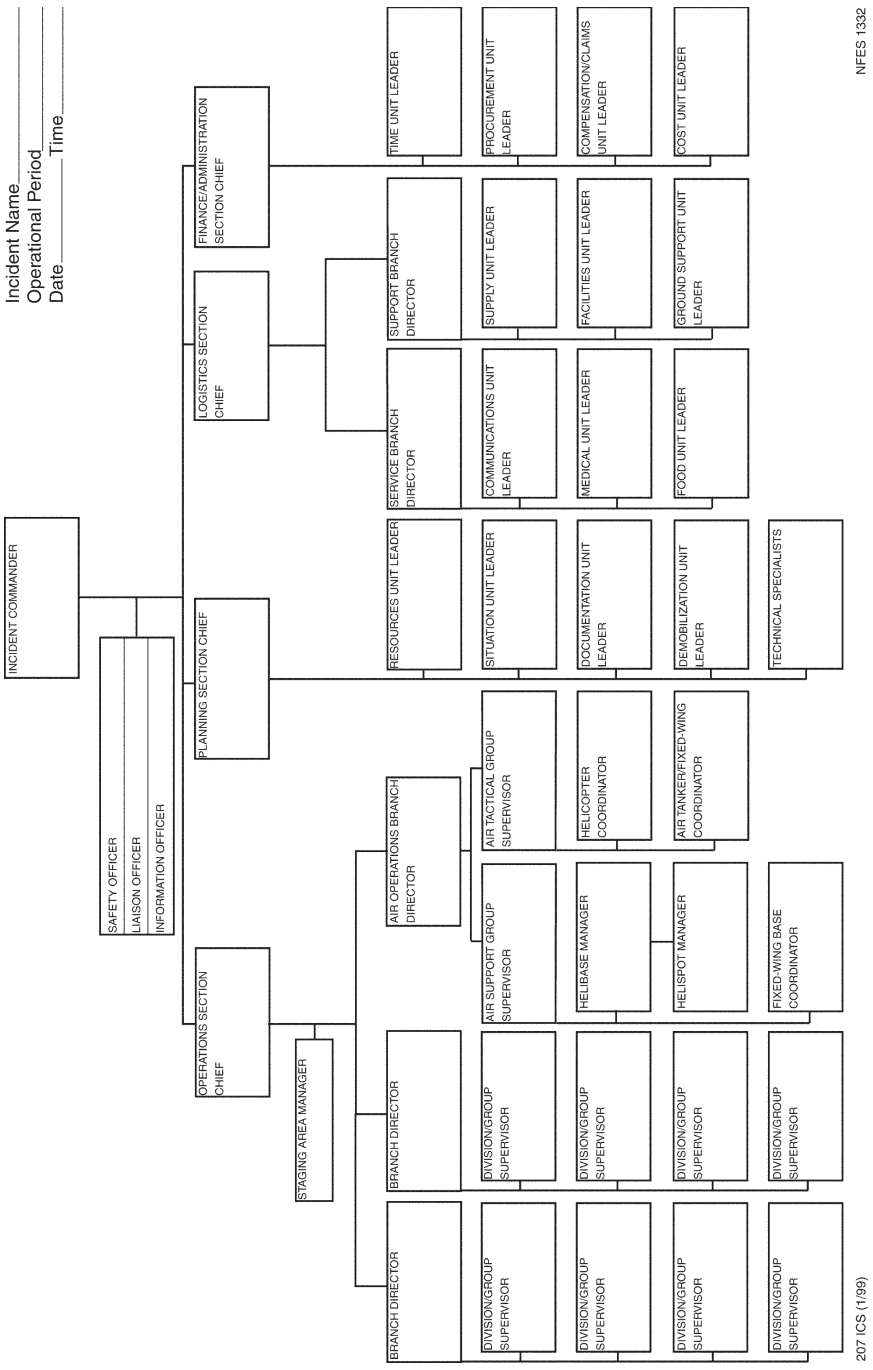
- Receive demobilization instructions from work supervisor.
- Brief replacement INCM.
- Brief subordinate staff on demobilization procedures and responsibilities.
- Debrief with supervisor and receive signed performance appraisal.
- Obtain ICS 221, Demobilization Checkout from the planning section.
- Check out with each section indicated on the ICS 221.
- Submit completed ICS 221 to the documentation unit in the planning section.

APPENDIX A
ICS 205, INCIDENT RADIO COMMUNICATIONS PLAN

INCIDENT RADIO COMMUNICATIONS PLAN		1. Incident Name **Hilltop**	2. Date/Time Prepared **8/20 1200**	3. Operational Period Date/Time **8/21 0600-1800**
4. Basic Radio Channel Utilization				
System/Cache	Channel	Function	Frequency/Tone	Assignment	Remarks
King/NIRSC	**1**	**CMD/Repeat**	**167.100 RX 169.750 TX**	**Fire Operations**	
King/NIRSC	**2**	**Tactical**	**166.725 RX/TX**	**Division A**	
King/NIRSC	**3**	**Tactical**	**166.775 RX/TX**	**Division B**	
King/NIRSC	**4**	**Tactical**	**168.250 RX/TX**	**Division C**	
King/NIRSC	**5**	**Dispatch Repeater**	**172.200 RX 165.4125 TX Tone 131.8**	**Operations to Dispatch**	
King/NIRSC	**6**	**Air to Ground**	**170.325 RX/TX**	**All Divisions**	
King/NIRSC	**7**	**Air Guard**	**168.625 RX/TX**	**Aircraft Emergency**	**Emergency Use Only**
5. Prepared by (Communication Unit)					

ICS 205 NFES 1330

APPENDIX B
ICS 207, ORGANIZATION CHART



APPENDIX C
ICS 213, GENERAL MESSAGE

★U.S.GPO:1992-0-700-801

GENERAL MESSAGE

TO: G. Roberts, Supply	POSITION SUPL		
FROM Communications	POSITION INCM		
SUBJECT Supply order - Division B		DATE 08/20	1300

MESSAGE: Need:

1 1/2" hose, 200'
10 ea. filled bladder bags

Deliver to DP3 by 1400
Confirmation of delivery needed

SIGNATURE/POSITION *Smith,* INCM

REPLY

DATE	TIME	SIGNATURE/POSITION

213 ICS 1/79
NFES 1336

PERSON RECEIVING GENERAL MESSAGE KEEP THIS COPY

(SENDER:) REMOVE THIS COPY, FOR YOUR FILES

APPENDIX C
ICS 213, GENERAL MESSAGE FORM INSTRUCTIONS

Initiation of the form:

The General Message form may be initiated by incident dispatchers and any other personnel on an incident.

Distribution:

Upon completion, the General Message form may be:

1. Hand carried to the addressee.
2. Hand carried to the Incident Communications Center for transmission.

Instructions:

ITEM TITLE	INSTRUCTIONS
To	Indicate unit/person the General Message is intended for. Be specific.
Office	Indicate the location where the unit/person is located, e.g., Ground Support Unit Leader, Simpson Camp, Communications, etc.
From	Indicate appropriate designation and location of sender.
Subject	Fill in if applicable.
Date	List the date and time.
Message	Briefly complete. Think through your message before writing it down. Try to be as concise as possible.
Reply	This section is intended to be used by the unit/person who receives the message to reply to your message.
Date	Record the date and time of reply.
Signature	Record signature and title of person replying.
White Copy/Pink Copy	Both copies are sent by person who initiates the message.
Yellow Copy	Retained by the person who initiates the message.
Pink Copy	May be returned to the person who initiates the message.

APPENDIX D
ICS 210, STATUS CHANGE CARD

DESIGNATOR
NAME/ ID. NO. Eng 23

STATUS

☐ ASSIGNED ☐ AVAILABLE ☐ O/S REST
☒ O/S MECHANICAL ☐ O/S MANNING
_____ ETR (O/S= Out of Service)

FROM	LOCATION	TO
✓	DIVISION/~~GROUP~~	
	STAGING AREA	
	BASE/ICP	✓
	CAMP	
	ENROUTE	ETA
	HOME AGENCY	

MESSAGES

Will take 12 hrs to fix.

TIME 1345 RESTAT PROCESS ☐

ICS FORM 210 6/83 STATUS CHANGE CARD NFES 1334

APPENDIX E
ICS 214, UNIT LOG

UNIT LOG	1. Incident Name Biscuit	2. Date Prepared 08/20	3. Time Prepared 1800
4. Unit Name/Designators Incident Communications	5. Unit Leader (Name and Position) D. Smith, INCM		6. Operational Period 0600-1800

7. Personnel Roster Assigned

Name	ICS Position	Home Base
J. Jones	RADO	OR-UMF
D. Paul	RADO	CA-MDF
S. Williams	RADO	CA-MDF
L. Burke	RADO	OR-FRF

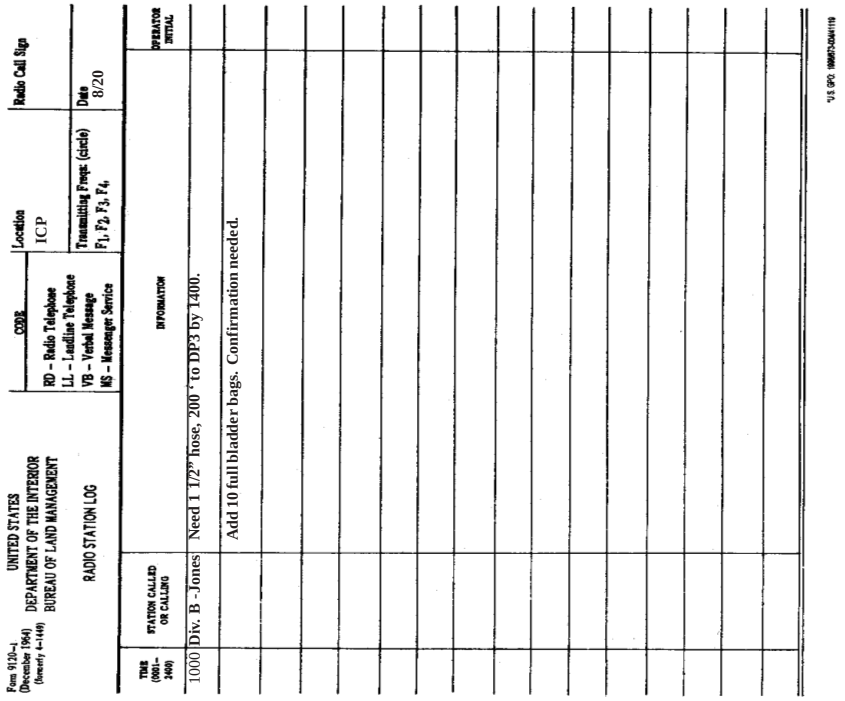
8. Activity Log

Time	Major Events
0600	Shift brief with COML and RADOs
0736	Checked out King radios to Umpqua Crew # 1 and Umpqua Crew # 2.
0800	Per request from Operations notified COML of an apparent "dead spot" for radio communications on
	Division A.
1100	Due to radio traffic within the ICC notified COML of the need for an additional INCM and RADOs
1300	Received supply order from Division B. Forwarded order to supply.
1400	Received update Red Flag warning; briefed ICC personnel of this event.
1800	Shift brief with incoming INCM for night shift.

9. Prepared by (Name and Position)

ICS 214

APPENDIX F
RADIO STATION LOG



Form 9130–1 (December 1964) (formerly 4–1449)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RADIO STATION LOG

CODE
RD – Radio Telephone
LL – Landline Telephone
VB – Verbal Message
MS – Messenger Service

Location: ICP

Transmitting Freqs: (circle)
F1, F2, F3, F4,

Radio Call Sign

Date: 8/20

TIME (0001–2400)	STATION CALLED OR CALLING	INFORMATION	OPERATOR INITIAL
1000	Div. B - Jones	Need 1 1/2" hose, 200 ' to DP3 by 1400.	
		Add 10 full bladder bags. Confirmation needed.	

Filling in this form:

- Location: ICP, base/camp, staging area.
- Radio call sign: CMD, ICP communication.
- Time: Time of initial call.
- Station calling: Division A, (name), Barkley staging.
- Information: Write legibly, ALL pertinent details.
- Operator initial: Be sure to initial here in case there are questions.

APPENDIX G
HANDHELD RADIO OPERATION

Operating Portable Radios

1. Carrying Case - For the most part you will not need to remove the radio from the carrying case. The case protects the instrument from exposure to moisture, dust, damage, and insulates it somewhat from vibration.

2. Antenna - Screw the antenna on to the radio; it will fit only in one place. Always tighten it snugly and never operate your radio with the antenna disconnected or you may damage the radio.

3. On-Off Switch - On the radio you will find an “On-Off” switch. Turn the knob clockwise to turn the radio on.

4. Microphone - The microphone has a small button on it that is pressed down to activate the transmitter when you are talking. The button is released when you finish sending your message, otherwise your radio will not receive messages.

5. Squelch Control - The squelch function is disabled when the squelch knob is at full counterclockwise position. If there is an annoying noise you can mute it by rotating the knob clockwise. Further clockwise rotation from the mute point will make the radio less sensitive and therefore require stronger message signals to “break” squelch.

6. Volume/On-Off - Turn radio “ON” and increase volume by rotating the knob clockwise.

7. Channel Select Knob - Set the radio on the correct channel. This may be located on the ICS 215, Operational Planning Worksheet.

APPENDIX G (continued)
HANDHELD RADIO OPERATION

Procedure for Cloning Handheld Radios

1. Obtain **MASTER** radio, group number to be programmed.
2. Remove side connectors.
3 Turn **MASTER** radio **ON.**
4. Press # and Group number to put in proper group, e.g., group 3, #03; group 11, #11.
5. Insert button end of programming cloning cable/plug cord in radio/ Master.
6. At the same time, press the button on the master end of the cloning cable/plug and the **FCN** button on the keyboard until **PROG "CH 0"** shows in the display.
7. If not, repeat steps 5 and 6.
8. Obtain radio to be cloned (called a slave).
9. Turn slave **OFF.**
10. Connect other end of cable to slave. Turn slave **ON.**
11. Press # and Group number to put in proper group, e.g., group 3, press #03; group 11, press # 11.
12. Press the "*" button on the **MASTER,** display will flash **PROG.**
13. Press **FCN** on **MASTER.** Program downloads.
14. Done if **MASTER** display flashes **PROG.** Go to step 18.
15. If error, **MASTER** display flashes **FAIL.**
16. If **FAIL,** press **CLR** on **MASTER,** check cable, clone power, etc.
17. If error, repeat steps 12 and 13.
18. When done, turn off **SLAVE** and remove cable. If more **SLAVES,** leave **MASTER ON.** Start at step 8 and repeat as necessary.
19. When completely finished, turn off **MASTER** and remove cable/ plug.

Note: Check with the COMT for the most current cloning procedures depending on the model of radio to be cloned.

APPENDIX H
24-HOUR CLOCK

12 Hour		*24 Hour*	*Pronounced*
1	AM	0100	Zero-one hundred
2	AM	0200	Zero-two hundred
3	AM	0300	Zero-three hundred
4	AM	0400	Zero-four hundred
5	AM	0500	Zero-five hundred
6	AM	0600	Zero-six hundred
7	AM	0700	Zero-seven hundred
8	AM	0800	Zero-eight hundred
9	AM	0900	Zero-nine hundred
10	AM	1000	ten hundred
11	AM	1100	eleven hundred
12	NOON	1200	twelve hundred
1	PM	1300	thirteen hundred
2	PM	1400	fourteen hundred
3	PM	1500	fifteen hundred
4	PM	1600	sixteen hundred
5	PM	1700	seventeen hundred
6	PM	1800	eighteen hundred
7	PM	1900	nineteen hundred
8	PM	2000	twenty hundred
9	PM	2100	twenty-one hundred
10	PM	2200	twenty-two hundred
11	PM	2300	twenty-three hundred
12	Midnight	2400	twenty-four hundred

To get 24 hour time, notice that you add 12 to the PM time to get the first two numbers of the hour, i.e., 8 PM is twenty hundred (8 + 12 = 20).

APPENDIX I
PHONETIC ALPHABET

Use the phonetic alphabet to spell out names or parts of names, and when communicating with aircraft.

A - Alpha	J - Juliett	S - Sierra
B - Bravo	K - Kilo	T - Tango
C - Charlie	L - Lima	U - Uniform
D - Delta	M - Mike	V - Victor
E - Echo	N - November	W - Whiskey
F - Foxtrot	O - Oscar	X - X-ray
G - Golf	P - Papa	Y - Yankee
H - Hotel	Q - Quebec	Z - Zulu
I - India	R - Romeo	

Dispatching names can be accomplished accurately by:

1) PRONOUNCING THE COMPLETE NAME. ***JIM SMITH***

2) SPELLING THE FIRST NAME, GIVE THE FIRST LETTER OF THE NAME PHONETICALLY.

   J - JULIETT, I - INDIA, M - MIKE ***Jim***

3) PRONOUNCING THE LAST NAME, AND THEN SPELLING IT PHONETICALLY.

   S - SIERRA, M - MIKE, I - INDIA, T - TANGO, H - HOTEL ***Smith***

4) PRONOUNCING THE WHOLE NAME AGAIN. ***JIM SMITH***

Proper identifiers assure you are transmitting to the correct station.

APPENDIX J
WORDS AND PHRASES

Clear Text

Words and Phrases	*Application*
AFFIRMATIVE	Yes
AVAILABLE	Used when a unit is ready for a new assignment or can return to quarters.
AVAILABLE AT SCENE	Used when a unit is still committed to an incident, but could be dispatched to a new emergency if needed.
AVAILABLE AT RESIDENCE	Used by administrative personnel to indicate they are available and on-call at their residence.
AT/ON SCENE	Indicates units have arrived at the scene of an incident.
BURNING OPERATION	Self explanatory
CALL _____ BY PHONE	Self explanatory
CAN HANDLE	Indicates that the resources on scene of the incident are adequate.
COPY, COPIES	Used to acknowledge message received. Example: "ENGINE TWELVE, TWELVE COPIES."
DISREGARD LAST MESSAGE	Self explanatory
EMERGENCY TRAFFIC	Term used to gain control of radio frequency to report an emergency or an emergency in progress. All other users will refrain from using that frequency until cleared for normal use.

APPENDIX J (continued)

EN ROUTE	Normally used by personnel to designate destinations. En route is NOT a substitute for responding.
FIRE CONTAINED	Time/Date the fire is contained within boundaries of constructed fireline.
FIRE CONTROLLED	Time/Date the fire is declared controlled and no longer susceptible to escaping control lines.
FIRE STATUS UPDATE	Update on the current conditions and work progress on the incident.
HEADQUARTERS	Used to indicate a unit has arrived at the headquarters office. This could also indicate the unit is back at quarters if the personnel have their duty station located there.
IN-SERVICE	Out-of-service unit is now operational.
_____ IS AVAILABLE FOR A PHONE CALL	Self explanatory
LOUD AND CLEAR	Self explanatory
NEGATIVE	No
OUT-OF-SERVICE	Indicates a unit is out-of-service. The unit could have mechanical problems or be understaffed. This could also indicate the unit is out- of- service for the shift.
REPEAT	Self explanatory
RESPOND, RESPONDING	Used during a dispatch - proceed to or proceeding to an incident.
RESUME NORMAL TRAFFIC	Opens a frequency to routine transmissions.
RETURN TO _____	Normally used by a dispatch center to direct units to return to their original location. For example: "ENGINE 6271, RETURN TO STATION."

STANDBY	Indicates a need to wait for further information by either the sending or receiving party.
STOP TRANSMITTING	Self explanatory
UNREADABLE	Used when the signal received is not clear. In most cases, try to add the specific trouble. EXAMPLE: "UNREADABLE, BACKGROUND NOISE."
WEATHER	Self explanatory
WHAT IS YOUR LOCATION?	Self explanatory

APPENDIX K
INCIDENT COMMUNICATIONS CENTER TIPS

The following list was compiled so all radio operators are aware of these specific communications problems, record keeping systems, and procedural avenues to enhance smooth ICC operations.

Communications:

Talk to your RADOs about the items below.

1. RADOs do not have to wait for squelch tails to stop before keying radio to respond.

2. Acknowledge every transmission immediately with COPY, STANDBY, etc., while finishing documenting the message. Do not leave the caller in suspense before acknowledging the call while the recorder is documenting the entire message.

3. Key the radio (1 to 2 sec.), THEN talk, otherwise the first word or more will be cut off.

4. Enunciate. Speak clearly. DO NOT mumble or shout. Use clear text.

5. Messages should be only repeated to the caller to verify correctness if the operator did not understand the message. Repeating everything the caller says ties up the radio system. (Exception: repeat aircraft check-in)

6. Use the standard phonetic alphabet for alpha characters, such as H-16 would be Hotel-16. This avoids confusion. Spellings over the radio should also be communicated with the standard phonetic alphabet.

7. Sign off to clear the net for other radio traffic.

APPENDIX K (continued)

ICC Procedures:

1. It is extremely important to have the RADOs monitor the radio at all times. Personnel should not have to call the ICC repeated times to obtain a response from the RADOs. This becomes very disconcerting to field personnel.

2. RADOs need to be very cognizant of names and positions of personnel in the field. RADOs should strive to identify line overhead by name.

3. The Incident Action Plan (IAP) is an essential source of resource information for the ICC. It is imperative that the RADOs know how to quickly find the location of personnel in the field. They should be familiar with drop points, divisions, helispots, and operations overhead.

4. Valuable information can be obtained by close monitoring of all radio nets. Changes in location and events can be picked up through listening to conversations on the radio, e.g., division supervisor calling the helibase to notify them of a helicopter crash.

5. It is important for RADOs to be able to see at least some of the incident area as soon as possible. This gives them a better understanding of the lay of the land, transportation problems, particular drop point and helispot problems.

6. Depending upon experience and staffing requirements, the INCM could monitor ICC operations for problems, only becoming more involved in emergencies when necessary, rather than routine traffic.

7. No more than two radio nets should be assigned per radio operator. Net phone sets/radios need to be arranged for ease of movement from one radio operator to the other for conversations.

8. The ICC is involved in relaying messages. Care must be taken to complete the relay. Be sure to follow through completely to all personnel involved.

9. Use of a **"Medevac in progress, please come back later"** sign is helpful to keep congestion out of the ICC during a crisis.

10. Priorities and procedures for use of telephones must be established. If this is not strictly enforced in the beginning, the ICC will have problems for the duration of the incident deciding on personal vs. business calls.

11. Be sure RADOs concentrate on one problem at a time and follow through until resolution to ensure all details are completed and nothing is left hanging.

12. Radio and battery checkout needs to be in a different location than the dispatch operation. This does not mean that RADOs cannot assist with these duties, however, congestion could be a problem.

13. Ensure RADOs relay messages only if necessary. Second hand communications are susceptible to misinterpretation.

Record Keeping Procedures:

1. Each radio net should have its own radio log book with pages numbered sequentially. Mixing log pages from different radio nets into one combined sequentially numbered folder creates confusion.

2. Use of abbreviations should be encouraged to shorten writing in the radio log, however, abbreviations have to be understandable. If not, extended descriptions should be added as soon as possible.

3. It is important to begin a filing system for paperwork during the initial start-up. Radio logs and other documentation should be filed daily. Like documentation should be grouped together within these daily files.

4. Have a file for all undeliverable messages. A message board, located outside, should have names on it of personnel with messages in the file.

5. Use a telephone log to track all phone calls. Log should include name, city, state, date/time, outgoing number, and nature of call.

6. Radio checkout form should include the individual's incident position along with their name. Print information so it is legible - NO SIGNATURES!

7. Phone lists which are important for RADOs to have:

   - Frequently used local and long distance numbers
   - Other incident numbers if the incident is a complex
   - Emergency numbers list (includes medical and others) Local unit dispatch (expanded dispatch)
   - Cell phone numbers of key personnel

8. Post a list of aircraft tail numbers for the incident and other aircraft which could fly into the area from a fixed wing base.

9. Distribute phone extension list to other units, as well as all other pertinent phone numbers, emergency numbers, and keep the list current.

10. Towards the end of the incident, during heavy demobilization, make a clean list of personnel who have radios. It is a handy reference as the radio operators sign the ICS 221, Demobilization Checkout.

11. If the Fire Behavior Analyst (FBAN) requests RADOs to record weather observations for the incident, the FBAN should supply a form easy to fill out. Calls can come from camps, lookouts, and field observers with these observations.

12. Information posted for RADOs:

- Incident map - to include constant update of new helispots and drop points. The situations unit should have the latest information.
- Telephone list
- Medevac plan
- Radio frequency plan
- Organizational chart
- Operational period schedule
- Incident action plan
- Air operations organization chart
  - Instructions on how to request a helicopter
  - Position which decides on requests for helicopter
  - Procedure for requesting retardant drops from dispatch.

APPENDIX L

INJURY NOTIFICATION PROTOCOL FOR THE ICC

Contact the Medical Unit Leader (MEDL) in all injury situations. **DO NOT** use the name of the injured individual over the radio. In the event of a minor injury, as noted by the person calling in the medevac, so state when relaying information so a false sense of urgency is not produced.

MEDEVAC INFORMATION

# of injured personnel: _____ (if more than one, complete separate form for each.)

TYPE OF INJURY

_____

Is the injury: critical (Level 1) _____ serious (Level 2) _____ minor (Level 3) _____
(Level should be determined by EMT, ALS, or ground person in charge of patient.)

Is the patient conscious? Yes ____ No ____

Is a helicopter needed for evacuation? Yes ____ No ____
(If a helicopter is needed, another RADO should immediately contact Air Operations for availability.)

Is an EMT giving treatment OR is an EMT needed? Need an EMT: Yes ____ No ____
Is ALS (Adv. Life Support) needed? Need ALS: Yes ____ No ____

Name & position of radio contact:

_____

Specific location (lat/long, grid, feature name, etc.): _____

_____

RADIO PROCEDURES

1. Clear that radio frequency for emergency use.
   "All units, there is a medical emergency, please clear this frequency."

2. Immediately notify MEDL on duty. (Have another RADO do this). The MEDL will coordinate treatment and evacuation in conjunction with Operations and/or Air Operations.

3. If air transportation is required, have another RADO request flight availability in the following order:
   1. Air Operations Branch Director
   2. Air Support Supervisor
   3. Helibase Manager

4. **Notify the Safety Officer and/or Operations Section Chief.** They may be on the frequency and already know, but make sure. This is secondary to obtaining the above information.

5. **Clear the frequency for normal use, when the emergency is over.**

APPENDIX M

MEDEVAC OPERATIONS INFORMATION

NOTE: *This operational information should come from the MEDL and be agreed upon by the MEDL and COML. The COML should brief the ICC staff with this information. The* **INJURY NOTIFICATION PROTOCOL FOR THE ICC** *form should be used in conjunction with this information.*

1. INCIDENT/ACCIDENT

- LOCATION
- TYPE OF INCIDENT/ACCIDENT
- NUMBER OF PERSONNEL INVOLVED
- EMT LOCATION (WHO IS CLOSEST, IS THERE ONE ON SCENE)

2. MEDICAL UNIT EMERGENCY MEDICAL TECHNICIAN (EMT) SENT TO ASSESS/ASSIST IF REQUIRED.

3. SCENE EMT GIVES PATIENT(S) STATUS AND REQUEST SPECIAL NEEDS/RESOURCES FROM THE ICP MEDL (THROUGH THE ICC).

4. PATIENT CATEGORIES:
Obtain this information from the EMT on site.

LEVEL 1: **Critical/Potential Critical** - Medevac by air Patient(s) transported to hospital by incident helicopter or arrangements are made for closest area lifeflight.
Phone number for lifeflight:: _____

LEVEL 2: **Serious** - Medical Transport Patient(s) transported to nearest hospital by incident helicopter (for convenience/patient comfort) or ambulance.

LEVEL 3: **Non-Critical** - Medical Transport Patient(s) transported by ground and/or helicopter with normal shuttle.

APPENDIX N

GLOSSARY OF TERMS AND ACRONYMS

For additional fireline terms, refer to Wildland Fire Terminology, PMS 205, NFES 1832

Accountable Property	Items with a purchase price of $5,000.00 or more or items that the agency considers sensitive (cameras, chainsaws, items with property numbers).
A/C	Aircraft, fixed or rotor wing.
AD	Administratively Determined (rates and pay plan for emergency workers.)
AGL	Above Ground Level, altitude expressed in feet above the ground.
AIDS	Aerial Ignition Devices - usually refers to a ping pong ball machine or a helitorch.
Air Contact	Particular aviation resource to contact when reporting to a fire.
Air Show	Multiple aircraft over a fire, usually including air tankers.

Air Tactical	ICS position within the operations section. Air Tactical Group Supervisor (ATGS), synonymous with air attack.
Air Transportable Modular Unit (ATMU)	A weather data collection and forecasting facility consisting of seven modules, weighing a total of 355 pounds and occupying 34.2 cubic feet of space when transported. Requires a supplemental order of helium, procured locally.
Alumigel®	Jelly like substance produced by mixing gasoline and Alumigel® powder. It is then applied with an ignition device such as a helitorch to ignite fires.
ALS	Advanced Life Support
ATA	Actual Time of Arrival
Air Tanker	Fixed wing aircraft capable of delivering fire retardant (liquid and foam).
ATD	Actual Time of Departure

Av Gas	Fuel for aircraft with internal combustion engines (reciprocating engines).
Azimuth	The horizontal distance in angular degrees in a clockwise direction from the north point.
Back Haul	Excess supplies, equipment or trash returned from a location on an incident.
Base	The location at which primary logistical functions for an incident are coordinated and administered. There is only one base per incident, e.g., incident command post (ICP).
Bearing	Position of an object with reference to a point on a compass.
Backpack Pump	A collapsible backpack made of neoprene or high strength nylon fabric that carries approximately five gallons of water fitted with a hand pump. (bladder bag)
BDU	Battle Dress Uniform; fire resistant pants

Booster Pump	An intermediary pump for supplying additional lift in pumping water uphill past the capacity of the first pump.
Casual(EFF)	An employee who is picked up temporarily for a fire emergency, see AD. Also referred to as Emergency Fire Fighter (EFF)
Chief of Party	Person in charge of passengers while traveling.
Clamshell	Reusable battery holder for King® radios. Holds 9 AA batteries. Listed as Holder, Battery, King, NFES 1034.
Compressed Air Foam System (CAFS)	A generic term used to describe foam systems consisting of an air compressor (air source), water pump and foam solution.
Commo	Communications
Consumable Property	Items that are expected to be consumed on the incident (batteries, MREs, canteens).

Coordination Center Regional/Zone/State level center for mobilization of resources to incidents, etc. (dispatch)

Coupling, hose A fitting on the end of a hose that connects the ends of adjacent hoses or other components of hose, e.g., male, female, quick connect, pin lug.

Coyote Tactics A progressive line construction technique involving self-sufficient crews which build fire line until the end of the operational period, remain at or near that point while in an unavailable status and begin building fireline at that point at the start of the next operational period.

CSJRL Cotton-Synthetic Jacketed, Rubber Lined hose.

Cubie Cubitainer: a five gallon container used for transporting drinking water.

Demob Demobilization, process of removing resources, usually off incidents.

DHS Department of Homeland Security

Dispatch	Dispatch center; a facility from which resources are assigned to an incident.
Division	Incident division, usually designated by a letter, e.g., Division A.
DJRL	Double Jacketed Rubber Lined hose.
Dozer	A tracked vehicle with a front mounted blade used for building fireline; bulldozer.
Dozer tender	Bulldozer service unit
Drum Lifter	A device used to transport a 55 gallon drum via a sling on a helicopter.
Durable Property	Non-accountable items, with useful life expectancy longer than one incident.
Engine	A truck mounted with a pump and tank (water), used in fire suppression.
EMS	Emergency Medical Service
EMT	Emergency Medical Technician

ETA	Estimated Time of Arrival
ETD	Estimated Time of Departure
ETE	Estimated Time En Route.
Expanded Dispatch	The organization in dispatch that is activated when the complexity of logistics coordination approaches a level the initial attack dispatch organization can no longer support.
FAA	Federal Aviation Administration
FBO	Fixed Base Operator; usually the local airport.
Fill or Kill	Policy designed to indicate ability to fill an order or if it can not be filled within a reasonable amount of time (1 hour is standard), then "kill" it. Determine whether to reorder at a later time or cancel the order. This policy is referenced in the National Interagency Mobilization Guide.

Fire Cache A supply of fire tools and equipment assembled in planned quantities or standard units at a strategic point for exclusive use in fire suppression.

Fixed Wing Aircraft with stationary wings; an airplane.

FLE Fire Line Explosives, used for rapid construction of fire line with a small number of specially trained personnel.

FMO Fire Management Officer

Foam An extinguishing agent, chemically and/or mechanically produced, that blankets and adheres to the fuels to reduce combustion. When foam products are mixed at 1% or less, the foam will remain effective at preventing ignition for 12 hours. Works with current class A foam delivery systems.

Fol-da-tank® A portable, collapsible water tank with a tubular frame; varies in capacity from 500-1500 gallons.

FTS Federal Telephone System

Gated Wye	A gated valve used in hose lays to allow connection of other hoses within the trunk line, e.g., 1” lateral hose with nozzle.
GHT	Garden Hose Thread, 3/4 inch hose fittings
Gorman Rupp	Small, portable water pump.
Gray Water (Grey)	Used water from the kitchen and shower units.
Greenwich Mean Time	The time at “0” longitude, Greenwich, England (Zulu time).
Hazardous Material	Substances that are identified, classified and regulated in the Code of Federal Regulations, Title 49 and Hazardous Materials Regulation 175. A hazardous material is a substance or material which has been determined by the Department of Transportation to be capable of posing an unreasonable risk to health, safety and property when transported in commerce and which has been so designated.

Head (water pressure)	Pressure due to elevation of water. Equals 0.433 pounds per square inch per foot of elevation.
Helibucket	Specially designed bucket carried by a helicopter like a sling load and used for aerial delivery of water or fire retardants.
Helitorch	An aerial ignition device slung beneath a helicopter to disperse ignited lumps of jelled gasoline (Alumigel®).
Hot Food/ Drink Cans	Nonreusable cans that are used to ship hot or cold drinks and food to remote locations.
Hot Shots, IHC	Specially trained seasonal hand crew (type 1).
Hoverfill Tank	Large, portable tank from which helitankers can hoverfill.
IA	Initial Attack, first effort to suppress a fire
IC	Incident Commander

Impeller Rotating part of a centrifugal pump which imparts energy to the liquid to be moved. For shearing purposes, the impeller is on a rotating shaft within the body of liquid.

IMSR Incident Management Situation Report (Sit Report). Daily report giving the current fire situation in the United States.

Incident An event (fire, flood, earthquake, other disasters)

Incident Command System (ICS) An organization used to manage an emergency incident or a non-emergency event. It can be used equally well for both small and large situations. The system has considerable internal flexibility. It can grow or shrink to meet differing needs. This makes it a very cost-effective and efficient management system. The system can be applied to a wide variety of emergency and non-emergency situations.

Incident Action Plan (IAP) Contains objectives reflecting the overall incident strategy and specific control actions for the next operational period. The plan may be oral or written.

Incident Overhead All supervisory positions described in the incident command system.

Increaser Increasing coupling used on hose, pump or nozzles to permit connection of a larger size of hose.

Inductor A control mechanism that allows a regulated quantity of foam concentrate to be introduced into the main hose line.

Infrared A heat detection system used for fire detection, mapping and heat source identification.

Inside Diameter The internal diameter of a tube, conductor or coupling as distinguished from the outside diameter. Fire hose sizes are classified by a nominal internal diameter.

IR Scan	Infrared survey of a fire
Iron Pipe Standard Thread	Standard system of thread for connecting various types of rigid piping. These threads are much finer and more difficult to connect in the field than National Standard threads.
Kamlock	Type of fitting that provides quick connecting/disconnecting hose.
Lead Line	Line or set of lines made of rope, webbing or cable and used in helicopter external load operations. Placed between a swivel or the cargo hook and the load.
Lead Plane	Aircraft with pilot used to make trial runs over the target area to check wind, smoke conditions, topography and lead air tankers to the target.
Lined Fire Hose	Fire hose with a smooth inner coating of rubber or plastic to reduce friction loss.

Liquid Concentrate	Liquid phosphate fertilizers used as fire retardants, usually diluted three to five times prior to application.
Live Line or Reel	Hose line or reel on a fire engine, carried connected to the pump, ready for use without making connection to pump or attaching nozzle.
Load Calculation Form	An agency form used to calculate helicopter load weight.
Local Agency	An agency having jurisdictional responsibility for all or part of an incident.
Longline	A line or set of lines, usually in 50 feet increments, used in external load operations that allow the helicopter to place loads in areas which the helicopter can not land.
MAC	Multi-Agency Coordinating Group

MAFFS	Modular Airborne Fire Fighting System, the military's air tanker program (used when more tankers are needed than there are available on contract).
Mark III	Small, portable water pump
Mark 26	Portable water pump (smaller than a Mark III)
Medevac	Emergency medical evacuation
Misery Whip	Crosscut saw
MIST	Minimum impact suppression tactics
Mix Ratio	The ratio of liquid foam concentrate to water, usually expressed as a percent.
Monitor	Turret type nozzle usually mounted on an engine.
Mob Guides	Reference used to facilitate the mobilization of resources. Includes policies, procedures, and where to find the resources.

Mopup Extinquish or remove burning material near control lines after an area has burned to secure the fire or to reduce residual smoke.

MRE Meals Ready to Eat, light weight, packaged food used on fires

Multicom A VHF/AM aircraft radio frequency (122.9 MHz) assigned by the FAA for use in air-to-air communications.

Mud Fire retardant

NH National Fire Hose, coupling threads used for fire hose 1½" and larger.

NFES Catalog Referred to as the National Fire Equipment System Catalog. This catalog is used to order equipment and supplies from fire caches.

NICC National Interagency Coordination Center at Boise, ID.

NIFC National Interagency Fire Center at Boise, ID

Nomex®	A fire resistant synthetic material used in the manufacturing of flight suits, pants and shirts for firefighters.
Nozzle Aspirated Foam System	A foam generating device that mixes air at atmospheric pressure with foam solution in a nozzle chamber.
Nozzle, Forester	Twin-tip combination nozzle for 1" hose. Combination fog/straight stream nozzle tip; low volume.
Nozzle, KK	Combination barrel nozzle. Higher volume than the Forester nozzle.
NPSH	National Pipe Straight Hose coupling threads (straight pipe threads for hose couplings and nipple).
NPT	National Pipe Threads/American Standard Taper pipe threads
NTE	Not to exceed; a personnel term used for positions that have a limited duration due to funding or project length.

Payload	Weight of passengers and/or cargo being carried by an aircraft.
PAX	Passengers
PC	Paracargo, cargo delivered by means of fixed wing aircraft and parachutes specialty packed and rigged, usually by smokejumper paracargo specialists.
PG	Personal gear bag
Phoschek®	Long term red colored fire retardant
PIC	Pilot in Command
Piston Pump	Positive displacement pump with 2, 4, and 6 reciprocating pistons to force water from the pump chamber in conjunction with appropriate action of inlet and discharge valves.
Probeye®	Infrared scanning device that picks up hotspots on fires.
Proportioner	A device that adds a predetermined amount of foam concentrate to water to form a foam solution.

PSD Plastic Sphere Dispenser - refers to a machine installed in a helicopter that dispenses plastic spheres (ping pong balls) filled with potassium permanganate. The machine injects a small amount of ethylene glycol into each sphere and then dispenses them out of the helicopter. The exothermal reaction of the two chemicals creates enough heat to ignite the plastic sphere, in 25 to 30 seconds, which in turn ignites the fuel bed. Aerial Sphere Dispenser Kit, NFES 3410

PTO Power Take-Off, a supplementary mechanism enabling the engine power to be used to operate non-automotive apparatus (such as a pump).

Pumpkin Collapsible, soft-sided, freestanding portable water tank.

Ramp Parking area for aircraft adjacent to a runway.

Red Card Fire qualification card issued to personnel showing their qualifications to fill specific fire positions.

Reel — A frame on which hose is wound (3/4 to 1 inch hose) supplied by a water tank on the apparatus.

Resource — Any person, aircraft, supply or equipment available for assignment to an incident. Described by kind and type, e.g., T2 Crew, ICT1, T6 Engine.

Resource Order — Form used by dispatchers, service personnel and logistics coordinators to document the request, ordering or release of resources and the tracking of those resources on an incident.

Respirator — A simple filter mask for individual protection against smoke and fumes for use on wildland fires.

Retardant — A chemical having a retarding action on fire, usually applied with an air tanker.

Retrograde — Reversal of an order; shipping supply items from the incident back to the cache or to another incident.

Requisition	A form/procedure for purchasing supplies.
RH	Relative Humidity, a measure of moisture in the air.
Rocker Lug Coupling	Hose coupling in which the lugs used for tightening or loosening are semicircular in shape and designed to pass over obstructions.
Rotor Wash	The air turbulence caused by the movement of the rotor blades of a helicopter.
Rotorwing	Aircraft with a rotor system that rotates about an axis to provide lift and/or thrust for a helicopter.
RX	Prescribed fire
SIPT	Straight Iron Pipe Thread
Slurry	Fire retardant
SMJ or SJ	Smokejumper; fire suppression personnel who parachute to fires via fixed wing aircraft.
SOP	Standard Operating Procedures

Spotter Smokejumper supervisor in charge of a jumper load; performs navigation, communication and paracargo duties.

Stocking Levels Minimum levels of supplies kept on hand at a fire cache.

Strainer A wire or metal guard used to keep debris from clogging pipe or other openings made for pumping water. Placed on suction hose it will protect pumps from foreign materials.

Surfactant A surface active agent. A formulation which, when added to water in proper amounts, will reduce the surface tension and increase penetration capabilities of the water, e.g., wet water, class A foam, soap.

Swamper Assistant to an equipment operator

T&A Time and Attendance

Tail Number FAA number used to identify aircraft, located on the tail of the ship. American aircraft tail numbers begin with the letter N, e.g., N543TY, N67344.

Tanker Air tanker

TFR Temporary Flight Restriction. This airspace restriction is obtained through the FAA. It is an area of airspace over an incident that is defined both laterally and vertically, which has been temporarily or partially closed to nonessential aircraft for a specific period of time.

Thread The specific dimensions of screw thread employed to couple fire hose and equipment. American National Standard Hose Thread has been adopted for fire hose couplings.

Torch, Drip A hand-held device for igniting fires by dripping flaming liquid fuel on the materials to be burned. Fuel used is generally a mixture of diesel and gasoline.

Trash Pump Medium sized pump used for moving large amounts of liquids, e.g., grey water, retardant. These pumps are ordered as volume pumps.

UTF Unable to fill; pertaining to resource orders.

Water Buffalo Liquid storage unit

Water Tender Ground vehicle capable of transporting specified quantities of water, e.g., Type 1 water tender; 5000 gallon capacity, 300 gallon per minute pumping capability.

WFSA Wildland Fire Situation Analysis. An analysis tool used to determine the most appropriate management strategy for a wildfire that has escaped initial attack.

WX Weather

Xedar® Type of heat seeking video display unit that identifies hot spots during mopup.

100 hour Mandatory maintenance done to aircraft every 100 hours (there is also a 50 hour, 1000 hour, etc.)

NOTES