The Library of America interviews Joseph J. Corn about Into the Blue

In connection with the publication in October 2011 of <u>Into the Blue:</u> <u>American Writers on Aviation and Spaceflight</u>, edited by Joseph J. Corn, Rich Kelley conducted this exclusive interview for The Library of America e-Newsletter.

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Into the Blue: American Writing on Aviation and Spaceflight spans almost 700 pages and covers quite a range of in-the-air experiences, from Benjamin Franklin's letter from France in 1783 about one of the first manned balloon flights to Chris Jones's dramatic account of what ensued when the explosion of the space shuttle Columbia in 2003 deprived the three-man crew onboard the International Space Station of their ride home. How did you decide what to include?

First, I looked for compelling writing, texts that were exciting but also informative to readers without technical backgrounds or specialized aerospace interests. As a historian I initially imagined the volume being about the machines with which men and women soared into the blue—balloons and dirigibles, gliders, powered planes, and rockets—and the challenges of designing them, building them, and supporting flight through ground-based institutions, such as airports.

In the end, however, *Into the Blue* acquired a tighter focus as I emphasized first-hand, personal accounts of flight. Save for a dozen selections, the vast majority of the sixty pieces contained in the anthology have been written by fliers, men and women who either were at the controls of a balloon, airplane, or spacecraft, or who were passengers on some venture off the ground.

But I couldn't resist including a few selections that delve into the technical creativity and manufacturing challenges involved in flight, pieces such as test pilot Chuck Yeager's account of breaking the so-called sound barrier in 1947 or astronaut Michael Collins's description of loose screws floating weight-

lessly before his eyes in his Gemini space capsule. Other pieces provide glimpses of the crucial function of the men and women who provide ground support. Mary Lee Settle does so in recounting her experience communicating with allied bombers from an airfield flight tower in England during World War II. And journalist Darcy Frey reports on the tension that accompanies the work at a modern air traffic control facility as it manages the crowded skies over the greater New York metropolitan area.

Do you have any favorites?

As the editor who guided the choice of selections, I consider all of them favorites! Yet I like them for different reasons. For capturing the fundamental "magic" of flying, felt best perhaps by those who go aloft in small planes and especially alone, I think Anne Morrow Lindbergh evokes these feelings most powerfully in the selection "Flying Again," from her 1935 book, *North to the Orient*, as does another selection by pilot journalist Gordon Baxter in his 1977 article, "Big Sky."

For conveying some of the fears and feelings associated with learning to fly, I love the selection by J. Herman Banning, one of the first African American pilots, describing his first solo flight, along with the report by poet and essayist Diane Ackerman on her learning-to-fly experiences, taken from her 1985 book, *On Extended Wings*.

Of the many stomach-churning selections dealing with terror aloft, I have many favorites, including Beirne Lay Jr.'s gripping story about his B-24 Liberator being shot down over Nazi occupied France, and Apollo 11 astronaut Buzz Aldrin's similarly tense account of running low on fuel while he and Neil Armstrong sought a safe landing spot for their lunar lander, an anxious moment that threatened to abort the entire mission.

One winning feature of the anthology is how one piece comments on another. Orville and Wilbur Wright's description of the technical hurdles they overcame in designing their airplane becomes much richer after reading A. I. Root's eyewitness account of the test flights in which the Wrights got their plane to return to its starting point. Then in "The Turn" William Langewiesche notes how Root's knowledge of bees made him the perfect reporter. "It is the turn that makes the airplane practical." Why was "the turn" so important?

Without the ability to turn his aircraft, a pilot might as well be riding an

artillery shell. Controlled turning in the air, as the Wright brothers realized, required not only "steering" the plane right or left with a rudder as in a boat but also banking the machine, that is, using wing warping or eventually ailerons to lower the wing on the inside of the turn and raise the one on the outside. Unless an airplane banks, rudder action simply causes it to "yaw" or rotate around a vertical axis while continuing more or less in a straight line. Thus "the turn," effected by a combination of manipulating the airplane's rudder and ailerons, is the essence of controlled flight.

The excerpt from Lindbergh's recreation of his flight in the Spirit of St. Louis in 1927 reminds us of how little navigational help he had during his thirty-three-hour solo flight from New York to Paris—and how much was dead reckoning. How much luck do you think "Lucky Lindy" had?

Lindbergh subjected each aspect of his prospective transatlantic flight to rigorous study and analysis. He weighed the risk of using a seaplane which while heavier could land in the ocean versus flying a landplane like the Spirit of St. Louis that was faster and got better mileage; he compared the risks of flying a single-engine plane versus one with multiple engines that might keep him aloft were an engine to quit but which would guzzle more fuel and reduce his range; he considered the benefits of a crew, such as a co-pilot who could relieve him and perhaps a navigator, but knew that extra personnel would add weight, reduce his fuel carrying ability, and restrict his range. Lindbergh also thought through the merits of carrying a radio, life raft, extra food, or other safety equipment, which not only added weight and lessened his plane's range but which, were he to come down in the middle of the vast Atlantic, would not appreciably increase his chances for survival. In all these meticulous preparations, however, Lindbergh never analyzed the role of luck in his proposed flight, presuming survival was anything but a gamble. We can conclude that his success owed little to luck. Had Lindbergh been exceptionally unlucky, however, he might have failed and we would probably not even recognize his name!

Reading Henry Helm Clayton's beautiful account of how the light and landscape changed during his record-breaking forty-hour balloon voyage in 1907 from St. Louis to Asbury Park, New Jersey, made me wonder if pilots could write as poetically—until I read Richard Bach, and Gordon Baxter, and Diane Ackerman. Do you discern any differences in the writings of balloonists versus pilots?

Yes and no. Both balloonists and those who fly in airplanes have experienced the beauty found aloft, the majestic cloudscapes that tower many miles in height and, like oceans, swallow fliers in their immensity. Thus Clayton's observations about aerial scenery during the 1907 Gordon Bennett balloon race are comparable to those of Richard Bach, flying a practice mission in his F-84 over Cold War Europe. Because balloons move only at the speed of the surrounding air and are incapable of being maneuvered, however, the literature of ballooning seldom recounts maneuvers or situations that cause our hearts to race in the way accounts of close calls by pilots (or sometimes passengers) in airplanes can. Beirne Lay Jr.'s story of how the B-24 Liberator he commanded over Nazi occupied France during World War II was hit, went into a spin, and how he managed to get his crew out as well as himself, exemplifies this kind of story.

Even the airplane flight by student pilot Diane Ackerman, over peacetime New York State, can raise goose bumps with readers who empathize with the beginner's struggle to master the control of a fast moving machine in three dimensions, hundreds or thousands of feet above the ground. In short, ballooning usually involves relatively serene forays into the blue, while the take-offs, landings, and flight of airplanes—and of course spacecraft—carry a greater potential for control troubles and disaster.

Few stories are as dramatic as Wolfgang Langewiesche's "Knapsack of Salvation," his 1939 account of his first parachute drop, when parachutes were still being invented—that is, until we get to William H. Rankin's piece on his free fall, in July 1959, which tells of his being ejected from a jet fighter without a pressure suit at 45,000 feet—and living to tell about it. Which do you think rank as the most dramatic pieces in the book?

If aerial drama consists of not knowing whether one will come through an experience alive, then Rankin's account of his free-falling nearly six miles through a huge electrical storm, defines the category. Along with Rankin I'd consider the excerpt from James Salter's novel, *The Hunters*, based on his Korean War flight experience, to be almost equal in drama, although he uses relatively serene prose to tell the story of Cleve and Hunter's return home to their South Korean base following combat over North Korea. Salter's protagonist and narrator, Cleve, manages a perfect dead-stick landing (that is, with a dead engine) on the South Korean airfield, but Hunter, gliding somewhat behind Cleve and slightly off course, does not eject as Cleve suggests and is killed as he crashes in a field.

Another sort of drama, less violent but no less perilous, is narrated by

Charles Lindbergh in his Pulitzer Prize—winning account of his epochal New York-to-Paris flight of 1927. Our selection from *The Spirit of St. Louis* reveals some of the minute-by-minute dangers from fatigue and navigational uncertainty the young pilot faced during his thirty-three-hour flight.

You note in your introduction that "One of the first practical purposes mankind found for the airplane was killing people." Into the Blue effectively documents how dramatically the use of planes for warfare has changed over the past century: from World War I dogfights to what flight crews in Afghanistan call "the Kabul-ki Dance." How would you characterize this progression?

Yes, the use of airplanes to kill people—purposefully, not just accidentally—emerged early. In a 1914 selection published just after the start of World War I and before any Americans flew in the conflict, aviator Glenn L. Martin offered a prophesy as to how "veritable flying death," as he called it, would change the face of warfare. He correctly divined the role that aircraft would play in reconnaissance, plane-to-plane combat, and bombing, although in the latter he strangely seems to have imagined that a major form of bombing would be suicide missions. "One man, driving an aeroplane laden with high explosives," he wrote, would "dive like a plummet upon the bows of a great warship and destroy it. He gives one life, the enemy gives many." Such sacrifices never became part of American tactics, but reconnaissance, dogfights, and dropping high explosives on enemies became staples of air warfare.

By World War II military fliers added a number of new missions to this basic trio. Close support of ground troops became more important, as is seen in Samuel Hynes's account of flying in Okinawa in 1945, dropping food, fuel, and other supplies to ground forces in parts of the island where just miles away the Japanese were still resisting. Air support of ground troops changed again in Vietnam, as *Esquire* reporter Michael Herr reports from his experience there from 1967–68. Armed as gunships, helicopters moved men and supplies and worked intimately with the infantry.

Different still is the mission implicit in Sherman Baldwin's gripping account of a night landing on a moving carrier deck during the Gulf War. His heavy EA-6B Prowler aircraft, with a crew of four, existed not to attack or bomb but solely to monitor and jam enemy communications; in part this was reconnaissance updated for the electronic age, but in using electronics as a weapon, it was also new. A similar but more high-tech chapter of ground support is

presently visible in the skies over Afghanistan, as journalist Mark Bowden reports in the selection, "The Kabul-ki Dance." The Air Force F-15s loitering over Kabul serve like taxis, awaiting communications from the ground on where to deliver the next lethal air-to-ground strike.

In short, the missions our military has flown over nearly a century demonstrate continuity as well as change, defined and shaped in large part by the growing power of computerized communications technologies.

One group of selections retells the history of the American space program: from V-2 rocket pioneer Werner von Braun's speculations on space stations to accounts of the historic flights of Alan Shepard and John Glenn, to Michael Collins on Gemini 10 and Buzz Aldrin on Apollo 11. What is it that makes the writings of this era stand out—the epic nature of their missions or something about the way they tell their stories?

For me it's the prose rather than the subject or mission that distinguishes the best flight writing. And while aviation and spaceflight have both attracted wordsmiths with considerable poetic gifts, pilots and astronauts are generally more likely to have excelled in technical or scientific fields than as authors. Indeed, many of the memoirs published by astronauts are collaborations with professional writers. It is ironic then that the best of the astronaut memoirs, *Carrying the Fire* by Michael Collins, is by a man who admits his less than brilliant classroom performance while a student. His eye for trivial incidents that capture the tedium and perils of life in space, such as his description of bits of stray hardware floating weightlessly in his Gemini capsule, and his gift for explaining complicated routines such as docking—these and many other qualities make his memoir, excerpted here, the great read that it is.

One of the most moving stories is Ralph Ellison's "Flying Home" about the crash of a Tuskegee airman during a training exercise in the South. Many lines are haunting: "The enemy would appreciate his skill and he would assume his deepest meaning... neither from those who condescended nor from those who praised without understanding..." What was Ellison's connection to the Tuskegee Airmen? Do you think they fulfilled aviation's early promise to "improve relations between the races"?

Although Ellison had studied briefly at Tuskegee Institute, as far as I know he never had any connection with the Tuskegee Airmen. During World War II, when he published "Flying Home," he served in the U.S. merchant

marine, and it is unlikely he did not hear about the basic training black pilots were getting in Tuskegee. Even though whites resisted letting blacks fly combat missions, as Ellison suggests in his story, the Airmen did eventually see combat. Their heroic achievements in the skies over Europe, bravely engaging enemy aircraft in single-seater fighter planes to protect American bombers (crewed exclusively by whites as the military at the time couldn't imagine mixed racial crews), helped erode white prejudices even if it did not immediately "improve relations between the races."

In your book The Winged Gospel: America's Romance with Aviation you recount that in the 1936 coast-to-coast Bendix Trophy Race three of the top five places were won by women and that "no sooner had the airplane been invented and publicly demonstrated than women joined men in the air." Into the Blue includes many accounts by women flyers, including Ruth Nichols and Amelia Earhart, yet it wasn't until the 1970s, you write, that women began "to get the chance to work in the cockpit." Why did it take so long?

In a nutshell, because the promises of the winged gospel—among them the belief that aviation would be a force for equal opportunity for women—proved illusory. It is true that during the 1930s women pilots commonly sold and demonstrated planes, were loaned them by manufacturers for air races, and in general played a big role in convincing people that flying was safe. They shamed timid men and assuaged the fears of skittish women. But as aviation became widely accepted during World War II, the demand for the services of women pilots evaporated. Aviation alone, like other technologies, was no panacea or messiah; it would take hard political work, including protests and grass-roots change, before women would find real equality in the cockpit or in the skies in general.

Are you a pilot yourself? What path led you to become an authority on aviation and spaceflight?

No, I'm not a pilot. Born just before the United States entered World War II, I grew up excited about airplanes and flight and as a kid built model airplanes. At age ten I had my first ride in a real plane, a four-seat Stinson Voyager owned by the father of one of the Cub Scouts in my den. I vividly remember everything about it: the plane was maroon and had comfy seats upholstered in gray plush fabric just like my family's Plymouth, and when we left the ground I could see

everything in my little town! I was enthralled and decided then and there I'd have a plane when I grew up.

At twelve my vision of the future changed: the February 1951 issue of *Popular Mechanics* magazine arrived in my mailbox with a cover story titled, "Here Comes Your Helicopter Coupe." As soon as the Korean War wound down, the article explained, the little machines would be available; the magazine's cover illustrated this future, showing a man looking like my father pushing his cute yellow helicopter into the garage of his suburban, split-level home. *This*, I believed, would be my future, too.

But it was not to be. As an adult I enjoyed stints at the controls of light planes owned by friends but never took flying lessons let alone soloed or acquired a plane or helicopter. Instead I have flown vicariously, one might say, finding satisfaction studying and writing about aviation and spaceflight, starting with my doctoral thesis which examined the excessive enthusiasm and utopian expectations Americans in the 1920s and 1930s projected onto mechanical wings, which became the book, *The Winged Gospel*.