PUTTING WINGS ON

YOUR DREAMS

VOLUME XIV

ISSUE 9

Submitted by Jim Hudson
Membership and Safety Director

Pilot Deviations

What is a pilot deviation, what are the consequences, how might one avoid one, and what can you do if you do have a "deviation" or think you might have made a violation? In general, a pilot deviation is breaking the rules. The seriousness can be somewhat minor to very serious, of possibly causing an accident or fatality.
The consequences can vary from none, to a remedial training, suspension, or revocation of your pilot certificate.

Some examples of pilot deviations. I've included several links to video's from AOPA Air Safety which I encourage you to watch. Click on the hyperlinks.

VFR Deviations:
Airspace violations (account for ~ 75%) Entering Class B, C, or D airspace without establishing communications, or getting a clearance in the case of B. Busting a TFR, Restricted or Prohibited airspace.

Possible reasons: poor route planning, poor situation awareness, failing to take vertical and/or lateral boundaries into account, becoming distracted and not paying attention.
Anatomy of an Airspace Bust

VFR into IMC - the 2nd most common. and is the deadliest.
Accident Case Study
AOPA Air Safety has an excellent course to heighten awareness to avoid this deviation:
VFR into IMC Air Safety Course
Also, many other references to VFR into IMC in this spotlight link:
AOPA Safety Spotlights VFR into IMC

Low level flight - buzzing, violating altitude restrictions.
Buzz Lightspeed

Required equipment inop or out of calibration. - Transponders/Com, Altimeter

You may wonder how some of these deviations may be detected, such as

buzzing or busting an airspace when not in the control and squawking ATC. With ADS-B coming into being, and now installed in all of our aircraft; you are being tracked, by N number, route, heading, altitude, and airspeed wherever you go. Big brother may be watching. For instance, in an alleged complaint about an aircraft flying too low, it is possible to track down the purported "violator" and see if they really were flying too low.

IFR Deviations
Altitude deviations - the most common ~ 65% of all IFR deviations - in general deviation +/- 300' of assigned altitude, Overshoots, undershoots, excursions.
Course deviations - 2nd most common. Waypoint errors, Position report errors or failing to make these reports
Waypoint Errors

Other types of deviations: Under ATC Control
Runway incursions - landing or taking off on the wrong runway or being on the wrong taxiway.
Landing or taking off without clearance.
Not following or understanding ATC instructions.
FAA Runway Safety Alert

What if you think you have committed a deviation.

Voluntarily file a NASA Aviation Safety Reporting System form. Doing so can help you avoid penalties from the FAA.

So - what is NASA Aviation Safety Reporting System. https://asrs.arc.nasa.gov
The ASRS is an important facet of the continuing effort by government, industry, and individuals to maintain and improve aviation safety. The ASRS collects voluntarily submitted aviation safety incident/situation reports from pilots, controllers, and others.

The ASRS acts on the information these reports contain. It identifies system deficiencies, and issues alerting messages to persons in a position to correct them. It educates through its newsletter CALLBACK, its journal ASRS Directline and through its research studies. Its database is a public repository which serves the FAA and NASA's needs and those of other organizations world-wide which are engaged in research and the promotion of safe flight.

Enforcement Restrictions. The FAA considers the filing of a report with NASA concerning an incident or occurrence involving a violation of 49 U.S.C. subtitle VII or the 14 CFR to be indicative of a constructive attitude. Such an attitude will tend to prevent future violations. Accordingly, although a finding of violation may be made, neither a civil penalty nor certificate suspension will be imposed if:

1. The violation was inadvertent and not deliberate;

2. The violation did not involve a criminal offense, accident, or action under 49 U.S.C. § 44709, which discloses a lack of qualification or competency, which is wholly excluded from this policy;

3. The person has not been found in any prior FAA enforcement action to have committed a violation of 49 U.S.C. subtitle VII, or any regulation promulgated there for a period of 5 years prior to the date of occurrence; and

4. The person proves that, within 10 days after the violation, or date when the person became aware or should have been aware of the violation, he or she completed and delivered or mailed a written report of the incident or occurrence to NASA.

Where do I find the NASA form and more about Aviation Safety Reporting System?
NASA e-report form

What if you're asked by ATC to "call this number" when you land.

Some advice from Kathy Yodice, Legal Counsel for AOPA on pilot deviations.

Pilot deviations in general
Do I have to call
Sometimes a good idea to call

Pilot deviations happen, but they don't need to. Proper planning, being attentive, keeping your situational awareness around airspace, getting NOTAMs, listening and understanding ATC instructions can help avoid pilot deviations. However, if one should happen to you, do not hesitate to file a NASA form within the required 10 days.

You can learn from other's mistakes through the NASA Callback monthly report, which gives case studies on mistakes from others. You can subscribe to this or view the reports at NASA Callback Newsletter

Have fun, Fly safe and Don't do anything Stupid,
Jim

October 2017

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

Calendar of Events:

After a great membership meeting in September, there will be another General membership meeting Tuesday, October 31.

10/10/2017 – Accounts due
10/10//2017 - Board Meeting
10/20/2017 - Accounts past due
10/31/2017 General membership meeting
October 14 and 15. Gowen Thunder Air Show, Gowen Field, Boise

If you have any ideas for safety meeting presentations or would like to arrange a presentation, contact Membership/Safety Director Jim Hudson

The T-Craft telephone number is 208-546-4128.

Fuel Reimbursement

$4.17 per gallon.

Ratings
16 Student Pilots
67 Private Pilots
01 Recreational Pilots
13 Commercial Pilots
08 Air Transport Pilots
28 Instrument Rated Pilots

Member Statistics:

105 Members (3 LSA only)
17 on the wait list.
40 Class I Members (39%)
65 Class II Members (61%)
09 Inactive (voluntary suspension)
07 Suspended (BFR/Med/Attend/Billing)
10 Social Members (non flying, not included in “Members”)

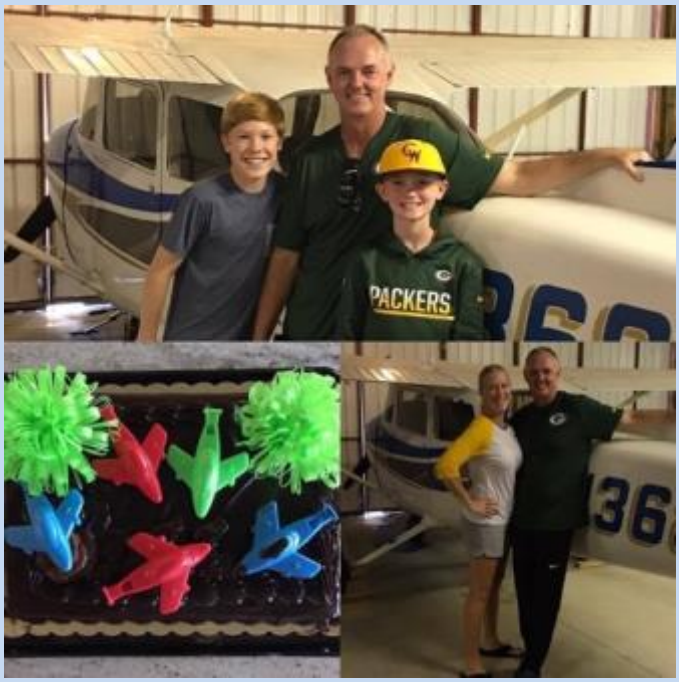
BFR

Scott Bethel
William Chapman
Jason Hull
Rob Starr

C182 Upgrade-Check Out
Backcountry
SOLO

New Ratings

Kent Murri (below) - Private Pilot
Jim Hudson CFI



Jon Miller - Instrument Rating
Gordon Hall CFII

New Members
Rudy Brandt

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HATS OFF

A big thank you to Gordon Hall, Lloyd Putnam and Bill Chapman for stripping the aircraft so the avionics shop can install the new avionics. The work that these gentlemen do saves T-Craft lots of dollars.

Hats off to Lloyd Putman and his aircraft search committee for all the work they have done in making a recommendation to T-Craft for an airplane that will serve the greatest number of members.

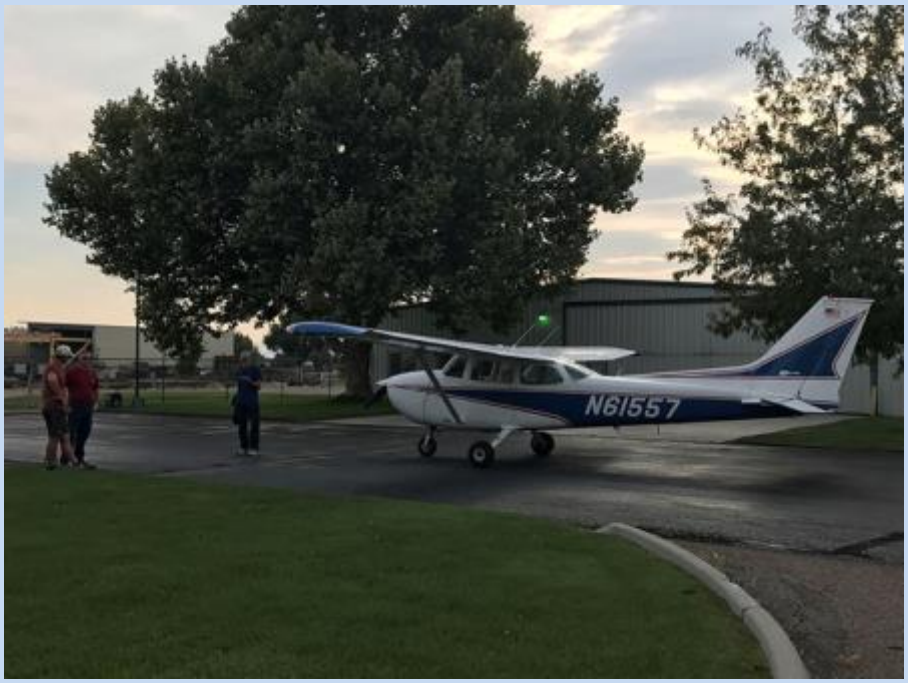
Events to remember:

Plane Wash Saturday morning, October 7, at 8:00 a.m.
Boise Air Show Thunderbirds and Canadian Snowbirds October 14th and 15th.
Idaho Division of Aeronautics - Aviation Safety Stand down - Saturday October 28th

Hangar progress / additional aircraft

The board voted to go forward with the hangar project. T-Craft will be purchasing a C172 aircraft to replace the Champ, 1227G and an additional aircraft (type to be determined) to expand the number of aircraft owned by the club to eight. This will give us space for the new aircraft and in the event of future expansion, the club will have a place to locate additional aircraft. Economies of scale somewhat dictate the size of the hangar. It will be a five bay hanger, large enough to house our additional aircraft and allow us to rent hanger space to offset the cost. We have already had several inquiries to rent space, and the project is still on the drawing board. We have purchased the steal and are lining up a contractor to do site prep and erect the building. The location will be where the old FBO building is located which is close to the wind sock. This will be a through the fence hangar and will have a restroom in it. This is a prime location. We were not permitted to expand at the present location because the grassy area to the west has a French drain. We will be organizing club members and talent to finish the interior once the building shell is finished. There should be no impact on member dues.

The club was looking at a 1975 Cessna 172 Model M 180 horsepower conversion. the aircraft was brought to KMAN for inspection. After the Director of Maintenance and our mechanic inspected the bird, it was figured that T-Craft would have to invest about $8,000.00 to bring her up to our standards. Given the asking price of $68,000.00 that was non-negotiable, it was a pretty hefty price.



Basic Med

What documents does T-Craft Need for Basic Med? We have Six members who have completed their Basic Med requirements.

1. We need the AOPA Basic Med Course Completion Certificate,

2. The Physician's Signature and Declaration page from the Comprehensive medical Examination Checklist,

3. Copy of your Driver's license showing the expiration date.

REMEMBER A SUPER EVENT REALLY CLOSE TO HOME

October 14 and 15. Gowen Thunder Airshow, Gowen Field, Boise

WINTER HEATING RULES

Heaters & power cords are out. Next time you arrive at hanger to fly and you have layers of clothing to stay warm, please remember that your aircraft is also cold. There are two (2) power cords per aircraft. One power cord for oil sump heater & another for the small heater on chair. Please leave heater on chair. Usually takes a good 30 minutes to take some chill off engine & surroundings. Except for 64R, which has oil sump heater plug located in left nose air intake, the other aircraft have a plug located near oil dip stick tube. This should have been pointed out to new members during your

walk-a-bout introduction to the aircraft/hanger and certainly during your aircraft checkout. If not please get with another member to help guide you. Taking care of an engine now will give us longer engine life. Please read "Cold Weather Operations" on our web site under site index.
Thanks. Safe enjoyable flying. DOM

October 2017 Plane Wash

The October plane wash will be Saturday, October 7, 2017 starting at 8:00 a.m. There will be a barbecue when the plane wash is completed.

HOURLY RATES

N67375
$60.00

N4464R
$71.00

N13686
$73.00

N1891X
$106.00

N9989E
$112.00

N7593S
$116.00

SQUAWKS

James Eyre, Director of Maintenance.

13686 - Two Garmin g-5's are being installed.

9989E - The Garmin G-5 has been installed.

4464R - Left fuel tank has crack around filler. Tank has been removed. Repair locally may be possible which will reduce down time.

1891X - Left fuel bladder is leaking. Replacement will be ordered and changed out as soon as possible.

67375 - Nothing to report.

Remember to report squawks on schedule master. The old clip boards for reporting squawks have been retired.

CARE OF YOUR AIRCRAFT

Please remember, that after landing club policy requires us to clean the leading edges and the windscreen of bugs and foreign debris. There should be no need for any such requirements. As a matter of common courtesy we should leave an aircraft in a clean condition after we have flown it. We learned as early as first grade, if we create a mess, we clean it up. That's the grown-up thing to do. PLEASE, after you land, clean the bugs off the leading edges and windscreen. Then use the furniture polish on the leading edges.

Even though we don't need to pre-heat the engines because of warmer weather, always allow the engines to warm up before starting your run-up. That means temperature gauges should be in the green before the run-up. As DOM Jim always reminds us, if we take care of the engines, they will last a long time and serve us well.

PLEASE REMIT PAYMENT IN FULL BY THE 10TH OF THE MONTH.

Your account will be PAST DUE if not received by the 20th and there will be a $10.00 late fee. There will be a finance charge if your account is over 30 days past due and flying privileges will be suspended.

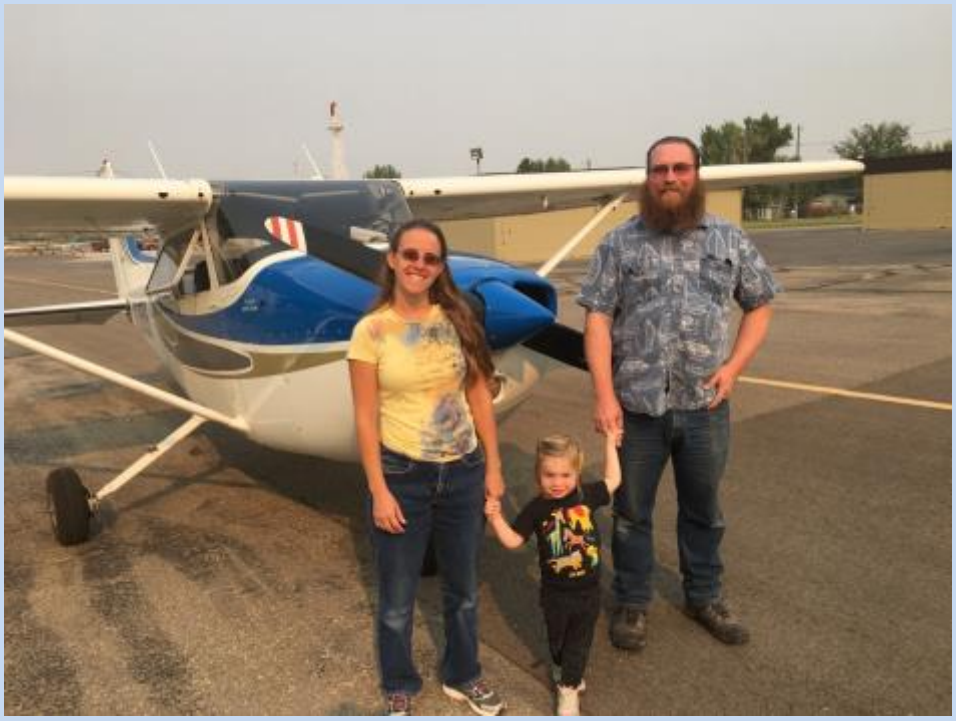
OFF FIELD FUEL REIMBURSEMENT

If you purchase fuel off site you will be reimbursed at the club rate per gallon, currently at $4.17 per gallon. In order to get the reimbursement, send your receipt(s) to the club mail address to the attention of Reggie Sellers, or scan a legible copy and email to Reggie Sellers. DO NOT put your receipt in the club pouch, these are for Nampa fuel receipts only and your personal receipt will probably get lost.

Remember. You use your credit card to purchase your fuel offsite. Submit the bill to Reggie and he will give you property credit.

Future Pilot

Russell Graves and his wife (Shannon) took their daughter (Nora) up on Labor Day, and she absolutely loved the whole "flying" thing! And then helped put the plane away and wash it.



LETTER TO THE EDITOR - FROM A MEMBER

BUF - ONE

Joe Bejsovec

The BUF is one of the most remarkable war machines ever devised. BUF is the crew members' name for it. Big Ugly Fucker. Air Force tried to clean up the language and came up with BUFF, Big Ugly Fat Fellow, which remained grounded. But both really miss the boat. The B-52 is huge, not merely big. My own name for the thing is the 'Aluminum Overcast.' If you want ugly, take a look at the Brit bomber of WWII like the ugly Lancaster. Compared, the BUF is slick. The same applies to fat. C-130s and C-5s are fat. So perhaps, according to Joe, it is a real beauty.

Takeoff weight is 500,000 pounds. Two third of the weight is fuel. Imagine flying a Cessna in which 2/3 of the weight is fuel. Slosh, slosh. For added thrust on takeoff, the engines are injected with water. Somehow water added to an explosion increases the thrust. Outriggers at the wing end touch the ground when tanks are full, but when the plane returns, the outriggers hang in the wind. The wings flex 16 feet. The BUF looks weird when it takes off because it maintains a nose-low attitude in the climb. The co-pilot manages fuel from a dozen tanks and it keeps him busy. Cruise altitude

varies from 30,000 feet to 50,000 feet, dependent on remaining fuel and weight to determine optimum altitude. The BUF had a limited low-level capability. It was called terrain avoidance. Several radars pointed downward and predicted the path through the air. Instructions were given to the pilot in the form of an instrument that had a horizontal bar that directed the pilot to fly up or down. It was primitive at best, but we used it- even for night low levels.

When you see a BUF drop ninety 500 pound bombs. That is impressive. Despite altitude hold, it rises up when making a deposit. It is also capable of carrying four nucs in the bombay and two on the wing in the nose of the Houndog missiles. All one meg. At the beginning the bombs were forty megatons, filling the whole, generous bombay, but somebody decided it was over-kill and so settled for one megaton. The bombs on board are usually two. Any more results in a planning problem. We sat nuclear alert of three days, four days, or a week in a two story structure with dayroom and kitchen above and bedrooms below. The only way we could get off the Alert Pad was to attend church or go to the gym. We soon became the most pious handball players you ever saw. The most significant Alert Pad item was the klaxon which would sound day or night and cause everyone to gallop for the assigned airplane arranged on a seven or eight Christmas tree. Sometimes we responded to start engines, and sometimes we'd taxi out down the runway and return. The codes had to match what the Command Post broadcast. The Aircraft Commander and Bombardier were in charge of the codes. Several engines have gunpowder powered starter motors, so starter carts are not necessary. They put out a lot smoke and stink when they go off. The Cuban Missile Crisis was the most profound of our duties. The Alert Pad was fully armed and manned, and additionally we flew 25 and a half hour missions called Chrome Domes. We had three sets of black bags, dependent on which part of the mission we happened to be in. We flew east from CONUS base to Greenland where we hit a tanker out of Thule, then up to within 200 miles of the North Pole, then left toward Alaska where we hit another tanker out of Elmendorf. Because there was no accurate magnetic compass, we resorted to an grid overlay using the 180 meridian as fictitious North. It meant frequent celestial shots to correct the gyro. Radar in the north is the opposite of what it is in the lower latitudes. Down here lakes appear as a no show on radar, and land reflects energy. Up there, because the ice is jumbled and the tundra flat, the radar returns are the opposite. On my first Chrome Dome as a brand new Navigator, in those days we'd make a big circle over the Pacific. As we puttered along we began to lose engines. We lost three, all with alternators. The Aircraft Commander had us in the basement shut everything off to not overburden the remaining engine with an alternator, so as to not threaten the radios. We complied, made the coast in respectfully using TACAN (no F-101 Voodoos joined us), and the last thing I heard before we touched down came from the Copilot, "I can't get the gear down." I could imagine the two monster nucs making a pass through the crew compartment, squashing the piss out of poor Joe. After landing the copilot admitted he lowered the gear with the standby electrical system. Thanks a lot, fella.

All our training flights between 6 and 12 hours long, were practice for nuclear war. They took up to two days to plan and included up to ten different targets. Turning

points had to made within + or- 5 minutes, because all bombs away on the RBS (Radar Bomb Scoring Sites) or bombing ranges and low level entry times were scheduled, and that included the mock detonation of the Houndogs. We practised concise timing because the planners supposedly had the WWIII as a timed event. An off-time release could threaten the nearby airplanes. These were definitely one-way missions, scant chance of making it to a recovery base, even if one survived the war. More likely, there'd be complete silence after release. So why did we do it? Uncle Sam told us to. Confronted with a line of thunder storms, making all the training squares could be challenging. My claim to fame is stalling a BUF. All the pilots I flew with were very responsive to the requests of the Navigator (me). On one radar position fix it looked like we were ten minutes late, so I asked the pilots to put the coals to it. They did. The next fix I found we were now ten minutes early. I screwed up with a ten minute error on the first fix, so I asked them to stoppa-da-plane, and they did. The A/C was downstairs yakking with me and the brand new 2nd Lt Copilot George, a recent Academy graduate was atop when there was shuddering stall and the BUF dropped down. Because I had an altimeter downstairs, I called out to George, "George we're losing altitude." In a calm voice, George said, "I know it." and instituted stall recovery like a true pro. Push the nose over and regain airspeed. The A/C scrambled upstairs but when he got there it was all over, and we were flying again.

The BUF is combination of frame and monocoq. When it sits on the ground wrinkles appear in the fuselage. Newcomers are horrified, but calm down when they're told the folds smooth out when the thing takes flight. maybe.

I spent fifteen minutes hand-flying the thing, and it gave me appreciation for a working autopilot. Though hydraulics actually control the airplane, stick pressure is horrendous. And it is very noticeable when turbulence kicks off the autopilot. It takes the efforts of both pilots to manage the thing. Push, pull, yank, ugh.

Because the nose is full of windshield, when the sun is up, it gets hot. So the copilot turns the heat way down. The bombardier and navigator freeze and wear arctic gear for daylight flying. At night it's the reverse. The greenhouse gets danged cold, so the copilot turns the heat way up, and the boys downstairs shed their clothes.

As already discussed, the Navigator is busy the whole time. He's supposed to get help from the Bombardier, but Bombardiers, having started in the Navigator seat weren't especially interested. The Bombardier, in addition to having the go-codes, reads the radar scope, and does malfunction analysis when things stop working. Being visually organized I was always consulted on the placing of the cross hairs, especially in the target area. When it looked good, the Pilot switched the airplane over to the Bombardier, and it remained that way through bombs away. The Bombardier also was responsible for the tanker join-up. Putting the radar in the air mode, the tanker broadcasts a signal, rather like the signal present on a traffic controller's radar. The Bombardier keeps the signal off to the left, and when it reached 20 miles, he instructs the tanker to turn left 180 degrees. And of course, the tanker is expected to

roll out directly in front of the BUF. Otherwise, there's a lot of complaining from the A/C, who is forced to yank and bank. In the H Model, I finally moved to the left (Bombardier) seat, but it didn't last long, because there was a reliability issue with the Houndog AG-77s. They researched the records for those who had good results with the things, and since I was among them, lost my Bombardier slot and went back to being a Navigator. Oh well. Whatever it takes.

The sixth member of the crew was the Tail-Gunner, who sat 97 feet behind in his own pressurized cocoon. He had the capability of shooting down targets on radar or visually. Having virtually nothing to do during the training missions, he'd drift off to sleep. Occasionally his pressurization would quit and end up with a dead gunner. The A/C was tasked with half hourly check-ins with the Gunner, and when the Gunner didn't respond, the A/C got damned mad. He could send a crew-member down the catwalk to check on him, but anyone on the catwalk were required to wear a backpack parachute making it impossible to negotiate the superstructure, besides having to descend to a lower altitude. Finally, the gunner was moved forward to the crew compartment, solving the problem of dead gunners. There he was limited to radar only, and after that the Gunner was eliminated entirely. I recall hearing of brave individuals who entered the open bomb bay without a chute to try to dislodge a hung bomb by kicking it loose. Hung bombs are detrimental to landings.

The Electronic Warfare Officer sat behind the pilot, and was responsible for any radar signal that had it in for us. He could drop chaff (strips of aluminum), launch a flare against heat seeking missile, or jam the offending radar. Planners that sent the BUF against Hanoi were responsible for the loss of several BUFs, because they called for a turn back to Guam right after bombs away. Bad deal, because in the heaviest defended part of the mission, during the turn, the jamming devices are now pointing skyward, allowing the SA2s a perfect picture of a BUF asking to be eliminated. Adding to the help enjoyed by the enemy, the BUFs came in from the same direction each time at the same altitude. Finally, someone wised up. The EWO was asked by the Navigator to operate the sextant during celestial shots. There was a two inch hole in the top of the BUF, and that's where the EWO plugged the sextant. It was spring powered, the compass rose on it was lighted, and if the EWO located the heavenly body, he started the sextant one minute before actual shot time. It ran for two minutes, and when it was averaged out, that was the information the Navigator needed to establish a line of position. So now we knew we were somewhere along that line. More bodies produced more information. In the day time the Nav was lucky if both the sun and moon were up. At night it was no problem finding three stars 120 degrees apart, to make a nice equilateral triangle with three lines of position. EWOs were trained navigators, and as such were familiar with the night sky.

Accidents were not common, but they did occur. A BUF on a Chrome Dome flight passing by Greenland crashed into the ice. We witnessed the black scratch in the ice where it went in, when we passed by. The crew were recovered, as were the bombs. The strangest had to be the crew descending for night low level over Massachusetts. The pilots, including the instructor pilot, allow the airplane to gradually roll to the right

in an unintended roll until downstairs, the bombardier's coffee fell off his table. "Roll out!" he called. That got everyone's attention and the Copilot bailed out, followed by the EWO and the A/C and the Nav and Bombardier and Gunner. Since the seats were all gone, the befuddled Instructor Pilot had no choice but to descend and manually bail out the Nav's open hatch. The investigation blamed the Bombardier for yelling "Roll out!" which sounds too much like "Bail out!" He should have said, "Level your wings!" Yep, use it every day. Then there was the “airshow fever” crash. The pilot was doing a ninety degree bank turn close to the ground and pranged. Got give him credit for saving a trip to Davis Monthan AFB, the military airplane graveyard.

The BUF was a great experience, but I looked for and got a job in an airplane that did more than simply fly straight and level and sit me in a dark basement: the F-111 called to me. Yahoo! My own picture window!

BUF - two

Joe Bejsovec

Jim Eyre got me thinking about events from way back in the 60s, and once the process started, remembrances bubbled to the top.

I owe my military flying career to the USAF Air Attache attending the Red Air Force Day parade in 1955, Moscow. He counted over 100 Russian Bison bombers overflying the parade route, and reported that we have a huge bomber deficit. Actually the Ruskies flew the same few bombers over the parade route multiple times. The US bit and feverishly started building bombers, many more than planned by the Eisenhower administration. The only problem was the normal pipeline, ROTC and the Academy couldn’t keep up with the demand for pilots and navigators. So the fix was to start the Aviation Cadet program, a one year stint resulting in wings and second lieutenancy, open to high school graduates and guys like me with three semesters of university. Just about everyone I flew with were Aviation Cadets, and the Air Force tended to see us as temporary help.

When the Cessna makes a crosswind landing, it has to skid into the up-wind side, turning the aelerons into the wind and applying opposite rudder, in order to get the nose pointing down the runway. Touching down in a crab may tear the tires off the plane or collapse the gear. Not so the BUF. Once the Copilot is advised of crosswind, he dials in a correction that turns the eight big wheels, and touches down in a crab. After landing the correction is removed for taxiing.

The Copilot and Nav do the route planning. With predicted winds, the two figure ground speed, ETE, and fuel for each leg. The Nav and Bombardier then go to the Bomb-Nav Shop to study five to ten targets the crew will pretend to obliterate. The Target Study Officer briefs the appearance on radar right up to bombs away. If the target is in the middle of a radar blob, an isolated return nearby is used as the aiming point. The BUF can accommodate two offsets. The distance N-S and E-W from the target to the offset is entered into the bombing computer.

The early BUF computers were analogue and powered by vacuum tubes, and drifted

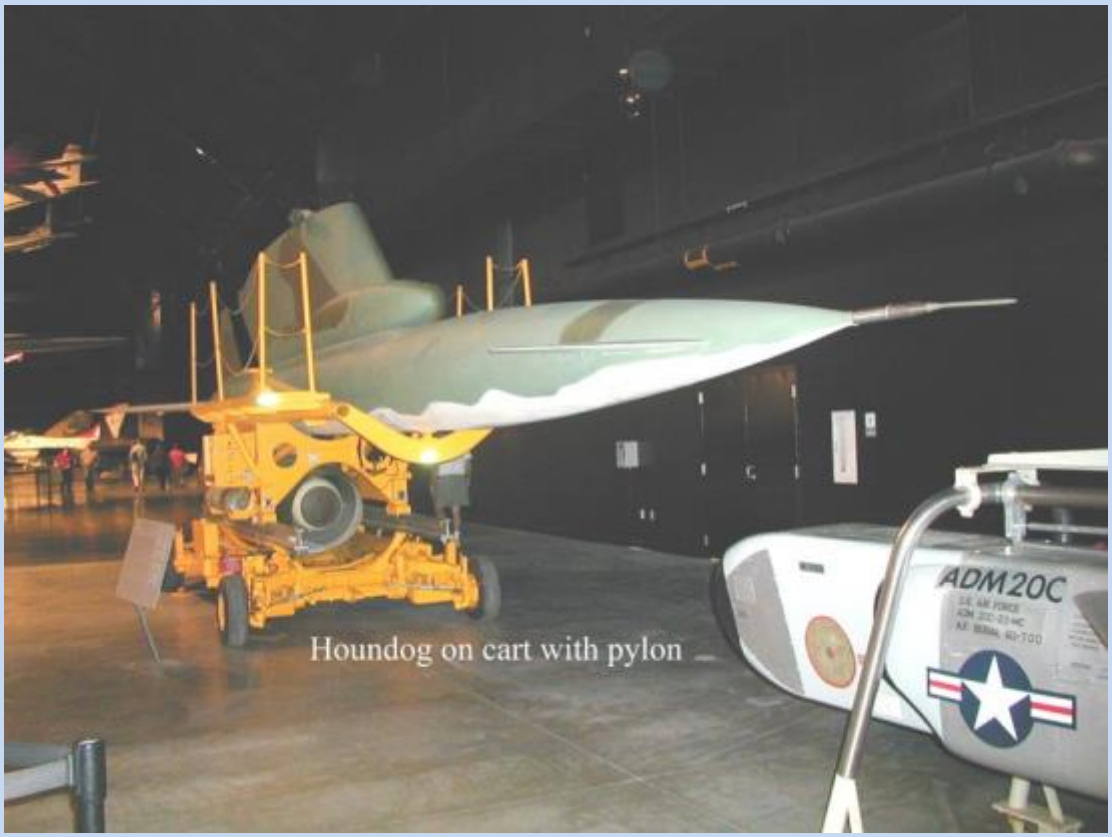
badly, up to ten miles an hour, so it had to be fed present position updates regularly through radar fixes, or less accurately by celestial shots. Over the 60 years the BUF made regular trips to depot at Tinker AFB, OK, where it eventually acquired solid state computers, and that wonderful addition: Doppler radar and accurate ground speed. Would guess that by now the BUF has GPS. Anyhow, the stink of burning electronics left with the vacuum tube.

The Copilot radioed the Radar Bomb Scoring Site (RBS) or the bombing range information about the crew and what target we planned to hit. Additionally for and RBS run he gave the Bombardier's last name, ballistics, altitude, airspeed and Initial Point. At bombs away, the RBS Site did the mathematics and issued an encoded score. Bombing range officers gave scores in the clear. A direct hit is called a 'shack,' and has a nice ring to it.

All flights were IFR, and it was the Copilot's job to file it. We remained in contact with Center, except when on low level route when contact was not available. We kept Center advised of any changes in the route. Sometimes we requested the best route through a row of thunderstorms, to compare against what the radar was telling up, allowing us to make an informed decision. During turbulence, the wings flapped like a bird.

Once, I flew on the KC-135 (Boing 707) to watch the Boom Operator do his stuff, flying the boom into the receptacle of the thirsty airplane in trail. It was impressive. Also I requested to hand-fly the bird from the copilot's seat. What a sweet airplane to fly! Responsive and light on the controls. I can believe that at the unveiling, the test-pilot rolled it, not just once, but twice! (And didn't get fired.)

When you look up into the Boise sky and see an airplane with an enormous contrail passing north or south, it's likely a BUF flying between Minot AFB and Fallon NAS where there is a bombing and electronic countermeasures range. Airliners traverse the sky east or west.



Houndog on cart with pylon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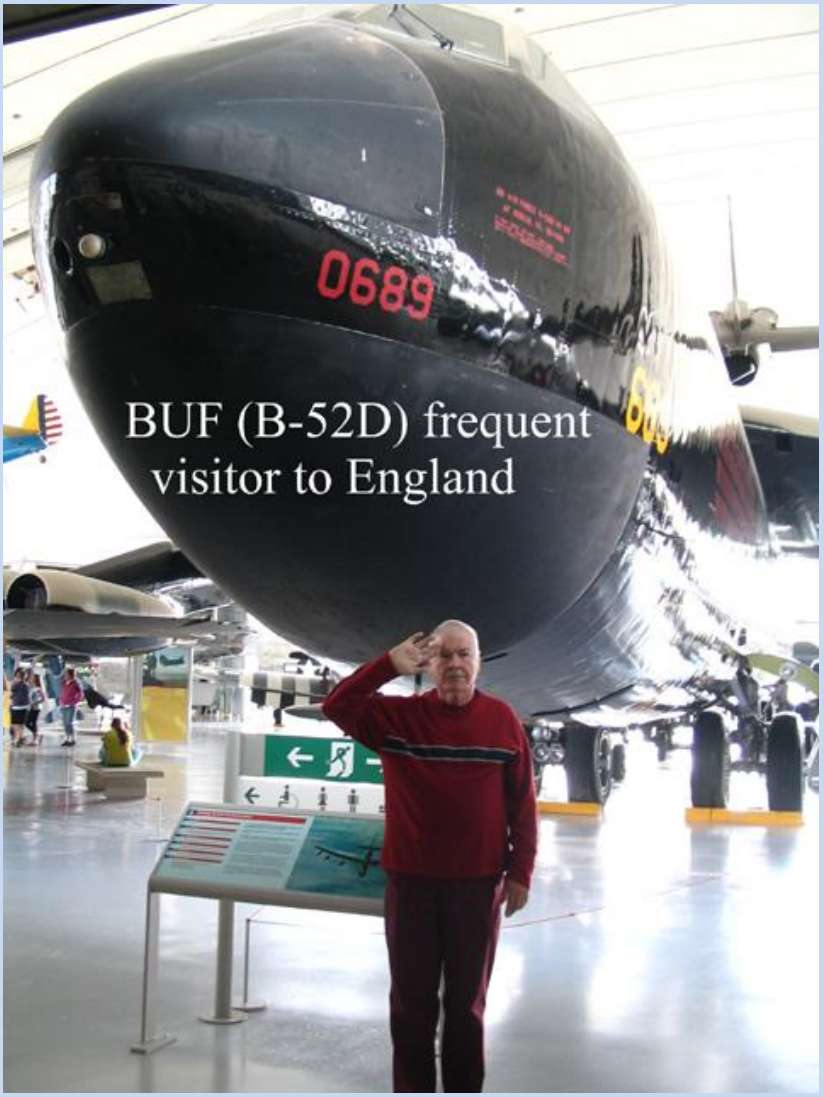
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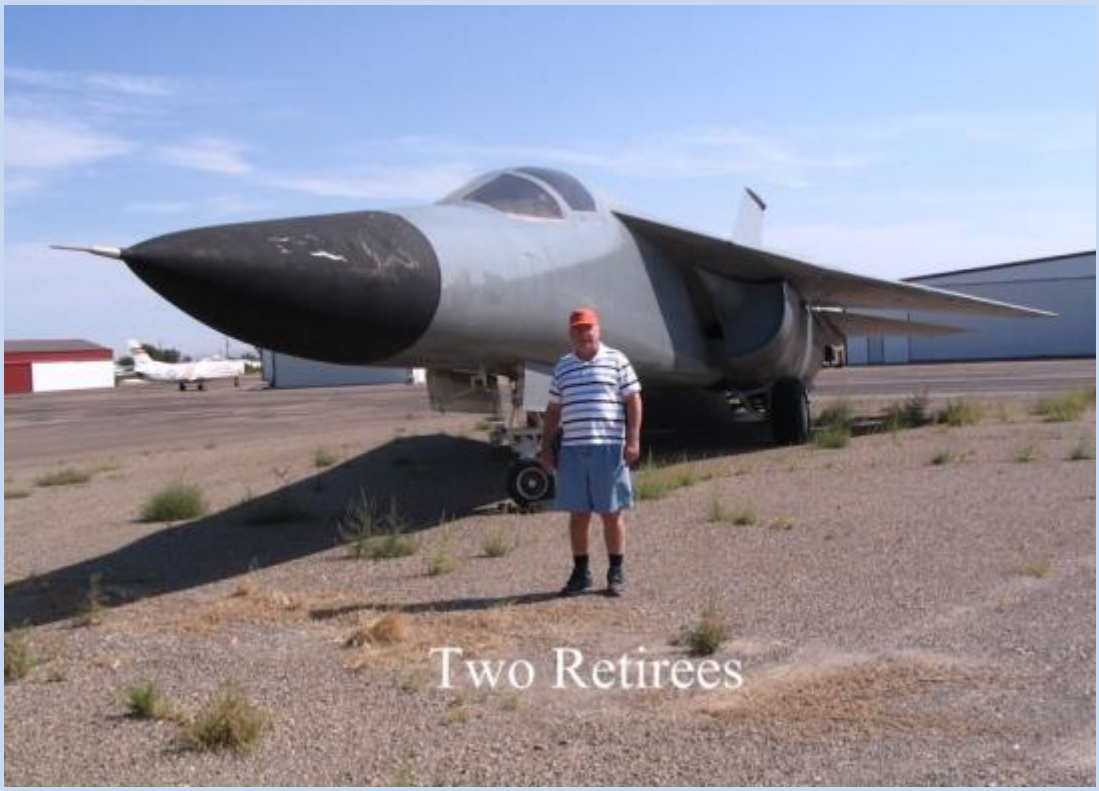
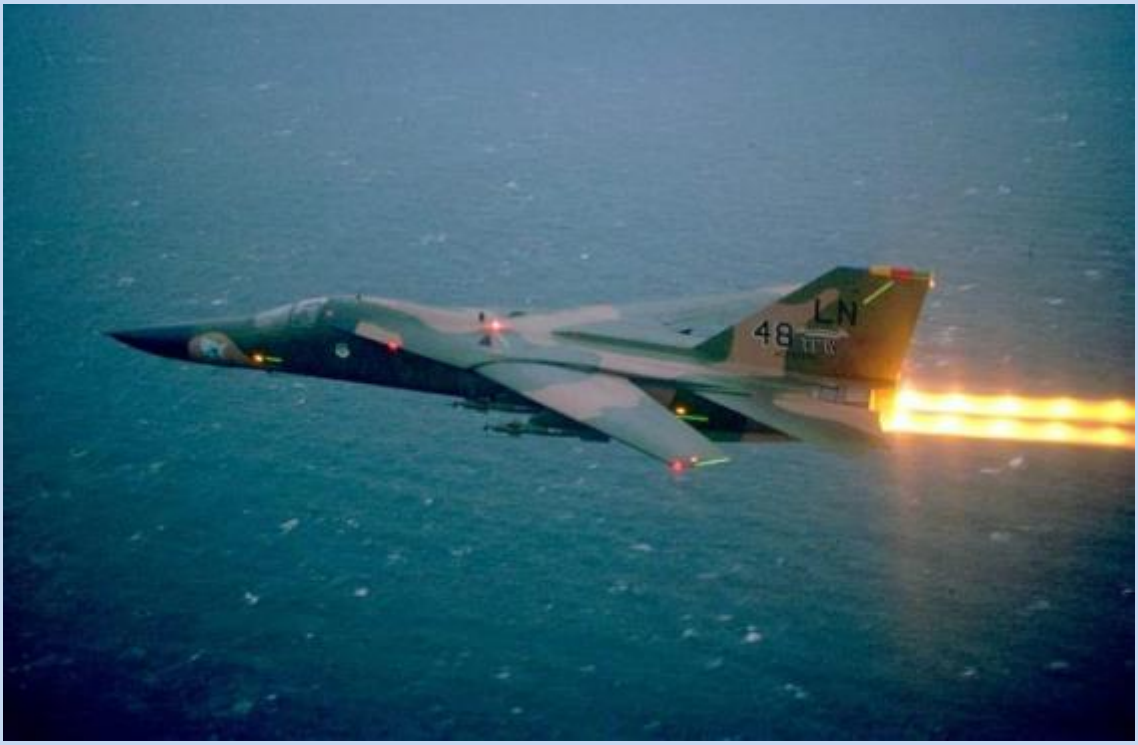
BUF (B-52D) frequent
visitor to England


Two Retirees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FROM OTHER SOURCES

Downwind is not a state of mind

SEPTEMBER 26, 2017 BY JAMIE BECKETT 7 COMMENTS

Every pilot owes their safety and security in some part to the predictable actions of their fellow pilots in flight.

If only for reasons of self-preservation, it is entirely reasonable to conduct yourself as expected.

Certainly, the FAA would like to believe your behavior is a reflection of your respect for its authority and wisdom. And that may be the case. But living to fly another day is an exceptional incentive, too.

I mention this because all too often we encounter behavior in the air that is counter to what we expect, and that injects a level of risk into our aerial activities that is both unnecessary and unappreciated.

Case in point: While preparing to depart my home field to do some pattern work, I pressed the push-to-talk and announce my impending lift-off and my intention to remain in the pattern.

Another pilot called to say he was overflying the field and would enter a “right teardrop for a left downwind” to that same runway.

I didn’t see the other aircraft, but wasn’t particularly concerned as he would be overhead, above pattern altitude, and would depart the pattern to position himself for a 45° entry to a mid-field downwind. At least that was my assumption based on his radio call.

I was wrong.

With a light breeze almost directly on my nose, my lift-off was fine. While I know the numbers for Vy, I climbed at an airspeed slightly higher than best rate of climb. I don’t use that speed all that often, as I prefer a cruise climb when it’s appropriate for improved visibility over the raised nose of the airplane.

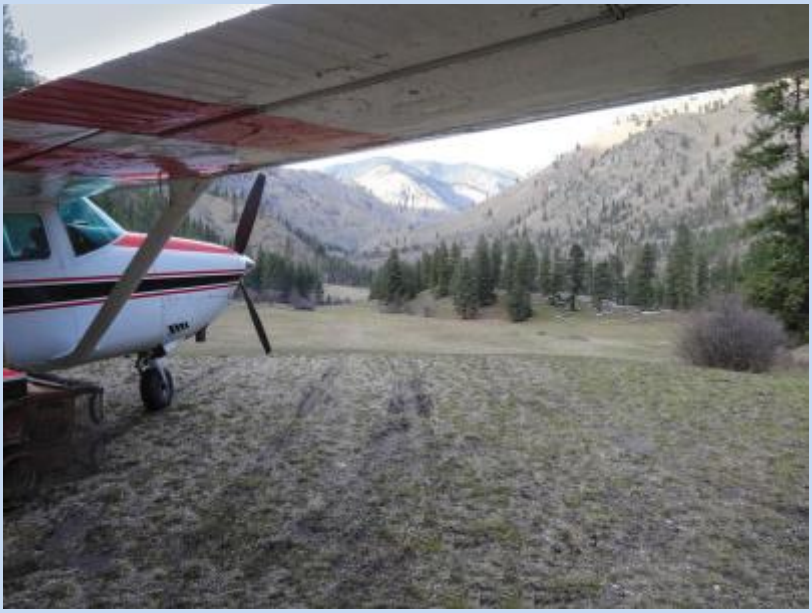
At 300 feet below pattern altitude I turned crosswind, then made a downwind turn when I'd moved a sufficient distance from the runway. This put me at pattern altitude flying parallel, but in the opposite direction of the runway in use.

Flying the Mail in Remote Idaho

Neither tight canyons, nor wildlife on runways...The postman's creed is slightly different for pilots delivering mail in the mountains.

Ahead of the Cessna parked at Central Idaho's Badley Ranch airstrip, the peaceful canyon doesn't reflect the difficulty of takeoff and landing here. The strip climbs from a 10- to a 17-degree slope. (Debbie Gary)

By **Debbie Gary**



When we approached the first mail stop, Ray Arnold rolled his Cessna 206 up on its left wing and spiraled down inside the narrow canyon that funnels Big Creek past

Taylor Ranch. Bare ground the color of a cougar's hide filled the front window. The airspeed was slow, the bank was steep, and my senses were on high alert: One bad turn and we could hit the mountain, or fall into the creek. But Arnold's hand was steady and he rolled out just above the rushing water. Another turn revealed a smaller creek and the twisted grass strip of the University of Idaho's Taylor Wilderness Research Station.

Arnold touched down and rolled toward the bend in the runway where caretakers Meg and Peter Gag waited for us by their mailbox with their six-year-old daughter Tehya, their dog Bitsy, and a pile of cargo: the recyclables they were sending back; a cooler, for transporting perishables from the grocery store; and a few pieces of luggage for their day trip to Boise, where Tehya had a doctor's appointment.

Arnold and the Gags off-loaded the bright orange mailbag, a stack of eight-foot lumber, a furnace, a week's groceries, and other supplies. Gag strapped his daughter's car seat into the Cessna as she rooted through the mailbag for birthday cards and presents from grandma.

To reach Taylor Ranch from Cascade, we flew 70 miles above central Idaho's nine- and ten-thousand-foot peaks, snow-covered national forests, and fire-ravaged slopes. Arnold pointed out backcountry landing spots as we passed; some snowy white stripes in a sea of evergreens, others no more than dirt scratches on the face of bare hills.

Each time he indicated a landing site, he recounted a close call some pilot had experienced there: a ski plane upended in deep snow, a nosewheel grabbed by a gopher hole. But the mail must go through.

The U.S. Postal Service contracts with Arnold Aviation to deliver to U.S. Forest Service outposts and some two dozen ranches in the Frank Church–River of No Return Wilderness Area of south-central Idaho. The USPS has negotiated with contractors since before the stagecoach days, and it operates like a restaurant owner who knows that waiters can live off their tips. A mail pilot survives not on what the postal service pays him but by using the mail run to also carry passengers, cargo, and weekly deliveries.

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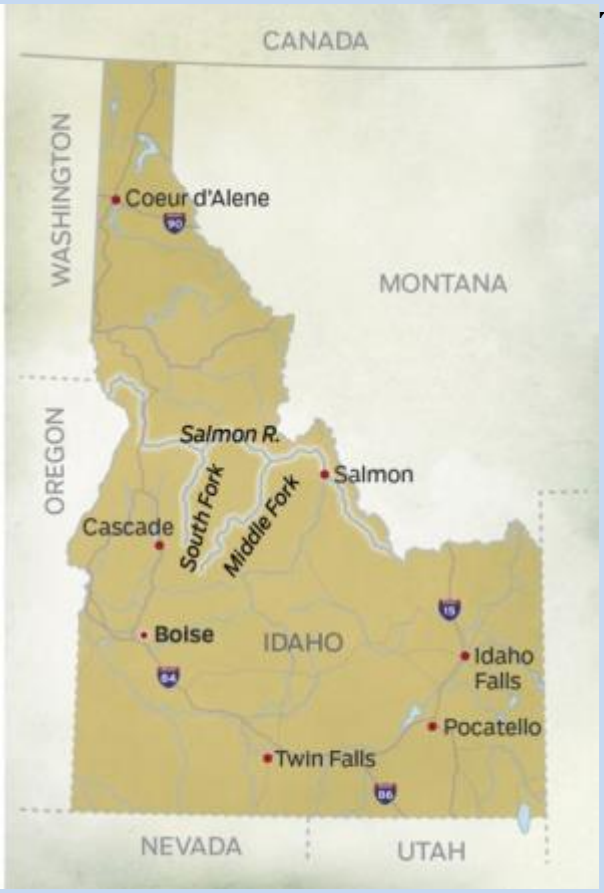
Arnold's route is unique in the United States. Alaskan bush pilots also fly the mail to remote villages, but they give it to postal representatives or lock it in sheds for pickup. They do not deliver to individual homes or boxes.

The Idaho route is run by the U.S. Postal Service. "These deliveries are part of the postal service's universal service obligation to cover the nation, ensuring that all users of the mail receive a minimal level of postal services at affordable prices," says John Friess, a USPS spokesperson. "Arnold Aviation delivers mail twice a week—once a week in the winter—to ranches scattered across more than two million acres of wilderness. The area is designated a primitive area, and no vehicles can be driven on it."

Arnold has been flying this mail route for 40 years and has taken off and landed at each strip more than 2,000 times. At the Taylor Wilderness Research Station, where he flies in and out with scientists, students, and, sometimes, specimens of the wild wolves and mountain lions that they study, his arrivals and departures have numbered closer to 4,000.



The country around the mail route (Rainer Lesniewski/Shutterstock)

On one of those flights he had a close call with a departing caretaker who insisted that a planeload of her books had to fly out with her. “Before Taylor Ranch had a snow blower to clear off the runway, they used to just pack the snow down,” Arnold said, “and that day it was slushy. I took off in the Cessna 185 on wheels with a load too heavy for the conditions. Before I had flying speed I flew right off the bank and put the nose down to accelerate. I felt the tailwheel hit the water. Big Creek is not that wide, and there was a tree across the river. I could not get over it, so I stayed low. When I got to it, I had to lift my wing to get past it.”

Ranch owners and caretakers who live on private land in the remote region count on Arnold’s weekly mail delivery. He picks it up from the Cascade post office and delivers it to individual mailboxes on a rural route much like ones along country roads elsewhere in the United States. Except here there are few roads. For much of the year, flying is the only reliable way in or out.

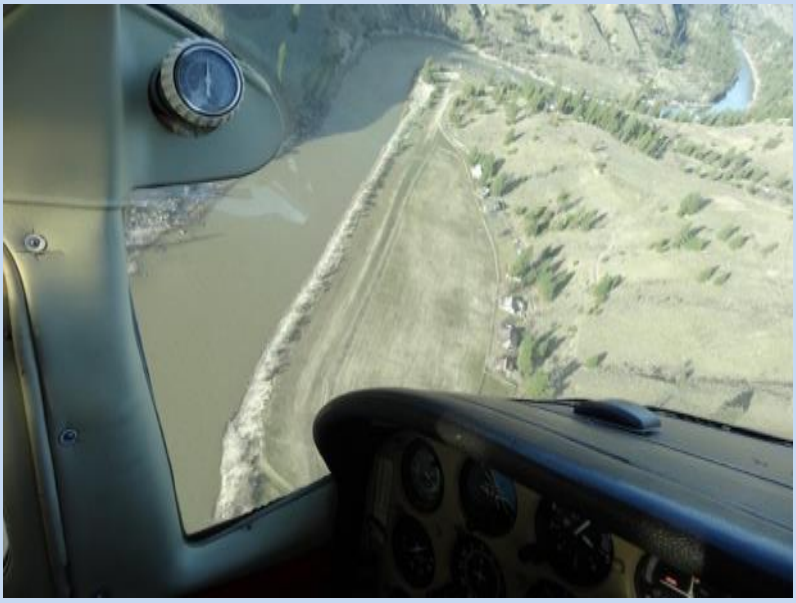
Mail has been flown into backcountry Idaho since 1928, but in the 1950s two mail routes developed to serve isolated Idaho ranches, hunting camps, U.S. Forest Service stations, and mining locations. In 1975, Arnold Aviation consolidated the two routes into one and assumed responsibility.

He and his then-wife Carol started Arnold Aviation in 1972. Before that, Carol had taught home economics at Cascade High School until their daughter Rhonda was born; Ray taught math and science there. But he traded the classroom for the cockpit, where lift vectors, crosswind components, density altitude, and weight and balance calculations were not just variables in theoretical problems but matters of life and death.

During the days I spent at Arnold Aviation in February 2015, parcels arrived from FedEx and UPS. Meat and groceries piled up in the cooler and walk-in freezer. Carol Arnold, now divorced from Ray, manages the office, makes appointments for folks who come in off the river, and takes orders for things they want delivered. Carolyn Smith, the company's shopper, runs errands and fills the orders. Everything is weighed and marked with initials for the various ranches: Yellow Pine Bar, Mackay Bar, Badley Ranch, Shepp Ranch. At daybreak Arnold collects a large bin full of mango-colored mailbags at the Cascade post office, and everything is carefully distributed in the airplane for balance and convenience.

In the spring, summer, and fall, when the ranches are humming with guests, the loads are full and the hours long. Passengers fly in and out with the mail, and everyone is too busy to chat. There are 20 stops along the two flying routes, flown on alternating days; 13 stops the first day and seven stops the second.

The winter run is more leisurely, a one-day, five-stop trip to the few caretakers and owners who live along the rivers all year long. Approaching our stop at Yellow Pine Bar, we flew down low and followed the S-turns of the Main Salmon River. The airstrip was a snowy blaze among tall pine trees at a bend in the river midway along the section most popular for river rafters, a swift-moving 80-mile stretch with rapids from Corn Creek to Vinegar Creek. The strip was slushy and icy.



From his Cessna 206 descending upon Mackay Bar, Ray Arnold looks down on the Salmon River's South Fork where it flows into the main "River of No Return." (Debbie Gary)

Yellow Pine Bar is a private ranch that's been owned by the same family for more than 60 years. In the summer, it's a stop for rafters and jet boaters, who buy drinks and snacks and sometimes knives or tools from caretaker Greg Metz's blacksmith shop.

Sue Anderson, who has worked at Yellow Pine Bar as a caretaker since the 1980s, rode up on a four-wheeler, its tires wrapped in chains. She gave Arnold a hug, a kiss, and homemade fudge. Jim Mozingo, from nearby Allison Ranch, was visiting. After they unloaded mail, groceries, water jugs, and garden mulch, Arnold sat between the Cessna's open cargo doors, eating fudge and chatting.

As we headed back down the snowy runway, Arnold said, "This is where a deer jumped out of the woods, onto the runway and through my propeller one day on takeoff." In a split second the deer was sliced to pieces and a propeller blade was knocked loose. Arnold shut down, then sent for a mechanic, and a new propeller. "That was a $12,000 deer." He took off, turned upriver, and flew over the snowy strip at Allison Ranch. "Another deer ran out here and hit me when I was already in the air," he said. "That was a $700 deer."

In summer Arnold picks up the mail at 6 a.m. and gets going right after breakfast. In winter he takes off when it gets light, but fog kept us grounded that day until nearly one o'clock. It was well into the afternoon before we got to the last three stops. Mackay Bar, like other river ranches, thrives on guiding and outfitting hunters, fishermen, trail riders, and ranch guests. Its caretaker, Buck Dewey, apologized for having turned off the coffee pot as the hour grew late. "Next time there'll be coffee and cookies," he promised.

Our next stop was the Badley Ranch airstrip, on the side of a hill that climbs from a 10-degree slope to a 17-degree one. At the top, Arnold pulled off onto a semi-level rocky spot, and Luke Badley rode up on a four-wheeler, chased by his black and tan coonhound Danner. The dog sniffed my legs while the men unloaded. Badley opened his groceries and handed a Fat Boy ice cream bar to Arnold, who accepted it and ate it as if it were the reason we landed there.

"All these strips are private," Arnold said. "You can't land on any of them without permission." I looked down at faint tire tracks sweeping up the hill and imagined learning to land on a slope like this. Arnold made it look easy, but I've landed on a few, much more gradual up-slope strips, and I knew it was difficult.

Once we were airborne again, we stayed just off the water. At Shepp Ranch, horses scrambled over the end of the runway. We circled and waited for them to clear off.

"One day a backhoe was in the middle of the runway and the driver never budged," Arnold told me as we circled. "So I landed short and rolled right up behind him, put on the brakes, and ran the engine all the way up. The backhoe driver nearly jumped out of his seat."

While Mike Demeres rounded up the horses, Arnold explained that the postal service calculates his pay by a flat-map rate. They are unmoved by complaints about extra miles flown around fog banks, the added cost to climb out of valleys, minutes tacked on waiting for heavy construction equipment, dogs, or horses to clear the runway.

When I flew with Arnold two years ago, he was 78, but when he spoke of retiring it did not sound imminent. He loves flying in these mountains, seeing sunsets, lakes, snow-covered peaks, elk, bighorn sheep, and the rivers. Mostly he loves the people.

Mike Dorris, whose father Bill was one of Arnold's airmail-flying instructors, is one of the pilots who sometimes flies mail for Arnold. He lives in McCall, where he has his own delivery route, usually driven by truck. But in the winter months, when the highest mountain passes are snowed under, he takes to the air.

One morning Dorris took me on his mail route in his polished silver Cessna 170, landing atop two feet of snow. To get the landing skis down prior to takeoff, he'd pumped a broom-like lever up and down 53 times. You only use them when absolutely necessary—the skis have no brakes.

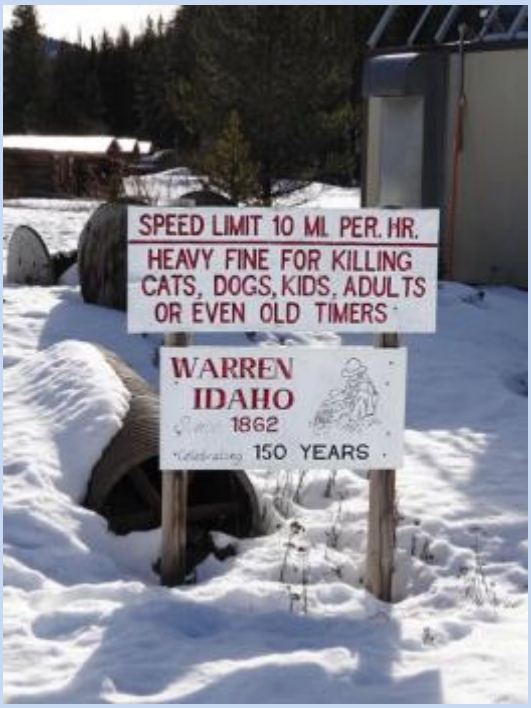
In Warren, the elevation is nearly 6,000 feet, and the snow there lingers. From the air, most of the 20 or so buildings looked tidy and well kept, but next to the airport, rusted roofs and missing boards gave Warren the look of a ghost town. Postmistress Jan Munsen rode over from the town's tiny post office with mail cartons strapped to the front of her four-wheeler, followed by a tall, thin man looking for groceries we did not have.

Dorris grew up in a family of 13 kids, flying and skiing. In the 1970s he was a two-time member of the U.S. Ski Team. He raced in Europe, coached, went pro, then came back to start a flying company with his father. Now he and his wife Leslee own Sawtooth Aviation in McCall.

“My dad always cussed the mail route,” Dorris recalled. “Planes slide off the hill, the ski plane especially. You can retract the skis, but it’s time-consuming. So you start out visiting with someone and the next thing you know your airplane’s slid backwards into the bushes.”

His father taught him and three of his brothers to fly, often reminding them that his own 10 worst flying experiences were on skis and sometimes urging them not to use them. Still, every pilot learns the hard way.

Using skis on the steep Badley Ranch strip one day, Dorris turned around at the top of the hill. “Then the nose got pointed downhill and started tracking toward a yellow pine,” he said. “I blasted the tail up, turned it left, went through tree branches, got going downhill, missed a big rock, hit a pile of backpacks and ski equipment, and tore up a guest’s skis, but got airborne.”At the South Fork Ranch, we dropped off supplies, mail, and a case of beer that caretakers Tim and Judy Hall had won in a Super Bowl bet from their fellow caretakers at Yellow Pine Bar. Dorris and the Hulls swapped local lore, including the tale of an old-timer who ordered whiskey jugs every week until he went blind and shot himself—in the heart instead of the head, to leave less mess for the friend whom he knew would likely be the one to find his body.



At the McClain Ranch we chatted with Tom Roberts, whose grandmother Sylvia McClain bought the ranch in 1946. Roberts moved there with his mother when he was nine and recalled the long-ago day Arnold landed with a strong wind on his tail and hit two lodgepole pines off the end of the strip. The airplane stopped so suddenly that the engine flew off. Nobody was hurt, but a man in the back seat panicked, climbed over Arnold, and jumped out the window. The trees were later removed and the runway extended.

Before we flew back to McCall, Dorris landed at Willey Ranch, the steepest runway in Idaho—550 feet long at a 23-degree incline. One day his wheels got stuck in snow there, halfway up the runway. He and his passenger took turns holding the brakes to prevent the aircraft from sliding backward while the other man dug a path through the snow for the wheels.

Dorris used to deliver mail to Willey Ranch until someone burned the house down smoking in bed. He'd taken me there just to share the thrill. Imagine flying toward a mountain, then instead of turning, crashing, or climbing, you pitch the nose up just enough to land on it.

Dorris was a teen when Arnold took flying lessons with his father. When Arnold had to step down for a year and a half for medical reasons, Dorris flew his route for him.

Dorris told me how you need strict rules for yourself flying in the mountains. "You have to be 110 percent sure before you turn up a canyon. If you get complacent and lose track of which drainage you are in, all of a sudden the ground climbs real steep and goes up into an overcast. The river you were following turned a different way back behind you and now there's no room to turn around."

I thought of the first, dramatic turn in that canyon with Arnold the day before, and the skill it took to make it, and the sacrifices these pilots have made throughout their lives to see that the mail gets through. *Neither snow nor rain nor heat nor gloom of night stays these couriers from the swift completion of their appointed rounds*, reads the U.S. Postal Service creed. Arnold and Dorris don't fly when it's snowing, but they live up to the sentiment.