

INTERAGENCY
HOTSHOT CREW
OPERATIONS GUIDE



1996

Memorandum

To: National Interagency Hotshot Crew Guide Holders

From: Federal Fire and Aviation Leadership Council

Subject: National Interagency Hotshot Crew Guide

Attached is the National Interagency Hotshot Crew Guide. This guide has been updated to reflect changes that are the result of the Interagency Management Review Team Report recommendations and the 1996 National Interagency Hotshot Crew Conference. It will remain in effect until revised or rescinded.

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**NATIONAL INTERAGENCY HOTSHOT CREW
OPERATIONS GUIDE**

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CHAPTER 10

INTERAGENCY HOTSHOT CREW GUIDE POLICY AND MISSION

POLICY

The sponsor agencies shall provide direction, support, and review processes that ensure Interagency Hotshot Crew (IHC) operations are safe, efficient and meet the IHC Operations Standards.

OBJECTIVE

The objective of the National IHC Guide is to provide standards for the administration and operations of all IHCs. These standards will be used by staff, supervisors, specialists and technicians for planning, administering and conducting IHC operations. These standards are intended to be used as a measure of IHC qualifications.

MISSION STATEMENT

The primary mission of the IHCs is to provide a safe, organized, mobile and highly skilled hand crew for all phases of wildfire suppression. The arduous duties and specialized assignments required of IHC personnel require staffing, certification, training, equipment, communications, transportation, organization and qualifications that are uniform, adhered to by all IHCs and ensure the redemption of IHC duties and responsibilities.

These crews can also be utilized to meet other management objectives. All IHCs shall meet the minimum standards as described in the National IHC Operations Guide. Compliance with these standards and the resulting safe operation of the IHC ultimately lies with the Crew Superintendent.

PROGRAM EMPHASIS

1. SAFETY

Operational deployment of IHCs shall be initiated with strict compliance to accepted interagency and agency specific safety standards, e.g., Fire Line Handbook.

2. OPERATIONS

IHCs are staffed, conditioned, equipped and qualified to meet a variety of strategic and tactical wildfire assignments. The overhead structure allows the IHCs to form into squads and perform independent assignments.

3. DISASTER INCIDENT ASSISTANCE

Within the limits of their experience and qualifications, IHCs are capable of providing a disciplined, self-contained and adaptable workforce to meet the needs of incident managers in a variety of situations and emergency occurrences.

4. MANAGEMENT PROJECTS

When not committed to fire assignments, IHCs can provide a workforce to accomplish management objectives while maintaining availability for incident mobilization.

5. TRAINING CADRE

The IHCs can provide a high quality cadre for incident management training at the local, geographic and national levels.

CHAPTER 20

INTERAGENCY HOTSHOT CREW GUIDE DEFINITION AND QUALIFICATIONS

21 DEFINITION

A Type I twenty person hand crew within the Incident Command System (ICS) as referenced in Section 22 below. IHCs are trained, knowledgeable and skilled in fire management operations to meet their primary mission of wildland fire suppression.

22 MINIMUM STANDARDS

The following minimum standards apply to all IHCs recognized in the National Interagency Mobilization Guide (NFES 2092):

- + All crew personnel are regular agency employees, financed by Tribal or Federal funds during the availability period.
- + To be dispatched, each crew must have a minimum of 18 qualified personnel.
- + No more than 20% of the crew shall have less than one season of fire experience.
- + IHCs must work and train together daily during the availability period.
- + IHCs must have permanently assigned supervision and the ICS recommended supervision ratio of 5:1 will be maintained.
- + IHCs can be reorganized into three squads for initial attack and/or other operations.
- + During the availability period, IHCs must be able to depart work site or designated base and arrive at a jet port within 2 hours on a 24 hour per day basis.
- + IHCs have permanently assigned vehicles, handtools, power saws and communications equipment configured for their needs.
- + IHCs have no geographical restrictions on assignments.
- + IHCs are to be logistically self-sufficient utilizing credit card or agency purchasing authority.

23 RECOMMENDED IHC STAFFING

IHCs shall be staffed to provide skilled personnel to accomplish the IHC mission. Recommended staffing will include the following supervisory positions as part of a crew organization. It is desirable for each crew to contain a minimum of seven career individuals. Training requirements for these positions are found in Section 30. Pay rates for all positions will be based upon current classification standards.

Recommended supervisory staffing:

One Superintendent
One Assistant Superintendent
Three Squad Leaders

24 POSITION DESCRIPTIONS

While specific job descriptions of supervisory personnel may vary among IHCs, each crew will provide the personnel to perform the following functions:

24.1 Superintendent

The Superintendent is a permanent employee with administrative and supervisory skills to conduct training and sufficient fire experience to provide capable leadership to the crew. The Superintendent is responsible for all hotshot crew program management activities including incidental assignments.

Minimum Red Card Qualification: Strike Team Leader

24.2 Assistant Superintendent

The Assistant Superintendent assists the superintendent in all aspects of crew management and must be qualified to supervise and manage the crew in the absence of the crew superintendent. It is recommended that this be a permanent position.

Minimum Red Card Qualification: Strike Team Leader

24.3 Squad Leaders

The squad leaders directly supervise squad members. It is their responsibility to keep the Assistant Superintendent or Superintendent informed on all aspects germane to safe, effective squad and crew activities.

Minimum Red Card Qualification: Single Resource Boss Crew

24.4 Lead Crew Person(s)

A crew member with specialized skills, which may include any of the following:

- Class C Faller
- Emergency 1st Responder
- IC Type 4
- Helicopter Crew member

Minimum Red Card Qualification: Firefighter Type 1

24.5 Crew member(s)

Fully qualified wildland firefighter.

Minimum Red Card Qualification: Firefighter Type 2

CHAPTER 30

INTERAGENCY HOTSHOT CREW GUIDE TRAINING

31 TRAINING

In order to safely meet the IHC mission and address standards set forth in the Wildland Fire Qualifications Guide (310-1), the following training requirements must be met.

32 CLASSROOM TRAINING AND FIELD EXERCISES

32.1 Annual Training

IHCs shall annually receive a minimum of 80 hours of initial or refresher training, which will include courses in fire suppression and related field exercises. All training shall be documented.

32.2 Training Definitions

32.21 Critical Training* (24 hours)

Critical training provides skills and knowledge that allows a hotshot crew to perform safely in the wildland fire environment. This training must be accomplished prior to the crew being available for initial dispatch. Training will include, but is not limited to, crew safety, risk management, firefighter safety, fire behavior, communications and organization. The training is not inclusive of agency specific administrative requirements. The final responsibility for crew availability will rest with the Superintendent's certification to management that all training is complete.

32.22 All Other Training (See Appendix B for matrix.)

This is training that must be accomplished based on crew and individual needs identified by the Superintendent. Specific course objectives can be met through classroom, field exercises or on-the-job training.

*** See Appendix A for the required 24 Hr. Critical Training and outlines for reference materials.**

32.3 Field Exercises

In addition to the classroom portion of the training program, crew members will be required to demonstrate their physical ability to perform the job while in the field. This training is essential for team building. It gives supervisors an opportunity to observe, instruct, assess and evaluate individual crew members in the field work environment. It also provides supervisors with a chance to develop line communications and stress the basics of tool use and field safety. It gives crew members an opportunity to familiarize themselves with field operations, practice proper and safe tool use, and develop crew unity.

33 PHYSICAL FITNESS TRAINING

As part of the training program for IHCs, each crew member will be required to participate in a minimum of 1 hour of physical fitness training, 5 days a week, during periods of non-fire assignments. The physical fitness training program will focus on aerobic, stretching and strength building.

33.1 FITNESS STANDARD

All crew members must meet the NWCG 310-1 fitness standards for fire line personnel. As a part of fire line performance required of IHCs, the physical ability to perform arduous labor is critical to crew morale and personal health and safety standards.

All members of the IHC will meet the following standards established by the Missoula Technology Development Center and listed in the publication, "Fit to Work?":

- 1.5 mile run in a time of 10:35 or less
- 40 situps in 60 seconds
- 25 pushups in 60 seconds
- Chinups, based on body weight:
 - more than 170 lbs. = 4 chinups
 - 135-170 lbs. = 5 chinups
 - 110-135 lbs. = 6 chinups
 - less than 110 lbs. = 7 chinups

Meeting the standards by the end of the Critical Training period (three days), will be considered a condition of continuing employment for Hotshot crew members.

CHAPTER 40

INTERAGENCY HOTSHOT CREW GUIDE SUPPORT REQUIREMENTS

41 DEFINITION

IHCs require management oversight, administrative support and facilities to accomplish their mission. IHCs are available to assist the agencies with project work when not assigned to fires or conducting training. Host units benefit from the skills, knowledge and abilities of crew personnel. They are available to assist the agency in accomplishing its mission in addition to instructing a variety of local, regional and national fire management courses.

42 Management Responsibilities:

The local Line Officer responsible for crew operations shall:

1. Review crew compliance to the Interagency Hotshot Crew Operations Guide.
2. Assure compliance with agency specific administrative requirements.
3. Assist in career development and training of IHC personnel.
4. Assure that crew health, safety and welfare guidelines are adhered to.

42.2 Administrative Support Required:

The local Line Officer is responsible to provide administrative support, such as, personnel management assistance, time and attendance, purchasing and fleet management.

42.3 Facilities needed for IHCs:

The local Line Officer is responsible to provide adequate facilities for the crew including: office space, crew ready room, access to training facility, equipment storage and office equipment.

43 INCIDENT SUPPORT

IHCs are self-contained and self-sufficient in most aspects. The ordering incident will be expected to supply the IHCs with needed supplies depending on method of transport.

43.1 Ground Transportation

When ordering IHCs by ground transportation, they will come equipped to the following minimum standards:

- + assigned crew vehicles
- + four chain saws with fuel
- + firing equipment
- + handtools
- + water handling equipment
- + 5 programmable hand held radios
- + tents
- + first aid and trauma kits

43.2 Fixed Wing Transportation

When IHCs are delivered by aircraft they come equipped with all of the above except:

- + assigned crew transportation
- + a vehicle to transport equipment separate from crew transportation
- + saw fuel
- + firing equipment
- + drinking water and food.

When mobilized by aircraft, the IHC's will need

- + crew transportation
- + a vehicle to transport saws, fuel and handtools separate from crew transportation
- + firing equipment, 2 cases of fusees (minimum)
- + saw fuel (10 gallons unmixed)
- + 5 gallons of bar oil
- + drinking water (40 gallons) and food (40 meals).

APPENDIX A

INTERAGENCY HOTSHOT CREW GUIDE CRITICAL TRAINING (24 hours)

CRITICAL TRAINING:

Critical training is defined as training that must be completed, reviewed and properly recorded before an employee is available for fire suppression or prescribed burn assignments.

OBJECTIVE:

The objective of critical training is to insure personnel safety.

1. Upon completion of this training, the employee will understand their responsibility and right to a safe work environment.
2. Upon completion, the employee will be able to correctly identify critical safety issues and demonstrate appropriate responses to unsafe conditions.
3. Upon completion, the employee will be functional in critical training.

CRITICAL INFORMATION:

1. A passion for safety must be every firefighter's number one priority.
2. Critical training is mandatory training that is always performed first, without exception, and to at least the minimum standard.
3. The comprehension and application of safety standards and guidelines greatly increases a firefighters opportunity for survival.

Unit I: Risk Management

5 hours

References:

- 1) History and background of LCES
- 2) Video: S-330 Unit 5, Lesson D (LCES Section)
- 3) LCES Checklist (S-230)
- 4) "Lessons learned from South Canyon"
- 5) NWCG Fire Fatality Packet (under development).
- 6) Standards for Survival (NFES 2086, 2087, 2088)
- 7) Common Denominators (NFES 2225)

Unit II: Firefighter Safety

2 hours

References:

- 1) Fire Line Handbook (NFES 0065, Chapter 4)
- 2) Initial Response Pocket Guide (R-5 Fire and Aviation Management, July 1995 Regional Edition)

Unit III: Fire Behavior

4 hours

References:

- 1) Indicators (S-330 Unit 5; Video, Lesson C Extreme Fire Behavior)
- 2) Look up, Look down, Look Around (NFES 2244)
- 3) Handouts (NFES 2243, Fire line Safety Reference)
- 4) Fire line Handbook (Fire Behavior App. B)
- 5) Multiple Fuel Types
- 6) Local Specialist
- 7) Fire Weather Video (NFES 2236)
- 8) Tactical Reference Guide (S-230)
- 9) Environmental Size-up Guide (Cook 3/96)

Unit IV: Communications

2 hours

- 1) Radio Use
 - A. Frequencies
 - B. Programming
 - C. Squelch and Volume
 - D. Clear Text
- 2) Cellular Phones
- 3) Briefings
 - A. Face to Face
 - B. Incident Action Plan
 - 1) Weather
 - 2) Medical Plan
 - 3) Fire Behavior
 - 4) Communication
 - 5) Decision Making Under Stress
 - a. Wildland Firefighters Human Factors (Putman)
 - b. Learning to Say No/ Dealing with Intimidation
 - 6) Chain of Command
 - 7) ICS Operations (ICS Position Descriptions)

- 8) Open Critiques
- 9) Flagging Standardization
 - a. Escape Routes
 - b. Safety Zones
 - c. Other Hazards (snag, bee)

Unit V: Job hazard Analysis

1 hour

References:

- 1) Transportation
- 2) Suppression
- 3) Snag Mitigation
- 4) Haz-Mat
- 5) OSHA (Video: The Right to Know/Hazardous Communication Training)

Unit VI: Fire Shelters

4 hours

References:

- 1) Required Documented Reading "Your Fire Shelter Handout" (NFES 1570)
- 2) Video "Your Fire Shelter" (NFES 1568)
- 3) Facilitator's Guide Beyond the Basics (NFES 2179)
- 4) Drills:
 - A. Recognition of Survivable Zones
 - B. Individual Shelter Drills (Planned and Hasty)
 - C. Group Shelter Drills (Planned and Hasty)
 - D. Two in One Shelter
 - E. Drop Gear and Run (200 Feet)
 - F. High Wind Shelter Drill
 - G. Survival Without Shelter (vehicle, structure, trench)
 - H. Proper Care and Use of Protective Clothing and Equipment

Unit VII: Field Drills

6 hours

References:

- 1) Cut and Scrape
 - A. Over Extending
 - B. Underslung Line
- 2) Spot Fires
 - A. Safe Approach
 - B. Communications
 - C. Supervision
 - D. Support
 - E. Flagging

- 3) Hot Spotting
 - A. Cut Off From Main Crew, Escape Routes, Safety Zones.
 - B. Awareness of Fire Activity
 - C. Over Extending
- 4) Firing
 - A. Organization for Firing
 - B. Organization for Holding
 - C. Communication Between Holding and Firing (S-234)
- 5) Structure Protection
 - A. Interface make-up
 - B. Protection Group

Unit VIII: Test and Proficiency Test

Signatures:

Crew Superintendent _____

Superintendents' Immediate Supervisor _____

APPENDIX B

●-Required 9-Recommended

COURSE	SUPERINTENDENT	ASSITANT SUPT./ CAPTAIN	SQUADLEADER	LEAD CREW- MEMBER	CREW- MEMBER
I100-Intro to ICS	●	●	●	●	●
S130-Firefighter Trng.	●	●	●	●	●
S190- Intro to Fire Beh.	●	●	●	●	●
Standards for Survival	●	●	●	●	●
Look up,Look down,Look Around	●	●	●	●	●
Field Fire Shelter Drills	●	●	●	●	●
OAS-302, Aircraft Safety or equivalent	●	●	●	●	●
S211-Portable Pumps	●	●	●	●	9
S212-Wildfire Powersaws	●	●	●	●	9
S270-Basic Air Ops	●	●	●	●	9
First Aid/ CPR	●	●	●	9	9
S200-Initial Attack I.C.	●	●	●	9	
S234-Firing Methods	●	●	●		
S290-Int. Fire Behavior	●	●	●		
S201-Fire Supervision	●	●	●		
S205-Fire in Urban IF	●	●	●		
S230-Crew Boss	●	●	●		
S390-Fire Beh.Calcs.	●	●	9		
Small Purchasing Trng.	●	●	9		
S260-Fire Business Mgt	●	●	●		
OPM Supervisory Trng.	●	●	9		
S300-I.C. Extended Att.	●	9	9		
S217-I/A Helic. Trng. Guide	9	9	9		
S231-Engine Boss	9	9	9		
S232-Dozer Boss	9	9	9		
S370 Int. Air Ops	9	9			
J232-Helispot Mgr.	9	9	9		
S330-Task Force/ST Ldr	●	●			
S339-Div/Grp. Supervisor	●	9			
S490 Fire Behavior	9	9			
Instructor Training	●	●			
Fireline Explosives	9	9			