CONSOLIDATION OF 2003 NATIONAL AND REGIONAL LARGE INCIDENT STRATEGIC ASSESSMENT AND OVERSIGHT REVIEW KEY FINDINGS

September 22, 2003

National Reviews:

Aspen Fire, Arizona, July 15, 2003
Fawn Peak Fire, Washington, July 28, 2003
Northwest Montana Area Command, August 6, 2003
Northern Rockies Geographic Area, August 26, 2003
B&B Complex, Oregon, September 19, 2003

EXECUTIVE SUMMARY

- For the most part, cost containment was considered across all incident levels and Delegations of Authority included cost containment direction.

- Cost share agreements were inconsistent and inequitable in many cases. *Improve direction and guidelines for incident cost share agreements and assign grants and agreements specialists at the Area Command or Incident Command levels to oversee the development of cost share agreements.*

- Suppression and property protection cost apportionment responsibilities for federal agencies are unclear. *Request an Office of General Council (OGC) legal opinion regarding the legal and financial obligations of federal agencies for wildland fire suppression. This opinion should make clear the responsibilities for cross-jurisdictional fire suppression and property protection.*

- The Wildland Fire Situation Analysis (WFSA) process is overly complex and does not meet the needs of complex fire situations. The WFSA program also inconsistently defines terminology and does not have decision-making guidelines that consider estimated probabilities of success. *Improve the WFSA process so that it is more dynamic and responsive to incident needs.*

- Though it has been for the most part successful, the Resource Ordering and Status System (ROSS) created significant technical obstacles at the incident level. *Prior to next fire season, review and correct ROSS problems encountered this year. Evaluate and update ROSS following each fire season. Create technical response teams to respond to on-the-ground technical needs during incidents.*

- The length of assignments for Incident Management Teams (IMT) must be re-examined. The number of IMT transitions during lengthy fires results in significant cost increases, indicating the need for minimum 21-day IMT rotations in lieu of 14-day assignments. The increased call for Incident Management Teams for both fire and non-fire situations should also be considered, as more federal employees are being called away from their offices for extended periods. *Conduct an analysis of the impacts of 14-day versus 21-day IMT rotations and of non-fire assignments.*

- Oversight and financial management needs to be strengthened in certain areas. *A larger cadre of trained Incident Business Advisors and Contracting Officer's Representatives (COR) need to be available to support Incident Management Team operations.*

- It is unclear to what extent the increased reliance upon contract services, particularly contract crews, affects incident costs. *Examine the full costs of contract crews versus federal crews and consider these costs when reviewing incident suppression costs.*

- Fire suppression expenses should not be considered completely sunk costs. Burned areas present land managers with the opportunity to restore forests to more natural fire regimes, with less need for initial fuels reduction. *Develop national-level direction and priorities regarding post-fire maintenance of burned areas. These priorities should be reflected in the Land Management Plans. Agency Administrators should give greater consideration to the long-term sustainability of forested lands as opposed to traditional tree-stocking practices.*

- The effectiveness and cost efficiency of aviation resources is unclear. Costly aviation resources may be being used to respond to perceived political pressures or when alternative strategies could be more or equally effective. *Implement strategies to ensure that cost efficiency and effectiveness are considered when using aviation resources. Require greater accountability for aviation resources when used on extended attack.*

- The Large Incident Review Teams successfully responded to the tasks outlined for them in their Delegations of Authority. *Increase the number of trained staff available for reviews. Develop a well-defined process that responds immediately to the findings and recommendations of the Large Incident Strategic Decision and Assessment Oversight Reviews.*

CONSOLIDATION OF 2003 NATIONAL AND REGIONAL LARGE INCIDENT STRATEGIC ASSESSMENT AND OVERSIGHT REVIEW KEY FINDINGS

INTRODUCTION

In 2003, several Large Incident Strategic Decision and Assessment Oversight Reviews were completed by national and regional teams. For the most part, the reviews revealed cost-effective and efficient management at the incident level, with the appropriate emphasis on cost containment priorities demonstrated by Command and Agency Administrator leads.

Each review team was comprised of representatives from various federal and state agencies. National teams consisted of a Line Officer, Incident Business Specialist, Incident Management Specialist, Fire Behavior Analyst, and a Writer/Editor. Regional review teams were dispatched by the Regional Forester and varied in composition. Six of the reviews dealt with single large fires and two with multiple large-scale situations. Many of the same individuals participated on more than one national-level review, providing for consistency across the national reviews.

The regional reviews were primarily concerned with on-the-ground cost containment, reflecting more specific day to day spending issues. However, the national reviews took on a more holistic perspective, examining suppression costs from a national, policy-level standpoint. These national reviews uncovered several issues that affect suppression costs, but are beyond the scope of Incident and Area Command management. These issues carry significant implications for both short and long term suppression spending, and strongly indicate the need for a corresponding national Action Plan. This Action Plan should address these issues from a comprehensive perspective that considers long term fire spending from in terms of federal policies.

While this report considered both the regional and national level 2003 reviews, the findings are largely drawn from the five national reviews that have been conducted to date in 2003. These reviews covered the:

- Aspen Fire, Arizona, July 15, 2003,
- Fawn Peak Fire, Washington, July 28, 2003,
- Northwest Montana Area Command, August 6, 2003,
- Northern Rockies Geographic Area Commands, August 26, 2003, and
- B&B Complex, Oregon, September 19, 2003.

Additionally, several previously conducted national reviews were considered, including:

- USDA Forest Service, “2003 Cost Containment Measures – Wildfire Suppression.” May 30, 2003.
- USDA Forest Service, US Department of the Interior, National Association of State Foresters, “Large Fire Cost Reduction Action Plan.” March, 2003.

- USDA Forest Service, "An Agency Strategy for Fire Management: A Report from the National Management Review Team". January 12, 2000.
- USDA Forest Service, "Chief's Incident Accountability Report." January 31, 2003.

More specific conclusions regarding incident-level suppression spending can be found in the regional reports, which reviewed the:

- Aspen Fire, Arizona, July 12, 2003,
- Link Fire, Oregon, August 1, 2003,
- Bulldog Fire, Utah, August 9, 2003, and
- Clark Fire, Oregon, August 11, 2003.

PURPOSE OF REPORT

The purpose of this report is to consolidate review findings from the national and regional Large Incident Strategic Decision and Assessment Oversight Reviews of 2003 and to set priorities for a responsive Action Plan. The report covers only those issues that are relevant to national policies and that directly affect short and (most importantly) long-term federal suppression costs.

FINDINGS

Cost Containment and Delegations of Authority

A cost conscious approach was common among all of the Multi-Agency Coordination Groups, Area Commands, Incident Management Teams, Agency Administrators, business managers and finance managers reviewed. In most cases, the least suppression cost alternative was considered during the Wildland Fire Situation Analysis (WFSA) decision process. Delegations of Authority were in place at all incidents visited, and all included cost containment language.

Recommendation:
No agency level response is necessary.

Cost Share Agreements

Many incident commands were in operation for up to a week with either absent or incomplete cost share agreements. Responsibility for the creation and approval of suppression cost-share responsibilities often fell to Incident Team members who were not trained in contract development or administration.

Recommendation:
Improve direction and guidelines for incident cost share agreements and assign grants and agreements specialists at the Area Command or Incident Command levels to oversee the development of cost share agreements. State and federal agencies should develop templates for cost share agreements prior to the start of the fire season that reflect major agreed-upon items, requiring only the incident-specific items to be resolved and filled in at the onset of a fire.

Cost Apportionment

Federal cost apportionment responsibilities for cross-jurisdictional fires and property protection are unclear. Although policy currently calls for federal agencies to suppress advancing fires that threaten private structures, there is no direction in regards to advancing fires that threaten other interests, such as state or private timber. It appears that suppression expenses for fires that threaten non-federal resources or properties, particularly structures, are often borne by federal agencies, and often at the expense of federal land resources. The cost of these efforts may in fact exceed the costs of the properties being protected.

Furthermore, suppression efforts and expenses for fires that start on non-federal lands are generally undertaken by federal teams. However, there has been no associated economic analysis to determine the financial impact of these types of decisions.

Recommendation:
Request an Office of General Council (OGC) legal opinion regarding the legal and financial obligations of federal agencies for wildland fire suppression. This

opinion should make clear responsibilities for cross-jurisdictional fire suppression and property protection.

Wildland Fire Situation Analysis (WFSA)

There were several concerns raised regarding the WFSA process. Many Agency Administrators and Incident Commanders reported that the WFSA process was overly complex and took too long to complete. The fire terminology related to the program is also inconsistent and confusing (e.g., "least cost" vs. "least suppression cost").

There are no guidelines within the WFSA process that aid in the selection of alternatives based upon the estimated probabilities of success, leaving it up to the discretion of the Incident Commanders and Agency Administrators to decide what level of risk is acceptable. This has social and political implications, as WFSA alternatives may be selected based upon the fear of losing a fire, rather than upon factors such as fire behavior, drought conditions, weather outlooks, suppression resource availability or cost.

The WFSA process does not adequately address the needs of Incident Commanders and Agency Administrators during complex or lengthy fire situations, or "fire sieges". As the demand for suppression resources increases in these types of situations, maintaining and updating WFSA's becomes a challenge for Incident Commanders and Agency Administrators. In situations where a Geographic Multi Agency Coordinating Group or an Area Command is charged with prioritizing and assigning resources, Agency Administrators and Incident Commanders do not initially know what resources will be made available to them for individual incidents or if/when additional resources will become available. This makes it difficult to choose WFSA alternatives that adequately reflect resource availability.

Recommendation:

Revise the WFSA process so that it is more dynamic, programmatically designed for various types of fire situations (i.e., single incidents, complexes, multi-fire or lengthy fire sieges, etc.). Update the WFSA program so that it consistently defines terms and is able to adequately reflect resource needs and limitations. Additional values, such as potential Burned Area Emergency Restoration and rehabilitation costs should be added to the WFSA alternative selection process. Consideration of local values (e.g., tourism) needs to be formally incorporated into the WFSA process.

Resource Ordering and Status System

The Resource Ordering and Status System (ROSS) did not undergo an adequate test period prior to being implemented in the 2003 fire season. Despite extensive training prior to the fire season, many Incident Team members had difficulty using the ROSS system, particularly during large-scale fire situations. Order back-logs, errors in resource ordering and delivery, and confusion regarding

accessibility were a few of the many common frustrations relayed by the Incident Teams. (It is worth noting, however, that the ROSS system was universally acknowledged by Incident Management Teams as a valuable addition to the Incident Command system).

It is important to bear in mind that the ROSS system represents a significant investment on the part of federal wildland fire suppression agencies, but to be successful, it must have continued, long-term financial support.

Recommendation:
Prior to next fire season, review and correct ROSS problems encountered this year. Create ROSS Technical Response Teams to address technical needs as they arise during the fire season. Review and update the ROSS system after each fire season.

Incident Management Team Issues

There are several issues related to Incident Management Team (IMT) assignments that require national level response. These issues relate to incident cost, indirect effects on the day-to-day operations of team members' home duty stations, and the increasing overall demand for IMTs for fire and non-fire situations.

Incident costs tended to spike during each IMT transition period, suggesting the need for longer IMT assignments (i.e., 21 days instead of 14 days) in order to minimize these cost increases. However, it is important to consider that this may place unreasonable pressures on Team members' home duty offices.

Furthermore, as the number of fire-trained federal employees decreases, the demand for IMT members will increasingly impact the day-to-day operations of the agencies as those that are trained are called on more frequently. Non-fire demands for Incident Management Teams are also increasing (e.g., Columbia shuttle recovery, Mad Cow disease outbreaks, Avian Influenza, etc.), placing significant time demands on IMT members as they participate in multiple assignments (often consecutively).

Recommendation:
Conduct analyses to determine the implications of 14-day versus 21-day assignments and of non-fire Incident Management Team Assignments. A long-term plan to respond to the decreasing number of fire-trained federal employees may also be warranted (see "USDA Forest Service: An Agency Strategy for Fire Management", January, 2000).

Financial Management and Oversight

Qualified Incident Business Advisors, Contracting Officers, and finance section personnel are in very short supply, partially due to end of Fiscal Year financial responsibilities that intensify during the summer months.

The increased use of contract resources has not been simultaneously met with an increase in well-trained incident contract administrators. This increases the potential for waste, fraud, and abuse. Safety, quality and cost-effectiveness may also be compromised, calling for a greater commitment to incident contracting administration needs.

Recommendation:
Increase the number of trained Incident Business Advisors and Contracting Officers Representatives.

Contract Crew Utilization

It is unclear to what extent the increased reliance upon contract services, particularly contract crews, affect incident costs. While at first glance the costs of contract crews appear to be greater than those of government crews, the longer-term and sunk costs of agency crews (considering training expenses, time spent away from home-office duties, etc.) may in fact represent greater expenses.

Recommendation:
The full costs of contract crews versus federal crews must be thoroughly examined so that the true cost of incident suppression efforts can be assessed.

Post-fire Maintenance of Burned Areas

Fire suppression is an extremely costly activity; however, these costs should not be considered completely sunk costs. As multiple fires over multiple years create a mosaic of burned areas across a Forest or Region, maintenance of burned areas should become a long-term fuels management priority. Burned areas present land managers with the opportunity to restore forests to more natural fire regimes, with less emphasis on initial fuels reduction.

Current national direction (Forest and Rangeland Renewable Resources Planning Act of 1974, Sec. 6) requires that following a harvest, timber be adequately restocked within five years. However, timber removal due to wildland fire is exempted from this stipulation altogether. With this in mind, Agency Administrators should give greater consideration to long-term sustainability of forested lands as opposed to traditional tree-stocking practices. This consideration should be appropriately included in Land Management Plans.

Recommendation:
Develop direction regarding post-fire maintenance of burned areas. Once burned areas are returned to conditions that can sustain historic fire regimes, maintenance must become a priority to ensure that future hazardous fuel buildups are prevented - maintenance of Condition Class 1 stands should be just as important as the treatment of Condition Class 2 and 3 stands. Consider the Condition Class transition of these areas when reviewing incident costs.

Land Management Plans

The Large Incident Reports suggest that many National Forest Land Management Plans are significantly out of date, and do not mirror the direction of their corresponding Fire Management Plans. These outdated Land Management Plans reflect restocking objectives as opposed to long-term forest sustainability and do not prioritize federal resources in the context of adjacent non-federal properties and resources.

Additionally, the reviews indicated that some Fire Management Plans do not incorporate national-level fire priorities, such as hazardous fuels reduction activities, Wildland Fire Use, and other landscape-level approaches.

Recommendation:

Update Land Management Plans to reflect post-fire rehabilitation and restoration objectives as well as the priorities placed upon federal land resources in consideration of adjacent non-federal land resources. Maintain more current Land Management Plans that characterize suppression expenses from an ecosystem restoration standpoint, as Condition Class 2 and 3 areas are converted by wildfires to Condition Class 1.

Likewise, updated Fire Management Plans should reflect the realities of key relevant issues, including the relationships between suppression strategies, fuels management projects and preparedness organizations.

Aviation Resources

The efficiency and effectiveness of the current level of aviation resource use is greatly unclear. It appears that aviation resources (which typically comprise upwards of 30% of suppression costs) are most effective during initial attack. However, costly aerial resources are often used in extended attack efforts which are likely to be (and frequently are admittedly) futile, due to fire intensity, weather, topography, lack of ground support, etc. This may largely be due to perceived political pressures.

Recommendation:

Develop measures to ensure that aviation resources are used effectively, both tactically and financially.

ADDITIONAL CONSIDERATIONS

Large Incident Strategic Decision and Assessment Oversight Review Teams

The Large Incident Review Teams successfully responded to the tasks outlined for them in their Delegations of Authority. The national-level team members were recruited from a small pool of people, creating consistency across all national reviews.

Recommendation:

Increase the number of trained staff available for reviews, as the timing and frequency of the reviews created some demands upon those team members that participated on several teams.

Most importantly, in order to fully satisfy the goals of the review procedure develop a well-defined process that immediately responds to the findings and recommendations of the Large Incident Strategic Decision and Assessment Oversight Reviews.

REFERENCES

USDA Forest Service, “An Agency Strategy for Fire Management: A Report from the National Management Review Team”. January 12, 2000.