

DUST DEVIL TRIBUNE

Issue #53

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**THIS CRAZY
WEATHER**

**NEW CLUB
TREASURER**

**ANXIETY AND
PILOTING,
PART 3**

**VISIT TO A
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This Crazy Weather!

We have already exceeded twice the normal annual rainfall for El Paso, with four months still remaining in 2006! While this summer's wet thermals have been few and weak, we have been able to fly on the drier days, and we have enjoyed a rare view: a green El Paso!

Soaring on rainy days is generally safe, but it has risks that we in El Paso are less familiar with than most, such as:

- Rain significantly decreases a glider's glide ratio, and significantly increases its stall speed; possibly in excess of 10 knots! If you attempt to land while it's raining, consider flying faster throughout the entire approach to touchdown. These characteristics
- combine to give you an exceptionally steep glide path. Fly conservatively: fly a tight pattern and aim farther down the runway than normal.
- Gusty wind is common near rain. If you observe wind in the vicinity, such as blowing dust, land immediately. If you attempt to land in strong winds, again, fly conservatively: fly a tight pattern, aim farther down the runway, add extra airspeed during approach but let it dissipate before touchdown, and don't jockey the spoilers.
- Strong downdrafts are common near rain clouds, even if it's not raining! Remember that you should fly faster—not slower—to escape sink.

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New Club Treasurer

Jim Cox informed the Board of Directors in August that due to an increasingly hectic personal and work schedule, he was no longer able to commit the time that is required of the Club Treasurer, and wished to resign once a replacement was found, approved and trained.

The Treasurer’s job is very demanding and the Treasurer is rarely praised. Few of us are aware of just how much time Jim has given to the club on a regular basis. Jim’s tireless commitment to our club has literally made soaring possible for the rest of us. I would like to take this opportunity to thank you, Jim, on behalf of all of us for a job well done! Hopefully, you can now relax a little and pursue more of your soaring goals; The Grob 102 is waiting for you!

Charley Shuffler has accepted the invitation to become the new Club Treasurer, and the Board of Directors have approved him to complete Jim Cox’s term, as per the By-Laws (Article VI, Section 2).

Charley is highly motivated for his new job, and brings a fresh perspective to the Board of Directors. Charley’s experience as a cross-country glider pilot, flight instructor and pilot examiner, as well as a handyman and businessman uniquely qualifies him for the position. Charley’s passion for soaring, attention to detail and characteristic southern generosity is a welcome addition to our club’s new look. I am anxious to work closely with Charley and the rest of the Board to continue transforming our club into the envy of our sport!



“Particularly when flying a glider it is important that you are relaxed and attentive, not anxious.”

Anxiety and Piloting Gliders, Part 3 By: Harry Meeuwsen

As I mentioned in Part II, anxiety, or stress, is not a personality characteristic of a person nor is it in the environment; it is a process of interaction between the person and “what is out there.” It is the relationship between the individual and the environment s/he is presently in and how the various factors in that environment are perceived. As a result, we can influence our levels of anxiety to benefit our performance.

The most popular approaches to stress management involve relaxation techniques that help the individual calm down. Typically, the process leading to anxiety and stress starts with worry long before the event, whether it is a competition or simply a practice flight during gusty conditions. The cognitive worries are usually expressed in negative thoughts accompanied by physiological arousal (sweaty palms, increased heart rate and breathing, butterflies in the stomach, tightening muscles, etc.) resulting in a decrease in performance. These physiological changes can pose problems by themselves. For example, sweaty hands can interfere with the manipulations of the glider’s controls,

the heightened physiological activity may result in premature fatigue during longer flights, and increased muscle tension may reduce the sensitivity to changes in the glider’s behavior or over-controlling the stick and rudder resulting in poor flying. The increase in physiological arousal can be distracting, discomforting, increase the worrying even further, and result in perceptual narrowing. When flying gliders solo this vicious cycle can result in serious problems as perceptual narrowing may result in the pilot becoming distracted by non-essential stimuli or locking onto one aspect of the landing sequence such as airspeed, and failing to perceive when to start the flair (I speak from experience).

So what to do? First be aware that getting “psyched up” is usually the wrong approach. Unless you’re a power lifter who needs to produce maximum effort, you *don’t* need to get psyched up; you need to be in control. Particularly when flying a glider it is important that you are relaxed and attentive, not anxious. Being aware that “getting psyched” is the wrong thing to do can be a starting point for reducing anxiety. Sprinter Carl Lewis

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once stated that if he ran like Carl Lewis, relaxed, smooth, easy, he would run races that seemed effortless. He was able to reduce his pre-competitive physiological arousal to a level of optimal alertness, attentiveness, and relaxed concentration without excess tension and worry. Breaking the “worry-negative thought-physiological stress” cycle is easier when one is competent in performing the skill, in our case flying the glider. As we become more skilled our worries tend to decrease, the physiological arousal comes down, we feel more relaxed and in control, are more aware of key information, and perform much better.

Positive Self Talk. If it all starts with worries and negative thought, we can interrupt these with a cognitive intervention such as thought stopping. If you recognize a negative thought such as ‘I can’t do this’ simply thinking or saying “STOP, I can land the glider” or “STOP, look at the aiming point” can focus attention away from worry and onto the task at hand. Visual imagery of the task to be completed and mentally rehearsing it in advance can also help relax a person. Therefore it is important to “pre-brief” the flight plan and allow a beginning pilot time to image what is going to happen and mentally rehearse what actions need to be taken prior to flying. During the flight the instructor can help the student focus attention correctly by pointing out key actions that need to be performed such as “look at the runway”; or “mind the air brakes.”

Breathing Exercises. These exercises are focused on reducing physiological arousal and include breathing exercises, meditation, and progressive

relaxation. They are designed to bring the butterflies in your stomach under control. The simplest of these are breathing exercises. Slow and deep breathing counters the rapid respiration rate that results from the increased physiological arousal. One technique is to inhale slowly and deeply while counting “1-2-3-4”, holding the breath for 4 counts, and then releasing it slowly while counting to 4. A flight instructor can act as the “relaxation instructor” and ask a nervous student to do this a few times before taking the controls. This can be repeated whenever stress levels increase again. The instructor should ask the students whether this technique is helpful just to verify that it’s a positive thing to do, because individuals may react differently.

Progressive relaxation was developed in the 1930s and requires some practice to be effective. One learns to sense that the muscles are tenser than desired and how to relax them. The exercises often involve the person laying down on a flat surface while listening to an instructor or an instructional tape. After a few minutes of simply laying there and clearing the mind of any thought or thinking about being in a pleasant situation, the individual will be asked to contract certain muscle groups as hard as possible and then relaxing them and noticing the difference. This can be repeated for muscles throughout the body. As the person becomes more proficient in sensing the difference between tense and relaxed muscles, the practice sessions become shorter until finally the individual can literally shake the tension out of the body. You may have seen athletes such as

“This really helped me feel more competent and gain more control.”

swimmers do this prior to the start of their event. “Progressive relaxation: A manual for the helping profession” by Bernstein and Borkovec (1973) is a resource to learn more about this technique.

Meditation techniques focus on relaxing the mind and thus reducing the physiological arousal levels. When meditating the person often focuses on deep, slow breathing while in a relaxed state without any thoughts in mind. A basic exercise may look like this: Sit or lie in a comfortable position, close your eyes, and deeply relax your muscles starting at your feet and moving to your head, until they feel so heavy that it appears you’re sinking through the floor. Keep them deeply relaxed and shift your focus to your breathing, breathe slowly in through your nose and sense the air filling your lungs. Then breath slowly out while thinking a key word such as “calm” or “slow” or “warm”. Breathe slowly and easily for 10 minutes or so (you can check the time but don’t use an alarm). When finished sit quietly with your eyes closed for a few minute, then open your eyes but remain in your position for a few minutes more. Do this once or twice a day,

but not within two hours of a meal because digestion can interfere with getting the body to relax.

I used this techniques to mentally rehearse take-offs and landings in my bed before going to sleep. I also sat in the Grob 103 in the hangar a few times practicing relaxation and mentally rehearsing take-offs and landings with my feet and hands on the controls. Initially I had difficulty visualizing the entire take-off and landing sequences, but as I gained more actual practice, mental practice improved as well to the point where I could see the entire sequences from the pilot’s point of view as opposed to the view from a bystander on the ground. This really helped me feel more competent and gain more control.

Williams and Harris (1998) provide more in-depth descriptions of relaxation techniques for those of you who want to learn more. There are other performance enhancing techniques available such as the Visuo-Motor Behavior Rehearsal (VMBR) technique Suinn developed and very successfully used with the US ski team. I hope this information will help you become a better pilot and make your soaring more enjoyable.



“The engineers build a glider so that its c.g. is optimized for a specific pilot!”



A Visit to a Glider Factory

Part of the fun of buying a brand-new glider is getting to watch the process unfold. In August, I traveled to Kirchheim/Teck, Germany to visit the Schempp-Hirth glider factory and meet the people who will be building me my new Discus-2b.

When you buy a new glider from the factory, you are buying a custom-built glider; one that is made specifically for you. Once the true significance of that sinks in, you can easily become overwhelmed by all of the decisions that lie ahead of you. The biggest decisions come first, such as “Which glider do you want?” Then you choose the major options, such as hydraulic disc or drum brakes. But then you need to choose instruments, computers, and even pitot probes! You even get to work with an electrical engineer and design the glider’s electrical system.

We usually think of Weight & Balance as a preflight formality to see if we’re “in the envelope.” But when you’re racing gliders, a well-positioned center of gravity can make the difference between winning and losing. The engineers build a glider so that its c.g. is optimized for a specific pilot!

Now that I have answered all of the pre-production questions, Schempp-Hirth will begin construction of my glider: from the outside-in! Yes, they start with the outer skin, then lay each layer of composite material, one at a time, inward. Once the thickness of the wings and fuselage has been reached, they begin installing the spars and interior structure. They build the wings and fuselage in halves, then snap them together. Glue, cure, sand, paint and install the remaining components. And then lots of paperwork, and a very big check!

THE
OFFICIAL NEWSLETTER
OF THE
EL PASO SOARING SOCIETY

EL PASO, TEXAS

THE DUST DEVIL TRIBUNE

EDITOR:
CHRIS FLEMING
CJFLEMING@ELP.RR.COM
(915) 491-4920

CONTRIBUTOR:
HARRY MEEUWSEN
MEEUWSEN@UTEP.EDU

PHOTOGRAPHER:
RON CLARK
CLARKWERKS@SBCGLOBAL.NET

EL PASO SOARING SOCIETY

WE ARE LOCATED AT HORIZON AIRPORT, ON PELLICANO STREET JUST EAST OF LOOP 375. WE NORMALLY OPERATE ON WEEKEND AFTERNOONS, AND AT OTHER COORDINATED TIMES. PLEASE CONTACT ANY OF THE BOARD OF DIRECTORS FOR MORE INFORMATION.

EL PASO SOARING SOCIETY

BOARD OF DIRECTORS:

PRESIDENT:
CHRIS FLEMING
CJFLEMING@ELP.RR.COM
(915) 491-4920

VICE PRESIDENT:
FRANK KENNEDY
FRANKKEN@JUNO.COM
(915) 637-5916

TREASURER:
CHARLEY SHUFFLER
SHUFFLEC@BELLSOUTH.NET
(915) 307-7202

SECRETARY:
KEITH FONG
KIKIFONG@EARTHLINK.NET
(915) 351-7535

MEMBER AT LARGE:
JOHN HARDY, JR.
(915) 852-7674

MEMBER AT LARGE:
LOU CHAMALES
CAPTABNRGR@AOL.COM
(915) 526-4248

Current Club Rates as of September 1, 2006

El Paso Soaring Society Rates

Introductory Ride	\$75
Club Dues	\$40/mo.
SSA Dues	\$64/yr.
Tow	\$5 hookup fee, then \$1/100 ft.
Grob 102/103	\$15/hr.
Schweizer 2-33	\$10/hr.

White Sands Soaring Association Rates

Tow \$30 to 2,000ft., then
75¢ for each additional 100ft.

Currently, reciprocal benefits to EPSS members at the WSSA in Alamogordo are limited to aero tows. If you do not own your own glider, EPSS club gliders may be available to you with prior approval from the Board of Directors.



Charley Shuffler gives a great ride!