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IN THE NEWS

Past Air Disasters May Help Prevent Future Ones

By Mark Steg
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Editor's note: Prompted by recent events, following is a cautionary tale about military air training written by longtime Jefferson Educational Society member and U.S. Army veteran Mark Steg. Changes were made from an earlier version of this article.

The Vulcan gun above is pictured in 1979 on the Baltic Sea, where the U.S. Army used to stage practice shoots.

On Dec. 22, 2024, the USS Gettysburg mistakenly shot down an F-18 Hornet combat aircraft. Unfortunately, these unintentional shoot-downs are not uncommon. Three days later, Russian Air Defense Forces shot down Azerbaijan Flight 8243. In 2014, Russian-backed forces also shot down Malayan Airlines Flight 17, killing 298 passengers. Even balloons have fallen victim: In 1995, Belorussian Air Defense shot down a German racing balloon, killing two. The list goes on. In 1988, the USS Vincennes shot down Iranian Flight 655, killing all 290 passengers. In 1983, Russian fighters shot down Korean flight KAL 007, killing 269 and precipitating a major international crisis. A Wikipedia list, "List of Airliner shootdown events," describes 16 such events.

In these days of global hotspots and brinkmanship, analyzing past disasters is essential to avoid future ones. The reason is that the danger of escalation due to miscalculation is real. If the Chinese or Russians shoot down a U.S. or NATO plane, the pressure to retaliate will be huge, as will the pressure on them to react to our reaction. Things could quickly spiral out of control.

While I do not know the circumstances of the F-18 incident, I can relate to it in a small way: In 1978, I was placed in a situation that nearly resulted in the downing of a U.S. plane. As these events continue to recur, I thought it was appropriate to dust off the memories of nearly 50 years and tell this story. Thankfully no one was hurt, and this was not included on the previously mentioned Wikipedia list.

Nevertheless, I believe that a description of this incident is relevant, to give an idea of what goes on behind the scenes.

In 1978, I was a newly assigned 2nd lieutenant stationed on a U.S. Airbase in West Germany. The Cold War was relatively quiet, but there was intermittent terrorist activity. I served as a platoon leader of a Vulcan Air Defense platoon, which was part of an Air Defense battery that included one other Vulcan platoon and two Chaparral platoons.

A Vulcan is a modern version of the venerable Gatling gun. Vulcans are powered by a 1.5 kW generator and fire 20 mm explosive projectiles at 3,000 rounds per minute. Each platoon had four of these guns. Each gun was crewed by a squad of four soldiers and towed into action by a six-wheeled M-561 "Gama Goat" vehicle. Chaparrals were self-propelled missile launchers that fired what was essentially a Sidewinder air-to-air missile. A Sidewinder was used in 2024 to shoot down the notorious Chinese spy balloon.

To this day, Vulcans are still used on U.S. jet fighters. They are also the gun component of the Phalanx anti-missile system: These are automated (no human gunners) and are the primary close-range anti-missile defense system on U.S. ships. I'm told that they can shoot down a mortar shell.

On an August day in 1978 at about noon, I was one of two lieutenants at our tactical command site (Tac Site) and was watching an ingenious exercise of the other Vulcan platoon, devised by the other platoon leader, a 1st Lt. He was loading the basic ammunition war load of 1,500 rounds per gun onto each of his four Gama Goat vehicles to see how much space they would take up. This was our actual war load of high-explosive, tracer-incendiary and self-destruct ammo – the real deal.

This miraculously caused him to be ready for what came next – a phone call from the Battery Commander (a captain) who excitedly directed him to get his platoon onto the airbase immediately to counter an anticipated terrorist attack from the air. The 1st lieutenant threw down the phone and decisively led his already-loaded platoon out the gate and to the air base about 7 miles away.

To make a long story short, I picked up the phone, got the same orders, rallied my platoon, and arrived at the airbase faster than I could have imagined possible, having had to start from scratch. We had both platoons deployed but then the other lieutenant left to go to Battery headquarters, leaving me, a very fresh second lieutenant, alone with eight locked and loaded Vulcan guns. To add to the excitement, a small Cessna-style aircraft appeared and flew about erratically.

This left me in a very challenging situation. As the plane was buzzing around, the squad leaders asked me, "Sir, should we shoot yet?" The guns were all essentially chambered, and the radars were locked on. All that the gunners had to do was

push the firing button and the plane would have been blown to smithereens. These guns were designed to shoot down jets, so this plane was a sitting duck.
I decided to wait for hostile action, but I will never forget the pressure that I felt. It was a little like being in a spinning room. The stakes were higher than any situation I had ever been in before, and there was absolutely no playbook. No one had ever discussed this possibility at the Air Defense School.

As the plane approached the runway to land, I nervously continued to order the platoons not to fire, since I did not see any hostile intent. This turned out to be a very good thing, since the plane turned out to belong to the Airbase Flying Club. Phew! So, while those F-4 jockeys were having fun with the base Cessna, they never realized how close they came to oblivion. Incidentally, I believe there was a terrorist bombing in Germany that day, but not near us. There was a serious bombing on the airbase three years later but not from the air.

So, what can be learned from this? First, that behind seemingly calm settings, there may be chaos and confusion. This can likely impair judgment: The other party may not be calm, rational, or experienced. Why, there could be a second lieutenant in charge! Second, understanding this potential chaos should be a motivator to avoid needlessly dangerous events. While U.S. and NATO forces generally behave cautiously and avoid risky behaviors, our potential adversaries don't. But third, even the best-behaved forces are subject to unpredictable events as I have described. I always found it sobering that this event, a potential terrorist attack from the air, occurred 23 years before the 9/11 attacks, which were also terrorist attacks from the air. The lesson was discarded and lost.

A word on the chaos going on behind the scenes: I did not elaborate on the frantic scrambling to get the platoon ready. This led to us arriving excited and full of adrenaline. This made an accident more likely. I'm unsure if such unpredictable scenarios are studied and anticipated at the air defense school these days, but I think it would be beneficial.

My biggest regret is that the Army Achievement Medal (AAM) didn't exist then. This would have been an appropriate way to recognize the squad leaders who were able to go from zero to 100 at their battle stations with no warning or preparation. Deploying that quickly was a remarkable feat, which provides another lesson: that U.S. soldiers can pull off miracles, as my squad leaders and soldiers showed.

ABOUT THE AUTHOR

Following more than six years of service in the U.S. Army as an air defense officer, Mark Steg earned a master's degree in counseling psychology from Gannon University. He subsequently worked as a Licensed Professional Counselor at the Erie VA Behavioral Health Clinic.

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