

Workshops & Presentations from



JMA Human Reliability Strategies

reliableorg.com

Practical skills to help technical experts prevent dangerous & expensive errors



Hi,

One day an electrical engineer flipped the wrong switch in a substation, and accidentally shut down an active power plant.

His company had to pay over \$1,000,000 because of that error.

I help teams like yours prevent errors like that.

After that incident, I worked with that team of 200+ technical experts.

They applied my **Learning Based Approach to Errors**.

And they experimented with the dozens of practical strategies and skills I showed them.

They wound up reducing their errors by over 60%.

And they improved safety, trust, and engagement at the same time.

Unwanted errors in high-hazard workplaces like yours can upend lives, derail careers, and waste more than \$37 billion each year.

I show you how experts like pilots, firefighters, and paratroopers build safety, reliability, and trust together, and how you can, too.



Workshops



Presentations



Event Reviews

If you like what you see in this catalog, then contact me for a free, no-pressure, discovery call.



Jake

Jake Mazulewicz, Ph.D., Director
JMA Human Reliability Strategies, LLC

Seven Practical Steps & Core Principles

Nearly all my work is based on these seven practical steps.

Supporting each step is a more universal principle.

Principles don't tell you what to do, or how to do it.

Principles just tell you a time-tested truth about how part of the world works.

Experts use principles and practical steps together.



1. Take a Learning-Based Approach

Errors are signals, not failures.



2. Build Psychological Safety

You can't fix a secret. (Clive Lloyd)



3. Lead After Action Reviews

Experts learn consistently from jobs that go well, not just occasionally from jobs that go wrong.



4. Transform Investigations

Blame is an addiction. Learning is the cure.

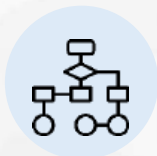


5. Apply Classic Defenses

We can't change the human condition.

But we can change the conditions under which humans work.

(James Reason)



6. Improve Systems

We don't rise to the level of our goals.

We fall to the level of our systems.

(James Clear)



7. Build Resilience

The most reliable teams don't try to eliminate every error.

They make it so that errors don't disable them.

(Weick & Sutcliffe)

*...Even our most senior and experienced experts were impressed!... **Several attendees told me that they've already begun applying these practical skills to improve safety and human reliability in our field teams around the world.***



~ J.T. Lee, Senior HSE Advisor,
Organizational Learning, Chevron

"Your investigation and analysis was the most thorough and well-documented of any we have had to date... the interviews and investigation were not threatening in any way... we have already implemented some changes to our processes."



~ Manager of Electric Transmission System Operations
in an electric power utility serving 1+ million customers

"Jake has played an integral role in re-shaping culture & behaviors around safety and work planning... The use of fail-safes, adaptive thinking, and peer checks are becoming part of the way we do things."

~ Work Planning & Control (WPC)
Manager at a national scientific
laboratory



250+

Client teams since
2015

99%

Of 2,700+ participants got valuable
take-aways from Jake

97%

Of participants want to work
with Jake Again

Scan to see hundreds of evaluations from 3,900+ technical experts
I've worked with since 2022.



*"We got more practical ideas from Jake than from any other keynote we can remember. **After dinner, we talked about Jake's presentation for more than TWO HOURS!** That led to REAL change when we returned to the plant."*

~ Maintenance & Reliability Leader at Xcelerate 2019



*"This was the first session of my ASSP conference, and it was the most impactful session for me. The information presented was amazing and relatable to any situation, in my opinion. Jake kept the audience actively listening and fully engaged for the duration of his presentation. **I can't wait to attend another session led by Jake in the future!**"*

~ Marcus Fitzgerald, Global QEHS Director at CETCO Energy



'We engaged Jake as a keynote speaker for our company-wide safety conference. Our leaders, from field foreman through executives, were unanimously impressed. Since Jake's presentation, our project managers and field foreman have told me that they are starting to experiment with many of the practical ideas that Jake taught us.'

- Fred Barlow, Vice President & Chief Safety Officer,
Reliance Electric, Inc.



How to Build Reliability, Safety and Trust in Technical Teams -- Seven Practical Steps



Seven Practical Steps

Unwanted errors can threaten life and limb, ruin careers & waste \$37 billion per year.



Burning Questions:

- Why can't we eliminate errors?
- Why can't employees just follow procedures?
- How do the safest and most reliable teams in the world: build reliability, safety and trust at the same time?
- How can we actually apply the best ideas from: Human & Organizational Performance (HOP), High Reliability Organizations (HROs), and Resilience Engineering?



Core Principle:

"It's easier to act yourself into a new way of thinking, than it is to think yourself into a new way of acting." (Millard Fuller).



Seven Practical Answers

In this fast-paced keynote or workshop, your teams get real world examples and apply these seven key steps successfully used by: pilots, paratroopers, wildland firefighters, and other high-reliability teams across the globe:

- 1) Take a Learning-Based Approach
- 2) Build Psychological Safety
- 3) Lead After Action Reviews (AARs)
- 4) Transform Investigations
- 5) Apply Defenses
- 6) Improve Systems
- 7) Build Resilience



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~ Maintenance & Reliability Leader at Xcelerate 2019

Resilience



Resilience

The most reliable teams in the world don't try to eliminate all errors. Instead, they build Resilience.

- Wildlands firefighters
- Air traffic controllers
- Flight deck crews of Navy aircraft carriers
- Operators of nuclear power plants and the national bulk electric grid



High Reliability Organizations (HROs) like these all share one unique trait. They're Resilient. Decades ago, they learned that trying to eliminate all errors just doesn't work in the real world. What does? Using clever methods to minimize the *impact* of errors, so errors don't disable them.

Join us in this fast-paced keynote or workshop to hear powerful stories about: paratroopers, firefighters, pilots, nurses and other experts in high-hazard industries. You'll explore the basics of up to nine (9) practical ways to build Resilience in your team:



- Hiring "Quiet Professionals"
- Getting planners & doers to collaborate regularly
- Embedding fail-safes
- Learning from Near Misses, not just incidents
- Compartmentalizing to prevent cascades
- Pre-deciding contingency plans
- Using 4-layer decision making
- Watching for "Weak Signals"
- Practicing uncertainty



Core Principle:

"The hallmark of an HRO is not that it is error-free, but that errors do not disable it." (Weick & Sutcliffe)



*"We engaged Jake as a keynote speaker for our company-wide safety conference. **Our leaders, from field foreman through executives, were unanimously impressed.** Since Jake's presentation, our project managers and field foreman have told me that they are starting to experiment with many of the practical ideas that Jake taught us."*

- Fred Barlow, VP & CSO, Reliance Electric, Inc.

How to Build Trust & Expertise With After Action Reviews (AARs)



After Action Reviews

After Action Reviews (AARs) help save lives, build trust, and share unwritten expertise.

For over 40 years, reliability-driven teams in the military, emergency fire & rescue services, and in other high-hazard industries have used these psychologically safe, semi-structured, post job debriefs.



One research study found that, *“Organizations can improve individual and team performance by approximately 20% to 25% by using properly conducted debriefs.”* (Tannenbaum & Cerasoli). In this fast-paced presentation or workshop module, you’ll learn how to lead AARs for your team. And, you’ll get to DO a brief real-world After Action Review, too.



Core Principle:

Experts learn consistently from jobs that go well, not just occasionally from jobs that go wrong.



Scan to watch this 45-second video



Handout included



You’ll Learn:

1. How to ask the five questions of an After Action Review (AAR)
2. How to avoid ten (10) common mistakes of leading AARs
3. Why AARs have been called, *“One of the most successful organizational learning methods yet devised.”*



Formats:

- 60-90 minute keynote or webinar
- Part of our 1/2 -- 2 day workshops
- Real world AAR that I lead for your team



*“Before this workshop, I thought After Action Reviews were about identifying weaknesses. **Now I’m realizing that AARs are about identifying strengths and building trust.**”*

~ Technical Team Leader at a national scientific laboratory



How to Lead Pre-Job Briefings








Pre-Job Briefings

The safest, most reliable work teams in the world lead excellent Pre-Job Briefings.

In this fast-paced, 4-8 hour workshop, your front line leaders learn and apply field-tested Pre-Job Briefing skills used by pilots, firefighters, paratroopers and other high-reliability experts across the globe.



Key Pre-Job Briefing Skills:

	How to identify STKY hazards with the Energy Wheel
	How to ask six pre-job questions that help predict and prevent serious errors
	How to identify Irreversible Steps and use them to your advantage
	How to use the Plan → Brief → Do → Debrief model preferred by military units and emergency fire and rescue teams
	How to create Situational Awareness with the Scan & Focus model
	How to build Resilience with Fail-Safes, Weak Signals, and Resources-in-Reserve
	How to lead an interactive pre-job discussion vs. just lecturing and hoping your team 'gets it.'



“We’ve been able to reduce the technical workforces’ human error rate by more than 60% over a three-year period. Thanks, Jake!”

~ Mike Carden, Supervisor of 200+ Relay Technicians in an electric utility serving 1,000,000+ customers

Four Practical Ways to Build Psychological Safety in Your Teams



Psychological Safety

Many leaders believe that accountability will reduce errors. But in reality, blaming people for errors often strangles communication, destroys trust, and actually creates more errors.



What's the alternative?

Improve engagement, communication, and learning with Psychological Safety. In this fast-paced presentation or workshop module, you'll learn what Psychological Safety is, and discover four ways to build it in your team immediately.



You'll Learn:

1. Five (5) key terms and phrases you can change immediately, which will gradually help you change your thinking over time
2. Four (4) specific questions to ask that build Psychological Safety
3. How to write an "Assurance Statement" you can use for the rest of your career
4. A clever way to get an immediate, free boost of Psychological Safety just when you need it the most



Scan to watch this 1-minute video clip



Handout included



Core Principle:

"You can't fix a secret." (Clive Lloyd).



Formats:

- 60-90 minute keynote or webinar
- Part of our ½ day – 2 day workshop



...Even our most senior and experienced experts were impressed!... Several attendees told me that they've already begun applying these practical skills to improve safety and human reliability in our field teams around the world."

~ J.T. Lee, Senior HSE Advisor,
Organizational Learning, Chevron

Practical Decision Making From Novice to Expert



Practical Decision Making

Burning Questions:

- Why don't people just follow procedures?
- What creates the gap between Work-as-Imagined (WAI) and Work-as-Done (WAD)?
- How can we improve decision making quickly?
- What structure can we use to learn from both everyday work and unwanted incidents?
- How can we apply Sensemaking in complex, adaptive (VUCA) jobs?



A Practical Solution:

In this fast-paced, 1-2 hour presentation or workshop module, you'll get practical answers to all the questions above. And you'll discover how to use the four core decision making levels relied upon by leaders and front-line teams in high-hazard industries across the globe.

	1) Explicit procedures (WAI)	<p>Scan to watch this 90-second video</p>  
	2) General Guidelines / Rules-of-Thumb	
	3) Universal Principles	
	4) Tacit Skill (WAD)	



You'll get:

1. Dozens of real-world stories and examples from: aviation, military, emergency fire & rescue, healthcare, and electric power utilities.
2. Key take-aways from research into practical decision making in High Reliability Organizations (HROs),
3. 5-7 practical tips that you and your teams can use to improve decision making and Sensemaking in the jobs you do everyday.



*"Before this workshop, I thought, 'Procedures will protect the employee.' **Now I'm realizing that, while still important, not all incidents can be solved by procedures.**"*

~ Deputy Division Director at a US DOE Research Lab

Event Review (2 pages)



Event Review

An incident happened.

Miscommunication, misunderstanding, and other complex errors were involved. How do you learn from it to prevent similar events in the future?



- Simple techniques like the "5 Whys" often fix the blame, but don't fix the problem.
- Root Cause Analyses (RCAs) are often too complex and expensive.
- Learning Teams are popular, but have some unique drawbacks, too. Your best solution may be an **Event Review**.



"Your analysis was the most thorough and well-documented of any we have had to date... the interviews were not threatening in any way... we have already implemented some changes to our processes."

*~ Manager of Electric Transmission System Operations
in an electric power utility serving 1+ million customers*



An Event Review is Ideal if:

Your incident / event involved miscommunication, misunderstanding, or other complex human or organizational errors like these:

- A Substation Engineer misunderstood a procedure and accidentally cut power to a business. Result? Two days of chaos that wasted \$74,000.
- An Electric System Operator allowed two field teams to work on the same circuit without knowing about each other. Risk? A potential fatality.
- An executive miscommunicated technical specs and accidentally ordered six new custom bucket trucks that were missing an essential feature. Cost? \$1,200,000.



Scan to watch this 3-minute video



Handouts included









Event Review (2 pages)

Event Review

Process:

I lead your team of 3-9 leaders and front-line experts through this fast-paced, engaging (and often fascinating) six-step process.

	1) Lead an After Action Review Build trust & share initial info with a process used for 40+ years
	2) Write Target Question Focus on desired end state
	3) Create Timeline & Find Anomalies Reveal the 3-7 most important anomalies to explore
	4) Ask Six Levels of Questions Identify systemic causes & solutions for each anomaly
	5) Distill 3-7 Best Process Improvements Choose the 3-7 highest value process improvements
	6) Share, Apply & Follow Thru Prepare final results, then share, apply & follow through



Core Principle:

Blame is an addiction. Learning is the cure.



Results:

You get 3-7 practical, high-value, low-risk, process improvements to reduce the risk of similar incidents in the future. They include the best ideas I elicit from your team, plus practical solutions from my work with 250+ teams like yours over 15+ years, including:

- How I helped a team of 200 technicians reduce errors by 60%
- How to increase Situational Awareness with “Scan & Focus”
- 6 pre-job questions that help you identify and avoid errors
- 4 levels of decision-making that experts use



Formats:

- 60-90 minute keynote or webinar
- 1/2 -- 2 day workshop
- I lead an Event Review with your team on a recent incident

Jake Mazulewicz, Ph.D. Director, JMA Human Reliability Strategies, LLC



Jake Bio

Unwanted errors in high-hazard workplaces can change careers, reputations, and lives in the blink of an eye.

I respect that. Why? Because I served as the Human Performance Lead for 3,600 technical experts in a large electric utility. And I served on reliability-driven teams as a firefighter, an EMT, and a military paratrooper.

Like you, I've felt frustrated, perplexed, even angry at errors that seem 100% preventable... in hindsight. And I've made plenty of errors myself.

So, over the past 15 years, I've collected dozens of rock-solid principles and practical strategies from: Human Performance / HOP, Safety II, Human Factors Engineering, High Reliability Organizations (HRO), and Resilience Engineering and from my own experiences:

- Serving as a firefighter, an EMT, and a military paratrooper
- Earning a Ph.D. in Education, and learning how to teach adults effectively
- Leading all Human Performance / HOP initiatives for 3,600+ Lineworkers, Engineers, System Operators, Troubleshooters, Executives, and other experts in an electric power utility that serves 1,000,000+ customers
- Designing a Near Miss Library that received over 150 voluntary reports and was endorsed by both company executives and Union leaders
- Creating the Scan & Focus model of Situational Awareness
- Helping to analyze over 300 incidents
- Working with 250+ groups including: US Department of Energy, Fermilab, NERC, Chevron, Power Engineers, Southern Industrial Constructors, the Princeton Plasma Physics Lab, and Energy Safety Canada.

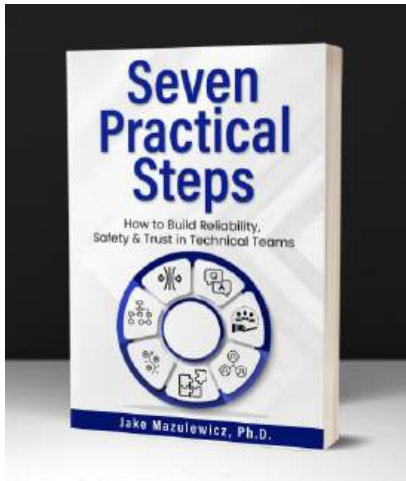
I love helping technical teams like yours to: reduce errors, improve safety, and build trust, all at the same time.

If you like what you see in this Catalog, then contact me to learn more about the workshops, keynotes and event reviews I lead for teams like yours. 804-301-2063.



Check out the 99% positive feedback I've earned from 3,900+ people so far.

Seven Practical Steps

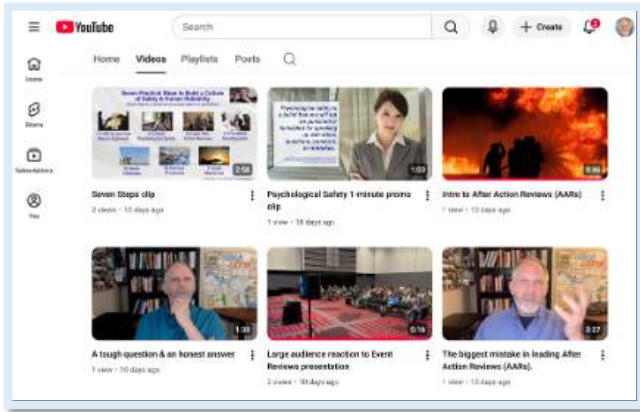


HOP Handbook for Leaders



To Learn More...

[Watch my uncut speaking demo and other videos on YouTube](#)



[Explore my profile and posts on LinkedIn.](#)



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