

The Three Essentials of Good Judgment

Or.....

What's going on?
 What should I do?
 Do I really have to?

Presented by Russell Holtz

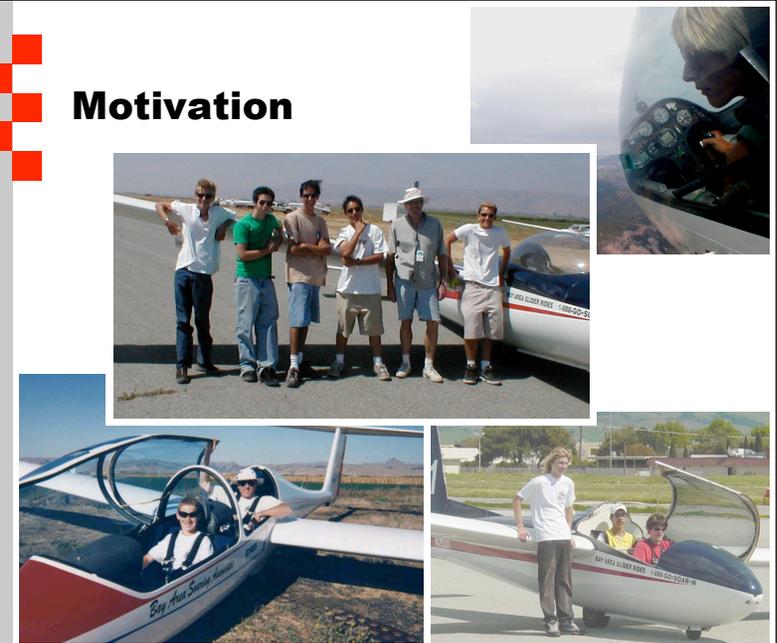


The Three Essentials of Good Judgment

- Situational Awareness
- Decision Making
- Self-Discipline



Motivation





Goals

- Share my judgment model
- Provide a framework for discussing, teaching, and evaluating judgment
- Improve safety by increasing awareness of the judgment process



Overview

- Situational Awareness
- Decision Making
- Self-Discipline

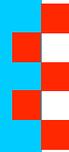
- Definition
- Obstacles
- Warning Signs
- Ways to Improve

- Example



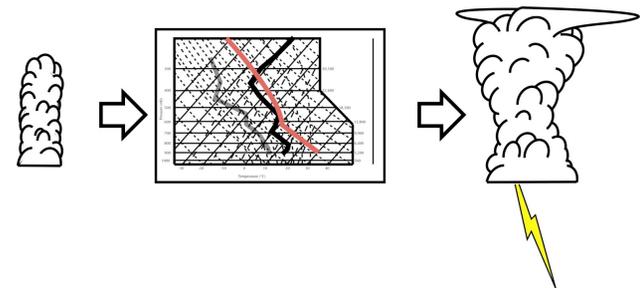
Situational Awareness

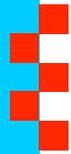
- Perceive
- Interpret
- Predict



Situational Awareness

Perceive Interpret Predict





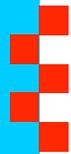
Obstacles to Situational Awareness

- Ignorance
- Fixation/Distraction
- Overload
- Complacency
- Fatigue
- Stress



Warning Signs of Decreasing Situational Awareness

- Getting “behind” the glider
- Confusion
- Difficulty making decisions
- Feeling rushed/overwhelmed



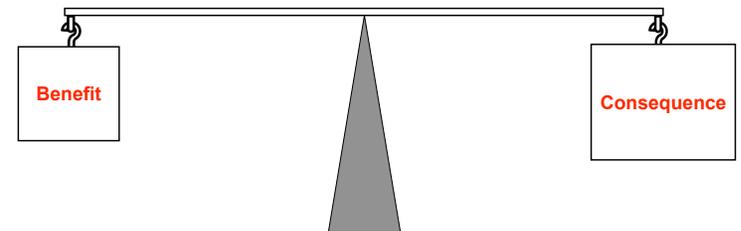
Improving Situational Awareness

- Knowledge
- Proficiency
- Planning
- Prioritize/Simplify
- Fly within your limits



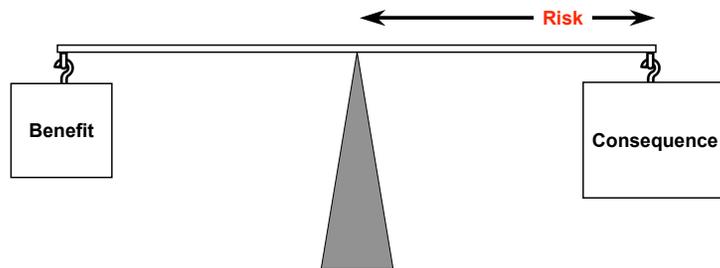
Decision Making

Weighing the **BENEFIT** vs. the **CONSEQUENCE**

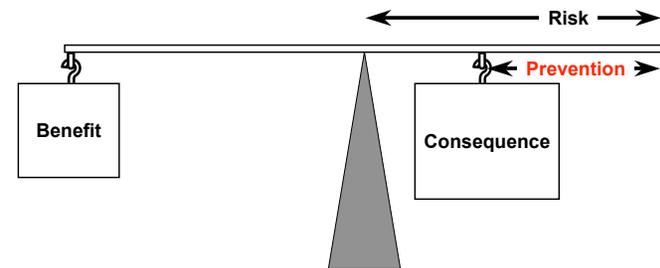




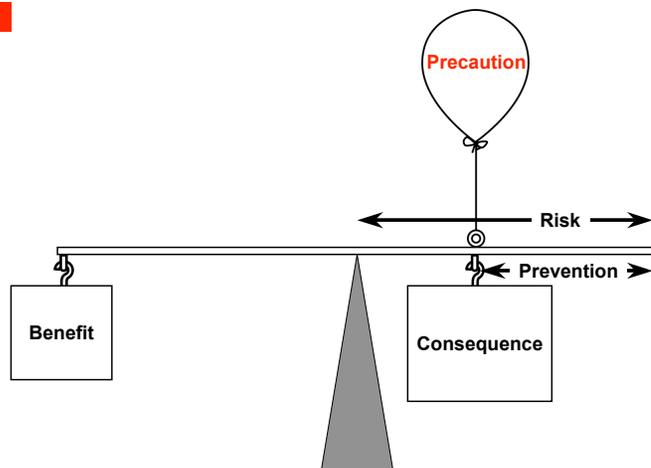
Factoring in **RISK**



Factoring in **PREVENTION**



Factoring in **PRECAUTIONS**



Decision Making Definitions

Benefit: What can be gained

Hazard: What could go wrong

Risk: Chance of encountering the Hazard

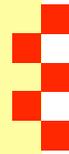
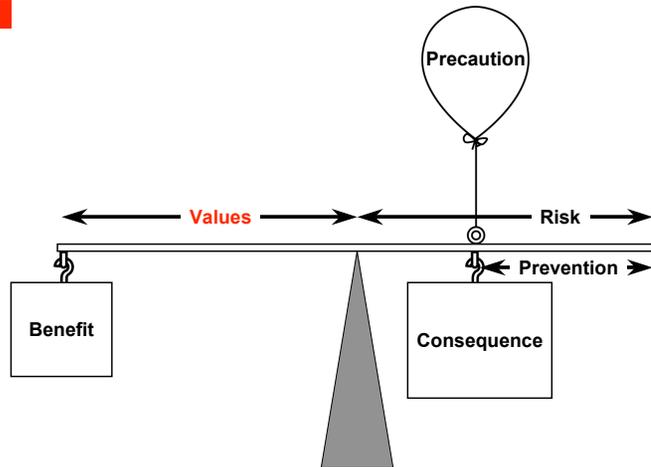
Prevention: Reduces the Risk

Consequence: Result of encountering the Hazard

Precaution: Reduces the Consequences



All decisions are based on your **VALUES**



Values



“Rational”

Safety
 Responsibility
 Societal



“Emotional”

Adventure
 Gratification
 Selfish



Values



Which one of these guys do you want in charge of **YOUR** safety?



Decision Making Example:

Benefit: Gold Badge

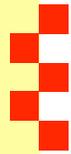
Hazard: Land-out

Risk: Depends on conditions

Prevention: Pick a day with strong lift
 Be proficient at thermaling
 Fly airport-to-airport

Consequence: Stranded
 Damage glider
 Personal injury

Precaution: Bring a survival kit/phone/radio
 Be proficient at low-energy landings



Obstacles to Good Decision Making

- Undefined Values
- Unstructured Process
- Ignorance of Hazards, Risks, or Consequences
- Immaturity
- Urgency



Decisions that can be made before a flight:

- Will you follow the FARs?
- Will you follow club rules?
- Will you follow the flight manual airspeed limitations?
- Will you follow the flight manual weight and balance limitations?
- How low will you get before choosing a general area to land in?
- How low will you get before choosing a specific field to land in?
- How low will you get before you commit to landing?
- Will you fly near a thunderstorm?
- Will you use a field as an alternate if you have not inspected it from the ground?
- Will you use an airstrip as an alternate if you have not inspected it from the ground?
- What is the strongest crosswind you will land in?
- Will you fly cross-country without a crew?
- Will you fly airport-to-airport?
- What safety factor will you use when computing your glide slope?
- How high must you be when you arrive at an airport?
- What will you do if the rope breaks below 200'?
- What will you do if the rope breaks between 200' and 600'?



Warning Signs of Poor Decision Making

- Making decisions in the air that could have been made on the ground
- Undesirable (or nearly undesirable) outcomes
- Scaring yourself (or others)
- Feeling like the outcome of a flight depends on "luck"

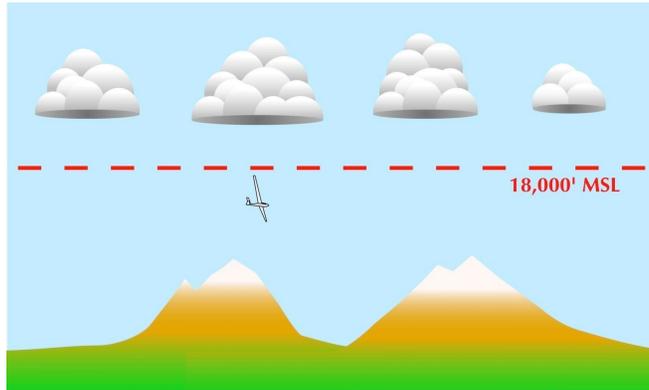


Improving Decision Making

- Define your values
- Plan ahead
- Practice using a systematic process
- Learn

Self-Discipline

The ability to carry out a decision you have made



Obstacles to Self-Discipline

- Fixation on a goal
- Impulsivity
- Peer Pressure
- Complacency

Warning Signs of Poor Self-Discipline

- Rationalization
- Violating FARs
- Breaking Club rules

Improving Self-Discipline

- Accept your current situation/limits
- Critique yourself after each flight
- Strive for 100% compliance



Teaching/Evaluating Judgment

- Decision Making
Ask the student how they would modify their pattern if they were too low to fly a normal one.
- Situational Awareness
Have the student practice forward slips while heading away from the airport.
- Self-Discipline
Get the student low, and see if they fly the modified pattern they had decided on earlier.



Example

- Pilot has decided on the following personal limits:
3,000' – find an area to land in
2,000' – find a specific field to land in
1,000' – commit to landing
- One of those perfect, post-frontal, Spring soaring days comes along



- Pilot has installed a new computer over the winter, but has not flown with it yet.
- Situational Awareness
Ignorance
Overload from lack of proficiency



- Pilot assembles his glider, and though he wasn't planning on going cross-country today, several other pilots have voiced their plan to head out, and the day is just too good to resist, so decides to head off on task.
- Situational Awareness
Overload from lack of planning
- Decision Making
Exaggerated benefit
Underestimating risk
Urgency
- Self-Discipline
Peer pressure



- About an hour into the flight, when he starts to get far enough away from his home airport that he can no longer navigate completely from experience, he starts paying attention to his new computer.

- **Situational Awareness**

 - Complacency

 - Lack of proficiency



- He descends to 3,000' AGL. He thinks there is an airport nearby, but isn't exactly sure how far, or if he has it in glide. He starts fiddling with the computer, but isn't confident in what it is telling him. He figures that it is safer to head to the airport than to land out. He heads in the direction the computer says the airport is.

- **Self-Discipline**

 - Rationalization

 - Fixating on goal



- He has descended to 2,000' AGL, and realizes that the point he was navigating to was a turnpoint, not an airport. He starts looking for a safe field to land in, but doesn't see any right under him, so he keeps heading in the direction he thinks the airport is. He keeps hitting "bumps", and holds out hope that he can still climb out.

- **Situational Awareness**

 - Stress



- At 1,000' AGL, he finds what appears to be a suitable field. He circles it, and hits a sustained bump at 700' AGL, which he tries to work.

- **Situational Awareness**

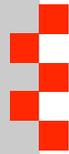
 - Stress

 - Overload

 - Lack of thermaling proficiency

- **Self-Discipline**

 - Fixating on goal



Up to this point in the flight, has he exhibited good judgment?

- **Situational Awareness**

Decreased, for several reasons

- **Decision Making**

Failed to account for decreased situational awareness?

Made a “snap” decision based on emotion

- **Self-Discipline**

Each violation of self-discipline brings him closer to trouble.

Even if he climbs out and gets home safely, he has laid a foundation for complacency



- He loses 200 feet trying to work the thermal. He quickly runs through his checklist, and makes a quick radio call to let others know where he is going to land.

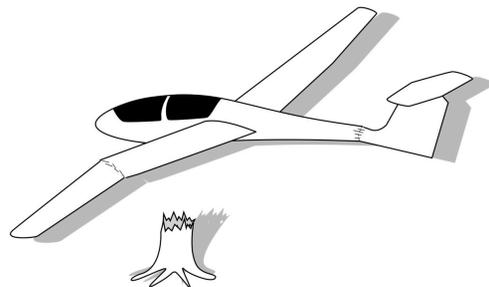
- **Situational Awareness**

Overload

Stress



- On the rollout, he hits a large tree stump with the wing. The rear fuselage, and the wing are severely damaged.



What caused this accident?

- Bad decision to go cross-country when he wasn't prepared?
- Poor self-discipline for not selecting a field at 3,000'?
- Poor self-discipline for trying to work the thermal below 1,000'?
- Not being able to find/work lift?
- The stump in the field?



Summary

- **Situational Awareness**
Improve through planning, and proficiency.
- **Decision Making**
Know your values
Practice using a structured approach
Realize that risk is increased by unavoidable factors that decrease situational awareness
Make ALL safety related decision based on rational values
- **Self-Discipline**
Strive for 100% compliance
Stress and anxiety caused by poor self-discipline decreases your situational awareness, your enjoyment of the sport, and the likelihood of a safe conclusion to your flight.



Reinforce Good Judgment

Take as much satisfaction from good judgment as you do from a good landing, out-climbing a gaggle, or winning a contest.



Fly Safe!
Fly Often!
Have Fun!



Thanks for Coming

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