ORGANIZATIONAL LEARNING
"LESSONS LEARNED" ANALYSIS OPTIONS

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The wildland fire environment is a constantly changing and highly dynamic arena often filled with uncertainty and risk. Even under best conditions, serious accidents happen; in worst case scenarios – lives are lost. Consequently, Serious Accident Investigations (SAI) are conducted. SAI's are initiated by policy and when certain criteria thresholds are met and or exceeded. Most importantly, SAI are conducted for learning. Finding causal factors, addressing outcomes and findings, and implementing mitigation measures and recommendations are essential for preventing similar occurrences in the future. The SAI is an invaluable learning tool; unfortunately when it is used it is because of dire consequences. Fortunately, a SAI is not always needed to extract "learning."

During the evolution of fire suppression Doctrine, the Fire Operations Safety Council recognized that far more opportunities for organizational learning exist, with less dire consequences that also presented key opportunities for valuable learning. Beginning in 2004, members of the council took on the challenge of facilitating lessons learned from near-miss incidents. Under Doctrinal intent, the Agency began experimenting and evolving its methods to approach near-miss incidents as learning events - events that could foster an even greater and more highly resilient learning organization. Spanning the gap between the more formal SAI approach and the less formal After Action Review (AAR) review, the agency experimented with facilitative methods to look at accidents in which the outcomes presented a new approach to extract knowledge. Because these incidents involved people who survived and were willing to tell what happened from non-punitive and very personal perspectives, the lessons learned were not only immediate, but were able to address conditions others could face under similar conditions. Out of these efforts, initially referred to as "peer reviews" came the "Facilitated learning Analysis and the "accident Prevention Analysis". These innovative tools are now in use. They not only help promote a learning culture, but serve to support positive behavioral change as well as guide self development skills. Recognizing that there are many more lessons to be learned, and opportunities in which to do so, this guide has been written to introduce agency administrators, line officers, and key decision makers to other lessons learned analysis tools now available.

Although the FLA and APA near-miss analysis tools are still relatively new to the wildland fire community, they have long standing roots with other risk management organizations. And though both the FLA and APA analyses processes are proving to be meaningful and effective tools for promoting individual and organizational learning, they do not override or super-cede existing policy and/or criteria for conducting serious accident and fatality investigations that require a Serious Accident Investigation.

This document provides guidance on the options available for decision-makers to initiate and process a FLA or APA. The diagrams, table, and sample Delegation of Authority (DOA) documents are designed for providing information that line officers, agency administrators, and decision-makers will need in the event they experience a mis-hap that can be addressed by an FLA or APA. . Every decision-maker should become familiar with this guide, the options presented should they experience a serious near-miss incident with high learning value within their jurisdictional purview.

Benefits of APA / FLA:

- Promotes learning options and improvements that fosters a high-reliability organizational learning culture
- Eliminates cultural barriers that inhibit learning from mistakes or error
- Helps re-instill trust, promotes open dialogue, listening and mutual respect for participants
- Bridges current learning gaps between "AAR" and the Serious Accident Investigation
- Provides for "ownership" of the lessons learned; incorporates organizational knowledge
- Is adaptable for changes and refinement.

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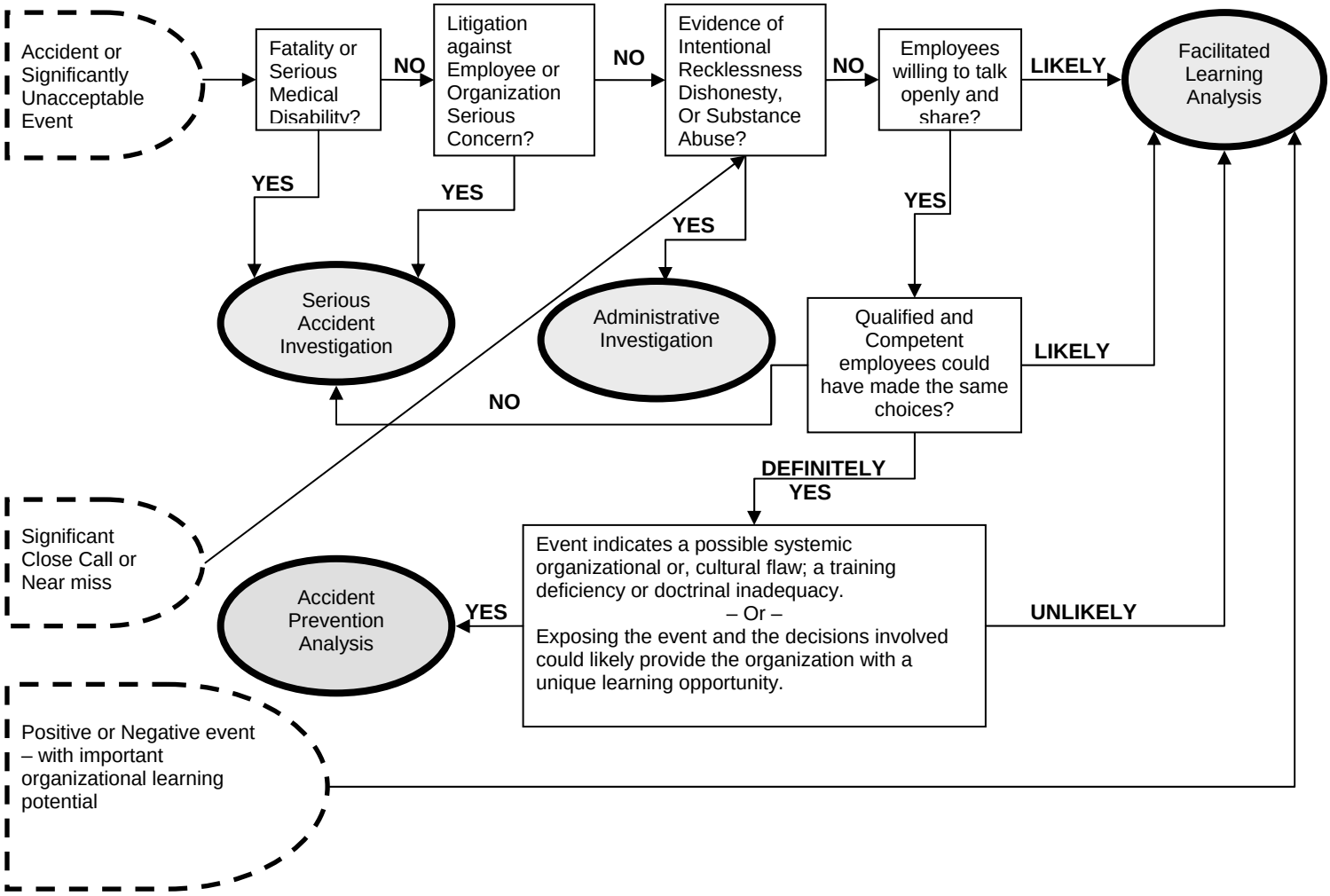
DECISION AIDS FOR AGENCY ADMINISTRATORS
FOR SELECTING LEARNING ANALYSIS OPTIONS

The following 'Decision Aid', provided by the USFS Fire Operations Risk Management Council is designed to assist with guiding Agency Administrators in choosing a post-event investigation / analysis option.



The diagram above serves to illustrate how an APA and a FLA fit into the spectrum of review options available to Agency Administrators for reviewing significant unintended outcomes.

Comparison Table of Review Methodologies

Between "AAR" and "SAI"

Choosing an Appropriate Analysis Tool for Learning from Success or Failure

OPTION:	After Action Review "AAR"	Facilitated Learning Analysis "FLA"	Accident Prevention Analysis "APA"	Serious Accident Investigation "SAI"
Focus of process:	Continuous Improvement at the single unit level; informal and self directed. Initiated by crew, or Incident Management Team)	Employee Learning The process dissects an event and demonstrates to employees both what they should learn from the event and how they should similarly learn from subsequent events.	Organizational Learning and Effective Accountability The process identifies the cultural and organizational faults that enabled the accident to occur and any latent factors that may contribute to subsequent accidents if not corrected.	Managerial Understanding & Awareness The process identifies causal and contributing factors that can be corrected to prevent future similar accidents.
Near-Miss Incident Complexity	Any event, positive or negative; ranging up to non-reportable Accident or Event			
Human error and At-risk behavior:	Is viewed as normal and correctable through feedback provided by members of the unit.	Is viewed as normal. Errors and their consequence are viewed as opportunities to gain insights in improving individual and group performance and organizational resiliency.	Is viewed as inevitable and inherent to the human condition and must be managed as a component of system safety. Accidents that result from human error are therefore an indication of an unsafe system. Accidents resulting from human error and at-risk behaviors are viewed	Is viewed as either a causal or contributing factor to the accident.

			as consequences of cultural and organizational failures. Significant attention is given to at-risk behaviors that are intentional rule violations.	

	After Action Review	Facilitated Learning Analysis	Accident Prevention Analysis	Serious Accident Investigation
Intent of report:	**Reinforces success or corrects deficiencies in performance.** **HOWEVER Written report is not required or completed. Feedback is verbal and changes can be implemented immediately.**	**Report is optional but highly recommended to track learning.** **If a report is written and distributed, its intent is to show how employees can and should continuously learn from similar events.**	**Promotes a learning culture and exposes flaws in agency safety programs.** **1. Identify latent flaws within organizations that enable unintended outcomes.** **2. Display achievable recommendations to address latent organizational flaws (i.e., the causal factors).** **3. Chronicles the accident in a way that facilitates widespread learning for employees engaged in similar work.**	**Prevent similar accidents and defend the agency in litigation.** **1. Determine causal and contributing factors.** **2. Provide foundation for accident prevention action plan to address, mitigate or eliminate the identified causal factors.**
Report format:	**Not applicable.**	**If documented, the report is generally a brief description of the event and a summary of what those involved learned from the accident.** **Report is intended to share the lessons learned.** **Reports describes event, tiers to intent, and can offer recommendations.**	**1. Displays what those involved learned for themselves and shares their recommendations of what the organization can learn from the accident.** **2. The accident narrative is a factual account of the accident as told from the perspective of those directly involved. The accident is described using professional storytelling**	**1. A factual and chronological display of the events, decisions and errors that caused the accident.** 2. **Includes factual section and management evaluation section**

			techniques to facilitate widespread organizational learning. **3. The Lessons Learned Analysis is an expert analysis of the accident and the causal factors** 4. **The recommendations address changes needed in training, controls, organizational structure and culture, supervision, and accountability.**	

	After Action Review	Facilitated Learning Analysis	Accident Prevention Analysis	Serious Accident Investigation
Witness statements:		**Statements are given in a group-debriefing atmosphere and employees talk based on their willingness to share their perspectives and lessons learned.**	**Witnesses are assured that their statements are administratively confidential. They are also advised that if anyone volunteers information that indicates there was a reckless and willful disregard for human safety (see definition) the Agency Administrator will be advised there is cause for an independent administrative review.** **Witnesses are interviewed generally individually but are not requested to sign statements or have their statements recorded. Key witnesses proofread the narrative for accuracy prior to publication.** **"Privilege" is not desired in conjunction with this process as it could hinder full disclosure of all pertinent facts.**	**Witnesses may be asked to provide signed, written statements to investigation team. Frequently these statements are recorded.** **If anyone volunteers information indicating a reckless and willful disregard for human safety, that information may be passed on to the appropriate Agency Administrator.** **Agency ability to grant "privilege" to witnesses is currently being sought.**
Policy Requirement	**AARs are a "best practice" for continuous improvement**	**FLAs a "best practice" for continuous improvement**	**Meets the requirements of an accident investigation.**	**Meets the requirements of an accident investigation**

It should be noted that there are many similarities (and differences) between SAIs and APAs, but the shared implicit intent is "learning" and "how" it gets accomplished. For example, the process used to investigate human, equipment and environmental factors is identical in both processes. In addition, individual APA Team members may have almost identical roles and duties to their counterparts on a Serious Accident investigation team (e.g., Team Leader position); however learning intent and process is what differs – as well as policy direction.

Sample “Delegation of Authorities” for FLA & APA Options

FLA

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Sample "Delegation of Authority" for use of APA Option

EXAMPLE DELEGATION OF AUTHORITY

File code: 6730 Date:
Route to:

Subject: Delegation of Authority

To: (Accident Prevention Analysis Team Leader)

This memorandum formalizes your appointment as team leader of the Accident Prevention Analysis Team formed to investigate, analyze and report on the (accident name, location). As team leader, you have the full authority of my office to execute and complete a thorough Accident Prevention Analysis. To the extent reasonable, follow the procedures displayed in the Accident Prevention Analysis Guide. You are scheduled to in-brief with my staff and me on ___ (date and location) _____.

_____ will be your logistical coordinator and my liaison to you. Please contact him/her at phone number _____ to discuss your logistical support needs.

You are expected to produce the 72-hour briefing report and the final report within 45 calendar days. An extension may be granted based on valid justification.

You are also expected to contact me personally and immediately if you uncover acts you believe constitute a reckless and willful disregard for human safety or involve criminal misconduct. Upon your advice, I will initiate an administrative investigation and may terminate your investigation. I respect that the information you collected from interviews will remain confidential. Otherwise, I will contact you periodically for an update on your progress.

Your authority includes, but is not limited to:

- Controlling, organizing, managing, and directing the investigation.
- Controlling, and managing the confidentiality of the process.
- Protecting and managing the integrity of evidence collected.
- Authorizing and requesting additional personnel, including technical specialists, to support the APA Team, and releasing them upon completion of assigned duties.
- Authorizing and coordinating the expenditure funds.

- Coordinating all media releases about the investigation.
- Issuance of Safety Alerts, if warranted, in coordination with _____ the Regional Safety Manager, cell number: _____.

All travel; equipment and salary costs related to this investigation should be charged to ___ (job code) ___ with an override code of _____.

For additional information, please contact me at phone: _____.

/s/_____
Agency Administrator

OPTIONAL TEXT: DELETE AT END

In 2004, the Forest Service Risk Management Council, began looking at methods to expound on potential near-miss incidents as opportunities to extract lessons learned from what could have been serious incidents with potential peer review" of a near-miss incident was conducted in 2006. The "*Balls Canyon Peer Review"* chronicled a serious, near-miss incident with potential for severe injury and lethal consequences. However, due to the involved firefighters' deployment of fire shelters– no one was killed or seriously injured. Both the "peer review" of the Balls Canyon incident, as well as similarly conducted reviews of other near-miss incidents that had occurred during this timeframe, convinced members of the Forest Service Risk Management Council that there needed to be learning tools readily available to extract insights and valuable lessons learned from these type of events. From the initial "peer review" process evolved two new tools – the FLA and the APA. Realizing that near-miss incidents can happen at any given moment, this doctrine based approaches to organizational learning was used in 2007.

Recognizing that each near-miss differs in its complexity, scope, and outcomes, the USFS Risk Management Council further refined the "peer review" approach. Recognizing that a "learning opportunity gap" existed between the less formal, localized, and often private conducted After Action Reviews (AAR) and the more policy-driven Serious Accident Investigation (SAI) process, the Risk Management Council further refined its evolving lessons learned analyses processes to better meet the scope and complexity of future near-misses. These refinements are recognized today as a "Facilitated Learning Analysis" (FLA) and an "Accident Prevention Analysis" (APA). Both of these analysis processes, which also serve as organizational learning tools, are available today for Line Officers, and Agency Administrators to use when near-misses occur that merit an objective analysis. The lessons learned from the use of these tools contribute to extracting significant lessons learned as well as recommendations and insights for fixing both systemic and organizational faults. They also help involved individuals to process their experiences in an open, trusted and non-blaming atmosphere; often leading to increased individual learning and decision-making capacities. Objectively reviewing near-miss incidents from a "learning" perspective rather than a "blaming perspective" enables our agency to meet doctrinal and cultural objectives as well as filling learning opportunity gaps.