

Soaring Flight Decision Making

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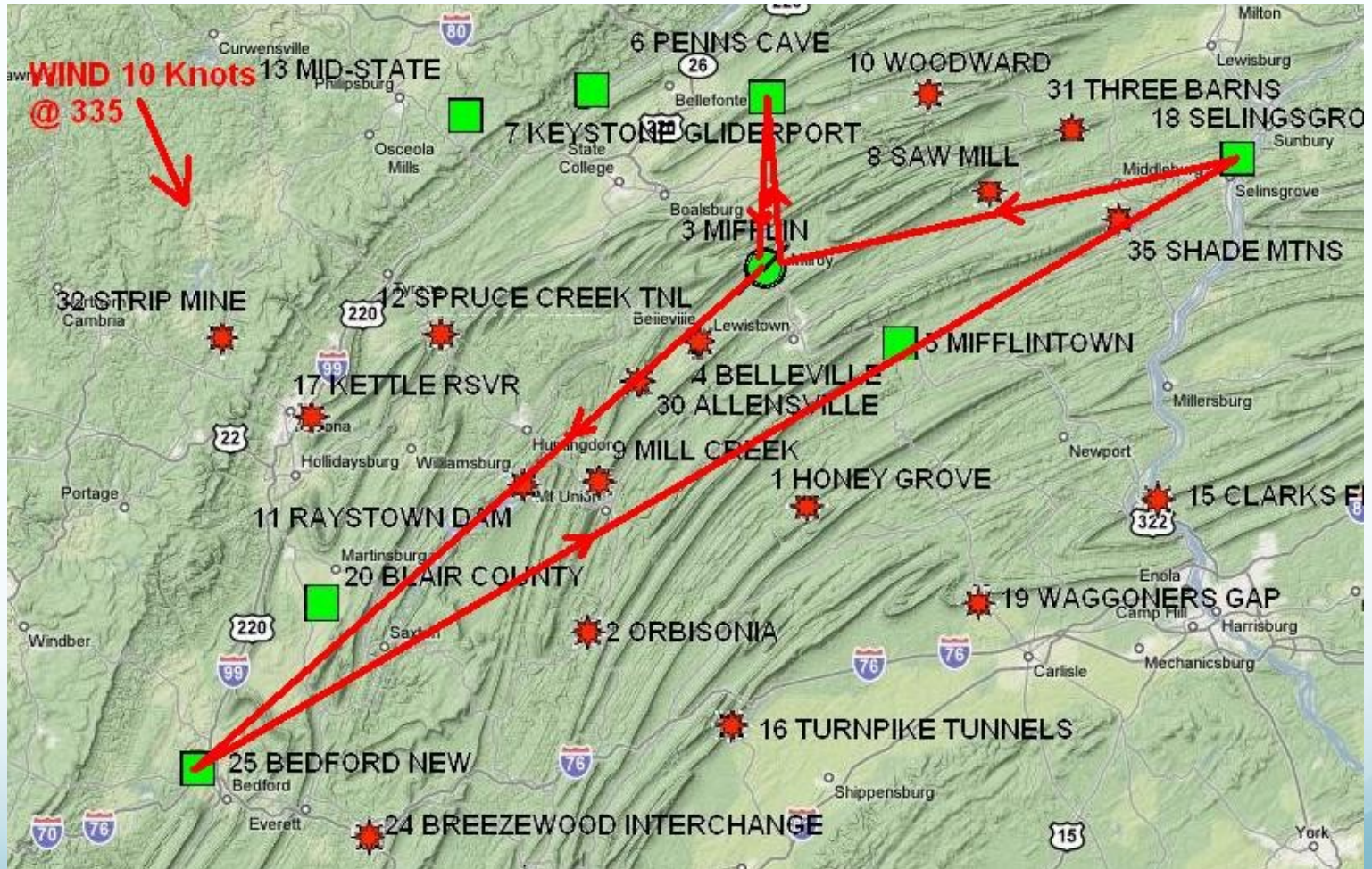
Soaring Flight Decision Making

- ▣ Pre-flight Preparation
- ▣ Pre-flight Evaluation
- ▣ In-Flight decision Making
- ▣ Landing Considerations
- ▣ Post-Flight Evaluation
- ▣ Scenario Building



Pre-Flight Preparation

The Task



Pre-Flight Preparation

- Charts

 - Current?

 - Applicable?

- Electronic

 - Do you know how to use it?

 - Is it programmed?



Pre-Flight Preparation

- ▣ Food
- ▣ Water
- ▣ Comfort Aids
- ▣ Survival Equipment

Pre-flight evaluation

- ▣ Weather
 - ▣ Pilot
 - ▣ Aircraft
 - ▣ Landout/Retrieve
-
- ▣ Make the task appropriate for the day, pilot, and equipment



In-flight decision making

- Weather
 - How goes it
 - Local Factors
- Pilot
 - Fatigue
 - Dehydration
 - Age Factors
- Glider
 - Water?
- Landout



Landing Considerations

- ▣ Landout
 - ▣ Set hard altitude for decision to landout
- ▣ On airport
 - ▣ Controlled
 - ▣ Uncontrolled
 - ▣ Where on the airport
- ▣ Off airport
 - ▣ What type of field
 - ▣ Terrain



Landing Considerations

- ▣ How do you determine the wind?
- ▣ On Airport
 - ▣ Duty Runway
 - ▣ Traffic Pattern
- ▣ Off Airport
 - ▣ Obstacles in the Field
 - ▣ Accessibility for Retrieve



Post-flight critique

- GPS Trace
- Memory
- Mentor with a More Experienced Pilot
- “Show and Tell” with Other Pilots



Decision Making Scenarios

- ▣ Flight over unlandable terrain
- ▣ Flight at low altitude (below 1500 ft AGL)
- ▣ Flight in mountainous terrain
- ▣ Local flights that lead to land-outs
- ▣ Ridge Flying and Terrain Features
- ▣ Returning from a long way away
- ▣ Selecting a suitable landing site



Flight over Unlandable Terrain

- ▣ Bob was feeling good today. He set out on a cross country and soon found himself 40nm from the nearest usable field. Bob began to feel very nervous about his ability.



Flight over Unlandable Terrain

- Pilot
- Aircraft
- enVironment
- External

Flight at low Altitude (below 1500 ft AGL)

- ▣ Bob found himself 10nm north of Elsanor Airport. The sea-breeze off the Gulf of Mexico had started and was now 10kts out of the south. He was down to 1500ft AGL under completely blue skies.



Flight at low Altitude (below 1500 ft AGL)

- ▣ Pilot
- ▣ Aircraft
- ▣ enVironment
- ▣ External

Flight in Mountainous Terrain

- Bob knew the day was going to be good. Good enough to go from Minden down to the White Mountains. What should Bob do?



Flight in Mountainous Terrain

- Pilot
- Aircraft
- enVironment
- External

Local Flights that Lead to Land-outs

- Bob, a club CFGP, had a new student. Brutus set the altimeter in the 2-33 to field elevation of 1121 ft MSL. Unfortunately the field was really at 121 ft MSL. Bob and Brutus soon found themselves 3 miles away from the field at 2000 ft indicated altitude. Bob knew he was low but could not figure out why.





Local Flights that Lead to Land-outs

- Pilot
- Aircraft
- enVironment
- External



Ridge Flying and Terrain Features

- **Bob set out on the local ridge. The wind was about 15 kts at a 30 degree angle to the ridge. He got about 10 miles away when the ridge lift seemed to die.**



Reading Clouds and Terrain Features

- Pilot
- Aircraft
- enVironment
- External



Returning from a Long Way Away

Brutus has been flying in a local contest in his PIK-20. The task today is an out & return to an airport 50 miles upwind on a day with 25 kt winds at altitude. After struggling for several hours he finally makes it to the turnpoint and is at 5000 ft AGL. Turning around Irving is surprised to see that the sky has gone blue all the way back to the airport. Setting out at best L/D, he watches the GPS distance, altimeter, and notes that any alternate airport will require a deviation from a straight line path back home



Returning from a Long Way Away

- Pilot
- Aircraft
- enVironment
- External

Selecting a Suitable Landing Site

Ingrid has been getting lower and lower as the overcast sky is moving into the task area. It is now obvious that the day is almost done and a land-out 30 miles from home is the probable outcome for today's flight. Ingrid's Discus CS is about 1000 ft AGL with rolling terrain below covered in various crops. The GPS says there is a small private airport about 3 miles E beyond a wooded area.



IN-FLIGHT DECISION MAKING



Which, if any, of these is a suitable landout option?

Selecting a Suitable Landing Site

- Pilot
- Aircraft
- enVironment
- External