

Just Environment: Command Climate, Leadership, and Error

Forest Service Fire and Aviation Management: Becoming a Learning Culture

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More than five years ago, the US Forest Service formally adopted a doctrinal approach in wildfire management. For the Forest Service, Doctrine is the body of principles that form the foundation of judgment, action, decisions, and behavior in fighting wildfire. Doctrine is authoritative but flexible, definitive enough to guide operations, yet adaptable enough to address diverse and varied situations full of risk.

The wildfire environment cannot be made risk free; traditional safety programs do not fit, because risk is ubiquitous in wildfire management. A traditional *safety culture* asserts that danger can be eliminated; consequently, unintended outcomes are human errors or someone's fault. Traditional safety programs help create an environment in which employees fear honest disclosure of actions that may or may not have caused unintended outcomes or accidents. Unfortunately, the organization cannot learn from what is not shared.

In order to operate in a doctrinal approach in the wildfire environment, to learn from unintended outcomes and move continually toward safer outcomes, firefighters and management must operate within a *just culture*. In a *just culture*, open dialogue between firefighters and managers is nurtured and protected. Managers continually guard the safe exchange of information. In a *just culture*, employees are protected from the consequences of honest dialogue, and they know they are protected. Honest dialogue is critical for management's accurate understanding of conditions firefighters face. Managers need that information to assess and manage risks faced by firefighters. The open dialogue of a *just culture* in the face of unintended outcomes is the lifeblood of a continually learning, error-resilient organization. Dialogue in a *just culture* is open because it is safe.

Wildland firefighters work in an inherently unsafe environment that is variable and unpredictable and made more so by the possibility of human error. Human behavior, like wildfires, is also variable and somewhat unpredictable. In a traditional safety culture, accidents are often held to be the result of human error: someone is at fault. This perception can be exacerbated through the accident investigation process, which produces "findings" that carry the weight of objective truth or verdict, even though investigators arrive at findings outside the context of an accident, after a fire is over with full benefit of 20-20 hindsight.

A *just culture* does not regard unintended outcomes as crimes. Outside the assurance of a *just culture* environment, however, where there is fear of blame, honest dialogue that promotes learning ceases. Employees shut-down and lawyer-up motivated by fear of retribution and liability. Managers learn less about real risks on the ground; the management of those risks is hampered; and the likelihood of more unintended outcomes spirals up.

Wildland firefighters operate within the conflicting objectives of safety and production. They are expected to avoid unintended outcomes in a perilous environment with other firefighters who can also make mistakes, while they accomplish specific objectives on the fireline. To learn how unintended actions contributed to unintended outcomes, firefighters need to feel free to share how they made decisions and managed competing production and safety objectives that may or may not have resulted in failure or an accident.

Organizations can choose to foster a culture that assigns blame for accidents or a culture that learns from them; organizations can choose to imbed a learning culture even within high-risk operations. The wildland fire community has made the choice to become a learning culture, and has taken steps that are moving us toward the *just culture* that will guide our operations.

One tool toward that end is the Accident Prevention Analysis, or APA, developed to help extract lessons learned in order to prevent similar accidents in the future. APA is based on principles such as *just culture* and storytelling and is intended to gather lessons learned from participants actually involved in accidents and near-misses. APA seeks to eliminate hindsight bias commonly associated with traditional accident reviews and investigations. It is gaining traction as an effective tool for understanding why accidents occurred and the conditions that led up to them, rather than who caused the unintended outcome.

Facilitated Learning Analysis, or FLA, is another process designed to capitalize on shared experience during wildfire near-miss events. FLA is more structured than an after action review but less intense and formal than an APA or a serious accident investigation. During an FLA, a facilitator creates a “discussion space” in which participants can talk openly—not only about how and why the accident occurred, but about the underlying contributing factors. Dialogue is the key component.

In 2002, the interagency wildland fire community established the Lessons Learned Center (LLC) to serve as a clearing house and resource center for all wildland fire organizations. The LLC promotes safer work environments devoted to the inculcation of organizational learning in the high risk wildfire setting. The center focuses on high reliability organizing and creation of a learning-informed institutional memory for the entire wildland fire community through its training facilities and extensive library, document, and media resources. Through these efforts the wildland fire community is moving toward a *just culture* which attempts to balance the conflicting objectives of wildfire command and firefighting, the historic organizational climate, and ever-present human fallibility.