

# 2016 Center for Offshore Safety (COS) Forum

*On September 20, 2016, BSEE Director Brian Salerno and U.S. Coast Guard Rear Admiral Paul Thomas were invited to discuss offshore safety with members of the Center for Offshore Safety in Houston. Admiral Thomas is the Assistant Commandant for Prevention Policy.*

***The Center for Offshore Safety (COS) is an organization funded by the offshore energy industry to promote offshore safety. COS has also been approved to certify auditors for offshore operator's Safety and Environmental Management Systems (SEMS). The following transcript was published by the United States Coast Guard on September 27, 2016 on the Coast Guard Maritime Commons Blog by Lt. Katie Braynard. She noted that the remarks are not "as delivered" and represent a condensed version of the panel discussion.***

*The panel was moderated by Charlie Williams, executive director for the COS – an industry sponsored organization focused exclusively on offshore safety on the U.S. Outer Continental Shelf.*

## Introductions

### Director Brian Salerno:

I really appreciate the invitation to me and Rear Adm. Thomas to once again spend some time with you and to have this opportunity to engage in dialogue with COS members. We at BSEE really value the relationship that we have with the Center for Offshore Safety. COS is an ally in our shared goal of strengthening and maturing the safety culture on the Outer Continental Shelf. Working together over the last several years, we've refined the procedures around SEMS audits and assessments, and I know that going forward in the coming months and coming years, we'll continue to make refinements and continue to make SEMS even more effective and beneficial to safety on the OCS.

One of the tenets of a safety culture is leadership; continuous improvement really requires that commitment by leaders. People in organizations take their cue from what leaders say and what they do, the kinds of behaviors that they reward – we've all experienced that. In times like we are experiencing right now, with this prolonged economic downturn, that's really when a leader's true commitment to safety is put to the test. I'll be honest with you, when we went into the downturn, I was really anticipating that we would see a spike in incidents, that the number of injuries would go up, and that the number of oil spills would go up. I predicated that fear on the belief that there are natural tendencies, when companies are under enormous financial stress to defer maintenance, to maybe cut corners a little bit. But we're not seeing that, and I would attribute that to the kind of leadership that is resident within the industry – that commitment to put safety front and center, to embed it into all your normal work processes. And I think that's really had a beneficial effect. I am cautiously optimistic when I look at the future of SEMS and its value to the industry. I think it's had that

beneficial effect through this downturn. You can all pat yourselves on the back for that – I think that's good news.

The other side of that coin, though, is that incidents are still occurring. We still do see injuries, we still see oil spills and, unfortunately, we still see fatalities. The only acceptable number on fatalities is zero; I think we would all agree on that. So, we still have work to do. We cannot be satisfied with the status quo. There is much we need to do and much we need to discuss about our way forward with SEMS and how we improve safety on the OCS. Along those lines, I know later today we'll have some discussion on the National Academy's study on safety culture. For those of you who haven't had a chance to look at it, I'd encourage you to do so. It's a good report and it's a good assessment of where we are. It also makes recommendations to industry, to COS and to regulators, and I think it gives us a lot to chew on.

I'm sure this will influence the nature of the dialogue that we have going forward and how we make things better. Speaking as a regulator, BSEE and the Coast Guard have shared responsibilities for safety and environmental protection on the Outer Continental Shelf. We're involved in your business and we take very seriously that need to speak with a consistent voice, ideally with the same voice, but we want to be consistent. That's why we meet regularly. We get together, at a minimum, on a quarterly basis and that happens not only in Washington but also at the field level between our regional director and the [Officers in Charge of Marine Inspections]. We also share data, we've established procedures to cross-train our inspectors and our investigators and, to the extent possible, we seek to harmonize our policies.

We feel we owe that to you – that level of consistency – so that you are never in a position where you have to adjudicate between two regulators. It's also why we each enjoy coming here, so we can hear what's on your mind and engage in that dialogue. I look forward to today's discussion.

**Rear Adm. Paul Thomas:**

As Director Salerno said, it's a good opportunity for us to interact not just with the audience here but [the COS Forum] is another opportunity for us to coordinate and we've taken advantage of that opportunity already today.

Thank you for structuring the discussion today around this [report from the National Academy of Sciences, Engineering and Medicine](#) (NASEM Report). If you haven't read it, I recommend it. It really is a seminal document on the state of the safety culture on the Outer Continental Shelf in the U.S. and it has a great history of the industry and the development of safety culture. It outlines the regulatory framework that supports the safety culture, recognizing you cannot regulate culture, but you can support the culture with regulations, particularly around safety management systems. It has a number of useful recommendations for both the industry and the regulator and we're going to discuss some of those recommendations today.

If you look at the essential recommendations to the regulator in this report, and the role of the regulator as defined here, it's to really help to build transparency. Transparency really is a necessary precursor to safety culture. It's to learn how to build metrics that help the regulator assess safety culture and move away from checklists in compliance activities. It's also to learn how to adjust your compliance activities as you learn how to assess the safety culture. To that end, we have undertaken a number of initiatives that Director Salerno has

already mentioned. We have joint training, joint inspections, we share our data and we do a joint risk assessment.

In the Coast Guard, we're moving to risk-based targeting of our resources. But that targeting is not just done with Coast Guard data. That targeting is done with Coast Guard and BSEE data because we can get a broader view at the overall safety culture aboard a unit or at a company if we leverage all our data. Then, we will use that assessment of safety culture to recognize those who are doing a great job and provide less oversight there, and to target our resources where we see, whether it be from Coast Guard data or from BSEE data, that there might be a lapse in the safety management system or the safety culture.

Some in your industry have coined this double jeopardy. I don't think it's double jeopardy; I think it's good government and good governance. It certainly is the way of the future because we're not getting more resources and, as the report says, the regulators' role in helping you build a safety culture on the Outer Continental Shelf is to assess safety culture, recognize it, and adjust compliance activities accordingly.

### Questions:

**Williams:** The NASEM Report recommends that regulators work to change or remove barriers that inhibit data reporting, sharing and analysis. The view is that such barriers inhibit learning opportunities and therefore limit the enhancement of safety culture. What are the key regulatory or policy barriers you believe should be eliminated by your organizations to promote improvements in safety culture?

**Salerno:** I don't know that there's a regulatory barrier to sharing information. If there's a barrier, it's fear of how that information will be used. We're all very aware of the fact that we're under a lot of scrutiny and people take a look at what we're doing – they look at the industry, they look at the regulator – and there's always that fear of legal exposure. I think that's probably at the core of why there may be reluctance to share information.

From a policy perspective and establishing clear pathways for sharing information, I think what a regulator can do is use the protections that exist, especially where Congress has given us those avenues. For such things as near miss reporting, we can and must protect the reporting source. Ideally, that would remove some of the fear so that we can collect, analyze and share information. What we're really after is safety information...learning information; we are not going to use near miss information as an enforcement mechanism.

The other thing, and it relates to SEMS, is how can we, from a policy perspective, provide and build in enough assurances to support good honest audit results that give valuable safety information and show how business is really working. I think we've always had a little bit of hesitation, or seen some hesitation, for what companies are willing to share. That's an ongoing project in making people comfortable with working SEMS and feeling free to share their findings without fear of retribution.

**Thomas:** I thought about this one quite a bit because it gets back to my point about the necessity of transparency to building a safety culture, not just at one unit but across the shelf. Director Salerno and I are committed to that – we are sharing data not only between our agencies but with the industry. This year, we will issue our first joint report on the state

of safety and safety culture on the OSC as viewed through our data. We are doing what we can to ensure the transparency of the data that we own.

I think you need to do what you can do to ensure the transparency of the data that you own, and I don't think there is a regulatory solution – I think it's a business solution. I think the COS is a perfect venue to share that data in a threat-free environment in a way that allows both the industry and the regulator to understand trends without necessarily placing blame or holding people accountable. There are times when a government regulator must hold people accountable and if you're looking from removing regulatory requirements to hold people accountable, I don't think that's the solution that either industry wants or should be waiting for. I think the industry should take this issue on, and build the transparency so we can all learn the lessons that we need to learn.

**Williams:** The other side of this is that a lot of the Coast Guard data is vessel based, and it shows up in other government databases. I think we have a big obligation to make the data the most accessible and the most transparent, so thinking about that, it would be good sometimes and maybe you do have systems where you can look at owner-based data and things like that.

**Thomas:** We do, and if you've ever seen the Coast Guard's annual [port state control report](#), we report out in terms of performance by type of vessel, by flag, by class society. That's the kind of thing we are talking about with our joint report.

**Williams:** One of the things it says in the NASEM Report is about defining accountabilities between the three regulators – BSEE, Coast Guard, and [U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration \(PHMSA\)](#) – about implementation plans relative to offshore safety culture. It's kind of an interesting thing, if you'd like to say anything about that.

**Salerno:** Between Coast Guard and BSEE, there's an ongoing dialogue. It's been formalized in many ways with memorandums of understanding and exchange of data, people, training and so forth. I think that's really on a good track. PHMSA is an entity that we need to tighten the relationship, but it's become a lot tighter over the past couple of years. I serve on PHMSA's advisory board for liquid pipelines and my organization and I also engage with PHMSA and the Canadian National Energy Board, specifically in areas of safety culture. The National Energy Board has done a lot of work on safety culture. They've hired some real experts to look at it. They're looking at how to develop indicators of good safety culture, similar to the work that COS is doing, and in many ways, complimentary efforts. That needs to continue.

I think from a practical standpoint, BSEE needs to have a closer relationship with PHMSA operationally, more like what we have with the Coast Guard, because the infrastructure is all interconnected. Sometimes, it gets a little confusing which agency has oversight or who should be talking to the company. That is an item we are actively working on. The relationship is a good one, so I do see resolution there.

**Thomas:** I found this particular recommendation intriguing and I wish I was able to discuss the real intent with the authors. We do have a number of formalized agreements between our two agencies that specify who's responsible for what and where our authorities overlap and, when they do, how do we treat it. I think the next level is to focus on agreements specifically with assessing and facilitating safety culture, and we haven't gotten there yet.

Those are things like, 'how do we share information in a systematic way that allows you to better target your resources based on our assessment of culture.' That, I think is the next step for us.

**Williams: The NAS report recommends Coast Guard SEMS requirements should be consistent with those published by BSEE. What are your thoughts?**

**Thomas:** We are pursuing safety management system regulations. Congress asked us to provide them some analysis before we moved into the rulemaking process and we've done that; we're working on the next steps with that rulemaking. Certainly, we want to make sure that it works very well with BSEE SEMS and, for units or vessels that are covered by SEMS, we want to make sure it covers the gaps that exist, because there are gaps that exist.

Again, for an operator who has achieved a safety culture, I think they really want to make sure all the players they have operate with have a safety culture. A requirement for a safety management system is almost a prerequisite for a safety culture. We have to fill the gaps out there, and we're moving ahead with that regulatory project.

**Williams: The NAS report recommends that we should adopt the BSEE definition of safety culture that came out a few years ago. Have you begun to assess your own safety culture and do you have learnings you can share with industry from that assessment?**

**Thomas:** I come from an organization that has a very strong and deeply embedded safety culture. Anytime we launch a boat off of a ship, we do an operational risk management assessment that asks questions and allows the people doing the operation to really think about the risk. I think in terms of building safety culture in the Coast Guard, it's been a focus. Every now and then we get wake up calls – a number of years ago we had a couple of aviation accidents that made us go back and reassess that – but we have the luxury to really build a strong safety culture.

**Salerno:** It's important for anyone who's regulating to walk the walk. When BSEE came out with its safety culture policy, there was an outwardly facing component, which was shared, but there was an inwardly facing one as well. It was put into place by my predecessor, Jim Watson, and we've kept it in place because it needs to be in place. All those same things – leadership, inquisitive attitude and management of change – apply internally as much as they apply externally.

BSEE is a fairly young organization. It's set of needs are a little bit different than the Coast Guard, because the Coast Guard is also an operating agency – they operate ships, boats and planes – and those things really have to be managed in a safety context. From my perspective, BSEE needs more of a personnel safety focus. I put people into hazardous environments, we fly everyday – multiple takeoffs and landings – so there are real safety concerns. The policies, the training and the oversight – all of that is there, so it would look very familiar to anyone in this room.

**Williams:** In 3 to 5 years, what are some success factors that you'd look for that the industry's delivered in safety culture. What are some key things you'd think about that says, 'Yes, we are progressing safety culture and doing better in the industry'?

**Thomas:** I'm going to use the word transparency again. I think that is a key indicator on how well safety culture is progressing, not only within a unit, or a company, but across an industry. When I see business practices that insist on safety culture and well-implemented safety management systems across the supply chain, then I will think we're making progress. When I see industry holding their partners, their suppliers and their customers accountable, then I'll think we're making progress. When I see a company that understands and accepts the fact that when a Coast Guardsman is aboard a unit and sees a problem that might be in the SMS area and we alert our partners that maybe we need to dig a little deeper and look at culture here, not just checklist items. When I see acceptance and not only acceptable but welcoming that, then I'll think we're making progress.

**Salerno:** When you consider how far we've come in a couple of years, I think it is quite remarkable. Three years ago, we were just going through the first audit cycle there was that push to make sure everyone had a SEMS plan to have the first audit, and so forth, so we've made a lot of progress.

The next three to five years, I think is going to be really focused on maturation of that process. One of the great fears that we have with any type of system like this is that it devolves into a paperwork exercise, and that serves nobody's purpose. A plan on a shelf is useless. If it doesn't affect behavior at the deck-plate level and throughout the organization, it's not achieving its purpose. I think as we go forward, we're really going to want to look at "if basic elements of the SEMS plan being put into practice?" Is it influencing the way work is done?

Things like the "four W's" is a good example of how that really penetrates to the workforce level. As people who are trying to receive information and gauge the sense of the safety culture, we'll be looking for some way to measure that and really be able to tell if it's really doing what it's envisioned to do. I think it's really maturation, that's what we're looking for.

**Thomas:** I would just add that the maturation needs to happen on the part of both the Coast Guard and BSEE. We're working hard to mature the processes that we use to ensure compliance so that it's not just a checklist but it is an assessment of culture so that we can help build it if it needs to be built or that we can apply our resources elsewhere if we see that it's robust.

**Charlie:** What are some of the characteristics, indicators or things that you'd see specifically in leadership, that you think are key to driving safety culture forward in the industry?

**Salerno:** With leadership, there is no substitute for really believing your own philosophy regarding safety. People can tell when you're faking it. If you're putting out company guidelines that say one thing, but you're sending other messages that, 'I know we have this focus but your primary focus is cost and schedule,' and you're sort of giving people leave to deviate from the policy, obviously there is a breakdown there.

I think the effective leaders from a safety perspective are ones who truly walk the walk, hold people accountable, reward people for doing the right thing and model the best behavior themselves. I know you're not in the business to produce safety. You're in the business to

generate a product, provide returns for your shareholders and all that. We're not talking about it as something different and distinct; we're talking about just embedding this in the process and making it sort of a strategic imperative for the way business is conducted. There's no substitute for good leadership at all levels in achieving that objective.

**Thomas:** I think that sums it up. I see the top leadership in this industry, the leaders of [the COS] boards, for example, really serious about this and really dedicated to it. I think the challenge is good implementation all the way down to the deck-plate, and that's a challenge – it's a challenge we work through together by building transparency, by sharing data and by sharing lessons learned. I believe the leadership in this room is dedicated, that's not in doubt in my mind.

**Williams:** Companies either have good cultures, or they don't have good cultures. If they have a good culture, it's a good safety culture, a good leadership culture, a good quality culture, a good efficiency culture, and it's meaningful to me because we tend to say, 'Well, we're going to have nine different cultures,' and I think good culture delivers good safety too.

**Salerno:** Exactly, and it sounds very subtle and it is very subtle, but it's actually very meaningful. You can't just have a bolt-on safety culture, to bolt on to your corporate or company culture. The safety is really an outcome of your corporate or company culture. If you're doing things in a safe way and if it's a core value in how you conduct your business, you will have safer outcomes. But to think of something that can be just appended to how you normally do business and think it's going to have an effect, that's not going to work. It's an important distinction, I think.

**Thomas:** I would say that the corporate culture will extend into cyberspace, and that's how we will manage the risk associated with cyber. When every employee understands how the barriers that are currently in place for environmental compliance and for safety compliance are impacted by the cyber systems and how those systems need to be managed, I think culture extends into cyberspace.

**Williams:** **In the future, are you thinking about regulating culture? It's hard to imagine, but would we have a pink list for culture?**

**Salerno:** I don't see a way to regulate culture. Every company is different; every set of beliefs and behaviors that constitute culture is going to vary from company to company, so for a regulator to even attempt to do that would be foolish. What we can do is try to gauge whether a healthy culture exists. I think that's achievable. We can certainly encourage it and incentivize it, for you to develop and mature a culture that meets your needs that also has safety as a core element. Things like the safety performance indicators are a pathway to that and can be very beneficial in helping to make those type of assessments to see if there's something truly meaningful within the unique culture within any organization.

**Thomas:** I agree; you can't regulate culture. As I've said before, regulation can support it. I think we have some gaps in our regulations now around safety management systems that we're working to fix. But to really regulate culture? That's a business to business thing. That's when you have to say, 'I've got the culture and I'm only working with partners and suppliers and customers who share my culture.' When that happens, it will be self-regulated, and that's always the best solution.

**Williams:** **Is the Coast Guard aligned with BSEE's safety culture definition?**

**Thomas:** The culture policy statement that BSEE put out is based on a lot of literature. It's hard to argue with. We don't have a similar policy statement. In fact, the Director and I were discussing whether or not we should. For me though, I recognize that we can't regulate culture. We can regulate management systems, but we can't regulate culture. I'm not sure if we were able to codify that in a regulation what the purpose would be. But certainly, we think it's a great definition. All the tenets are in there and we don't have a different one.

**Williams: There are all kinds of ways at looking at what risk is. Directionally, what do you think risk-based is going to mean in the future?**

**Thomas:** When you talk about risk-based, it's all of those things. It's where are you operating and when are you operating. You're probably higher risk if you've just come into the Gulf and you're just starting to operate. From our standpoint, you may be higher risk if we've never seen you before. Certainly, if I look at a BSEE audit report, and I see a large number of non-conformities associated with the SEMS, I can make an assumption that there might be problems associated with the systems that I'm concerned about.

All of that is part of the overall risk picture, and the more robust the database we're looking at, the better picture we have of risk, not only on a unit by unit basis but also across the Gulf. We'll look at COS data, we'll look at all of that, and that's what risk-based is all about. It's also about understanding quickly if the operation is high risk or not. If it's not, I don't have to dig as deeply. If I'm starting to see risk indicators at the surface, then I might have to look at the safety management system.

**Salerno:** We are very interested and committed to pursuing risk-based methodologies in how we conduct business in the future. We have initiated a pilot program that I would call somewhat exploratory in nature in terms of determining what are the right and most meaningful elements that we can build into a risk-based inspection regime. We've had a couple of inspections already that were prepared for us by a national laboratory and it brings in a lot of different variables – complexity, past history and a number of other things – that are just indicators. As we've gone through the model, we've taken a pause on how we will proceed with the pilot and probably will make some adjustments on the pilot based on what we've learned on the first few.

The companies that have participated in that were extremely helpful to us and helped us refine our thinking as to how we go forward. The bottom line is – I see this as the future. It's a resource issue for us, at it's very base level, but it also makes sense. We want to focus our efforts where they will do the most good. We also want to recognize that when people are doing things right, we don't need to spend as much time inspecting them.

There are a couple of things that really need to come together there. I think when we talked about maturity in SEMS, I think that will be a very important component of any future risk-based calculation. If a company is doing it right, if they are identifying gaps and then building that into a corrective action plan on their own, that's a sign of a really healthy system. But we need the methodology to gauge that.

**Williams: Regarding collecting indicators, collecting data and collecting data on barriers, are we headed in the right direction? Should we be doing more there and is that where you'd like to see us going, focusing on barriers? Is measuring barriers a good place to measure culture and SEMS/SMS?**



**Salerno:** I applaud your efforts on doing that. I think it's vitally important. It's of great interest to us in BSEE. Barrier management is at the core of what we're really interested in. That's where safety is being managed in its most meaningful ways. We're looking for further development on that and incorporating that into our inspection activities, refining them and using them as part of risk-based inspections. I think what you're doing is useful and it's necessary.

**Thomas:** I agree. I've actually taken some of your work and applied it in other areas. Measuring barriers, understanding them and assigning ownership for barriers is very critical. I think that same model will work in the cyber world, and that's where we're trying to apply it today. There are a number of barriers both before and after a cyber incident that belong to specific individuals that you can define, measure and assign accountability for. That's really what this is all about, as well.

**Williams:** **Is there anything you wanted to share about things you've learned so far in the second round of SEMS audits?**

**Salerno:** It's all preliminary, since we haven't fully gone through all of them or analyzed them. The first impression is that the quality this time around is better than the last time, which stands to reason – there's more experience with it. Additional procedures were put in place and tightening up on audit procedures, which I think are having a beneficial effect. That said, within the range of the pool of the audit results that have come in there is a lot of variation – some are higher quality than others, and I think that's normal.

If there is anything that emerges from a preliminary standpoint it's things like management of change. It may really emerge as a focus area for the future. It's not really clear how well that's being implemented in all cases, but that's just one example. But again, these are learning opportunities and that's why the information sharing is so important. If we can gather meaningful information from these audits and share it, the idea is a rising tide will lift all boats – we'll all get better.

**Question from the audience:** **How closely do you both look at the Learning From Incident data that's published by COS and with that new requirement for the surface safety systems, do you see more things coming down the road sort of like that? As you both look at previous incidents, are you going to use that as direction to develop updated or stricter guidelines on how we run our businesses?**

**Salerno:** In general terms, we are interested in all that kind of data. If there's learning from incidents that has been developed by COS and other industry groups, we're vitally interested in that and we do look at it and we take all of that into account. We feel that we get better and more effective as regulators the more we pay attention to what you're seeing and the lessons that you're learning. It helps us refine our process and procedures. We're always tuned in to that.

Regarding Best Available and Safest Technologies (BAST), that was a topic of some concern within the industry when the production safety system rule was first proposed. Over the course of the last three years, there was a tremendous amount of outreach to industry groups, trying to refine what that process would look like. I think we've come to some agreement to where it would make sense and how it would be used. We're now considering a couple of candidate projects to test that model out and see how well it works. I think it will

work pretty well, but that's an opportunity for us to get engaged and maybe refine that process if it needs it.

**Williams:** It seems that with the technology office in Houston now, and that being close to the OEMs and the operators, that also may help with some of the concerns about BAST.

**Salerno:** Exactly, and that's one of the reasons why the technology center is in Houston. It's for that easy access to the companies, to research and development centers and to academic institutions where a lot of this can be studied in a cooperative way.

**Question from the audience: Is there going to be additional follow up to the outcomes of the Society of Petroleum Engineers (SPE) Summit?**

**Salerno:** I think the summit was very successful and there's been a lot of follow-on work, with COS as a key participant in this. The idea is to refine how we collect information collectively and information that we need to share. How do we make it safe to do that? So that people have the confidence that information collected will be used for the right purposes? But also that we are collecting the right information?

I think both COS and SPE have done a tremendous amount of good work in refining the data elements that are most meaningful, so when people start reporting them, we can compare apples to apples and we can start looking at trends and gaps that are actionable. That's proceeding, and it's ongoing. We're all feel very positive about effort and the direction it's taking.

**Question from the audience: It seems to me it's just a very short leap to use other industries that were at the SPE Summit to help us look at data. It's interesting to me that it was the culture of other industries that's really behind how they use the data. I'd also like to get your perspective of different groups, such as the FAA. Is there any learnings of them or of the airline industry that we may want to bring here?**

**Salerno:** Absolutely there is. A couple of weeks ago I had lunch with the National Chairman of the Transportation Safety Board. One of the things he mentioned is that the airline industry was really in the same position that we are in, in this industry. A lot of people were very reluctant to share information – a lot of people are in competition with each other – and there's always that fear of how that information will be used.

They finally figured out that they have this shared interest in safety, and that it made absolutely no sense to compete on safety. A plane falls out of the sky, and it doesn't matter what airline it is – the entire public is afraid to fly. They all lose when that happens. So there was a shared interest in elevating safety for all of them. They will compete bitterly in other areas, but they can't compete on safety. And I think that's sort of where we're at, but we're not starting from scratch.

Sharing information, the work that we're doing with COS and SPE to really understand system reliability and where there might be problems, ideally getting to leading indicators so we can spot things before they become indicators – that's where we want to be at. If we can cooperate and get to that level, and do this in a non-regulatory, but in a cooperative, way. None of us want an incident. We all lose when there's an incident. Even regulators lose when there's an incident. We're all in this together to some extent. We all rise and fall on the safety performance on this industry. One of the key things they did in aviation is removing the fear from reporting. They have an anonymous reporting program, and they recognize

that was essential. All the planes are using air traffic control, they are all using ground control, they all have to coordinate with each other and if there are problems with a system that they all rely upon, they need to fix it. But the only way they could get at that is if they were free to report without it really blowing back at them. It took some effort – it's not easy – but they realized that there was a public good to be served by that, and they were able to put that into place. That's what we can do with near miss reporting in the offshore industry as well. We just have to have the courage to use it.