

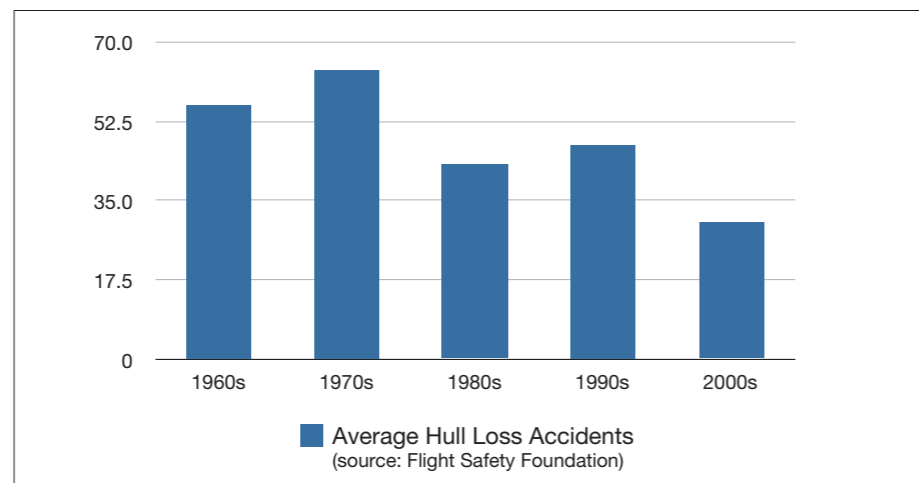
The CANSO Safety Programme: Illuminating the unknown

“There are known knowns. These are things we know that we know. There are known unknowns. That is to say, there are things that we know we don’t know. But there are also unknown unknowns. There are things we don’t know we don’t know.” – Donald Rumsfeld

Sometimes, it is better to admit that there are things we know we don’t know, and even that there are things we don’t know we don’t know. When safety is being considered, these last two positions become ever-more crucial to the Safety Director attempting to make his system as secure as possible. The Safety Director and the safety community of an ANSP will already have significant knowledge and capability in understanding and managing safety, but the challenge for all Safety Directors is to know which part of the unknown needs to be illuminated to raise the level of capability. With each lesson learned, we benefit; and one of the strengths of CANSO is that other members can learn from the single experience without having to experience it themselves.

The maxim of considering ‘what we don’t know’ is particularly relevant to Air Traffic Management, which is facing a unique challenge as it moves towards the second decade of the 21st century. Procedures and safeguards built up over decades to ensure the safe passage of aircraft from one sector of airspace to the next are being questioned with increasing regularity. New technology, the need for greater capacity, and the growing need for environmental considerations to be taken into account are causing ANSPs to review every aspect of their operations and safety culture.

The first priority of any ANSP is to ensure the safe passage of aircraft through its airspace, and the track record of the industry shows a remarkable achievement of this objective, despite the huge growth in air travel over the past decades. But the continued success of the system cannot be guaranteed forever if the



same procedures are used. Airspace sectors cannot be subdivided indefinitely to accommodate growth. Aircraft are already being equipped with technology that will enable them to be considerably more autonomous. As airlines press to be allowed to adopt more efficient routes to conserve fuel, the need for new systems and procedures to accommodate these new technologies is increasing. This brings fundamental questions for the future of ATM safety, and CANSO and its members are at the forefront of preparing ANSPs for that future.

“CANSO has rightly made Safety one of its three leading programmes for the next few years,” says CANSO’s new Safety Manager, Richard Schofield, “and to be honest I am sure it will always be a major priority of the association and membership. I can’t ever foresee a time when ANSPs will be able to relax and think they have ‘cracked’ safety.” Schofield has been seconded by NATS to lead CANSO’s response to these Safety challenges, and he is well aware of the difficulties. “Safety can never be absolute, and we must always be on our guard for the unexpected.”

Richard Schofield

Richard Schofield is CANSO’s Safety Manager. Richard is leading CANSO’s safety programme and is seconded on a 50% time basis from NATS,

Richard became an air traffic controller in 1989 and joined NATS in 2000. He has held a number of supervisory and management roles at airport and terminal control units. Since 2005 Richard has been based at the NATS Corporate and Technical Centre leading operational safety improvement activities and safety partnerships with customers and other ANSPs. “I am very pleased to be joining CANSO at the start of the Imagine 2010 Safety Programme” says Richard. “I am excited at the prospect of working with the CANSO safety community and looking forward to the opportunities and challenges ahead.”

IMAGINE 2010

Imagine 2010 is CANSO’s response to the challenges facing ATM now and into the future. It is a work programme, a refocus, and a reorganisation. Unanimously endorsed by the CANSO membership in March 2008, the Imagine 2010 strategy reshapes CANSO to be the global voice of ATM, giving the organisation the resources to support a growing membership, across all regions of the world.

Fundamental to that support is the focus CANSO will give on three main policy priorities: Safety, Environment, and Business Transformation. With increased resources for the work programmes and communications, alongside a stronger secretariat boosted by some of the brightest and best seconded from its members, CANSO will deliver global leadership on these vital subjects, creating a stronger, safer, and greener ANS industry, able to respond swiftly and innovatively to the significant challenges facing the industry today.

Much of the Imagine 2010 work is concerned with setting global standards and benchmarks, endorsed by the leading ATM regulators, and supported by our industry peers and customers.

Schofield’s appointment is one of a number of high-profile additions to the CANSO Secretariat as it looks to implement the ‘Imagine 2010’ programme, unanimously endorsed by the membership in March 2008. One of the most important elements of the programme was the agreement to focus CANSO’s policy resources in three main areas – Safety, Environment, and Business Transformation, each with a series of key goals to attain by 2010. In line with the Imagine 2010 Safety Goals, and building on the exceptional work that CANSO has always been leading on ATM Safety, Schofield is bringing together a number of key work programmes under the vision of ‘defining the future of ATM safety’. These work programmes will help create a step-change in the measurement and dissemination of safety statistics, safety

management system standards, the promotion of best practice in safety culture and operational safety improvement.

Leading a number of workgroups and committees comprised of experts in ATM safety, Schofield and his team have set out a number of objectives over the next few years. The most important project – well under way and due to be completed by the middle of 2009 – is the CANSO Standard for ANSP Safety Management Systems (SMS). This standard promotes a phased implementation of SMS elements. This approach is based on the experience of CANSO members and draws on information promoted by ICAO. It is intended to be a planning and audit tool, a way of transforming safety culture, measurement and communication, and a means of increasing cost-effectiveness in safety training and mentoring.

At the global level, the SMS standard will compliment and support ICAO’s drive for the implementation of harmonised consistent and coherent safety management processes.

The second vital part of CANSO’s Safety work is the identification and dissemination of Safety Metrics. The CANSO Safety Metric workgroup, tasked with delivering these, is grouped into four workstreams: Loss of Separation; Runway Incursions; Safety Maturity; and Safety Culture. Globally, the maturity of the metrics in these different areas varies considerably. Achieving an agreement on metrics, and then arranging to share the results with the outside world, is a quantum leap for ANSPs, and a measure of how far they have managed to come through the CANSO process.

The achievement of an effective safety culture is recognised to be a vital element of achieving and maintaining satisfactory levels of safety performance. Schofield sees this as one of the most significant areas for development in the coming years, and is impressed with CANSO’s work in this field so far. Learning from mistakes is one thing, but there is a burgeoning body of material looking at embedding safety at a level that can anticipate any mistakes before they happen. This takes Safety Culture beyond

management systems, ingraining it in the behaviour and attitude of staff. Schofield is excited at the prospect of quantifying the best practices in Safety Culture and spreading them across the sector. “Establishing the correct safety culture is vital” he says, “but we must be careful not to think that once we have established a benchmark we must set it in stone. Safety Culture should be ever-evolving and to a certain extent must exist at a deeper level than in a manual or a computer programme. That’s especially important in our sector which is undergoing radical change, particularly with the introduction of new technology and procedures.”

And that technological change is giving ANSPs both an opportunity and a challenge. The opportunities created by the new satellite-based surveillance will greatly increase the potential new capacity and efficiency in the system. It will also bring a sea-change in safety. In the past, the number of potential airspace incidents would increase in proportion with every new aircraft flying in that sector. With the new changes in technology and operations coming through, the potential for incidents can be de-coupled from traffic growth. But this tremendous opportunity brings with it considerable challenges. Most notably, who is responsible if Controllers are increasingly marginalised by the greater autonomy aircraft will possess when utilising the new systems? Another challenge is emerging in the shape of the management of unmanned aerial vehicles. With all these questions, it is the issue of accountability that keeps returning. Who is accountable for managing aircraft – the Controller, the Pilot, the Computer? How is accountability to be preserved in a Just Culture environment? How will CANSO members be judged, or held accountable, when their safety metrics are published? And accountability too, for CANSO. The members expect great things from its Safety work programme, and Richard Schofield and the Workgroups know that they have to deliver. An ATM Safety project is never finished – there will always be unknown unknowns out there – but, with its Imagine 2010 goals, at least CANSO is ensuring that we will all know a little more about safety in the future. ➔