A HOLISTIC APPROACH TO RISK

Learning from mistakes of the past in aviation is vital to safety, but the process is complex and needs input from every sector of the industry, says the Managing Director of Baines Simmons, Ian Holder

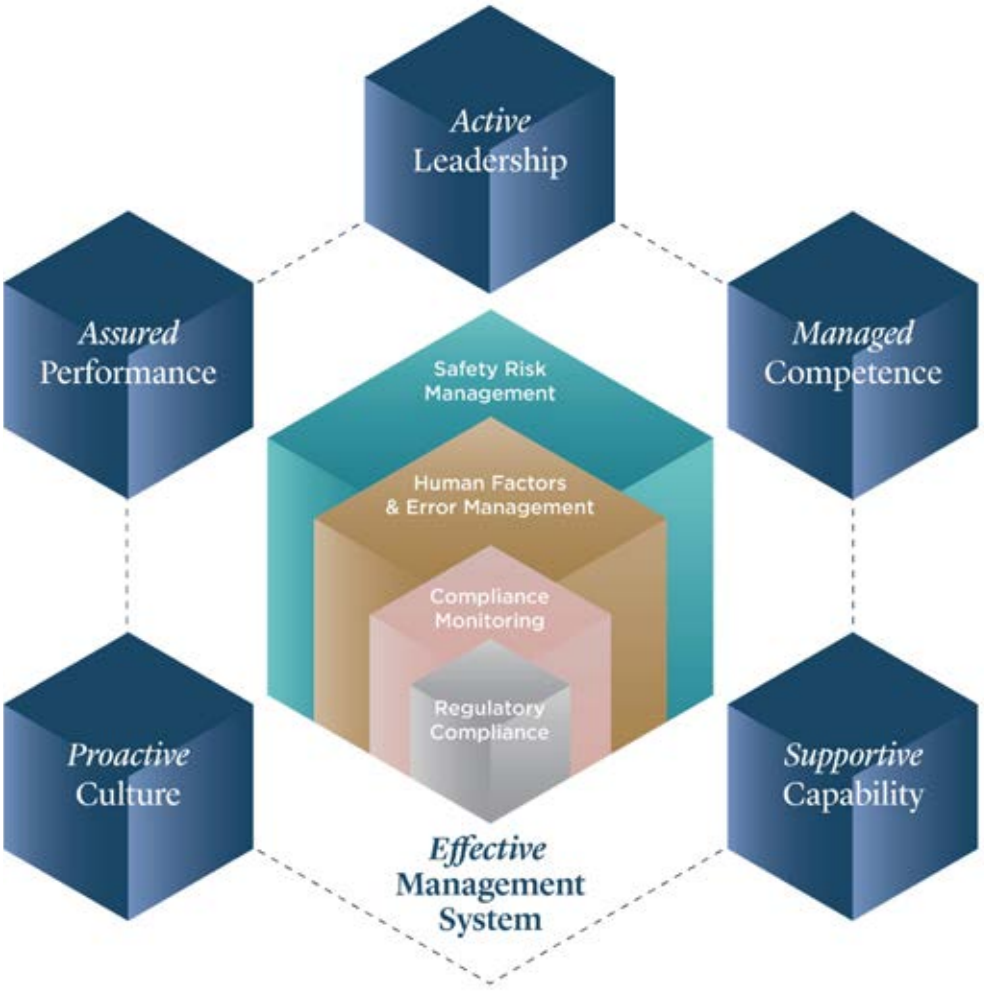
For many, when asked to describe risk management, they will talk of risk assessments, registers, matrices, severity verses likelihood etc. While these may all form part of a risk management strategy, if risk management is reduced to just these artifacts, and seen as the responsibility of a risk manager who produces a monthly report for the Board, all that will be created will be the illusion of risk management, which would be a shame, as it requires a great deal of effort! I have spent the past 32 years in aviation and, as the Managing Director of Baines Simmons, a safety management consulting and training company, primarily in aviation, I am also able to draw on the collective thinking of many others. There are some key learnings from aviation to be had; some things have been done exceptionally well, but the journey is far from over.

By the end of World War II, a huge ability to design and produce aircraft had been developed, many aircraft manufacturers turned their attention to applying this innovation to civil air transport and the seeds of the remarkable air network we see today were sown. On May 2, 1952, the British Overseas Aircraft Corporation (BOAC) flew a De Havilland DH 106 Comet from London to Johannesburg, the first scheduled civil jet service. It is quite remarkable how much this first jet airliner resembles those we fly on today and how little it resembles the WWII aircraft of just seven years earlier. This speed came at a cost. The technology was so leading edge that the scant regulations of the time failed to offer much protection against inherent weaknesses being in the design. Tragically, three Comets were lost in the first year of service, leading to a redesign and, crucially, new regulations on the design of aircraft that prevented a repeat of the losses. These regulations continued to evolve at pace and were adopted globally, leading to the incredibly safe design of the modern airliner. So, regulation is the backbone of good risk management in aviation and compliance with these regulations is made the clear accountability of senior leaders within the regulations. Many argue against compliance with regulation being good risk management, but consider this, if the regulations had existed prior to the design of Comet, the accidents would not have occurred – these early accidents led to a loss of consumer confidence in the otherwise brilliantly redesigned Comet and the demise of British dominance in civil aircraft production.

Ian Holder

So, if compliance with regulation is so important, how do we assure it? Well, no regulator can be all seeing, so aviation regulations, in common with many other industries, require organisations to have their own internal compliance monitoring function. There is a choice here, you can set up compliance monitoring purely to satisfy the regulator, or it can be configured to look for more efficient and effective compliance with regulations and bring about organisational gains; we clearly advocate the latter. In either case, we must not confuse assurance with ensurance, it remains the responsibility of a functional department's head to ensure regulations are complied with, not the compliance team, a point often missed.

Despite emerging technologies that may, in years to come, forever change flying, aviation remains today a largely human endeavour. You, dear reader, are amazing. As is the rest of humankind. Our brains have



evolved in remarkable ways, resulting in an incredibly adaptive species, but we are surprisingly fallible and limited as individuals and need carefully constructed processes and interfaces to be able to commonly succeed, just relying on regulations won't usually result in compliance.

In a complex system, real world data is needed and to be acted upon to ensure humans do not introduce more risk than we had envisaged. While accidents are usually investigated by government bodies, aviation regulations require organisations to have an internal investigative capability to investigate the daily performance influencing factors that may cause their people to act in ways not predicted and engineer them out as much as possible where needed by redesigning resources or processes; this makes accidents even more unlikely as well as resulting in greater efficiency.

What really makes this system of good regulations being turned into an effective organisation, resources and procedures that are acted upon actually work? You need a functioning competence management process, just training people is only the start. How are you recognising the necessary competence (knowledge, skills, and attitudes)? How are you checking it is there and correcting where needed? Moreover, a proactive safety culture is needed. What is the expected behaviour amongst peers? How do people feel about reporting issues they encounter that cause them to error? Does the organisation seek to learn and evolve? To power this up requires engaged and knowledgeable leadership at all levels – the driving force behind good risk management.

So, what about those risk assessments then? Well, all I have discussed so far is largely to manage the known risk from previous, often hard learnt, lessons. These days commercial civil aviation accidents are remarkably rare and yet the industry continues to evolve at a pace to meet the challenges of climate change and emerging technologies, so it must look forwards as well. Those involved in flying aircraft, notably airlines, have been required to demonstrate to the regulator how they are seeking and managing risks bespoke to their operation for years. As I am writing this, this type of organisational horizon scanning is also coming into force for those that design, produce and maintain aircraft, but this is just part of the picture of overall risk management and effective compliance has created an incredibly safe form of travel in a very hazardous environment.

In summary, aviation regulations have taken a holistic approach to risk management, demanding not just technical compliance, but for organisations to demonstrate their commitment to building effective safety cultures leading to self-learning and continuous improvement that can then be shared back to the wider industry. The picture above is our view of how this looks in practice – a central system of structure and processes, surrounded by enablers, a holistic approach to risk management.

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