Business Aviation Safety Strategy
A Blueprint for Making a Safe System Safer

Safety is business aviation’s highest priority, demonstrated by its inherent safety culture which has resulted in a very good safety record. Emphasis on aviation safety has evolved over many years of applying industry good practices, influenced by aircraft owner demand for the highest level of safety. However, the industry recognizes the need for continuous improvement to maintain the high level of safety in a rapidly expanding and changing aviation system. With increasing activity and greater congestion there is a need to make a safe system even safer.

Continuous improvement in aviation safety, balancing between safety and efficiency, demands that all participants in the system challenge the processes, the culture and themselves, to identify weaknesses and to seek corrective solutions. Experience demonstrates that safety is good business practice. Although self analysis is important for individuals and operators, there is also a need to view the system as a whole and to develop a system-wide Strategic Plan, a blueprint or roadmap, to ensure linkages and to foster creativity that will lead to a better overall system.

safety star guides the way...
Objective of the Safety Strategy

The objective of the Business Aviation Safety Strategy is continuous improvement of business aviation safety. The Strategy was developed by the global business aviation community to ensure coordination of the many safety initiatives of the industry and to assess and plan for further improvement. The initiatives in this Strategy list all safety programs of the industry. The Strategy serves as the business aviation aviation input to the ICAO Global Aviation Safety Plan.

The aviation industry as a whole has long been recognized as the global leader in the research, development and implementation of advanced safety programmes. Significant safety advances have been made in both safety equipment and safety processes. Therefore, a business aviation safety strategy should recognize and build on the years of progress of the aviation industry.

The Business Aviation Safety Record

Developing a Safety Strategy requires an understanding of the strengths and weaknesses of the system. The accident record serves as a prime indicator, but the industry must also rely on information derived from as many additional sources as possible. For example, the willingness to apply effective safety standards can serve as measure of the safety culture of the industry. Information from regulators and service providers can also provide valuable data.

The International Business Aviation Council routinely publishes an annual Safety Brief summarizing the accident record for business aviation. Macro information is provided as well as specific data for three business aviation sub-sectors:

- Business aviation commercial (on-demand air taxi),
- Corporate aviation,
- Owner-operated.

(Note: Fractional Ownership will be added in future editions.)

The record for the three sub-sectors over a five year period (2001 – 2005), which includes all turbine powered business aircraft, is per the following table.

<table>
<thead>
<tr>
<th>Business Aircraft: Accident Rates by Operator Type (accidents/100,000 departures)</th>
<th>Total Accidents</th>
<th>Fatal Accidents</th>
<th>Total Accident Rate</th>
<th>Fatal Accident Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Operator Type</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commercial (Air Taxi)</td>
<td>7,272,523</td>
<td>317</td>
<td>95</td>
<td>4.36</td>
</tr>
<tr>
<td>Corporate</td>
<td>12,234,674</td>
<td>41</td>
<td>10</td>
<td>0.33</td>
</tr>
<tr>
<td>Owner-operated</td>
<td>12,582,108</td>
<td>128</td>
<td>47</td>
<td>1.02</td>
</tr>
<tr>
<td><em>All Business Aircraft</em></td>
<td>32,178,309</td>
<td>510</td>
<td>160</td>
<td>1.58</td>
</tr>
</tbody>
</table>

Whilst there is always room for safety improvement in any industry, the safety record of corporate aviation is amongst the best in all of aviation. The record of the other two sectors warrants renewed focus.

Culture

Organizational safety culture means that everyone from the chief executive through the entire company is committed to continuous safety improvement, always watching for potential hazards and associated risks, and then developing and implementing appropriate and effective mitigation to either eliminate the hazards or reduce risks to an acceptable level. An embedded safety culture is arguably the most significant element of the foundation for safety excellence. It is even more powerful when it includes the elements of a “Just Culture”. Actions have been developed by the business aviation industry to assist flight departments in instilling a safety culture. See 3 Strategy actions on IBAC Website.

Data Collection and Analysis

A system of metrics for safety in business aviation provides the critical information needed by the industry to influence positive change. The IBAC Business Aviation Safety Brief, published annually, is the most comprehensive. If not the only, source of global safety data for business aviation. However, more is required to ensure universal international acceptance and development of risk indicators. See 5 Strategy actions on the IBAC website.

Safety Equipment and Tools

Rapid advances over the past couple of decades in aviation electronics have provided aviation with extraordinary safety enhancements. Continued development of systems such as Enhanced Ground Proximity Warning Systems and Airborne Collision Avoidance Systems are improving safety even further. The industry must continue to research and encourage new initiatives such as Flight Data Analysis (FDA) programs now being introduced. See 5 Strategy actions on the IBAC website.

Air Navigation and Airport Services

Aviation safety is strongly influenced by the quality of the air navigation and airport infrastructure and services. Those services are generally provided by government or private bodies; however, the business aviation industry must be prepared to assist in the development and monitoring of good standards and the identification of deficiencies. Industry bodies must be structured and be able to communicate relevant operational information to flight departments and must assist in the communication of information regarding changes to systems. See 4 Strategy actions on the IBAC website.

Support Services

Business aviation is highly reliant on specialized support services provided for training, flight planning and operational management. The quality and ready availability of those services have a direct influence on the level of safety in the industry. See 4 Strategy actions on the IBAC website.

Codes of Practice

The industry must continually learn from itself. Industry Codes of Practice use innovative new safety and security initiatives such as Flight Data Analysis (FDA) programs now being introduced. See 5 Strategy actions on the IBAC website.

Adherence to Industry Standards

Industry codes of practice in industry standards are developed and maintained by industry governing bodies. However, it is incumbent on operators to voluntarily apply them and to continually test their effectiveness. The safety standards will not achieve their objective if flight departments do not implement and apply them conscientiously. See 6 Strategy actions on the IBAC website.

Regulatory Framework

Differences in rules and procedures between States around the world represent inherent safety deficiencies. There is need for harmonized rules, based on realistic and effective international standards. The business aviation industry strongly encourages modern performance-based rules for both commercial and non-commercial operations that are proportional to the risks and are designed to match modern day operational imperatives. See 6 Strategy actions on the IBAC website.

System of Metrics for Safety

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Safety Targets

The industry Safety Strategy consists of established actions aimed at constant improvement in the aviation safety record. Quantitative targets have been developed in the Strategy illustrated by the adjacent graph.

Safety Enhancement is the Industry Objective

The safety record of business aviation is good, but the industry associations agree that opportunities exist to develop mechanisms to make it better. The objective of the Safety Strategy is to provide an overview of all of the existing and proposed safety initiatives of the industry.

The Safety Strategy proposes initiation or continuance of a total of 38 actions under eight safety themes. Together they represent the building blocks that will lead to continuous safety improvement. Shooting for the Star will be worth the effort.

For copies of the Business Aviation Safety Strategy

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