

PICKING THERMALS

Maybe you have had the same experience I had many years ago. I was flying a rubber powered scale model on a nice day. I was using a counter to measure the number of turns I was putting in to the motors. The plane was flying nicely. I had 2 flights at about 60 seconds. I was pretty happy. On the third flight, it flew much longer....maybe 90 seconds. I wondered what was up. How did that happen....it was the same plane with the same number of turns. "It hit some good air" one of the experienced fliers told me. So, I started to see what I could find out to help that happen more often! The NFFS has had some information in its Symposium on thermal detection which can be quite technical and detailed. There is a book by Bob Thornburg called "The Old Buzzards Soaring book" which is now available on line (no longer in print). The book is pretty focused on RC soaring but the first chapters do talk about thermal detection.

We have all seen the streamers put up at a contest to help provide information on wind direction and when the streamers start to go up, a thermal is passing through. You need to be reasonably close to the streamer when launching, otherwise you may not go into the thermal. All weather is local in this case. In addition to the streamer, you can use dried up cat-tails or bubbles to help you see the thermals coming through. I think it is fun to watch them, and they can really help visualize how strong the lift is coming through.

The other thing that has helped me a lot is the Kestrel 2000 weather meter (link below). Unlike the streamer, you can use this anywhere on the field. It has a lanyard so it can hang around your neck. Once the plane is ready, I hold the thermometer up and watch the temperature. Once you are sure it has stabilized (after being up against you or in its case), watch the temperature change in .1 degrees increments, usually a .5degree temperature change is enough to get you some lift. Finally, I should mention that the Kestrel has a wind speed indicator but I have not found that feature to be at all useful

Obviously, it is a little complicated. On a windy day, the thermals may be moving through quite quickly and it can be challenging to center into one. There is a temptation on windy days to just wait for a calm period, but a piece of calm air does not imply lift, and knowing the temperature can help prevent a launch into down air. Likewise, when conditions are 'Flat', the temperature may go up but with little lift. This is when second opinion from cat-tail fuzzies, streamer, or bubbles can really help.

There is also a very nice thermal detector sold by Retro RC. This is a serious upgrade from the Kestrel, and will provide a small graphic output about the temperature change which can help you understand how the thermals are forming over time. In this case, the thermistor is mounted on a pole.

I hope this helps your flying some. Picking good air is a fun challenge and can really boost your flight times. Have fun out there!

Wally Farrell: 2025

Questions and comments can be sent to Mr. Farrel via the Web site contact us feature.

Kestrel 2000 weather meter

https://kestrelmeters.com/products/kestrel-2000-wind-meter?gad_source=1&gad_campaignid=20392464610&gbraid=0AAAAADx28Jqrsyo3i1RrRw0kVaK_wFFvS

The RETRO RC thermistor is listed under FF accessories.

Kinda buried in there.

<http://retrorc.us.com/ffaccessories.aspx>

OLD BUZZARD BOOK & FILM

https://www.digitekbooks.com/books/model-aviation/product/36-d001080-old-buzzard-book-film/category_pathway-36