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8TH ANNUAL AIR FORCE HISTORY & HERITAGE

STUDENT WRITING COMPETITION WINNER

The *Memphis Belle*TM: Spirit of American Bomber Crews

by GRACE OJALA

Three students were recently selected as winners of the National Museum of the U.S. Air Force's™ eighth annual student writing competition and were awarded scholarship funds through the Air Force Museum Foundation, Inc. (No federal endorsement implied.) The research questions for this year's competition were focused around the Memphis Belle as an example of World War II bombers. Students were asked to write about the challenges the crews faced and overcame in performing their missions. The Friends Journal is pleased to present the first-place winning essay here as submitted.

It is May 17, 1943. The ground crews of the Eighth Air Force base at Bassingbourn, England, are anxiously “sweating out” the mission — that is, waiting for their bomber crews to return from a raid against the submarine pens at Lorient, in Nazi-held France. Waiting for the bombers to return is nerve-wracking enough, but today the wait is even more tense, because this is the B-17 *Memphis Belle*'s twenty-fifth mission. If the crew survives this mission, they will be allowed to return home to the United States. However, survival is not guaranteed by any means. The crew of the *Memphis Belle* faces many challenges; poor health, altitude, cold, lack of oxygen, and stress must each be faced, as well as enemy anti-aircraft measures. Incompetence and lack


of cooperation also dog bomber crews during WWII; countless are the tragic stories such as the loss of the B-24 *Lady Be Good* in Libya. Nevertheless, the crew of the *Memphis Belle* have proven themselves capable of overcoming these difficulties by cooperating with each other to perform a successful bombing run.

Even before taking off, the *Memphis Belle*'s crew faced its first obstacle: according to former B-36 pilot First Lieutenant William K. Ojala, remaining healthy and well rested was a challenge. American crews — accustomed to high protein and carbohydrate diets — ate British rations, which largely consisted of unsatisfying vegetables such as Brussel sprouts and cabbage. Tech Sergeant Harold Loch, the waist gunner for the *Memphis Belle*, later remembered stealing a case of emergency C Rations with a couple of his friends because they were often hungry. The cold was also a problem. There was never enough coal, and though the crews were supplied with British blankets, those blankets were often infected with diseases such as scabies. Thus Sgt. Loch decided to forgo the blanket and sleep in his sheepskin-lined flight suit.

When the *Memphis Belle* took off on her twenty-fifth raid, her crew was confronted by many environmental hazards, most caused by the altitude at which the



U.S. Air Force



bombers flew. At a cruising altitude of approximately twenty thousand feet, the temperature hovered around minus 50 degrees Fahrenheit. Crews were issued electrically heated suits, but the early models often failed. They were also bulky, which made it difficult to work. On one mission, Tech Sergeant Eugene Adkins, the top turret gunner, got frostbite after taking off his gloves for several minutes to remove the covers from his guns. Though his hands were badly frozen, the *Belle* could not return to base, so when Sgt Adkins was not firing the guns, he crawled to the radio compartment to warm his hands. His hands were so badly frostbitten he had to spend a month in the hospital. The intense cold also meant vapor from the bombers' engines froze instantly, creating vapor trails that marked the bombers' exact positions — which was incredibly dangerous while flying over enemy territory. Supplementary oxygen was necessary after ten thousand feet, but early models were unreliable and often allowed moisture from breath to freeze and block the systems. Additionally, bombers were noisy, and often cramped. Staff Sergeant Cecil Scott, the ball turret gunner, later reported spending as long as seven hours in the tiny ball turret. Overall, a bomber was far from comfortable. Part of the problem was that during WWII, aircraft began flying at a much higher altitude than ever before, and little was known about how the human body reacted to the extreme environment that exists above ten thousand feet. Thus much of what was learned about high altitude performance was learned through trial and error. Crew coordination was imperative, because watching each other for signs of hypoxia, frostbite, and hypothermia aided mutual survival.

However, by their twenty-fifth mission, the crew of the *Memphis Belle* was well used to these challenges posed by the environment, and had adapted. But as the *Belle* and other bombers approached their target, they faced the first enemy contact of the mission — flak, or anti-aircraft fire. A common evasive tactic was to change course every fifteen seconds, but once bombing started, the pilot had to commit to a flight path. Bombing was not a simple task; the bombardier had to ignore the battle around him and concentrate solely on aiming. American bombardiers did have an advantage: the Norden bombsight, an enormously successful top-secret sight. This bombsight, an early electromechanical computer, was a heavily guarded secret during WWII — those using the sight were assigned a .45 caliber pistol to protect it. Still, a bombardier had to be skilled at

his job, and the bombardier of the *Belle*, Captain Vincent Evans, was acknowledged as performing “sterling work.”

The raid was a success, leaving the submarine pens at Lorient in ruins — and beginning the difficult portion, the flight back to base. The leg back was more difficult than the flight to the target. Once the bombs were dropped, the enemy knew where to find the bombers, and it was then that enemy fighters engaged the bombers. Staying in formation was the best defense against enemy fighters, because the bombers were arranged in such positions that friendly fire was minimized while outward cones of firepower were created. But keeping a thirty-ton bomber in formation with other bombers was difficult and could cause issues. On an earlier mission, the *Belle* was attacked head-on by a Nazi Focke Wulf Fw-190. In this situation, the pilot would usually dive to avoid the enemy fighter. However, in this instance, another American bomber was underneath the *Belle*. So Captain Robert Morgan, the pilot of the *Memphis Belle*, yanked up instead, and the enemy's shells hit the tail of the *Belle*. The tail gunner, Staff Sergeant John Quinlan, radioed Morgan, reporting, “The whole back end is shot off! It's blazing! The whole tail is leaving the plane!” Thankfully the fire eventually went out. Nevertheless, it was a narrow escape for the crew of the *Belle*; a less skillful pilot may not have responded promptly enough and the *Belle* might have been shot down.

Yet these incidents were a normal part of a bomber crew's life. Psychological stress was common; during bombing runs, when death in a variety of forms was close, the flight-or-fight instinct kicked in. But since bombers needed to stay in close formation, the crews could not act in response to this instinct, which caused even greater stress. John J. Briol, a ball turret gunner of the 457th Bomb Group, 748th Squadron, wrote in his diary on December 27, 1944, “I can't explain how a guy feels on a bomb run. He's always waiting for that one explosion that will put him into oblivion.” He was not alone in feeling this way; Captain Vincent Evans, the *Belle*'s bombardier, later commented, “It's funny, but you never quite get over being scared, no matter how many bombing runs you make...when you get to around the twentieth [run], you begin to realize that maybe you do have a chance after all and you tighten up again, just like a violin string. Boy, those last five missions are tough.” It was because of this stress that the twenty-five mission tour was instituted; by setting a definite number of missions that had to be flown, it was easier for bomber crews to cope with the likelihood of death.



Ultimately the key to surviving bombing missions was cooperation and communication. Without those two key ingredients, a crew was not likely to survive twenty-five missions. When an enemy fighter was spotted, the crew had to communicate effectively in order to know where to shoot, for visibility was limited. Imperative for communication was remaining calm. Morgan even repeatedly told his crew, "Damn it, don't yell on that intercom." This need for cooperation was another source of stress when a new person joined the crew; part of communicating effectively during a battle was knowing what to expect from each other. A new, and therefore unknown, person could throw off the entire crew's coordination. This meant new crew members were often not desired. A bombing crew also needed a leader who could make a crew work together; Morgan proved to be such a leader, and he gained his crew's trust. In one crew member's words, he was "a damn good pilot. He always brought us back."

Another difficulty was training crews to be proficient enough to survive bombing missions. WWII saw the development of more sophisticated airplanes, but those airplanes needed more highly trained crews. According to Lt. Ojala, many pilots flew by rote, so they did not understand the fundamental aerodynamics of the airplane. This lack of understanding caused many crashes.

Even with proper training and cooperation, mishaps happened. On April 4, 1943, the B-24 *Lady Be Good* took off from Soluch, Libya, on her first mission — a run against the harbor facilities at Naples, Italy. Sadly, the worst happened. Co-pilot Second Lieutenant Robert F. Toner described the incident in his diary: "Sunday, Apr. 4, 1943: Naples — 28 planes — things pretty well mixed up — got lost returning, out of gas, jumped, landed in desert at 2:00 in morning, no one badly hurt, can't find John, all others present." What happened was the *Lady Be Good's* navigation system broke, and the crew became lost while returning in the dark. Eight of the nine-person crew survived and began walking northward, thinking they were near the Mediterranean coast. Instead, they were actually several hundred miles south of the Mediterranean. In the burning Libyan desert, with only one canteen of water, the crew's situation rapidly went from bad to worse. On Friday, April 9, Toner wrote: "Shelby, Rip, Moore separate and try to go for help, rest of us all very weak, eyes bad, hot any travel, all want to die. still very little water. nites [sic] are about 35 degrees, good n. wind, no shelter, 1 parachute left." Five of the

crew were too weak to go further, so the three who were still able to walk continued. By Tuesday, April 13, there were no more entries in Toner's diary. The entire *Lady Be Good* crew perished in the Libyan desert.

It is no wonder, then, that the ground crews were anxious for their bombers to return. When the *Memphis Belle* returned at last, the ground crews went wild, and the look of joy and relief on the faces of the *Belle's* crew was palpable. The crew had done what seemed impossible: they survived twenty-five missions, and would be able to go home.

Because of the crew's ability to cooperate — along with their technical skill — the crew of the *Memphis Belle* returned home as heroes. By showing Americans it was possible to survive twenty-five missions, they provided a much-needed boost of morale. By flying a victory tour across the United States, they garnered support at a critical point during the war, when an Allied victory was not yet a foregone conclusion. And they demonstrated to the Axis powers the tenacity and spirit of American airmen — proving the United States would not give up until she had won. ✪

Author Grace Ojala is a 2018 graduate of the Dayton Regional STEM School.

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