

ated by Aero Service

## IS-BAO

An International Standard for Business Aircraft Operations

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BAC is a non-profit, private sector Council of associations representing the interests of business aviation around the globe. Wherever policy is formulated or standards developed for business aviation the Council or one of its member associations is there to participate in the process. The International Business Aviation Council is proactive in developing position and policy papers for the benefit and safety of business aircraft operators worldwide.

The International Business Aviation Council is the umbrella for member national and regional organizations in the United States, Europe, Canada, Germany, the United Kingdom, France, Australia, Southern Africa, Italy, Brazil, and Japan.

**T**he International Business Aviation Council (IBAC) and its member associations are to be congratulated for producing this excellent tool for promoting safety of business aircraft operations.

President of the Council International Civil Aviation Organization



### Introduction to IS-BAO

Two and one half years in development, the IS-BAO - an International Standard for Business Aircraft Operations was launched in May 2002. It has been accepted by aviation flight departments worldwide as the benchmark for safety and efficiency in business aircraft operations. More than 400 companies worldwide have acquired IS-BAO as the definitive standard for flight operations.

The International Business Aviation Council (IBAC) is bringing added safety to the world of business aviation through its new IS-BAO standard. IS-BAO has been developed with input from some of the best minds in the aviation industry.

IS-BAO is an industry code of practice that challenges flight departments to review their current systems, programs and procedures, recognize strengths and weaknesses in those procedures, and upgrade to a higher standard. IS-BAO is similar to an ISO-9000 standard of practice, but specifically formulated for the business aviation community.

Aviation operators, associations and regulators across the globe have recognized for a long time that business aviation would benefit from a universal standard. IS-BAO is widely accepted and respected as an appropriate and effective standard for those operations.

Adopting the IS-BAO is a self-guided process undertaken using guidance such as the Generic Company Operations Manual (GCOM), supplied in the standards package, as a guideline.

Unlike State regulations for commercial aircraft operations, adopting the IS-BAO standard is a voluntary process designed to integrate all the best safety and operating procedures from various sources. It institutionalizes industry best practices.



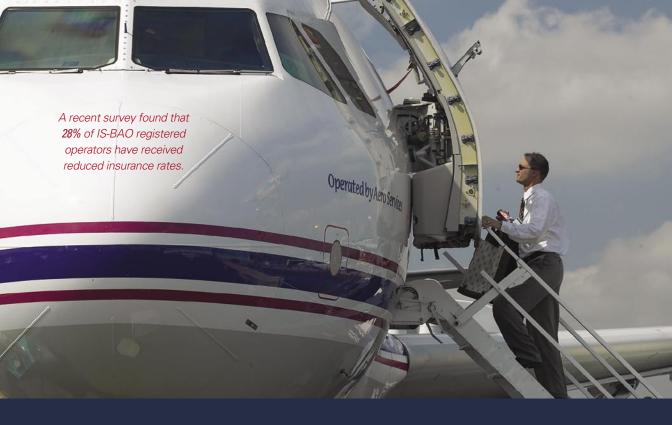
**T**his is a valuable and practical complement to the International Civil Aviation Organization's Standards and Recommended Practices. I have no doubt that the "code of good practice" will accomplish a great deal in further improving the impressive safety record of business aviation. I also feel that it will assist us in our mutual objective of achieving harmonization of the world's safety rules and regulations much sooner.

Assad Kotaite, President of the Council International Civil Aviation Organization **I**S-BAO is an internationally developed industry standard for the operation of business aircraft anywhere.

Bill Stine, International Operations Director at the NBAA

**T**he IS-BAO concept is simple - establish internationally accepted performance standards for the corporate community, but allow them individuality to implement within their own flight department. It preserves corporate aviation's identity, yet establishes a standard of quality that acknowledges and recognizes our segment of the industry and the initiatives we have imposed upon ourselves.

Bill McBride, Home Depot



We merged three different flight departments into one. Each flight department had its own way of doing things and so IS-BAO was implemented to set one standard.

IS-BAO will push you to a higher level and help you establish a new standard. You will also appreciate a new awareness to safety.

#### Chuck DeAlbuquerque, Yum! Aviation

**I**S-BAO gave us the structure, and audits, to re-invent ourselves in a manner that provides measurements for our success and guidelines for continual improvement!

Gary Sanders, Gannett Co. Inc

**T**he IS-BAO has given our flight department the framework to not only become safer, but also to become better organized and more professional in all aspects of our operation.

Charles Culver, Costco Wholesale **R**ecently, we performed a cost/benefit analysis on the installation of enhanced vision system in our fleet. While a quantitative analysis is difficult to perform for such safety enhancements, we were able to effectively demonstrate the system's benefits through the use of our safety management system. In the end, we were successful in identifying those specific risks that could be mitigated by equipping our fleet with EVS.

IS-BAO made the case for us using part-time contract pilots with our insurance carrier. Not all of them are typed in our particular aircraft but in similar equipment. Thanks to our IS-BAO manual, we had all of our training records, syllabus and documentation that made the underwriter feel comfortable. We got the discount we were hoping for, and the blessing from our insurance to use contract help as needed. Bottom line; we saved money.

Richard Longlott, Chief Pilot Mi Windows & Doors, Inc.

#### Why choose to implement IS-BAO

S-BAO is not an easy standard to meet, but why settle for less? If you are working to maximize the effectiveness of your management of safety in your flight operation why not adopt something as comprehensive and well respected as IS-BAO?

IS-BAO is accepted worldwide as an appropriate standard for business aviation flight department operations.

Comparing current flight department systems, programs and procedures to the requirements for IS-BAO registration is the way to determine if there are opportunities to enhance the safety security, efficiency and effectiveness of your operation.

Adopting a Safety Management System (SMS) model in the IS-BAO means that for each new task introduced to the flight department there will be a risk assessment conducted, and if necessary, a procedure developed, and documentation produced.

In the same way that ISO 9000 specifies requirements for a Quality Management System overseeing the production of a product or service, IS-BAO is a similar standard developed for flight operations. IS-BAO is a standard for the management of risk in flight operations including maintenance, how it will be assessed, and the process of implementing changes to reduce the risks to as low a level as reasonably achievable. Private operators of business aircraft are not regulated by the aviation authorities in the same strict sense that commercial airline operators are, but all operations are subject to the same risks and dangers. Business aircraft operators worldwide have recognized the need for a standard for their industry, and IS-BAO is the most appropriate comprehensive standard available for business aircraft operations today.

Everyone benefits from a higher standard of operating safety and few people would argue that IS-BAO compliance does not demand and achieve a high standard of safety in the flight operations of business aircraft.

There is no substitute for operational systems, programs and procedures that are documented, complete, and ensure that all aspects of the safety of equipment and personnel are given the respect they deserve. The IS-BAO can be used to enhance the safety, security, efficiency and effectiveness of your operation be it corporate flight department, ondemand charter or an owner flown operation.

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### Corporate Culture & Safety

The real goal in implementing IS-BAO should be to build a new culture within a flight department, to find a safer and better way of doing business. Company priorities and those of flight departments have to zero in on the important issues surrounding flight safety and deliver the message that it is everyone's concern. IS-BAO certification, if properly addressed, will reinforce that new culture of excellence.

Safety should be every flight department's first consideration, but it should also be company wide policy that everything possible is done to ensure flight safety. Many companies have adopted ISO 9000 standards for general operating safety and quality control for their manufacturing and service business, and IS-BAO is a natural extension of that standard designed specifically for aviation departments.

Compliance with IS-BAO raises the confidence of flight personnel, insurance carriers, and speaks to the level of the corporate care taken of employees and customers by the company.

Undertaking a voluntary IS-BAO audit takes the luck out of managing the risks associated with flight operations. It will either confirm that everything that can be done is being done, or highlight areas where better risk management can improve safety.



Setting a standard for the company's flight department brings it into line with other areas of a company's operations where standards are enforced for operational safety and quality control during production. As such, it can be an important linkage to the company values and culture.

It is incorrect to presuppose that flight departments that have been in business a long time are subject to bad habits, or that new operations will be working at a higher level of safety, but in either case, adopting IS-BAO as the prevailing standard is one way to ensure that all flight departments activities meet the same exacting standard.

Excellence is something to strive for and IS-BAO certification is the recognized standard for excellence in the business aviation community.

The primary tools provided within the IS-BAO system to make it work include:

- Safety Management System (SMS)
- · High quality standards and procedures
- Risk management techniques
- · Internal and external audits

The SMS includes a strategy and set of tools with which to reduce and maintain risk at an acceptable level. Change and risk management, hazard identification, technical management systems and internal audits are all tools that make the SMS work; integrating these into the daily work procedures by all hands is what makes the system work.

Business aviation has a very good safety record but recent studies have indicated that the systems, programs and procedures contained in the IS-BAO could have prevented more than 25% of the business jet aircraft accident that occurred over a recent five year period.



**U**seful program that helps place safety of flight on the desks of corporate leadership.

Bruce Rickli, US Silica Company

It's amazing how far we have come in our Safety Program and we thought we were safe before. We have a much better awareness amongst all of the team members. The old mentality of what safety is all about has changed. It is beginning to be a part of our culture and we continue to grow with it every day. We look for ways to reduce our risk to the lowest level in everything we do whether it's on the ground or in the air.

It has become a positive new way of doing business. We know we are safer and it also sets a higher standard which the company appreciates.

Chuck DeAlbuquerque, Yum! Aviation

We have a better understanding of our manual due to the discussions and input required to build it to IS-BAO. We have more awareness of each department's role in making ASD successful. Management is more aware of our high standards and our efforts to become certified to IS-BAO

Martin Rollinger & Keith Unzicker, Caterpillar Inc.

**I**S-BAO helped us to pull all of our operating and management elements together into a single, effective way of managing the safety and quality of our flight department.

Steve Fisher, Shell Aircraft

We not only have a safer and more efficient flight department that utilizes SOP's, standard checklists, standard forms, a real FOM and real Repair Station Manual, Dispatchers, flight following, a web page, etc., etc....we also have "extremely satisfied customers". Our approval rating has gone through the ceiling! We are no longer hidden at the airport...we are an integral part of the team and have been told "we are the best managed department in the company". Thank you ISO and IS-BAO!

Gary Sanders, Gannett Co. Inc

**O**ur guys do a wonderful job in the flight department and IS-BAO has made them better for it. I fully support the process and implementation of a Safety Management System and the IS-BAO concept.

Pete DeSoto, CEO Mi Windows & Doors, Inc



# Small & Large Operations

S-BAO is adaptable to any flight department regardless of size. It has been successfully implemented by operators with one aircraft and two pilots conducting domestic operations and by those with numerous aircraft involved in inter-continental operations. The single pilot supplement and operations manual ensures that the IS-BAO is appropriate for single pilot aircraft as well. It has also been implemented by ondemand charter operators.

IS-BAO is a way for flight departments of any size to measure their safety and operating and maintenance practices against a well prepared set of standards, and choose how best to implement changes that will make operations safer.

IS-BAO does not dictate the method you should use to achieve compliance, but rather it guides the process and allows each organization to realize its own best practice for most operational and technical concerns. This freedom to choose recognizes that all companies do not operate the same way, nor should they. To assist operators with their IS-BAO implementation the document includes acceptable means of compliance, ready made solutions that cover basic operational, training and maintenance programs. Operator IS-BAO registration audits are accomplished through a program development procedure that follows a well documented set of guidelines. Flight departments do not all have the same requirements due to their equipment inventory, service area, and flight personnel, and the program takes into account these differences.

Personnel are able to enhance their efficiency through standardized procedures that incorporate effective risk management processes. Adopting IS-BAO standards eliminates guesswork and prevents the accidental overlooking of safety measures that could result in unfavourable outcomes.

The IS-BAO Generic Company Operations Manual (GCOM) is designed to cover all the possible requirements of a large flight department. It is not necessary for smaller, less complex operations to use all of the elements; rather they make choices as to what is appropriate for their operation.

Regardless of the size or nature of your flight department IS-BAO can assist in enhancing your safety, security, efficiency and effectiveness.

#### Beneficial to any flight department.

Steve Sondrol, Koch Business Holdings

*T*here are now established procedures for everything we do. We all do things the same way, which avoids confusion and gives us a safer approach to our duties.

Chuck DeAlbuquerque, Yum! Aviation





dopting IS-BAO for your flight department ensures continuity of procedures even when personnel changes are made.

Complying with the requirements of IS-BAO is an opportunity for flight departments to review all their current system, programs and procedures and if necessary to rework them into one comprehensive set.

Many flight departments are already doing most of the things that are covered in an IS-BAO audit, and all they need to do to achieve IS-BAO registration is to pull things together into one integrated system.

**I**BAC is pleased to provide operators with these basic measures that can be taken to support safe training and use of VLJs and other technically advanced aircraft.

Don Spruston. **IBAC** Director General

**The IS-BAO is a good frame-work for a flight** department to look at their operation not only from a compliance and safety perspective, but also from an efficiency perspective. It also allows the development of policies and procedures that best fit the corporation and the culture of the flight operation. The program facilitates team building and supports the development of internal metrics to better a corporation's flight operation. GREAT PROGRAM.

David Nigi, Textron





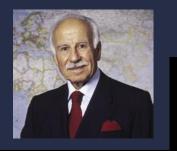
## Future Developments

he IS-BAO Standards Board meets regularly to discuss the current IS-BAO standard to determine if there are issues or deficiencies to be addressed, and to ensure that the document continues to be a dynamic tool in the development of business aviation safety guidelines.

As new developments in aircraft and equipment come onto the market the IBAC reviews their impact on the industry as a whole, looks at the new risks associated with their operation, and assesses compliance to guidelines set out under IS-BAO.

**T**he certification process required us to look closely at the way we operate as a team. It validated many of our existing procedures, and mandated improvement in several areas including training and safety documentation. A pre-audit review was very helpful in gaining third party insight into our operating manual and readiness to meet the IS-BAO.

Martin Rollinger & Keith Unzicker, Caterpillar, Inc



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Tel.: (514) 954-8011 Fax: (514) 954-6077 THE PRESIDENT OF THE COUNC	Jug UNIVERSITY STREET, MONTREAL, QUEBEC, CANADA H3C 5H7 Internet: icachog@icao.org Sittes: YULCAYA Telex: or or or
E 4/172	Cables: ICAO MONTREAL
Dear Mr. Spruston,	28 May 2003
I was most grate for Business Aircraft Operation	eful to have been presented recently with a copy of the International Standard s (IS-BAO). Il Business Aviation Course is
- B ulls	excellent tool council (IBAC)
This is a valua Organization's Standards and Re will accomplish a great deal in fur feel it will assist us in our mutual egulations that much sooner.	al Business Aviation Council (IBAC) and its member associations are to be excellent tool for promoting safety of business aircraft operations. the and practical complement to the International Civil Aviation commended Practices. I have no doubt that the "code of good practice" objective of achieving harmonization of the world's eviation. I also
Thinks	armonization of the world's aviation. I also

zation of the world's safety rules and I highly commend adherence to the IS-BAO by business aviation operators and believe that I highly commend agnerence to the 15-DAO by ousmess aviation operators and occere visition of compliance with industry-developed standards by State authorities could complement their theory of the standards by State authorities could complement their standards by

recognition or compliance with industry-developed standards by State authorities could complement incur regulations, thereby assisting them in accomplishing effective regulatory oversight of business aircraft The positive initiative by the business aviation community in developing industry standards is commendable and appreciated.

Yours sincerely,

Harley-Davidson Mote

At Harley-Davidson we implemented the IS-BAO program to underscore our commitment to operational

excellence and to ensure that we provide our Stakeholders with the highest degree of safety, service and efficiency attainable. Identifying a comprehensive array of industry best practices not only ensures that encomory anamatore. Reentinging a comprehensive analy or indusity uses practices not only ensures that high standards are maintained, it establishes a foundation from which to measure our performance as we support the strategic growth of our Company.

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Working toward and ultimately achieving IS-BAO registration had a profound effect on our entire operation. Each individual here played a significant role in the realization of this goal. This obviously operation. Each individual nere played a significant role in the realization of this goal. This opviously enhanced everyone's knowledge and understanding regarding industry best practices, but it also created enniness everyone a knowness out a moundation gregoring mousely sets produces, but it also create personal ownership in the program and facilitated a "cultural change" in our organization. All of us are extremely proud of our success in implementing the IS-BAO program.

As with many manufacturing companies, Harley-Davidson is an ISO-9000 registered company. Because of this, nearly all of our employees were familiar with and understood the significance of the ISO process. or une, nearly an or our employees were rammar was and understood the significance of the ISO pro As a result, our internal Stakeholders quickly embraced the implementation of the IS-BAO program. Senior management, as well as the entire Company recognized the value-added nature of the IS-BAO program and applauded our pursuit of registration. For us, the IS-BAO program strengthened Stakeholder confidence and has proven to be a great internal marketing tool.

I'm sure that our IS-BAO implementation experiences were like many organizations. We started with denial, " what is it?" "who's idea was this?" "we don't need to do this" "we don't have the manpower" "we already do this stuff" "it's too expensive", etc. All of these reactions were borne out of misunderstanding. We we detend denore the IS-BAO the latest of the presence and it's benefit become alergent and the second denore the start of the presence and it's borne it is too all the second denore the second deno arready do this stuff it is too expensive , etc. All of these reactions were borne out or misunderstar As we delyed deeper into the IS-BAO, the intent of the program and it's benefits became clear and

Like most professional flight operations, we already had most of the required processes, policies and procedures in place. Our initial thought was to simply "check-off" our existing policies using the IS-BAO processes in prace. Our minute incogin was to simply show on our existing pointes using the is-boo protocol checklist. This proved to be cumbersome and time consuming. Because we had multiple source documents, it quickly became apparent that even if we did have all of the requirements in place, an external auditor might not be able to make sense of it all. At that point we went back to square one. Starting with the IS-BAO template, we rewrote our entire manual in the IS-BAO format. As we began to blend our existing policies with the requirements outlined in the IS-BAO template, it caused us to revisit oreno our existing poinces with the requirements outlined in the IS-BAO template, it caused us to revisi many of our preexisting processes and establish many others not specifically required by the IS-BAO. Utimately for us, meeting the IS-BAO requirements was only the tip of the iceberg.

My advice to other operators that may be considering the IS-BAO program is that implementation begins with the first word. What seems to be a daunting process in the beginning may soon become a rewarding "cultural change" in your organization. Although implementation of the IS-BAO program is not the end of your journey toward absolute safety, it is a fabulous tool to help point you in the right direction. I encourage you to embrace the IS-BAO program. Make it your own. Help set the standard.

I personally believe that the IS-BAO program is a valuable tool in developing a safety culture within an organization - one of the best things to happen to the business aviation community.



International Business Aviation Council Ltd.

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