10 - Extended Attack

Policy

All units will utilize the Extended Attack Complexity Analysis and the Wildland Fire Situation Analysis (WFSA) to determine the most appropriate management strategies and organization for a wildland fire that exceeds initial attack capabilities.

A unified command structure should be a consideration in all multi-jurisdiction incidents. (See Chapter 11, Incident Management.)

Field Office Managers are required to personally visit an appropriate number of fires each year. (See Chapter 2, Program Roles and Performance Standards.) A checklist that can be used by managers during those visits is included in the Appendix.

Introduction

Extended attack is the phase of an incident when initial attack capabilities have been exceeded. This has historically been when the most serious accidents and injuries have occurred. All planned actions must consider fire fighter and public safety as the number one priority.

When complexity levels exceed initial attack capabilities, the appropriate ICS positions should be added to the command staff, commensurate with the complexity of the incident. Extended attack actions can overwhelm an initial attack IC, if specific ICS organizational issues are not addressed at an early stage. The Extended Attack Complexity Analysis and the WFSA assist the manager in determining the appropriate management structure to provide for safe and efficient fire suppression operations.

Type 3 Incidents

Type 3 teams (or incident command organizations) manage initial attack fires with a significant number of resources, an extended attack fire until containment/ control is achieved, or an escaped fire until a type 1or 2 team assumes transfer of command. The incident may be divided into segments, but normally would not meet the division supervisor complexity in regards to span-of-control. **Note:** Some units may have a predetermined type 3 incident management team formally designated; other units put together a type 3 organization with command and/or general staff positions filled as the need arises.

When using a type 3 team or incident command organization, a manager must avoid using them beyond the extended attack complexity level.

The command staff is normally comprised of the incident commander and a safety officer, plus two general staff positions; however, a manager must assess the hazards and complexities to determine if other positions are also needed.

Recommended Minimum Positions The following positions and qualifications should be considered when assembling type 3 IMTs. By completing an Extended Attack Complexity Analysis, a fire manager can determine the specific positions needed by addressing each complexity or issue related to the incident (e.g., if sensitive public/media relationships are evident, then an information officer should be ordered as part of the team.)

Positions	Qualification Requirement
Incident Commander	Incident Commander Type 3 (Division Supervisor recommended)
Operations	Strike Team Leader or Task Force Leader
Logistics	Facilities Unit Leader, Supply Unit Leader, or Ground Support Unit Leader
Plans	Resource Unit Leader or Situation Unit Leader
Finance	Time Unit Leader or Procurement Unit Leader
Safety	Safety Officer Type 3
Information	Information Officer Type 3

Extended Attack Complexity Analysis

Appraising the Situation

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An Extended Attack Complexity Analysis should be used as a guide for agency administrators and/or fire managers to identify and mitigate certain complexity or safety issues by selecting a different strategy, tactic, or higher qualification of incident management personnel to safely and effectively manage the incident.

In developing this analysis, certain assumptions are made:

1) As an incident becomes more complex, the need for an incident management team or organization increases.

2) To facilitate assembling an efficient and effective organization, key managers should be involved during the early stages of complexity analysis.

3) The analysis is not a cure-all for the decision process; local fire history, current fire conditions, and management requirements must be considered.

Guidelines for Using the Extended Attack Complexity Analysis

One check in each of the five major elements would indicate a complexity level suggesting consideration of a type 2 IMT. If some elements are not involved, use the following ranges:

1-3 Current management should be able to handle the incident. The local organization fills positions as needed. Continue to monitor objectives and accomplishments; consider a type 3 organization.

4-6 Indicates complexity level suggesting a type 3 team.

7-10 Scrutinize overall complexity and safety concerns, consider past fire history and current and expected situation, and review WFSA. This complexity suggests the need for a type 2 team.

The Extended Attack Complexity Analysis should be reviewed periodically to determine the level of management required.

Extended Attack Complexity Analysis

	Yes	No
Safety		
Exposure of personnel to unusually hazardous conditions	___	___
Accidents/injuries have occurred	___	___
Multiple fixed-wing aircraft and helicopters involved or anticipated	___	___
Potential for public evacuations	___	___
Terrain adversely affects performance of tactical resources, limits safety zones.	___	___
Performance of firefighting resources affected by cumulative fatigue	___	___
External/Political Factors		
Potential for numerous damage claims	___	___
More than one jurisdiction involved	___	___
Controversial fire policy	___	___
Sensitive public/media relationships		
Smoke management problems	___	___
Lack of cohesive organizational structure		
Resources Issues		
Structures	___	___
Cultural values	___	___
Recreational developments	___	___
Urban interface		___

Critical municipal watershed		___
T& E species		

Fire Behavior

Current or predicted fire behavior dictates indirect control strategy	___	___
Fuels extremely dry and susceptible to rapid and explosive spread	___	___
Extreme fire behavior/blow-up potential exhibited	___	___
Current or predicted winds above 20 mph	___	___
Fuel moisture of eight percent or below (10-hour fuels)	___	___
Severe fire weather predicted for next two operational periods		

Personnel/Equipment

100 or more personnel assigned to incident	___	___
Variety of special support personnel or equipment	___	___
Resources unfamiliar with local conditions and accepted tactics	___	___
Heavy commitment of local resources to logistical support	___	___
Existing forces worked two operational periods without success	___	___
Communication ineffective with tactical resources or dispatch	___	___

Total number of elements checked:

Extended Attack Complexity Analysis Rating:

1-3 Current management sufficient. Type 3 organization should be considered.

10

4-6 Complexity level suggests a Type 3 team.

7-10 Consider ordering a Type 2 team.

Remarks:

Prepared By: _____ **Date** _____ **Time** _____

Reviewed By: _____ **Date** _____ **Time** _____

Reviewed By: _____ **Date** _____ **Time** _____

Wildland Fire Situation Analysis (WFSA)

The WFSA is a decision making process in which the agency administrator or representative describes the situation, evaluates the expected effects, establishes objectives and constraints for the management of the incident, selects an appropriate alternative, and documents that decision.

The agency administrator, his/her representative, and the FMO or Incident Commander prepare the WFSA. The format and level of detail required depends on the specific incident and its complexity. The key is to document the decision.

The required elements to be addressed in the WFSA are:

- Current Situation
- Evaluation Criteria
- Alternatives
- Analysis of Effects
- Record of Decision
- Review/Evaluation/Update
- Probability of Success
- Consequence of Failure

Current Situation

This portion of the analysis provides basic information describing the fire situation at the time the analysis was conducted. It is important to clearly describe the situation that occurred at the time the decision was made. Elements to be addressed are:

- **Fire name and number**.
- **Date of analysis**. This is the date on which the current analysis was made. Enter the month, day, and year.
- **Time**. Enter the time of day the analysis was completed. Enter the 24-hour clock time.
- **Location**. Use local terminology for point of origin. Include a legal description and latitude and longitude.
- **Fire weather and behavior**
  - **Current.** Briefly discuss the fire weather in terms of temperature, wind and daily patterns. Describe the fire in non-technical terms, such as creeping, spotting crowning, etc. Discuss the flame lengths, rates of spread, size, etc.
  - **Predicted**. Describe the predicted weather patterns, and fire behavior predictions based on weather, fuels, topography, and the potential size.

- **Resource availability**. Briefly discuss the availability of suppression resources to control the fire and fire activity at the local, and geographic level.
- **Management objectives and constraints**. The management objectives and constraints should be summarized to assist in the decision process.
- **Social or external considerations.** Discuss any issues that would contribute to making good suppression decisions.

Evaluation Criteria

Document the criteria used to evaluate suppression alternatives:

- Safety (firefighter/public).
- Land and resource management objectives.
- Environmental considerations.
- Social, political, economic considerations.
- Resources availability. Local, geographic, and national fire activities and reinforcement capabilities.

Alternatives

Develop a sufficient number of alternatives to represent a reasonable range for the situation. Each alternative must be practical and contain the level of detail required to compare the alternatives and make a decision based on pre-identified evaluation criteria.

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Strategy – Briefly state the alternative strategies for management of the incident. Use geographic names, locations, etc. Roughly designate each strategy on a map.

Management Forces Required – Make general estimates with enough detail to help in estimation of costs, determine if resources are available, etc.

Estimate Date of Control – Estimates for each alternative should be made based on predicted weather and behavior factors, barriers, fuels etc., and the effects of suppression efforts.

Estimated Size at Containment – Estimates for acreage burned under each alternative should be recorded and displayed on a map.

Estimated Cost – Estimate total cost of suppression alternative. Include suppression costs, and rehabilitation. Estimated cost should also consider the

probability of success, i.e., the consequences of failure. The WFSA "Decision Tree Application" describes the cost of failure based on the probability of success (see attached description). **Note:** The "average acre cost" from the planning process often works better than trying to estimate the cost for a specific situation.

Estimated Probability of Success – Based on estimates from 0-100 for each alternative.

Analysis of Effects

Apply the above evaluation criteria to the alternatives. The results of the analysis will be the basis for selecting the appropriate alternative. The analysis of effects is based on the best estimates on the unit, resource and fire management. The situation will determine the level of detail required. You may display the effects in dollars, or as positive or negatives, as demonstrated on the example forms. The important thing is to document your decision. Ensure that estimates of potential fire consequences are consistent with resource objectives, values, fire effects, and policy.

Record of Decision

Agency administrator selects an alternative that best implements the objectives and constraints for the management of the area. Agency administrator selects the level of management required to successfully implement the selected alternative (Type 1, Type 2, or Type 3 Incident Management Team). Briefly provide rationale for decisions. The WFSA shall become a permanent part of the final fire record.

Monitoring/Evaluation/Update

The WFSA must be reviewed prior to each operational period to determine it the alternative is still valid. The responsible agency administrator must sign the WFSA to document the review.

Note: The WFSA is available in an electronic format and a hard copy version.

WILDLAND FIRE SITUATION ANALYSIS (WFSA)

The Wildland Fire Situation Analysis (WFSA) is a decision making process in which the agency administrator or representative describes the situation, compares multiple strategic wildland fire management alternatives, evaluates the expected effects of the alternatives, establishes objectives and constraints for the management of the fire, selects the preferred alternative, and documents the decision. The format and level of detail required depends on the specific incident and its complexity. The key is to document the decision made.

WFSA INITIATION

Fire Name	
Jurisdiction(s)	
Date and Time Initiated	

WFSA COMPLETION/FINAL REVIEW

10

The selected alternative achieved desired objectives on (date/time):	
The selected alternative did not achieve the desired objectives and a new WFSA was prepared on (date/time):	
Agency administrator or representative signature:	

WFSA Instructions

Section I. WFSA Information Page

The agency administrator completes this page.

I.A. Jurisdiction(s): Assign the agency or agencies that have or could have fire protection responsibility, e.g., US FWS, USFS, BLM, etc.

I.B. Geographic Area: Assign the recognized "Geographic Coordination Area" in which the fire is located, e.g., Northwest, Northern Rockies, etc.

I.C. Unit: Designate the local administrative unit, e.g., Hart Mountain Refuge Area, Flathead Indian Reservation, etc.

I.D. WFSA#: Identify the number assigned to the most recent WFSA for this fire.

I.E. Fire Name

I.F. Incident Number: Identify the agency number assigned to the fire, e.g., BOD 296, BNF 001.

I.G. Accounting Code: Insert the local unit's accounting code.

I.H. Date/Time Prepared

I.I. Attachments: Check here to designate attachments used in the completion of the WFSA. "Other" could include data or models used in the development of the WFSA. Briefly describe the "other" items used.

I. Wildland Fire Situation Analysis	
A. Jurisdiction(s):	B. Geographic Area:
C. Unit:	D. WFSA #:
E. Fire Name:	F. Incident #:
G. Accounting Code:	
H. Date/time Prepared:	

10

I. Attachments:

- ☐ Complexity Matrix/Analysis
- ☐ Risk Assessment
- ☐ Probability of Success
- ☐ Consequences of Failure
- ☐ Maps
- ☐ Decision Tree
- ☐ Fire Behavior Projections
- ☐ Calculations of Resource Requirements
- ☐ Other (Specify)

Section II. Objectives and Constraints

The agency administrator completes this page.

II.A. Objectives: Specify criteria that should be considered in the developing alternatives.

Safety objectives for firefighters, aviation, and public must receive highest priority. Suppression objectives must relate to resource management objectives in the unit resource management plan.

Economic objectives could include closure of all or portions of an area, thus impacting the public, or impacts to transportation, communication, and resource values.

Environmental objectives could include management objectives for airshed, water quality, wildlife, etc.

Social objectives could include any attitudes toward fire or smoke that might affect decisions on the fire, safety, etc.

Other objectives might include legal or administrative constraints which would have to be considered in the analysis of the fire situation, such as the need to keep the fire off other agency lands, etc.

II.B. Constraints: List constraints on suppression action. These could include constraints to designated wilderness, wilderness study areas, environmentally or culturally sensitive areas, irreparable damage to resources or smoke management/air quality concerns. Economic constraints such as public and agency cost could be considered here.

II. Objectives and Constraints

A. Objectives

1. Safety:

Public

Firefighter

2. Economic:

3. Environmental:

4. Social:

5. Other:

B. Constraints

Section III. Alternatives

This page to be completed by fire manager/commander

III.A. Wildland Fire Management Strategy: Briefly describe the general wildland fire strategies for each alternative. Alternatives must meet resource management plan objectives.

III.B. Narrative: Briefly describe each alternative with geographic names, locations, etc., that would be used when implementing a wildland fire strategy. For example, "contain within the Starvation Meadows watershed by the first burning period."

III.C. Resources Needed: Resources listed must be reasonable to accomplish the tasks described in Section III.B. It is critical to also look at the availability of these resources.

III.D. Estimated Final Size: Estimated final size for each alternative at time of containment.

III.E. Estimated Contain/Control Date: Estimates for each alternative shall be made based on predicted weather, fire behavior, resource availability and the effects of wildland fire management efforts.

III.F. Cost: Estimate all fire costs for each alternative. Consider mopup, rehabilitation and other costs as necessary.

III.G. Risk Assessment–Probability of success/consequences of failure: Describe probability as a percent and associated consequences for success and failure. Develop this information from models, practical experience or other acceptable means. Consequences described will include fire size, days to contain, days to control, costs and other information such as park closures and effect on critical habitat. Include fire behavior and long-term fire weather forecasts to derive this information.

III.H. Complexity: Use the Wildland Fire Complexity Analysis

III.I. Maps: A map for each alternative must be prepared.

III. Alternatives			
	A	B	C
A. Wildland Fire Strategy:			
B. Narrative:			
C. Resources Needed: Handcrews Engines Dozers Airtankers Helicopters			
D. Estimated Final Fire Size: 10			
E. Estimated Contain/ Control Date:			
F. Costs:			
G. Risk Assessment: Probability of Success Consequences of Failure			
H. Complexity:			

I. Attach Maps for Each Alternative:

Section IV. Evaluation of Alternatives

This page is completed by the agency administrator(s), FMO, and/or incident commander.

IV.A. Evaluation Process: Conduct an analysis for each element of each objective and alternative. Objective shall match those identified in section II.A. Use the best estimates available and quantify whenever possible. Provide ratings for each alternative and corresponding objective element. Fire effects may be negative, cause no change, or may be positive. Examples are: 1) a system which employs a "-" for negative effect, a "0" for no change, and a "+" for positive effect; 2) a system which uses a numeric factor for importance of the consideration (soils, watershed, political, etc.) and assigns values (such as -1 to +1, -100 to +100, etc.) to each consideration, then arrives at a weighted average. If you have the ability to estimate dollar amounts for resource and cultural values this data is preferred. Use those methods which are most useful to managers and most appropriate for the situation and agency. To be able to evaluate positive fire effects, the area must be included in the resource management plan and be consistent with prescriptions and objectives of the fire management plan.

Sum Of Economic Values: Calculate for each element the net effect of the rating system used for each alternative. This could include the balance of: pluses (+) and minuses (-), numerical rating (-3 and +3), or natural and cultural values in dollar amounts. (Again resource benefits may be used as part of the analysis process when the wildland fire is within a prescription consistent with approved fire management plans and in support of the unit's resource management plan.)

IV. Evaluation of Alternatives			
Evaluation Process	A	B	C
Safety Firefighter Aviation Public			
Sum of Safety Values			
Economic Forage Improvements Recreation Timber Water Wilderness Wildlife Other (Specify)			
Sum of Economic Values			
10 Environmental Air Visual Fuels T & E Species Other (Specify)			
Sum of Environmental Values			
Social Employment Public Concern Cultural Other (Specify)			
Sum of Social Values			
Other			

Section V. Analysis Summary

This page is completed by the agency administrator(s), FMO, and/or incident commander.

V.A. Compliance with Objectives: Prepare narratives that summarize each alternative's effectiveness in meeting each objective. Alternatives that do not comply with objectives are not acceptable. Narratives could be based on effectiveness and efficiency. For example: "most effective and least efficient," "least effective and most efficient," or "effective and efficient." Or answers could be based on a two-tier rating system such as "complies with objective" and "fully complies with or exceeds objective." Use a system that best fits the manager's needs.

V.B. Pertinent Data: Data for this section has already been presented, and is duplicated here to help the agency administrators confirm their selection of an alternative. Final fire size is displayed on page 3, section III.D. Complexity is calculated in the attachments and displayed on page 3, section III.H. Costs are displayed on page 3, section III.F. Economic values have been calculated and displayed on page 4. Probability of success/consequences of failure is calculated in the attachments and displayed on page 3, section III.G.

V.C. External and Internal Influences: Assign information and data occurring at the time the WFSA is signed. Identify the preparedness index (1 through 5) for national and geographic levels. If available, indicate the incident priority assigned by the MAC group. Designate the resource availability status. This information is available at the GACC and is needed to select a viable alternative. Designate "yes" indicating an up-to-date weather forecast has been provided to and used by the agency administrator(s) to evaluate each alternative. Assign information to the "other" category as needed by the agency administrator(s).

V. Analysis Summary			
Alternatives	A	B	C
A. Compliance with Objectives Safety Economic Environmental Social Other			
B. Pertinent Data Final Fire Size Complexity Cost Resource Values Probability/Consequences of Success/Failure			
10 C. External/Internal Influences: National and Geographic Preparedness Level Incident Priority Resource Availability Weather Forecast (Long-range) Fire Behavior Projections			

Section VI. Decision

Identify the alternative selected. Must have clear and concise rationale for the decision, and a signature with date and time. Agency Administrator(s) signature is mandatory.

VI. Decision	
The selected alternative is: Rationale:	
Agency Administrator Signature	
Date/Time	

Section VII. Daily Review

This page is completed by agency administrator(s) or designate.

The date, time and signature of reviewing officials are reported in each column for each day of the incident. The status of preparedness level, incident priority, resource availability, weather forecast, and WFSA validity is completed for each day reviewed. Ratings for the preparedness level, incident priority, resource availability, fire behavior, and weather forecast are addressed on page 5, section V.C. Assign a “yes” under “WFSA Valid” to continue use of the this WFSA. A “no”

indicates this WFSA is no longer valid and another WFSA must be prepared or the original revised.

VII. Daily Review									
Selected Alternative to Be Reviewed Daily to Determine If Still Valid until Containment/control									
			Preparedness Level	Incident Priority	Resource Availability	Weather Forecast	Fire Behavior Projections	WFSA Valid
Date	Time	By						
If WFSA is no longer valid a new WFSA will be completed									