hortly after takeoff from Douala, Cameroon, on a dark night with convective activity in the area, the pilots of Kenya Airways Flight 507, a Boeing 737-800, lost control of their aircraft. The captain experienced confusion and spatial disorientation while trying to manually recover. His inputs greatly exacerbated the bank angle, and the aircraft entered an unrecoverable spiral dive.

The Cameroon Civil Aviation Authority determined the probable cause to be "loss of control of the aircraft as a result of spatial disorientation ... after a long slow roll, during which no instrument scanning was done, and in the absence of external visual references on a dark night. Inadequate operational control, lack of crew coordination, coupled with the non-adherence to procedures of flight

A captain who makes the cockpit environment acrimonious can be a safety risk.



monitoring, [and] confusion in the utilization of the [autopilot], have also contributed to cause this situation."¹

This accident was the result of missed opportunities, at the organizational level, to address the captain's documented deficiencies in both his flying skills and crew resource management (CRM). The official investigation highlighted the captain's known psychological traits and deficiencies before, as well as on the day of, the accident. They included his strong character and heightened ego; authoritative and domineering attitude with subordinates; paternalistic attitude toward the first officer on the accident flight; documented deficiencies in upgrade training, which included CRM, adherence to standard procedures, cockpit scan and situation awareness; a "touch of arrogance" and "insufficient flight discipline." There had been numerous recommendations that he attend remedial training.2

Sometimes a captain with a personality of this type is paired with a first officer who lacks the ability and/or experience to voice concerns related to the captain's decisions and actions. The Cameroon accident investigation revealed that the first officer was known to be reserved and nonassertive, and that he was subdued by the captain's strong personality. He was concerned about the weather but did not question the decision to depart.³

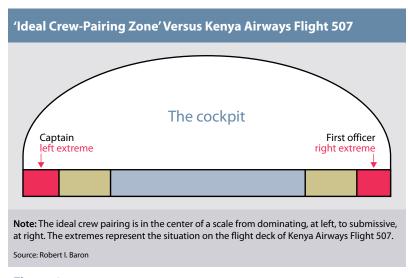


Figure 1

Polar Opposites

A crew pairing such as this, where there is a strong, domineering captain combined with a reserved and nonassertive first officer, represents polar opposites in terms of crew coordination, adherence to CRM principles, standard operating procedures and general communicative ability. Another perspective suggests that the "trans-cockpit authority gradient" in this accident crew was much too steep.⁴ At best, a crew pairing should fall into what I call the "ideal crew-pairing zone" (Figure 1). In the Kenya Airways accident, the crewmembers were at the left and right extremes.

The topic of crew pairing deserves much more attention. However, the main subject of this article is the behavioral tendencies of "toxic captains" and how the organization handles them.

The term "toxic captain" is not likely to be found in a flight training manual. Some people know from unhappy experience what it implies. I define a toxic captain as a pilot-in-command who lacks the necessary human and/or flying skills to effectively and safely work with another crewmember in operating an aircraft. Additionally, the toxic captain, at times, can make the cockpit environment so acrimonious that the successful outcome of the flight may be in serious jeopardy.

The pilot-in-command of Flight 507 could be categorized as a toxic captain. His deficiencies were not hidden or hard to detect. In fact, deficiencies documented in the captain's records clearly indicated red flags and potential problems. Additionally, multiple first officers did not want to fly with the accident captain because of his reputation for an overbearing personality and arrogant attitude.

One of the clearest ways to determine if there is a "toxic captain problem" is to collect and analyze reports, provided they are made. If only one first officer has reported an issue with a particular captain in, for instance, a one-year period, it was probably just an isolated incident. However, if 15 different first officers during that year went on record that they did not feel comfortable with,

or want to fly with, a certain captain, it is safe to assume the problem lies with the captain.

The toxic captain may not have had an accident; however, it may just be a matter of time, as the toxic leadership behaviors go unchecked. Take, for example, the following report from an air carrier first officer that was submitted to the U.S. National Aeronautics and Space Administration (NASA) Aviation Safety Reporting System (ASRS):

I just finished a trip with the most unprofessional, nonstandard, weak and violation-prone captain at my air carrier, on a 13-day intra-Asia flight. I must have caught 30 or more of his mistakes. If I missed some, it was because I was getting yelled at. The whole trip he tried to get me to quit, but I didn't. On the 12th day, he tried to get off the trip, but the company didn't let him. We are both under company review. This man is a menace to aviation and an accident waiting to happen.⁵

Two additional examples come from the U.S. Federal Aviation Regulations Part 135 charter domain in which toxic captains created an extremely hazardous flight deck environment. In the first example, the captain slapped the headset off the first officer's head while the first officer was flying an approach. The captain was reacting to the new first officer having trouble maintaining the proper approach speed. In the second example, the captain lashed out at the first officer for the duration of a four-hour flight because, according to the captain, the first officer "could not do anything right." During the entire trip, the first officer was subjected to harsh criticism about his flying skills and other negative comments. So bad was the climate in the cockpit that after they landed and stepped out of the aircraft, the first officer punched the captain in the face. The captain then struck back, and a full-fledged altercation ensued. Both pilots spent the night in jail.

I knew both of these first officers. While, at the time, they were both new and inexperienced, there is never justification for a captain to treat a first officer so disrespectfully. Yet, this type of toxic behavior seems to be more ubiquitous in aviation than many realize.

Hiding in Plain Sight

The fundamental question is why are these toxic captains, who pose a significant safety risk, allowed to fly for a commercial operator? They typically are not concealed in the system. They are usually well known to other flight crewmembers and to flight attendants. They may even have documented deficiencies that have been ignored by the airline, as with the Flight 507 captain.

Reasons may exist at the organizational level or at the individual level. The following are examples from the organizational aspect:

- It could be one of the unusual cases in which the airline is unaware of the toxic captain.
- The organization has, perhaps tacitly, recognized the captain's behavior but believes it is a personality issue rather than a safety risk.
- The organization is fully aware, by virtue of safety reports and deficiencies documented in training records, that the captain may be a safety risk. However, the organization feels that the safety risk is minimal and not worth the effort to mitigate.
- The managers responsible, at the organizational level, for addressing technical and behavioral deficiencies in flight crews do not want an awkward confrontation with a captain, perhaps very senior, who has been with the airline for decades. In my opinion, that was at least partially the case with the Flight 507 captain. There was a lack of assertiveness, or the ability to speak up to the captain, from the instructor level up to and including upper-level management. All of this was exacerbated by Kenya's "high power distance" culture, in which citizens tend to accept authoritarianism in employee-to-employer relations. 6

The captain slapped
the headset off
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Some factors at the individual level are these:

- Above all, the captain may not acknowledge that he or she has a problem. Many captains believe that the other crewmembers are the source of cockpit strife.
- Some of the captain's arrogance and egotism may actually be a coping mechanism used to ameliorate personal insecurities.
 The captain may feel more in control of situations by making other crewmembers feel weak.
- Captains from a military background, where strong hierarchical gradients and clear positions of power are standard, may have difficulties adapting to their new environment. It is hard for some captains to fully assimilate into civil aviation, where effective leadership styles may be diametrically opposed to those used in the military.
- Related to the above, the captain may not buy into CRM principles and the teamwork concept. He or she may believe that CRM is only for weak pilots and that CRM is psychobabble with the sole purpose of making crewmembers enjoy each other's company on a long trip.

Remediation or Termination?

An airline has basically two options for taking a proactive position toward the toxic captain. The first option is *remediation*, or an attempt by the airline to confront the captain and apply some kind of intervention. The second option is *termination*, which may be appropriate; however, there may be union issues that complicate this option. Termination may also mean that the captain simply goes to another airline and continues to be a safety risk.

Remediation of a toxic captain is the preferred option. However, this can be difficult. It is extremely hard to change ways of doing things when they have been done that way for a long time. It is also very difficult to try to change someone's ingrained psychological traits and attributes. In many cases, remediation may be out of the question. Some of those vitriolic personality traits may never be reversible.

That brings us to the second option for resolution of the toxic captain, termination of employment. This can be a very awkward, uncomfortable undertaking by the airline. However, in some cases, where remediation has been, or would be, ineffective, this may be the only viable option. At the time of the Flight 507 accident, the captain clearly should not have been in command of a commercial aircraft with responsibility for 114 lives, including his own. All perished in that accident.

I recommend that all flight operations take the toxic captain issue seriously. There are typically red flags and incidents that precede far more serious events. If not considered part an operation's safety management system (SMS), this type of aberrant behavior undoubtedly needs to be addressed in the safety risk management section of the operator's SMS. If Kenya Airways had approached this differently, the outcome of Flight 507 might have been different.

Do you have a toxic captain in your flight operation?

Robert I. Baron, Ph.D., is the president and chief consultant of The Aviation Consulting Group. He has more than 23 years of experience in the aviation industry and is an adjunct professor at Embry-Riddle Aeronautical University and Everglades University.

Notes

- Cameroon Civil Aviation Authority (n.d.). Technical Investigation Into the Accident of Kenya Airways B737-800, p. 57.
- Lacagnina, M. "Beyond Redemption: Spatial Disorientation Turned a Minor Upset Into a Major Accident." AeroSafety World 5(7), 24–27. August 2010.
- 3 Ibid
- Edwards, E. "Stress and the Airline Pilot." In BALPA Medical Symposium. London, 1975.
- 5. NASA ASRS Accession no. 603942.
- 6. Hofstede, G. *Cultural Dimensions*. ITIM International, 2009.

