

Human Factors Training: Think Outside The Box

Bob Baron, Ph.D

The Aviation Consulting Group

Very often, a Human Factors (HF) course is just a “check the box” event. The class is conducted, a test is given, and a certificate is issued. Then it’s back to business as usual. Unfortunately, as a “check the box” course, the training will not likely go outside the classroom. This type of course can be a waste of time and money, and a missed opportunity for error-reduction strategies to actually be applied to the practical working environment.

A well-designed HF course provides attendees with a unique opportunity to develop soft skills that are rarely addressed in technical training courses. In other words, an aircraft maintenance technician (AMT) may be an expert at disassembling and reassembling an engine, but he or she may not understand how error-provoking conditions can impact their ability to get the job done safely and correctly.

It is important to understand that although an instructor may be highly knowledgeable about the technical aspects of aviation maintenance, he or she may not have the necessary skills and/or personality to effectively facilitate an HF course. Conversely, an instructor with the proper skills to teach but who lacks at least some knowledge of aviation maintenance, could have problems delivering HF training. Thus, an instructor with excellent teaching skills as well as knowledge of aviation maintenance, is an ideal candidate to deliver HF training within your organization.

That being said, HF course efficacy can range from poor to excellent, depending on a number of factors, such as course content and the instructor’s style, methods, and motivation. An

example of a poor course would be eight hours of exchanging war stories and having irrelevant debates, typically led by an instructor that lacks the proper skills and/or motivation to conduct an effective class. This type of class may be fun, but it has very little value in terms of preventing errors in the workplace.

An example of an excellent course would be a well-designed training event, which focuses on relevant and practical subjects, delivered by an instructor with outstanding presentation and facilitation skills. This type of course will have a positive and lasting impact that goes beyond the walls of the classroom. The training will be transferred to the job, and that is what we are looking for—*a behavioral change as a result of HF training*. Developing and delivering a highly effective HF course is not difficult. However, the process may not be without challenges.

One of the biggest challenges in HF training can be getting upper management buy-in. Upper management often views HF training as a waste of money, typically because they are not educated about the purpose and benefits of HF training. This often sets the stage for a “check the box” approach, leading to an ineffective HF training program. On the other hand, if there is true management buy-in (i.e., understanding that HF training is an investment rather than an expense), then the path to an effective HF training program is much easier.

Another challenge is getting management to participate in the HF courses. Even with management buy-in, it can be difficult to have management (especially high-level management) participate in an HF course. Managers may believe that they do not need to participate in HF training for reasons such as, "We don't need it, it's only for mechanics," or "We just don't have the time for this kind of training," or "We don't make mistakes." But managers do make

mistakes. In fact, some of the most catastrophic aviation accidents have been precipitated by management errors at the very highest levels of an organization (think Swiss Cheese model).

In summary, for HF training to be truly effective, it requires management buy-in and participation, a well-developed HF course taught by a qualified instructor, and, of course, a healthy safety culture. If these conditions are not met, you might just be checking boxes!

[Dr. Bob Baron](#) conducts aviation safety training, consulting, and program implementation for aviation operators on a global basis.

Sensitive and knowledgeable about various cultures, Dr. Baron uses his 34+ years of academic and practical experience to assist aviation organizations in their pursuit of safety and quality excellence. He has extensive experience working with developing nations and island countries. He also provides training and consulting to some of the largest airlines and aircraft manufacturers in the world, as well as civil aviation authorities and accident investigation bureaus.

If your aviation organization is interested in improving its culture, implementing programs such as Human Factors, SMS, or LOSA, or have an external, unbiased safety audit/Gap analysis, please get in touch.

Dr. Baron's company, TACG, provides numerous training and consulting services. For more information, please go to www.tacgworldwide.com.