Backcountry Aero Club Standard Operating Procedures

Contents:

1) **Preflight Planning and Safety**

Safety is one of the most important aspects of aviation. It is not something that should be compromised for any reason whatsoever and must be taken very seriously. As a flying club, we must ensure all our members are knowledgeable and up to date on the basics of following safety guidelines, rules, and procedures. Doing this will help ensure safer practices upon our pilots, passengers, and the rest of the community not only in the air but on the ground too.

Every day, pilots encounter hazards and risks, and it is important that we can identify these hazards and know how to mitigate the risks. Identifying hazards and associated risk is key to preventing accidents. If a pilot fails to search for risk, it is likely that he or she will neither see it nor appreciate it for what it represents.

Aeronautical decision making is important to ensure safety. Just like going over checklists in the airplane, it is our job to go through this checklist for ourselves. If any one or more of these are within question, it's probably safe to say we should not be flying. The first question you need to ask yourself is: Am I the Pilot safe to fly? There is one acronym that is an easy way to remember the factors that might impair a pilot's ability to fly safely, this acronym is called IMSAFE.

Illness - do I have any symptoms?
Medication - have I been taking prescription or over the counter drugs?
Stress - am I under any physiological pressures? Worried about any family, health, or financial matters?
Alcohol - have I been drinking?
Fatigue - am I tired or not adequately rested?
Emotion - am I emotionally upset?

Next, we must ensure that our Aircraft is safe and legal to fly. To do this, we can use AROW to ensure all our legal documents are where they need to be.

Airworthiness - does the aircraft have a valid & current airworthiness certificate?
Registration - is the registration current?
Operations manual - is the POH or AFM easily accessible?
Weight and balance - is the current weight and balance in the aircraft?

What about the enVironment in which we will be flying in? Here is a brief checklist we can go through to ensure safety of flight within our environment:

NOTAMS
Weather
Known delays
Runway lengths
Alternates
Fuel reserves
Takeoff/landing distance data

Last but not least, the final factor within our preflight check should include reviewing any external pressures that may affect flight safety. Examples of this include passengers relying on you to get them somewhere, other crew members trying to push you beyond your personal minimums, or something upon yourself like "get there itis".

Safe flying depends on more than just a pilot's experience and ability. Pilots also need to be aware of the attitudes that may influence their judgment and decision-making abilities to avoid dangerous outcomes. The FAA outlines five hazardous attitudes that can compromise a pilot's decision-making: resignation, anti-authority, impulsivity, invulnerability, and macho, also known as RAIIM. Understanding each of these hazardous attitudes can help pilots of all skill levels manage risk and make safer decisions in the skies.

Resignation: **"What's the use?"** Pilots with an attitude of resignation lack the confidence and conviction to believe they can make a difference in what happens to them. These pilots tend to give up easily when faced with challenges and don't take criticism well. This attitude is particularly dangerous for pilots in an emergency situation because they may believe they are helpless and resign to their fate instead of taking action. **Antidote: I am not helpless, I can make a difference.**

Anti-authority: **"Don't tell me!"**Pilots with an anti-authority attitude tend to believe that rules, regulations, and safety procedures don't apply to them. For example, an anti-authority pilot may neglect their checklists or refuse to take advice from instructors or ATC. Be advised that having an anti-authority attitude is different from simply questioning authority. Pilots always have the prerogative to speak up to authority if they believe a mistake has been made. **Antidote: Follow the rules, they are usually right.**

Impulsivity: **"Do it quickly!"** According to the FAA, an attitude of impulsivity is found in pilots who "feel the need to do something, anything, immediately." Instead of taking a moment to think things through or select the best alternative, a pilot with an

impulsive attitude does the first thing that comes to mind. Reacting too quickly can lead to irrational decisions, such as skipping a preflight or rushing to get home despite inclement weather. Pilots are encouraged to take time to evaluate their options before choosing a course of action. **Antidote: Not so fast, think first.**

Invulnerability: **"It won't happen to me!"** Many people, not just pilots, fall into a pattern of thinking that accidents happen to others, but never to them. This attitude of invulnerability can become a safety concern when pilots fail to consider the risks of their actions. **Antidote: It could happen to me.**

Macho: **"I can do it!"** Pilots with a macho attitude are always trying to impress others and prove themselves by taking unnecessary risks. Both men and women are susceptible to a macho attitude, which leads to foolish and often dangerous behavior. While pilots must have a high level of confidence in their abilities, it's important to avoid becoming overconfident and adopting a macho attitude. **Antidote: Taking chances is foolish.**

Anyone can be guilty of one or more of the hazardous attitudes, which are a normal part of human nature. Understanding these attitudes and recognizing when they occur will help pilots make better decisions and avoid unnecessary danger. Three out of four accidents result in improper human performance. Live to fly another day, DON'T become a statistic.

2) Pilot Currency Requirements & Standards

The pilot in command of each club aircraft must be a member of the club. 14 CFR 61.67 states that to act as pilot in command you must perform and log at least 3 takeoffs and 3 landings within 90 days (to a full stop in a tailwheel) to be considered current, but this does not maintain proficiency. Club pilots are encouraged to maintain proficiency by maintaining their 3 takeoffs and landings every 30 days, however club pilots are required to fly with an instructor if currency requirements are not met after 45 days for tailwheel aircraft, and 180 days total in tricycle gear aircraft. Currency requirements are the same at night however all must be made to a full stop regardless of landing gear type.

As for Instrument flying, club members must also obtain the required "6 HIT'S" (6 approaches with Holding Intercepting & Tracking) prior to flying under IFR.

Instrument competency standards include the execution of all maneuvers to reasonable "check ride standards." If the successful outcome of any maneuver or approach is seriously in doubt and prompt corrective action is not taken (such as a missed approach or appropriate recovery), the club standards are not met.

No club member shall perform any pilot duties in any aircraft within 12 hours after consuming any quantity of alcohol. Club pilots may not smoke while inside any club aircraft or within 50 feet of a club aircraft, and must ensure that their passengers or guests observe the same rule. This is not only intended to promote fire safety, to preserve gyroscopic instruments from damage (due to smoke particles), to protect aircraft interiors, and as a courtesy to other aircraft users.

It is required that each club member attends 50% of annual safety meetings. If you cannot attend safety programming put on by the club, meeting equivalent credits may also include:

- 1 hour of ground & 1 hour of flight instruction
- FAA WINGS presentation
- AOPA Air Safety Institute

3) Aircraft Checkout Procedures & Training Operations

All pilots are expected to have adequate knowledge of the aircraft being flown. All club members must undergo an initial checkout prior to flying club aircraft as PIC. This checkout involves a flight with a club instructor who will determine what needs to be performed based on pilot skill level. Pilots must assure knowledge of appropriate V speeds, aircraft servicing requirements, emergency procedures, and performance capabilities of the aircraft for all checkouts and for flight training courses. All prior dual flight training given by an instructor will subside as a checkout for student pilots.

Steep turns, stalls, or any other maneuvers which involve minimum controllable airspeed (Vmc) or which exceeds 45 degree bank or 20 degree pitch may not be conducted at an altitude below 1500 feet AGL. For all crosscountry student solo flights, a student pilot must have specific written permission from a flight instructor for that particular flight and start with full fuel tanks. Outside instructors are allowed with prior permission by the club safety officer, and must undergo a checkout flight.

4) Standard Flying Procedures

The use of checklists provided should be accomplished orally and in a timely manner. Emergency Lists should be briefly memorized (Fire, Engine restart, Lost Comms ect.) and normal checklists should typically not be memorized.

No member shall start an engine in the tiedown spot or hangar, all pilots must pull/push the aircraft onto the taxiway prior to starting the aircraft. Upon leaving the aircraft's parking spot, the brakes should be checked and taxiing should be done at an appropriate (slow) speed. Appropriate speed for conditions should be maintained primarily by varying power including the use of idle. Brakes should be applied only when needed to supplement use of the throttle to maintain appropriate speed.

While operating on the ramp, members should be always aware of their surroundings. Run ups are to only be performed in designated runup areas of the airport. To avoid propeller damage, taxiing on any surface other than smooth pavement should be accomplished in the elevator full up position unless strong winds demand that crosswind taxi procedures be used.

Before the initiation of any cross country flight, members are required to have secured uptodate weather information covering the proposed route of flight and alternates. For all flights away from the immediate airport traffic area or the practice area, the pilot must have the appropriate navigation charts for the area of flight. Radio use should conform to standards spelled out in the Airman's Information Manual (AIM) and should be consistent with local practices. Standard phraseology is expected.

One hour of fuel reserve is required for all flights in Club aircraft during both day and night. No flight in a club aircraft may be initiated where preflight planning would indicate that less than one hour of fuel (at normal cruise settings) would remain in the tanks upon arrival at the destination, or the alternate via the destination if applicable. On cross country flights, all pilots are required to perform enroute calculations to determine actual ground speed and fuel consumption to ensure that Club fuel reserve requirements will be met upon landing. Landing with less than one hour of fuel on board may result in disciplinary action.

Overloading of aircraft is prohibited. It is the responsibility of each member to know and abide by the authorized loading requirements and weight balance limits of the aircraft to be flown. Proper mixture leaning is expected for all flights under appropriate conditions both on the ground and in the air.

5) Inspections & Maintenance

Members who are to act as PIC of a club aircraft are required to carefully and methodically make a preflight inspection of the aircraft. If a discrepancy is discovered which would in any way compromise the safety of the intended flight or be in violation or FARs if flown, the aircraft may not be flown. The pilot in command club member accepts complete responsibility for assuring that the aircraft for the proposed flight is airworthy, legal, and safe in all regards. The preflight inspection of the aircraft should be carefully completed by checking each of the following items (in addition to other items which are necessary for the particular type of aircraft):

a) Proper documents, manuals, checklists, and weight and balance data on board.
b) Review of any outstanding discrepancies such as a squawk book.
c) All necessary equipment on board (headset, fire extinguisher, flashlight, etc.) and control locks removed.
d) Indicated fuel quantity adequate for the flight including required club reserves
e) Fuel tank and other applicable fuel sumps drained and checked for absence of water, contaminants and for proper fuel type.
f) Landing gear and tires to be checked for any signs of damage or wear which would compromise flight safety. Check for correct function of brakes, as well as steering linkages and shimmy damper if applicable.
g) Check for contamination of pitot tubes and static ports.
h) Check the engine compartment for any signs of oil leakage, fire damage, or loose connections which would compromise flight safety.
i) Check oil dipstick for proper quantity and secure stick.
j) Check the propeller for looseness, bends, cracks, nicks, or oil leakage which would compromise flight safety.
k) Check alternator belts for correct tension and check (to the extent possible) other charging system components including the battery if necessary.
l) Check all control surfaces for proper movement and actuator security and function.
m) Check all antennas for security.
n) Visually check fuel quantity in each tank and assure proper fuel cap security.
o) Check entry/exit doors for proper latching and check all windows.
p) Check that seat latches on seats to be occupied function properly and securely as well as properly functioning seat belts.
q) Check that all cockpit controls and instruments function properly.
r) Check the aircraft to assure that all wheel chocks and tie downs have been removed.
s) Check all exterior surfaces of the aircraft for any signs of damage or mechanical failure and that they are clear of frost, ice and snow under such conditions.

The flight must not be initiated unless an engine runup indicates that the engine is running properly and developing full power at takeoff and all required associated systems are operating normally. All flight instruments which are required for the flight must be checked and operating normally.

If any part of the aircraft is deemed unsatisfactory for safe flight during the pre-flight inspection, the maintenance officer shall be informed and an “INOP” placard placed on the yoke of the aircraft. Other minor discrepancies should be noted in the squawk notes to be later addressed and make other club members aware of the issue.

No repairs are to be permitted on any Club aircraft without specific approval from the owner of the aircraft or the aircraft maintenance officer. This policy also applies to any repair which might appear to be needed while the aircraft is away on a cross country flight. All such repairs must be noted in the aircraft engine or airframe logbook and must be performed by or directly supervised by a certified A&P mechanic. Adding oil, checking tire pressure, servicing the battery, and tightening cowl fasteners are not considered repairs.

Upon returning with the aircraft, the PIC is responsible for ensuring the aircraft is tied down and wheels are chocked with the control lock secured.

NEVER REFUEL AN AIRCRAFT IN THE RAIN UNLESS PROTECTION IS USED TO PREVENT WATER FROM GETTING IN THE FUEL TANK.

6) Operating Limitations

Club aircraft are not permitted to land off airport except in an emergency. “Off airport” is defined as anywhere not listed on the sectional chart or without an airport identifier. Non paved runways are allowed however should be used with extreme caution if unaware of condition. Aircraft performance is decreased when operating out of unpaved surfaces, and members with no prior experience landing and taking off on unpaved surfaces such as a “soft field” should fly with a club instructor.

Landing on a runway shorter than 1500 feet is prohibited in club aircraft unless specific permission and training has been provided by a club instructor. Should the owner's manual for a particular aircraft state a longer minimum runway length requirement, that will be the minimum allowed runway length for that aircraft.

Aerobatics of any kind conducted in club aircraft are prohibited.

*DO NOT land at private airports without prior permission.

The following weather minimums are in place for club pilots:

Student Pilots:

- Dual = VFR minimums per the FAR
- Solo Local = 10SM visibility, ceiling of 2,500 AGL or better
- Solo Cross Country = 10 SM visibility, ceiling of 3,000 AGL or better

Private Pilots:

- Local = 5 SM visibility, ceiling of 1,000 AGL or better
- Cross Country = 5 SM visibility, ceiling of 1,500 AGL or better

Instrument Rated, Commercial Pilots & CFI's:

- FAR Minimums for both local and Cross Country

Loading and unloading passengers with the aircraft engine running is STRICTLY PROHIBITED, and hand propping must only be conducted by pilots who have received prior training and the conditions allow for it to be safely done. Formation flight is allowed only if all pilots part of the formation flight are fully aware of the situation.

7) Incident/Accident Reporting Policy

For the safety of the club members and our aircraft, it is important that we report any safety issues, accidents, and or incidents that occur. The reporting system is not intended to punish those who submit or are involved in reports, it is simply intended to keep our pilots and passengers safe.

An accident is defined in 49 CFR part 830 as "*an occurrence associated with the operation of an aircraft that takes place between the time any person boards the aircraft with the intention of flight and all such persons have disembarked, and in which any person suffers death or serious injury, or in which the aircraft receives substantial damage*".

- Examples: an aircraft taxis into an object causing substantial damage to the aircraft, an aircraft experiences a fire causing substantial damage, or an individual is struck by a spinning prop causing serious injury
- The operator of the aircraft must file an accident report within ten days or seven days if overdue aircraft is still missing

An incident is defined in 49 CFR part 830 as "*an occurrence other than an accident that affects or could affect the safety of operations*".

- Examples: a control surface jams in flight but the aircraft recovers safely, a pilot or passenger experience carbon monoxide poisoning, or two aircraft nearly collide in the traffic pattern
- The operator of the aircraft is required to submit a report to the nearest NTSB field office when requested

The NTSB regulations (49 CFR part 830) define "serious injury" and "substantial damage" as follows:

“Serious injury means any injury which: (1) Requires hospitalization for more than 48 hours, commencing within 7 days from the date of the injury was received; (2) results in a fracture of any bone (except simple fractures of fingers, toes, or nose); (3) causes severe hemorrhages, nerve, muscle, or tendon damage; (4) involves any internal organ; or (5) involves second- or third-degree burns, or any burns affecting more than 5 percent of the body surface.”

“Substantial damage means damage or failure which adversely affects the structural strength, performance, or flight characteristics of the aircraft, and which would normally require major repair or replacement of the affected component. Engine failure or damage limited to an engine if only one engine fails or is damaged, bent fairings or cowling, dented skin, small punctured holes in the skin or fabric, ground damage to rotor or propeller blades, and damage to landing gear, wheels, tires, flaps, engine accessories, brakes, or wingtips are not considered “substantial damage” for the purpose of this part.”

Federal regulations require you to notify the NTSB immediately of aviation accidents and certain incidents. Should you witness or be involved in an incident or accident, please additionally file a report within 24 hours to the safety officer.

In the occurrence you witness another club member present a potential hazard in which impacts the safety of others or flight, please submit a report. Any hazard that can potentially impact the safety of club members warrants a report to be given. Additionally, anytime you are involved in an accident or witness an operation that requires deviation from standard procedure warrants the filing of a report. If the situation results in required maintenance or an anomaly occurs that requires usage of the emergency checklist, then you must file a report.

Safety Officer: Caleb Olson

Phone: 253-880-6732

Email: calebpilot8@icloud.com

In the event the safety officer cannot be reached, please notify another officer as soon as possible.