9 - Initial Attack

Policy

Initial attack action must be based on approved Fire Management Plans and reflect a commitment to firefighter and public safety. Without an approved Plan, BLM units must take an aggressive suppression action on all wildland fire consistent with firefighter and public safety and resources to be protected.

Objectives

The objective of Initial Attack is to conduct safe fire suppression in a timely, effective, and efficient response to wildland fires. The appropriate action will be defined and given as objectives to the Initial Attack Incident Commander. The first and most important objective will be to provide for firefighter and public safety. Managers are encouraged to provide the basics to Fire Cause Determination commensurate with their position in the unit fire organization.

Dispatch Operations

Organization/Points of Contact

The wildland fire dispatch system in the United States has three distinct levels (tiers): the National, Geographic Area, and Local levels. Logistical dispatch operations occur at all three levels, while initial attack dispatch operations occur primarily at the Local level. Most wildland fire dispatch offices are interagency dispatch centers, in that they are funded and staffed by various Federal and State fire management agencies. Some dispatch centers are funded and staffed by BLM alone, but are still interagency dispatch centers in that they process resource orders for other agencies' fires and mobilize resources provided by other agencies in addition to performing these functions for BLM.

The standard for dispatch ordering channels is the three-tier dispatch system. Any Geographic Area or Local Dispatch Center using a dispatch system outside the three-tier system must justify, in writing to the National Office, why a non-standard system is being used.

Roles and Responsibilities

Three primary functions are performed by all dispatch centers: mobilization of fire suppression resources, demobilization of fire suppression resources, and

gathering and disseminating intelligence information regarding incidents within a defined geographic area. The specific methods and forms used to accomplish these functions are prescribed by agency managers at the National, Geographic Area, and Local level. Many of the forms and procedures used have been standardized nationally. Many other forms and procedures, particularly those used at the local level, are non-standard and vary greatly from one area to another.

Dispatch centers are tasked with the safe and efficient mobilization of resources to wildland fires and non-fire incidents. Safe mobilization involves the movement of fire suppression resources to areas of need while ensuring that agency regulations and guidelines relating to safety are not violated. Efficient mobilization entails the movement of resources to meet ordering time frames in the most cost-effective manner possible.

Dispatch centers are also tasked with the safe and efficient demobilization of resources from incidents on release. This involves either the movement of resources back to their home units or the movement of resources from one incident to another (reassignment). Cost-effectiveness, timeliness, and safety considerations are all taken into account during demobilization.

All dispatch centers supply intelligence information specific to incidents within their pre-designated geographic area. The type of intelligence information supplied and the timing of reporting are specified in Geographic Area Mobilization Guides and the National Interagency Mobilization Guide.

Many dispatch centers, at all three levels of the system, are also tasked with mobilizing and demobilizing resources and providing intelligence information for Management Ignited Fires within their geographic area.

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Some local unit dispatch centers are involved in law enforcement dispatching in addition to wildland fire dispatch duties. Law enforcement dispatching is very site-specific. Some dispatch centers are deeply involved in it to the point where it generates a significant portion of their workload and necessitates staffing 24 hours a day year-round, while other dispatch centers have no law enforcement dispatching duties.

Oversight Committees Each dispatch center at every level must have an oversight committee composed of agency managers or their representatives from each of the agencies it services. Oversight committees are responsible for providing direction to dispatch centers relating to agency policy, and for ensuring that adequate funding is provided to centers to enable accomplishment of prescribed dispatch duties.

National Dispatch/Coordination System

National Interagency Coordination Center The National Interagency Coordination Center (NICC) is located in Boise, Idaho on the National Interagency Fire Center (NIFC) compound. NICC is staffed by personnel from various federal agencies. NICC deals directly with all of the Geographic Area Coordination Centers in the country, as well as with other countries (e.g. Canada and Mexico). NICC Coordinators also interact extensively with the Directors of Fire and Aviation programs at the National level of federal agencies, as well as with the

National MAC Group. The principal mission of NICC is the cost-effective and timely coordination of national emergency response for wildfire suppression.

Through the Federal Response Plan, NICC can also respond to non-fire emergencies when tasked by an appropriate agency such as the Federal Emergency Management Agency (FEMA). NICC also collects, consolidates and disseminates intelligence information relating to fire and resource status. The information comes to NICC from each of the GACC's and is consolidated into one nationwide report which is sent to all of the GACC's, agency directors, and Washington Office personnel.

Geographic Area Coordination Centers There are eleven Geographic Area Coordination Centers (GACC's) in the United States, each serving a specific geographic portion of the country. Each GACC interacts with all of the local unit dispatch centers in its area, as well as with NICC and neighboring GACC's. Reference the National Interagency Mobilization Guide for a complete directory of GACC locations, addresses, and personnel. The principal mission of each GACC is the cost-effective and timely coordination of emergency response for all incidents within the specified geographic area. GACC's are also responsible for determining the need, coordinating priorities, and facilitating the mobilization of resources from their areas to other geographic areas in need. Each GACC also prepares an intelligence report that consolidates fire and resource status information received from each of the local dispatch centers in its area. This report is sent to NICC and to the local dispatch centers, caches, and agency managers in the Geographic Area.

Local Unit/Interagency Dispatch Centers Local Unit Dispatch Centers are located all over the country as dictated by the needs of fire suppression agencies. The principal mission of a local dispatch center is the coordination of timely and cost-effective coordination of emergency response for all incidents within its specified geographic area. This most often entails the coordination of initial attack responses and the ordering of additional resources when fires escape initial attack. Local dispatch centers are also responsible for supplying intelligence information relating to fires and resource status to their GACC and to their agency managers and cooperators. Local dispatch centers

may work for or with numerous agencies, but should only report to one GACC for reasons of safety and efficiency.
Some local dispatch centers are also tasked with law enforcement and agency administrative workloads for non-fire BLM operations; if this is the case, a commensurate amount of funding and training should be provided by the benefitting activity to accompany the increased workload. If a non-wildfire workload is generated by another (non-BLM) agency operating in an interagency dispatch center, careful study must be undertaken to ensure that the agency generating the additional workload offsets this increased workload with additional funding or personnel sufficient to enable the unimpaired fulfillment of BLM fire suppression dispatch activities.

Initial Attack Dispatch

Standard Operating Procedures Field Officess with dispatching responsibility, in conjunction with their cooperators, will ensure Dispatch Standard Operating Procedures are developed, reviewed, and updated on an annual basis prior to fire season. Local management input, review, and approval is critical.

There are many variations in dispatch Standard Operating Procedures (SOPs) and the topics identified. These variations are due to many factors (i.e. activity level/complexities, interagency coordination, all-risk incidents, hazmat). The following topics shall be identified (but not limited to) in a Dispatch Center's SOP. The elements identified under the topics are **just examples** of what should be covered. Additional guidance can be obtained by reviewing the District Fire Management Reference Guides.

- Organization: Chain-of-Command/table of organization for local agencies and cooperators, notification process/procedures, roles/responsibilities, etc.

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- Initial Attack Response Plan (synonymous terminology—preplanned dispatch plans, run-cards, dispatch procedures): General information relating to the plan; procedures for identifying preparedness levels, notification to suppression forces and management of new fire starts or ongoing fire activity, modification/update procedures for the plan, procedures to follow when activity exceeds the I. A. plan, etc.

- Dispatch Operations:
  - General Information
  - Dispatcher Role and Responsibilities
  - Dispatcher Training and Qualifications
  - Procedures for Dispatch of Resources Off Unit

- Daily Duties:
  - Check-In/Out of Administrative/Fire Personnel
  - Intelligence
  - Weather/Briefings
  - Verify Initial Attack Response Levels

Status Suppression Resources
Preparedness Level establishment and verification

- Emergency Operations (Fire/Non-fire):
  Notification of a Fire Report
  Land Status Verification
  IA Response Plan activation
  Agency and Area Notification
  Move-up and Cover Procedures
  Call-back Procedures
  Evacuation of Fire Area
  Closing Public/Private Roads
  Ordering Additional Personnel, Equipment, Aircraft needed
  Fire Weather Watch and Red Flag Warning Notification
  Temporary Flight Restrictions (TFR)
  Agency Duty Officers (Roles and Responsibilities)
  Aircraft Pre-Accident Plan
  Agency Employee Accident Plan
  Utility Company Notification (Power and Gas)
  Law Enforcement Dispatching Procedures/Requirements
  Hazmat/Spill Response Notification Procedures
  Local Government Requesting All-risk Assistance
  Search and Rescue

- Local Agreements: copies of all interagency or inter-district agreements governing the use of suppression resources, delineating areas of responsibility for fire suppression coverage.

- Communications: Procedures for assigning/managing local radio frequencies, procedures for obtaining additional frequencies, a map of repeater sites/frequencies, instructions for using local dispatch radio consoles, phones, computers, fax machines, paging systems.

- Weather: Processing of weather observations via WIIMS, daily posting and briefing procedures, broadcasts of fire weather forecasts to local fire suppression personnel, procedures for processing spot weather forecast requests and disseminating spot forecasts to the field, procedures for immediate notification to fire suppression personnel of Fire Weather Watches and Red Flag Warnings.

- Fire Danger: Remain aware of the level of the locally significant fire danger indices and record those values daily, update and post monthly the seasonal trends of those values vs average.

- Information to be provided by Dispatch:
  For Suppression/Support Personnel: Resource availability/shortages, radio frequencies to be used, burning conditions/fuel types, weather forecast updates, local fire activity, agency policies (limited/full suppression), etc.

For Management: Fire activity, incident update, weather update, resource status.

Time frames and frequencies/locations for daily briefings must be clearly specified in the local Dispatch Standard Operating Plan. A method should also be identified for documenting briefings (time given, content of briefing, and person(s) conducting and receiving briefing).

- Preparedness levels: General information relating to the local preparedness plan; procedures for identifying level, notification to management, dispatching roles and responsibilities at each preparedness level, etc. Specific triggers should be incorporated into preparedness plans that cause the preparedness level to move up or down. These triggers could be related to number/size of fires, amount and type of resources available/committed, regional/national fire situation, condition of local fuels, observed fire behavior, human-caused risk or predicted lightning activity level, etc. Specific actions should also be tied to each preparedness level, such as prepositioning of suppression resources (crews, engines, smokejumpers, air tankers, etc.), activation of local MAC Groups, contacts with other agencies, or hiring of CWN aircraft, Emergency Equipment Rental Agreement (EERA) equipment or AD crews.

- Dispatch Center Staffing Plan: Call-out procedures for additional personnel in emergency situations, designation of duty officer for dispatch center, shift limitations, day off/R&R policy, EFF hiring, etc.

- Administrative Items (funding, travel, time sheets, fire reports, etc.)

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- Accident/Incident: Criteria/definitions, agency notification and documentation requirements, procedures for mobilization of Critical Incident Stress Debriefing teams, etc.

- Expanded Dispatch Plan: Indicators for considering establishment of expanded dispatch, recommended organization and points of contact, overhead positions to order, location/facilities, equipment/supplies, support needs, procurement or Buying Unit Team considerations, Service and Supply Plan, etc.

- Medical Plan: Activation/evacuation information, medical facility locations and phone numbers, air and ground transport (Medivac) capability, burn center information, etc.

- Media Plan: General procedures, notification requirements to agency external affairs personnel, routing for media calls.

- Aviation: Ordering/scheduling requirements and procedures, special use airspace, special use mission requirements, Incident/Accident reporting and documentation procedures, flight management/tracking procedures.

Sizeup

At the earliest opportunity the Initial Attack Incident Commander should forward, at a minimum, the following information to the agency dispatch, and continue to keep the dispatcher informed of any significant changes and progress on the fire.

Fire Name

Location

Terrain (slope, aspect, elevation)

Position of fire on the slope

Size of fire

Fuel Type

Anticipated control problems

Spread potential

Values threatened

Weather conditions

Wind speed and direction

Fire behavior

Resources on the fire

Resources needed, if any

Estimated containment

Estimated control

Cause (known, suspected)

Example: INITIAL FIRE SIZE UP
(By IC or Air Detection To Dispatch)

Relayed by (Incident Commander): _____

**Date:___ Time:_____ Fire #:_____ Fire Name:_____

**Location:_____

**Latitude:_____ Longitude: _____
OR
**Township:_____ Range:_____ Section:_____ ¼S:_____ ¼ ¼S:_____

VOR:_____ Distance:_____nm Radial:_____ (degrees)

Temporary Flight Restriction? __ Yes __ No If Yes, Radius:_____nm Altitude:MSL

**Structures Threatened? ___ Yes ___ No If Yes, Type of Structures:

_____

Apparent Cause: _____ Human _____ Lightning

**Hazard(s):_____

**Estimated Size: _____ acres Elevation:_____ feet

9 **Fuel Type(s): _____

**Current Character of Fire *(Mark one or more)*
Smoldering ___ Running ___ Torching ___ Crowning/Spotting
Creeping ___ Running/Spotting___ Crowning ___ Erratic

**Slope At Origin *(If Origin Cannot Be Determined, Mark Where Fire Now Burning)*
0-25% ___ 26-40% ___1-55% ___ 56-75% ___ 76+%

**Spread Potential
Low ___Moderate ___High ___Extreme

**Wind Direction
Calm ___ Northeast ___ Southeast___ Southwest ___ Northwest
North ___ East ___ South ___ West ___ Erratic

**Wind Speed: _____ mph
**CALL INTO DISPATCH IMMEDIATELY

Wind Direction/Topography
Down Canyon ___ Up Canyon ___ Down Slope ___ Up Slope ___ Erratic

**Aspect *(Slope at Fire Origin; If Origin Cannot Be Determined, Mark Where Fire Now Burning)*
Flat ___Northeast ___Southeast ___Southwest ___Northwest
North ___East ___South ___West ___Ridgetop

Position On Slope Where Fire Now Burning
Ridgetop ___Middle 1/3 on slope ___Valley Bottom
Saddle ___Lower 1/3 on slope ___Mesa or Plateau
Upper 1/3 on slope ___Canyon Bottom ___Flat or Rolling

Current Weather Conditions *(Mark as Appropriate)*
Clear ___Tstrm Overhead ___Overcast ___Heavy Rain
Scattered Clouds ___Tstrm Nearby ___Intermittent Showers ___Hailing
Building Cumulus ___Lightning in Area ___Drizzling ___Snowing

Resistance to Control
Low ___ Moderate ___ High ___ Extreme

Personnel/Equipment/Aircraft Needs *(Enter Number Needed Next To Each Type)*

Helicopter	_____Type 3 Engine
Airtanker-Large	_____Type 4 Engine
Airtanker-Single-Engine	_____Type 5 Engine
Air Tactical Aircraft	_____Type 6 Engine
Lead Plane	_____Type 7 Engine
Smokejumper Load	_____Dozer
Type 1 Crew	_____Resource Advisor
Type 2 Crew	_____Other: _____

Estimated Containment Date:____/____/____ Time:_____

Estimated Control Date:____/____/____ Time:_____

Estimated Out Date:____/____/____ Time:_____

WEATHER AND BEHAVE INFORMATION

Location	*Elev*	*Obs Time*	*Wind Dir /Speed*	*Dry Bulb*	*Wet Bulb*	*Rel Hum*	*Remarks (Tstrm, etc)*

BEHAVE CALCULATIONS *(Verify or Amend Previous Sizeup Information, particularly Slope, Aspect, Fuel Type(s); Provide Updated Weather Information)*

Wind Vector/Slope *(Degrees)*

N - 000	___E - 090	___S - 180	___W - 270
NE - 045	___SE - 135	___SW - 225	___NW - 315

Percent of Cloud Cover

0-10%	___10-50%	___50-90%	___90-100%

9 Rate of Spread (Chains Per Hour):_____

Line Building Rate of Resources (Chains Per Hour):_____

Length-to-Width Ratio of Fire: _____ : _____

POST-FIRE REPORT

1. VERIFY CONTAIN/CONTROL/OUT TIMES

Containment Date:____/____/____ Time:_____
Control Date:____/____/____ Time:_____
Out Date:____/____/____ Time:_____

2. Predominant Fuel Type Burned *(NFDRS Fuel Model; Check One Only):*
A__Grass B__Grass/Sage C__Brush D__Pinyon/Juniper E__Timber F__Other:__

3. Statistical Cause *(Check One Only):*

1__Lightning	4__Debris Burning	7__Railroads

2__Camp Fire	5__Incendiary (Arson)	8__Children
3__Smoking	6__Equipment Use	9__Miscellaneous

4. SPECIFIC CAUSE *(Check Only One):*

01__Lightning	11__Trash Burning	21__Insect/Snake Control
02__Aircraft	12__Burning Dump	22__Job Hunting
03__Burning Vehicle	13__Field Burning	23__Blasting
04__Exhaust-Power Saw	14__Land Clearing	24__Burning Building
05__Exhaust-Other	15__Slash Burning	25__Power Line
06__Logging Line	16__Right-of-Way Burning	26__Fireworks
07__Brake Shoe	17__Resource Mgmt Burn	27__Playing with Matches
08__Cooking Fire	18__Grudge Fire	28__Repelling Predators
09__Warming Fire	19__Pyromania	29__House/Stove Flue
10__Smoking	20__Smoking Out Animals	30__Other

5. CLASS OF PEOPLE STARTING FIRE *(Check Only One):*

0__For all fires where the cause is lightning or unknown
1__For all individuals who own land or businesses within the protection boundaries
2__For all individuals, their agents, or employees who have special-use permits on the reporting agency lands within the protection boundaries
3__For contractors, their agents, or employees for purchase of products or construction of facilities
4__For all Federal, State, County, Municipal or other public employees
5__For all permanent residents living inside or within one mile outside the protection boundary
6__For all seasonal residents or workers residing inside or within 1 mile outside the protection boundary
7__For all tourists, motorists, campers, etc. in transit through the protected area
8__For all people not included above (Enter in "NARRATIVE" if known)

6. APPROXIMATE ELEVATION OF FIRE AT ORIGIN *(Check One):*

0__0-500'	3__2501-3500'	6__5501-6500'	9__8501+'
1__501-1500'	4__3501-4500'	7__6501-7500'	
2__1501-2500'	5__4501-5500'	8__7501-8500'	

7. OWNERSHIP ACREAGE

OWNER	ACRES	OWNER	ACRES	OWNER	ACRES
1. BLM		4. FWS		7. State	
2. BIA		5. USFS		8. Private	
3. NPS		6. Other Fed		9. Other	

8. NARRATIVE. *Use a separate sheet to describe your activities after arrival include dates/times major decisions were made, resources ordered, when they arrived, containment/control strategy and its effectiveness, and any other observations or problems relating to the fire. Attach map for all Class C+ fires.*

Incident Commander *(Print Name):*_____

Signature of Incident Commander:_____

Date:_____

Sample: **Fire Situation Analysis**

Fire Name & Number _____

Current Size _____ Potential Size _____

Fuels Description _____

Fire Behavior _____

1. Decision Factors:

Threatening Private Property	Yes_____	No_____
Improvements at Risk	Yes_____	No_____
Public Safety at Risk	Yes_____	No_____
Firefighter Safety at Risk	Yes_____	No_____
Public Concern	Yes_____	No_____
Resource Advisor Notified	Yes_____	No_____
Least Cost Strategy	Yes_____	No_____

Other: _____

Current Weather Forecast:

3-5 Day Forecast:

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2. Objectives

3. Identify appropriate management activities and frequency.

Recommend by:_____

Approved by:_____

Cause Determination Checklist

1 Take essential investigation materials with you to incident.

2 Make factual notes of all your actions and findings including:
- Time fire was reported.
- Name and ID of reporting party.
- En route observations – people and vehicles.
- Name and ID of persons or vehicles in vicinity of fire origin.
- Take the weather and report it.

3 Locate and protect fire origin.

4 Search fire origin area for physical evidence of fire cause.

5 Protect evidence. **Do not remove** unless necessary to prevent destruction.

6 Make sketches of origin area using accurate measurements of relative locations of all evidence.

7 Take photographs from all angles and include long and medium distance, and closeup views of fire origin area and important evidence.

8 Turn over all notes, information, and physical evidence to the responsible law enforcement representative, or make your notes part of the official fire record.

Briefing

Crew Briefing Guidelines **(Required for All Incoming Crews)**

Wildland fire crews (all types including engine crews, hand crews, etc.) from outside the "local area" are likely to be unfamiliar with local fuel and weather conditions, terrain, customs, etc. Unless they are provided with local information regarding the incident, they are likely to be less effective, and safety may be compromised. Therefore, it is the policy of the Bureau of Land Management to brief all crews which arrive from outside the local area. For the purpose of this policy, "local area" is defined as that geographically defined area that is under the dispatch control of a single dispatching unit.

Procedure Many incoming crews arrive at the unit by vehicle, or by transport aircraft and are transported to the incident. This constitutes a captive audience which can be briefed prior to fireline deployment. Exceptions include aerially delivered firefighters, and occasionally engine crews and miscellaneous overhead, which may deploy directly to the incident. The following checklist will be used to brief **all** incoming crews. If aerially delivered firefighters cannot be briefed prior to departure from base, the receiving unit dispatch office should provide a briefing to the supervisor by radio. In all cases, aerially delivered

firefighters will be briefed prior to starting work. Engine crews can also be briefed by radio if driving to the ordering unit for the briefing would cause needless delay in attacking the fire. Documenta-tion of briefings should be noted in an appropriate log.

Expanded Briefings The attached briefing checklist contains the **minimum** required briefing items. Units are encouraged to expand the minimum briefing, as appropriate, to ensure that safety, effectiveness, and efficiency are adequately managed.

Briefing Checklist		
1. Incident Status	Location	
Size	Jurisdiction	
Hazards		
2. Incident Site	Forest/Grassland/etc.	
General Health		
Terrain		
3. Fuel Conditions	Live Fuels	
1-hour	10-hour	1000-hour
Important Indices		
4. Weather Conditions	Current: air temp wind speed direction rh	Forecasted: air temp wind speed direction rh
5.Command/Control	Incident Commander	
Resources on Incident		
Resources Ordered		
Communications		
Reporting Procedures		

Key Radio Frequencies COMMAND:	TACTICAL:	AIR TO GROUND:
6. Fire Behavior	Current	Forecasted
7. Aviation	Aircraft	
Hazards		
Restrictions		
8. Other		

(Reverse of Checklist Form)

Briefing Items

Some items on the briefing checklist may not be applicable. For example, a discussion of the conditions of 1,000-hour time-lag fuels **may** not be necessary if such fuels do not exist on or adjacent to the incident site. A brief description of items on the briefing checklist follows:

1. **Incident Status** – Provide the location (T, R, Section), estimated size, jurisdictional agency, and known hazards such as power lines, Hazmat sites, loose rock, etc.

2. **Incident Site** – Provide basic information about the site, including biome (forest, woodland, shrub steppe, etc.). Include general state of health, such as overmature, 70 percent insect infested, large areas of blowdown, flashy fuels, etc. Also, provide general sense of terrain, such as large relief with 60 percent slopes.

3. **Fuel Conditions** – Provide best estimates of live, 1-, 10- and 1,000-hour timelag fuel moisture contents, and important NFDRS indices.

4. **Weather conditions** – Provide current (or most recent) weather, including wind speed and direction, air temperature, and relative humidity. Also provide the most recent forecast, and spot weather information if available. Emphasize FIRE WEATHER WATCHES and RED FLAG WARNINGS. Local Dispatch should also remind the Incident Commander to obtain and relay site weather conditions.

5. **Command and Control** – Provide the name and contact radio frequency of the Incident Commander (or appropriate general staff) for contact on arrival.

Also describe the appropriate method of reporting (checking in), the general communications procedure, and key radio frequencies.

6. **Fire behavior** – Provide best estimates of rate of forward spread, direction of spread, and approximate flame lengths. Include important facts on recent fire behavior.

7. **Aviation** – Provide important information such as number and types of aircraft operating in the area, MOAs, airspace closures, etc.

8. **Other** – Add additional information which would improve effectiveness and safety.

The IC should provide a specific safety briefing to all crews arriving at the incident.

Spot Weather Forecast

Spot weather forecasts should be requested for fires that have potential for extreme fire behavior or exceed initial attack or are located in areas for which red flag warnings have been issued.

The basic elements of a Spot Weather Forecast are:

Name of Fire or Other Project

Control Agency

Request Time & Date

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Location by ¼ Section

Drainage Name

Exposure

Size

Elevation (top and bottom)

Fuel Type

Fire Character (ground, crown)

Weather Conditions
- Place
- Elevation
- Observation Time
- Wind Direction
- Wind Velocity (eye level or 20 feet)
- Dry Bulb
- Wet Bulb
- Remarks

Strategy and Tactics

Determining the appropriate initial attack strategy is based on firefighter and public safety, and management objectives.

Remember to **"Match your strategy and tactics to the present and predicted fire behavior and weather conditions."**

Fire Suppression Interpretations from Flame Length

Flame Length	Interpretations
Less than 4 feet	Fires can generally be attacked at the head or flanks by firefighters using hand tools. Handline should hold fire.
4 to 8 feet	Fires are too intense for direct attack on the head with hand tools. Handline cannot be relied on to hold the fire. Bulldozers, engines, and retardant drops can be effective.
8 to 11 feet	Fires may present serious control problems: torching, crowning, and spotting. Control efforts at the head will probably be ineffective.
over 11 feet	Crowning, spotting, and major fire runs are probable. Control efforts at the head of the fire are ineffective.

Strategy

Direct Attack This strategy is conducted in light fuels, directly on the flaming edge of the fire. The type of fuel and the flame length will dictate your strategy. If the flame length is greater than 2 to 3 feet, the fire is burning too intense for direct attack. Direct attack must start with an anchor point.

Advantages and Disadvantages of Direct Attack

Advantages	Disadvantages
There is minimal area burned. No additional area is intentionally burned.	Firefighters can be hampered by heat, smoke, and flames.
Safest place to work. Firefighters can usually escape into the burn area.	Control lines can be very long and irregular, because the line follows edge of fire.
Full advantage is taken of burn out areas.	Firefighters may accidentally spread burning material across line.
May reduce the possibility of the fire moving into the crowns of the trees or brush.	Doesn't take advantage of natural or existing barriers.
Eliminates the uncertain elements of burning out or backfiring.	Usually more mopup and patrol.

Parallel Attack This strategy constructs fireline 6 to 50 feet from the fire's edge. The line is burned out immediately after construction.

Advantages and Disadvantages of the Parallel Attack Method

Advantages	Disadvantages
Firefighters can drop back from the fire's edge, getting away from the smoke and heat.	Fire may cross fireline before it is burned out.
Can cut fireline across pockets and fingers.	Burned area is not readily available as a safety zone.
May be able to place line in lighter fuels.	Fails to take advantage of fireline that has burned out on its own.
Usually shorter and straighter line.	Will increase the area burned.

Indirect Attack This strategy is used when a direct attack is not possible or practical. The use of natural barriers, roads, fuel type changes, etc. allow you to establish control lines and burn out. Very effective strategy when fire behavior is intense and or fire fighting resources are scarce.

Advantages and Disadvantages of Indirect Attack Method

Advantages	Disadvantages
Can locate line along favorable topography.	More acreage will be burned.
Takes advantage of natural or existing barriers.	May be dangerous to firefighters, because they are some distance from the fire and can't observe it.
Firefighters work out of smoke and heat.	Fire may cross line before it is fired.
More time to construct line.	Burning out may leave unburned islands.
Allows line to be constructed in lighter fuels.	Brings into play the dangers of burning out or backfiring.
May be less danger of slopovers.	Fails to take advantage of line that has already burned out.

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Hotspotting Hotspotting is the stopping of the spread of the flaming front. The purpose of this dangerous tactic (no anchor point and working at the head of the fire) is to slow the rapid spread of the fire, until firelines can be constructed. Often used in the protection of life and property. This strategy requires lookouts, escape routes, communications, and support from air tactical resources (retardant, water drops).

Cold Trailing Cold trailing means the firefighters are working along a partially dead line. They are inspecting the black line for hotspots, constructing

line where needed, and mopping up hotspots. Cold trailing is used to reduce unnecessary disturbance to the environment.

Mopup To extinguish burning material that may cause a fire to spread beyond the control lines.

Rules of Mopping Up a Fire

Rule	What?
Start work on each portion of line as soon as possible.	Start with the most dangerous line first. Work from the fire line toward the center of the fire. Small fires are totally extinguished. On larger fires, mop up a minimum of 100 feet, or to such a distance that nothing will blow, roll, or spot across the line.
Secure and extinguish burning materials.	Arrange burning fuels so they cannot roll across the line. Spread smoldering fuels and apply water so they will cool. Scatter fuels away from the line.
Deal with special hazards INSIDE the line.	Fall snags; extinguish logs and stumps. If you can't fall the snag, clear around the base, so that burning material will not fall into flammable fuels.
Deal with special hazards OUTSIDE the line.	Move slash back, away from the fireline. Fall snags and cover with dirt. If stumps are close to the line, cover them with dirt.
Reinforce the fireline.	Widen and clean the fireline. Reinforce any undercut line. Burn out or cold trail islands. Dig out roots that cross under the fireline. Feel for hot material along the fireline.
Check for spot fires.	Constantly check for spot fires, especially downwind from the fireline. Check heavier fuels (logs, snags, slash, etc.) for smoldering material.

The following Checklists are provided to increase safety and effectiveness in suppression operations:

Downhill/Indirect Checklist

1 The decision is made by a competent firefighter after thorough scouting.

2 Downhill line construction should not be attempted when fire is present directly below the proposed starting point.

3 The fireline should not lie adjacent to a chute.

4 Communication is established between the crew working downhill and crews working toward them from below, when neither crew can adequately observe the fire.

5 The crew will be able to rapidly reach a zone of safety from any point along the line if the fire unexpectedly crossed below them.

6 A downhill line should be securely anchored at the top. Avoid underslung line if practical.

7 Line firing should be done as the line progresses, beginning from the anchor point at the top. The burned out area provides a continuous safety zone for the crew and reduces the likelihood of fire crossing the line.

8 Be aware/avoid the Watch Out Situations.

9 Fully comply with the Standard Fire Orders.

Principles of Retardant Use

1 Determine tactics of direct or indirect based on fire sizeup and resource available.

2 Establish an anchor point and work from it.

3 Use the proper drop height.

4 Apply proper coverage levels.

5 Drop downhill and down-sun when feasible.

6 Drop into the wind for best accuracy.

7 Maintain honest evaluation and effective communication between the ground and air.

8 Use direct attack only when ground support is available or extinguishment is feasible.

9 Plan drops so that they can be extended or intersected effectively.

10 Monitor retardant effectiveness and adjust its use accordingly.

Directing Drops

1 **Give general location** on incident.

2 **Finalize location** with:
   - **a** Clock direction – Straight in front of the aircraft is 12 o'clock, out the right door is 3 o'clock, the tail is 6 o'clock, and the left door is 9 o'clock. When giving direction, remember that helicopters and air attack generally orbit in a right-hand pattern and air tankers in a left-hand pattern.
   - **b** Position on slope – Lower _, upper _, midslope, top of ridge, etc.
   - **c** Aspect – Direction slope is facing.
   - **d** Describe prominent landmarks – Don't say "I have a red hard hat. I'm wearing a yellow shirt. I'm waving. I'm by a big rock. I'm by the big tree." Visualize what the pilot sees from the air and describe target.
   - **e** Use Signal Mirrors – Use smoke or fusee, if a mirror is unavailable. Stand in drop location (when safe) for ID and move away before drop.

3 **Describe target** from your location and explain mission. The pilot will decide drop technique and flight path.

4 **Assure pilot** all personnel are safe and know aircraft intentions before the drop.

5 **Give feedback** to pilot about drop accuracy. Be honest and constructive. Let the pilot know if drop is early, late, uphill, downhill, on target, too high, too low, etc. Report low drops immediately.

Evaluation

Initial/Extended-Attack IC Evaluation Standards

It has been documented that the greatest risk to the health and safety of firefighters is during the initial- and extended-attack phase of fire suppression. For this reason we have developed the following criteria for managers to use in the evaluation of Initial- and Extended-Attack Incident Commanders. The criteria are designed to emphasize those factors that are critical for the safe and efficient suppression of wildfires.

Sample Evaluation:

1. **Provide for the Safety and Welfare of Assigned Personnel.**
   Recognize potential hazardous situations and determine if the fire can be fought safely.

   Select safe and effective strategies and tactics by applying the LCES process.

   Effectively brief firefighters of hazards, safety zones, escape routes, and current and expected weather and fire behavior.

   Establish effective communications, and lookouts.

   Ensure that special precautions are taken when hazards exist.

   Ensure that adequate rest, food, water, and health services are provided to all personnel.

2. **Fire Sizeup**
   Correctly estimate the fire behavior and potential.

   Order the appropriate resources to safely and effectively manage the fire.

   Communicate effectively with dispatch.

   Select safe and effective strategies and tactics that meet management objectives.

3. **Fire Suppression Operation**
   Safe and effective implementation of strategy and tactics through the use of the 10 Standard Fire Orders, 18 Watch Out Situations, LCES, and safety procedures.

   Concise and effective briefing of firefighters, to include:
   - Incident objectives, strategy, and tactics

- Hazards
- Safety principles

Monitor weather and fire behavior, and make needed adjustments to strategy and tactics.

Provide for the safety and welfare of firefighters.

Communicate effectively with dispatch and supervisor. Keep dispatch informed of progress, problems, and needs.

Determine control, when the fire is out, and when it is safe to demobilize.

Early and effective notification of fire's escape.

Timely and effective input into the "Wildland Fire Situation Analysis."

4. Complete Administrative Responsibilities

Complete time reports, accident forms, fire report, and other required reports.

Brief and submit complete documentation to supervisor.

Prepare and discuss performance evaluations with subordinates.

Actively participate in an analysis of:

- Incident objectives
- Strategy and tactics
- Safety
- Cost effectiveness
- Lessons learned and suggestions for improvement

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