The Circle of Fear

Cultivating A Healthy Respect for Unexpected Failures

By Randy E Cadieux

As a Marine Corps aviator and Instructor Pilot in a Navy training squadron I have experienced my share of what I would call near-death experiences. At least at the time of each occurrence, it seemed that death was imminently close. From flying transport/tanker aircraft in icy winter weather and in combat operations to training military flight students with little to no experience, each fearful encounter made a lasting impression and helped me to develop a healthy respect for fear and to look at fear from a new perspective; as a warning sign and risk control for unexpected failures. This article will discuss a concept known by some military flight instructors as the "Circle of Fear" and will describe how the acknowledgment and recognition of fear can be a healthy indicator to prepare operators, practitioners, team-members, and individual employees for unexpected failures. This mindset can become a behavior, which infuses a risk-management attitude into the work habits of individuals and teams. Ultimately, a Circle of Fear mindset may improve performance by potentially reducing the likelihood of human error, and/or increasing the chance of success and reliability if failures do occur.

The Circle of Fear is a concept used by military flight instructors in training aircraft. It describes the level of comfort an Instructor Pilot has with a student pilot's abilities, and the degree to which that Instructor Pilot will allow the student to make a mistake. The "circle" refers to the amount of space between the control stick and the Instructor Pilot's hand. A large Circle of Fear means an Instructor Pilot does not keep his or her hands close to the flight controls and allows a student to make large mistakes before intervening. A small Circle of Fear means an Instructor Pilot keeps his or her hands on or very close to the flight controls and tends to intervene early when a student makes a mistake. There are positive and negative aspects to both a large and small Circle of Fear. An overly small Circle of Fear may create a negative learning environment for the student and a Circle of Fear which is too large may lead to an error from which recovery is impossible.

Navy and Marine Corps primary flight instructors undergo a rigorous training program, which exposes them to various teaching and training techniques, emergency procedures, and out-of-control flight recovery procedures, and part of this training covers defensive reactions to student pilot errors. When Instructor Pilots complete their training program they are armed with an arsenal of training techniques, and a healthy respect for student error potential. In other words, their Circle of Fear is small. Since they are new to the training environment and to flying with students they are often very cautious and are often fearful (or defensive) of student errors which could potentially become catastrophic. This acknowledgment of fear in many cases causes them to intervene early enough during student errors to prevent those errors from becoming unrecoverable.

Over the course of an Instructor Pilot's tour of duty, he or she is exposed to many different students and many of the same common student errors during flight. In some instances, over time a certain degree of complacency sets in and the Circle of Fear becomes larger. The Instructor Pilot may be more willing to let a student make errors and recover from them without Instructor Pilot assistance or intervention. This is a somewhat natural tendency because after many successful mishap-free instructional flights the instructor has learned that he or she can recover from many situations and errors. The Circle of Fear may remain large until the instructor lets a student get too far in the error process and a near-incident or some other event occurs which increases his level of fear or defensiveness again and decreases the size of the Circle of Fear. He realizes that the situation could have turned out much worse, and leads the instructor to tighten his Circle of Fear. This may be viewed as a cyclical process of the Circle of Fear; Small-Big-Small. The one resounding theme is that Instructor Pilots who acknowledge their fear and recognize that it is a risk management tool may be more prepared for potential catastrophic errors than complacent Instructor Pilots.

The Circle of Fear concept can be expanded and applied to other vocations and careers besides military aviation. It is a concept which can become a mindset, and a mindset which can become a behavior. This behavior may lead employees and team-members to respect and acknowledge the potential for failure and be better prepared for impending failures. This is a form of a Risk-Management mindset. Despite the advantages of this concept, many personnel and organizations look down upon the admission or acknowledgment of fear. In many companies and industries, it is seen as a sign of weakness. Those cultural traits do not change the fact that fear can be a natural response in many high-stress situations and dynamic environments. Whether individuals and organizations choose to admit or deny it does not change the fact that it is real. Since fear is a real human reaction, many organizations may see improved performance by acknowledging fear among their employees, embracing the concept as a risk management mindset, and foster an environment and culture which allows employees to use fear as a tool to prepare for potential failures.

This culture can be established at any level within an organization, but to be effective it should be supported at the highest level of leadership. This top management buy-in helps to assure employees they will be supported. Additionally, organizations can establish a mentoring program where more experienced employees train younger, more junior employees on ways to recognize, acknowledge, and harness their fears. This training may be most beneficial if mentors use experience-based stories. This is used effectively in the military and can be modeled in commercial organizations. Another effective sharing technique may be to foster an environment where peer-to-peer experiences are discussed in a non-threatening environment. Many military flying squadrons use this technique and call it "true confessions". This may help employees, leaders, and team-members to gain knowledge through a lessons-learned forum and may help them avoid complacency, prepare for failure, and could ultimately make the individuals and entire organization more resilient.

Some examples of organizations and professions that might be able to recognize performance improvements from the Circle of Fear concept are physicians (particularly those in a team-based environment), law enforcement officers, paper mills, large and small-scale construction, and other organizations and employees that operate in a high-risk environment. This concept-mindset-behavior pattern could lead members of these teams to gain a healthy respect for human error and potential equipment failure, as well as an awareness of potential team breakdown during high-stress situations. The applications are broad, and the behavior is key. It fosters an attitude against complacency and prepares team members to be ready for unexpected failures and errors. This behavior could also be adopted by personnel who work in a non-team-based environment, such as utility workers, pipeline welders, or others who may not have a team to rely on for backup. These high-risk environments can be both very demanding and unforgiving when catastrophic failures or human errors occur. The Circle of Fear concept could be implemented by these individual employees to raise their awareness of risks and help them to guard against and prepare for errors and equipment failure.

While the Circle of Fear concept may be effectively applied in multiple organizations, it should be noted that individuals and organizations should be cautious in its application to avoid becoming completely averse to risk. Risk-aversion may be described as a state where individuals or organizations are so fearful of risk-taking that they refuse to accept any risk associated with their operations or other functions within their organizations. While some organizations are risk-averse by their nature, in many high-performance environments a certain degree of risk may be required to successfully accomplish the organizational mission or goals. This balanced approach to the Circle of Fear concept, combined with a comprehensive risk assessment and management program may help organizations to function at a high level of performance with an appropriate level of risk mitigation.

The Circle of Fear concept has been shown to be a potential risk-mitigation technique. If a healthy respect for fear is embraced by all levels within an organization, this could potentially allow them to use fear not as a mission-degrader, but as a mission-enabler by helping employees and teams to be as well-prepared as possible if or when an error, equipment failure, or serious incident occurs. It might be one technique that allows for success and resilience in the face of a mishap, as opposed to organizational failure.

About the author: Randy Cadieux has been a Marine Corps officer for 17 years and has been involved with Navy and Marine Corps aviation for 16 years. He has flown multi-engine, crew-served aircraft as well as high-performance training aircraft. He is an Operational Risk Management Instructor/Facilitator and he is a graduate of the U.S. Navy's School of Aviation Safety. His education also includes a Master of Science in Information and Telecommunications Systems Management with a concentration in Project Management. He also has a diverse background in Operations and Safety Management and has instructed and applied Crew Resource Management concepts at multiple levels.