

30 January 2014

The Chairman
Aviation Safety Regulation Review
C/- Department of Infrastructure and Regional Development
Canberra A.C.T. 2600

Dear Sir

Submission: Aviation Safety Regulation Review

The Australian Advisory Board of the Flight Safety Foundation Inc. is pleased to provide this submission to your review for consideration.

The Flight Safety Foundation is a respected international organisation with a measureable pedigree in contemporary aviation safety. It exists purely to further the promulgation and facilitation of safe practices across the aviation industry.

The Foundation is pleased to offer any amount of positive and constructive support to the Review as may be of value to it. Consequently, the Foundation's Australian Governor and key members of the Australian Advisory Board would be delighted to meet with the Review at any time to discuss issues, initiatives and concepts that may assist you in meeting your objectives.

The Foundation's Australian Advisory Board, with its established protocols of stability, governance and aviation industry diversity, considers itself uniquely placed to serve as an asset in any process of regulatory consultation and industry reform.

Should you seek any interpretation or expansion of our submission, please feel free to contact me at any time.

Yours faithfully



John Guselli
Co-Chair
Australian Advisory Board

AVIATION SAFETY REGULATION REVIEW SUBMISSION

1. Purpose

This submission is provided to the Aviation Safety Regulation Review to illustrate the capacity of the Flight Safety Foundation's Australian Advisory Board to enhance the formulation, implementation and promulgation of aviation safety processes and practices within the Australian aviation environment.

2. History of the Flight Safety Foundation

The Flight Safety Foundation **Inc.** was formed in 1947 by the renowned aviation safety pioneer Jerome F. "Jerry" Lederer. It is a not-for-profit organisation that relies on subscriptions from member organizations and individuals to support the initiation and development of projects and products designed to mitigate aviation risk and improve safety. It is based in Alexandria Virginia USA with oversight provided by a Board of Governors, one of which holds an executive position with a major Australian company.

Flight Safety Foundation Ltd was established as an Australian company in 2009 following the acquisition of the former Aviation Safety Foundation Australia (ASFA) and is wholly owned by Flight Safety Foundation Inc. Whilst it provides support for some regional activities, its primary role is to manage the BARS Program. Its oversight is provided by a Board of Directors one of which is also a member of the parent organisation's Board of Governors.

3. Background

The Australian Advisory Board of the Foundation was formally constituted in 2009 and originated from the former organisation, ASFA. It sought to draw upon the capacity of the aviation industry to enhance and promote safety and is a group that is;

- *Independent*
- *Impartial, and;*
- *International*

The Australian Advisory Board has maintained the Foundation's vision through the creation and maintenance of harmonious relationships between key stakeholders in the Australian aviation industry. Many of these stakeholders currently have representation on the advisory board. Formal terms of reference exist to ensure that no single person or organisation is able to commandeer the board to the detriment of its vision. It exists purely as an industry independent safety body with excellent representation. It is not a

union, lobby or representative body formed to further the ambitions of pilots, air operators or agencies.

It currently serves as a full member of the CASA Standards Consultative Committee and willingly acts as an unaligned catalyst when requested in matters of aviation safety. A list of advisory board membership appears at Appendix A.

The Board is currently well advanced in negotiations with the *Aviation Industry Association of New Zealand* with a view to a form of strategic merger to further enhance the reach of each organisation and to further meet aviation safety needs within the growing South Pacific and Oceania regions.

4. Discussion

A balance of organisational friction between regulator and operator can sometimes be considered healthy by keeping our industry focussed on the needs of the community.

Over recent years however, the membership of the Australian Advisory Board has noted a gradual but nonetheless decaying relationship between CASA as a regulator and the Australian aviation industry at large. Commercial realities on both sides, coupled to the massive strides in technology and efficiencies are seen to be a source of concern. To this end, regulators worldwide are struggling to keep pace with the increasing demand for services that they alone are able to deliver. The Foundation considers that the regulator is placed in an invidious position in meeting this demand. There are often no clear and current solutions to a number of given problem; therefore the regulator is obliged to default to existing regulations. Regrettably, in Australia, many of these are falling behind world's best practice. The application of prescription and proscription is reducing efficiency and generating needless and often unnecessary workload across our industry.

5. A Current Success Story

In response to the growing use of aviation within the international resources industry, The Foundation consulted, constructed and implemented the *Basic Aviation Risk* (BAR) Standard. It was developed from an industry-identified need to establish a common safety audit standard that could be applied to on-shore resource sector aviation support activities. It provides contracting companies with the level of safety assurance required by their respective organisations.

The Standard was developed from a risk-based model framed against the actual threats posed to aviation operations. It directly links these to associated controls and recovery and mitigation measures, as opposed to the out dated prescriptive format previously used within the industry. It provides a consistent audit model that allows member resource companies to share in the audits of operators all of whom have been subject to a consistent standard of audit.

The Standard can also be applied to other industry sectors that utilise outsourced contract aviation to support their activities in similar risk profile environments. This is

evidenced by a number of organizations from outside of the resource sector that have since joined the Program.

The International Council of Mining and Metals (ICMM) released a statement in support of the BAR Standard. This statement appears at Appendix B.

6. Potential for a Success Story?

The Foundation has taken substantial encouragement from the growing success of the BAR Standard to the point that it considers the same in-principle methodology can be applied to a number of regulatory projects at the national level.

As a case in point, this submission offers a perspective on the use of an objective, risk-based approach as a consideration for future development of aviation safety regulation.

Background

Regulations in aviation have historically been founded on “lists” of rules that prescribe exactly what needs to be done. Growth of prescriptive aviation regulations will continue to rise from new and emerging technologies and the greater understanding of accident cause resulting from investigations. Without any form of prioritisation, this increase in volume and specificity of prescriptive rules will have potential to mask the material risks that the core regulatory framework was designed to address. Furthermore, the growth in prescriptive regulation will demand greater effort (and headcount) to manage without an associated increase in safety oversight.

Objective, Risk-based Regulation

Objective, risk-based regulation is based on the premise that operator is responsible for introducing the risks of their operation and is therefore responsible for identifying and implementing controls to manage them. The regulator is responsible for a framework that enables the operator to decide how best to manage the risks, including regulations that are prescriptive in the objective or outcome but do not prescribe “how”. An independent competent regulatory body is then required to enforce the regulations, through review and “acceptance” of the operators risk management plans, and verification that what is written occurs in practice.

A progressive move towards objective risk-based regulation would put in place robust and transparent processes that ensure an aircraft operator identifies all risks, articulates the critical controls necessary to manage them and then develops associated performance standards. The effectiveness of these critical controls will be ascertained by both the operator and regulator alike. Through development and guidance it will enable continuous improvement in the management of risks and will ensure that a clear understanding of the risks and actions required are well understood by both the operator and regulator alike.

This approach requires regulators with a range of expertise and backgrounds to ensure the regulatory body as a whole has the requisite competencies. The regulators are required to review and make judgments about how effectively the risks are managed – this requires somewhat different skills from those where prescriptive regulatory compliance is being assessed.

Benefits of risk-based regulation will further include:

- Assurance that comprehensive reviews of all risks are undertaken.
- Manageable workforce size required to regulate, but with greater and broader individual experience.
- Opportunity to work in conjunction with industry groups in a ‘layered’ approach to risk management.
- A regulatory framework that is quick to respond to external factors.
- Fit-for-purpose approach to risk management by operators of varying size and capability.

Harmonisation with Industry Groups

Adopting an objective risk-based approach will strengthen the collaborative partnership required between regulator and industry for a robust risk management process. Ensuring each segment of industry is formally represented (high capacity RPT, low capacity RPT, aeromedical, agricultural, fire-fighting, geophysical, seismic, offshore, external loads, charter etc) ensures the regulator maintains oversight of the industry’s maturity and capability in terms of the risk and associated controls used to manage them.

Harmony with other industry groups, such as the Foundation’s BARS Program, can provide an enormous leverage for the regulator and industry alike when dealing with aviation safety assurance. In the case of the BARS Program, having the regulator and industry adopt a similar risk-based approach to managing the same problem will provide a layered approach to assurance that will provide productivity in oversight with a reduction in audit burden on industry.

7. Conclusion

Consideration of an objective risk-based approach to regulation should be considered as a practical option for dealing with regulation in the future.

8. Recommendation

The transition from prescriptive regulation to objective risk-based regulation is achievable with the appropriate effort.

Australian Advisory Board Members – 2013*

Name	Position	Organisation
Stephen Angus	General Manager Safety Management Group	Airservices Australia
Ms Jackie Barnes	Managing Director	GHS Aviation Group
GPCPT Steve Cook	Director of Defence Aviation Safety	Directorate of Defence Aviation and Air Force Safety (DDAAFS)
Simon Thorpe	General Manager Safety Systems	Virgin Australia
Steve Tizzard	Chief Executive Officer	Recreational Aviation - Australia
Julian Walsh	General Manager Strategic Capability	Australian Transport Safety Bureau
Cameron Ross	Group Manager Aviation Safety	BHP Billiton
Hon. John Sharp	Deputy Chairman & Independent Director	Regional Express & Director of Aust. Aerospace (subsidiary of EADS)
Robin Graham	Chairman	CASA Standards Consultative Committee (SCC)
Capt. Geoff Sartori	Aviation Safety Consultant	Former Principal Safety Advisor Qantas

James Kewley	Chair	Victorian Branch - Aviation Law Association of Australia & New Zealand
Julian Fraser	National Relationship Manager-Aviation	QBE Insurance
Dr Geoff Dell (co-chair)	Director	Protocol Safety Management
John Guselli (co-chair)	Managing Director	JCG Aviation Services. Chairman ISASI Reachout.
Capt. Ken Broomhead	Head of Flying Operations (Chief Pilot)	Tiger Airways Australia
Samantha Sharif	Director of Industry Affairs	CANSO
Malcolm Sharp	Managing Director	RAAA & Chief Pilot Sharp Airlines
Phillip Reiss	President	AOPA Australia
Terry Summers	Chief Flying Instructor	Rotor-Lift Aviation
Matthew Thomas	President	Australian Aviation Psychology Assoc.

* Membership as at January 2013 provided to illustrate the depth and breadth of Australian aviation industry exposure

Appendix B – ICMM Statement

ICMM supports the use of the Basic Aviation Risk Standard (BARS) to improve aviation safety.

The mining industry relies on the service of aviation companies to access the often remote locations it operates in. Increasingly, mining workers and contractors are exposed to the risks posed by aviation.

“ICMM members have identified the importance of assessing and managing these risks as part of their commitment to improving their health and safety performance,” said Rene Aguilar, Director, Health and Safety, ICMM. “We support BARS as a good practice when considering flight safety.”

William Voss, President and CEO of the Flight Safety Foundation said, “Everyone at the Flight Safety Foundation welcomes ICMM’s support and we look forward to our continued collaboration.”

BARS is specifically aimed at improving aviation safety in the extractive industries and was developed by the Flight Safety Foundation in conjunction with a number of extractive industry companies including several ICMM members.

The standard is developed from a risk-based model framed against the actual threats posed to aviation operations which are then directly linked to associated controls and recovery and mitigation measures. BARS is a useful resource for any organization wanting to develop new flight safety requirements or review existing ones.

The nine ICMM member companies who are members of BARS are: Anglo American, Barrick, BHP Billiton, Freeport-McMoRan, Gold Fields, MMG, Rio Tinto, Vale and Xstrata.

The Flight Safety Foundation is an independent, impartial and non-profit international member-supported organization formed in 1947 to pursue the continuous improvement of global aviation safety.

Appendix C – Recent Flight Safety Foundation Initiatives

- Reducing the risks in helicopter emergency medical services operations;
- Continuing participation in the North American Commercial Aviation Safety Team, the ICAO Air Navigation Council, the National Business Aviation Association Safety Committee, and the Gulf Flight Safety Committee;
- Forming and leading the Runway Safety Initiative team in studying runway excursion incidents and accidents, and developing documents and training aids to prevent these events;
- Increasing international awareness of the threat to continued safety improvement by aviation accident criminalization, which interferes with the gathering of facts for accident prevention;
- Assisting international media representatives in understanding aviation safety issues;
- Publishing AeroSafety World, a monthly magazine providing timely, objective and accurate information in a colourful and accessible presentation; and,
- Conducting the annual International Air Safety Summit, the European Aviation Safety Seminar and the Business Aviation Safety Seminar.

Appendix D - International Awards

Significant accomplishments of the Foundation include:

- Organised the first civil aviation accident investigation workshop;
- Sponsored the first international air safety seminar;
- Conducted the first computer modelling of accident forces, which led to the improvement of passenger restraint systems;
- Conducted the initial studies of, and provided early support for, the use of basic aviation safety devices such as anti-collision lights and airborne weather radar;
- Initiated the first international, confidential pilot safety-reporting system, which became a model for other programs;
- Conducted the first collection and distribution of aircraft mechanical malfunction reports;
- Conducted initial studies that became the basis for international medical standards for pilots and air traffic controllers;
- Conducted the first technical work on explosion-resistant helicopter fuel tanks, which have been credited with saving thousands of lives;
- Increased international awareness of the hazard of “bogus” aircraft parts (i.e., parts not designed and/or manufactured to required standards);
- Conducted an in-depth study of accidents involving [controlled flight into terrain](#) and developed preventive measures;
- Conducted in-depth studies of approach and landing accidents and developed preventive measures;
- Created the [Approach and Landing Accident Reduction \(ALAR\) Tool Kit](#);
- Conducted more than 30 regional ALAR workshops;
- Participated in the development of international rules and standards to protect safety information;
- Conducted a study that became the blueprint for implementing flight operational quality assurance (FOQA) programs in the United States;
- Led the development of FOQA programs for corporate/business aircraft operators;
- Developed the multimedia wind-shear Training Aid for pilots operating commuter, air taxi, corporate and other general aviation aircraft;
- Coordinated international efforts to develop the Airplane Upset Recovery Training Aid;
- Developed fatigue-management guidelines for corporate aviation operations;
- Coordinated, co-chaired and published the initial industry findings and recommendations on ultra-long-range operations, defined as nonstop flights of more than 16 hours duration;

- Conducted a study of continuing airworthiness risk evaluation;
- Conducted an in-depth study of ground accidents;
- Formed and led an industry team that created a generic checklist for handling non-announced smoke-fire-fumes events in aircraft;
- Participated in an international effort to address the shortage of qualified aviation personnel; and,
- Participated in drafting the Global Aviation Safety Roadmap for the International Civil Aviation Organization (ICAO) and participated in implementing the roadmap in developing countries.