KNOTS IN THERMALS

Since this disclosure will doubtless be regarded by most readers as controversial, and by many as harebrained, I am torn between two alternatives: (1) make a clean breast of things at the start and perhaps lose most of my readers, or (2) gradually sneak up on them and having overpowered them with the logic of my arguments insidiously suggest what I am driving at. Since every minute I spend on this article, I could (in theory, at least) spend soaring, away with suspense and careful logic—let's use the meat-ax approach. Promise you won't go away, now.

The object of this article is to seriously suggest that there are very real advantages in having variometers calibrated with scales reading in — hold your hats! — KNOTS instead of the more conventional meters or feet per second, or hundreds of feet per minute.

Hey! Come back! If you think this is the most unlikely suggestion since putting ping-pong balls in a wing to make it lighter, you are in good company—for about five minutes. This too, was my initial reaction. Later, after I saw the light, I put the question to an undoubted pundit (more than once national champion, etc.). His reaction was instantaneous:

"I have an even better idea. Let's calibrate variometers in fathoms per hour. That makes even more sense."

Yet five minutes later he admitted that knots sounded like a pretty good idea for variometer scales. Will you join us? Here's why.

Much of our use of variometers is merely to tell us whether we are going up or down, and whether we are now going up or down a little more or less than a few seconds or minutes ago. For this sort of use, the instrument scale could be calibrated in micro-parsecs per millienium* for all the difference it makes. There comes a time, however, when the more alert pilot wants a couple of other pieces of *quantitative* information. The first is the average strength of the thermal, or how fast he is climbing. In this country we think of altitude in feet, so here the best calibration would be hundreds of feet per minute to avoid as much mental mathematics as possible. For the second case, consider the last long glide of the day, or what looks like your last glide because it is so long to the next thermal. What is your glide angle now? What does the variometer say? Four meters per second? Thirteen feet per second? What happened to that cotton-picking computer? Slipped behind the cushion, probably. Oh rats! Maybe I will get just one more thermal.

Along comes our hero. No computer! No worries! His variometer is calibrated in KNOTS. His airspeed reads 70 knots. His variometer reads 5 knots down. His glide ratio at that instant is 70/5= 14:1. A quick glance at his altimeter and chart and he knows his radius of action.

What about knots *up?* That was where we wanted hundreds of feet per minute. Here is a stroke of luck—one knot is within 2% of being one hundred feet per minute. Since you can't read your instruments this closely anyhow, you can say that knots are the same as hundreds of ft./min. and vice versa.

Reports from England state that several clubs there are standardizing on variometers calibrated in knots. Incidentally, if your airspeed doesn't have a knot scale, you could calibrate your variometer in miles per hour, but you would then have to make some additional mental computations when trying to get your average rate of climb in feet per minute. It would be easier to put a knots scale on your airspeed instrument if it doesn't have on already.

SINBAD

*Just to save wear and tear on your encyclopedia, a parsec is a measurement of distance used in astronomy and is the distance light will travel in 3.5 years. A millienium is 1000 years. One microparsec per millienium is thus 3.2 feet per second or about one meter per second.