

## NBAA Light Business Airplane Flight Operations Manual Template

### Introduction

The prospect of creating a flight operations manual can seem overwhelming for single pilots and light business airplane (LBA) owners and operators. To address this concern, the National Business Aviation Association created a resource designed specifically to meet the needs of LBA operators in creating or updating a flight operations manual. Enhancing safety for all business aircraft operators, regardless of size, helps everyone. NBAA hopes you will find a place for this reference in your operation.

The resource contains guidance on topics such as safety management systems (SMS), standard operating procedures, qualifications and training, and provides a risk assessment tool designed specifically for LBA operators.

For a flight operations manual to be effective, it must be customized to the specific needs of the operator. With that in mind, this resource should be used as a starting point in the creation of a manual. For example, an LBA operator might have specific verbal callouts or checklists that are used in flight. In that case, the standard operating procedures section should be modified to reflect the actual procedures that are used.

This document is provided both in PDF and Word file formats. The NBAA-branded PDF version is suitable for use as a sample to review and share with colleagues when planning the creation or revision of your own company manual.

This Word format is provided to facilitate the creation of your own customized and company-specific manual. NBAA encourages companies to copy and paste text from this Word file directly into their own documents as needed.

Access the PDF version at [www.nbaa.org/admin/policies/lba-flight-ops-manual](http://www.nbaa.org/admin/policies/lba-flight-ops-manual).

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\*To be supplied and inserted by the LBA operator for specific airplane.

Company/Organization Name  
Address  
Address

Company/Organization Name

### Revision Record

Revision No.	Original/Revision Date	Initials	Comments/Reason for Revision
Original			

This record of revision is retained in the front of the Flight Operations Manual. Upon receipt, the reissue number, date, and initial of the person responsible for the manual will be entered.  
The LBA Operator shall keep a record of manual distribution.

Revision will be accomplished by completely replacing the entire manual with a new printed copy. Please retain the record of revision for accuracy.

## **Section 1 Organization and Accountabilities**

### **1.1.0 General**

A. This manual contains the guidance and policy to ensure safety and efficiency in operating light airplanes for business applications.

B. *Company/Organization Name* encourages feedback and suggestions on improving policies and procedures outlined in this manual to enhance the overall safety of flight operations.

### **1.1.1 Distribution**

A copy of this manual will be supplied to the following:

- Each pilot who will fly aircraft operated by the Company.
- Aircraft owner.
- President of Company or CEO.
- Aircraft with the following registration numbers: *N1234, N5678*.

### **1.1.2 Key Words Defined**

The following words will be used throughout this manual. The associated definitions apply.

- "Will" and "shall" mean a mandatory requirement.
- "Should" is used as a recommended or preferred method. Not mandatory.
- "May" is used as a suggested means of compliance.
- "LBA Operator" and "Pilot-in-Command" will be used as one and the same.
- "Safety Pilot" a Certificated Flight Instructor or another pilot rated/trained in the category and class of aircraft for the type of operations to be conducted.

### **1.1.3 Manual Deviations**

All personnel directly involved with the operation of aircraft owned, leased, or borrowed by the Company shall be familiar with the Flight Operations Manual. All aircraft operations will be conducted in accordance with all applicable FARs, local and national laws, manufacturers' aircraft manuals/limitations and this manual. Deviations from this manual are permitted in the interest of safety when it is necessary to protect the passengers, crew and aircraft from events that are not included herein.

### **1.1.4 Standard Operating Procedures**

A. Standard Operating Procedures (SOPs) are outlined in Section 3 and provide the Pilot-in-Command (PIC) with guidance and standardization for both routine and non-routine, potentially hazardous situations. These procedures include predetermined mitigations to identified and forecast hazards that will promote safety and efficiency for the LBA Operator.

B. Whenever possible, the PIC will consult a Safety Pilot if a situation arises that is not addressed by an SOP.

### **1.1.5 Pilot-in-Command**

A. The PIC is directly responsible for, and is the final authority as to, all decisions regarding the operation of the aircraft.

B. The PIC has the authority to conduct or not conduct the flight, change destination, route, or departure as he/she sees fit to maintain operational safety.

C. The duties of the PIC include:

- Checks weather, applicable NOTAMs, determines fuel, oil, and oxygen requirements.
- Determines weight and balance.
- Ensures that all flight planning requirements have been met.
- Ensures his/her license is valid, medical certificate, passport, and visa are current.
- Operates aircraft as per Standard Operating Procedures and aircraft limitations.
- Ensures compliance with Customs, Immigration, and cabatoge laws.

- Completes post flight duties, including notifying an assigned individual at the company of any change to the itinerary.
- Utilizes “The Mirror” to mitigate all associated risks to the lowest possible level.
- Records flight times and aircraft defects.

## **Section 2 Safety Management System (SMS)**

### **2.1.0 General**

A safety management system (SMS) is the process by which *Company/Organization Name* identifies the hazards and associated risks that are inherent in flight operations, assesses them and develops appropriate mitigation to eliminate the hazards or reduce the associated risk to an acceptable level. The mitigations are then implemented and tracked to ensure they are appropriate and effective. All of this is carried out within a policy framework so as to achieve specified safety management goals and objectives.

#### **2.1.1 Purpose**

The purpose of the SMS is to manage safety proactively and effectively by integrating control of risk into normal day-to-day business practices. This is done by:

- a. Obtaining consistent and optimal aircraft and human performance.
- b. Identifying and managing safety risks specific to *Company/Organization Name*.
- c. Actively supporting the SMS.

#### **2.1.2 Safety Policy**

While utilizing aircraft for business is a productive component of operations at *Company/Organization Name*, it is not the primary focus. LBA Owner/Operators are uniquely susceptible to being distracted with non-flying responsibilities, thoughts, pressures and commitments that might jeopardize safety. Safety is an important operating principle and an essential part to all measurements of success at *Company/Organization Name*. Aviation safety in particular is the responsibility of the Owner/Operator of the Light Business Airplane, as well as the Pilot-in-Command. SMS is the cornerstone of this Flight Operations Manual and forms the core of *Company/Organization Name*’s safety efforts toward flying excellence. Risk mitigation to the lowest possible level is the target of all LBA operations.

#### **2.1.3 Safety Risk Management (SRM) Performance Goals**

A. The PIC is the judge as to whether the aircraft shall takeoff and where it shall land, taking into account all factors of his or her current qualifications and personal condition for the envisioned flight. Furthermore, the PIC is responsible for determining that the aircraft is currently airworthy and that airport, airspace and weather conditions are within legal and acceptable parameters. The PIC will exercise this responsibility effectively and will use all available resources to make appropriate and effectively conservative decisions.

B. Each PIC will perform their duties giving primary concern for their own safety as well as that of their passengers to include fellow employees, customers, vendors and the property and equipment entrusted to their care.

C. The PIC will determine the applicable risks and mitigations throughout the trip scheduling, pre-trip planning, and trip execution phases by using this manual as guidance, *to include completion of the Risk Assessment Tool (“The Mirror”)*, a copy of which is located in Appendix D. The Mirror is designed to be used before each flight to mitigate associated risk to the lowest possible level.

#### **2.1.4 Safety Assurance**

In order to identify emerging hazards and risks as well as monitor effectiveness of current mitigation efforts, a tracking system (Appendix E: Trip Debrief Sheet – Hazard/Incident Report) to record issues and events for periodic review will be implemented that encompasses the following areas:

- Flight Operations Manual: usefulness / updating
- Risk Assessment Tool: usefulness / updating
- Aircraft Checklist: accuracy / validation
- Airplane Flight Manual / Pilot Operating Handbook: review / validation

- Maintenance & Ground Handling: interface / procedures
- Airworthiness & Maintenance: currency / documentation
- Weight & Balance: accuracy / validation
- Pilot Training: quality control / documentation

In addition, ongoing reference to external resources, such as the following examples, should be explored to stay abreast of the latest aviation safety trends and information:

- NBAA Safety Website - <http://www.nbaa.org/ops/safety>
- FAA Safety Website - <http://www.faasafety.gov>
- National Transportation Safety Board - <http://www.nts.gov>
- Aviation Safety Reporting System - <http://asrs.arc.nasa.gov>
- AOPA Air Safety Institute - <http://www.aopa.org/asf>
- Skybrary Aviation Safety Reference - <http://www.skybrary.aero>
- Regional, state and local associations
- Insurance carriers

### **2.1.5 SMS Promotion**

*Company/Organization Name* will work diligently to ensure that a positive safety culture prevails throughout the organization. In order to achieve that objective, open communication with all persons involved in flight operations will be encouraged and safety information will be exchanged. These persons may include non-employee ground-handling personnel, aircraft maintenance technicians, other aviation associates and vendors, Safety Pilots, business colleagues and family members, as needed. In addition, training on the concepts of SMS to include the safety tenets embodied in this Flight Operations Manual will be provided to all persons involved in flight operations (reference Section 4.1.2).

## **Section 3 Standard Operating Procedures**

### **3.1.0 Flight Operations**

#### **3.1.1 Responsibilities and Authorities**

A. The Pilot-in-Command (PIC) will authorize and conduct all flights utilizing guidance from this manual to include the Safety Risk Management Performance Goals outlined in Section 2.1.3. Operational control is delegated to the PIC.

B. The PIC is responsible for the following:

- Conducting the flight in accordance with the applicable Federal Aviation Regulations, or if in international airspace, the regulations of the applicable jurisdiction.
- Conducting the flight in accordance with the FAA approved and current Aircraft Flight Manual/Pilot Operating Handbook (AFM/POH) of the aircraft to be operated.
- Ensuring that all applicable licenses, certificates, and permits have been obtained and verified prior to flight and are carried onboard the aircraft, including but not limited to:
  1. Aircraft airworthiness certificate;
  2. Aircraft registration;
  3. Insurance certificate with appropriate geographic coverage;
  4. Radio station license;
  5. Current and FAA approved AFM/POH;
  6. Current aircraft weight and balance;
  7. Aircraft Minimum Equipment List (MEL) or Master Minimum Equipment List;
  8. IRS-compliant aircraft time log or time sheet;
  9. Letters of Authorization (e.g., RVSM, MNPS, RNP);
  10. Aeronautical charts appropriate for the flight;
  11. LBA Flight Operations Manual;
  12. Life rafts or flotation devices and survival equipment (as required).

C. The PIC will ensure all electronic databases are current.

D. The PIC will verify the status of the aircraft's airworthiness (see Appendix B). All maintenance items will have been completed or deferred per MEL, if the aircraft has an approved MEL. The next scheduled inspection will be noted on the aircraft time log to ensure that time between inspections is not exceeded. Reference Section 5.

### **3.1.2 Flight Planning and Preflight Requirements**

A. The PIC shall become familiar with all available and relevant flight information, as per FAR 91.103 (Preflight action), including the status of nav aids, approaches, facility hours and current operating environment.

B. The PIC will ensure meteorological conditions permit safe operations for the specified flight.

C. The PIC will plan for contingencies if the destination cannot be reached, or if the flight plan cannot be followed as planned.

D. The PIC will ensure the aircraft is within weight and CG limits (see Appendix C).

E. The PIC will ensure runway lengths at all airports of intended use are adequate for takeoff and landing with a recommended 15% additional buffer over AFM/POH calculations.

F. The PIC will perform a visual preflight inspection of the aircraft prior to departure.

#### **3.1.2.1 Cockpit Discipline**

A. Current checklists shall be used by all pilots on all aircraft during each phase of flight. The checklists prescribe the normal procedures to be followed for each aircraft type. Every pilot shall follow the checklist as the manufacturer intended.

B. During key phases of ground and flight operations, the PIC is responsible for creating a sterile cockpit by eliminating undue distractions and extraneous cockpit conversation that do not apply directly to the operation of the airplane. This includes placing all cell phones and PDAs on standby or "airplane mode" prior to commencing preflight.

C. Verbal callouts serve to double check critical checklist items, maintain situational awareness and help manage information during single-pilot operations. Pilots shall develop their own verbal callouts. Some examples of standard callouts are:

- "Runway Heading Aligned"
- "Target Speeds..."
- "Initial Altitude..."
- "Initial Heading..."
- "Power Set"
- "Airspeed Alive"
- "Rotate"
- "Positive Rate – Gear Up"
- "Two for Three Thousand"
- "1,000 feet to go"
- "Nav Source Verified"
- "Approach Mode Armed"
- "Approach Mode Active"
- "Localizer or Course Alive"
- "Glideslope Alive"
- "Final Approach Fix, no flags"
- "GUMP Check"
- "1,000' Above Minimums"
- "500' Above Minimums"
- "100' Above Minimums"
- "Gear Down: Landing"

### **3.1.3 VFR Flight**

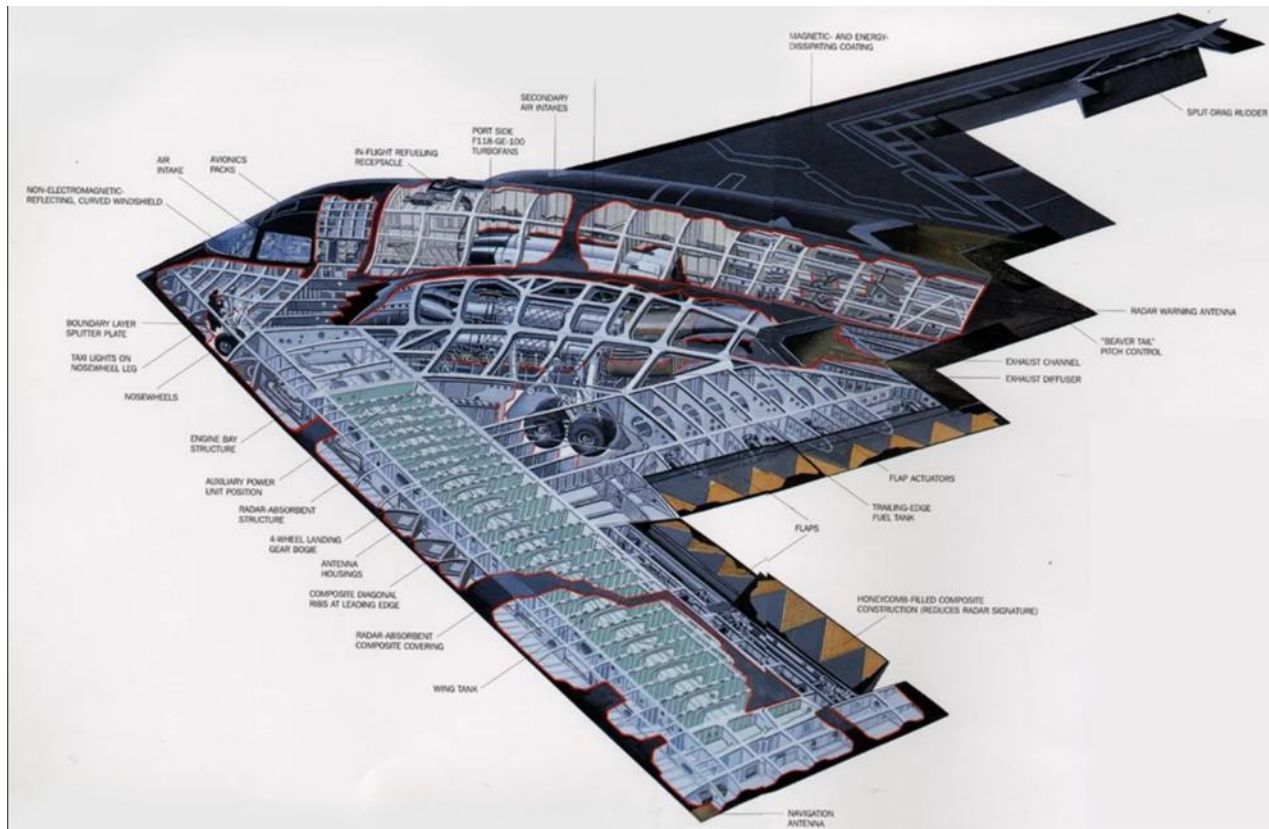
A. The PIC will make every effort to complete the trip using a flight plan filed under Instrument Flight Rules. If IFR flight is not practical, the flight may be conducted under Visual Flight Rules using the criteria in this section.

- B. The appropriate and current VFR charts must be onboard the aircraft.
- C. The flight will be conducted utilizing flight following services provided by Air Traffic Control.
- D. If the arrival airport does not have an instrument approach available, a contingency plan for an alternate airport that has an acceptable instrument approach will be considered. The meteorological conditions for the entire flight must be at least 1,000 ft above the highest instrument approach minimums published at the arrival or potential alternate airport.
- E. If no VFR flight plan is filed, "Off/On" calls shall be made to a company official on the ground that is aware of the flight itinerary.
- F. No VFR flight, day or night, will be conducted when there is less than three miles visibility on any segment of the trip.
- G. VFR night landings shall be made only to runways with vertical guidance, for example, VASI/PAPI, ILS Glideslope or published VNAV approach guidance.
- H. Except for takeoff and landing, no aircraft shall be operated in VFR flight less than 1,000 ft above the highest obstacle within three miles of the route to be flown (2,000 ft for mountainous terrain).
- I. No special VFR or VFR-on-Top operations are permitted.

#### **3.1.4 IFR Flight**

- A. Flights conducted under Instrument Flight Rules will not depart unless the weather at the departure airport is at or above instrument approach minimums for the applicable departure runway.
- B. Flights departing into IFR conditions shall have a takeoff alternate identified within 25NM of the departure airport.
- C. IFR flights will not depart for the destination unless the weather forecasts at the ETA show the ceiling and visibility at or above published approach minimums.
- D. Published Instrument Departure Procedures shall be used for all applicable runways.
- E. An alternate arrival airport will be filed and listed if the weather at the destination is below the following:
  - One hour before to one hour after ETA, the ceiling will be at least 2,000 ft. above airport elevation and the visibility will be at least three miles.
- F. An alternate airport will be listed for any destination that is on an island.
- G. The weather minima used for IFR departures and approaches shall be those specified in the standard instrument approach procedures for the intended airport.
- H. Circling approaches Day or Night are not authorized for weather less than 1,000 ft ceiling and 3 miles visibility.
- I. Contact approaches are not authorized.
- J. Visual approaches shall be made to runways with vertical guidance, for example, VASI, PAPI, ILS Glideslope, or published VNAV approach guidance.
- J. An autopilot with at least heading mode should be used.





### 3.1.5 Fuel and Oil Supply

A. A flight shall not be initiated unless the aircraft carries enough fuel and oil supply to ensure it can safely complete the flight as planned plus adequate reserves. The PIC shall take into account meteorological conditions, ATC delays, and unforeseeable taxi delays.

B. The flight will be planned to arrive at the destination or alternate (if required) with no less than one hour of fuel remaining.

### 3.1.6 Weight and Balance

A. The PIC is responsible for the proper loading of the aircraft so as not to not exceed weight and balance limits prescribed in the AFM/POH. Aircraft takeoff weights shall not exceed that which would limit the aircraft from meeting performance requirements for takeoff, enroute, and landing phases of flight. If actual passenger weights are not available, pre-determined weights can be used:

Adult male	200 lbs – 90 kg
Adult Female	170 lbs – 77 kg
Child <12yrs	75 lbs – 34kg
Infant <2yrs	30 lbs – 14 kg

B. *Insert a copy of the weight and balance form for the exact airplane in Appendix C of this manual.*

### 3.1.7 Aircraft with a Minimum Equipment List (MEL)

The PIC will comply with MEL procedures approved for the specific aircraft with a copy of the MEL shall be carried onboard the aircraft. MEL deferral procedures are specified in the MEL approved for the aircraft. The PIC shall ensure that all "Operations" and "Maintenance" procedures are followed.

### 3.1.8 Aircraft without an MEL

For aircraft without an approved MEL, if a malfunction occurs, the PIC will contact an approved maintenance facility or technician to determine whether the aircraft is airworthy. If the malfunction can be deferred, the information must be recorded in the aircraft log and defective equipment secured or otherwise placarded to avoid causing a safety hazard for the flight. If the aircraft is deemed unairworthy, the PIC shall ground the aircraft and seek repairs (Section 5.0).

### **3.1.9 Severe Weather**

No aircraft will be operated in an area of known thunderstorms unless the aircraft is equipped with operating weather radar. NEXRAD equipment alone is not sufficient.

### **3.2.0 Icing**

A. The PIC shall give careful consideration to all factors involved when operating into areas of known icing or anticipated icing and assure the aircraft is certified for flight into known icing with all anti-icing and de-icing systems functioning properly. Continued flight into areas of moderate or greater icing should be avoided. If icing conditions are encountered that were not forecast or reported, it should be reported to Air Traffic Control or Flight Service.

B. No flight will be conducted in areas of freezing precipitation or severe icing.

C. Aircraft not certified for flight into known icing are prohibited from operating in any icing conditions.

### **3.2.1 Flight and Duty Time Limitations**

A. The PIC is expected to manage his or her time so as to be well rested for flight operations. The PIC shall observe flight and duty time limitations as described in this section and shall not fly fatigued.

B. The duty day for LBA pilots begins when he or she arrives at work, regardless of whether or not that work is related to aviation, and terminates upon completion of the last flight of the day.

C. The following limitations will be implemented to mitigate fatigue risk:

- a. No pilot may fly more than 8 hours of flight time within any 24 hour period;
- b. No pilot may perform a duty day in excess of 14 hours;
- c. Any duty day of 14 consecutive hours must be followed by a rest period of at least 12 hours before conducting another flight.

D. Window of circadian low. The window of circadian low is the time from 0200 to 0559 local time at the point of the aircraft home base or domicile. For flights operating in the window of circadian low, a maximum duty day of 8 hours shall be applied. The PIC has the authority to extend that duty day to 14 hours if a Safety Pilot is used.

### **3.2.2 Passenger Safety Briefing**

Passengers, even Safety Pilots who have not been properly trained and briefed on crew coordination, can pose a hazard of their own in some situations. (For example, pilots unaccustomed to carrying passengers may find their conversations and questions a distraction during the preflight as well as in-flight.) The PIC shall therefore ensure all passengers are given an appropriate safety briefing that covers at least the following:

1. Prior to boarding:
  - Make sure passenger vehicles are not allowed on the ramp or in the hangar without close supervision and escort;
  - Point out unique injury hazards of the airport ramp and hangar environment, including slips and falls, wingtips, static wicks, etc.
2. Prior to takeoff:
  - Where and how carry-on luggage is required to be stowed;
  - The use of safety belts or safety harnesses;
  - When seat backs must be secured in the upright position and chair tables stowed;
  - The use and location of the passenger oxygen system, including the location of oxygen masks;
  - Location and use of the portable oxygen bottle;
  - The location and use of emergency exits;
  - The location of any emergency equipment the passenger may have a need for in an emergency situation such as ELT, fire extinguisher, survival equipment, (including life rafts), and first aid kit;
  - Procedures on use of portable electronic devices;
  - Procedures for "sterile cockpit" (reference Section 3.1.2.1B);

- Safety Pilots shall be briefed on division of cockpit duties and expected protocols.
- 3. Inflight when the “fasten seat belt” sign is turned on for turbulence:
  - When the use of seat belt is required;
  - The requirement to stow carry-on luggage.
- 4. Prior to passenger deplaning:
  - The safest direction and most hazard free route for passenger movement away from the airplane;
  - Any dangers associated with the type of airplane, such as wing steps, pitot tubes, engine and propeller safety zones;
  - The PIC or Safety Pilot shall escort passengers to and from the airplane to a safe non-movement area.

## **Section 4 Qualifications and Training**

### **4.1.0 Flight Crew Licenses & Ratings**

A. To act as PIC or Safety Pilot of a *Company/Organization Name* owned or leased aircraft, a pilot must hold at least a Private Pilot license with appropriate ratings for category and class.

B. Must also hold a current 3<sup>rd</sup> class or better medical certificate.

### **4.1.1 Flight Crew Qualifications and Competency**

A. The pilot must have a current flight review in the same aircraft category, class, and type (if a type rating is required) being flown.

B. Formal type-specific recurrent training shall be completed annually at a minimum.

C. The pilot shall be instrument current (per FAR 61.57(c) or (d) as appropriate) in the same aircraft category and class being flown.

D. The pilot shall complete an instrument proficiency check every six months.

E. Prior to flying for business purposes, the pilot should have logged a minimum of 20 hours of instrument time in the aircraft to be flown.

F. Within the preceding three (3) calendar months prior to the flight, the pilot must have logged at least three (3) takeoffs and three landings to a full stop in the same make and model being flown. Note: These conditions may be accomplished by performing this event at night.

G. The pilot shall be current for night operations (per FAR 61.57 (b)) in an aircraft of the same category and class.

### **4.1.2 Training**

A. In addition to the items prescribed in FAR 61.56, initial or annual recurrent training shall consist of at least the following.

- Company Flight Operations Manual;
- Aircraft type and aircraft systems;
- Emergency procedures;
- Flight planning;
- Human factors (emphasis on distractions, complacency/drift, and pressure);
- Workload and time management in aircraft;
- Effects of fatigue on performance, avoidance strategies, and mitigations.

B. Initial and every two years thereafter, training in:

- Aircraft surface contamination;
- Crew Resource Management / Single-Pilot Resource Management;
- High altitude training for each aircraft operated above 10,000 ft.

C. Many resources are available to assist the LBA Operator in customizing a training program that meets the objectives of this section:

- Aircraft manufacturer;
- Type-specific ownership clubs or associations;
- Independent CFIs, flight schools, and training facilities;
- Flight Review Guidance: [http://www.faa.gov/pilots/training/media/flight\\_review.pdf](http://www.faa.gov/pilots/training/media/flight_review.pdf)
- IPC Guidance: [http://www.faa.gov/pilots/training/media/IPC\\_Guidance.pdf](http://www.faa.gov/pilots/training/media/IPC_Guidance.pdf)
- FAA Risk Management Handbook, Including Single-Pilot Resource Management: <http://www.faa.gov/library/manuals/aviation/media/FAA-H-8083-2.pdf>
- FAA Online Training Course Catalog: [https://www.faasafety.gov/gslac/ALC/course\\_catalog.aspx](https://www.faasafety.gov/gslac/ALC/course_catalog.aspx)
- NBAA VLJ/TAA Training Guidelines: <http://www.nbaa.org/ops/safety/vlj/>
- AOPA Air Safety Institute: <http://www.aopa.org/asf/>

## **Section 5 Maintenance Procedures**

### **5.0 General**

While many of the maintenance activities are performed under contract to independent maintenance providers and personnel, the responsibility for these activities still rests with the LBA Operator. All maintenance will be conducted in accordance with applicable Federal Aviation Regulations by properly authorized personnel using only FAA-approved parts and properly calibrated tools. Any preventative maintenance performed by the LBA Operator will be limited to those activities specifically allowed by certificated pilots under FAR Part 43.

#### **5.1.0 Person Responsible for Maintenance**

*Company/Organization Name* designates \_\_\_\_\_ for the planning, control and coordination of all maintenance activities, to include liaison with approved maintenance providers and personnel. This individual will be empowered to make necessary maintenance arrangements to keep the aircraft in a safe operating condition and in compliance with applicable regulations, including the authority to remove from service any aircraft that does not meet safety and compliance guidelines. This individual will report directly to the LBA Operator. The PIC is also authorized to obtain aircraft maintenance services, as needed, in order to assure the aircraft maintains a current and valid airworthiness certificate (reference Section 3.1.1 and Appendix B).

#### **5.1.1 Maintenance Control System**

A. The aircraft shall be maintained in accordance with the aircraft manufacturer's recommended maintenance program which includes, at minimum, an aircraft annual inspection.

B. Aircraft discrepancies or service difficulties shall be reported immediately to the Person Responsible for Maintenance specified in 5.1.0 above for appropriate action and resolution.

C. The Person Responsible for Maintenance shall implement a system to ensure the aircraft is in compliance with all applicable Airworthiness Directives and other mandatory maintenance requirements and assure proper, compliant documentation accordingly.

D. All technical records, including aircraft logbooks and current status of applicable Airworthiness Directives, shall be stored in such a manner that allows each PIC to personally review content prior to flight. The IRS-compliant aircraft time sheet or aircraft log carried onboard the aircraft should also list appropriate inspection due dates and service intervals.

E. Before each flight, the PIC shall consult the aircraft time sheet or aircraft log and take note of the next scheduled maintenance requirement and the current list of any outstanding defects to decide whether the flight may take place. If in doubt as to the time remaining to maintenance tasks, or the acceptability of defects, the PIC must contact the Person Responsible for Maintenance or the LBA Operator.

## Section 6 Security Procedures

### 6.0 General

The NBAA Security Protocol was developed to serve as the NBAA recognized and Transportation Security Administration (TSA) endorsed standard for demonstrating an acceptable security protocol for Business Aviation. Adoption of the NBAA Security Protocol is voluntary and intended for use by business aircraft operators with a need to operate internationally and to access airports within Temporary Flight Restrictions (TFR's).

A. The National Business Aviation Association seeks to assist TSA in developing security guidelines that recognize the unique characteristics of business aviation and support TSA in meeting its responsibilities regarding aviation security.

B. The Pilot-in-Command will be responsible for the aircraft security during all flight operations.

### 6.1.0 Assessing the Threat

The first step in the development of an effective security program is to assess the threat against *Company/Organization Name*, personnel, aircraft, and facilities and the vulnerabilities of the Flight Operations. Threats may relate to the nature of business the company conducts, location of the company business, nationality of the company, profile of passengers carried, and the value of goods carried.

### 6.1.1 Preventative Measures

A. The focus of *Company/Organization Name* preventative security measures will be to:

1. Prevent unauthorized access to company aircraft and facilities;
2. Prevent the unauthorized introduction of weapons or explosives onto company aircraft or into company facilities;
3. Prevent the use of company aircraft to commit other unlawful acts, such as the transport of illicit drugs.

B. The following checklist shall be used for preventative security measures.

- Doors/Access panels.....Locked
- Emergency Exits.....Secured
- Aircraft Perimeter.....Marked/Lighted
- Engine Blanks.....Fitted
- Pre-Flight.....Detailed check of aircraft cavities
- Parking.....Hangared or security tape if needed

## # # # Appendix A Risk Assessment Tool "The Mirror"

### *The Focus is with the Pilot-in-Command ("YOU")*

<b>I. Are you current?</b>		
<i>A. In Category (Airplane) and Class (Single-Engine; Multiengine)?</i>	Yes	No
<i>B. In the Make and Model?</i>	Yes	No
<i>C. Takeoffs and Landings (Day or Night, as applicable to intended flight)?</i>	Yes	No
<i>D. Instrument Currency for IFR flights: Hours, Approaches, Holds or IPC?</i>	Yes	No
<i>E. Have you had type-specific training in the last twelve (12) months?</i>	Yes	No

<b>Subtotal "No" Answers:</b>	_____	
<b>II. Are you up to it <u>today</u>?</b>		
A. Considering current personal circumstances, do you feel up to flying today?	Yes	No
B. Will you be mentally focused on flying now and after any meetings?	Yes	No
C. Have you properly compartmentalized non-flying concerns?	Yes	No
D. Are you properly rested for today's flight (reference Section 3.2.1)?	Yes	No
E. Can this flight be readily postponed or rescheduled without undue pressure?	Yes	No
<b>Subtotal "No" Answers:</b>	_____	
<b>III. What does today's flight look like?</b>		
A. Will you be filing either a VFR or IFR flight plan?	Yes	No
B. Are you familiar with departure airport, area, terrain and procedures?	Yes	No
C. Is the departure runway clean and dry (no snow, ice, standing water)?	Yes	No
D. Have you completed weight & balance and takeoff-distance calculations?	Yes	No
E. Is today's departure weather VFR?	Yes	No
F. Are enroute weather conditions expected to be VFR?	Yes	No
G. Is the forecast free of icing, heavy rain, thunderstorms or severe turbulence?	Yes	No
H. Will the cabin altitude be below 9,000 ft for the entire flight?	Yes	No
I. Are you familiar with the arrival airport, area, terrain and procedures?	Yes	No
J. Is today's arrival weather forecast to be VFR?	Yes	No
K. Does the arrival airport have a precision approach available?	Yes	No
L. Can the approach be accomplished without circling to land?	Yes	No
M. Is the arrival runway clean and dry (no snow, ice, standing water)?	Yes	No
N. Are surface winds less than 25 knots and/or crosswind less than 15 knots?	Yes	No
O. Will today's flight be completed entirely under daylight conditions?	Yes	No

<b>Subtotal "No" Answers:</b>	
<b>IV. Aircraft Condition</b>	
A. Has the aircraft flown since its last maintenance inspection or repair?	Yes      No
B. Have you determined that the aircraft is currently airworthy (Appendix B)?	Yes      No
C. Will you land with at least one (1) hour of fuel remaining in the tanks?	Yes      No
<b>Subtotal "No" Answers:</b>	_____
<b>Total of all "No" Answers:</b> _____	

Normal	Caution	No - Go
0 - 3	4 - 6	Greater than 6

**Normal:** Continue normal operations.

**Caution:** Proceed with caution. Consult Flight Operations Manual for guidance and mitigations.

**No – Go:** Critical decision to be made. Do not make the flight.

## **Appendix B Airworthiness Checklist**

- \_\_\_ Airworthiness Certificate (original)
- \_\_\_ Registration Certificate (original)
- \_\_\_ Radio Operator Ship License (international flights or aircraft 12,500 lbs +)
- \_\_\_ Aircraft Flight Manual or Pilot Operating Handbook (current revision) including current weight and balance data.
- \_\_\_ Current status listing all applicable Airworthiness Directives, including time or date of recurring action.
- \_\_\_ Inspection due date (e. g., Annual / 100 hour / progressive event)
- \_\_\_ ELT battery due date and 12-month operational inspection.
- \_\_\_ VOR equipment check for IFR operations.
- \_\_\_ Compass deviation card.
- \_\_\_ Static system inspection certification
- \_\_\_ Altimeter inspection certification
- \_\_\_ Transponder inspection certification.
- \_\_\_ Current status of life-limited parts per T. C. D. S.
- \_\_\_ FAA form 337s for alterations or repairs.
- \_\_\_ Inoperative equipment certifications.
- \_\_\_ External data plate / serial number.

*The FAA indicates that "airworthy" means an aircraft and component parts meet its type design (or properly altered configuration) and is in a condition for safe operation. The above items must be verified and current in order to render a 'Standard Airworthiness' determination under FAR Part 91. Appendix B is designed as guidance only and is subject to change based upon current regulations. The decision to accept an aircraft in its present condition belongs to the Pilot-in-Command.*

## **Appendix C Airplane Weight & Balance Form**

(Insert copy of weight & balance form specific to airplane make & model.)



**Appendix D**  
**Emergency Response Plan**

<b>I. Initial Notifications</b>	<b>Comments</b>
<i>Unless absolute knowledge to the contrary exists, assume all persons onboard have survived but are injured. Do not make statements to the media at this time.</i>	
1. Confirm emergency personnel are responding or have responded and that on-scene protocols are being observed (see Part III below).	
2. Notify immediate family members (see Part II below).	
3. Notify the FAA and NTSB.	
4. Notify the insurance carrier.	
5. Notify the Person Responsible for Maintenance (Section 5.1.0).	
<b>II. Accommodation of Family Members</b>	
<i>A company's first and highest responsibility is to the families of those involved in the accident. Every appropriate provision for their comfort and accommodation should be considered, assigned and acted upon first, prior to internal company or public comment. Take immediate steps to notify the family. If possible, inform them in person using company representatives, local police, Red Cross, etc.</i>	
<b>III. On-Scene Response</b>	
1. Organize on-site assistance as necessary by providing or arranging for immediate first aid along with Fire/EMS/Police response.	
2. Note the time, place and description of the occurrence and the names with points of contact for any injured people and witnesses, including all passengers.	
3. Other than responding to emergency medical treatment inquiry, do not speak to anyone on the scene and do not assume any obligation or liability. Unless served a subpoena, you are under no legal obligation to make a statement to any government official. However, a pilot must cooperate in producing aircraft documents, pilot's license, medical certificate and blood alcohol tests.	
4. Take all reasonable precautions to protect the aircraft, aircraft components and contents from further damage. Do not move or otherwise disturb the scene without approval of the FAA. Do not abandon the aircraft or property and assure arrangements have been made to properly secure the accident scene.	
<b>IV. External Statement</b>	
<i>A brief statement confirming notification of the accident along with concern for all involved and full cooperation with appropriate authorities is initially sufficient.</i>	

**Appendix E**  
**Trip Debrief (Hazard/Incident Report)**

<i>Date of Flight:</i> _____	<i>Destination/Purpose:</i> _____
<i>General Comments About the Flight:</i> (what went right; what went wrong; what can be improved; any new hazards uncovered; etc.)	<i>Recommendations for Improvement:</i> (procedural change, work on during next training event, specific ways to eliminate, correct or minimize a hazard, etc.)
<i>Who to share this information with?</i> <input type="checkbox"/> Maintenance <input type="checkbox"/> Aircraft Owner <input type="checkbox"/> FBO <input type="checkbox"/> ATC <input type="checkbox"/> Safety Pilot <input type="checkbox"/> CFI / Training Facility <input type="checkbox"/> Other Pilot(s) <input type="checkbox"/> Passengers <input type="checkbox"/> Colleagues / Associates <input type="checkbox"/> Office Personnel <input type="checkbox"/> Family <input type="checkbox"/> NASA ASRS <input type="checkbox"/> FAA <input type="checkbox"/> Other <input type="checkbox"/> None	<i>Do any of the following need to be amended?</i> <input type="checkbox"/> Flight Operations Manual <input type="checkbox"/> Risk Assessment Tool <input type="checkbox"/> Aircraft Checklist <input type="checkbox"/> Maintenance Procedures <input type="checkbox"/> Ground Handling Procedures <input type="checkbox"/> Training <input type="checkbox"/> Other <input type="checkbox"/> None  <i>Corrective Action Taken:</i>   <i>Corrective Action Date:</i> _____

Something useful can be learned on each and every flight. It is therefore recommended the Trip Debrief Sheet be completed by the PIC for each trip and filed per SMS guidance, Section 2.1.4.