

Honor the Fallen Essay Introduction

I'm the author of this essay, but it reflects two years of dialogue within a group called Honor the Fallen. Coalescing in the wake of the 2013 Yarnell Hill fire and loss of 19 members of the Granite Mountain Hotshots, HTF is a collection of roughly 30 "seekers" within the wildland fire community. Hose-draggers, fire directors, dirt diggers, academics, "Ollies", agency administrators, ICs, FMOs... a diverse cross section is an understatement. This essay benefits from their critical eyes and input.

What the group seeks is best explained by one of its founders:

"One of the few acts of free will that tragedy leaves within our control is the chance to grow. Our brothers have given us such a precious and hard won opportunity to learn new knowledge and apply lessons. We realize and seek to highlight that cultural and other human factors risks are just as profound and potentially deadly as physical risks on any incident.

The results WILL be repeated unchecked unless we commit to looking inside, to looking deeper at how we think, how we talk and how we perceive ourselves.

Our end state is that the group's efforts became a catalyst for continued cultural introspection into how human factors affect our decisions. The engagement generates a watershed event from the fire, having provoked thought, dialogue, questions and explorations in all corners of the wildland fire community. Yarnell Hill leads to a stronger, more self-aware and more resilient wildland fire culture.

Our effort was perceived as having rendered due honor and respect to the Granite Mountain Hotshots."

HTF is ready for this essay to be shared. But as another one of our members put it so well:

"...I can't help but feel that there is a conversation that needs to precede it. A conversation about our mission as suppression resources. Are we now in the business of intentionally risking lives to achieve wildland fire objectives? I ask because at least the [Agency] has never accepted that position before and maintains its stance on zero tolerance to this day. I understand that firefighters are going to die but there is a big difference between vehicle accidents and entrapments."

This essay takes the position that, by default, and for many reasons, risking lives to achieve wildland fire objectives is exactly what is happening. The debate on whether that is what **should** be happening is stifled by the denial that it's happening right now.

If the calculus is going to change, then wildland agencies are going to have to decide how to reconcile the expectations of taxpayers and their elected representatives with agency culture on acceptable risk.

Right now this disconnect between reality and action is analogous to Social Security. Everyone knows it is unsustainable, everyone knows what is going to happen if nothing is done. Everyone knows it's going to be really bad. Yet we demonstrate a complete lack of collective will to tackle the elephant in the room. Slight adjustments and tweaks are made that have almost no perceptible impact because they nibble around the edges of symptoms. The causes at the core remain unchallenged.

The Big Lie

18.6 - Truth and Culture in a High Risk Environment

I was 18 years old and "chuted up". Waiting for my first jump with my new unit after completing airborne school. Sitting on the drop zone waiting to board the helicopter, I watched two of my fellow Ranger candidates steer their parachutes into each other and become entangled. At 300 feet both their canopies collapsed and they plummeted to earth. Both suffered permanent serious disability.

As soon as the ambulance was away, one of the NCOs, our jumpmaster, walked back over. "All right Rangers, next stick. Load up!" As we were getting seated in the helo he said in a calm even voice "The smallest mistake will kill you and your buddies. Now you know why we train the way we do."

Some joined for adventure. For college money. For a job. But we were all told from Day One how dangerous our new world was going to be. It had not taken long for the concept to become visceral. There were no illusions about the path we had chosen. From that moment on, death and injury were going to be a normal part of my life.

A state fire chief I greatly respect recently asked, "Why are families so surprised or feel betrayed when their kids die fighting wildfires?"

I believe the answer to that is because of the Big Lie. The lie that wildland firefighting is safe. Young firefighters and their families are told that they have a "right" to a safe work environment. It is explicit in the Interagency Standards for Fire and Aviation Operations "*Every individual has the right to turn down unsafe assignments.*"¹

The lie is so insidious that it permeates the thinking of many fire managers and agency administrators to the point of denial, despite a steady flow of coffins standing as evidence to the contrary.

During my service, from the disastrous attempt to rescue hostages in Iran in 1980 to just before 9/11, over 550 members of the U.S. military special operations community were killed during training or operations.² That's an average loss rate of about 26 a year out of a population of about 46,000.

During a recent trip to the wildland firefighter memorial in Boise, I counted the names of those firefighters whose markers stated they died on a fire. I only counted those who died in 2000 or later. My count was 182. The actual count - through 2013 - according to the National Interagency Fire Center is 261.³ Considerably higher than mine.

From 2000 through 2013, an average of 18.6 ground and aerial wildland firefighters died doing normal business on fires each year. In 12 of 14 years that number was well into double digits. In 2013, it was 34.

I am always challenged during discussions about risk during classes and presentations to wildland audiences. "We're different than the military. We do not have acceptable losses."⁴

"It appears you do," I respond. "It's almost 19 a year and for the most part the cultural fundamentals of trying to fight fire on the cheap with a seasonal militia based model are unchanged."

Is it surprising when a highway patrol officer is killed in an accident or shooting? Are we shocked when a structural firefighter is caught in a roof collapse? When a ship is lost at sea in a big storm? My Mom would have been distraught had I been killed, but she wouldn't have been surprised.

The truth is that wildland firefighting, like any realm in which people, machines and extreme natural forces collide, is inherently dangerous. One in which a seemingly small error, even being at the wrong time and place, can get people hurt or killed. How long do we try to "vector to zero" before admitting the data is telling us there is no such thing?

Merriam Webster has a pretty simple definition of safe: "*Free from harm or risk.*" ⁵

It seems unrealistic one could be working on or above the fire ground and be free from risk. Here's the interagency standards' definition of safety: "*A measure of the degree of freedom from risk or conditions that can cause death, physical harm, or equipment or property damage.*" ⁶

The big lie turned "*Free from risk*" into "*A measurement of the degree of freedom from risk*". How does that measurement appear on a wildland 215A? Or discussion around "acceptable risk" in a WFSS document or IAP? The point of origin of the Big Lie. If interagency policy defines safety as a measurement of something that never gets measured... how can that mean anything?

The essence of risk analysis is that after risks are mitigated, you make decisions based on the acceptability of the residual risk. That too is interagency policy. ⁷ But it is not supported in practice. There is no column for that on a wildland 215A, as there is on other versions, such as the Coast Guard's. I've not seen a 204 that quantifies residual risk for crews (i.e. this is a medium risk operation). The vast majority of administrators, fire managers and incident leaders I meet simply do not know how to do it.

If the definition of safety is meaningless, and in contravention of its true nature, so too will be all the policies, rules and checklists that flow from it. The garbage in, garbage out effect.

Following progress down the left and right flanks of the Big Lie, the confusion magnifies. Platitudes like "the 10 and 18. We don't bend 'em, we don't break 'em", or "firefighter and public safety is your number one objective" – Actually, those are priorities not objectives. And - they are two completely different priorities. Often you have to risk more with one in order to lessen the risk to the other.

If real risk assessments - using the two axis, probability/severity model - were done in a tactics meeting on a typical wildland fire, here's what we'd find. That most firefighters are routinely operating in medium or high risk conditions.

I often ask groups what they feel the risk level is on a typical fire assignment. The overwhelming majority say low, some say medium. This is shocking to me. There is nothing low risk about a 19 year old hotshot driving an ATV loaded with fuel mix down a mountain at dusk after being up and working for 12 hours. I would challenge anyone to do a proper risk assessment and get that below medium. A single engine air attack platform operating over a fire in severe turbulence is medium risk. I have done dozens of risk assessments for airborne operations and have never been able to get one of them under a risk level of high. This tells me every jumper is operating in high risk just to commute to work.

Nearly 19 firefighters a year are dying because they are operating, even after mitigation, in an inherently high risk environment. Not because they are just violating rules in a low risk environment.

I don't believe the Big Lie is the normalization of this reality. The Big Lie is in denial of it. It stands in opposition to the wildland fire leadership values of duty, respect and integrity.⁸

What actually gives me great hope is that, slowly, more and more leaders are abandoning the Big Lie in favor of the harsh truth that wildland firefighting is a very dangerous profession. The reality that people are going to get hurt and they are going to die.

Many leaders have admitted to me in private that they know this. Yet they fear its admission is a license to ignore risks or abandon hard won safety standards. "We can't admit we have acceptable losses!"

A colleague, retired Marine Lieutenant Colonel Eric Carlson, puts it best. "Oh no." he says, "We accept the *risk* of losses. There are no *acceptable* losses."⁹ That's the crux. Our loss of 550 special operators was not acceptable. Each loss compelled us to introspection and improvement. Just as that loss of 261 wildland firefighters has driven us to this discussion we're having now.

There is acceptable risk. There is no acceptable loss. But there will be losses. So where does that uncomfortable truth leave us?

Simply, with the sacred duty to keep that loss as low as *humanly* possible. With the obligation to tell the truth to our firefighters and families about the world they've become a part of. Of the risks they will face. With making imperfect decisions using the best art and science possible. With redeeming the values of duty, respect and integrity.

There are many aspects to that challenge of what needs to be overcome and how, but all start with foundational culture. What aspects of current culture can we attribute to the Big Lie?

The Big Lie fails to acknowledge that it is impossible to "obey" the 10 standard firefighting orders to the letter on the best day. Do you truly know where your firefighters are at all times? Do you really have communications at all times? Therefore on the worst day, when a bad outcome occurs, you have automatically violated these yes or no "rules" and are therefore guilty. This is a lawyer's dream.

Senior leaders have begun to address this by calling the 10 & 18 guidelines and not policy, but these steps have been tentative and only partially implemented.

The Big Lie has begot a zero defect mentality whose main goal is not making any mistakes. Transparency and learning have become subordinate to covering one's rear end, resulting in chronic underreporting of near misses and other important lessons for fear of reprisal. We make culture. It is the result of choices, either conscious or unconscious.

As the developers of the first *Fireline Leadership* (L-380), *Incident Leadership* (L-381) and now *Advanced Leadership for the C&GS* (L-481) programs, my colleagues and I have spent decades looking deeply into the timeless lessons from humans' experience in chaos in order to figure out what works and why.

Culture has to start with expectations. Many in wildland fire are asking – "How much risk is acceptable in fire suppression?" Does *engagement* with fire always mean *fighting* the fire?

That answer starts with defining the mission and the environment in which it must be conducted. [Government] organizations seek to achieve certain politically articulated goals.¹⁰ Those define the expectations of the American people, elected officials, senior leadership, and our leaders.

Taxes are paid with an expectation of protection from human caused and natural disasters. While no reasonable person expects a firefighter to die or suffer serious injury protecting their property, they do expect firefighters to put themselves in harm's way in an attempt to minimize damage.

In the current perimeter control paradigm, that means placing teams of people and equipment, all subject to the forces of Murphy's Law¹¹ into a chaotic environment fraught with friction, danger and uncertainty. Even the best model of probability and severity cannot diagram the exponential risk curve when multiple hazards and human factors begin compounding. Especially when the environment has the potential to change far more quickly than we can detect and react.

Because 26 or 18.6, or whatever the number may be, will never be zero, the objective cannot be a number. The objective must be a culture whose leaders have the critical thinking and risk decision tools worthy of people getting a very dangerous job done with limited means to do it.

An over-reliance on rules and centralized control is a far less effective approach to guiding human action in chaotic conditions. Its rigid inflexibility only adds to friction and uncertainty. Compliance models work well for managing money, vehicles and equipment. Not well for governing human behavior. "Success as a resilient organization is built on a strong organizational culture and adaptive capacity."¹²

Operational cultures that align to principles versus rules, conduct training and practice to communicate intent and support the use of professional judgment are much more agile and effective. "The secret of their success lies in three characteristics: safety awareness, decentralization, and training"¹³ These are safer than compliance based cultures because their operators are armed with the information, understanding, training and freedom required to make continuous risk decisions at their level.

For an organization to reach the difficult, but critical balance of safety, efficiency and effectiveness in a high risk environment requires a culture that places great value on team result, trust, truth, initiative, improvement and decisions aligned to the end state trying to be achieved.

Once the desired culture is defined, budgets, programs, strategies and tactics, decisions and behavior can be aligned to it. Researchers can measure progress.

When the inevitable occurs, liability investigations can be quickly screened for willful violation or gross negligence. Everything else can be defended using professional judgment and the reasonable person principle. Maximum learning can be gleaned from near misses, accidents and other flawed decisions.

The road to a culture that can walk that kind of talk is extremely difficult to achieve and maintain. There will be ups and downs and setbacks. But until the Big Lie is defeated for good, we'll never get there.

The truth is a worthy anchor point to begin to honor both the living and the fallen.

Notes:

- 1 NWCG, (2016) *Interagency Standards for Fire & Aviation Operations*, Chapter 07 Safety and Risk Management, 07-14 (Pg 144 in online version)
- 2 Special Operations Warrior Foundation (SOWF) (2001), statistics of special operations forces killed in line of duty from its founding after Operation Eagle Claw in 1980 to just prior to 9/11/2001
- 3 NIFC (2013) *Historical Wildland Firefighter Fatality Reports*, http://www.nifc.gov/safety/safety_HistFatality_report.html
- 4 Wildland Fire Lessons Learned Center (WFLLC) (2015) *Two More Chains*, Spring 2015 Vol. 5 Issue 1 – has an in depth discussion of this topic
- 5 Merriam-Webster (2014) *Merriam-Webster.com: Dictionary and Thesaurus*, <http://www.merriam-webster.com/dictionary/safe>
- 6 NWCG, (2016) *Interagency Standards for Fire & Aviation Operations*, Chapter 07 Safety and Risk Management, 07-2 (Pg 132 in online version)
- 7 NWCG, (2016) *Interagency Standards for Fire & Aviation Operations*, Chapter 07 Safety and Risk Management, 07-2 (Pg 132 in online version)
- 8 NWCG (2007) *PMS 494-2 Leading in the Wildland Fire Service*, Preface, 3
- 9 Carlson (2012) Comments as lead facilitator for L-580 Leadership is Action, Gettysburg Staff Ride
- 10 Boin, Hart, Stern & Sundelius (2010) *The Politics of Crisis Management*, 20
- 11 De Morgan (1866) "*Supplement to the Budget of Paradoxes*," *The Athenaeum* no. 2017, 836 – subsequently Murphy's Law: If it can happen, it will happen – a corollary to the 2nd Law of Thermodynamics: that energy tends to spontaneously move from being concentrated in one place to becoming diffused and spread out.
- 12 USFS (2014) Human Performance and Resiliency RD&A – Program Charter, 2
- 13 Boin, Hart, Stern & Sundelius (2010) *The Politics of Crisis Management*, 37