Scenario Based Training
By Tom Johnson - SSF Trustee

For the past few months, we have been discussing the use of Scenario Based Training (SBT) as the preferred method for training our pilot community. A structured SBT program is the basis for a modern Aeronautical Decision Making / Risk Management program. The military and airlines have been using this approach for years with excellent results. By adopting SBT in clubs and commercial glider operations, the soaring community can reduce accidents too.

To provide this structure the SSF trustees recommend using a modified version of the PAVE model (Pilot factors, Aircraft factors, enVironmental factors, and External pressures). Learning to think about and break down a flight takes a bit of practice. But once you learn the basics of it, it is very intuitive. More importantly, it trains the student to look at the scenarios in the same structured way. They begin to develop the habit pattern for critical analysis of the situation they are in.

If it is not already evident, the SBT method requires both some initial training and a good amount of continuing effort. The US Navy believes that every one hour of flight training requires an additional three hours of ground training to brief and de-brief the lesson. This requires an understanding by the CFIG's that judgment skills are much more important than the ability to manipulate the aircraft flight controls. Judgment skills are fostered on the ground through thorough brief and de-brief discussions of the students actions in the air.

SBT has to be an integral part of your training syllabus. It has to be incorporated on lesson one and continued through Yearly Check-outs and Flight Reviews. It can be formal canned scenarios which you go over with your student; or it can be an ad hoc discussion prior to or after the flight; or it can be a scenario that is discussed, planned, briefed, and then flown.

An example of a formal, canned scenario is what do we do if we are low on the wrong side of the field from the normal pattern entry point. Discuss the options available to the pilot, the decision points, and the pilot actions to be taken. Walk the student through all of the phases of the scenario. Where do I look for traffic now? How will the wind affect me? For a candidate for a flight review, bring different sailplanes into the discussion. The answer for the 2-33 may be very different from the Mini-Nimbus.

An ad hoc scenario is where the CFIG asks the student a question about a particular aspect of the training for today. Which way do you want the tow pilot to take you and why? What will you do on a rope break scenario at 400 ft AGL today? Discuss all the parts of it you can manage. Break it down into its parts. Play "what if" at multiple points along the way. Teach the student how to analyze and develop the different paths to a successful outcome.

A classic example of a discussed, planned, briefed, and flown scenario is the low altitude release. We have advocated before not to make this a surprise event, but a well orchestrated and planned training exercise. Have the student brief everyone involved. Have the student develop multiple contingencies. Your role, as CFIG, is to keep everyone "in-bounds" and make sure the event is done without incident. These events have proven to be tremendous confidence builders for the student.

For the past two years, we have been training the instructors who attend the SSF Flight Instructor Refresher Course (FIRC) in the methodology of SBT.   The SSF Safety Seminar series can also provide this training at your club or commercial operation. We are developing a portfolio of scenarios for

CFIG's and students to discuss. You will find these scenarios are easily modified for your particular soaring site and training environment.

Our community is beginning to understand the value of SBT. Like the airlines and military, we need to embrace it and integrate it into all of training. Doing so will be key in driving down the the accident rates and reducing the fatal accident rate to zero.