



**OPERATIONAL  
EXCELLENCE**  
& RISK MANAGEMENT

**High Reliability Organizations:  
Closing the Culture Gap to Drive  
World-Class Safety, Reliability  
and Financial Performance**

Changing results requires changing behaviours for the long haul. A project, a computer system, all the initiatives in the world will not change a culture. Leaders in high risk industries are waking up to the fact that transforming their organization's culture may be their greatest lever for driving operational excellence. Unfortunately, many leaders don't know where to start.

Earlier this month we interviewed three industry experts that have decades of experience changing culture in high risk environments and ultimately eliminating the cultural gaps that can impact organizational safety, quality, reliability and profitability.

## Understanding the connection between culture and safety, environmental and financial performance

**Chris Seifert,**  
*Wilson Perumal & Company*

**Chris Seifert is an advisor to senior executives on leadership, culture, and execution, focusing on operational excellence (OE) and operational excellence management systems (OEMS). Working across the energy and manufacturing spaces, he started his career in the US Navy's Nuclear Propulsion Program before moving into the industry.**



“If you don't get the culture just right then you end up with people who either don't use the checklist, or maybe use the checklist but then they blindly follow it without ever asking any questions. The one day that you follow the checklist and it is wrong can turn out to be a costly day. If I am constantly asking myself “do I understand what I'm doing? Am I following the process?” then I'm going to tend to do the right thing the right way every time.

Aside from composing a central “checklist”, a successful culture of operational excellence depends on defined and adhered to core principles. In the course of his years working within industry, Seifert esteems there to be five distinct pillars that are common within the corporate cultures of high-reliability organizations.

Firstly, these entities place a high value on personnel with great levels of knowledge. In high-reliability organizations, employees are expected not just to know what to do, but they need to know why they do it – a holistic view of the actions and interactions within in their sphere of work. An operator doesn't just hit a button just because a procedure says to hit the button; they hit it because they understand why they're doing it, what it's going to do upstream and downstream, and how it impacts and affects other things in the chain of events.



Culture is the secret  
sauce that flavors  
the dish



“The second is a degree of formality: people don’t just make up what they do as they go along. There are processes and procedures for how things are done and people follow those. That extends all the way from actions on the shop floor to the way people communicate with each other. There is an established standard vocabulary that codes for certain elements and people use that. There’s a degree of professionalism.”

“Alongside that degree of formality, the third characteristic is that questioning attitude that we have referred to before. As well as a part of a highly-knowledgeable employee that adheres to the rules laid down in front of them, there is a part that should constantly be investigating that procedure and wondering whether anything has the possibility of going wrong.”

While the principles of an informed and inquisitive nature and prized in cultural terms, Seifert sees the final pillars of the pentagonal culture construct

as the fundamentals that underlie proficiency and teamwork.

“The fourth principle is the concept of backup – that those working across teams and competencies have camaraderie. In a high-reliability organization, the work that needs to be conducted on a daily basis is complex and mistakes are going to be made – that is a given. We need to have each other’s backs so that when somebody starts to make a mistake, co-workers are willing and able to correct and support them to make sure they don’t fail.

“The fifth principle is very closely aligned to the fourth and underpins many of the traits we have discussed: integrity. Quite simply, people have to be trusted to do what they say and say what they do. Without this baseline, the functioning of an organization under operational excellence values is going to be made much harder.”

## Learning from the US Nuclear Navy

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A gold standard for the makeup and execution of a high-reliability organization is the United States Nuclear Navy, whose first nuclear-powered submarine, the USS Nautilus, put to sea in 1955.

We spoke with Bob Koonce, a former Navy Submarine Commanding Officer about the merits of a strong culture that adheres to those same five pillars.



**Bob Koonce,**  
*former Navy Submarine  
Commanding Officer*

“Culture is very, very strong and it’s not a program in the Navy, like a corporate program; it’s just the way people live. I didn’t even know those five pillars were the five pillars until I actually retired and a



Culture is very, very strong and it’s not a program in the Navy... it’s just the way people live



consultant told me....there were no posters, there were no programs. I just got taught that’s how we do things.

“In a corporate setting, you have to look for character traits and background that would fit into the culture that you want to establish or that you have established. I think cultural fit is important. I think it

really depends on what kind of situation you're in. I think if you're bringing in new employees that are fresh out of college or fresh out of high school, they can certainly learn the culture and there should be an element of that.

"If you're bringing in senior leadership into positions of influence and importance in your organization, then I think you must evaluate for their cultural fit." In 2005, the Los Angeles-class submarine USS Philadelphia collided with a Turkish freighter coming heading up through the Arabian Gulf. Whilst nobody was killed, significant damage was done in an event that could have been catastrophic. In the aftermath of the incident, the three top ranking officers on the boat were removed from their positions and Koonce was parachuted in as the Executive Officer to pick up the pieces and observe for several months as part of the Navy's operational evaluation team.

"It's really very difficult at first glance to say, well, how could that possibly happen with all the technology and the training and the knowledge of the operators and sailors, the officers?"

"Once that accident happened the root of the problem was found very deep within the culture of the young sailors and young officers that had not been changed, even in the last several months with new leadership on-board. To me that was a big lesson learned, that changing the leadership out doesn't instantly change your culture.

"I also realised that I needed a way to measure the culture. And I didn't really even have the language or the tools in my toolbox, to really quantify or measure the culture that I wanted.

"The third lesson that I took away from that was that you need an outside perspective. You know, there were people in that organization and too close to that organization that couldn't see what I was seeing. I was an outsider, for the most part, even though I was brought in to be the second in command.

"I was really still an outsider and I wasn't planned, scheduled to be there more than a few months. I felt like an outsider and I also looked at things like an outsider. And as an outsider, I was able to perceive things and observe behaviours that others would maybe filter out or not recognise."

## Identifying the Cultural gaps that are impacting your business

Koonce would apply these lessons to his own command, the USS Key West, and the take from his experience a handful of universal practices that he believes are necessary to drive culture.

"I think you really do have to define the culture very clearly. It's much easier with a group of 12 people than it is with 1,200 or 12,000 but it does take a clear definition of the culture that you want to establish, the behaviours of your people throughout the organization. The bigger the organization, the more challenging that's going to become.

"Secondly, you have to communicate. The leadership has to consistently communicate to the people that are part of the team what their role is and how their role should behave under this culture. Especially if you're instituting cultural change, it's very difficult, and those behaviours are daily within the people and a part of your organization. As commanding officer, it was almost daily I was on an announcing circuit or in front of my men and speaking to them about the behaviours.

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The bigger the organization, the more challenging that's going to become  
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"That's part of leadership but it's an important part of communicating the culture so that everybody understands. If you have a large organization, clearly that has to happen throughout the levels of organization because it can definitely get lost as you move through the levels. So you have to consistently and clearly communicate the culture.

“And then the third piece is....a critique process. It’s just gathering the facts, gathering a timeline, putting together that timeline as a group and then really very quickly sitting down with all the people that were part of that event. You don’t exclude people and just corner off in some organizational development group and have them look at it. That’s, I think, a mistake that many organizations make.



Sometimes you’re going to argue about that timeline because humans tend to remember things differently



“Sometimes you’re going to argue about that timeline because humans tend to remember things differently. I’ve seen a similar process throughout the oil and gas industry. But, what I’ve seen is that many organizations don’t really apply it properly. It really takes the leaders sitting down and saying, that’s not a behaviour that is in line with our culture. We don’t accept that behaviour here. And that’s hard.

“The only way you can be excellent, at least from the nuclear navy’s perspective, is to look for little things, to prevent them from becoming big things, and drive a culture of the behaviours that we want. And that comes through daily interaction, it comes through these critiques, and then sharing those lessons.”



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## Creating a high reliability culture

The US submarine fleet is not the only part of the Navy that can present us with best practice scenarios for building a culture of operational excellence. When Commander Ernie Spence took over the largest F/A-18 training squadron, it was the worst performing in the entire Navy. The squadron was averaging 4.5 significant safety incidents per month, was 20 per cent over maintenance budget, training requirements were over a year behind schedule, and only one of the squadron's 117 aircraft was deemed "safe to fly".

Commander Spence was able to turn the squadron around completely in less than 18 months, by identifying the root cause of such subpar results.



**Ernie Spence,**  
*U.S. Navy Commander*

“It really came down to what I determined to be a failing culture, and by culture I mean the norms and the beliefs that folks in an organization hold that influence their behaviours. I spent about two and a half months looking at processes, listening to how decisions were made and how priorities were set, and holding focus groups with leadership teams.

“I collected the data together and then used that to define what I called “the Current Culture” in that organization, and it was a culture of get something accomplished every day no matter the cost. Success was the attempt to do things, instead of stepping back and asking if these things were being done correctly. It was a culture of ticking off boxes versus the significance of ticking off those boxes. Once I had defined that, then formulating and instating the kind of culture I wanted to move to was much easier.



I defined the way that we would operate on a day-to-day basis, and I called it ‘the Three Ps’: products, processes, and performance



Spence discusses the outline of the desired culture he wanted to achieve in terms of seven traits. “I selected four attributes that I wanted folks to really believe in, and believe that they had the ability to get to: they were professionalism, responsibility, taking care of each other, and treating each other with respect.

“I defined the way that we would operate on a day-to-day basis, and I called it ‘the Three Ps’: products, processes, and performance. And so for each portion of the organization, I defined for them what their “Three Ps” were and we began to measure on daily, weekly, monthly, quarterly, and yearly intervals the performance of those goals.

“It became an empowerment mechanism, where people on an individual level on a day-to-day basis would look at how the processes were performing. We overhauled the reward system and made it about positive reinforcement. We stopped holding people accountable for not getting a flight off the ground, and we started holding them accountable for making the right decisions to get a plane safely airborne.

“And over the course of a few months of doing this, we changed two things. One, we stopped blaming people, and people were willing to bring forward the mistakes that they found, or the mistakes that they made, which then allowed us to find more organizational fundamentals which we could improve upon.

“The second thing was that because we put a very top-down leadership focus in identifying the root causes and looking to find constructive solutions from the bottom up, we found a lot of folks who really wanted to be part of that. Within a couple of months, it no longer required senior leader intervention when an incident happened, it simply required mid-level management and supervisors who. You would see a swarming of folks out there around the incident, gathering information.

“We see a lot of organizations that are able to turn around their culture, or transform how they’re operating, but within a couple of years they slide back to where they were, and I think a lot of that comes from the sustainment aspect of it, and the sustainment really comes from leadership.



Once you’re there, leadership is just a sustainment function



“So, if I were to draw a process map of how an organizational transformation and culture change would happen, it starts with leadership, and then it goes down all the way to the bottom of the organization to create that buy-in, the understanding of the need for change, and a commitment to actually changing the culture. It has to go all the way down to the bottom of the organization, and then it goes back up from the bottom to the top of the organization while you’re actually transforming the culture.

“Once you’re there, leadership is just a sustainment function, and the way that leadership sustains it is by making awareness of the culture and assessment of the culture a day-to-day function, and if you’re able to do that, then those behaviours, and expectations truly become part of what the organization believes and is.”

## CONCLUSION

Having outlined the constituent parts of the “secret sauce” that is culture, the pillars that hold it up and the structure that turns leadership into the fulcrum for the sustainment of that high-reliability framework, steered a sub crew away from hazardous waters and piloted the worst fighter squadron away from the danger zone. In a business context, the root of all clamor is in safeguarding that bottom line, and saving where possible.

The linkage between culture and financial performance is a major selling point and a key driver for all operational excellence initiatives, but is this a tangible relationship? Seifert says the answer is an emphatic “yes”.

“We did work with a refining company whose

costs were high, equipment reliability poor and safety performance poor. We did an assessment on them and saw the issue was cultural. That they’ve invested in Operational Excellence, but people aren’t following the processes or using the technology in the right way. “They set out on a journey to create a culture based on those characteristics of high-reliability organizations.

“They saw a five per cent improvement in asset utilization over the course of a year – just by focusing people on the right behaviors. Following procedures, questioning things out of the ordinary, backing each other up, and they got that five per cent improvement in asset utilization. That equated to \$200 million in EBITDA for that company.” The secret sauce has ostensible value.

## OPERATIONAL EXCELLENCE & RISK MANAGEMENT

February 7-9, 2017  
Houston, Texas

### INTERESTED IN LEARNING MORE ABOUT THIS TOPIC?

If your company is in a hazardous industry, ensuring safe, efficient and sustainable operations is one of your primary objectives. Understanding and managing the dynamic operational risk your business or plant carries on a daily basis is absolutely essential.

Join over 100 operations leaders at the Operational Excellence & Risk Management Summit taking place in Houston February 7-9, 2017. The summit is a cross industry event for high risk industries and will address how proactive and predictive risk management drives operational excellence and reduces safety, reliability and environmental risk.

The Operational Excellence & Risk Management Summit: will help you find the perfect balance between safety, productivity, quality, compliance, yield and cost.

To find out more about the program and line-up of speakers and topics, download the official agenda or visit the website [www.opexandriskmanagement.com](http://www.opexandriskmanagement.com)

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