

HIGH RELIABILITY

Types and Status of High Reliability Practices in the US Federal Wildland Fire Community

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Since emerging in the late 1980s, the paradigm of High Reliability Organizing (HRO) has sought to describe how and why certain organizations consistently function safely under hazardous conditions. Researchers have explored a variety of industrial situations, from the early observations of nuclear aircraft carrier operations to nursing units and even high-tech IPOs. The bulk of this research has been descriptive rather than comparative or predictive. Still, or perhaps because of this, there has been a robust and enriching academic discussion through which the paradigm has been refined and new research needs articulated. Of particular interest for the international fire community seem to be the debates concerning how 'error' is viewed, and the implications for considering how to improve safety, reliability, resilience and/or human performance. These debates appear to be on the verge of illuminating how the concepts interconnect - practically and theoretically. Another key research agenda has focused on exploring the relationships between HRO and other human relations practices in an effort to understand how social dynamics underpin enumerated HRO practices (such as Weick and Sutcliffe's five principles: 'deference to expertise', 'reluctance to simplify', 'preoccupation with failure', 'sensitivity to operations' and 'commitment to resilience'), and the extent to which these practices are shared across industries.

To provide a benchmark for the US wildland fire community, and to further explore HRO theoretically, we conducted a telephone survey of permanent seasonal and permanent full-time employees filling fire-related positions in the US National Forest Service, Bureau of Land Management and National Park Service (validated n = 574). This presentation (one of two in this conference) focuses on the practical and theoretical implications of the behavioral practices we found. Specifically, results both challenge existing theory and illuminate connections between cornerstone values of the fire community, namely: leadership/followership, organizational learning and internal group dynamics.

Conditions Enabling Informal Learning for Incident Commanders

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What conditions increase resilience by enabling informal learning for incident commanders engaging in emergency events? Most of the time people are very successful in creating safety in the midst of uncertainty. There are many more learning opportunities in events where things could have gone very badly but did not because people intervened to protect other people, system processes and products. Their stories of effective adaptations to threats in the environment contain practices worth noting. Since the exact same series of events is unlikely to reoccur, even more important lessons lie in the conditions that enabled people to anticipate, maneuver, adjust and recombine their resources in resilient ways. Developing and continually enhancing capacities to create those conditions within individuals, teams and organizations are worth the expanded effort to learn from all of our activities, not only when things had bad outcomes. Rather than looking for what is wrong, it is much more interesting and useful to look for what is strong in a positive approach that will help ICs build on what is working well. What is wrong will still surface and not be ignored, but a strengths-based approach in this research project focuses instead on the unique knowledge, competencies, capabilities and resources ICs