



Black Hound Operations Procedures (BHOP)

BHOP 001; Feb 7, 2019; Establishment of Black Hound Operations Procedures:

This document describes operations procedures to be followed by all instructors, students, and users of Black Hound facilities and aircraft. The intent of these procedures is to promote safe, legal, and professional standards.

All procedures will be dated and assigned a unique number and title. BHOP are intended to become a 'living document' so as to be modified, or deleted as necessary.

BHOPs are not intended to reduce or mitigate any federal aviation regulations (FARs). However, they may increase the standards and/or limits established by the FARs in the interests of flight and operational safety, e.g., the limit of flight visibility (daylight) for student pilots on solo flights is 3 SM or greater (FAR 61.89). BHOP 002 increases this to 5 SM or greater.

BHOPs shall be printed and made available for review by all in the Black Hound Operations Office. Additionally, they will be available on the blackhoundaviation.com web site.

All Black Hound instructors, students, and renters shall review and initial a compliance sheet or acknowledge electronically (e-mail) that they have read and will comply with the current BHOPs.

Gary White
Chief Instructor (CI)



Black Hound Operations Procedures (BHOP)

BHOP 002; Student Pilot Solo Limitations and Instructor Knowledge; Feb 7, 2019:

Solo night flights for Black Hound student pilots are not authorized. No solo flights to non-paved runways or runways deemed unsafe. For example, solo flights to short or runways in poor condition [such as Luling (T91)] or runways with known cross-wind conditions [such as Rusty Allen (KRYW)] will not be authorized.

Day Solo flight in the local area (less than 25 nm from KHYI):

- Greater than 2,500' ceiling and 5 sm visibility
- Winds less than 15 knts and crosswinds less than ½ demonstrated crosswinds in aircraft POH including gust factor
- Gusts no greater than 7 knts
- No convective activity forecast or active within 30 nm of the flight path during the period 1 hour before to 1 hour after the expected time of arrival
- Black Hound instructor must pre-approve the flight – endorsement not necessary.

Day Solo cross-country flight (greater than 25 nm from KHYI):

- Greater than 4,500' ceiling and 5 sm visibility
- Winds less than 15 knts and crosswinds less than ½ demonstrated crosswinds in aircraft POH including gust factor
- Gusts no greater than 7 knts
- No convective activity forecast or active within 50 nm of flight path during the period 1 hour before to 1 hour after the expected time of arrival
- Cross-country flights will be planned and conducted such that an ETA back to KHYI of greater than 1 hour before the onset of civil evening twilight shall be achieved.
- A Black Hound instructor must pre-approve the flight – endorsement(s) required in accordance with FAR 61.93.

All instructors shall brief their student pilots on the term 'instructor knowledge'. Instructor knowledge means that no student pilot may initiate a solo flight without the express knowledge and approval of a Black Hound instructor.

No student pilot solo night flights shall be endorsed except in extraordinary circumstances. Any contemplated student night endorsements and solo flights shall be pre-coordinated with either the CI or General Manager (GM).



Prior to initial solo, each student pilot shall receive an endorsement in their logbook that reflects the above student solo weather restrictions. In addition they shall be provided a copy of these restrictions and shall sign an addendum sheet to BHOP 002 that indicates they have read and understood that procedure as well as FAR 61.89. Each individual CFI may add additional restrictions to those contained within this BHOP.



Black Hound Operations Procedures (BHOP)

BHOP 003; Student Roles and Responsibilities; Feb 7, 2019:

Black Hound Aviation (BHA) prides itself on our exceptional training and safety record. The key to this is ensuring good communications are maintained between students, the flight instructor staff, and operational personnel. This is not intended to be an all-inclusive set of do's and don'ts – rather it is a general framework whereby you, the student, can progress in achieving your aviation goals.

Becoming a Pilot in Command (PIC) itself is an awesome responsibility. To quote from the federal regulation:

§ 91.3 Responsibility and authority of the pilot in command.

(a) The pilot in command of an aircraft is directly responsible for, and is the final authority as to, the operation of that aircraft.

(b) In an in-flight emergency requiring immediate action, the pilot in command may deviate from any rule of this part to the extent required to meet that emergency.

(c) Each pilot in command who deviates from a rule under paragraph (b) of this section shall, upon the request of the Administrator, send a written report of that deviation to the Administrator.

We at BHA take the training to exercise this PIC privilege extremely seriously; therefore,

All students are expected to:

Be punctual and arrive for your training session at least 15 minutes before your scheduled block time. This will allow you to preflight the airplane and receive preliminary instructions from your flight instructor. To this end, all normal lessons should be in two (2) hour blocks. You and your instructor should have the airplane back in the blocks, on the ramp, no later than 15 minutes prior to the end of that block period.

Be prepared and be an active learner. As your lessons progress, your instructor will assign reading assignments or outside exercises. All student pilots must satisfactorily complete their knowledge exam before they can progress to solo cross-country flights. Likewise, all instrument students must complete their knowledge exam before their long IFR cross-country flight. Recognize your Flight Instructor is



there to instruct, guide, and challenge you, but ultimately, your flight proficiency skills, knowledge, and success are your responsibility.

Be patient and courteous. Sometimes exceptions, conflicts or delays in meeting a schedule occur. We ask students to provide at least a 24-hour notice of any cancellations. Likewise, BHA will make every effort to notify you in advance by 24 hours. Occasionally, an advance notice will not be possible. E.g., weather, unscheduled aircraft maintenance, personal sickness, or other unforeseen events. In these cases communicate with your assigned flight instructor or a BHA representative as soon as possible so we can free up resources for other students and pilots.

Recognize and embrace the concept of safety from day one of your training. Our task is not to just get you that next rating, flight review, or endorsement. Rather, our task is to ensure you use safe practices, procedures, and become the type of pilot in command that others will look up to and wish to emulate. If you see something that looks unsafe, call it out. If you have a concern while pre-flying your aircraft, bring it to your instructor immediately.

Communicate any training problems with your Flight Instructor, CI or the General Manager. If we're not aware of the issue, we can't fix it. More than likely your concern is a normal situation that we have seen many times before and it can be easily corrected.

Understand the pre and post flight briefings and ground sessions are vital to your success. Turn off cell phones, focus, take notes, listen proactively, and ask questions. Our one-on-one student/instructor sessions are not merely 'chat' activities; rather they are an integral part of your training and progress.

Stay ahead of each flight lesson to save your time and money. Identify the King lesson and any other special topic your instructor assigns and do the homework prior to your next lesson. The better prepared you are, the faster you'll progress. Our private, instrument and commercial pilot's guides are a quick reference to what you need to know for your rating and will refer you to FAA documents for deeper knowledge. These FAA documents include the Pilot's Handbook of Aeronautical Knowledge, Airplane Flying Handbook, FAR/AIM, and the Airmen Certification Standards (ACS) and, for Instrument students, the Instrument Flying Handbook and Instrument Procedures Handbook. Finally, study and know the Pilot Operating Handbook for every aircraft you fly. Even within the two Cessna 172s that we have at Black Hound there are differences in operating limitations and V-speeds.

When it comes time for check ride preparation, the Airmen Certification Standards enumerates exactly what you'll need to do to pass your practical exam, otherwise known as the check ride.



In addition, for those enrolled in the Gold Seal ground school; realize your instructor will be evaluating your progress. Time and effort you put into these studies will pay tremendous dividends when it comes time for your practical exam.

Have fun, don't stress and trust your instructor. Educational studies have shown that humans learn best when they are able to enjoy the learning process. Our instructor staff recognizes this and will work with you to make each lesson both productive and enjoyable. In this vein, self-imposed timelines can be destructive to the learning process. Don't say to yourself; 'I must get my pilot certificate by this date.' Your instructor is the best person to tell when you are ready to solo, take the check ride, etc. Trust their judgment, and keep an ongoing dialog regarding your progress.

Lastly, BHA is constantly looking for ways to make our training more efficient and effective. We appreciate and will carefully consider your suggestions.



Black Hound Operations Procedures (BHOP)

BHOP 004; Black Hound Training Minimums; Feb 11, 2019:

Black Hound Aviation trains pilots in a 'normal' regime of weather conditions. However, there are weather and other conditions that are not conducive to safe training.

Dual Student Pilot Training (Day Operations):

- Winds less than or equal to 25 knts including gust factor
- Gusts less than or equal to 10 knts
- Cross-wind component no greater than aircraft's demonstrated value
- VFR or MVFR
- No routine training in IMC (note1)
- Greater than 20 SM from any convective activity
- VFR training flights away from the local area must maintain a fuel reserve of at least 45 minutes
- No routine training at unpaved runways (note 2)

Note 1. One or two flights in MVFR or thru a thin layer (i.e., 'Climb to VFR on Top.') are justified to allow the student to experience limited ceiling and visibilities. This could also include obtaining a special VFR for remaining in the traffic pattern or a short hop to 50R or KBAZ in less than MVFR.

Note 2. At the instructor's discretion a one time, dual take-off and landing may be made at a non-paved airport (such as KAQO). Normal unpaved techniques shall be employed (low fly-by, checking with the local FBO, checking NOTAMs, etc.). After the flight into and out of an unpaved airfield, the instructor and the student will make a careful post flight inspection of the aircraft. CFIs are liable for any damage by operations into and out of an unpaved airfield.

Dual Student Pilot Training (Night Operations):

- Same as day, plus
- Ceilings and visibilities greater than 1,500' and 3 SM (traffic pattern work) and 3,000' and 5 SM (cross-country flights) (Note: this is one of the criteria for 'VFR Flight not Recommended' when you call FSS for a WX briefing)
- Cross-country training flights must maintain a fuel reserve of at least 1 ½ hour

Dual IFR Student Training (Day and Night):

- Same wind, gusts and crosswind limits as for student pilot, plus



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- No less than 600/2 ceiling and visibility (see note 3)
- IFR training flights conducted in IMC will maintain a fuel reserve of at least 1 ½ hours instead of the 45 minute minimum prescribed by FAR 91.167

Note 3. WX for all planned and alternate airports must be at least 600/2 at time of departure and not forecast to degrade until an ETA + 2 hours. This limit may be modified by coordination with either the GM or CI.



Black Hound Operations Procedures (BHOP)

BHOP 005; Return to Operations, March 7, 2019:

The purpose of this operations procedure is to establish a standard for receiving an aircraft back from maintenance and ensuring it is in an airworthy condition prior to placing it into operations.

Step 1. The Black Hound Operations Manager and a Black Hound Flight Instructor will review the maintenance invoice (if available) and make a determination that the aircraft logs are properly documented. Failing this step will result in return of the aircraft to the maintenance facility.

Step 2. A Black Hound Flight Instructor will conduct an inspection of the aircraft, paying special attention to properly secured cowling, fairings, fuel and hydraulic leaks, foreign objects, and appliances. Failing this step will result in return of the aircraft to the maintenance facility.

Step 3. Depending on the maintenance performed, a maintenance flight may be recommended by the inspecting Flight Instructor. Maintenance flights should 'normally' be conducted for all annuals, 100 hour inspections, and any aircraft maintenance requiring an FAA Form 337 for major repair or alternation. If the inspecting Flight Instructor is in doubt about the need for a maintenance flight they must go to step 4 below, otherwise proceed to step 5. Routine maintenance flights may be initiated by the inspecting Flight Instructor for annuals and 100 hour inspections without going thru step 4.

Step 4. If the inspecting Flight Instructor determines that a maintenance flight is required, or if in doubt, they will coordinate with either the GM or CI. The GM and/or the CI, in coordination with the inspecting Flight Instructor (and possibly the maintenance facility) will make a final determination of the need, extent, and mission plan of any maintenance flight.

Step 5. If no aircraft maintenance flight is required, or upon the satisfactory completion of the aircraft maintenance flight, the inspecting Flight Instructor, GM, or CI, in coordination with the Operations Manager, shall return the aircraft back into operations, make appropriate Flight Circle notifications, and ensure dispatching documents are in order, complete, and up to date.

Any inability to comply with this BHOP will be brought to the immediate attention of the Operations Manager and the GM.



Black Hound Operations Procedures (BHOP)

BHOP 006; N172JD STC Considerations in Performance Planning:

N172JD is equipped with two Supplemental Type Certificates (STCs). One is the Horton Short Takeoff and Landing (STOL) STC SA910CE and the other is the Air Plains 180 horsepower modification that installed a Lycoming O-360-A4M engine. STC SA2196OE.

As a result of the combination of these STCs, some careful application of performance parameters and limitations must be considered when flying this aircraft.

Primary limitations or changes from the POH:

1. No spins are authorized (by the Horton STC).
2. Fuel usage, true airspeed, takeoff and landing distances, and some V speeds are modified by the combination of these two STCs (discussion on a conservative means to approach these follows)
3. Tire pressure: Nose Gear 45# and Mains 38#

Fuel Usage and TAS: The Air Plains STC provides a fuel burn as a function of brake horse power (bhp), pressure altitude, and temperature. However the chart in this STC is not approved by the FAA nor does it include true air speeds (TASs). Therefore, a conservative approach is to use figure 5.8 from the POH in N810SA and add 0.5 gallons to all gallons per hour. Our rationale is these engines are compatible in terms of fuel burn per bhp developed and figure 5.8 includes TAS so that computation is easier for all pilots to use.

Landing and Takeoff Distances: The Air Plains STC includes a short field landing distance chart which, when adjusted for KIAS is identical to that of figure 5.8 in N810SA's POH. However the STC does not include any takeoff performance data. Thus, the use of figure 5.5 in N810SA's POH is recommended for computing takeoff distances.

Note: All student pilots will compute takeoff and landing distances using these figures (5.5 and 5.8) at the maximum gross weight of 2550 # and add 50% to achieve a realistic and conservative assessment of the landing and takeoff distances available for their use and abilities.

V-Speeds: V-Speeds in the POH for N172JD, adjusted for knots instead of miles per hour should be used, with the following exceptions: Note: These speeds are directly from the engine conversion STC adjusted for knots instead of mph.

1. $V_x = 62$ knots (sea level)
2. $V_y = 72$ knots (sea level) – 75 knots (10,000')



3. $V_a = 97$ knots (max gross 2550#)
4. $V_g = 68$ knots (no flaps at max gross 2550#)

Top of Climb (TOC), and Engine Start & Taxi Data: There is no data for this in either the POH or the two STCs. Use 1.4 gal for engine start, taxi and takeoff allowance. Use figure 5.7 in N810SA's POH for TOC computations and add 10% for the fuel used in the climb. Our rationale is that the engines are compatible in terms of fuel burn per brake horsepower; therefore, the stoichiometric efficiency should be similar. Because of this assumption and there is no published data, add 10% to fuel used for climb to provide a conservative estimate for planning purposes.

Computing and measuring fuel burn: The fuel flow meter in the aircraft is accurate and should be used for all flights and should be used as an aid in leaning the engine for cruise. Students and instructors should form the habit of measuring actual fuel used versus planned so that confidence can be assured in their flight planning calculations. This is especially important while completing the cross-country portion of PPL training.



Black Hound Operations Procedures (BHOP)

BHOP 007; TSA Procedures for Alien and U.S. Citizens, 13 June 2019

This BHOP defines actions to be taken to ensure students are properly screened and documented before beginning flight training.

Alien Students: Any student who is not a U.S. citizen is considered an alien. Refer all alien potential students to either the Chief Instructor or the Chief Pilot to begin the TSA process.

In general, **no flight training may begin** until the TSA has issued a final approval. You can refer to this web site for addition guidance or check with either the Chief Pilot or Chief Instructor:

<https://www.aopa.org/advocacy/pilots/alien-flight-training-program/aliens-and-non-us-citizens-seeking-flight-training>

Reminder: The student's photo must be uploaded to AFSP NLT 5 days after training begins.

U.S. Citizens: All U.S. citizens requesting flight training must receive a citizenship screening and a signed endorsement by their primary CFI before beginning flight training.

Citizenship screening will consist of a Black Hound CFI reviewing the applicants:

- Government issued photo identification, and
- Original raised or printed seal state birth certificate, or
- Current U.S. Passport, or
- Naturalization papers

Copies of the screening documents will be provided to the Operations Manager for retention in the Flight Circle on-line training records under the TSA compliance tab.

The signed endorsement shall be entered into the student's logbook in accordance with the latest Advisory Circular 61-65. The current version is located at:

https://www.faa.gov/documentLibrary/media/Advisory_Circular/AC_61-65H.pdf

Flight Instructors: All flight instructors under contract to Black Hound Aviation must complete annual recurrent security training no later than the end of the June of each calendar year. Present your signed copy of your graduation certificate to the Operations Manager for inclusion into the Flight Circle currency certification tab.



Ensure all documentation is current and complete under the student pilot's Pilot tab in Flight Circle before beginning any flight training.



Black Hound Operations Procedures (BHOP)

BHOP 008; Pre-Solo Procedures 27 August 2019

This BHOP applies to all instructors at Black Hound Aviation and is to be used as a checklist prior to any initial student solo.

- All PIC/Solo documents in hand by the student (medical, student pilot certificate, government issued picture identification) at the time of the initial solo and subsequent solos
- All required endorsements, including notation of BHOP #2 as limitations and any additional limits imposed by the instructor above and beyond BHOP #2
- Provide student with a copy of BHOP #2 and review each item
- Successfully completed a pre-solo knowledge exam
- Successfully completed a pre-solo stage check with Chief Instructor or GM. *Note: In the case of a failed stage check, the primary instructor will provide additional training as directed and reschedule another stage check before supervising the student for their initial solo*
- Solos may only be accomplished at KHYI or 50R unless pre-coordinated with the Chief Instructor. If accomplished at 50R all landings will be full-stop/taxi-back. At KHYI they should preferably be stop and goes or touch and goes with instructor permission.
- The instructor will supervise the solo flight and be available by radio communications from engine start to the securing of the aircraft. At KHYI this is best done during tower operation hours from the tower. At 50R use a handheld.
- Student will receive training and be proficient in prefacing all radio calls with 'student pilot'
Example: "*Lockhart traffic, **student pilot** Skyhawk 172JD taking runway 18, staying in the traffic pattern, Lockhart traffic*"