

Editorial

TOUGH AND COMPETENT

By Richard H. Savel, MD, and Cindy L. Munro, RN, PhD, ANP



It was a Friday afternoon: January 27, 1967, to be precise. The United States and the Soviet Union were in the middle of the Cold War. As a part of this ideological standoff, these 2 superpowers were engaged in a heated space race—a race that the United States was losing. The Soviet Union had successfully launched the first artificial space satellite, Sputnik 1, in 1957, and had beaten us by putting the first man in space, the first man in orbit, the first woman in space, and enabling the first person to perform a space walk.

A visionary and bold response was articulated by President John F. Kennedy in 1961. Later, in 1962, he expanded his remarks: “This nation should commit itself to achieving the goal, before the decade is out, of landing a man on the moon and returning him safely to the Earth” as well as the famous words “We choose to go to the moon in this decade and do the other things, not because they are easy, but because they are hard...”¹

The United States had successfully completed Project Mercury,² proving we could put a human into space, and Project Gemini,³ in which early American space pioneers (in a spacecraft just large enough to contain 2 people) demonstrated how to actually do the work of astronauts. Through trial, error, perseverance, and tachycardia, these men learned how to perform such tasks as working in space, navigating

their spacecraft, and, of greatest complexity and importance, developing techniques to successfully rendezvous spacecraft with each other (mandatory for a successful moon landing), all with much less computing power than each of us now carry in our smartphones.

Apollo 1: Pressure to Succeed

It was in this context—during the Cold War, the space race, and immense pressure to get to the moon within the decade—that astronauts Virgil “Gus” Grissom, Edward White, and Roger Chaffee were working in their Apollo space capsule at Cape Canaveral Air Force Station Launch Complex 34. Grissom and White were veterans of space: the former having been involved in both Mercury and Gemini missions, and the latter having performed the first American spacewalk. Chaffee, the rookie, was a decorated naval aviator. On that day, these men were performing what was known as a “plugs out” simulation test to demonstrate whether the spacecraft would function properly using its internal power and life support systems. This was not considered to be a hazardous test.

The astronauts entered the space capsule at around 1 PM and worked in their cramped quarters for hours. There were problems, including strange odors and, of greater concern, significant trouble with the communication system. Grissom was noted for having said “How are we going to get to the moon if we can’t

©2015 American Association of Critical-Care Nurses
doi: <http://dx.doi.org/10.4037/ajcc2015182>

“ The single greatest lesson from Apollo 1 that endures for us today is a lesson of leadership. ”

talk between 2 or 3 buildings?”⁴ Their simulated countdown continued into the early evening.

At 6:31 PM, the fateful words “Fire! Fire in the cockpit!” were transmitted over the communications system. Seventeen seconds later, all 3 astronauts were dead. America’s space program came to an abrupt halt. The United States had lost its first casualties in the race for the moon. Catastrophe had occurred not during a complex mission thousands of miles from earth, but here on terra firma during a routine test.

Multiple investigations were launched, and the entire Apollo space program was frozen. There would not be another manned spaceflight until October 1968, some 21 months later. From a technical standpoint, the problems are now well known.⁴ The space capsule was routinely filled with pressurized 100% oxygen, the escape hatches opened in, and some wiring had lost insulation. A complete redesign of the spacecraft would be required, with hatches that opened outwards and with an atmosphere that was no longer pure oxygen, along with many other complex design changes. But in addition to a redesign of the spacecraft, a significant reassessment of the entire administrative culture at the National Aeronautics and Space Administration (NASA) also would be required.

The Kranz Dictum

The single greatest lesson from Apollo 1 that endures for us today is a lesson of leadership. At the time, the flight director was Eugene Francis “Gene” Kranz. On the Monday following the fire and death of the astronauts, Kranz gathered up his team. One can only imagine the immense psychological and emotional weight and pressure he must have felt. On his watch, the United States had lost 3 of its finest members of the astronaut corps, and it had happened during a routine simulation session.

This could have easily been a statement of his resignation. Instead, however, Kranz found an opportunity to offer inspiration and leadership.

About the Authors

Richard H. Savel is coeditor in chief of the *American Journal of Critical Care*. He is director, surgical critical care at Maimonides Medical Center and a professor of clinical medicine and neurology at the Albert Einstein College of Medicine, both in New York City. **Cindy L. Munro** is coeditor in chief of the *American Journal of Critical Care*. She is associate dean for research and innovation at the University of South Florida, College of Nursing, Tampa, Florida.

His speech articulated what became known as “The Kranz Dictum”⁵:

Spaceflight will never tolerate carelessness, incapacity, and neglect. Somewhere, somehow, we screwed up. It could have been in design, build, or test. Whatever it was, we should have caught it. We were too gung ho about the schedule and we locked out all of the problems we saw each day in our work. Not one of us stood up and said, “Dammit, stop!” I don’t know what [the] committee will find as the cause, but I know what I find. We are the cause! We were not ready! We did not do our job!

From this day forward, Flight Control will be known by two words: “Tough” and “Competent.” Tough means we are forever accountable for what we do or what we fail to do. We will never again compromise our responsibilities. Every time we walk into Mission Control we will know what we stand for. Competent means we will never take anything for granted. We will never be found short in our knowledge and in our skills. Mission Control will be perfect. When you leave this meeting today you will go to your office, and the first thing you will do there is to write “Tough and Competent” on your blackboards. It will never be erased. Each day when you enter the room, these words will remind you of the price paid by Grissom, White, and Chaffee. These words are the price of admission to the ranks of Mission Control.^{5,6}

Kranz provided leadership during a dark, difficult time for America. He did not wither and become defeated by the challenges that faced him. Instead, he met these challenges head on. He became inspired and inspired others. He went on to become one of America’s great heroes, successfully leading the team on Apollo 11 that landed the first humans on the moon and providing inspirational leadership to the team that saved the crew during the Apollo 13 crisis—a situation that was a hair’s breadth away from becoming another fatal disaster.⁷

Parallels to Critical Care

For those of us working in intensive care, there is much to be gained by contemplating these events.

“ We must not get caught up in the conflict; we must seek to manage it. ”

First of all, when we find ourselves in a challenging situation—something guaranteed in health care and clearly even more commonplace in critical care—we should think back to the leadership demonstrated by Kranz. One could easily imagine him shying away from the daunting situation that faced him. We critical care professionals are entrusted with the lives of our patients in much the same way NASA was with the lives of the astronauts. When we are working with a family situation that may be challenging, we must remember that we have chosen to do these things because they are noble, because they are worthy, because they are hard. When we are working with our colleagues to implement new guidelines or protocols to enhance the care and outcomes of our patients, we must not expect it will be easy. It is better if we expect it to be challenging. When we encounter conflict—no matter what kind of conflict it is—we must stay focused. We must not get caught up in the conflict; we must seek to manage it.⁸ We must take the high road.

Our Search for Inspiration

The search for inspiration in critical care nursing and medicine is of paramount importance. It is the *why*. It is why we do what we do. It is why we get up each day. It is why people continue to pursue critical care as a profession. We work as a team to provide comfort, to save lives, to fight death, to win. As critical care practitioners, it is not necessary for us to search for meaning in our professional lives; we have more meaning in our lives in one day than many have in a lifetime. Our problem is not one of finding meaning, but of reminding ourselves—and each other—how important what we do on a daily basis really is.

In conclusion, as part of our commitment to this profession, we must continually remind ourselves to be “tough and competent”: tough on ourselves because our patients deserve it, and

competent because it is our price of admission to being part of the intensive care team. To paraphrase President Kennedy, we do not do what we do because it is easy; we do what we do because it is meaningful, because it is important, and “because it is hard.” We should all take a moment to remember the profound message of inspiration, leadership, passion, and courage that arose from the ashes of the tragedy that was Apollo 1.

The statements and opinions contained in this editorial are solely those of the coeditors in chief.

FINANCIAL DISCLOSURES

None reported.

eLetters

Now that you've read the article, create or contribute to an online discussion on this topic. Visit www.ajconline.org and click “Submit a response” in either the full-text or PDF view of the article.

REFERENCES

1. John F. Kennedy Presidential Library. <http://www.jfklibrary.org>. Accessed September 3, 2015.
2. Swenson, LS Jr, Grimwood, JM, Alexander, CC. *This New Ocean: A History of Project Mercury*. NASA; 1966.
3. Shayler D. Gemini: *Steps to the Moon*. London: Springer; 2001.
4. Apollo 204 Accident: Report of the Committee on Aeronautical and Space Sciences, U.S. Senate, with Additional Views. 1968. http://klabs.org/richcontent/Reports/Failure_Reports/as-204/senate_956/index.htm. Accessed September 3, 2015.
5. Kranz G. *Failure Is Not an Option: Mission Control from Mercury to Apollo 13 and Beyond*. New York, NY: Simon & Schuster; 2000.
6. Murray C, Bly Cox C. *Apollo: The Race to the Moon*. New York, NY: Simon & Schuster; 1989.
7. Lovell J, Kluger J. *Apollo 13* (Previously published as *Lost Moon*). New York: Houghton Mifflin Company; 1994.
8. Savel RH, Munro CL. Conflict management in the intensive care unit. *Am J Crit Care*. 2013;22(4):277-280.

To purchase electronic or print reprints, contact American Association of Critical-Care Nurses, 101 Columbia, Aliso Viejo, CA 92656. Phone, (800) 899-1712 or (949) 362-2050 (ext 532); fax, (949) 362-2049; e-mail, reprints@aacn.org.