

Notes from the December 2023 OSTIV TSP meeting  
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Last December the Training and Safety Panel (TSP) of the International Scientific and Technical Soaring Organization (OSTIV) held its annual meeting. Using a virtual format flight instructors and safety officers from a dozen countries in Europe, Scandinavia, and North America meet for 2 days to share the safety records and training programs those various countries use.

The meeting began with a reminder of the upcoming 36<sup>th</sup> OSTIV congress being held August 19-23, 2024 in Uvalde TX. This will be a hybrid meeting, so if you are interested in attending in person or remotely then visit the OSTIV web site at <https://ostiv.org/> to find out more details.

The meeting then continued with safety briefings from all attendees highlighting the accident and incident rates in each country. As has been noted in the past, the U.S. needs better utilization data to determine our accident rates. Preliminary data we have shows we are about the same as everyone else.

The group then had a long discussion on modern Safety Management Systems (SMS) and the need to create glider specific versions that can be managed at the club or commercial operator level. The TSP members identified 2 major issues that can be used to develop and support a modern SMS for US clubs and commercial operators.

1) The current Human Factors approach to safety (called Safety-I) is not producing the results it once did. In other words, the rate at which accidents are decreasing due to Safety-I implementations and procedures is reaching a plateau. 2) Implementing a modern safety management program is best done at the local club or commercial operations level. In other words, efforts to improve soaring safety requires implementation and enforcement actions by your club or commercial operator.

The idea safety programs become less effective, and a plateau is not new. A look at the history of aviation safety shows this quite clearly.

In the 1950's and 1960's general aviation grew at a tremendous pace. That growth was accompanied by an increase in aviation accidents. To address these accidents the Federal Aviation Administration, and its predecessors, began to investigate accidents, identify the probable cause factors, and then reactively write a rule or regulation to prevent the situation from arising again. The phrase "that rule was written in blood" captures this concept.

This process of waiting for an accident or incident to occur, identifying the probable cause, and reactively writing a new rule worked into the 1970's. It was then noticed that the number of accidents was not declining as fast as in the decades before. In other words, this safety program had reached a plateau.

What emerged in the 1980's was a recognition that human errors were the major driver of accidents and incidents. This is what is now called Safety-I. In Safety-I, the focus is on identifying Human Factors issues that will reduce risks by developing good Aeronautical Decision Making skills. This led to the 5-hazardous thoughts (Anti-Authority, Impulsivity, Invulnerability, Macho, Resignation) and the antidotes. For the past 3 decades, Aeronautical Decision Making and Risk Management programs have had a significant impact on reducing accidents and incidents. The number of accidents in the NTSB database demonstrates this impact. However, the rate at which accident numbers are decreasing has

again reached a plateau. Today a new concept called Safety-II is emerging as a way to augment Safety-I programs.

Just as Human Factors programs did not replace rule making programs, Safety-II does not replace Safety-I programs. Instead, Safety-II redefines the goal of modern safety management programs. In Safety-I the goal is to minimize the number of accidents/incidents/near-misses. Safety-II recognizes that it is much easier to find multiple ways for things to go right, than for them to go wrong. Thus, the goal of Safety-II is to make the number of successful outcomes as high as possible.

As an example, imagine this scenario; Joe is moving his glider to the flight line using his tow-out gear. Sam has his trailer parked in the assembly area just E of the N/S taxiway and is standing next to the cockpit after just completing the post-assembly checklist. As Joe approaches there are several possibilities:

1. Joe drives by knowing that his left-wing tip will clear Sam's rudder.
2. Joe stops short and looks over his shoulder and estimates that there is about 6' of clearance between the wingtip and tail before moving forward.
3. Joe stops and calls out to Sam who estimates that there is about 6' of clearance between the wingtip and rudder so Joe moves forward.
4. Joe stops and calls out to Sam, who walks around the wing to the rudder and confirms that there is 6' of clearance and stays there as Joe slowly moves forward.

You can imagine multiple other possibilities involving friends of Joe and Sam who step in to help ensure a safe outcome. The point is, if nothing happens, we tend to ignore this activity. We only report something if the wing tip and tail meet. Safety-II programs say no, it is important to document the fact that everyone involved took positive steps to ensure nothing bad happened.

One way to document this is to note which of the specific actions occurred. Another way is to note that pilots were, or were not, using good ADM/RM skills as gliders were moving in close proximity to each other. Documenting that pilots are taking care before something bad happens is a Safety-II outcome. Reporting on the rudder strike is a Safety-I outcome.

As noted above, the SSF, working with the TSP, will explore these Safety-II concepts with the goal of developing a framework for a glider focused Safety Management System that clubs and commercial operators can deploy. Those details will be provided as they become available. Watch this space and think about what a Safety-II based program can do for your soaring organization.