



Accident Investigations Still Important

BY KYM BILLS

I detect four threats to the role of professional safety investigations required under the Chicago Convention and the standards and recommended practices in International Civil Aviation Organization (ICAO) Annex 13.

The first threat is the notion that reactive investigations have had their day, and what is really important is the proactive analysis of safety data. Second is the need for increased professionalism and timeliness in safety investigations because of the changing media and political environment. Third is the confusion — and sometimes the agenda of labor groups — that “just culture” means no blame or liability even in instances of serious and deliberate wrongdoing. And fourth, at the other extreme, is the growth and resurgence of litigiousness and criminalization.

I will discuss the first and second of these items in terms of the need for an inclusive approach rather than an either/or view, and the third and fourth items in terms of a discussion in which the truth probably resides somewhere toward the middle.

Of course, safety regulation based on reactive accident investigations is, by itself, insufficient. We should supplement this by investigation of serious incidents and, preferably, of other incidents of particular safety significance. Within the limits of its budget, the Australian Transport Safety Bureau (ATSB) does this.

Further, the proactive use of the line operations safety audit methodology and flight operational quality assurance data is increasingly

important. Good industry safety management systems include confidential reporting and, until they reach widespread maturity, can usefully be supplemented by national confidential reporting systems like the U.K.’s CHIRP (Confidential Human Factors Incident Reporting Programme) or the ATSB’s new REPCON. Published research and analysis of de-identified databases and incident trends are also very valuable.

Accident investigation by safety investigators remains essential if only to remind us of the continuing need for vigilance to avoid the human and other factors that have led to so many accidents and fatalities. Often, however, professional investigations do much more than just remind us of past lessons. There are new and unusual twists in safety improvements based on differing organizational cultures and pressures, regulatory environments and interfaces with other humans and changing systems and technologies.

To achieve the necessary investigative rigor and professional consistency, the ATSB has invested heavily in competency-based training and developed a detailed methodology that ultimately requires assessing a probability of more than 66 percent to classify any safety factors as contributory to an accident. Interested readers can see this applied in our recent report on a 15-fatality controlled flight into terrain accident at Lockhart River in Queensland.¹

I believe this 500-page report on the worst civil aviation accident in Australia since 1968 is a work of high quality. More controversial than

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the report was the fact that it took almost two years to be released. While there were several interim reports, and the investigation was complicated by an inoperative cockpit voice recorder (CVR), no witnesses and the extent of destruction of the Metroliner 23, two years is a long time. A post-investigation evaluation is seeking ways that this could be improved.

At a recent meeting of the International Transportation Safety Association in Ottawa, Canada, the Russian Interstate Aviation Commission (IAC) outlined its investigation, with the assistance of the French Bureau d'Enquêtes et d'Analyses and the U.S. National Transportation Safety Board, of the Irkutsk Airbus A310 accident, completed in well under a year. I was told that media in Russia and other IAC member states would not tolerate a two-year investigation. I suspect that this may be increasingly true globally. Getting the balance right between professionalism and timeliness and explaining any need to take longer will be an increasing challenge if safety investigations are to remain relevant.

As James Reason has argued, engineering a just culture in which the 10 percent or so of willful and culpable actions leading to accidents and incidents do not escape sanction while encouraging reporting and learning about the other 90 percent is "the all-important early step." Yet I have heard regulators in another industry suggest that a just culture should involve only "no blame" investigation, while some aviation professionals and unions seek 100 percent protection. On the other hand, we have seen judicial systems imprison crewmembers who have done little more than be involved in an accident because of actions and omissions that resulted from the types of error expected among all humans.

The desired implementation of the Global Aviation Safety Roadmap in terms of protecting safety data to enable its wider and more timely sharing is predicated on robust legislation in member states. This is a great challenge for many poorer states but also for some of the otherwise best-practice members. In the United States, for example, much sensitive investigation

data held, including CVR transcripts, must be made available via a public docket, even when it is sourced from another state of occurrence. France has similar challenges because of the nature of its judicial system. The new Attachment E to ICAO Annex 13 seeks to provide guidance with respect to some of these legal difficulties, but serious tensions remain in the annex itself.

The ATSB has not been immune from legal and regulatory pressures in Australia. Legislation enacted in 2003, including the Transport Safety Investigation Act, protects safety information obtained and analyzed by the ATSB as a "no blame" safety investigator. A just culture is preserved through the ATSB taking a cooperative approach to any required parallel investigations by regulators, police or other bodies, but these must be entirely separate and gather their own data and evidence. This is particularly important because the ATSB can compel evidence that may otherwise incriminate. ATSB reports cannot be used in criminal or civil courts, but they can be used in an inquest held by an Australian state or territory coroner. Australian legislation does allow the contents of a CVR to be used in cases of severe criminality unrelated to normal crew duties, such as drug running or terrorism.

Defining exceptions where, for example, serious and imminent risk may require use of otherwise restricted information may be a necessary, if hard, step toward achieving a sustainable balance between no-blame and criminalization and a truly robust just culture. Consistent with Attachment E to Annex 13, I believe that this is required for future accident investigation and for proactive data sharing and analysis, both of which we need to meet the challenge of continuing to reduce aviation accidents globally. ●

Note

1. Report 200501977 accessible at <www.atsb.gov.au>.

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Australian Transport Safety Bureau