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### **Teaching Safety Culture in Human Factors Courses**

As a follow-up to my last article on “Human Factors Hotspots,” I wanted to delve a bit deeper into one of the points I had stated. I wrote, “It is clear that **safety culture** and **procedural deviations** are two of the most significant contributing factors in aviation maintenance-related accidents and incidents (and, typically, procedural deviations are a manifestation of an unhealthy safety culture).”

The reason for aiming in on this statement is so that I can discuss in more detail some of the limitations of HF training regarding procedural deviations being a manifestation of an unhealthy safety culture. These limitations, in no particular order, are as follows:

1. Although the topic of safety culture is important in an HF course, it’s mostly targeted towards awareness. Don’t expect to make paradigmatic culture changes as a result of your HF course!
2. The very people that can actually do something about making changes to the culture are most likely not even in your class (high-level managers often feel as if HF training is only for the people that turn wrenches).

3. Procedural error mitigation can certainly focus on the mechanics (since they are the last line of defense). However, if the mechanics are working within the brackets of a pathogenic safety culture, it will be difficult, if not impossible, to change the negative norms that have become ingrained in the culture. In other words, for real changes to happen, they must be initiated at the top of the organization.
4. The health of your organization's safety culture can be very subjective based on whom you ask. Ask any upper-level manager and they will probably tell you that "the culture is fine." Ask a line mechanic and he/she may tell you that "the company is an accident waiting to happen."

Now, with all that being said, let's assume you are your company's HF instructor and you are going to teach a module on Safety Culture. Let's also assume that your company's safety culture is pathogenic (or, quite literally, "an accident waiting to happen"). How would you answer the following questions regarding the development and delivery of your Safety Culture training module?

1. In your HF course, would you skip the topic of Safety Culture altogether?
2. Would you ignore your own company's safety culture issues and teach the topic from a neutral, objective position?
3. Would you try to change the safety culture by teaching people how to improve the culture? (keeping in mind that mechanics may not be able to change the culture themselves; change needs to start at the top—and the people at the top are probably not going to be in your class).

4. Would you try to develop a special course just for management to address safety culture to see if you can initiate change from the top? If so, do you think management would be receptive to a high-level safety culture course tailored to them?

These questions are certainly something to ponder as an HF instructor. Personally, I am confronted with this dilemma every time I teach an HF course. To make matters even more interesting, I facilitate HF courses at aviation organizations all over the world—some with outstanding safety cultures—some, not so much. Very often, while I'm teaching line mechanics, there are tacit, sometimes palpable, signs of frustration and angst when the subject of safety culture comes up; it can also get eerily quiet in the room. This provides evidence that the culture may be suppressive, unjust, and untrusting. If so, then we know that procedural deviations are most likely a manifestation of the unhealthy safety culture that exists, which can negatively affect mechanics' performance through such channels as fatigue, pressure, norms, distractions, and stress. And if that's the case, then you can expect your discussion on safety culture to be nothing more than nice-to-know information for your course attendees. The procedural deviations will just keep happening.