INCIDENT COMMAND SYSTEM PUBLICATION

Operational System Description for
Local Government Hand Crews
ICS156 -1

January 2025

This Document contains information relative to the Incident Command System (ICS) component of the National Incident Management System (NIMS). This is the same Incident Command System developed by FIRESCOPE. Additional information and documentation can be obtained from the following source:

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INTRODUCTION

The primary job of hand crews is fireline construction. This is accomplished through well-defined roles of both crew members and leadership. Crew members use chainsaws and hand tools to strategically construct fireline that varies based on fuels, topography, and weather. Typing assists in mobilization, staffing, and equipping crews. It assists fireline leaders in ordering based on needs and it helps them to utilize hand crews according to their abilities. This document describes reasonable and appropriate typing for local government hand crews. It also provides references for State and Federal hand crew standards.

MODULAR DEVELOPMENT
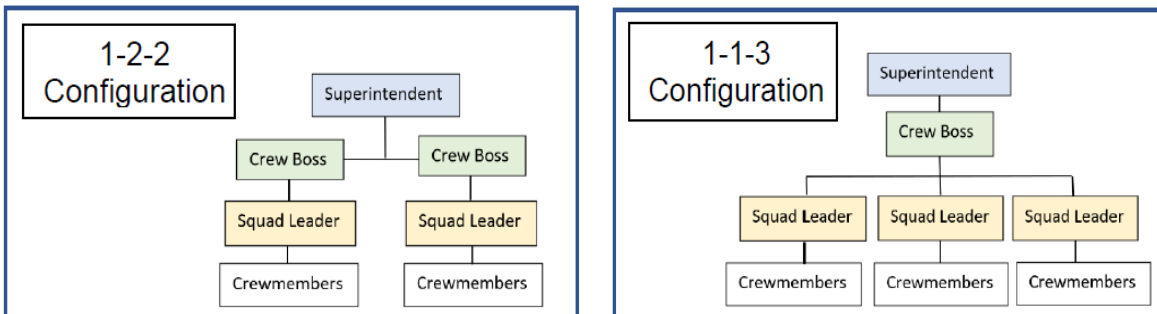
TYPE I HAND CREWS

Type I hand crews are the most capable crews and are required to have the highest standards with respect to training, qualifications, and staffing. They can operate as a single unit or be broken down into smaller modules to perform multiple operations. Examples of small module tactics include timber felling, line construction, low complexity firing and working with aircraft among others. They are able to perform initial attack and conduct complex fire line operations. They are useful for leading complex offensive and defensive firing, including backfire and burnout operations.

TYPE I HAND CREW - STAFFING AND QUALIFICATIONS:

1. Crew size 18 minimum
2. Minimum of 70% of crew personnel will have fire service experience.
3. EMS abilities:
   - Two EMTs or better per crew with agency specific gear compliment
   - All crew members are trained in 1st aid and CPR certified
4. Felling capabilities:
   - Intermediate felling capability (agency specific)
   - Four intermediate fallers (FAL2) or better
   - 50% FAL3 or better
5. Aviation support:
   - Minimum of 2 Longline (HELR), HECM recommended
6. May configure into crew strike teams to meet typing standard when mobilized.
7. Acceptable overhead models (see graphics below)
   - 1 Superintendent, 2 Crew Bosses and 2 Squad Leaders (1,2,2) or
   - 1 Superintendent, 1 Crew Boss and 3 Squad Leaders (1,1,3)
8. Work and train together 40+ hours/week during availability period
9. Ability to split into squads
10. 80-hour annual training plus RT-130 pre-season training
11. Self-sustaining at least 48 hours
12. Complex firing capability (agency specific)
13. Portable pump: 1 (min)
14. Programmable radios: 8 (min)

If the hand crew typing status changes, the Superintendent will immediately notify their supervisor and/or duty chief.

Type I Hand crew Configuration Examples:

Type II-IA Hand Crews

Type II – Initial Attack (IA) hand crews are highly capable and able to construct fireline and conduct firing operations in a variety of fuels, topography, and weather. They can operate as a single unit or be broken into smaller modules to perform multiple operations. Examples of small module tactics include timber felling, line construction, small scale firing, and working with aircraft among others. They are able to perform initial attack and construct fire line of varying complexity based on the abilities of the crew members and overhead.

Type II-IA - Staffing and Qualifications:

1. Crew size 18 minimum
2. Minimum of 60% of crew personnel will have fire service experience.
3. EMS abilities:
   - One EMT or better per crew with agency specific gear complement
   - All crew members are 1st aid and CPR certified.
4. Felling capabilities:
   - Intermediate felling capability (agency specific)
   - One intermediate (FAL2) faller or better
   - 50% FAL3 or better
5. Aviation support:
   - Minimum of 1 Longline (HELR), HECM recommended
6. May configure into crew strike teams to meet typing standard when mobilized.
7. Crew leadership will be configured to meet span of control
8. Work and train together 40+ hours/week during availability period
9. Ability to split squads
10. 80-hour annual training plus RT-130 pre-season training
11. Self-sustaining at least 24 hours
12. Intermediate firing capability (agency specific)
13. Portable pump: no requirement
14. Programmable radios: 5 (min)

If the hand crew typing status changes, the Superintendent or Crew Boss will immediately notify their supervisor and/or duty chief.

Type II-IA Hand crew Configuration Examples:

These are examples of possible configurations that will vary based on staffing and qualifications. These represent the minimum qualifications needed among the leadership. For example, while the Crew Boss is the minimum qualification needed, a Superintendent may serve as the senior level leader.

Type II Hand Crews

Type II hand crews are capable of initial attack, direct and indirect fireline construction, mop-up, and firing under the supervision of qualified resources. They operate as a single unit and not separate into modules.
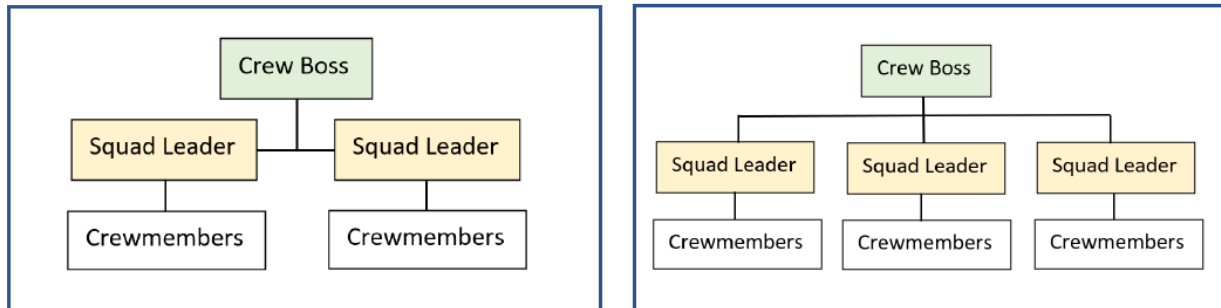
Type II – Staffing and Qualifications:

1. Crew size 18 minimum
2. Minimum of 20% of crew personnel will have fire service experience.
3. EMS abilities: no requirement
4. Felling capabilities: no requirement
5. Aviation support: no requirement
6. May configure into crew strike teams to meet typing standard when mobilized.
7. Crew supervised by at least one qualified CRWB
8. Crew leadership will be configured to meet span of control.
9. Crews need not work together outside of incident mobilizations.
10. May not be able to split into squads
11. Annual RT-130 pre-season training
12. May have no purchasing authority and no requirement for self-sustainability
13. Basic firing under supervision
14. Portable pump: no requirement
15. Programmable radios: 4 (min)

If the hand crew typing status changes, the Superintendent or Crew Boss will immediately notify their supervisor and/or duty chief.
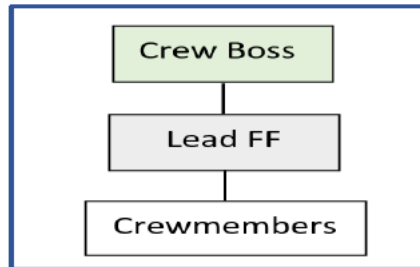
Type II- Hand crew Configuration Example:

Suppression Module

Suppression modules are capable of initial attack, direct and indirect fireline construction, mop-up, and firing under the supervision of qualified resources. Modularity depends on ability to maintain span of control.

Suppression Module – Staffing and Qualifications:

1. Crew size 10 minimum
2. Agency specific requirement for experience.
3. EMS abilities: agency specific.
4. Felling capabilities: two FAL3
5. Aviation support: no requirement
6. May configure into crew strike teams to meet typing standard when mobilized.
7. Crew supervised by at least one qualified CRWB
8. Crew leadership should be configured to meet span of control.
9. Crews need not work together outside of incident mobilizations.
10. May not be able to split into squads.
11. Annual RT-130 pre-season training.
12. May have no purchasing authority and no requirement for self-sustainability
13. Basic firing under supervision
14. Portable pump: no requirement
15. 2-4 programmable radios.

If the hand crew typing status changes, the Superintendent or Crew Boss will immediately notify their supervisor and/or duty chief.
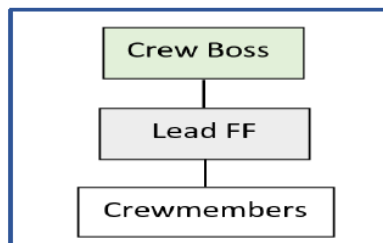
Suppression module - Hand crew Configuration Example:

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Standards for Suppression Module Position Training and Qualifications:

Each crew will establish its plan to meet their mission objectives and address operational standards. The Superintendent or Crew Boss works cooperatively with their respective chiefs to organize the training program to best fit the needs of the particular crew (per the most recent CICCS Qualifications Guide).

POSITION	QUALIFICATION	FORMAL TRAINING
Crew Member	NWCG FFT2 OR CICCS FF1 or equivalent	I-100 S-130 L-180 IS-700 S-190 Superintendent certifies all crew members meet training & qualification requirements: Comment: w/agency mud and debris removal Training.
	All above plus:	All above plus:
Lead Firefighter	NWCG FFT1 OR CICCS FF2 or equivalent	S-211 I-200 S-131 S-212 S-270 Superintendent certifies all Leads meet training & qualification requirements: Comment: This position is not required for mobilization.
	All above plus:	All above plus:
Squad Leader		S-290 I-230 S/CA-219 L-280 Superintendent certifies all Leads meet training & qualification requirements: Comment: This position is not required for mobilization.
	All above plus:	All above plus:
Crew Boss	CRWB	S-215 S-200 IS-800 Superintendent certifies all Crew Bosses meet training & qualification requirements: Comment:
	All above plus:	All above plus:
Superintendent	FIRB + STCR + ICT4 or TFLD	AH-330 I-300 Line Officer certifies the Superintendent meets training & qualification requirements: Comment:

* Agency defined leadership training applicable to the role is recommended for each position.

POSITION DESCRIPTIONS

POSITION QUALIFICATIONS

1. Superintendent
   - Description – Superintendent is the senior level hand crew leader, requiring the highest qualifications. They are responsible for the overall management of the crew.
   - Qualifications – All qualifications of subordinate positions, plus: FIRB, STCR and either ICT4 or TFLD
   - Coursework – All courses of subordinates plus AH-330, I-300
2. Crew Boss
   - Description – Crew Bosses assist the Superintendent in maintaining appropriate span of control. They lead modules of ten or more subordinates in accomplishing operational objectives. They assist in administrative functions of managing a hand crew.
   - Qualifications - All qualifications of subordinate positions, plus CRWB
   - Coursework - All courses of subordinates plus: S-215, S-200, IS-800
3. Squad Leader
   - Description – Squad Leaders further assist in managing span of control by leading small modules under the direction of a Crew Boss or the Superintendent.
   - Qualifications – NWCG FFI or CICCS FF2 or equivalent
   - Coursework - All courses of subordinates plus S-290, S-230, S-219 or CA-219, L-280
4. Lead Firefighter
   - Description – The Lead Firefighter works in conjunction with subordinate crew members under the direction of a Squad Leader or Crew Boss.
   - Qualifications - NWCG FFI or CICCS FF2 or equivalent
   - Coursework - All courses of subordinates plus S-211, I-200, S-131, S-212, S-270
5. Crew Member
   - Description – Crew members utilize power and hand tools to construct fireline. They implement fire suppression tactics under the direction of crew leadership.
   - Qualifications - NWCG FF2 or CICCS FF1 or equivalent
   - Coursework I-100, S-130, L-180, IS-700, S-190

EXTERNAL LINKS FOR REFERENCE ONLY

FEDERAL HAND CREW OSD

https://www.nifc.gov/sites/default/files/redbook-files/Chapter13.pdf
NWCG Standards for Wildland Fire Resource Typing, PMS 200 | NWCG

Federal Hand crew composition is described in NWCG PMS 200: Standards for Wildland Fire Resource Typing. Interagency Hotshot Crews (IHC) are further described in the Standards for IHC Operations. Crew mission and capabilities generally coincide with what is described in this OSD, however, staffing, qualifications of leadership and other details vary.

STATE HAND CREW OSD

https://urldefense.com/v3/__https:/drive.google.com/file/d/1c2PiCImzVdv1JeS4oAo3QE
JCIcEzL73s/view?usp=sharing__;!!OBed2aHXvKmHymw!x7Ier15q_P2paUlTyxFErw579
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State Handcrew composition is described in the CAL FIRE 6000 Manual: Handcrew Program. CAL FIRE Type 1 handcrews consist of California Department of Corrections and Rehabilitation, California Conservation Corps, California Military Department (Task Force Rattlesnake) and Paid crews. CAL FIRE Type 2 crews are generally California Military Department handcrews. Crew mission and capabilities generally coincide with what is described in this OSD, however, staffing, qualifications of leadership and other details vary.

APPENDIX 1

EXAMPLE HAND CREW CERTIFICATION CHECKLIST

Meets minimum guidelines per typing
- ✓ Meets minimum crew size
- ✓ Meets leadership qualifications
- ✓ Meets communications minimum
- ✓ Meets sawyer guidelines
- ✓ Meets EMS recommendations
- ✓ Meets aviation qualifications
- ✓ Able to logistically support

Proficiency Check Guideline per Typing
This list outlines essential skills required of hand crews. Proficiency checks will be conducted in accordance with agency guidelines. Not all skills may be applicable to every crew member or crew type.
- ✓ Specialized Hand crew Operations:
    - o Lookouts and scouting
    - o Hot spotting
    - o Spot fire tactics
    - o Felling
    - o Initial Attack
    - o Structure Defense
    - o Fireline Emergency and IWI management
    - o Map/Compass/GPS navigation
- ✓ Air Operations:
    - o Helicopter safety
    - o Directing helicopter drops
    - o Helispot specifications
    - o Longline/Hover hook operations
- ✓ Demonstrated ability to make fire weather observations (using belt weather kit, accessing local daily forecast, using weather indicators to anticipate potential fire behavior).
- ✓ Demonstrated ability to use radio communications (Dispatch contact protocol, local call sign system, programmable radio procedures).
- ✓ Demonstrated knowledge of basic individual communication responsibilities (briefings, debriefings, acknowledge messages, identify hazards, asking questions for clarification).
- ✓ Demonstrated knowledge of the key components of the FIRE ORDERS (LCES) and established protocol for crew disengagement.
- ✓ Demonstrated knowledge of a Safety Zone.
- ✓ Demonstrated ability to deploy fire shelters in various situations (individual, group, two people in one shelter, drop gear and run, with wind).

APPENDIX 2

CALIFORNIA SINGLE RESOURCE TYPE 1 - 2: (MINIMUM EQUIPMENT LIST)

Hand Tools

Resource	T1 Qty	T2-IA Qty	T2 Qty	Unit
Hand Tools	Fully equipped for handline construction	Fully equipped for handline construction	Fully equipped for handline construction	Each
Back Pack Pump	4	4	4	Each

Power Tools

Resource	T1 Qty	T2-IA Qty	T2 Qty	Unit
Chain saw	6	4	4	Each
Portable Pump	0	0	1	Each
Saw Fuel Can	1	1	1	Each
Bar Oil	Enough to support saws	Enough to support saws	Enough to support saws	Each
Chaps	8	6	4	Each
Saw Tool Kit	1	1	1	Each

Firing Devices

Resource	T1 Qty	T2-IA Qty	T2 Qty	Unit
Fusee	1	2	2	Case
Drip Torch	3	2	0	Each
Drip Torch Fuel Can	2	1	1	Each

PPE

Item	T1 Qty	T2-IA Qty	T2 Qty	Unit
Line Gear with Fire	One set per person	One set per person	One set per person	Each
Headlamp	One per person	One per person	One per person	Each
Helmet with Shroud	One per person	One per person	One per person	Each
Nomex Pants, Shirt, & Boots	One ensemble per person	One ensemble per person	One ensemble per person	Each
Sleeping Bag and Tent	One set per person	One set per person	One set per person	Each

Portable Radios

Resource	T1 Qty	T2-IA Qty	T2 Qty	Unit
VHF Radio *Meets MACS 441-1	8	5	4	Each

Vehicles

Resource	T1 Qty	T2-IA Qty	T2 Qty	Unit
Transportation Vehicle	Ground transportation to adequately support personnel and equipment	Ground transportation to adequately support personnel and equipment	Ground transportation to adequately support personnel and equipment	Each

Emergency Medical Supplies

Resource	T1 Qty	T2-IA Qty	T2 Qty	Unit
Basic Life Support compliment	Agency Specific per county EMS guidelines/protocols	Agency Specific per county EMS guidelines/protocols	Agency Specific per county EMS guidelines/protocols	Each
Patient Packaging	Minimum of one device	Minimum of one device	Minimum of one device	Each

Miscellaneous

Resource	T1 Qty	T2-IA Qty	T2 Qty	Unit
Weather meter	2	2	3	Each
Batteries	To support small electronic devices	To support small electronic devices	To support small electronic devices	Each
Binocular	1	2	2	Each
Mop-up kit	2	2	2	Each
iPad	1	1	1	Each
GPS Unit	1	1	1	Each
Water	To support hydration	To support hydration	To support hydration	Case
Toilet Paper	To support hygiene	To support hygiene	To support hygiene	Roll
Trash Bags	To support back haul	To support back haul	To support back haul	Box

APPENDIX 3

QUICK REFERENCE GUIDE

(Minimum Crew Standards for Regional/State Mobilization)

	Type I (Hand Crew)	Type 2 IA (Hand Crew)	Type 2 (Hand Crew)	Suppression Module
Fire line Capability	Initial attack, may be broken up into squads, fire line construction, complex firing operations (backfire)	Initial attack, may be broken up into squads, fire line construction, firing to include burnout.	Initial attack, fire line construction, firing as directed	Initial attack, fire line construction, firing as directed
Crew Size Minimum	18	18	18	10
Leadership Qualifications	(1) **Supt**—STCR + FIRB + ICT4 or TFLD (1-2) **Crew Boss**—CRWB (2-3) **Squad Leader**—FFT1	(1) **Crew Boss**—CRWB + ICT4 or TFLD (2-3) **Squad Leader**—FFT1	(1) **Crew Boss**—CRWB (3) **Lead FF**	(1) **Crew Boss**—CRWB (2-3) **Lead FF**
Experience	70% - With experience	60% - With experience	20% - With experience	Agency Specific
Full-Time Organized Crew	Yes (work and train as a unit 40 hrs/wk min)	Yes (work and train as a unit 40 hrs/wk min)	none	none
Communications	8 programmable radios min	5 programmable radios min	4 programmable radios min	2-4 programmable radios
Sawyers	4 certified as FAL2 or better and 50% of crew FAL3 or better	1 certified as FAL2 or better and 50% of crew FAL3 or better	2 FAL3	2 FAL3
Internal Medical	2 EMT or better	1 EMT or better	Recommended not required	Recommended not required
Annual Training	80 hours of agency defined crew training	80 hours of agency defined crew training	Agency specific training	Agency specific training
Aviation support	2 HELR (Longline), HECM recommended	1 HELR (Longline), HECM recommended	Recommended not required	Recommended not required
Logistics	Self-sustaining for 48 hours	Self-sustaining for 24 hours	May have no purchasing authority	May have no purchasing authority
Certification	Must be annually certified and maintained by agency prior to being made available for assignment outside of local jurisdiction	Agency Specific	Agency Specific	Agency Specific