

Free Flight
reprint

“The Inner
Game”
by Alan Reeter

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The inner game

Cross-country soaring requires only minimal physical strength and agility, but no other sport requires such prolonged, uninterrupted mental effort. In addition, in a competition, this effort must be sustained for three to seven hours a day, for five to nine days.

Alan Reeter
from *SOARING*

EVERY SPORT IS UNIQUE, but soaring is unusual in its reliance on brain versus muscle. So, mental techniques that work in other, less cerebral, sports should have application in soaring. The techniques most applicable to soaring are the ones that work for sports requiring a high degree of skill rather than effort. Every pilot is unique. What works for one pilot, or even the majority of pilots, may work differently for you. What works for you on one day may not work as well the next. It is up to each individual to discover what does and does not create the mental state that enhances performance. Let me introduce a fictitious pilot named Bob. Last year, Bob refined his racing equipment and even installed a MegaData 2000 in his glider. However, this year, Bob began studying and refining mental techniques.

Motivation Bob understands that longevity in the sport is necessary to acquire advanced soaring skills. Many new racing and cross-country pilots start out progressing quickly. But, over time, they may become disappointed with their rate of progress. They become frustrated with themselves when they make mistakes. It's not surprising that motivation wanes and skills plateau well before pilots reach their potential. Slow learning, plateauing, and burnout can often be traced to the pilot's motivational style. Like most, Bob grew up with a motivational style that focuses on negative consequences. From an early age, he heard admonitions such as, "You'd better work hard or else ...". For most of his life, Bob didn't question this style — it works a lot better than having no motivation. But, over time, Bob's self-imposed pressure to achieve started to take a toll. Practising became less enjoyable.

Most elite performers are positively motivated. They are *attracted* to goals, not pressured. Most importantly, they enjoy the process of improving their skills. This goes deep. Positively motivated people aren't just interested in the momentary rush of the win. They enjoy getting there. They don't get as fatigued and learn more, faster, because the process is enjoyable. This strengthens their motivation. This year Bob began to consciously change his motivational style. He reminded himself that soaring is a wonderful privilege and experience. He tried to see mistakes as discoveries that would lead to

improved future performance. He looked forward to challenges. When he did something well he took the time to savour the experience. He also set goals that enhanced his motivation.

Goal setting Bob always knew that goal setting is important to maintaining motivation. Achieving even small goals provides positive reinforcement. Goals also pull you forward out of your comfort zone and help you focus your efforts. Seeing improvement is a strong motivator. Bob also knew to set goals that are attainable. Earlier he didn't grasp the full implications of this. His goals often included external factors that he could not possibly control. For example, Bob used to set goals such as winning the Region 14 Championships. Goals such as this include many external factors related to other competitors, officials, equipment, and weather. Including external events in goals has three negative consequences:

- 1 During practise, you may speculate about the skill of the competition. This will distract you from working on something you *can* control — your personal skill.
- 2 During the event, you will be tempted to "turn around and look at the competition" instead of flying your glider.
- 3 After the event, you will feel discouraged if you don't win even though the fault may be completely out of your control. Your motivation and faith in the training process will suffer.

Try to set goals that include only those things you can control. Such goals will focus your attention on your skills, that is, personal mastery. This year Bob set several goals. One was to learn to "locate thermal centres within the first 45 degrees of the turn." Another was "to use sixty percent of the lift band during each flight." Although not stated explicitly, achieving these goals are likely to give Bob the same results that he previously desired, winning the regionals.

Personal mastery Jerry May, Professor of Psychiatry at the University of Nevada said, "The best competitors ... forget who they are competing against, because they're so focused on achieving their own goals." When you strive for personal mastery you'll be focused on the task at hand instead of winning a trophy. Think about it, these are different goals. *Zen in the Art of Archery* by

Eugen Herrigel (Pantheon 1953) is a good motivational primer on mastery. You may want to get it on tape. It is available from Audio Renaissance (800 321-9299) and Recorded Books Inc. (800 638-1304).

Optimism Sport observers are aware that good athletes tend to be optimists. In soaring, good pilots seem to be more optimistic than average about the upcoming lift conditions, speeds for the day, etc. In *Learned Optimism* (Alfred A. Knopf, 1991), Martin Seligman, PhD, makes a compelling case that being optimistic significantly increases our chances of succeeding. He also believes that we can learn to become more optimistic. Optimism is the result of a positive self-explanatory style. Our self-explanatory style is the way in which we explain our performance or other events to ourselves. Compare Bob's explanatory style this year compared to previous years. As he climbed out of holes in previous years, Bob typically thought, "I'm always screwing up everything." He felt discouraged. This year he thinks, "Everyone hits holes occasionally, but I made a great save." His outlook is positive, even after a near landout. He is relaxed, energized, and eager to move down course to the next challenge. Imagine the cumulative effects of these two explanatory styles over the course of a long contest.

One way to enhance awareness of explanatory style is to understand the vocabulary. There are three dimensions to a self-explanation: *personalness*, *pervasiveness*, and *permanence*. An explanation is personal when the pilot attributes the event to some personal trait: "I pulled off a great save", or "I screwed up." The alternative is to attribute the event to something external, such as luck or the weather. An explanation is pervasive when the pilot interprets the single event as evidence of general ability, or of inability. An explanation implies permanence when the pilot interprets the single event as evidence that the skill, or lack of skill, will continue into the future.

We can analyze Bob's self-explanation of a bad event using this model: Pessimist Bob, of previous years, thinks, "I'm always screwing up everything." Here, Bob is telling himself that the event is due to a personal defect, and the defect is pervasive and permanent. Optimist Bob, of this year, thinks, "everyone hits holes occasionally." Here Bob attributes the bad event to something separate from him. It's not a personal inability, it's not pervasive, and it's temporary. Here's how Bob interprets a very good event: Pessimist Bob thinks, "Gosh, I lucked out that time." Bob is not accepting credit, and the good event was temporary. Optimist Bob thinks, "Hey, I made a good decision again." Bob's taking personal credit. His ability is pervasive and permanent.

Optimists learn faster. Several decades worth of research show that positive reinforcement results in faster learning. The optimist recovers from bad events quickly. The event is shrugged off as not being personally relevant. Attention shifts to the next chal-

lenge. The pessimist tends to get wrapped up in the personal failure. Attention is focussed inward. There is a major caveat — learning requires that we accurately see what we do correctly and what we don't. A person who is slow to accept credit for mistakes or who fails to recognize the accomplishments of others has a learning handicap. Seligman's book includes a self-test that you can use to evaluate your explanatory style. He also includes suggestions for changing your explanatory style.

Dealing with rumination Rumination is the process of recalling and rethinking past events, usually bad ones. In the past, Bob would mull over mistakes, sometimes becoming quite agitated in the process. Rumination has three damaging consequences:

- 1 It distracts the pilot from attending to the immediate tasks at hand.
- 2 It can lead to fatigue, anxiety, and depression.
- 3 Rumination reinforces the tendency to ruminate in the future. It reinforces the bad habit.

For some, ruminating is a hard habit to break. Dealing with rumination involves learning to become aware of when you are ruminating, and then doing something else with your mind. In flight, try directing your mind to look out in front of the sailplane toward the next challenge. On the ground, find something positive to think about. Bob Leve, PhD, sports psychologist for the US National Soaring Team, says, "Give equal time to positive thoughts. If you find yourself ruminating about something negative, spend some time ruminating about some thing good that you've done."

Mood management Mood is a person's emotional state. In previous years, Bob would occasionally get in a bad mood. Like many people, he assumed that there wasn't much he could do about it. He'd think, "that really made me mad." This implied that he had no control over or responsibility for his mood. Now, he manages his mood by consciously changing his attitude. Attitude is our readiness to behave or react to people, objects, and issues in a certain way. Unlike mood, attitude is the culmination of our conscious decision making processes. By becoming aware of and adjusting his attitude, Bob changes his mood. He does this by applying three attitudinal strategies. Since his goal is to turn these behaviours into habits, he practises them all the time in his daily life.

One strategy is to keep his inner language positive — practising a positive self-explanatory style and instant forgiveness, especially self-forgiveness. When Bob makes a mistake he immediately lets it go. If he picks the wrong cloud street, he avoids punishing himself. His full attention is on flying what is in front of him. Bob is also quick to forgive others. If another glider comes too close, he forgets about it as soon as the danger passes. Bob continues on, unfazed and calm. The calm is real as there is no

internal distraction or eruption. Others recognize this as indicative of a winning style.

The second strategy is to pursue activities that have a positive effect on him. Bob discovered that listening to music or taking a walk worked well during the period between the pilots' meeting and launch. He made a mental list of other activities for other times. Again, individual pilots need to experiment to find what works for them.

Bob's third strategy is to manage his arousal level. Over-arousal can lead to fatigue and bad moods.

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Arousal monitoring and control

Arousal describes your level of activation or intensity. Sports psychologists tell me that elite athletes have the ability to monitor and control their level of arousal. New pilots often are too aroused. They get so psyched up that they make mistakes. Experienced pilots sometimes aren't aroused enough. They have trouble paying attention. Most people have trouble matching their arousal level with the situation. Early in a contest, many pilots tend to be too aroused. (It's not surprising that the first couple of pilots' meetings will be marked by episodes of bickering and complaining.) This wastes energy. As the contest wears on some pilots begin to sag noticeably.

A low arousal level gives us a broad field of perception. At very low arousal levels we take in too many clues, including many that are irrelevant. The mind wanders and is easily distracted, "Gosh, look what's going on in that swimming pool down there!" A high arousal level will narrow the field of perception, causing perceptual tunnel vision. An overly-aroused pilot may miss task relevant cues. This is one reason why a student pilot's performance deteriorates when an instructor starts yelling. The ideal arousal level is one that helps you take in all the relevant cues without being distracted by irrelevant cues.

Many sports psychologists use the "Inverted U" model of arousal to successfully teach arousal management skills to their clients. It says that there is one correct level of arousal for each flight task. Any more, or any less, results in decreased performance. Some sports psychologists argue, correctly, that this oversimplifies a very complex mental state. There are many types of arousal that affect the competitor. Still, the consensus is that competitors benefit from learning arousal awareness and management.

Here is a training exercise that may help improve your arousal management skills. Draw a time line representing the period

between grid time and start. On the timeline mark important events so you have a series of intervals. On the vertical axis make a scale of 1 to 10 for arousal level. Ten is maximum arousal, say a level necessary for handling a very serious emergency. Zero is totally relaxed (as I'll discuss later, this is commonly called the *relaxation state*). For each interval make your best guess at the arousal level you think is optimum for you. The performance/arousal relationship is highly individualistic. Some pilots may benefit from being at a very low arousal level prior to takeoff. Others will do best by maintaining a medium level. Remember that being at a high state of arousal can be exhausting. Bob decided that the preflight inspection requires a level of 5. That's what this pilot requires to do a decent inspection. After strapping in, Bob relaxes by going to a level of 2. Just before launch, he goes to an 8 in preparation for handling possible tow emergencies.

Try taking your personal chart to the gliderport. Write down your actual arousal levels at each interval. Initially, you will probably decide to adjust some of your target levels. Working with the graph will increase your awareness of your own arousal levels. You will eventually find levels that are best for you. This exercise, and others like it, should probably not be performed once you go through the start gate. Sports psychologist Lucy Jo Palladino says, "Trying to analyze your own mental processes on course is likely to interfere with your flying."

The goal is to become so good at managing your energy level that it will become instinctual and effortless. But there are exceptions. At times, it may be a good idea to consciously check your arousal level in flight. For Bob one of those times is when he gets low. Like most pilots, he gradually becomes quite tense as the risk of landing out increases. Bob found that he became too aroused and didn't realize it. Now he consciously checks and, if necessary lowers his arousal level to broaden his field of perception. This has helped him find more sources of lift and make more saves.

Controlling arousal can be tough in the beginning. For many the key is to know how to get to the relaxation state. Many psychologists believe that if you can get to the relaxation state, then you can adjust upward from there. It serves as an anchor or reference state.

Relaxation Practising relaxation is an exercise in arousal control. Many pilots find it difficult to completely relax. After all, we are taught to be eternally vigilant and on guard. Yet, if you can't consciously adjust your arousal level there is a risk that external events and other people will control it. You may want to refer to the exercises found in a sports psychology book. It is the one technique found in almost all of the books and practised by most elite athletes. It's that important. After you know how to get to the relaxation state the goal is to learn how to evoke it quickly and at will.

One effective method is to associate a simple word with the relaxation state. Pick a word that does not have a lot of other associations with it. Bob named it “calm.” During relaxation practise, Bob reinforced the name. On course, Bob thinks or says “calm.” He can easily adjust arousal up from there. Bob also learned to put a number with each energy level. By simply thinking “eight” Bob was ready to begin the tow.

Imagery Some studies indicate that one can achieve substantial performance gains through guided imagery. But using imagery is a skill in itself. You can’t learn to use it overnight. It takes practise to master imagery and make it useful. There are two kinds of images: *result* images and *process* images. A result image is one where you see the results of your efforts, such as winning an award. Result images may be useful for motivation, but process images are the ones that will make you better. A process image is about the process of employing your skills. Guided imagery exercises must be done correctly in order for them to be effective. Performing this exercise incorrectly can reinforce bad habits and negative impressions. Here are some rules of thumb for guided imagery:

- Make a “flight plan” or story line for the imagery exercise. It may be about making a start, centering thermals, or porpoising down a cloud street. Flying a whole task is too big of a bite.
- Begin the exercise by relaxing into a state that will eliminate distracting thoughts. Dr. Palladino says that relaxation is a gateway to the exercise; evoke the emotions that go with a successful flight task.
- Play the image in your head as realistically as you can. Smell the cockpit. Feel the air. See the environment. Add colour and motion. Feel the emotions. Rest your hand on the stick and fly the glider.
- Keep the emotions positive. Feel the emotions that accompany a well performed flight.
- Use the inside-out perspective, that is the view from the pilot’s eyes. The outside-in perspective is an outsider’s view.
- Keep the image positive. Don’t rehearse mistakes. If an image takes you toward a difficulty, make a masterful recovery.
- Suspend critical analysis. This is a time for doing. Think about it logically later.
- At the end of the exercise, mentally reward yourself for a flight well done.
- Practise mental flying often. It’s better to practise five minutes twice a day than to practise thirty minutes once a week.

Bob practised guided imagery to improve his flying and mental techniques. He made sure that his exercises included practising a positive self-explanatory style, instant forgiveness, and other mental techniques.

Intuition It is often said that many of the best pilots fly intuitively. They seem to “just know” what to do next. George Mofat, five times National and two times World Soaring Champion says, “When you are on, it almost seems unfair (to other competi-

tors), as though another self, intuition, has taken over.” Almost all the experts on this phenomenon believe it originates from the nonverbal mind. Dr. Palladino says, “It (intuition) involves noticing, feeling, and trusting subtle inner cues.”

The best advice on improving one’s intuitive abilities seems to be to just avoid interfering with it. When I was an Air Force student pilot, a well respected fighter pilot warned me about thinking too much. He said, “Engineers usually make good pilots, but they seldom become great ones, they analyze everything. The best sticks (pilots) are liberal arts types.” At the time, this was disturbing news since I had just graduated from engineering school. And, any engineer will proudly point out that conscious analysis has saved the world. Yet, it does have a serious limitation. It’s a sequential process, and therefore it can only handle a fairly small amount of information at a time.

The brain’s parallel processes can take in and simultaneously process a tremendous amount of information. These processes do not utilize language simply because language is sequential. As frustrating as it may be, this also means that we cannot easily inspect the workings of that part of our minds. Ideally, we would like to simultaneously take in and process many task relevant cues at once (a parallel processing task). We would like to see clouds, terrain, dust devils, birds, and other gliders. We would like to hear the air, audio variometer, and radio. We would like to feel g-forces and subtle vibrations in our wings. And, we would like to make decisions and act without hesitation. When this mode of thought is working, flight decisions become effortless, automatic and effective.

Analyzing one’s way through an entire flight is hard work. In addition, the internal conversations that accompany analytical thinking drown out the subtle cues that come from parallel processes. The result is less effective decision making. In reality, effective flying is a whole brain activity. Some flight segments benefit from nearly pure parallel processing. Others require a blend of parallel and sequential processing. The trick is in finding the right balance at the right times.

Don’t mistake flying without an internal dialogue for mindlessness. Good flying is precise. Mindless flying is dangerous and sloppy. Poor airspeed control and clearing technique are indicative of mental sloppiness. Beginning pilots especially should carefully reason out strategies for reaching safe landing sites and handling other critical matters. Eventually, this will become second nature.

Bob tried to minimize the amount of time that he spends on sequential activities, such as talking on the radio and fiddling with objects in the cockpit. He also tried to eliminate unnecessary internal conversations and over-analysis. An example of an unnecessary internal conversation is one about the

last bad decision. Over-analysis often occurs when the pilot is faced with two nearly equal choices. Bob used to get balled-up mentally over the decisions that mattered the least. It’s often better to just make a quick decision and not worry about it.

The ideal performance state The goal of using the mental techniques discussed so far is to achieve the optimum mental state for soaring. Sports psychologists have several names for the optimum mental state including Peak Performance State and Ideal Performance State (IPS). Nearly all elite athletes describe the state using the same descriptors; physically relaxed, mentally calm, low or no anxiety, energized, optimistic, enjoyable, effortless, automatic, alert, mentally focused, self confident, and in control. Even though everyone uses the same words to describe the IPS, the methods of achieving it are highly individualistic. To learn what works requires personal study, experimentation, and practise. To learn more about IPS get a copy of *Peak Performance*, by Charles Garfield (Jeremy P. Tharcher Inc. 1984) or *The New Mental Toughness Training for Sports* by James Loehr (Plume, Div. of Penguin Books, 1994).

The good team The pilot and crew are a team and everyone should know what the game plan is. The crew decided to practise some of the same techniques Bob was using, especially the ones on arousal control and positive self-talk. Like pilots, crews can easily become overly aroused or negative. The pilot and crew can unintentionally transfer negative thinking back and forth. As a minimum, team conversations should be kept positive during the contest. Bob briefed his crew chief on psychological matters that he thought were important for the contest. The crew came up with ways to keep Bob from being distracted at critical times. For example, when Bob is sitting in the cockpit prior to launch, the crew intercepts walkup spectators to answer their questions. The team approach improves pilot performance, builds camaraderie, and makes everyone feel rewarded.

Training There have been instances where competitors have botched major competitions because they tried to adopt new mental techniques just before the event. They went into the contest doing things they had never tried before. They were thinking about what they were doing instead of “doing.” They were distracted and off balance. It’s important to work on mental techniques throughout your training program. Early in the season, do a lot of experimenting to find out what works for you. As contests draw near, begin incorporating the “proven” techniques into your routine. That way, your later training sessions will be similar to actual contest flights. Remember, having fun is vital.

Just before the contest last year Bob had become proficient and confident in using his MegaData 2000. This year he feels the same way about using his most important instrument — his mind. ❖