

LESSONS LEARNED IN 20 YEARS FLYING THE IDAHO BACKCOUNTRY

Idaho Division of Aeronautics



2022 Safety Stand Down
Speaker: Jim Hudson

ABOUT YOUR PRESENTER

JIM HUDSON

AOPA 2018 Distinguished Flight Instructor
Flight Training Experience



Membership Director
T-Craft Aero Club - Nampa, ID



CFI / Backcountry Instructor
3,900 hours total
2,630 hrs. instructing
1,600 hrs. backcountry



ABOUT THIS PRESENTATION – TAKE AWAY’S

- Learn Something New.
- Available Resources
- Better Understand Density Altitude.
- Know Yourself & Your Aircraft’s Performance.
- Refresher on Take-Off/Landings
- Understand And Respect Mountain/Canyon Weather & Winds.
- Realize importance of getting Instruction
- Be Safe – Have Fun



AGENDA

- What's different about the Backcountry.
- Resources.
- Preparation – Pre-Flight Considerations
- Backcountry Weather.
- Rules of Thumb.
- Density Altitude / Performance.
- Flying the Backcountry.
- Emergencies / Survival
- Comments, Q & A



AWESOME RESOURCES

RAF – Recreational Aviation Foundation www.theraf.org

Idaho Aviation Association: www.idahoaviation.com



RECREATIONAL
AVIATION
FOUNDATION



Amy Hoover: www.canyonflying.com – Mountain, Canyon & BC Flying Handbook

Fly Idaho- Guide Book: www.flyidaho.com



Sparky Imeson, Mountain Flying Bible: www.mountainflying.com

Idaho Division of Aeronautics: <https://itd.idaho.gov/aero/>

Lori MacNichol - Mountain Flying, LLC: www.mountaincanyonflying.com

Hump Day Hanger Presentations – Steve Johnson: www.supercub.org

www.backcountrypilot.org – good articles on survival

AOPA Air Safety – Backcountry Resource Center: <https://www.aopa.org/training-and-safety/air-safety-institute/backcountryresourcecenter>



What's different about the Backcountry?



An aerial photograph of a rugged mountain range. The peaks and ridges are covered in patches of snow, contrasting with the dark, rocky terrain. A deep valley is visible between the mountains, showing a winding road and some small settlements. The sky is a clear, pale blue.

Full Time Mountains, Part Time Pilots

“Mountains don’t need practice
to bite you in the knickers”

John Goostry Retired FAA Safety Program Manager, BOI FSDO



*Mountain flying is very unforgiving
A very narrow margin for error!*

MF Salmon – Impassible Canyon

***Challenging strips; narrow,
short, high elevation***

Many are one way in – one way out.

Upper Loon Cr.

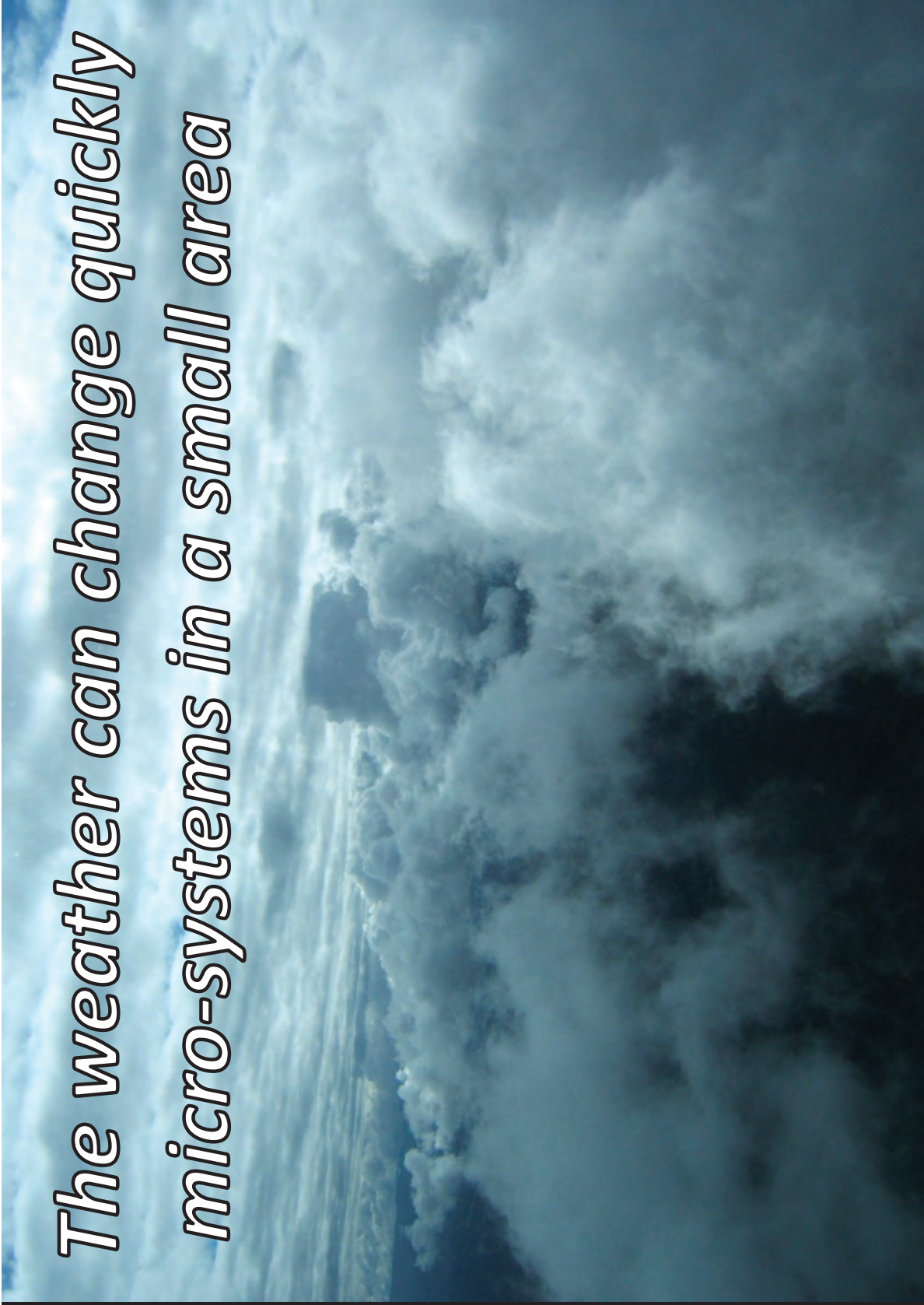
5500' elevation

2510' length

80' width



*The weather can change quickly
micro-systems in a small area*



Preparation— Pre-Flight Considerations



THE BASICS

- Know Yourself
- Know Your Aircraft
- Know The Environment

AOPA Air Safety Website

BACKCOUNTRY RESOURCE CENTER



HEADING INTO THE BACKCOUNTRY? START HERE.

It's no secret: Backcountry and mountain flying have gained tremendous popularity in recent years. Pilots who participate in this sector of aviation have myriad reasons for doing so—a new challenge, a great way to sharpen their flying skills, breathtaking views, and a chance to get off the grid for the ultimate feel of freedom. Whatever the reason, the allure of backcountry flying is undeniable.

But flying in the backcountry comes with a unique set of challenges, and therefore, risks. The past few years have seen some troubling mishaps, so our focus is set on improving safety while making flying in the backcountry more accessible and enjoyable.

Be Ready. Be Prepared.

The Aircraft

The Pilot

The Environment

Know Yourself: Proficiency, Practice – Tune Up:

Load your Airplane to the Weight/CG you will be flying; at the anticipated DA.

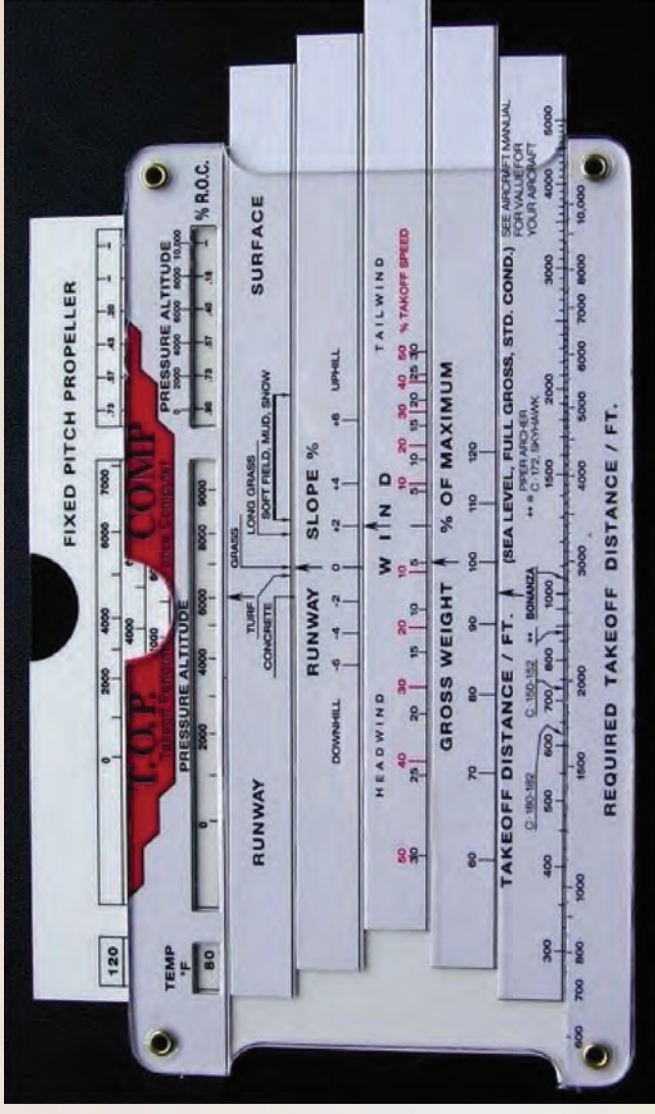
- Be Proficient at Slow Flight / Stalls - In Level, Turning, Climbs, Descent's.
- Set up approach, downwind, base, final in simulated canyon situation. Determine configurations, power and speeds.
- Calculate Maximum Performance Takeoff distance. – Compared to Actual.
- Determine Rate of Climb. What do you get.
- Be Proficient at a Stabilized Approach and Short Field - Spot Landings.



Practice at local shorter strips:
Murphy, Homedale, Emmett,
Garden Valley

TAKE OFF PERFORMANCE – POH / Sporty's TOC

- Runway slope?
- Taking off in a tailwind?
- Runway Surface: Grass, long grass, gravel, soft?
- Effect of Weight.



SPORTY'S T.O.C Not Available anymore



KNOW YOUR AIRCRAFT: AIRSPEEDS

At 8000 - 10,000 DA, determine Power (MP/RPM) setting with respective flap settings at Mountain flying air speeds:

Test altitude: ___ / DA ___ Weight ___

	Flaps	IAS	Pitch	Power
Cruise	___	___	___	___
Canyon Speed:	___	___	___	___
Slow Cruise – 80/20 Set UP	20	80	___	___
Landing – Downwind/descent	___	___	___	___
Landing - Final	___	___	___	___
Takeoff Vx	___	___	___	___
Takeoff Vy	___	___	___	___

KNOW YOUR AIRCRAFT: STALL SPEEDS

At 8000 - 10,000 DA, determine Power (MP/RPM) setting at MCA and stall with flap configurations and weight you'll be flying in the BC. Power to maintain level flight, except take-off and landing configurations

Test altitude: / DA Weight % Gross

Flaps MCA Stall Power MCA – Minimum Control Airspeed ~ stall horn

	MP/RPM		
<u>0</u>	<u> </u>	<u> </u>	<u> </u> / <u> </u> Slow Flight
<u>20</u>	<u> </u>	<u> </u>	<u> </u> / <u> </u> Slow Flight
<u>40</u>	<u> </u>	<u> </u>	<u> </u> / <u> </u> Slow Flight
<u> </u>	<u> </u>	<u> </u>	<u> </u> / <u> </u> 20 deg Bank
<u> </u>	<u> </u>	<u> </u>	<u> </u> / <u> </u> 45 deg Bank
<u> </u>	<u> </u>	<u> </u>	<u> </u> / <u> </u> Short F take off Vx
<u>40</u>	<u> </u>	<u> </u>	<u> </u> / <u> </u> Final Approach short final



PREPARATION: IS YOUR AIRPLANE READY FOR THE BC

Landing Gear, Nose Gear, Tailwheel integrity



- **Wheels and Brakes.**
- **Tire Condition.**
- ~~**Wheel Fairings.**~~
- **Fuselage and Interior.**
- **Lights.**
- **Windscreen.**
- **Seat Belts / Shoulder Harness**

PREPARATION: IS YOUR AIRPLANE READY FOR THE BC

Powerplant / Prop



- Baffling, Cowling
- Hoses, Cables and controls.
- Filters
- Ignition system
- Battery & Cables

PREPARATION: OTHER THINGS TO BRING

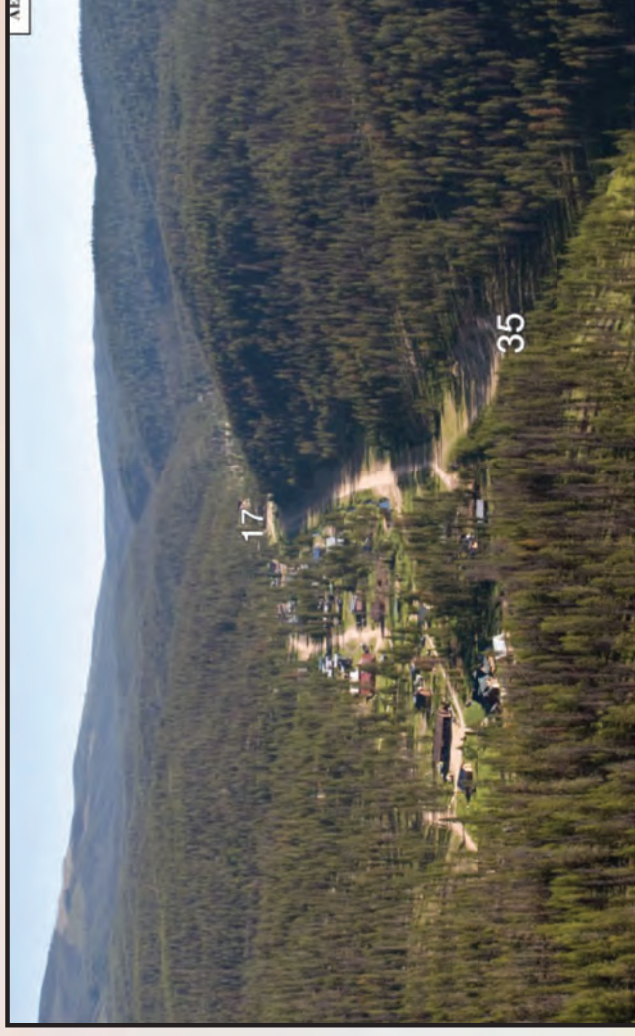
- Oil, Windscreen Cleaner
- Tool Box, Duct Tape.
- Pitot Cover, Gust Lock.
- Tow Bar, Fire Extinguisher.
- Tie down ropes/stakes.
- Survival Gear / First Aid kit
- Adequate Clothing/Sleeping Bag
- Baggage Net.



PREPARATION: ENVIRONMENT

Know the Environment

- Preflight Prep – Much more extensive for backcountry.
- Routes and Outs.
- Approach and Departure Descent / Climb Gradients Required.
- Airport Research – Each Airport is Unique. Check PIREP's
- Expected Weather, NOTAMs, TFR's.



RAF / AOPA Air Safety Check List

Planning

Ground Ops

In-Flight

OVERALL FLIGHT OBJECTIVES

- ☐ Flying to or from canyon strip; sightseeing enroute

MANDATORY EQUIPMENT

(Based on Objectives)

- ☐ Water, food, clothing, camping
- ☐ Tiedowns & control lock
- ☐ Personal Locator Beacon (PLB)
- ☐ Survival bag & vest with key items
- ☐ Aircraft maintenance grab bag
- ☐ Extra batteries for electronics
- ☐ Spare keys (aircraft, car)
- ☐ Medicine
- ☐ Firearms & bear spray (sealed container)

WEATHER

- ☐ Departure: ceiling, vis., temperature, winds, density altitude
- ☐ En route: ceiling, vis., winds, turbulence, temp/dewpoint spread
- ☐ Arrival: ceiling, vis., temperature, winds, density altitude

NOTAMS AND SUA

- ☐ TFRs
- ☐ Departure
- ☐ Enroute
- ☐ Arrival

AIRCRAFT PREFLIGHT

- ☐ Parking apron/area conditions
- ☐ Walk taxiway and runway for objects/holes
- ☐ Determine useable runway length
- ☐ Determine climb performance & obstructions
- ☐ Consider topography and special departure route

START

- ☐ Be noise sensitive
- ☐ Prop wash awareness
- ☐ Radio frequency

TAXI

- ☐ Airfield review: runway, parking, taxi routes
- ☐ Hazard or soft areas; blind areas
- ☐ Traffic awareness (pattern; other taxiing aircraft)
- ☐ Wind indicators
- ☐ Taxi route
- ☐ Run-up areas
- ☐ Power/prop wash sensitive areas

TAKEOFF

- ☐ Runway conditions and slope
- ☐ Wind
- ☐ Obstructions
- ☐ Takeoff direction
- ☐ Traffic awareness and deconfliction
- ☐ Type of takeoff (short field, soft field, flaps, etc.)
- ☐ Expected takeoff distance
- ☐ Takeoff abort point
- ☐ Abort actions

CLIMBOUT AND DEPARTURE

- ☐ Expected climb performance
- ☐ Obstructions
- ☐ Climb altitude and special departure route before turning enroute
- ☐ Initial enroute heading and altitude
- ☐ Emergency options
- ☐ Be noise sensitive

NOTES:

Fold Here for Kneeboard Size

EN ROUTE

- ☐ Route of flight
- ☐ Terrain elevation; notable peaks
- ☐ Minimum obstruction clearance altitudes
- ☐ Planned altitudes
- ☐ Towers; hazards
- ☐ Expected fuel performance
- ☐ Fuel management plan (tank switch, timers set, etc.)
- ☐ Frequencies
- ☐ High traffic areas
- ☐ Emergency airfields; landing locations
- ☐ Winds
- ☐ Sun angle
- ☐ Abnormal conditions: white out; turbulence

ARRIVAL AIRFIELD REVIEW

- ☐ Prominent airfield landmarks (GPS coordinates?)
- ☐ Airfield layout, runway direction, slope
- ☐ Type of airfield and expected condition
- ☐ Location of wind indicators
- ☐ Obstacles
- ☐ Nearby terrain
- ☐ Unusual wind patterns or terrain impact on winds
- ☐ Visual illusions
- ☐ Frequencies
- ☐ Traffic awareness and deconfliction
- ☐ Potential areas short/long of runway if needed

Destination

AIRFIELD ASSESSMENT PROCEDURE

- ☐ Announce arrival
- ☐ Standard is left-hand pattern unless overflying camping; sensitive areas. Pattern may be dictated by topography, obstructions
- ☐ Fly overhead, 300 ft above pattern altitude, midfield, perpendicular to runway, if able. (If not, fly straight down runway at pattern altitude)
- ☐ Standard pattern altitude is 1000 ft AGL
- ☐ Descend to pattern altitude on upwind; fly crosswind, then downwind
- ☐ Assess:
 - ☐ Runway condition
 - ☐ Slope
 - ☐ Wind indicators
 - ☐ Obstructions
 - ☐ Emergency areas (short/long of runway)
 - ☐ Other traffic in area or on ground
 - ☐ Go-around areas and flight path
 - ☐ Taxi and parking areas

LANDING

- ☐ Runway direction
- ☐ Type of landing (shortfield, over obstacle, etc.)
- ☐ Expected weight and pattern speeds
- ☐ Expected landing distance
- ☐ Go-around decision point
- ☐ Emergency options

TAXI IN

- ☐ Route
- ☐ Direction
- ☐ Hazards
- ☐ Prop wash - sensitive areas and camp sites

PARKING

- ☐ Area
- ☐ Hazards
- ☐ Sun and wind impact

SHUT DOWN

- ☐ Master Off
- ☐ Close flight plan
- ☐ Notify friends/family
- ☐ Tie down



Safety Briefing Guide



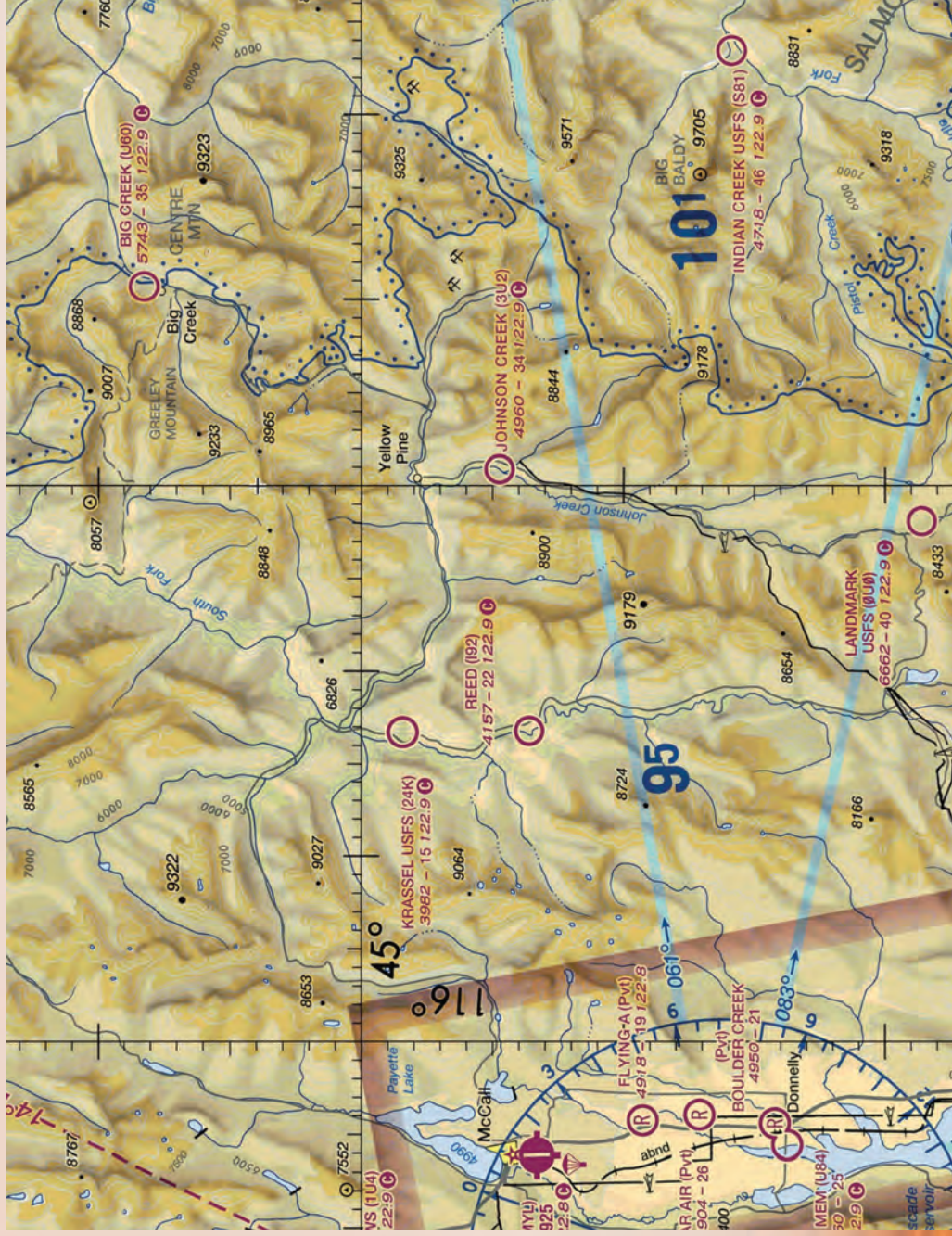
Developed In Partnership With



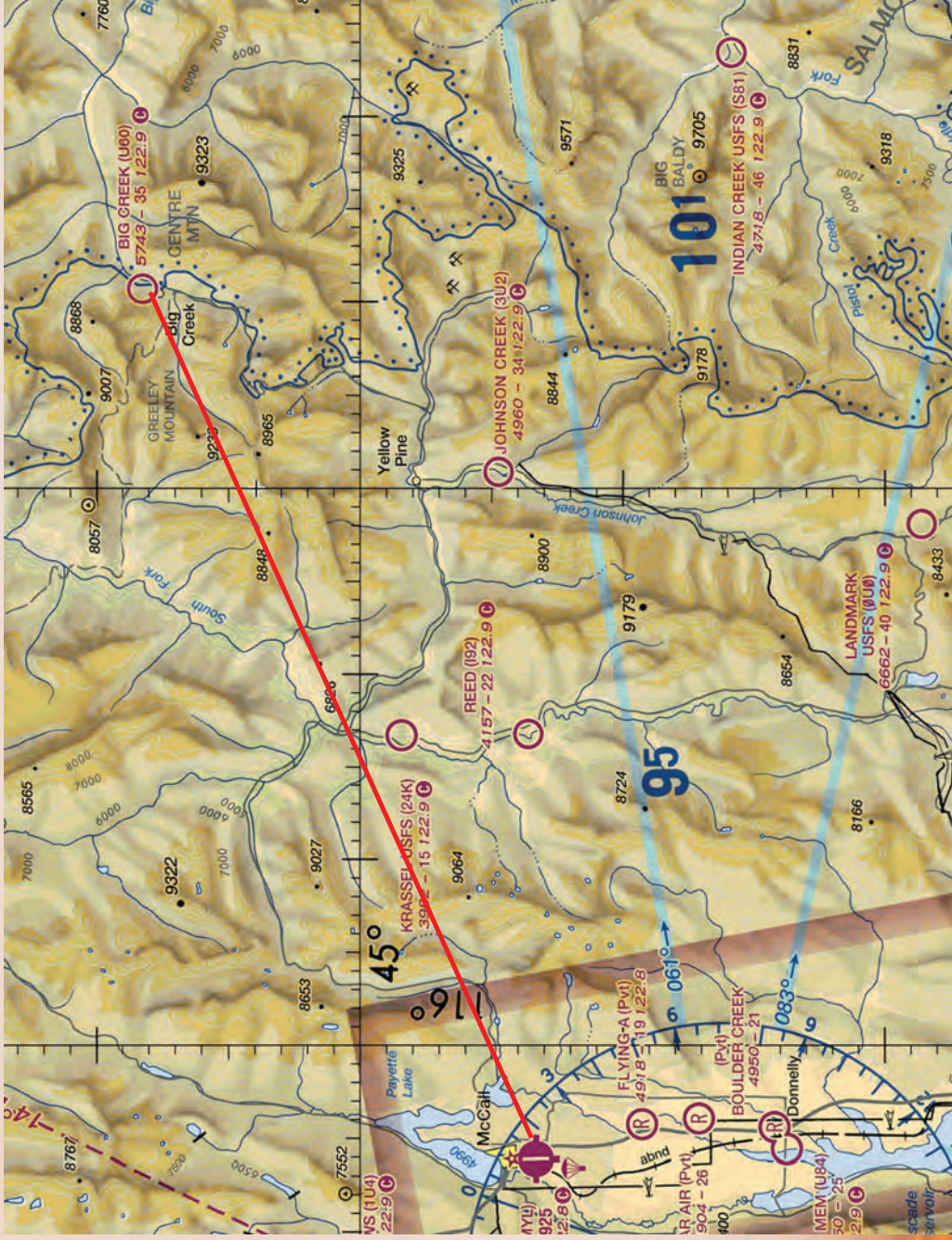
© 2018, AOPA Air Safety Institute and Recreational Aviation Foundation.
Cover Photo: RAF supporter Pat Knowles departs Dixie, Idaho in his C-182;
photo by Joan Caswell

Route planning

Terrain? Fuel? Alternates? Outs?

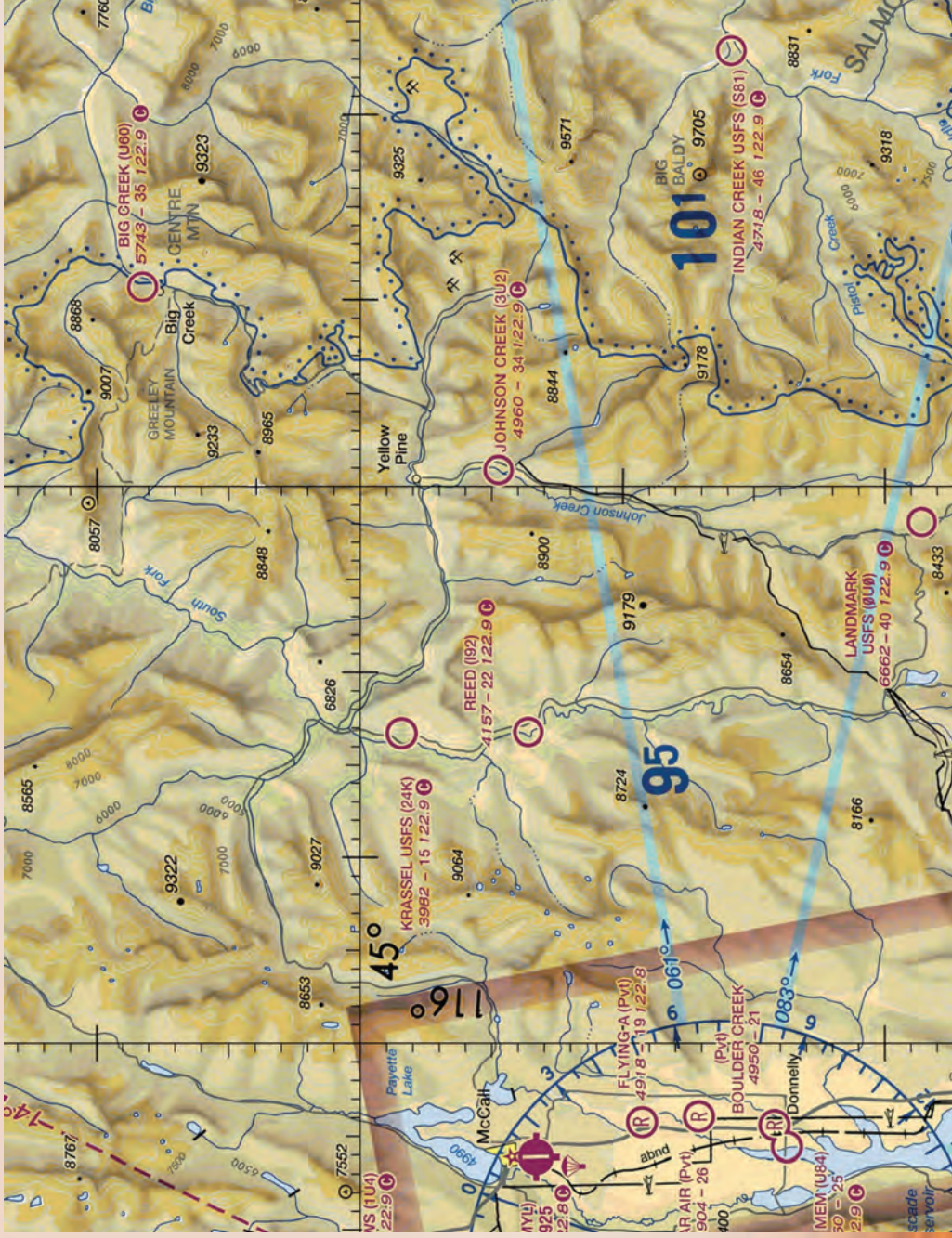


Terrain? Fuel? Alternates? Outs?



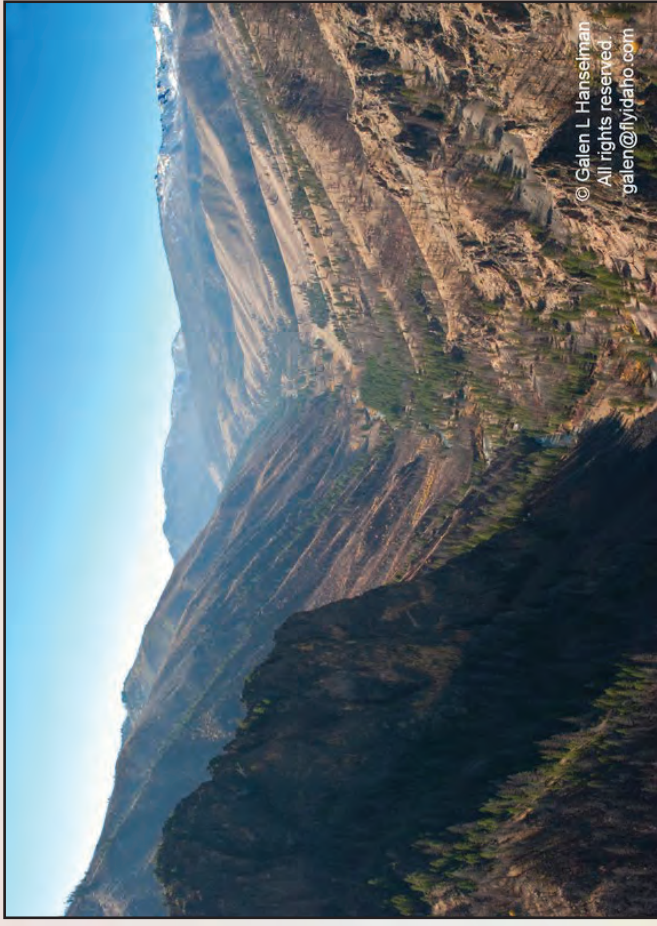
Route planning

Terrain? Fuel? Alternates? Outs?

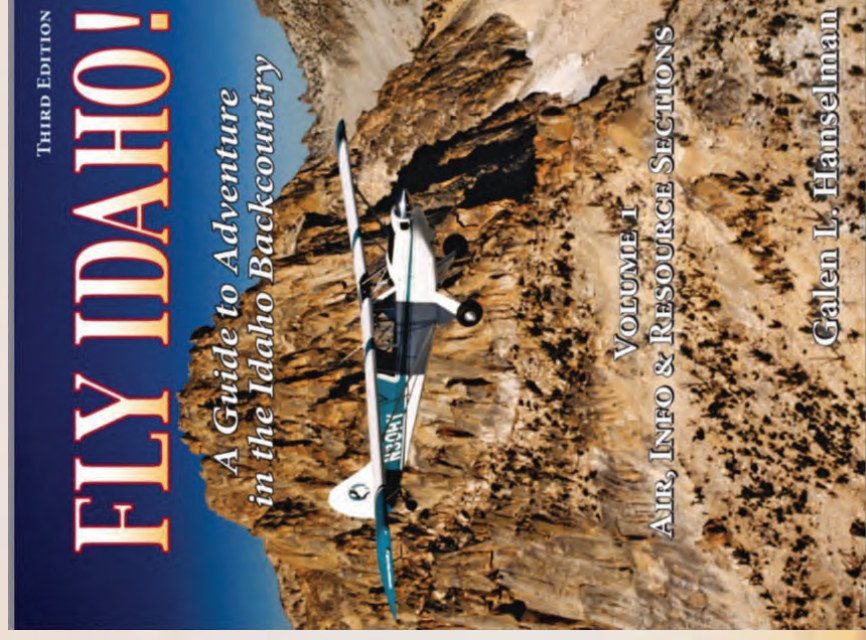


PREPARATION: ENVIRONMENT: AIRSTRIP RESEARCH

- Sectional Charts.
- Div. of Aero Airport Fac. Dir. Airport Operating Procedures
- Fly Idaho Book
- I.A.A. Website
- RAF Airport Guide
- None are a substitute for BC Training.



Fly Idaho – Galen Hanselman www.flyidaho.com



IDAHO AVIATION ASSOCIATION www.idahoaviation.com

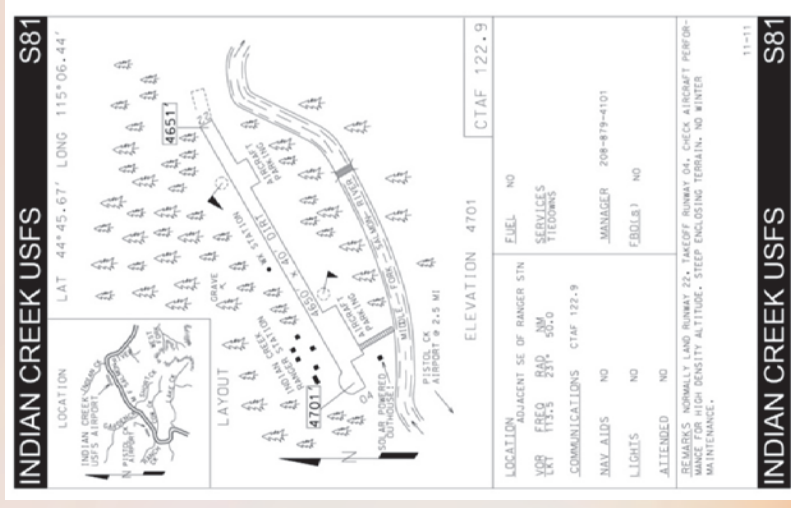


- **WX/Web cam**
- **PIRPS**
- **Services**
- **Features**
- **Contacts**

RAF AIROPT GUIDE www.airfield.guide (no .com)

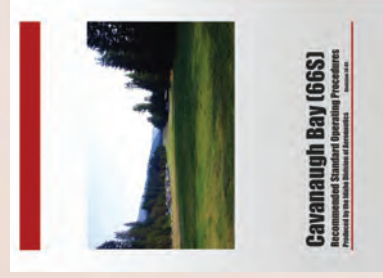


	ForeFlight		WingX Pro7
	Compass		CloudAhoy
	AWC - Aviator...		Idaho Airports



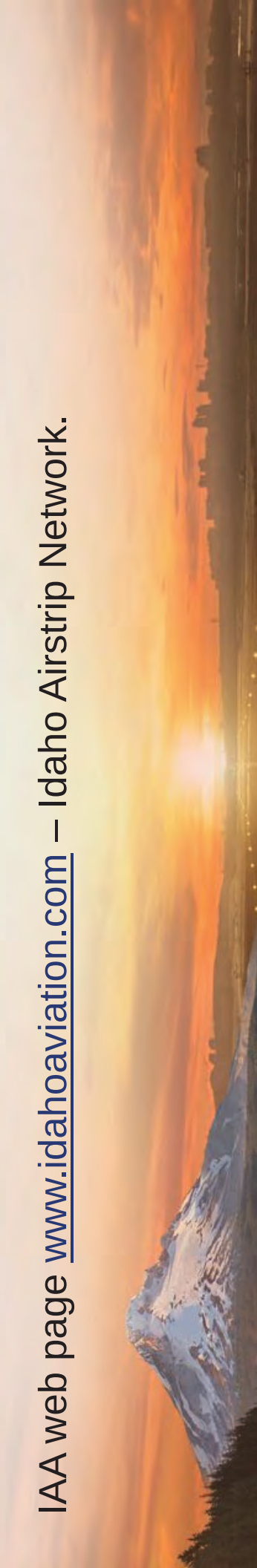
KNOW THE ENVIRONMENT

Standard Operating Procedures for some of the State owned and operated airstrips.



: <http://www.itd.idaho.gov/aero> - Publications

IAA web page www.idahoaviation.com – Idaho Airstrip Network.



ASSESSING A STRIP - DETAILS

- Approach, “Pattern”, Landing Spot
- Abort / Go Around Locations
- Runway Surface / Condition
- Taxi Way, Tie – Downs, Camping Areas
- Departure – Route, Obstacles, Climb Out Requirements
- Abort Points – Emergency Landing Spots
- Youtube – Good, Bad, And Ugly.
- Other Pilots Who Have Been There.
- Get Instruction.



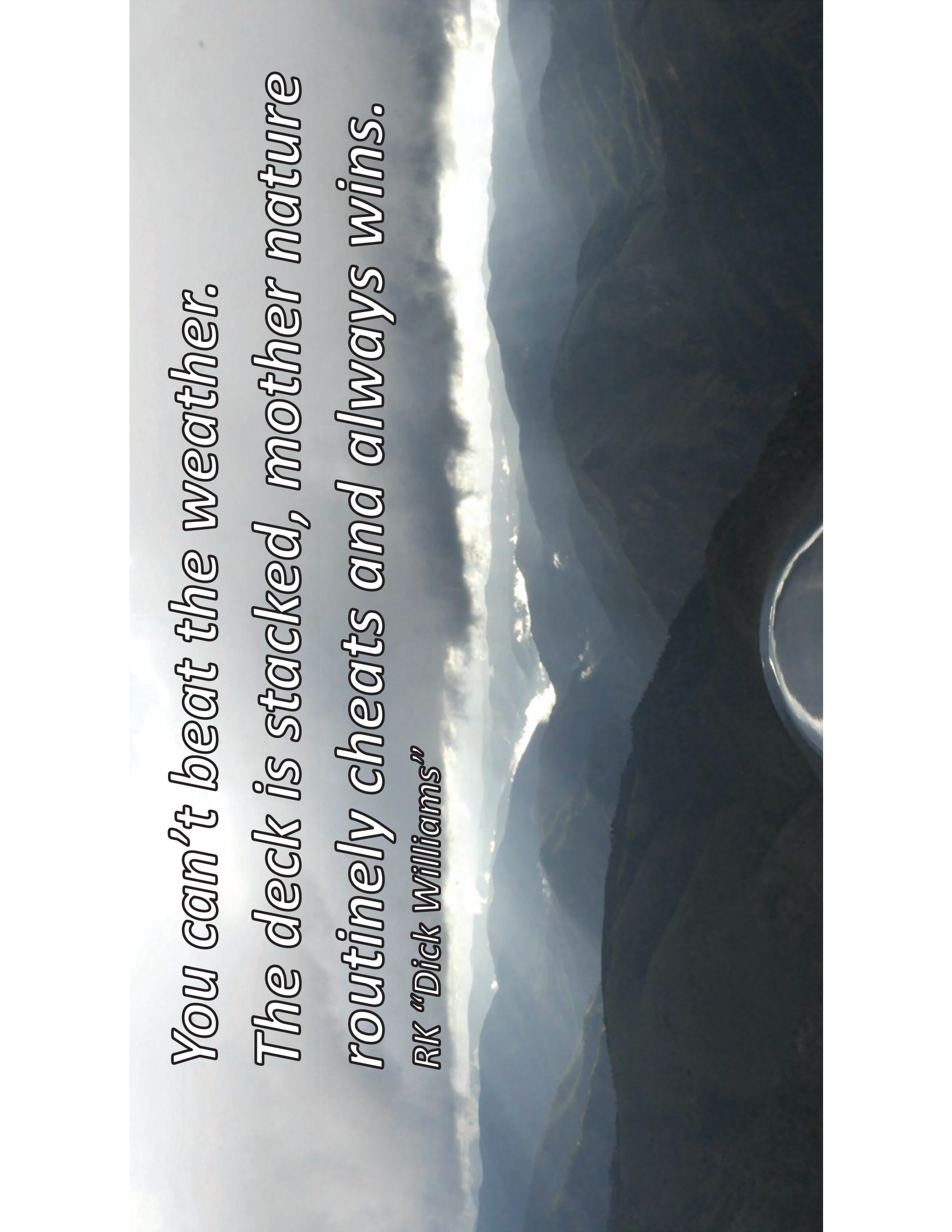
B.C. Weather



PREPARATION: WEATHER SOURCES

- ASOS / METAR'S / TAF — May not be close. Will not forecast fog, valley fog, squalls, canyon turbulence.
- Cell Coverage ?
 - Surprisingly, some at higher altitudes ~ 9-10K'
 - Not in canyons
- Internet: Web Cams. / BC WX /RAW's (remote automated WX)
- 1800wxbrief.com, ForeFlight, Windy, Aviationweather.gov
- In Flight
 - ADS-B (in) FIS-B – ground based
 - Sirius XM WX – Satellite based.





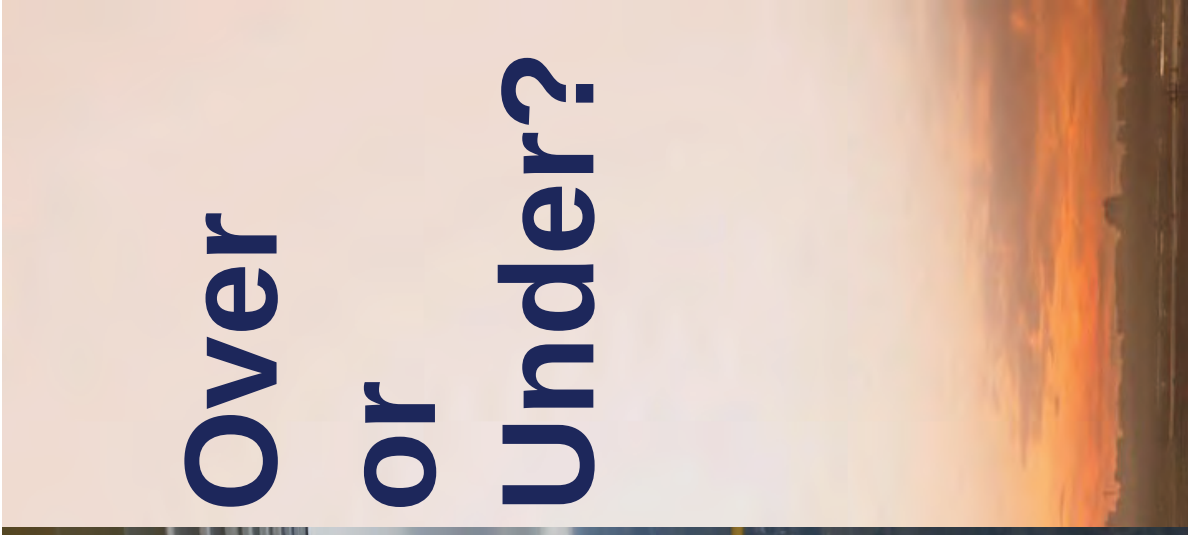
*You can't beat the weather.
The deck is stacked, mother nature
routinely cheats and always wins.*

RK "Dick Williams"

Valley / Canyon Morning Fog



Over or Under?



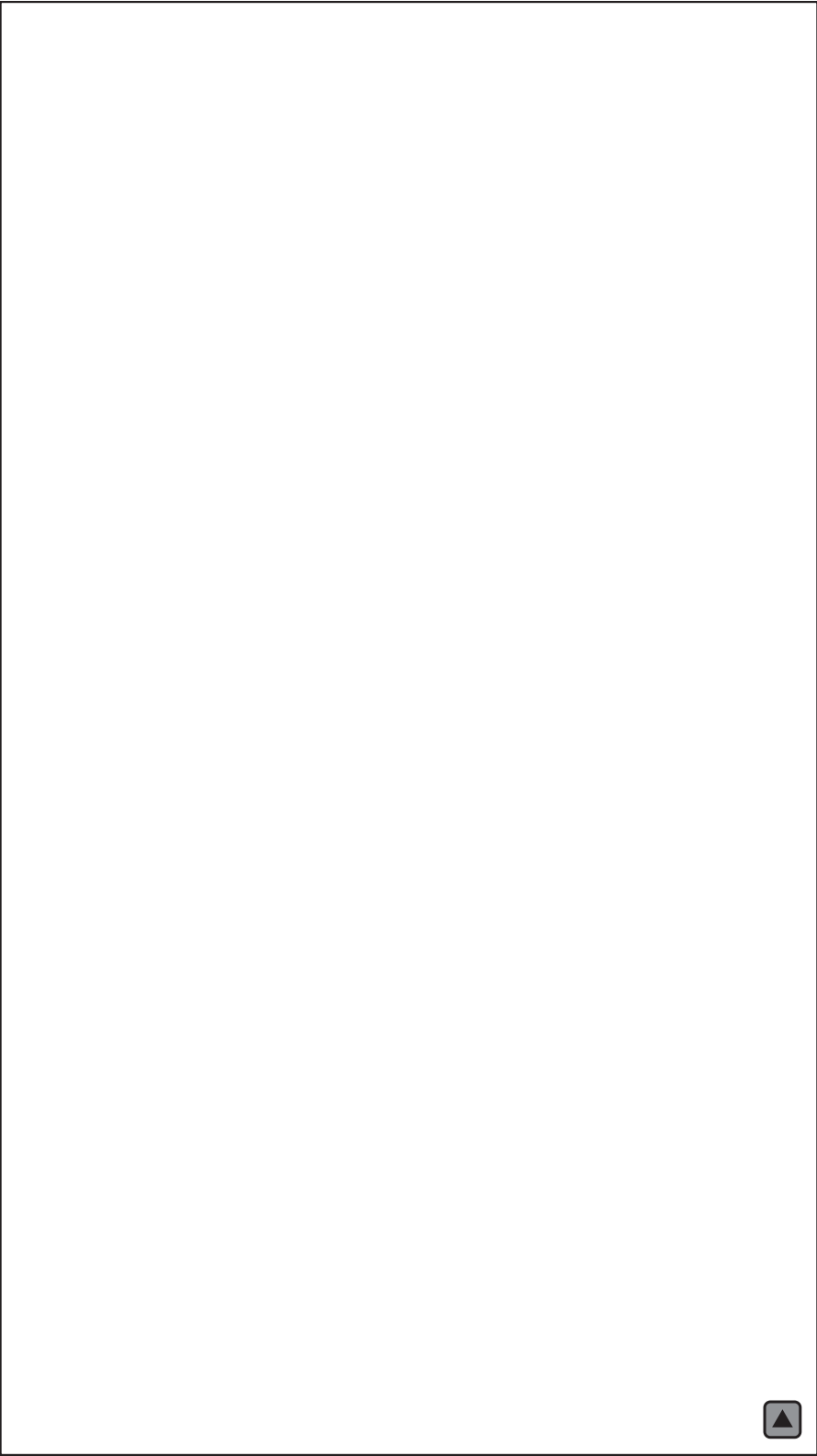
*Fire, Smoke, Always a Threat
Check TFR's*





R.K. “Dick” Williams Rule: “The Wind Doesn’t Blow – It Sucks”





Air flow over mountains

Downdraft

Upwind Airflow

25 KT

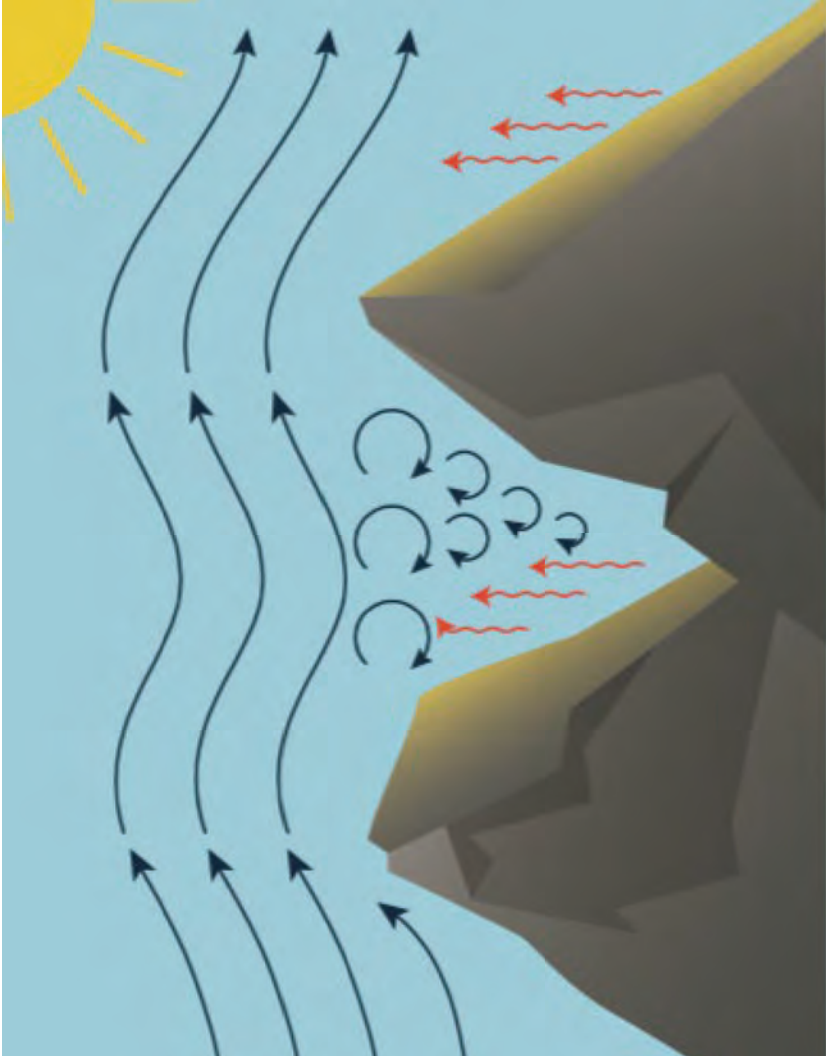
Downwind

Orographic cloud and possible IMC conditions on upwind side

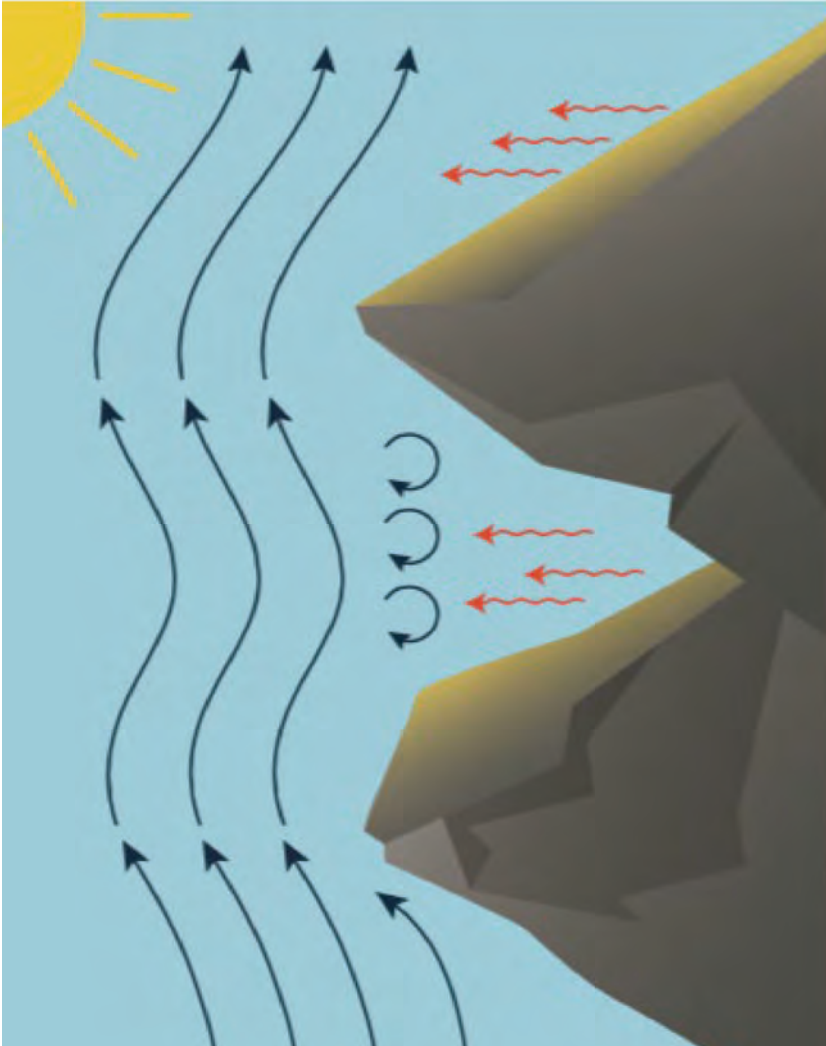
Strongest wind speed and turbulence on downwind side, also warm and dry

> 2000 FPM



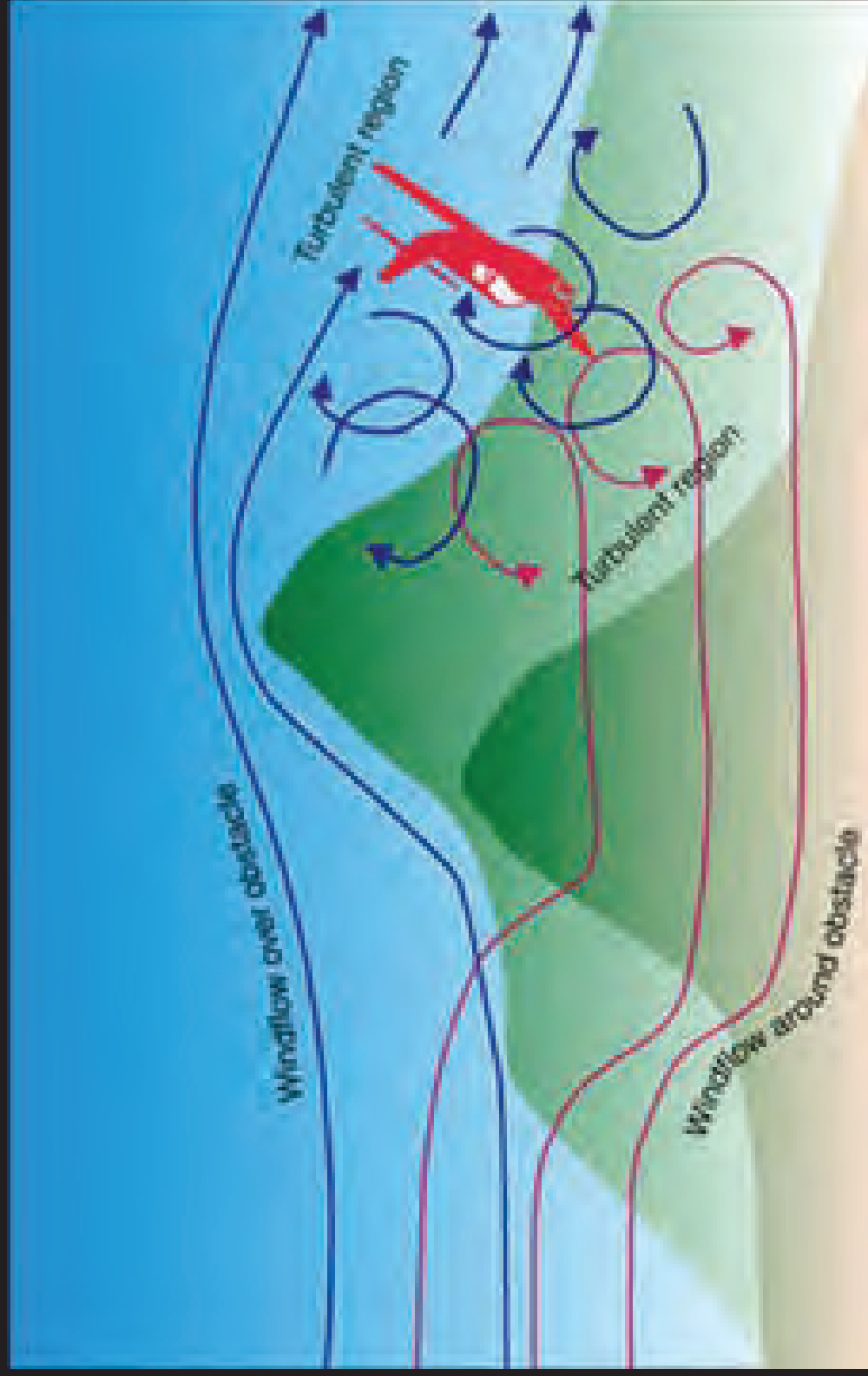


With a very strong wind, solar lift interacts chaotically with orographic effects, creating turbulence and unpredictable winds throughout the canyon.



With a stronger wind, rising air from solar lift creates a cushion of air in the canyon bottom. There is lift low in the canyon, but turbulence near the ridge tops.

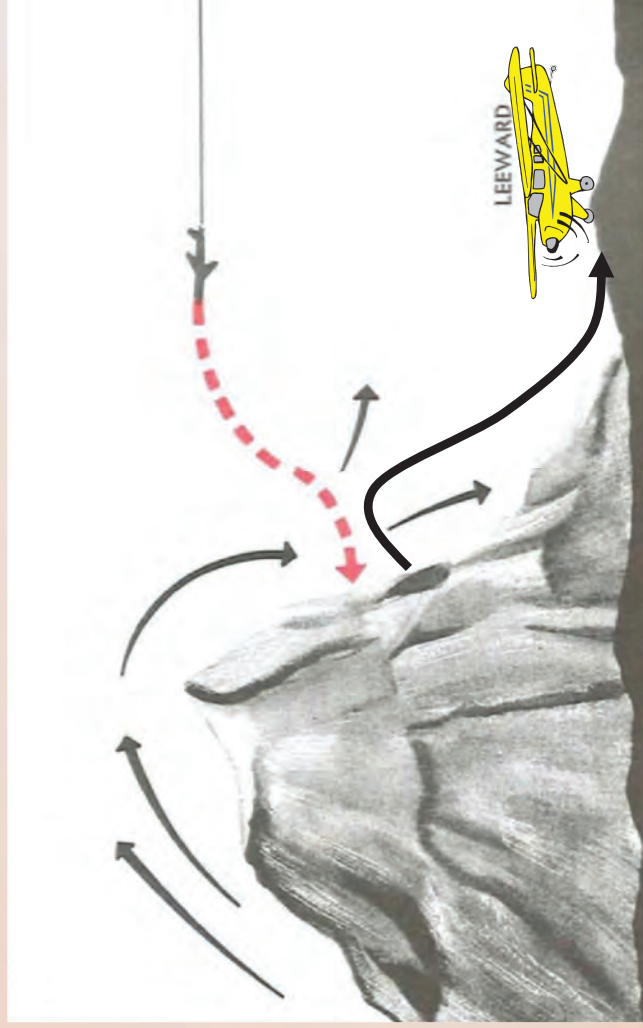
Mechanical Turbulence



Diurnal Effect, Venturi, and Convergence



DOWNDRAFT PRODUCED HEADWIND



- Takeoff into wind may produce rapid initial climb out, but leave you climbing into downdrafts.
- May have to take off with a tailwind. Will degrade takeoff and climb out performance, but may allow you to climb into updrafts as you cross canyon.



Lenticular Clouds

Mountain Waves

Reno

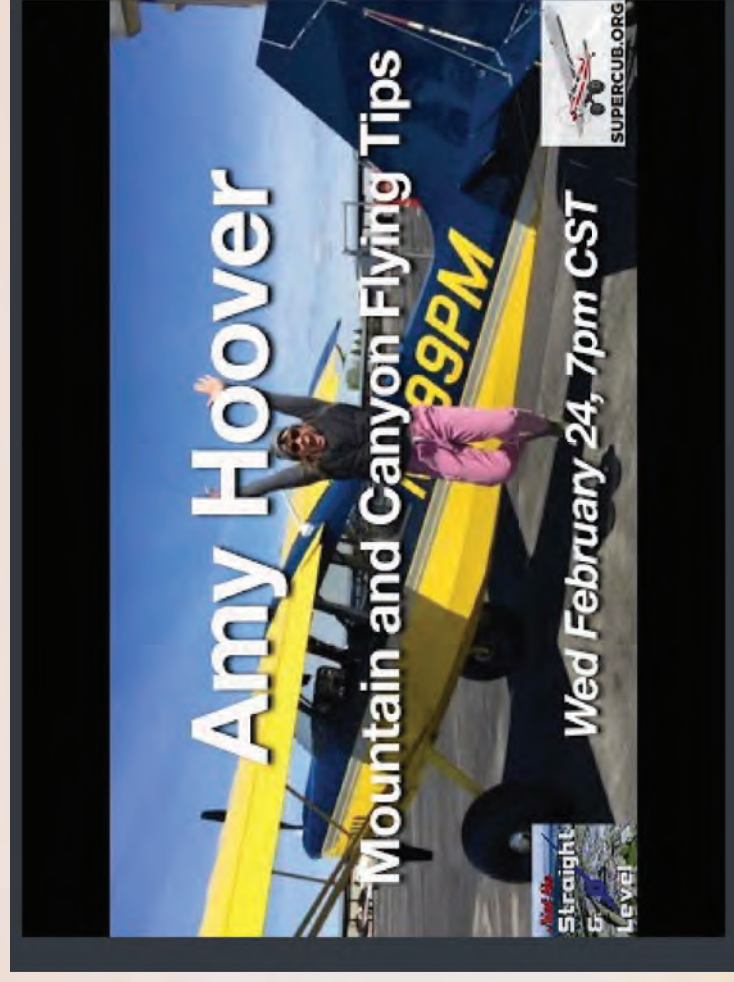


WEATHER AND PERFORMANCE

- Be Respectful Of The Weather.
- It's Ok To Be Chicken - Better Than A Dead Duck.
- Don't Scud Run In The Mountains!
- If There's Any Doubt, There Is Not Doubt, Wait It Out.
- Always Give Yourself An...out!



Amy Hoover – Weather Presentation



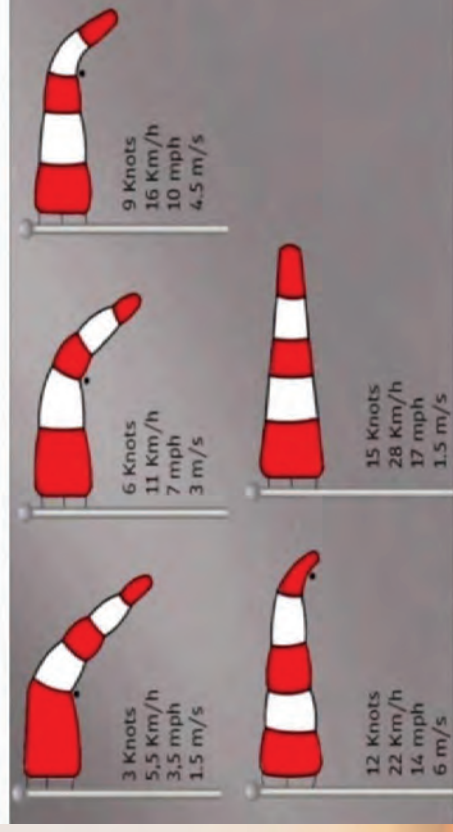
Canyonflying.com

Supercub.org Hanger Hump Day Presentation- Weather

<https://www.youtube.com/watch?v=AG0dwOCNaE8>

REMEMBER

WIND, HEAT and TURBULENCE ARE OUT TO GET YOU



Rules of Thumb



RULES OF THUMB FOR THE BACKCOUNTRY

- Do not fly in the Mountains with winds aloft in excess of 25 Knots - less with less experience.
- In general, plan to arrive / depart by 10 AM or late evening when wind calms down and temperature is cooler.
- Always have an OUT
 - Be able to turn to lowering terrain.
 - WX or Emergencies - Always have a landing area in mind
 - Be able to turn 180 in Canyons; $\frac{1}{2}$ Canyon width.
- 80/20 Rule – 80 Knots / 20deg Flaps (C206/C182) – when things get tense or need to slow down.

WIND, HEAT and TURBULENCE ARE OUT TO GET YOU



RULES OF THUMB FOR THE BACKCOUNTRY

- 50% Take-Off Rule - if not at 71% rotate IAS at 50% of runway length - ABORT. (conservatively $75\% \times 50\text{kts} = 37.5$ round to 40kts)
- Approach ridges at 45° angle before crossing, at least 2,000' in turbulence.
- Fly over the mountains 1,500 – 2,000 AGL.
- In Canyons – Convention Fly the right side (unless in downdrafts Canyon speed – low noise impact.
- Land Up River – Take Off Down River.
- Communicate your position frequently on 122.9

WIND, HEAT and TURBULENCE ARE OUT TO GET YOU



Know Your Aircraft's Performance Density Altitude



DENSITY ALTITUDE

- Insidious, easy to overlook
- High DA is a factor in many accidents
 - Especially in the backcountry
- Mixture
 - Lean for takeoff and landing



At A Given GW, High DA Means:

- 1. Reduction in engine horsepower
(loss of prop efficiency, lift)**
- 2. Longer takeoff and landing rolls**
- 3. Decreased climb performance**
- 4. True Airspeed Increases**



**This does not account for loss of propeller efficiency,
and loss of lift**

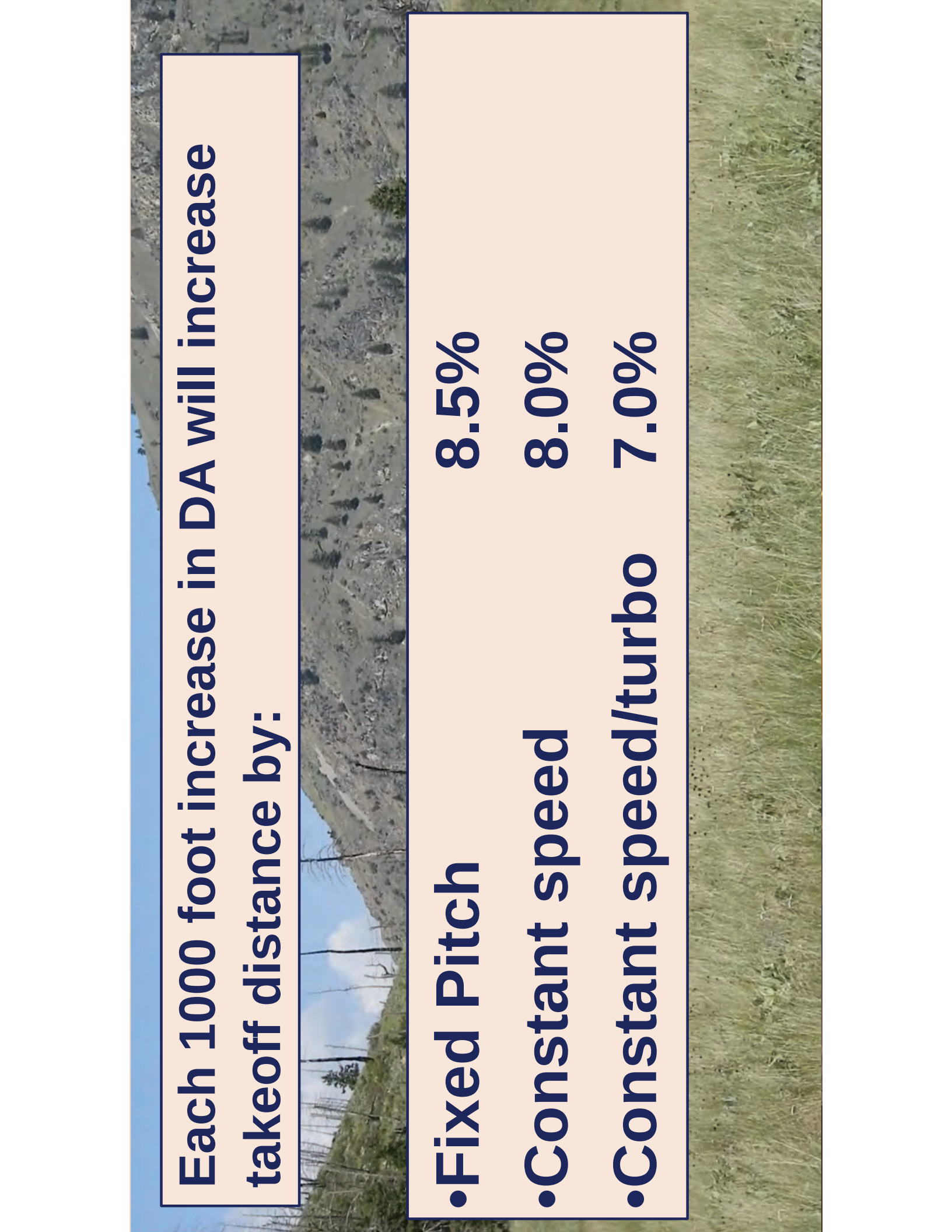


True Airspeed increases approximately 2% per 1000 ft increase in DA. Turn Radius increases ~ 5%



**Each 1000 foot increase in DA will increase
landing distance about 4%**

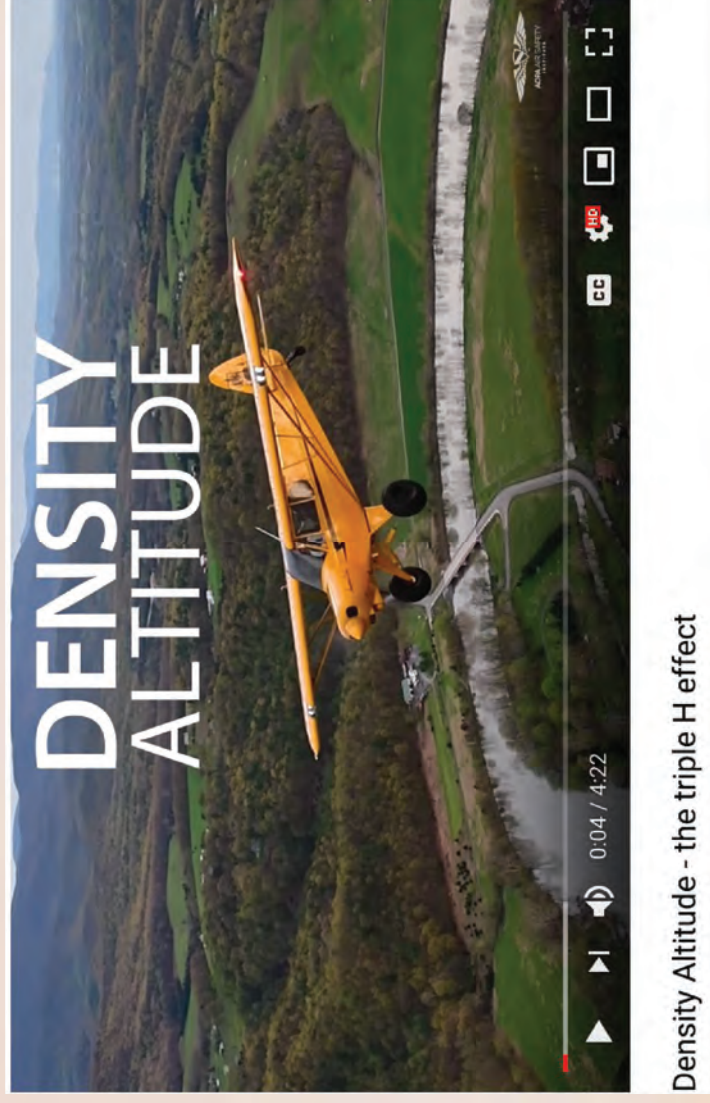




**Each 1000 foot increase in DA will increase
takeoff distance by:**

- Fixed Pitch 8.5%**
- Constant speed 8.0%**
- Constant speed/turbo 7.0%**

DENSITY ALTITUDE - ASI



Air Safety Institute

<https://www.youtube.com/watch?v=5yFIRHvoy4k>

DENSITY ALTITUDE ACCIDENTS: BRUCE MEADOWS, ID

Example of not knowing Self / Aircraft / Limitations and/or Complacency

Excerpt from NTSB Report: On June 30, 2012, about **2:05 PM** Mt DT, a 165 HP/2400# GW Stinson 108-3, was substantially damaged after impacting terrain during initial climb near the Bruce Meadows Airport (U63). The certified commercial pilot sustained serious injuries, and the three passengers sustained minor injuries.

MYL ASOS at 19:51Z 1608KT **27(81F)** A3000

U63 is 6370', DA = 9,050' @ 165HP=120hp!!





CASE STUDY: BRUCE MEADOWS, ID



Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's inadequate preflight planning and decision to takeoff at a density altitude outside of the airplane's takeoff performance envelope, with a 10 Knt tailwind, and near (86# under) the airplane's maximum gross weight of 2400#, which resulted in the airplane's inability to climb and clear trees.



ANALYSIS

- What could he have done different?
 - Before taking off?
 - While taking off?
 - In the air?
- What did he do right?
- Lessons learned?



Take-Off's



TAKEOFF PREPARATION

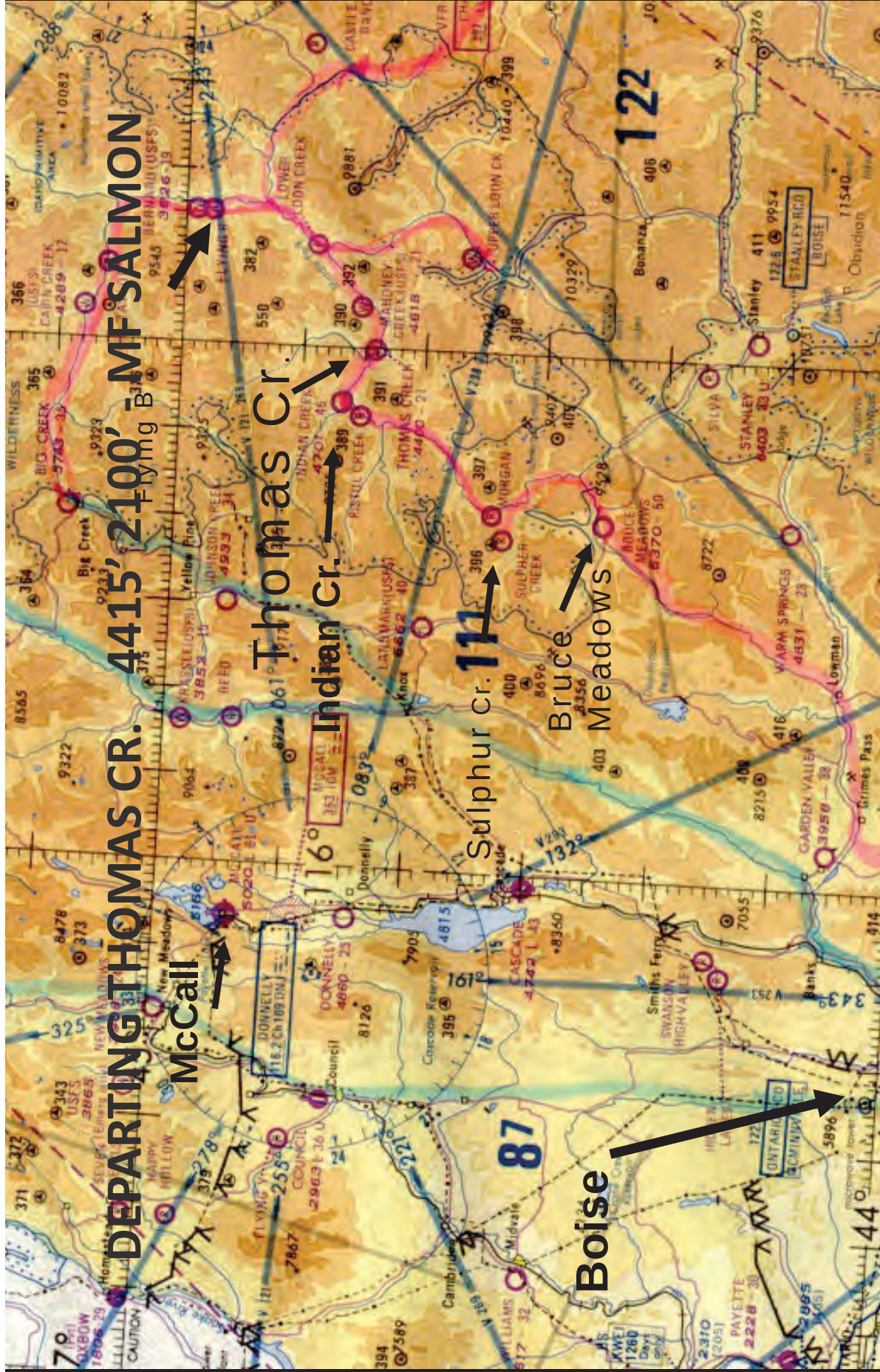
- Know you can takeoff before you land.
- Departure route ?
- Abort Plan ?
- Obstacles / Climb rate required?
- POH procedures
 - o Short/soft take off
 - o Lean for Max Performance



TAKEOFF PREPARATION

- Taxi - Walk It! – check for rocks, chuck-holes, dips, etc.
- Temp, winds - Take Off / Climb calculations.
- Locate 50% runway length mark and know 71% Vr.
- Mixture – SET (typically no run up), set on back taxi .
- Flaps at POH short/soft setting.
- Pre-Take Off Brief - route, abort plan, obstacles.
- Tailwind – Best to wait!

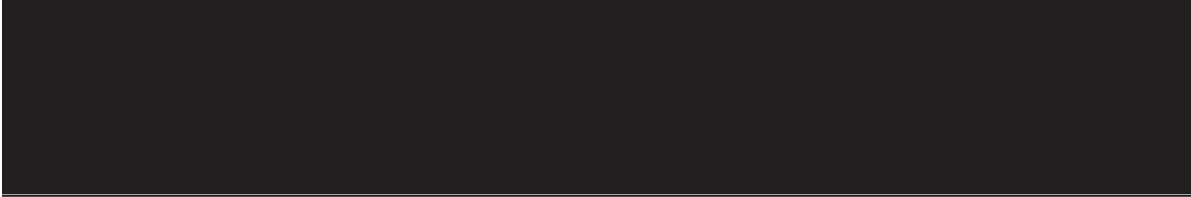






Interesting Take-Off's





SULFUR CREEK RANCH
5835' elevation
3300' x 40'

**Land to the west;
take off to the east**

.....if there is a tail wind....?





A biplane is flying over a vast, green, and hilly landscape. The plane is positioned in the lower-left quadrant of the image. A large, semi-transparent orange rectangle with a black border is overlaid on the right side of the image, containing a quote in black, bold, italicized text.

***Do not let yourself
be forced into doing
anything before you
are ready. — Wilbur
Wright***



C182 - Overloaded -tailwind - take off stall

NTSB: Sulphur Cr. Ranch, ID 8/4/2002

Probable Cause and Findings C182

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's inadequate decision and his improper setting of the propeller controls. Contributing factors were a tailwind, high density altitude, and swampy terrain.



Terrain / Canyon Flying

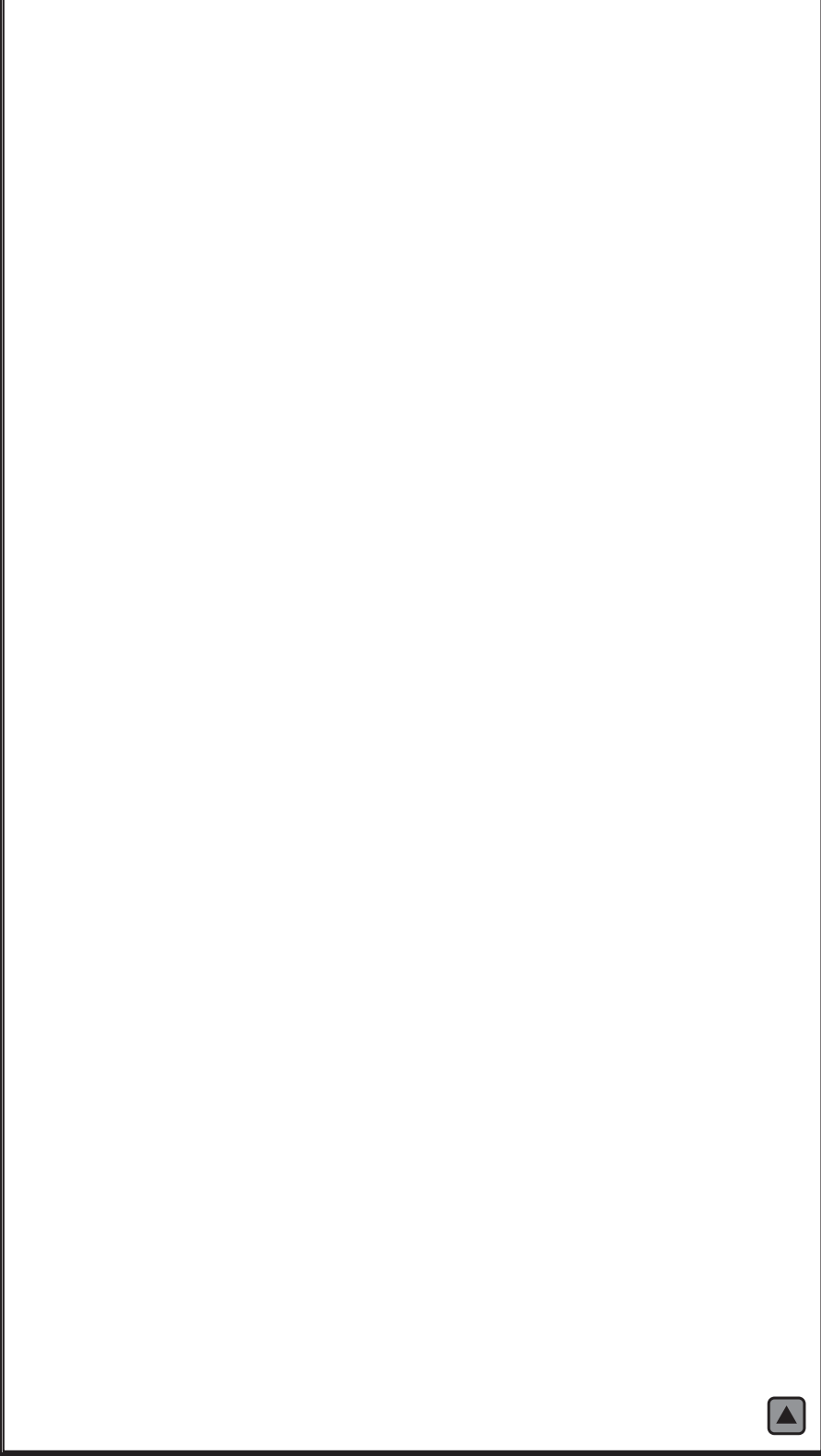


FLYING YOUR ROUTE: BACKCOUNTRY NAVIGATION

- Know your location –all times
 - Drainages look the same.
 - GPS – Terrain feature.
- Charts may not be enough
 - Other resources?
 - Topo maps
 - USFS Maps
- Big water vs little water
 - Big road vs little road?

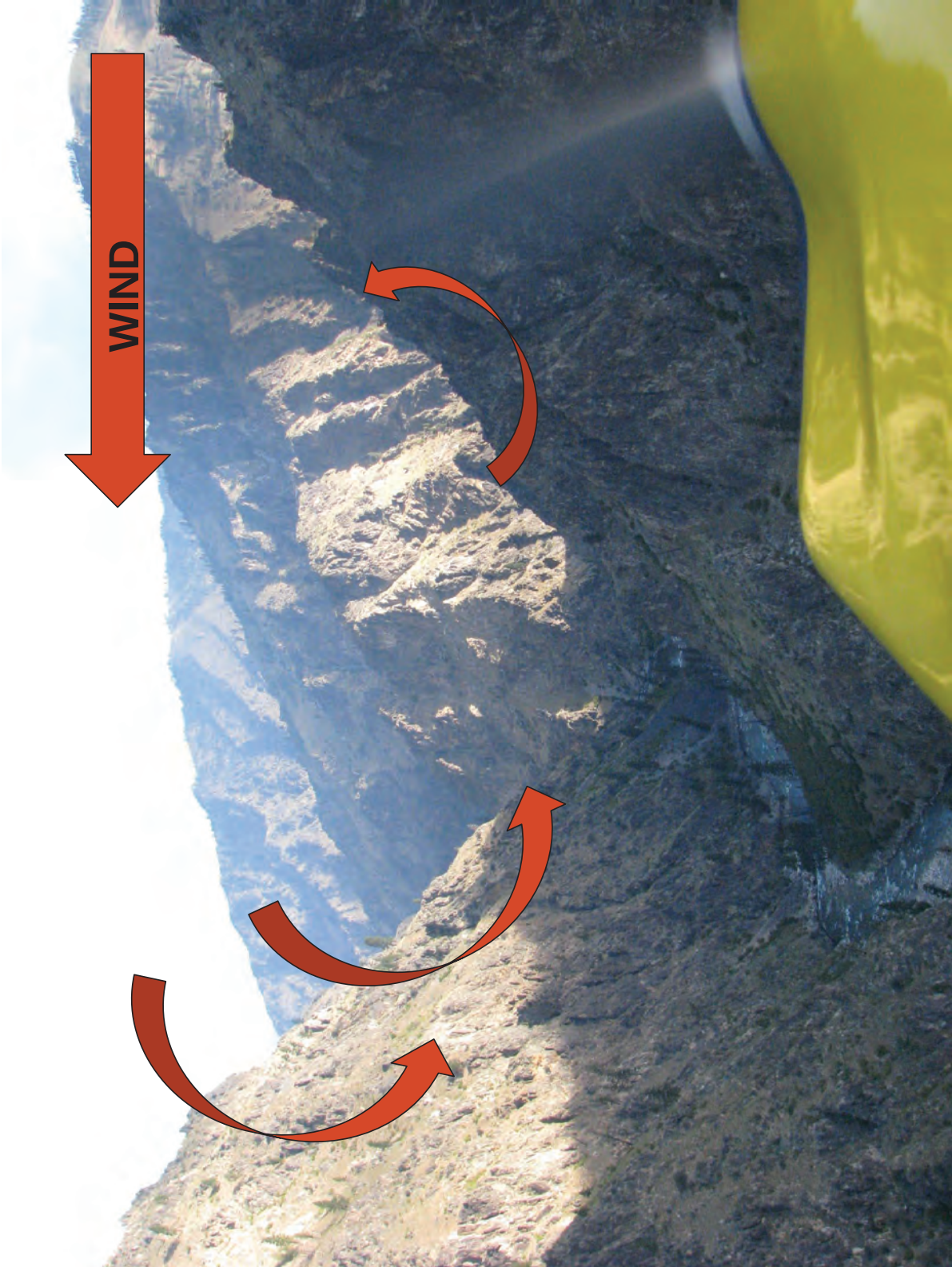
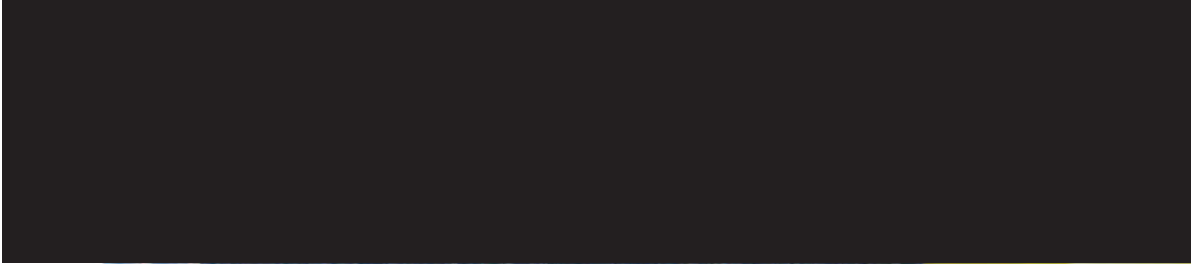


GPS, TERRAIN CAN PROVIDE ENHANCED SIT. AWARENESS





Which side?



Maneuvering in Terrain

Tendency to pitch up in rising terrain to follow the slope.

Raising Nose- airspeed slows, can cause a stall.

Tendency to pitch down in lowering terrain to follow the slope

Lowering Nose – increases ground speed and the turn radius - eating into our margin

When you need an OUT – Slow Down 80/20

- Weather ahead, clouds, rain, poor visibility, etc.
- Sun in your eyes, “black hole” effect
- Turbulence is present, up and down drafts
- A Ridge Crossing is approaching
- You are not familiar with the area

CANYON FLYING – WHICH WAY TO GO

Where is my out?

My Out is...



Always keep an Out!!



CANYON TURN

120 Knots – 30 Degree Bank

80 kt – 30 Bank

80 kt – 45 Bank



Approach / Landing



Landings are like farts. If you have to force one
it is probably crap.



BACKCOUNTRY LODGE WIDSOM



Sign at Sulphur Cr. Lodge



APPROACH

- SLOW down before approaching/entering pattern. (V_{80/20})
- Determine the abort / go-around point.
- Locate approach and departure paths and abort points.
- Locate Emergency landing spots.
- Determine Wind, gradient, surrounding terrain, obstacles.
- Animals/equipment/human activity, other aircraft.
- Possibly make a low pass to assess surface conditions and hazards.

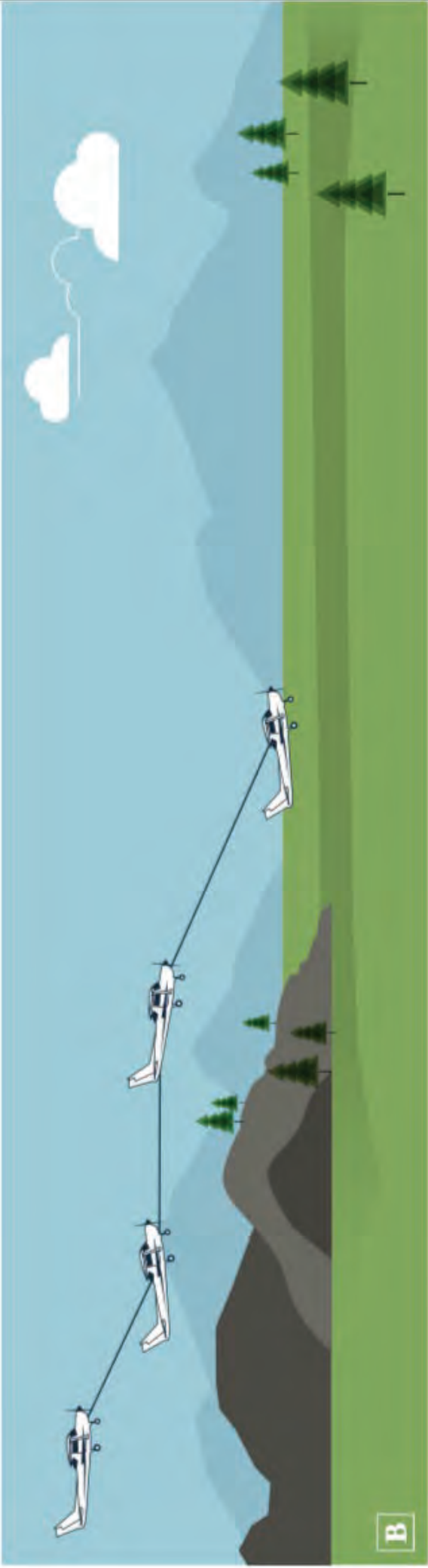
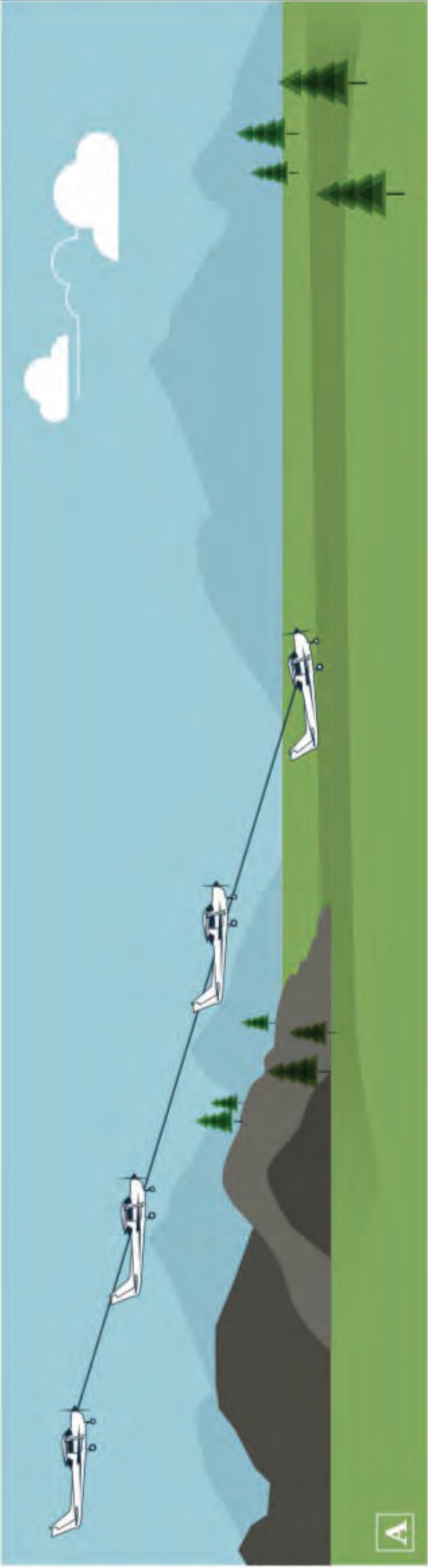




LANDINGS

- Stable – Constant airspeed - Power on approach.
- Pitch for Speed
- Power for Climb/Decent Rate
- Every airfield needs precise landing spot.
- Spot landings to the target spot.
- Keep centered.
- Taxi with caution.









Flying B Ranch

3647' elevation

2240' length

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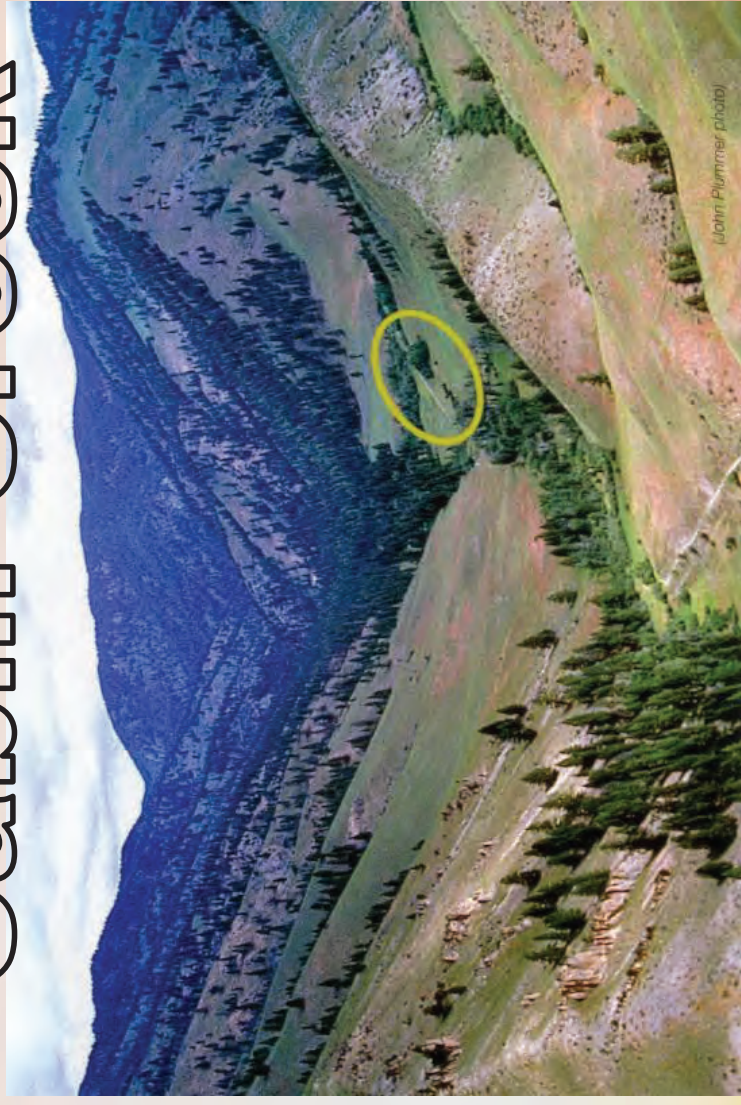
THE ABORT POINT – KNOW WHERE IT IS

Abort plan:

Select an altitude/location in the approach which is a HARD “no-go-around” point.

After that point – you are committed to land

Cabin Creek





Landing Accidents



Sulphur Cr. 8/5/2002
P210 - Too Low Approach – “Sinking Air”



*C210 – Landed Way to short – Bad Air?
Maybe power off – in sinking air?*



NTSB: Sulphur Cr. Ranch, ID 7/30/2002



Probable Cause and Findings C210

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's failure to maintain the proper rate of descent on short final resulting in a touchdown short of the runway threshold. Contributing factors were the variable winds and swampy terrain at the touchdown site.



Sulphur Cr. Landing/Taxi went awry
6/2011



Sulphur Cr Short field take-off



DANGERS OF A GO-AROUND

- What it means to fly past the abort
 - Don't try to do a go around
 - Lots of GA accidents on a go-around attempt – not just BC

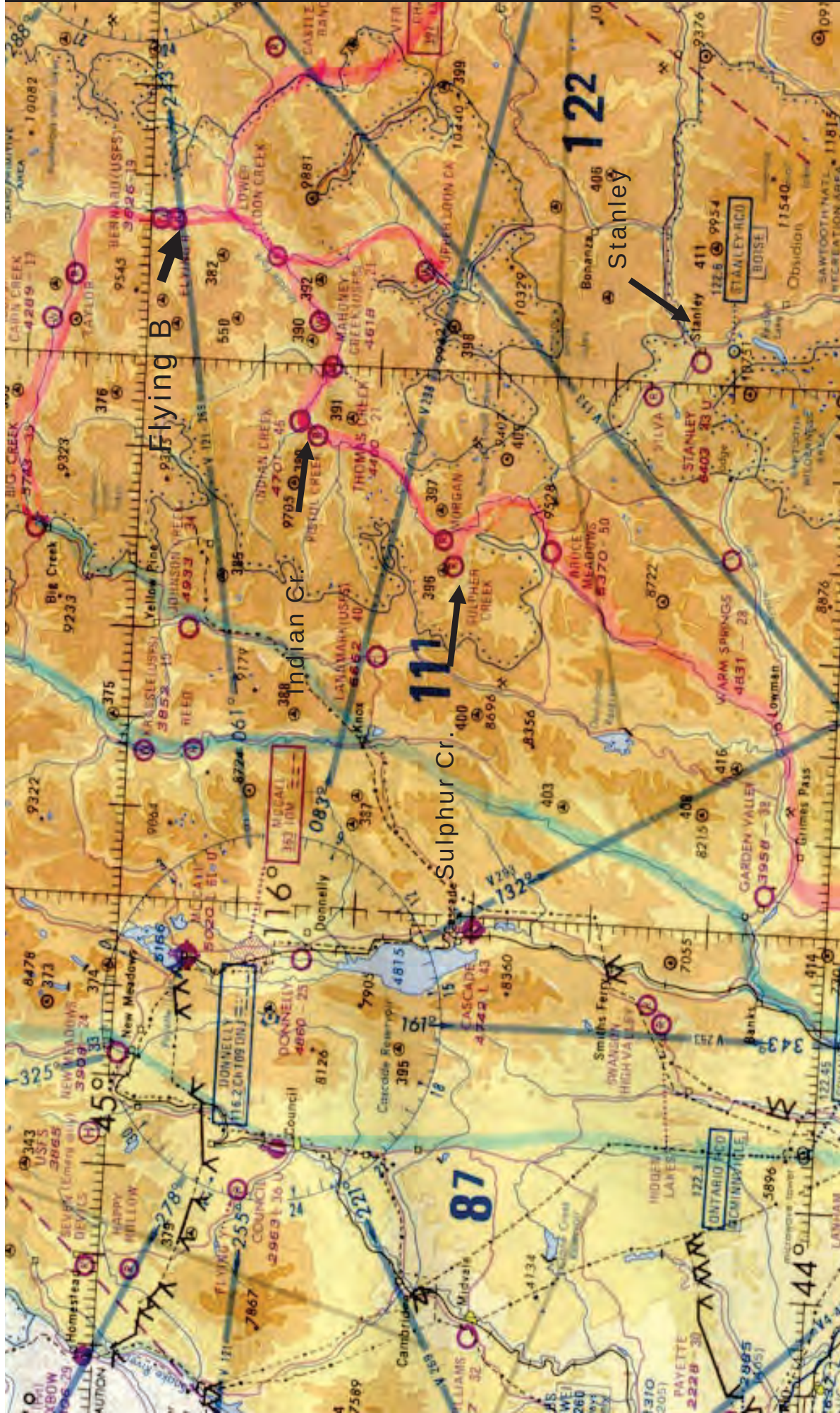


Flying B Ranch

3647' elevation

2240' length

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DANGERS OF A NO GO-AROUND

AOPA Air Safety – Flying in the Mountains
Real Pilot Story

<https://www.aopa.org/training-and-safety/online-learning/safety-spotlights/mountain-flying/flying-in-the-mountains>

<https://youtu.be/NGt6TmkYdUw>

Short, steep, and nestled against a ridge, Idaho's Dewey Moore airstrip is a discouraged destination for all but a select few pilots, as one aviator found out the hard way.



Emergencies / Survival





IN FLIGHT EMERGENCIES

- Loss of Engine - Always have an OUT
 - Standard Procedure – Best Glide
 - Have an emergency landing area in mind
 - Always be able to turn to lowering terrain.
 - Go for smaller trees – higher up
- **Don't stall – No matter what – Don't stall**
- **Stay with the aircraft!**
- Deteriorating weather
 - Turn back or find a place to land while you still can.





Be prepared – Post crash survival – “Luck Favors the Prepared”



**You may have only
what you are
wearing to survive
after a crash.**

In the airplane

- **Took kit**
- **Camping gear**



PREPARATION: SURVIVAL KIT / FIRST AID



- Survival kit is what you wear.
- First aid – Know how to perform.
- Dress appropriately or have warm clothes.
- Survival Skills.
- Consider Wilderness/First Aid Medicine Training



PREPARATION: SURVIVAL VEST ITEMS

- First Aid
- Fire Starter
- Shelter (heavy duty bag)
- Signaling devices
- Water - Food
- Paracord/Tourniquet
- Compass
- Survival Knife
- Wool Hat (with sewing needle)



DISPATCH WITH SOMEONE (FAA flight plan may not be possible)



Use a satellite tracking/communications device
PLB – Personal Locator Beacon (406 MHz)

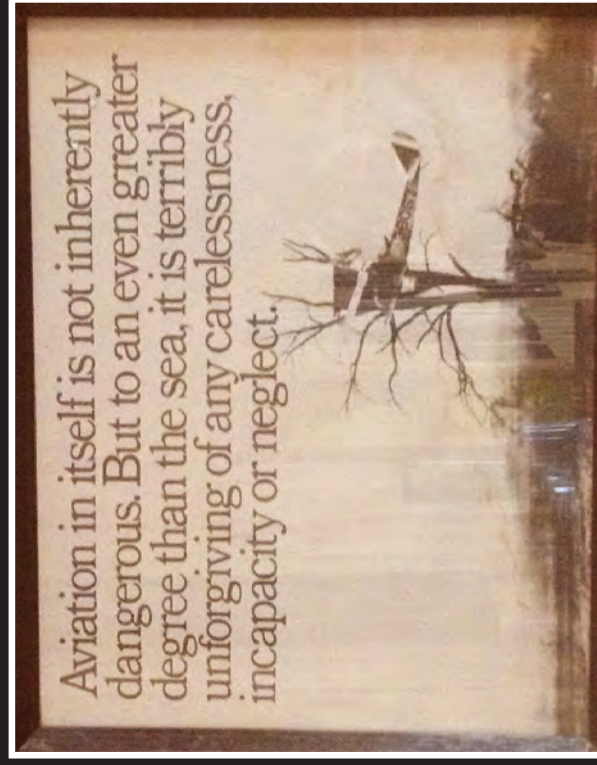


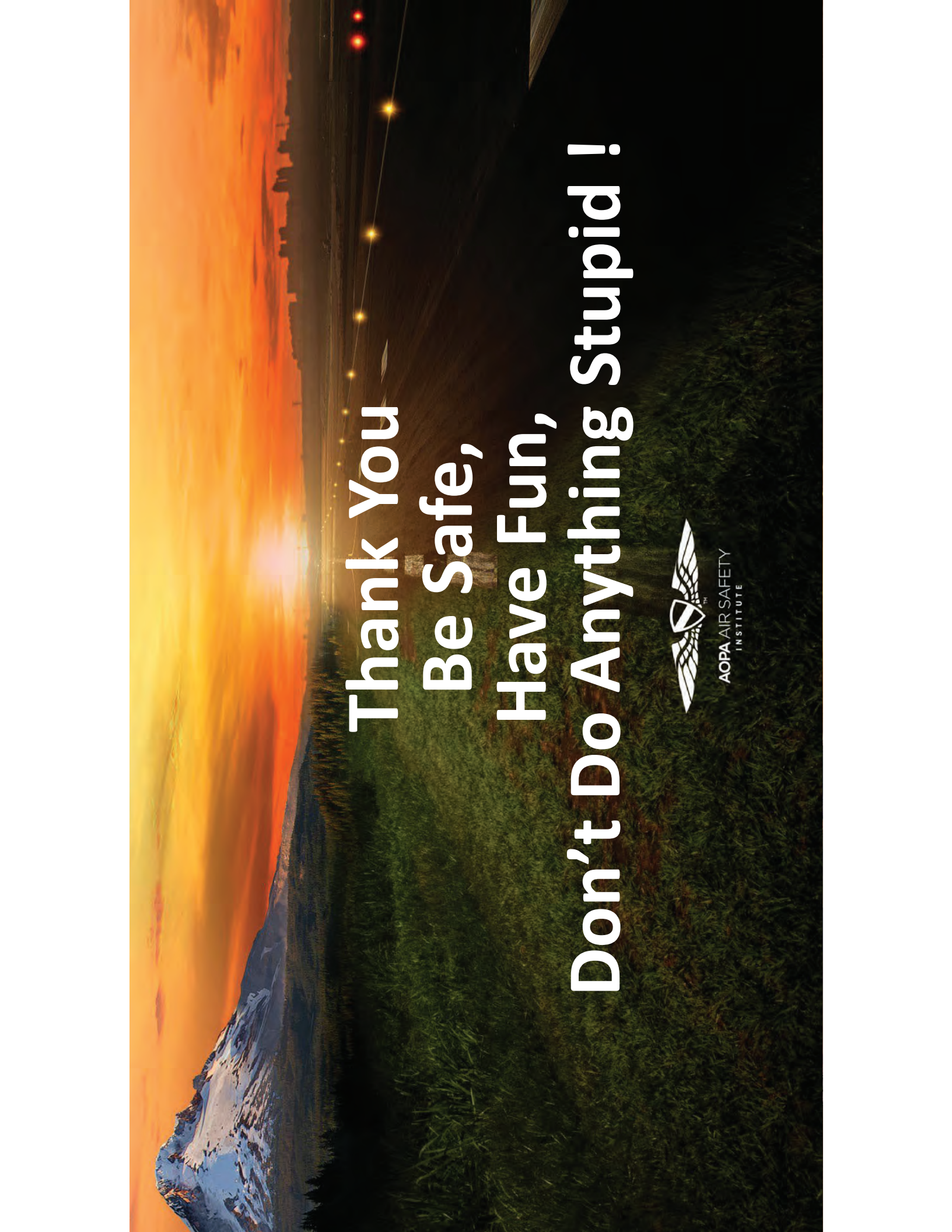
ABOUT THIS PRESENTATION – TAKE AWAY’S

- Learn Something New.
- Available Resources
- Better Understand Density Altitude.
- Know Yourself & Your Aircraft’s Performance.
- Refresher on Take-Off/Landings
- Understand And Respect Mountain/Canyon Weather & Winds.
- Realize importance of getting Instruction
- Be Safe – Have Fun



BACKCOUNTRY LODGE WIDSOM





**Thank You
Be Safe,
Have Fun,
Don't Do Anything Stupid !**



**AOPA AIR SAFETY
INSTITUTE**

Questions,

Comments?

Did you learn some things ?

Think you'll be a safer pilot ?

Learn some things you'll try?

Did you have fun?



