

BUILDING A

HIGH RELIABILITY

ORGANIZATION

How to Achieve and Sustain
Near-Perfect Safety in the Face of High Risk



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Introduction

Day in and day out, there are organizations that operate highly complex, highly risky systems where failures can be catastrophic. Yet they do not fail.

The air traffic control system in the United States is one of those organized entities that achieves this improbable routine.

At any given time, there are 7,000 aircraft in the sky, and there are almost 24,000 commercial flights every day, each with a crew that operates the plane and manages the passengers.

Many of the aircraft in these flights are monsters capable of carrying hundreds of people, but even the relatively small Boeing 737-300, one of the most common airplanes flying, is a huge machine weighing up to 150,000 pounds on takeoff. Loaded with 150 people plus a minimum seven person crew, and thousands of pounds of highly volatile fuel, a carefully orchestrated aerial ballet must play out perfectly to avoid disaster each day.

A network of 476 traffic control towers, 21 air route traffic control centers, 197 terminal radar approach control facilities, and 14,000 air traffic controllers guide traffic from takeoff to landing. Contrary to popular opinion, most commercial flights are actually on time every day.

Yet, in 2015 895 million people flew the friendly skies in the United States and there was not a single fatality due to operational failure.

Complex organizations that must perform minor miracles each day to deliver an incredibly high rate of reliability can also be referred to as High Reliability Organizations (HROs).

About High Reliability Organizations (HROs)

In this whitepaper, we summarize the remarkable achievements of HROs and describe how these organizations deliver stunning reliability in complex environments. We will give examples that illustrate the principles of HROs in action.

We will also provide some guidelines on how managers can deploy HRO capabilities in their own organizations. Included is a tool to help assess what level of HRO capability an organization has on a range of key dimensions. Of course, not all organizations face the complexity and catastrophic cost of failures that many HROs do, but moving toward the reliability and adaptability of an HRO can yield great benefits for almost any kind of organization.

What is an HRO?

“High-reliability organizations operate under challenging conditions yet experience fewer problems than would be anticipated as they have developed ways of “managing the unexpected” better than most organizations.”

(Managing the Unexpected: Sustained Performance in a Complex World, Weick KE, Sutcliffe KM)

It is important to understand from the outset that the concept of the High Reliability Organization emerged from the study of organizations like aircraft carriers and nuclear power plants where very complex systems operate with the potential for disastrous failures. In this whitepaper, we will use the characteristics of HROs as the basis for scaling HRO capabilities to somewhat less heroic organizations. Nevertheless, many organizations face constant, costly risks that might be mitigated by adopting some of the core competencies of the HRO.

For an HRO, “reliability” means achieving a desirable outcome consistently despite high and evolving risks in a dynamic environment. Organizations will specify different outcome criteria that will be measured to determine reliability. Airlines specify passenger deaths due to operations; healthcare organizations might specify preventable patient deaths; cash management/banking businesses might specify monetary losses due to theft or fraud and/or human costs (deaths, injuries).

Note that these kinds of criteria do not measure financial performance of operations. Some researchers have linked HRO concepts to the evolution of quality-related programs like continuous quality improvement. In fact, HRO capabilities might be desirable in organizations in all sectors, private, non-profit, or government.

Another point is that “reliability” is not the same as “safety” in all circumstances. In healthcare, it might be reasonable to equate safe patient outcomes with reliability, but for a cash management/banking business, preventing losses due to fraud, theft or negligence is a criterion of reliability even if there is no direct human harm in each case. Some HRO-seeking organizations—like an aircraft carrier—may specify more than one criterion.

Finally, it is important to understand that to become an HRO is to become adaptable or resilient. A HRO is continuously seeking improvement. It has an organizational culture whose members value observing their own performance critically with the intention—inherent in every person—to catch failure early, communicate it into the hierarchy, and fix it. *HROs are open-minded learning organizations.*



HROs in Action

Air Traffic Control

Air traffic control, as outlined above, is a common HRO example, but there are many other situations where HRO principles might be applied. The early literature on the issue looked at aircraft carriers, nuclear power plants, and airline performance. Today, researchers are working to transfer the concept into other domains, including:

- ✓ Healthcare providers process life and death decisions constantly, interacting with a myriad of entities on an urgent basis.
- ✓ Emergency or disaster response teams must mobilize coordinated actions in chaotic conditions where failure can mean community-wide losses.
- ✓ Cash management/banking businesses operate under constant threat of criminal, terrorist, or accidental failures, while managing highly intrusive government oversight.
- ✓ Power grid operators manage multi-state electricity generation and distribution under highly uncertain conditions due to weather, component failure, and demand.

High Reliability on a Floating Airport

Safety on an aircraft carrier packed with high explosives is crucial. Here's how that challenge looks to one military participant:



So, you want to understand an aircraft carrier? Well, just imagine that it's a busy day, and you shrink San Francisco Airport to only one short runway and one ramp and one gate. Make planes take off and land at the same time, at half the present time interval, rock the runway from side to side, and require that everyone who leaves in the morning returns that same day. Make sure the equipment is so close to the edge of the envelope that it's fragile. Then turn off the radar to avoid detection, impose strict controls on radios, fuel the aircraft in place with their engines running, put an enemy in the air, and scatter live bombs and rockets around. Now wet the whole thing down with seawater and oil, and man it with 20-year-olds, half of whom have never seen an airplane up-close. Oh, and by the way, try not to kill anyone.

—Senior officer, Air Division (Naval War College Review, 1987)



The Cash Management/Banking System as a Potential HRO

The cash management/banking system certainly qualifies as a complex system, but could it become a High Reliability Organization? The system produces a range of failures that might suggest it would benefit from adopting HRO capabilities.

According to FBI U.S. bank robbery statistics, there were 4,251 robberies at institutions of all types in 2016 (Title 18, Section 2113 crimes). According to statistics from the National Armored Car Association (NACA) and Secure Cash and Transport Association (SCTA), the armored car industry, an ancillary service to the banking industry, experienced 43 robberies in 2016, with nearly 86% of those incidents involving some use of violent force by the perpetrators.

These incidents produced many injuries, deaths, and hostage situations, not to mention large cash losses. There were numerous failures of alarm systems, surveillance cameras, and electronic tracking systems. Violations under the Bank Secrecy Act are not counted here, nor are the losses from fraud or theft that should be included in a comprehensive description of the system.

If just the failures listed in the previous paragraph are considered, the cash management/banking system is hardly a High Reliability Organization, even though some members or components of the system might be. Factors that leaders in the system might consider in moving toward HRO status include:

- ✓ The system is one of the most complex in existence, and it is worldwide. Even local institutions interact with many external organizations and individuals who pose potential risks.
- ✓ There are hundreds of thousands of transactions between institutions every day, and each of them is a point where failure can occur.
- ✓ Millions of people have access to some point in the system, and some of them have extensive access.
- ✓ The benefits of digital information, exchange and control are obvious, but they also expose the system to extensive loss.
- ✓ The system is certainly dynamic, and those who seek to disrupt it for gain look for innovative ways to attack.

What is the perfect system today, will be vulnerable tomorrow if it does not learn to adapt.

Given what's at stake, it appears the cash management/banking system would gain by moving toward being an HRO. The question is whether individuals within the system have the incentive to make the investment to adopt HRO characteristics.

When is the Intensive Investment in the HRO Worth It?

Most common examples of HROs involve highly complex systems, like those described above. It is reasonable that some managers would look at the effort and investment needed to lift quality and reliability to the HRO level, and conclude that their organization cannot sustain it, and possibly doesn't need to. They may believe that their organization is too basic to require HRO treatment, for example, using a sledge hammer to drive a nail. They may think that their organization is not in the "hero" business requiring the intensive attention to detail an HRO requires.

The problem with this attitude is that accidents or failures do not have to be absolute, nor do they have to be highly probable. Frequent, small failures, like a single preventable patient death, might seem small in a huge healthcare center, but added up, these failures indicate an unreliable organization. Other failures might be deemed to be too unlikely to consider, until they happen. Total financial collapse of a large cash management business might be very unlikely under business as usual scenarios, but the unexpected risk (e.g., a cyberattack from a novel source) or a cascade of smaller failures might occur suddenly.

The cost of failure criterion is relative to the scale and function of the organization. A catastrophic failure that destroys the organization obviously has an unacceptable cost. Failures like preventable deaths in a hospital might also trigger the investment in HRO principles, which are related to the mission of the organization. If preventable failures erode the ability of the organization to persist over time, the cost may be too high.

The HRO is not always just the core function of the organization per se. In fact, one hallmark of some HROs is that they are part of a *system* that is complex.

For these organizations, the core function may be relatively easily defined and controlled. Yet the system the organization is in defines an environment that may impose highly complex conditions that can directly affect the quality of the organization's performance, up to and including catastrophic failures. In these complex systems, hand offs between different units or processes, contradictory or overlapping regulations, inconsistent language or interpretations, and even conflicting short-term goals can disrupt reliability.

Within systemic environments, even small or seemingly straightforward businesses and organizations can face the kinds of challenges that HRO principles are designed to deter. The HRO entails a high level of risk management, and should always be viewed through a cost-benefit lens to ensure that the investment is worth the effort. In our experience, an HRO's investment relates to a positive return on investment (ROI) in the long run as a whole.



Building HRO Capability in Your Organization

Any organization that can identify actual or potential failures that would thwart its mission attainment may be a candidate for implementing HRO principles. The question is how to get from here to there.

Healthcare organizations are currently among the most active in pursuing the very high reliability (quality and safety) that characterizes the HRO. A very useful [report](#) by Mark Chassin and Jerod Loeb of the Joint Commission on Healthcare Accreditation begins to describe a path by which organizations can proceed toward HRO performance levels. Although, the exact protocols for building HRO capacity would differ for various industries or applications, the report lays out a clear conceptual framework for how the work would get done, and is summarized here.

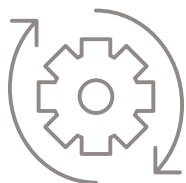
The Essential Domains of the HRO



LEADERSHIP

Chassin and Loeb define leadership fairly broadly. The Board of Directors and C-Suite team are included, but also the managers of teams or units within the organization. They define leadership commitment as “the aligned agreement” of leadership to the “shared singular vision” of total safety in the healthcare environment. It is easy to see how this can be transferred to other environments where the safety or reliability criterion is different, but the commitment is the same.

The authors offer the example of U.S. airline safety which saw passenger deaths due to operations fall from 13.9 deaths per million flights 1990 - 2001 to just 1.6 deaths per million flights 2002 - 2011. They attribute this amazing achievement to the Crew Resource Management training program that instilled the vision of perfect safety in every employee.



PROCESS IMPROVEMENT

HROs implement known tools such as Six Sigma, Lean or Change Management to systematically improve the reliability of processes over time. Chassin and Loeb view the three tools as compatible ways to achieve “robust process improvement,” which they believe is the “next generation of process improvement methods” available to managers.

These domains develop over time, as each of them is complicated, the total HRO will require a sustained effort. As an example, in the case of leadership, the authors suggest that the mission of a healthcare organization might evolve from regulatory compliance through setting a priority on safety methodology as one of many objectives, to making total safety the pre-eminent goal of the whole organization.



CULTURE OF PERFECT PERFORMANCE

Weick and Sutcliff, the leading theorists of HROs, coined the phrase “mindful organizing”¹ to summarize a key characteristic of High Reliability Organizations. The goal of mindful organizing is to teach every individual in the system to be aware of how the functions they interact with can fail, and to be responsible for that failure. Failures at any level can lead to cascading failure and must be addressed in the moment. HROs learn from failures at every level and build ways to prevent them.

In this whitepaper, we emphasize different aspects of the cultural attributes of the organization. These are not necessarily more important than process tools like Six Sigma, but they are less familiar to many managers. Unlike process improvement, there are fewer tried-and-true tools you can use. These cultural attributes are what make the HRO a self-replicating, continuously adaptable entity. When the whole organization is moving in one direction, it can move very powerfully.

There is a phrase that captures the essence of the HRO: HROs do not seek to become reliable—they become organizations that are *continuously seeking greater reliability*.

¹ K.E. Weick and K.M. Sutcliffe. 2015. *Managing the Unexpected*. 3rd edition. Hoboken, NJ: John Wiley & Sons.





5 Principles of HROs

Numerous publications have reported on the 5 principles of High Reliability Organizations, such as these [here](#). The original source of these principles was in Weick and Sutcliffe, first published in 2001 and now in its 3rd Edition as of 2015. These principles emerged out of Weick and Sutcliffe's research into reliable organizations, so they can be viewed as objectives for how an organization would achieve HRO status.

Here we use [summaries](#) created by the Agency for Healthcare Research and Quality, but emphasize that their value is because they are not limited to healthcare only, e.g., they do not refer only to patient safety. They are applicable to different kinds of organizations that might seek HRO status.

1

HROs are Preoccupied with Failure

To prevent a failure, you must be able to imagine the failure, or you have to learn from failures *and act to change* the conditions that caused it in the first place. HROs continuously change as failures occur to improve reliability.

Everyone is aware of and thinking about the potential for failure. People understand that new threats emerge regularly from situations that no one imagined could occur, so all personnel actively think about what could go wrong and are alert to small signs of potential problems. The absence of errors or accidents leads not to complacency but to a heightened sense of vigilance for the next possible failure. Near misses are viewed as opportunities to learn about system issues and potential improvements, rather than as evidence of safety.

The principle of being attentive to failure, and acting on it, is not as obvious as it seems. Organizations can get into comfort zones where they confuse the lack of bad news with their actual ability to cope with failure. Even though nuclear power operations are often cited in studies of HROs, there have been notable failures, some of which could have been prevented with better organizational culture.

The Fukushima Catastrophe

Nuclear power plants are one of the industrial applications often discussed in the literature on HROs where complex systems are managed safely. But as Fukushima (and other nuclear accidents) show, catastrophic failure is possible. Tokyo Electric Power (TEPCO) has argued that no one could anticipate the size of the tsunami that struck in March 2011, yet subsequent reports on court documents show that the company was aware of the potential as early as 2008. At the time of the accident, tsunami-warning signs had been posted to show how high one had to climb to reach safety, and the level was above the plant. Further, the idea that a tsunami might inundate the plant did not lead to the process and organizational changes required to cope with it. How much was the failure worth compared to the cost of installing safety protocols that would be up to the task?



Credit: IAEA Imagebank via Google Images, Labeled for Reuse

Paying attention to failure has one obvious requirement: you must know what defines a meaningful failure. If the alarm at your bank fails during a robbery, it's obvious that there is a problem to fix. However, if one of your employees fails to make a timely report required by FinCEN, what is the failure? The answer to this might be to improve the employee's awareness and compliance with required reporting through training. On the other hand, it might be to seek ways to improve the systematic identification of suspicious transactions within the process and flag them so the employee is better informed on an on-going basis. The former will help, but the latter will move the organization closer to HRO. Also note that the job of the person who identifies the failure is to communicate the failure and try to design ways to keep it from being repeated.

2

HROs Resist the Temptation to Simplify Matters

When things are going good, there's a tendency to assume that the system is working properly. This can induce complacency that makes the organization vulnerable to failures. People in HROs understand the details of operations and performance so they can know exactly which parts of which process failed in each instance.

People resist simplifying their understanding of work processes and how and why things succeed or fail in their environment. People in HROs understand that the work is complex and dynamic. They seek underlying rather than surface explanations. While HROs recognize the value of standardization of workflows to reduce variation, they also appreciate the complexity inherent in the number of teams, processes, and relationships involved in conducting daily operations.

One of the points in creating routines is to increase repeatability, and reliability. People may come to rely on them implicitly, especially if they simplify or even automate complicated operations. The distribution and management of cash in an area will involve many individuals and transactions, but most of the time it goes on smoothly. Everyone can relax and just do their part, but then something unanticipated happens, and the system breaks. The HRO may not be able to anticipate every threat, but it reacts to them by modifying system components.

Remember, no news is not always good news. No news is a time to do a deep dive into creative thinking, identify, and address by applying HRO principles.

3

HROs are Highly Sensitive to Operational Performance

Chassin and Loeb say that *"HROs recognize that the earliest indicators of threats to organizational performance typically appear in small changes in the organization's operations. They then take great pains to ensure that all those workers who are most intimately involved in operations always reports any deviations from expected performance. In addition, HROs make sure that everyone not only feels free to speak up with any concerns but also recognizes an obligation to do so because of how highly the organization values the information as a vital component of its ability to achieve its highest priority: near-perfect safety."*

Based on their understanding of operational complexity, people in HROs strive to maintain a high awareness of operational conditions. This sensitivity is often referred to as “big picture understanding” or “situation awareness.” It means that people cultivate an understanding of the context of the current state of their work in relation to the unit or organizational state—i.e., what is going on around them—and how the current state might support or threaten [desired outcomes].

In even the most complex systems, there is usually someone in a position to observe an operation. In most banking systems, for example, there are transactions and reporting routines that can be observed by employees and managers. One of the most productive ways to detect fraud in those systems is for an employee to rely on their training to note a discrepancy and report it.

Employee training is critical not just so they know *what* is asked, but they know *why*. An employee’s understanding of the downstream effects and the disruption as a result to countless lines of business gives a holistic view that makes each job function relative.

4

HROs are Committed to Resilience

Weick and Sutcliffe suggest, “The hallmark of an HRO is not that it is error-free but that errors don’t disable it.” Resilience is the property of knowing that failures will occur and having the organizational propensity to address them quickly at every level, incorporating new procedures or processes into operations to prevent future similar failures.

Commitment to resilience is rooted in the fundamental understanding of the frequently unpredictable nature of system failures. People in HROs assume the system is at risk for failure, and they practice performing rapid assessments of and responses to challenging situations. Teams cultivate situation assessment and cross monitoring so they may identify potential ... threats quickly and either respond before ... problems cause harm or mitigate the seriousness of the ... event.

In something as complex as the cash management/banking system, it is almost inconceivable that there would be zero failures. Nevertheless, the goal is to respond to failures by adapting to improvement.

HROs Defer to Expertise

The key point here is that HROs do not equate expertise with authority. The expert in each situation might be someone whose role in the hierarchy is relatively minor. The organizational culture to sustain this attitude must be widely accepting of communication up and down the hierarchy, and open to information from all sources. It cannot occur where intimidation based on rank or perceived status short circuits information. As Chassin and Loeb put it, a leader's response to information such as "I already know that" is guaranteed to ensure that future communication will be squelched.

People in HROs appreciate that the people closest to the work are the most knowledgeable about the work. Thus, people in HROs know that in a crisis or emergency the person with greatest knowledge of the situation might not be the person with the highest status and seniority. Deference to local and situation expertise results in a spirit of inquiry and de-emphasis on hierarchy in favor of learning as much as possible about potential safety threats. In an HRO, everyone is expected to share concerns with others and the organizational climate is such that all staff members are comfortable speaking up about potential safety problems.

The characteristic of deference to expertise shows yet another of the paradoxical traits of HROs. In common parlance, people think of "experts" as highly trained and/or experienced individuals who possess authority. Often, the authority of expertise is conflated with the authority of hierarchy. In the HRO, the expert may be the bank teller who recognizes a suspicious pattern in a series of deposits. Remember, no news is not always good news. No news is a time to do a deep dive into creative thinking, identify, and address by applying HRO principles.



Assessing Your Current Performance Against HRO Principles

The dean of business theorists, Peter Drucker, once said in an often-quoted passage that the one and only true purpose of a business is to make a customer. This creates a potential contradiction between the organization vs. the HRO: every business has one set of common measures to define success based on financial performance, but investing in becoming an HRO may or may not contribute to that.

We believe an organization can be both financially successful and approach HRO capabilities. In a formal economic sense, managers can invest in HRO up to the point where returns (however measured) begin to decline.

However, in a more intuitive interpretation, HRO is an advanced version of continuous quality improvement, integrating processes, training, and leadership around a set of indicators that define the level of quality (reliability and safety) the organization has attained. The true value of the HRO is in the creation of an organization whose culture—which is the domain we have emphasized in this whitepaper—drives it toward perfect reliability even though environmental conditions of all sorts change. In this sense, HRO capabilities contribute to the long-range stability of the organization in a way that supports growth, and helps it to make new customers.

Change Over Time

Chassin and Loeb created a framework for HRO development that includes the four stages; Beginning, Developing, Advancing, and Approaching. They would evaluate progress toward HRO capability for each domain across time. Of course, the words we use to describe these phases are not as important as the fact that we define the kinds of changes in selected outcomes we expect to see as we move forward. The final stage, Approaching, signifies that the HRO never reaches a static completion—there is always more progress to be made.



Assessment Attributes



Mission

Is the organization (truly) mission driven? Are there measurable outcomes associated with this mission? Does the organization know which criteria would define relative success in a reliability framework?

As we have pointed out, every organization will have different criteria for measuring its progress toward complete reliability. Over time, the organization may narrow its focus to certain criteria that are more and more closely aligned with its mission. When this quality-related vision is clear, the organization can move more forcefully toward HRO status.



Leadership

Does leadership, including top managers, the team, and unit leaders share a vision about outcomes that goes beyond formal or circular recitations of performance to identifying the purpose of the organization? Are they willing to commit to this purpose through training, process engineering, and evaluation?

Leaders need to model the behaviors needed to sustain the HRO. They identify the outcome criterion and, over time, organize operations and reporting around those criteria to evaluate progress toward being an HRO.



Staff Empowerment

Are failures addressed and reported immediately, and at the level at which they occur? Are there upward channels for communication that are kept open, and respected?

One of the principles of the HRO is deference to expertise regardless of where in the hierarchy the expert resides. A continuous training requirement of the HRO is to instill the culture of reliability in every person, and provide how they can address failures. Different kinds of failures must be reported in certain formats—regulatory compliance may demand it—but the organization will benefit when the failures are addressed at the lowest possible level.



Self-Examination

Are processes and outcomes always viewed critically? Does everyone on the staff have the ability and authority to report on system performance?

This is more than a suggestion box. It is an active component of the HRO culture that every person is responsible for the chosen outcomes that define the organization's mission. They not only need to understand this in principle, but have the means to communicate observations, and insights. Coupled with more formal evaluations, the HRO can recognize and adapt to failures and changes in the environment almost in real time.



Continuous Investment in Training

Are HRO cultural requirements themselves the object of observation, and continuous improvement? Does the training change to reflect changing conditions with the organization?

Employees will not automatically understand or exhibit the kinds of behaviors needed for an HRO to operate. Repetitive training, testing and contextualization may eventually embed these behaviors to the point that most people act as role models, but this is supportive of the training, not a replacement for it.



Continuous Process Improvement

Does the organization use process improvement tools like Six Sigma? Are processes subject to regular testing?

In addition to cultural changes, the HRO requires careful attention to process details. Over time, processes will become more efficient, controlled, and repeatable. Over time, even new processes will be viewed critically, and skeptically, with an eye to even better performance.



Adaptive Reaction to Failure

Are failures used as instructive events that point at places the organization can improve? Are changes in response to failures documented or observable?

It's one thing to empower everyone to observe and address failures now, but it's also important to document them and make responsive changes in the organization to prevent similar future failures. HROs view failures as opportunities for improvement.





Case Study

Everyday hundreds of armored cars and crews support their customers by making deliveries, and picking up deposits at thousands of stops. The routine is repetitive and complacency is inherited.

During the morning routine of a vehicle safety inspection, the crew indicates a brake light failure, documents it on the checklist, and that is turned into the operations manager. The crew drives off for the day and returns that evening. The process is repeated for several days with no correction, and the crew sees the effort of the checklist being ineffective. The culture has now been tarnished because no one will fix the minor error.

The crew takes off for an ordinary day as it has dozens of times, except this day, while taking a turn, the vehicle following the truck is involved in an accident. This accident involves multiple vehicles and there are several injuries, including the crew. This accident resulted in more than just property damage but resulted in personal injury lawsuits, loss of assets, worker's compensation claims, customer dissatisfaction due to missed service, and on and on.



The crew was fully trained on performing the checklist; however, the culture of the management did not demonstrate the HRO principle. Should the management have practiced the process of employee empowerment and continual improvement, the \$3.59 bulb would have negated the \$1.2MM accident.





Conclusion

High Reliability Organizations are paradoxical:

HROs include some of the most authoritarian, hierarchical organizations known (military, emergency response, hospitals and healthcare), with multiple layers of time consuming and difficult to navigate bureaucracy, and yet they depend on cultures of empowerment for every person at every level.

HROs achieve astonishing levels of reliability, but this is not taken to mean the organization is complete; reliability is an evolving outcome.

HROs invest heavily in process improvement, but never become complacent about the resulting standardization or automation.

As highly structured as the HRO may become, it does not become brittle or rigid; its open-minded cultural attributes allow it to adapt to changing conditions in the environment.

The most important paradox is that an HRO can operate in an extremely complex, high-risk environment, and still deliver reliability.

Perhaps the most prominent theme about HROs is that they are adaptive over time. We used the word ‘resilience’ many times to describe HROs, but what this indicates is a learning organization—one that can change when conditions change. In our world, change is continuous and very rapid. For this reason alone, organizations that want to persist and succeed over time should invest in the path toward becoming a High Reliability Organization.



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