

# Aviation Wilderness Survival Kit an Emergency Preparedness Briefing

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## **DISCLAIMER**

While this knowledge is a compilation of information from various sources it is not a recognized or accredited source of aviation training information, and thus should be considered entertainment. Please consult a knowledgeable professional or authoritative source prior to putting any information found here into practice.





# Wilderness Survival Tips



## 8 Common Survival Mistakes

- Not Having or Creating Shelter
- Lack of Communication or Signaling Tools
- Poor Knowledge – Boy Scout Motto “Be Prepared”
- Miscalculating the Risk
- Wrong Clothes for the Environment/Season
- Lack of Drinkable Water
- No tools or plan for a Fire
- Not having a check in/check out partner and plan

# The STOP Protocol

**S**it down  
**T**hink  
**O**bserve  
**P**lan



# STOP/SIT

Sit Down

Drink  
Some  
Water

After  
Addressing  
Injuries

Calm  
Yourself –  
take a few  
slow  
breaths

Take a Few  
Moments

Do Not  
Panic

**S**it down  
**T**hink  
**O**bserve  
**P**lan



# THINK

Take  
Inventory

What do  
you need  
to do  
next?

Review the  
Situation

**S**it down  
**T**hink  
**O**bserve  
**P**lan



What do  
you need  
to do next?

Consider  
your  
options!

# OBSERVE

Location

Visible  
Threats

Weather  
and Trends

Shelter,  
Water,  
Signaling

Time of  
Day,  
Daylight  
Left

**S**it down  
**T**hink  
**O**bserve  
**P**lan



# PLAN

Only after  
calming  
down!

Water  
Planning

Sit tight...  
moving  
without a  
plan is a  
disaster

Food  
Planning

Shelter  
Planning

**S**it down  
**T**hink  
**O**bserve  
**P**lan







## Survival Rule of 3's

- Survival without Air 3 Minutes (maybe)
- Shelter 3 Hours (seasonal)
- Rest 30 Hours
- Water 3 Days
- Food 30 Days

But do you really want to test any of these?



# Psychological Barriers to Survival

- Injury and Illness
- Thirst and Hunger
- Cold and Heat
- Fatigue / Sleep Deprivation
- Depression
- Fear, Anxiety, Panic
- Resignation

## Develop a Survival Mindset

- Control Your Fears
- Manage Your Emotions
- Put Your Fear In Check
- Practice the Basics of Survival
- Mental Mindset sometimes trumps Skills and Resources



# Wilderness Survival Stories

## Juliane Koepcke

- 1971 Peru – plane struck by lightning and broke apart mid-air.
- Juliane fell two miles to the jungle canopy only receiving minor injuries.
- Remembered and practiced survival skills learned from her father.
- Followed streams and rivers downstream until she found a boat and hut.
- Treated her own infected wounds and stayed at the hut till people returned.

Humans have done amazing things with scant resources but a strong survival mindset!



***The most important survival skill one can possess is mental toughness and a will to live.***



# Survival Mantra

- **I WILL SURVIVE**
- **I AM A SURVIVOR**
- **I WILL NOT FEAR**

**Repeat as needed**



# Training Resources:

People who train are better at managing emotions, controlling fears and have a better mental mindset when an emergency strikes than those who don't. It works for the military, first responders, physicians... why not for us civilians?

A few sources for wilderness survival training courses:

1. The Peaks, Inc – Montana – [www.thepeakinc.com](http://www.thepeakinc.com)
2. Lifesong Adventures – Oregon – [www.lifesongadventures.com](http://www.lifesongadventures.com)
3. National Outdoor Leadership School – [www.nols.edu](http://www.nols.edu)

Wilderness Medical/First Aid – Training and/or Certification:

1. University of Utah – Wild Med – [www.awls.online](http://www.awls.online)
2. National Outdoor Leadership School – [www.nols.edu](http://www.nols.edu)
3. Advanced Wilderness Life Support – [www.awls.org](http://www.awls.org)



# Use a Check In / Check Out Partner

- **Someone you check in with as you leave / and when you return.**
- **Who knows your route of flight / ETA / pertinent facts.**
- **Knows when you are late and will put in motion an action plan.**
- **Has a written plan of action you provide for a gone missing event.**

**Substantially increases your probability of being found and dramatically reduces the time frame of the search!**

**Tip the odds in your favor... use a SPOT or INREACH device on each flight and make sure your check in / check out partner has access to your account / tracks map.**



# Written Action Plan for Check In/Out Partner

## Late or Missing Airplane Procedures:

### Aircraft Information:

1960 Cessna 180 Magenta/White                      N334SC –60 gallons full fuel load – 15 gph  
1955 Piper PA-18 Super Cub Red/White            N1935P – 36 gallons full fuel load – 7 gph  
Survival gear adequate for all but the winter months – make sure they know which one I am in.

### Position Tracking via Garmin In-Reach:

A device that tracks your position every 10 minutes creating a “trail” of where you were as long as tracking is initiated at the device by the pilot. Whenever I go in the backcountry the tracking function will be on.

### Viewing Position Reports via Garmin In-Reach:

The position reports can be viewed on a mapshare or by going to my Garmin account and viewing the most recent tracks (they are separated by dates). Here are both methods:

<https://share.garmin.com/JohnDavis>    password: XXXX

Allows you to view my tracks... you can select them by date, and it will give you a map of my movements and last location with GPS coordinates.

<https://explore.garmin.com/>                      password: XXXXXXXXX

My portal address to my Garmin in-reach account. Here you can also view the map locations with GPS coordinates as well as any messages, etc. I may have sent.

Device email address for messages: [Jd4727@inreach.garmin.com](mailto:Jd4727@inreach.garmin.com)

The device allows me to enter an SOS call which goes to the Air Force Search and Rescue Coordination Center via satellite if I am able to initiate it. You can also send messages to the device via the above email address. I can text out to you or others using the device as well.

The access information should be provided to the authorities who are coordinating the search effort.

### Overdue or Missing:

1<sup>st</sup> - Idaho Division of Aeronautics at 208-334-8775. They coordinate lost aircraft within Idaho only.

2<sup>nd</sup> – FAA – 800-WX-BRIEF – inside or outside of Idaho call them and report a missing or overdue aviator.

3<sup>rd</sup> – If you can access garmin position data and isolate the county you believe me to be missing in call the Sheriff's Department for that county and file a missing aviator/person report. Let them know you have informed Idaho Division of Aeronautics (if lost in Idaho) and FAA.

4<sup>th</sup> – Andrew George – 208-794-4480 – ask him to assist in coordinating S&R efforts with agencies.

### Search and Rescue Insurance Coverages:

I have the following coverages to assist with Search and Rescue costs:

GEOS Medi-Vac Coverage – through Garmin In-Reach Subscription

GEOS Search and Rescue Coverage – through Garmin In-Reach Subscription

Life Flight Membership through Saint Luke's Health System

MedJet Medi-Vac Coverage 205-595-6626 – Member #LO122287094X

## Essential Information :

- Aircraft Type / N# / Fuel & Range
- Info/Instructions on Locator Beacon Account
- Call list / Instructions – Who to Call/What to Say
- Search and Rescue or Medivac coverages
- Any medical info 1<sup>st</sup> responders might need (allergies, meds, etc...)

**Typically 1 page – KEEP IT SIMPLE!**

**If you have a knowledgeable aviator or first responder who can assist include their information. Your spouse/significant other or check in/out partner might appreciate the assistance in a stressful time.**





## Aviation Wilderness Survival Kit Basics



## Wear it or Carry It? The Endless Debate

- My Approach... BOTH!
- Wearable vest is for 24-48 hour window
- Full kit is for 72 hrs + survival and comfort
- Both are available and maintained...
- Full survival kit is more like a “bug out bag” ...

Good article on Survival Vests and Content:

[The Survival Vest \(backcountrypilot.org\)](https://www.backcountrypilot.org)



Source- <https://www.backcountrypilot.org> – The survival vest and old concept for modern pilots -



## Survival Vest Considerations

- Does it fit well – try it on sitting, not standing
- Is it adjustable for seasonal layering?
- How will it work with your shoulder harness?
- Is it gonna be hot... highest % of use summer?
- Do you buy it packed or build your own?
- Bulky, Bulky, Bulky... with your natural bulk lets be honest you might not ever wear it.





## BOB Bag Considerations

- Bug Out Bag – designed for survival for 72 hours +
- Can it be carried backpack style?
- Is it easily accessible in the core of the fuselage?
- Rugged tear resistant cordura or similar?
- Buy it pre-done or build it yourself?
- Are your passengers aware of location/content?
- Do you conduct a passenger briefing on survival?





## The Big Five – Content Categories

Food and  
Water

Warmth  
and Shelter

First Aid /  
Sanitation

Safety &  
Signaling

Documents

Regardless of BOB Bag or Wearable Vest the Contents should address these five content categories

# Wilderness Survival Kit - Contents




And Perhaps the Most Important!

The  
MacGyver  
List



# Wilderness Survival Kit – Contents Considerations



## Food and Water

- Protein Bars, Nuts, Dense High Energy Foods
- MRE's or Freeze Dried Meals
- Backpack Stove/Fuel and Means to Cook a FDM
- Eating utensils, plate, cup
- Bottled Water – enough to get you started
- Water purification tablets or filtering device
- Don't forget a container to purify or filter into
- Hard Candy / Flask of Whisky or Your Favorite

# Wilderness Survival Kit – Contents Considerations



## Warmth and Shelter

- Fire starting equipment... could write a book on this, think redundancy and can I really use it.
- Portable saw, hatchet or similar for firewood
- Survival knife
- Tarp or better yet 2 tarps with grommets
- Para-Cord or Rope
- Bivouac bags or space blankets
- Leather gloves, warm gloves, socks, knit cap, long underwear – all can be sealed in a food saver packet
- Heat Packs – remember they have a shelf life



# Wilderness Survival Kit – Contents Considerations



## First Aid and Sanitation

- Appropriate first aid kit – many options to consider
- Consider injury and illness (e.g. intestinal issues)
- Don't forget bug repellent, sun screen, lip balm
- Toilet paper or wipes
- Hand/face wipes (dry out if not renewed)
- Allergy and/or bug bite treatments
- Lens wipes for glass wearers (dry out if not renewed)
- Tooth/mouth care – travel size listerine/toothpaste
- Remember lip balms melt... tube of carmex is best

# Wilderness Survival Kit – Contents Considerations



Safety and  
Signaling

- Signal Mirror Kit
- Print out of aerial signal communications
- Flashlight and extra batteries
- Headlight
- Smoke device (if not a fire risk)
- Whistle and/or Air Horn

# Wilderness Survival Kit – Contents Considerations



## Documents

- Cash
- Extra Credit or Debit Card
- Medical Insurance Information Card
- Information on evacuation or S&R Coverages
- Wilderness Survival Guide
- Paperback Book or Two
- Deck of Cards / Soduku or Crossword Puzzle
- Pen/Pencil/Paper
- STOP Protocol Printout including Survival Mantra



# Wilderness Survival Kit - Contents

## The MacGyver List



- Para-Cord
- Multi Tool
- Garbage Bags
- Duct Tape
- Bailing Wire
- Magnifying Glass
- Zip Loc Baggies
- Spork
- Zip Ties
- A charging device for your PLB
- Could go on and on and on.....



## Scale to the Kit

- Focus on the 5 categories but size the contents to 1-2 day vest or 3-5 day BOB
- For a short term vest a knife, water and water puritabs, fire starter kit and a couple protein bars and a few other essentials might be adequate.
- For your 1-2 day vest... make sure it is slim fitting enough you will actually wear it.
- On your full size BOB... consider weight and transportability.
- I have found the “build it myself” approach to be most useful and helps me be familiar.
- Pre-bought ones can be low quality and include stuff you would never use.



## #1 Item Everyone Should Carry

# PERSONAL LOCATOR BEACON

- Tons of models out there with and without monthly service agreements.
- Choose a model that offers two-way communication.
- Consider one that does not require a smartphone connection to communication two-ways.
- Do you have a dead battery plan... solar charging device and connections for example
- Can you carry it on you... armband, carabiner clip, etc... at crash sites devices are commonly found thrown many yards from the aircraft... clip it to you is advised.
- Do you know how to use it? You would be surprised how many don't!
- Does your check in/out partner know to access and use the system?
- Have you briefed your passengers on what it is, where it is and how to use it?



## Summary

- **Consider getting Wilderness Training in Survival and/or First Aid**
- **Make sure you have a Survival Mindset**
- **Practice and Study – have a written survival guide in your kit**
- **Memorize the STOP Protocol**
- **Teach your kids or regular flight companion survival skills/plans**
- **Carry a Personal Locator Beacon device and use it**
- **Have a check in / check out partner and plan in place and use it**
- **Brief your passengers before every backcountry flight**



# Thanks for Attending

I'll Leave You With the Boy Scout Motto:

## Be Prepared

Take Positive Action – Get Prepared / Be Better Prepared Now!



## Thank You For Your Membership!