Forging New ATM Links in the Global Safety Chain

BY ALEXANDER TER KUILE

The historic geo-political attitude towards aviation safety as a purely national issue must transform into a global systems design. If the aviation industry is to make the required improvements in safety performance to meet the forecast traffic loads of the next 20 years it will have to take more of a “total systems” approach, with airlines, airports, support organizations, manufacturers and air navigation service providers (ANSPs) working together on common improvement initiatives.

That is the guiding vision behind the Global Aviation Safety Roadmap endorsed by the International Civil Aviation Organization (ICAO) and its industry partners. It is also the guiding principle behind the work of the Civil Air Navigation Services Organisation (CANSO), the global association of ANSPs and air traffic management (ATM) technology providers.

Within the aviation safety chain there can be no disconnects. Historically governments have regulated aviation with unique and individual policies for each sector with insufficient recognition of the interdependencies or consideration for the impacts on others. This has resulted in significant friction among the aviation players in our global system — airlines, airports and ANSPs. As an industry we now fully recognize the need to strengthen the links among the players and to ensure that all regulations consider the dynamics within the system.

The Global Aviation Safety Roadmap is a coordinated industry approach to ensure that everyone — regulators, industry and coordination bodies — recognizes the interdependence of players as well as the need to guarantee that agreed global standards are adopted and maintained.

The next generation of ATM systems will require a new way of thinking, as these will be configured around regional and even larger trans-national blocs of airspace — what ICAO now calls “homogeneous ATM areas.” They will also have to work from the packed airport apron to the upper airspace; otherwise, the new space-based, aircraft-based surveillance, navigation and communications technologies will merely speed aircraft from one area of congestion to another.

Over the last few months CANSO has been involved with some “break-through initiatives” to ensure that new safety standards are
considered in a global context and founded on the best-practice principles developed by the organization’s workgroups.

In November 2006, CANSO’s Global Safety Standing Committee brought together 35 representatives from the worldwide ANSP community to exchange views and create progress in areas such as:

- Developing the *Global Aviation Safety Roadmap* — the joint industry-ICAO initiative to improve global safety
- Promoting air navigation system safety information exchange
- Understanding and managing key ATM safety risks
- ATM safety metrics
- Implementing ATM safety management systems
- Establishing a Just Culture
- Measuring and managing a safety culture

A key element in CANSO’s contribution to the implementation of the ICAO Global Aviation Safety Plan (GASP) will involve the completion of regional gap analyses to establish a clear picture of activities in place to improve safety, and highlight where further action is required or where improved coordination of efforts might deliver added benefits.

October 2006 saw the development of the *CANSO Practical Guide to the Implementation of Safety Management Systems — Experiences of CANSO Members* guidebook, where members can relate their own experiences and lessons learned implementing safety management system (SMS) programs. The exchange of safety information lies at the heart of the safety standing committee and submissions to the Safety Information Exchange Program (SIEP) identifying a number of key risk areas that were reviewed at length during the November meeting. The SIEP has been developed so members, in total confidence, can exchange information on key concerns, risk areas and how to mitigate risks pragmatically.

Work to address key risk areas such as runway safety has been incorporated into the Global Safety Standing Committee work plan. Another major issue for the group is the establishment of global safety metrics. A sub-group of CANSO ANSP experts has been set up to look at this issue, and the first step will focus on losses of separation between aircraft under instrument flight rules and risk assessment. A progress report will be presented to CANSO ANSP chief executive officers (CEOs) in May 2007. Longer term, the scope of measures will be expanded to cover other risk areas including runway incursions and safety culture measurement.

Earlier in the year the committee had developed a position paper on the establishment of global safety metrics which was presented at the CEO conference in February 2006 in Maastricht, Netherlands, to a good deal of support from CEOs.

CANSO is also working hard to improve the dialogue between ANSPs and their stakeholders, including regulators. In late 2006 the organization opened an office in Montreal to facilitate better communications between the ANSP community and ICAO. It is clear that now, more than ever, we need to make the links in the chain strong, and we fully support the role of Flight Safety Foundation as the institution which can take the lead in bringing together all players within the safety chain, coordinating the various safety initiatives, and developing an aviation safety improvement network that will meet the needs of our demanding industry.

Alexander ter Kuile is Secretary General of Civil Air Navigation Services Organisation.