

Safety First

By: Felix Tormes, M.D.



FIT TO FLY?

I've penned on these pages in the past my thoughts on aviation risk management as regards to weather, mechanical and aeromedical issues. In our General Aviation world of FAR Part 91 flying, pilot-related causative factors overwhelmingly outnumber power plant/airframe and weather issues in accident analysis. Even in cases when weather and mechanical issues are determined to be contributing factors, it is often the pilot's response to those issues that allows the arrow to whiz through the holes in the Swiss cheese model. The 2007 Nall Report, which I encourage you to review, summarized pilot-related accidents as 73.8 % of all accidents, and 79.1 % of fatal accidents in their annual accident review.

Breaking the chain that culminates in an accident therefore begins with a fit pilot, fit in every sense of the word, to conduct the flight safely, and starts way before the aircraft leaves the hangar. As medical professionals, we are all well acquainted with FAA Medical Standards for Certification and with the concept that a pilot self-certificates for each flight between FAA flight examinations. But while we may be overtly physically qualified and not suffer from a physical impairment detectable on a CXR or EKG, accident analyses have shown historically that psychological issues bearing down on an airman often have adverse effects that can lead to faulty performance and poor judgment. In the military any life-altering event, such as the death of a parent or a divorce, is grounds for temporarily grounding a pi-

lot. These are high profile events and are generally easy to recognize. More subtle however, are other mundane psychological stressors that lead to preoccupation and can blunt one's performance acuity in the cockpit. Seemingly minor errors, such as miscopying taxi instructions, botching a checklist, forgetting flap settings, etc., crop up when one's mind is not 100 % focused. Recognition of inconsequential errors of this type should alert us that we might not be performing at our peak. And bear in mind that the vast majority of GA flights are single pilot events.

Mental preparation for flight is every bit as important as an airworthy machine. For a long cross country flight, it may take a week of mental readjustment, part of which may be ensuring domestic tranquility before getting airborne. Maintaining flexibility in scheduling a flight is equally important. Some light aircraft manufacturers have advertised their products in the past as "personal airliners". I have a problem with that... some of us may actually come to believe that when doing our flight planning. A more sensible way to operate a GA aircraft is on the premise that we don't have to be anywhere at any given point in time. Even the most technologically advanced aircraft, the Space Shuttle, cancels for weather. It is precisely the flexibility of departure and arrival times that makes a general aviation aircraft most useful. We give that up when we attempt to fly like a domestic carrier. And we may compromise our flexibility at times for the convenience of others,

like FBOs, hotels and car rental agencies that expect you to tell them your exact arrival time. On time arrivals are great for Delta but, for a GA pilot, attempting to maintain firm arrival times introduces just another stressor.

Navy flight surgeons are trained to develop a sense for the psychological fitness of aircrews by close observation and awareness of life stressors. An experienced flight doc has learned that, although his pilots may be fine physical specimens, they are all subject to the vicissitudes of life: family/domestic dissent, economic concerns, professional/career conflicts. No one lives a stress free life and, for us as pilots, it is important to isolate these factors when it comes to self-certify for a given flight. It may be entirely appropriate to scrub a flight when the airplane is squawk-free and the weather is acceptable if, for example, you have had an upsetting event at home or at the office. Although I can't show you any data or cite a RCT, my own personal experience and review of multiple accidents would lead me to suggest that, under those scenarios, a pilot may not be fit to fly. As a flight surgeon, all I would need to do is have a heart-to-heart with the XO, and the pilot is off the flight schedule. That's easy. The hard part, my friend, is grounding yourself.

Nil illegitima corborundum