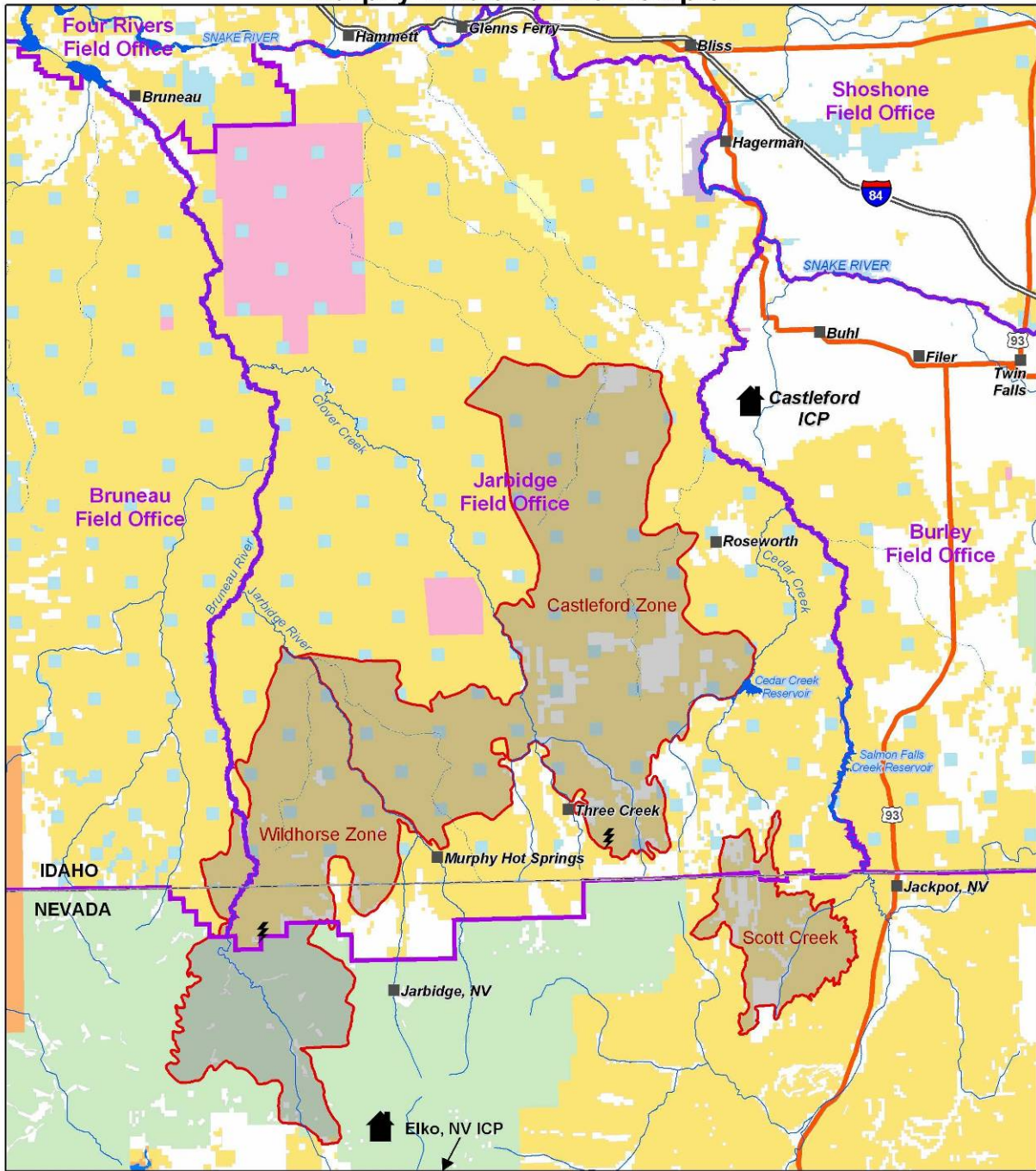


**Murphy Complex
(Rowland, Elk Mountain, & Scott Creek)
Large Fire Cost Review**

**Bureau of Land Management
Twin Falls District Office, Twin Falls, Idaho
September 30 – October 4, 2007**



Murphy Wildland Fire Complex



United States Department of the Interior
Bureau of Land Management
Twin Falls District, Idaho
Jarbidge Field Office

- Fire Start Location
 - Incident Command Post (ICP)
 - Murphy Complex
 - Towns/Communities
 - Idaho BLM Field Office Boundary
- | Land Status | |
|-------------|---------------------------------|
| | Bureau of Land Management |
| | Bureau of Reclamation |
| | Military, Department of Defense |
| | Forest Service |
| | National Park Service |
| | Native American Reservation |
| | Private |
| | State |
| | Water |



0 2.5 5 10 Miles



No warranty is made by the Bureau of Land Management. The accuracy, reliability, or completeness of these data for individual use or aggregate use with other data is not guaranteed.



Table of Contents

Executive Summary 1

 Factors Leading to the Situation: 1

 Basic Incident Facts and Chronology: 1

 Overall Findings: 1

Purpose for the Review: 2

Objectives for the Review: 2

Social-Political Pressures: 3

Financial Costs: 3

Findings and Recommendations: 5

 Finding 1: Delegations of Authority 5

 Finding 2: WFSA 5

 Finding 3: Cost Saving Measures 5

 Finding 4: Business Practices 5

 Finding 5: Initial Attack Impacts 5

 Finding 6: Tracking Resources in Transition 6

 Finding 7: Lack of Cost Share Agreement 6

 Finding 8: Multiple Geographic Area Coordination Centers(GACC) & Dispatch Centers. 7

 Finding 9: Service and Supply Plans 7

 Finding 10: Communication Issues 8

Conclusions: 8

Commendations: 8

Review Team: 9

Documents Reviewed: 9

Attachments: 11

Executive Summary

BLM policy requires that all fires expending more than \$5 million be evaluated regarding strategic actions and financial decisions made on these fires and comparing them to current policies and procedures, and making recommendations for change that could improve future fire actions.

Factors Leading to the Situation:

The Murphy Complex consisted of the Rowland, Elk Mountain and Scott fires which spanned two states, two Geographic Areas, four jurisdictional agencies, and two local dispatch centers. An early fire season, critically dry fuels and an unseasonable storm event set the stage for multiple dry lightning starts. During this time, the National Preparedness Level was a 5 and within the Great Basin Geographic Area, there were 34 large fires and complexes with multiple Incident Management Teams (IMTs) assigned. During the July 16 lightning storm, BLM Twin Falls District had successfully suppressed 20+ initial attack fires. At the same time, Elko had 110 new fire starts while they were also engaged in managing the Highway 93 Complex, the Winecup Complex, the Hepworth Complex, and the Red House Complex.

Critical weather was expected, the Horse Butte RAWS recorded 20 foot wind gusts of up to 35 mph with averages of 20 mph during the first 8 hours of the Elk Mountain fire on the 17th. The fire was predominately in sagebrush and grass. Fuel moistures were at or below record levels. The Three Creek fuel monitoring site indicated sagebrush live fuel moisture was 83% on the 15th, which is significantly below the previous month's reading of 97%. Fire Danger Indices were rated as high. Observed fire behavior during IA was 13-ft flame length with 8-mile per hour rate of spread, Scott Creek Fire IMT clocked a fire rate of spread of 20 mph.

Basic Incident Facts and Chronology:

The Rowland Fire was discovered on Monday, July 16 and the Elk Mountain Fire was discovered on Tuesday, July 17, both on BLM Twin Falls District administered lands. These lightning-caused fires grew quickly due to unusual weather conditions and extremely dry fuels in remote terrain that was difficult to access. The Rowland Fire burned into the Elk Mountain Fire on the evening of July 20 to form a single 511,000 acre wildfire. To balance workloads and mitigate aviation safety issues, the Scott Fire (58,000 acres) which started in Nevada on July 16 was transferred from the Winecup Complex to the Murphy Complex (Castleford Zone). See attachment 1 for the chronology of events and actions taken.

Overall Findings:

- Delegations of Authority were prepared in a timely manner and included sufficient information to make prudent and strategic decisions; however, they did not address cost saving measures and/or assignment and roles of Incident Business Advisors.
- The Wildland Fire Situation Analysis (WFSA) process was followed in accordance with established policy; however, it is difficult to track WFSAs, purposes for developing new WFSAs and their success.
- A number of communication issues were defined, and include infrastructure and frequency management.

- Tracking of resources throughout numerous transitions set a long term scenario of “lost resources”. Team narratives did not address cost-savings measures.
- Agency Administrators (AA) and Incident Commanders (IC) thought the Area Command (AC) generally facilitated good communication with all entities until they disbanded.
- Strategies used on the incident were sound and the IMT responded appropriately to changing conditions. The fire’s resistance to control was largely governed by weather and terrain conditions. Management decisions made throughout the incident were justifiable and in accordance with established policies and practices.
- No cost share agreement completed, cost share agreements are normally completed in the early stages of an incident.
- Some logistic issues drove costs, i.e., two dispatch centers, two Geographic Area Coordination Centers (GACCs). There were some concerns with two ordering points and the potential for duplicate orders, dropped information, etc.

Purpose for the Review:

The Murphy Complex Large Fire Cost Containment Review Team was convened by a Delegation of Authority by BLM Idaho State Director. The Team reported to the BLM, Twin Falls District Manager in Twin Falls, Idaho on Sunday, September 30, 2007 at 1500 at which time a briefing was provided to the Team by the District Manager and the Jarbidge Field Office Manager. Other individuals at the introductory briefing included: Jarbidge Field Office Supervisory Range Conservationist; Twin Falls District Assistant Fire Management Officer; Acting Shoshone Center Manager; and Acting Twin Falls Associate District Manager. BLM Elko District Manager and Elko Fire Management Officer joined the briefing through conference call.

Beginning Monday, October 1, the team conducted a series of interviews, document research and analysis with the following goals:

- Examine the strategic decisions made by Agency Administrators and the IMT in relationship to the Local Land Use Plan, Wildland Fire Management Policy, and WFSAs. Ensure that the WFSAs include a least-cost suppression alternative.
- Examine the delegation of authority given to the Incident Commanders and ensure that the cost objective in the WFSAs is commensurate with the values to be protected.
- Ensure that the appropriate line officers were involved in financial oversight and strategic decisions.
- Ensure that cost-saving actions were implemented. The Team will address costs as they relate to the WFSAs, strategies, tactics, cost share agreements, contracts, and purchasing.
- Evaluate the incident costs with respect to strategic decisions, political and social issues, and the use of personnel and equipment.

Objectives for the Review:

- To evaluate the results of fire suppression actions and to compare these results with those anticipated from the planning process.
- To identify needed changes or corrections in policy, management, procedures, equipment, or performance.
- To improve employee effectiveness through participation in the evaluation and implementation of recommended actions.
- To provide strategic decisions and financial management review of the incident.

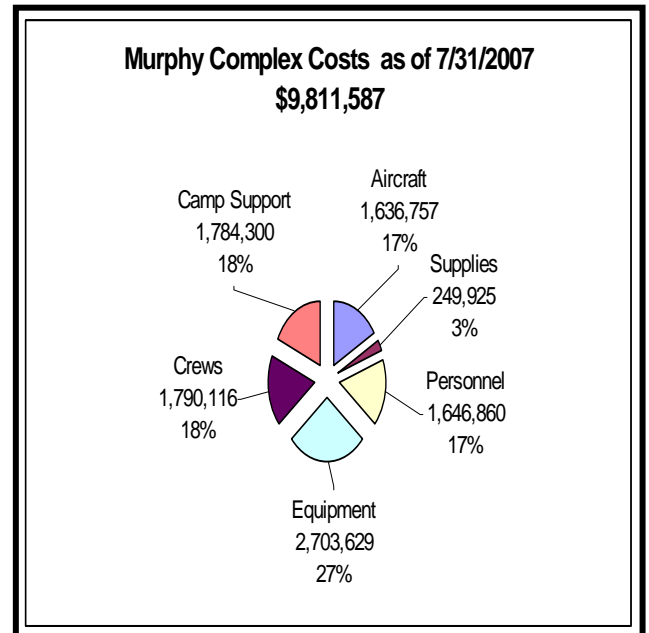
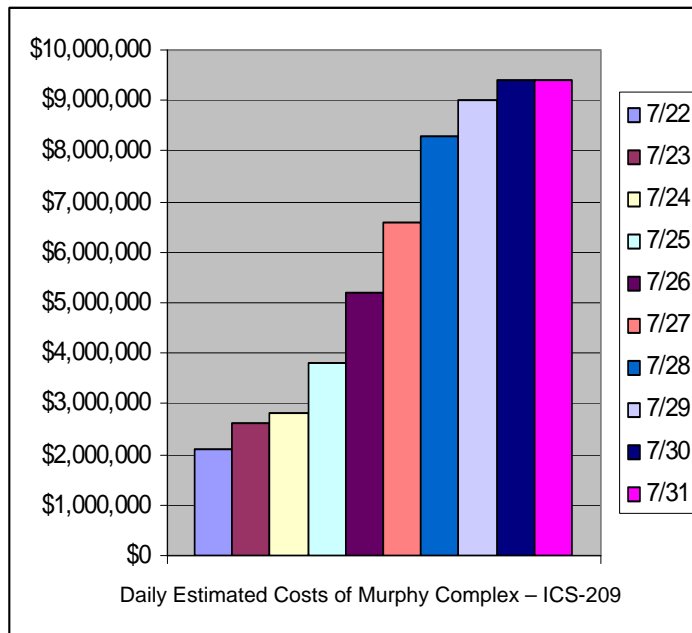
Social-Political Pressures:

Political pressures were present; such as immediate threats to livestock as well as grazing allotments that had been affected by wildland fire for the past two to three years. In addition, threats to critical training resources at Mountain Home Air Force Base which could hamper national security required immediate attention. Dignitaries such as Idaho Governor, Butch Otter and Nevada Governor Jim Gibbons; Senators Craig, Crapo and Reid; BLM Deputy Director, Henri Bisson, and Interior Secretary Kempthorne visited the area. During the Murphy Complex fire, a public meeting was held on July 23, and a follow up open house meeting discussing preliminary rehabilitation plans was held August 15, 2007.

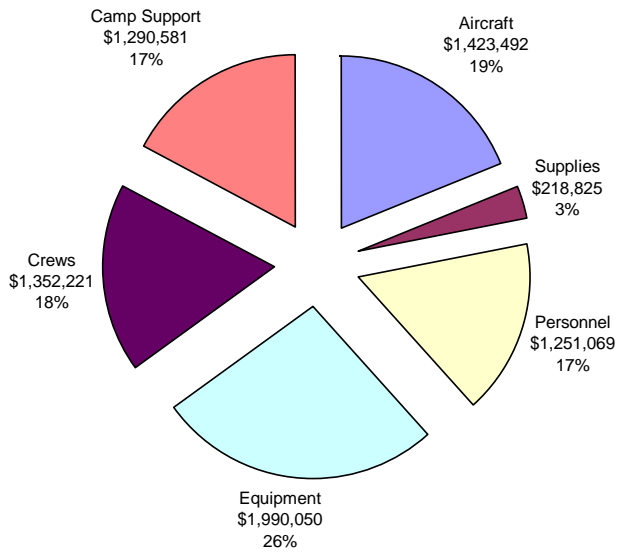
Additional Priorities Included: Protection of the communities of Jarbidge and Murphy Hot Springs which had been evacuated on July 19, protection of essential military assets at Juniper Butte and Saylor Creek Air Force Ranges associated with Mountain Home Air Force Base, and protection of cattle, sheep, grazing allotments and ranches. Mountain Home Air Force Base typically provides initial fire protection for essential assets at Juniper Butte and Saylor Creek Air Force Ranges; however, due to the complexity and speed of this fire, additional resources were necessary to protect these national security areas where over \$100,000,000 in facilities were at risk. Threats to these important military training areas increased this fire to the number 1 priority nationally.

Financial Costs:

Estimated fire costs are shown on the following charts and graphs:

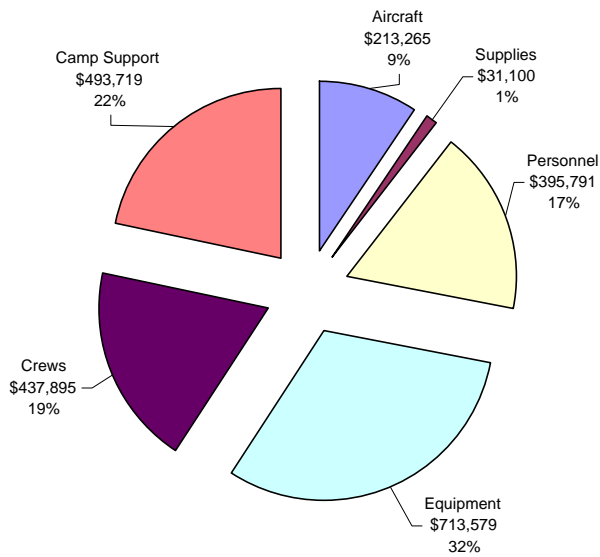


Murphy Complex Castleford Zone



Estimated Costs as of 07/31/2007 - \$7,526,000

Murphy Complex Wild Horse Zone



Estimated Costs 24 July – 29 July 2007 - \$2,285,349

Findings and Recommendations:

Finding 1: Delegations of Authority

The importance of cost containment, addressing cost saving measures, and/or assignment of Incident Business Advisors were not accurately reflected in the Delegations of Authority.

Recommendations: Include appropriate direction in future Delegations of Authority to require emphasis on cost containment. (Interagency Standards for Fire and Fire Aviations Operations, Chapter 2.)

Finding 2: WFSAs

The extraordinarily expensive and critical military assets are not identified in the Jarbidge Field Office Fire Management Plan and although these resources were identified in the WFSAs, the importance was overlooked as a major threatened value.

Recommendations: Address critical military assets in the FMP and emphasize in future WFSAs, where appropriate. In secondary WFSAs, identify the changes that caused creating new versions.

Finding 3: Cost Saving Measures

Verbal discussions regarding costs occurred amongst the teams and units. Costs saving measures were minimally addressed in the delegation of authority(s) and not at all in those that Area Command issued. There was a lack of documentation to support significant cost savers or drivers. This was a missed opportunity to express cost-saving actions.

Recommendations: Require at a minimum, that IMTs and AC identify in writing their significant cost savers or drivers. This could be shared with others as potential cost saving measures. Also include in the narrative, documentation on political, social and policy impacts affecting costs.

Finding 4: Business Practices

Currently there is a lack of consistency with regards to business practices, i.e., ISUITE/COST and fire codes. This lack of consistency creates confusion and the inability to properly track costs i.e., cost share, trespass, and fire planning.

Recommendations: Nationally there is a need to establish consistent interagency business practices to ensure data is reported accurately. Fire codes that move to fire complexes need to include dates to ensure the full cost of the complex and pre-complex fires are accounted for.

Finding 5: Initial Attack Impacts

Both IMT's provided Initial Attack (IA) support as part of their delegation of authority. This responsibility required resources, primarily engines and crews. There was an inherent cost associated with those resources tied to the Complex which may or may not be appropriate under the cost share and does not accurately reflect the true cost of the incident.

Recommendations: When IMT's are required to provide IA support, those costs should be tracked separately of the fire. There should be interagency guidance on how that should be charged.

Finding 6: Tracking Resources in Transition

A Cost Apportionment Team (CAT) was ordered to complete a cost share agreement. During the review, the issue of unassigned resources emerged. It appears that large numbers of engines, dozers and crews were assigned to the fire without line assignment based on ICS-211s and Incident Action Plans (IAPs). Castleford Zone IMT placed heavy orders to staff the entire Murphy Complex which had to come from all over the country and were slow to arrive. The fire continued to grow and the decision was made to zone the Murphy Complex with the southern zone being supported by Elko Dispatch. CIIMT#2 was reassigned from the Nevada Red House Complex to manage the southern Wild Horse Zone of the Murphy Complex. Resources from Red House were brought to Wild Horse; however, through transition it was unclear to CIIMT#1 which resources were being reassigned. Elko also reassigned the resources from the Mendive Fire.

The day CIIMT#2 went into place was the day the bulk of the outstanding Murphy Complex resources arrived, and an unprecedented rain event occurred. These en route resources were essentially excess when they arrived. Due to the massive number of resources to be released and/or reassigned they were held on the Murphy Complex and unassigned for at least two days.

Lack of close coordination regarding these resources caused missed opportunities for re-assigning critically short resources to other incidents and added unnecessary costs to the complex. It also complicated the effort to develop a clean cost share agreement (See Finding #7).

Duplicative resources ordered by the Castleford Zone for the Wild Horse Zone and not cancelled or redirected to other assignments charged an estimated five days time (2 days travel en route, 1 day at incident and targeted for demobe, and 2 days return) for about 26 engines, 4 dozers, 12 water tenders, and 14 crews cost approximately \$1,024,000.

Recommendation: This recommendation reinforces recommendation #8, regarding single ordering points, teams and units need to carefully plan for transition. This includes considering opportunities for cost savings regarding reporting locations, check-in and tracking needs, logistical support, and cost accounting. Area Command should facilitate the collaboration of this plan with the host unit, dispatch center, GACCs, and IMTs in advance of implementation. This fire transitioned from two Type 3 incidents to one Type 1 complex, joined Area Command, split into two zones and added a third incident. Later it transitioned back to two local Types 3/4 incidents. Since this was also a cost share complex, forethought to appropriate apportionment must be considered. There may be milestones where changing job codes would be helpful.

Finding 7: Lack of Cost Share Agreement

A cost share agreement has not been completed. The need for a cost share was discussed throughout the incident. Standard protocol for the development of cost share agreements under the Nevada Cooperative Fire Protection Agreement (CFPA) is acreage burned. At the onset of the incident it was the intent of the agencies to develop a cost share based on the NV CFPA. As the fire grew in complexity; Scott Fire merged from the Winecup Complex into the Murphy Complex it was apparent to Area Command that the standard cost share agreement using acres burned would not be suitable for the basis of this cost share agreement. A decision was made to order a Cost Apportionment Team (CAT). CAT teams are primarily found in California, and due to the amount of activity and prior commitments, the CAT did not arrive on the Murphy Complex until the IMTs demobed. The CAT team utilized corrected IAPs, ICS-211, resource orders, and other available documentation from the two IMTs. After four days of research and data collection it was determined

that a cost share agreement could not be completed using the cost apportionment process. Based on resource orders and IAPs, it appeared that there were upwards of 100+ tactical resources without assignments for 2-4 days. Based on the cost apportionment process of determining tactical efforts this would not allow the completion of the cost share agreement. The affected agencies agreed that they would meet at a later date to complete a cost share agreement after further research and negotiations.

Upon completion of the large fire cost review it was determined that the resources were unassigned due to their extensive travel time (taking up to two days or more), unexpected improvement in weather and the mobilization of a second IMT from Nevada who had the opportunity to bring with them the resources from their recent incident. Once resources arrived and work-rest requirements were met, all excess resources were identified and placed in the demobilization process (24 to 48 hours) for immediate reassignment to other incidents. See Finding #6.

Recommendations: Complete the cost share based on findings from the large fire cost review and the data provided by the CAT. The mobilization costs of the “unassigned resources” should be part of the cost share under the final percentage but should not be considered under the calculations for actual tactical effort. Interagency training on the development of solid cost shares should be provided. This should include a wide range of examples and opportunities to include acres burned, and actual effort. In conjunction with training, examples and templates should be placed on a website.

Finding 8: Multiple Geographic Area Coordination Centers (GACC) & Dispatch Centers

Numerous challenges and issues were identified involving two GACCs and two Dispatch Centers with expanded dispatch and buying teams. This resulted in extensive contacts to assure accurate and timely information flow. It potentially duplicated efforts on some issues, dedicated two buying teams (a critical resource) and resulted in demobe/reassignment problems.

Recommendations: Establish one central point up front as the incident moves to this level. Reference direction for support to border fires in Chapter 20, section 21.2.1 of the National Interagency Mobilization Guide.

Finding 9: Service and Supply Plans

This issue is not unique to this incident. Service and Supply Plans are a critical resource for dispatch centers and buying teams to effectively and efficiently mobilize resources, both tactical and logistical. The existing Service and Supply Plan were developed on a different Forest with a focus on the vendors in their particular area. The local vendors are not utilized to the fullest capacity, impacting operational tactics, mobilization costs, and results in social-political impacts. Two examples pertaining to the Murphy Complex involved rental vehicles and fuel tenders which may have impacted the IMT's ability to place tactical resources on the line.

Recommendations: The agencies within the dispatch area should coordinate closely with the assigned procurement zones (clusters) for updating the service and supply plan to include vendors and emerging needs within the dispatch area of responsibility. This can be accomplished by interagency participation in the development of Emergency Equipment Rental Agreements, and a local vendor fair in early spring/late winter after the Rocky Basin Chapter 20 Supplement to the Interagency Incident Business Management Handbook is completed.

Finding 10: Communication Issues

A number of communication deficiencies were identified during the review. Adequate communication during the initial and extended phases of the fires, especially on the Rowland fire, led to insufficient, untimely and inadequate decision making information that significantly affected the deployment of resources. The radio system on the district was extremely overloaded due to multiple fires with traffic, including heavy aircraft traffic on the command frequency. The Rowland fire started in a remote area of Northern Nevada where cellular phone service was non-existent. Due to commercial satellite phone issues, those phones were highly unreliable. Radio systems were marginal due to terrain and distances, and numerous black-holes existed. IC interviews indicated that due to distance, establishing communication on the south end of the fire was extremely difficult and presented a major safety issue.

Recommendations: In order to provide for safe effective communications it is recommended that the unit establish a frequency management plan to address communication zones with frequencies dedicated to those zones. Developing zones with dedicated frequencies would alleviate pressure on the main frequency. It is also highly recommended that a dedicated local flight following frequency be assigned which would alleviate pressure, free up air time for non-aviation resources and assure most all radio transmissions are captured. Providing for better repeater link(s) in limited areas of the southern end of the dispatch area is critical.

Conclusions:

The Cost Containment Review Team found that the line officers and fire management personnel assigned to the Murphy Complex implemented cost-effective and appropriate tactics and strategies based on the values at risk, fire behavior, and safety considerations. Most of the Teams findings and recommendations can be easily implemented by the IMT and local units. There are some findings and recommendations which would require consideration at the BLM State Office or National Office level.

Commendations:

- The safety record throughout was impressive. Safe operations were priority one throughout the incident.
- Incident was managed in compliance with work-rest policy, with excessive shift lengths approved by the IC, mitigated, and documented.
- Area Command established and maintained clear and frequent communications across the board.
- The District faced intense public and political scrutiny in a professional and courteous manner.
- Initial attack forces, Agency Administrators and the IMT demonstrated that their decisions were thoughtfully planned and professionally executed.
- The IMT recognized limited resources available to the incident and utilized these resources to maximize efficiencies and effectiveness (i.e., spike camps).
- There was good cooperation and coordination from local law enforcement in implementing and maintaining evacuations and road closures.

Review Team:

Rosemary Thomas, BLM Boise District, Four Rivers Field Office Manager (Team Lead)
Carol Salo, BLM, Idaho State Office Incident Business Specialist (Finance Expert)
Julie Campbell, U.S. Forest Service, Region 4, Assistant Regional Fire Planner (Incident Business Expert)
Bob Mallett, BLM, Idaho Falls Assistant Fire Management Officer (IMT Expert)

Documents Reviewed:

- Delegations of Authority
- WFSAs
- Resource Management Plans
- Fire Management Plan
- Incident Action Plans
- Incident Status Summaries (209s)
- Cost Data and Associated Worksheets
- Resource Orders
- Murphy Complex Narratives
- Maps

Interviewees: Available upon request

Attachments:

1. Chronology of Events and Actions Taken

Attachment 1 – Chronology of Events and Actions Taken

Date	Fire Name	Team	Comments/Actions
7/16	Rowland – BLM Idaho	IA-Gonzales	Great Basin smokejumpers assigned – originally thought 300 acres turned out to be approximately 8,000. Difficult terrain and remote location.
7/16	Scott Creek – BLM Nevada	T-1 Broyles	Fire start in Nevada managed as part of the Winecup Complex – merged to Murphy Complex 7/26.
7/17	Elk Mountain and Rowland	T-3 Loucks & T-3 Haxby	Major wind event – limited resources; large fire growth experienced. (Elk Mountain /15,000 acres - Rowland/25,000 acres)
7/18	Elk Mountain and Rowland	T-3 Loucks & T-3 Haxby	Continued growth. Discussed requesting IMT. (Elk Mountain/ 25,000 acres – Rowland/85,000 acres)
7/19		CIIMT#1 Hawkins	CIIMT#1 – Hawkins was ordered for the Murphy Complex. (Elk Mountain/160,000 acres – Rowland/180,000 acres)
7/20		CIIMT#1 Hawkins	In-briefing held. (Elk Mountain/205,000 acres – Rowland/180,000 acres)
7/20	Elk Mountain and Rowland		Rowland fire burned into the Elk Mountain Fire to form a single 511,000 acre fire – 10% contained.
7/21		Area Command Jim Loach	Delegation of Authority from NDF, USFS, BLM (Elko and Twin Falls) to Jim Loach, Area Command for Winecup, Red House, Hepworth and Murphy.
7/21		CIIMT#1 Hawkins	Shadowing and preparation for transition, identification of threatened military assets.
7/22	Murphy Complex (Elk Mountain and Rowland)	CIIMT#1 Hawkins	Assumed command at 0600 (567,721 acres 15% contained).
7/23			Became #1 priority nationally; outstanding orders were filled based on priority. (562,278 acres 20% contained)
7/25			Murphy Complex split into two zones (Wild Horse and Castleford). CIMT#2 Molumby ordered for Wild Horse (to transfer from Red House).
7/25	Scott Creek	CIIMT#1 Hawkins	The fire, part of the Winecup Complex, was so near the Murphy Complex that safe aviation operations could not be assured. To balance workloads and mitigate aviation safety issues, management was transferred to the Murphy Complex-Castleford Zone. This 58,000 addition and the acres burned by the main fire in the Humboldt-Toiyabe National Forest triggered revision of the WFSA. A 2 nd WFSA was developed and signed on 7/30. (659,131 acres 37% contained)
7/26	Murphy Complex Castleford Zone	CIIMT#1 Hawkins	Team focus on staffing Scott Creek Fire and lower end of the original Elk Mountain Fire.
7/26	Murphy Complex Wild Horse Zone	CIIMT#2 Molumby	Team mobilized to Wild Horse Reservoir in NV to manage southern zone (preserving grazing lands, protecting structures, restoring power to Mountain City and Duck Valley Indian Reservation). 220,682 acres – 17% contained
7/26			Maximum staffing and outstanding orders filled by out of area resources and arrived at Castleford. This coincided with significant precipitation over portions of the fire, speeding containment. (659,993 acres 70% contained)
7/27			Demobilization of engines began. (652,459 acres 80% contained).
7/29			Demobilization of crews. (653,100 acres – 98% contained)
7/30		Ryan Berlin	A Type 3 organization was formulated by CIIMT #1 which was scheduled to assume command at 1800. (431,774 acres for Castleford with 58,481 acres included from the Scott Creek Fire. Wild Horse Zone = 221,326 acres). Nevada organized a type 3 organization for the Wild Horse zone.
			Demobe and outbrief of Hawkins, Molumby and AC.