

Skill Assessing the Evolution of Weather Conditions

Every year I am amazed and amused by the willful ignorance displayed by competitors in national contests. They assemble from across the nation, having carefully prepared their soaring kits for two weeks of racing for the privilege of representing America on the world stage. Each morning these pilots (myself included) sit attentively, studiously noting the particulars of an inconsequential weather briefing. In fact, in nearly thirty years of soaring, I've seldom seen a contest weather report worth the time spent on it.

Lack of pertinent information is no fault of the weather briefer. He seldom has more than a few minutes to present a complex system, necessarily compressing it into generalities: forecast cloud base, lift strength, winds, frontal boundaries, etc. Yet most of us exit the briefing thinking we have a pretty good handle on the day.

Most of us don't.

I've come to the conclusion that competition pilots, in the majority, have little skill in gathering and interpreting the specific weather data that would allow us to make highly informed tactical decisions on course. If you have not scheduled an hour each morning for gathering and analyzing forecast weather data, you've effectively made a decision to fly the task "on sight." Pilots who trust their eyes alone, to see and interpret the weather are flying with a handicap that will adversely influence their decisions. Contests are won and lost in difficult weather, when the lift is less predictable. Those pilots who start with the best understanding of the conditions they may face are the most likely to succeed.

Pilots who cede this important preflight activity to others wind up in much the same position as the wannabe national champs I cited above. They have, at best, a partial glimpse of what the day holds in store, trusting their experience and eyes to be their principal guides.

The problem we face as pilots is that weather forecasts don't always turn out to be right. So what's the point of looking at weather forecasts other than to judge the competency of weathermen?! First, weathermen aren't interested in the same things we are. Most of the forecasts we depend on are based on informing commuters, golfers, boaters, and picnickers whether their best laid schemes might go awry.

For example, if an inversion is predicted, what can we deduce about lift strength at and above the inversion? What triggering temperature will punch through the inversion? If we get into the clear air, how high can we expect to go? If we are consistently climbing above the inversion, are we likely to see overdevelopment as well? Are some parts of the task area more likely to blow up than others? How might this knowledge influence our tactics for the rest of a TAT?

These are questions you need to pursue for yourself. While other pilots do, they may or may not share the details of their analyses.

To judge whether you have the requisite skills to assess the evolution of weather conditions, ask yourself this simple question. Are you capable of accurately assessing a sounding? If the answer is "no," then pat yourself on the back for your honesty, and welcome to the uninformed majority of glider pilots. If your weather analysis begins and ends with Dr. Jack, recognize this useful tool for the crutch it has become. To accurately understand the evolution of the soaring day from a cross-country pilot's point of view, you need a more flexible analysis tool and experience using it. Only then can you accurately assess the

influencing factors that are affecting the forecast as you fly. And when the day fails to meet predictions, you can take advantage of the change rather than falling victim to it.

There are numerous pages to be found on the web that will guide you through a Skew-T/Log-p sounding graph. However, the best I've seen so far you'll have to buy: *Thermals*, by Rolf Hertenstein Ph.D. is part of Bob Wander's *Gliding Mentor Series*. Chapter Three devotes 24 pages to using a sounding to create accurate soaring forecasts. It is well written, and when used with the Java application provided by NOAA (see the Task Day website's resource – Baude's weather links) makes soundings easy to understand and use.

Knowledge is powerful. The next time you're presented with a wide blue hole on course, wouldn't you like to know that this was predicted by the sounding, and that lift will be just as strong and evenly spaced as it was under the cu?