

# **Safety Practices & Procedures**

**Complies with 14 CFR Part 141.93(a)(3)  
(Applicable to all Operations)**

Epix Services LLC, dba Epix Aviation

Chesapeake Regional Airport

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FAA Accepted by POI

# **Epix Aviation Safety Manual**

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## **A. Aircraft Dispatch Procedures**

The Epix Aviation, LLC Flight Log book is a maintenance form book, which is kept at the dispatch desk in the lobby of Epix Aviation facility while the aircraft is not currently dispatched. It is used by Maintenance personnel, pilots and office staff to record flight time and aircraft maintenance discrepancies.

The Epix Aviation Flight Log book will be given to the PIC of each flight by the dispatcher when the aircraft is dispatched for each flight or the mechanic performing maintenance when the aircraft is dispatched for maintenance to be performed. The Flight Log Book is checked during the dispatch and pre-flight inspection for any discrepancies carried over from the previous flight. If there are any questions, the student should consult with the CFI. See paragraph H of this Procedure for details.

A flight dispatch sheet will be inserted in the Flight Log Book at the time of dispatch. The dispatch sheet contains current Hobbs times which are used by dispatch and customers for billing and FAA currency requirements and contains Tachometer times which are used for maintenance tracking. The dispatch sheet also contains inspection status for FAA required inspections and checks. Before each flight the times recorded on the dispatch sheet are verified by the pilot with the aircraft's actual times to ensure validity. The PIC of each flight shall verify the aircraft meets all inspection criteria to ensure aircraft airworthiness. If the aircraft has maintenance items overdue, or the time from the next 100 hour or airworthiness directives have been exceeded, MyFBO will NOT allow dispatch of the aircraft

My FBO will also perform check to ensure the instructor is in compliance of instructor standardization checks. If the Instructor is not current on proficiency checks, MyFBO will NOT Dispatch the flight as dual instruction.

Note: To ensure all instructors (Chief Instructor, Assistant Chief Instructor, Check Instructors) are capable of performing flights and Epix Aviation stays in compliance, the Chief instructor or Assistant Chief shall input initial standardization flight data and/or proficiency flight data in MyFBO prior to the instructors next scheduled flight. The General Manager will ensure the data has been input and is correct. Each month, the Chief Instructor, will print-out the current renewal qualifications, and the qualifications will be placed in view for all instructors to see. This process adds another layer of protection in addition to the checks that MyFBO performs.

Upon return from the lesson, the student will annotate the ending Hobbs and Tach times and any discrepancies discovered in flight. The CFI may assist the student in recording any maintenance data and will review any write-up before submitting it to maintenance. The dispatcher will enter the flight times into MyFBO and prepare any invoice. Only maintenance personnel may enter maintenance data into MyFBO and clear any discrepancy once entered. The Maintenance Supervisor and Director of Maintenance review maintenance data on a daily basis.

## **B. Fuel**

The PIC will visually ensure that aircraft tanks are filled to the minimum required for the flight *plus the Epix Aviation required reserve of one hour*. Additional fuel will be carried if there is any likelihood of deteriorating weather conditions. All fuel loads will be verified with the aircraft's POH/AFM weight and balance section to ensure proper weight and center of gravity limitations. The pilot will ensure that the tanks are serviced with aviation grade 100LL (blue) fuel prior to flight.

During fuelling, the airplane and the truck will be grounded and the truck will be connected to the airplane. The ground cable will be connected to an exhaust stack of the aircraft. Smoking is prohibited within 50 feet.

In the event of a fuel spill during filling or after removing a fuel cap, crews must wait at least 20 minutes to vent the wing and control surfaces before turning on the electrical system or starting the engine. If a student pilot is uncertain about the safety of conditions after such a spill, he will consult dispatch.

When fuelling at airports other than Chesapeake Regional (KCPK), a Flight Instructor or student will observe the fuelling operation to ensure proper servicing. Pilot will visually confirm that the proper grade of aviation fuel has been added.

### **C. Engine Start**

- A Flight Instructor will be on-board the airplane during all pre-solo engine starts
- Airplane engines will not be started for the purposes of flight until a pre-flight inspection has been completed.
- A fire extinguisher will be on the parking ramp during engine start at the Chesapeake Regional Airport. At all other approved airports, an on board fire extinguisher should be used if necessary
- Brake pressure will be checked and the brakes applied before the engine is started
- The pilot will check visually to assure that the immediate vicinity is clear of persons, equipment and debris before engaging the starter
- The approved checklist will be used for all starting procedures
- Tailwheel aircraft the PIC will ensure the control stick is held full aft during the start.

### **D. Taxiing**

All persons will exercise extreme caution while taxiing. Both sets of brakes will be checked immediately after the airplane starts moving. In congested areas, no one will taxi faster than a fast walk. In uncongested areas, no one will taxi so fast that a loss of braking would create a hazard. All persons will taxi on the yellow taxi lines when possible, except to avoid an obstacle. Pilots will visually confirm intersections are clear before crossing. When parking, pilots will not taxi between two adjacent aircraft to reach a tie down, but will taxi to the front of the spot and back the aircraft in. Care will be taken not to push the aircraft by the propeller or spinner. At un-towered airports, pilots will make radio calls when taxiing on the airport movement areas. At towered airports, pilots will follow ground control instructions. Tailwheel aircraft taxiing from in front of the hangar must use caution not to sweep the tail of the aircraft in front of and blow prop wash into the open hangar bays.

### **E. Engine Run Up**

If an engine was shut down prior to flight, an engine run-up will be performed. The engine power checks will be conducted in accordance with the aircraft manufacturers POH/AFM. Pilots should avoid taxiing behind other airplanes that may be running up. All pilots will ensure that the area behind the airplane is clear before advancing the throttle. Even if a run up is not required e.g. full stop taxi back, pilots must ensure the “Before Takeoff” checks have been completed. Tailwheel aircraft PIC

shall ensure the control stick is held full aft during the run up.

## **F. Fire Precautions and Procedures**

Students should review and follow the appropriate Pilot Operating Handbook (POH) and aircraft checklist for specific fire procedures. This will include the procedures for engine fire, fire during engine start, electrical fire, and cabin fire.

Smoking and the use of other tobacco products is not permitted in any flight school aircraft or building. Smoking is prohibited within 50 feet of any aircraft, fueling operation, or fuel storage tank.

Ground fire extinguishers are located in the main hanger. Students and staff will be trained on the fire extinguisher locations and use. Do not taxi within 50' of a fuel truck that is actively conducting refueling operations.

If a student or employee observes a fire or excessive fuel leak they should immediately call 911. Once the proper emergency response authorities have been contacted the personnel shall notify flight school management and or an airport employee.

Students and instructors should never risk personal injury to save an aircraft during a fire.

## **G. Re-dispatch Procedures Following Unprogrammed landings**

### **Landing at an airport that is not part of the approved flight plan:**

1. Secure the aircraft
2. Contact Epix at one of the numbers listed below to explain the circumstances of the unprogrammed landing
3. Depending upon input from the Chief Instructor or his/her representative:
  - a. Wait for pickup by another aircraft;
  - b. Prepare the aircraft for departure and continue the previously planned flight; or
  - c. Prepare the aircraft for departure and return to home base

### **Landing off airport:**

1. Ensure your safety and the safety of others on board as your first priority.
2. As the situation allows, secure the aircraft
3. The flight is immediately terminated
4. Contact Epix for further instructions

### **Landing as a result of mechanical or medical emergencies:**

1. The flight is immediately terminated. Never try to take off from an unimproved location
2. Secure the aircraft as best you can
3. Contact Epix for further instructions

### **Landing as a result of inclement weather**

1. Secure the aircraft
2. Contact Epix and relay the circumstances of the weather abort
3. Discuss the weather forecast with the Chief Instructor or his/her designated representative and determine when/if further flight will commence

4. Depending upon input from the Chief Instructor or his/her representative:
  - a. Wait for pickup by another aircraft;
  - b. Prepare the aircraft for departure and continue the previously planned flight; or
  - c. Prepare the aircraft for departure and return to home base

**Contact information for Epix is as follows:**

1. Dispatch desk – 757 421-4973

**H. Maintenance and Aircraft Discrepancies**

All airplanes are maintained in compliance with CFR 14 Part 43 and 91. The Epix Aviation Flight Log book is a maintenance form book, which is kept at the dispatch desk in the Epix Aviation facility. It is used by the pilot to record flight time and airplane maintenance discrepancies. The Epix Aviation Flight Log book will be checked during the pre-flight inspection for any discrepancies carried over from the previous flight.

Any observed discrepancies will be written on the appropriate section of the Discrepancy Sheet, to include a description of the defect and the date of observation. Before entering the write-up in the form, the student shall consult with an Epix CFI to ensure that the discrepancy is real and not just a misinterpretation. If the discrepancy cannot be resolved on the spot, the CFI shall refer the issue to maintenance, who shall either validate the discrepancy or clear it. If validated, the Discrepancy sheet is then filled out and placed in the upper two rings of the Flight Log Book. Once a discrepancy is recorded in the Flight Log book the aircraft is grounded until it is deemed airworthy by an FAA certificated maintenance technician and the appropriate entries are made in the aircraft's maintenance records and the Epix Aviation Flight Log book.

<u>DISCREPANCY SHEET</u>			
Aircraft: N_____		Date: _____	
		Hobbs: _____ Tach: _____	
Discrepancy		Corrective Action	
Name: _____ Date: _____		Mech. Name: _____ Date: _____	
_____		A&P #: _____	
_____		_____	
_____		_____	

The Pilot In Command (PIC) is solely responsible of the airworthiness of the aircraft. Student pilots on solo missions are the PIC and have authority to determine the airworthiness of the airplane when in flight.

**If the discrepancy is observed during a local flight:**

1. Return to the airport in a safe, but efficient manner, if possible.
2. If necessary, the PIC should not hesitate to declare an emergency and receive priority

assistance.

3. Flight operations should be notified of the problem if and when it is safe to do so.
4. Upon return to the airport, the PIC should follow the procedures above for resolving the discrepancy.

**If the discrepancy is observed during a cross country flight:**

1. Make a landing at the nearest appropriate site, with an airport being the obvious first choice if it can be safely accomplished.
2. If necessary, the PIC should not hesitate to declare an emergency and receive priority assistance.
3. As soon as it is safe to do so, notify Epix of the issue.
4. Terminate the flight and await further instructions.

**I. Securing Aircraft When Not in Use**

Follow the aircraft checklist for securing aircraft. If an airplane is left on the ramp, it shall be tied down by both wings and the tail. If the aircraft is in an area where there are no tie downs, the pilot shall ensure that it is chocked around both main landing gears. Control Locks or other method of securing the flight controls (e.g. lap belt around the stick) shall be used. All doors and windows shall be closed and the keys shall be removed and stored in the office. Pilots must ensure all electrical system and magneto switches are turned to the OFF position. Tailwheel aircraft shall be secured in a manner such that adverse weather conditions will not damage the aircraft or cause it to pose a danger to surrounding aircraft. Tailwheel aircraft shall be hangered over night unless specific authorization from the Chief Pilot or designated representative is received.

**J. Collision Avoidance**

Pilots will maintain continuous traffic surveillance both in flight and on the ground. Before initiating any maneuvers, pilots will make a minimum of two 90° clearing turns to assure the area is free of conflicting traffic and continually scan for traffic while performing maneuvers. Pilots will maintain a “listening watch” on the appropriate frequency for traffic activity.

**K. Simulated Engine Failure**

All Flight Instructors, including Chief Instructor and Assistant Chief Instructor, are urged to use caution when simulating an engine failure. Consideration must be given to the terrain, density altitude, weather, airplane loading etc. In the interest of safety, and to comply with FAA recommendations, we abide by the procedures described by the airplane manufacturer in the POH/AFM.

**N.B. Students on solo flights will not simulate an engine failure.**

All engine failures will be simulated by the Instructor using throttle only.

Simulated Engine failures after take-off will not be initiated below 500 feet AGL. During simulated engine failure after take-off with runway remaining, a go-around will be initiated as soon as it is determined if a safe landing can or cannot be made. No touchdown will occur. Whenever a Go-Around is necessary, it must be performed prior to 200' AGL, if at an Epix approved airport or Prior to 500' AGL, if at a dirt strip or suitable field.

Engine failure on a simulated upwind should be practiced by the student pilot (*with instructor on board*) at a safe altitude (above 1000 feet AGL) to assure that he is able to make the definite pitch decrease required to maintain safe flying speed.

Engine failures will not be simulated over populated areas.

The Flight Instructor is responsible for initiating the go-around. During a FAA Practical Test, the person initiates the go-around must be understood and agreed upon with the examiner during the pre-flight briefing.)

#### **L. Weather Minima for Students**

<u>Flight Operation</u>	<u>Visibility</u>	<u>Ceiling</u>	<u>Max Wind</u>	<u>Crosswind Component*</u>
Dual VFR Local	3SM	1,500 feet	25 knots	15 knots
Dual VFR X-C	3SM	2,000 feet	25 knots	15 knots
Solo VFR Pattern	5SM	2,000 feet	10 knots	5 knots
Solo VFR Local	8SM	3000 feet	15 knots	10 knots
Solo VFR X-C	8SM	5,000 feet	15 knots	10 knots
Night Dual	3SM	2,000 feet	20 knots	10 knots
Tailwheel Dual	3SM	1,500 feet	25 knots	15 knots

\*For solo flight, the maximum crosswind component is at the instructor's discretion but not to exceed 10 knots.

#### **M. Reporting of Accidents and Incidents**

Any accident or incident will be reported to a supervisor as soon as possible. An accident or incident may require flight curtailment so that a report can be made without delay to the Chief Flight Instructor, or the appropriate Flight Instructor.

It is the responsibility of the PIC in concert with the Chief Instructor to notify the appropriate authorities in the event an occurrence meets the mandatory reporting requirements defined in NTSB 830. Any time a NASA Aviation Safety Reporting System form is used in accordance with CFR 14 91.25 a copy will be provided to the Chief Flight Instructor.

#### **N. Practice Areas**

The Practice Areas are used by multiple flight schools and caution should always be used when maneuvering in these areas. Prior to each flight the practice area boundaries will be reviewed and discussed with each student to ensure which area they will be operating in during that particular



lesson. During flight operations and training, verbal communication of position and altitudes should be used before initiation of each series of maneuvers on either the KCPK CTAF or a discreet Epix frequency. See Appendix 1 for detailed depiction of the practice area.

#### **O. Approved Solo Airports:**

The following airports are approved for local area solo flights:

- Elizabeth City Regional Airport **ECG**
- Norfolk International Airport **ORF**
- Newport News International Airport **PHF**-NOTE: greater than 25 miles away
- Franklin Regional **KFKN**- NOTE: greater than 25 miles away
- Hampton Roads Executive Airport **PVG**
- Suffolk Regional Airport **SFQ**
- Currituck County Airport **ONX**

The following airports are approved for cross country solo flights:

- Dare County Regional **MQI**
- Chesterfield Regional Airport **FCI**
- Kinston Regional Airport **ISO**
- Charlottesville-Albemarle Airport **CHO**
- Emporia-Greenville Airport **EMV**
- Richmond International Airport **RIC**
- Halifax/Northampton Regional **KIXA**
- Pitt-Greenville NC **PGV**
- Edenton NC **EDE**
- Tri-county, Ahoskie NC **ASJ**
- Mecklenburg/Brunswick Regional **KAVC**

\*Should another airport be requested it must be approved prior to flight by the Chief or Assistant Chief Flight Instructor.

#### **P. Tailwheel Operations:**

- Minimum runway required for takeoff following a stop and go landing is 1500'
- Minimum runway length for wheeled landing touch and go's is 3000'
- Syllabus flights shall not be conducted from grass runways less than 2000'
- Minimum Spin Entry Altitude is 4000' AGL
- Aerobatic flight shall not be conducted unless the PIC has completed an Epix Aviation approved aerobatic syllabus or under dual instruction with an authorized aerobatic instructor.

## APPENDIX 1: Training Area Map

The airspace around Chesapeake Regional is a medium density flight training area. Epix shares the local airspace with Horizon Aviation. From observed experience, Horizon tends to use two main practice areas: (1) The Big Field and (2) Lake Drummond. Due to its proximity to the airport, the Big Field tends to be the area of first choice for most training flights. Epix Aviation is also a main user of this area. Contrary to Horizon's preference for working over Lake Drummond, Epix does not recommend this training area due to the fact that it lies in and under the main airways to Norfolk Airport and because a mechanical problem over the Great Dismal Swamp creates an unacceptable risk for Epix aircraft. Monitor CTAF while in any of these areas. The Epix suggested training areas are:

1. **The Big Field**, located due south of KCPK. Use caution when operating in the western edge of this area as it impinges on the instrument approach path to runway 05. Be aware of the 1015 foot tower just to the south. The Big Field is ideal for ground reference maneuvers due to its grid layout.
2. **The Radome (or donut)** lies just to the east of the Big Field and is also a popular training area for both FBOs. To the north is the traffic pattern for NAF Fentress; just off the southern edge, the 1015 foot tower. The radome can be used for airwork or ground reference.
3. **Back Bay** lies over the Northwest River and Back Bay. Be mindful of the wildlife areas underneath. Back Bay is principally for airwork.
4. **Blackwater** area is over the Academi facility and the large fields just to the south of it. To the north are housing areas, so ground reference maneuvers are discouraged in this sector. Blackwater is the preferred location for aerobatics as well as ground reference due to its grid layout.
5. **South Mills** is a backup area when others are occupied.

