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USAFA Harmon Memorial Lecture #30
Leadership in the Old Air Force: A Postgraduate Assignment
David MacIsaac , 1987

We Americans have a peculiar propensity to single out for special notice those anniversaries measured in multiple decennia-as in a tenth reunion, a thirtieth anniversary, a fortieth birthday, a centennial, and so forth. Accordingly, the 17th of September this year will be marked by celebrations attendant to the bicentennial of the adoption by the Constitutional Convention of the Constitution of the United States. In similar if less august manner, the 18th of September will mark the fortieth anniversary of the establishment of the United States Air Force as a separate service.

It was *eighty* years ago August 1, 1907, that the Army Signal Corps established an Aeronautical Division to take charge "of all matters pertaining to military ballooning, air machines, and all kindred subjects." Allotted to carry out this task were one captain, one corporal, and one private. When the latter went OTF (over the fence) shortly thereafter, the 1907 version of regression analysis revealed, as some late twentieth-century stylist might put it, "grave difficulties in maintaining necessary manning levels."1

But help was on the way. Only two months earlier a young Pennsylvanian, a founding member and acknowledged leader of the "Black Hand" (a secret, nocturnal society of Bed Check Charlies and assorted other pranksters at West Point), ranking academically near the top of the bottom half of his class, and having spent the final four days before commencement on the tour ramp, was graduated from the Military Academy, having failed ever to be appointed a cadet officer. Shuffled off initially to the Infantry in the Philippines and later garrison duty on Governor's Island- later the site of New York's first airport- he volunteered for flight training, which he then undertook with the Wright brothers in Dayton, earning his wings as U. S. Army Military Aviator #2 in July 1911. By the following summer he had become the first winner of the MacKay Trophy. Five months later, following a particularly hair-raising experience at Fort Riley, he succumbed to fear of flying, vowing never again to set foot inside an airplane, a resolution steadfastly maintained for another four years. Had he been sent originally to his cherished Cavalry rather than the Infantry in 1907, he almost surely would not have volunteered for aeronautical training in 1911; had he not at length driven himself to overcome his fear of flying, the hall we meet in this evening would be named for someone other than Henry Harley Arnold.2 So much for inevitability! But already I get ahead of myself.

I began by referring to 1987 as a decennial anniversary, and mentioned particularly the 40th birthday of the modern Air Force. I then hinted- by referring to the establishment of the Aeronautical Division in August 1907- that the years since 1947 might be looked on as constituting the second forty years of Air Force history. Tonight, out of what I assure you is conviction rather than perversity, I would like to look at the first forty years of that story- the forty years looking backward from 1947- and in particular at a few of the men who lived and made that story. It is a fact that those of whom I have chosen to speak rose to positions of high authority in World War II. It is not, however, true that they were in any sense predestined to do so. In each case so-called inevitability- an attribute we occasionally malassign to events only after the passage of considerable time- played no part at all; in each case, although for different reasons, miraculous would be a more accurate description of their eventual success than inevitable.

So I shall focus on their early years and thereby avoid a trap we too often fall into in studying the past, that of tending to isolate our great leaders in their moments of triumph, seemingly forgetting that each was a product of both experience (especially but not exclusively his own) and example,

especially that of his seniors.3 Besides, however bizarre the notion might seem to you, it seems to me that people your age might be interested in learning something of the personalities and styles of young officers starting out their careers in a period when the pace of technological change appeared bewilderingly fast-paced and, indeed, chaotic . . . even more so in these respects than the 1980s!

A second reason I insist on reaching so far back in time is my conviction, well stated by Russell Weigley in 1973,

> that what we believe and what we do today is governed at least as much by the habits of mind we formed in the relatively remote past as by what we did and thought [only] yesterday. The relatively remote past is apt to constrain our thought and actions more, because we understand it less well than we do our recent past, or at least recall it less clearly, and it has cut deeper grooves of custom in our minds.4

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Promoting the study of the past before young audiences has never proved an easy task. For many among your generation, for example, the Carthaginian Wars are psychologically equidistant in time, as measured from today, with the French and American adventures in Indochina. Santayana's warning that those who don't study the past are condemned to repeat it carries much less weight than it once did- in part, I suspect, because we realize now that its opposite can also be true, as in dwelling on the Munich analogy to the point of confusing Ho Chi Minh with Hitler. The latter came about, I would suggest, not because history repeats itself but because people do. History cannot repeat itself because the circumstances and contexts of discrete events separated in time cannot be made to recur. But that's no bar to people repeating themselves, especially when available, convenient, and comfortable analogies present themselves.5 It is for this reason, among others, that looking to the past for the wrong reasons can prove at least as dangerous as ignoring it altogether.

In suggesting to you a particular approach to the study of the past, let me say up front that it is not one aimed at, or optimized for, attaining high grades in undergraduate courses. In fact, the approach I commend to you runs counter to the standard military approach to history, one usually expressed in the attempt to capture the so-called lessons of conflict, especially as those lessons pertain to weaponry and other physical factors (and the more recent the better). In fact, it runs so far counter to the standard approach that instead of seeking lessons, answers, or recipes, it looks instead for questions; its goal is to help us learn what questions to ask- of ourselves, of others, of theories, plans, decisions, and not least of conscience. For that reason it differs as well in its almost single-minded focus on people- rather than on events, trends, forces, factors, alleged parallels, and all those other amorphous vagaries that are as liable to mislead as to inform us.

Which leads us in turn to focus on biography, in the firm belief that the history of military matters, whether they be of the military at war or during peacetime, is a flesh-and-blood affair, not a matter of diagrams and formulas and bean counts, nor yet even of rules or procedures or computer printouts; not a conflict of machines, nor their products, but of men (and now women) and their hopes, dreams, and ambitions. And so, for our text to accompany this sermon we turn to Lord Wavell:

> When you study military history don't read outlines on strategy or the principles of war. Read biographies, memoirs, historical novels [Anton Myrer's Once an Eagle and James Webb's A Country Such as This come immediately to mind in this respect]. Get at the flesh and blood of it, not the skeleton. To learn that Napoleon won the campaign of 1796 by manoeuvre on interior lines or some such phrase is of little value. If you can discover how a young, unknown man inspired a ragged, mutinous, half-starved army and made it fight, how he gave it the energy and momentum to march and fight as it did, how he dominated and controlled generals

older and more experienced than himself, then you will have learnt something. Napoleon did not gain the position he did so much by a study of rules and strategy as by a profound knowledge of human nature in war. A story of him in his early days shows [this c1early]. When [he was] a young artillery officer at the siege of Toulon, he built a battery in such an exposed position that he was told he would never find men to hold it. [So] he put up a placard, "The battery of men without fear," and it was always manned.6

As few as ten years ago, those of us then here at the Academy who wanted to make this point had to do so, almost without exception, by recourse to examples drawn from the age before flight- or, if from the twentieth century, from such examples as George Marshall, Douglas MacArthur, George Patton, or Dwight Eisenhower. The absence of biographies of Air Force leaders was appalling. Beyond a first rate intellectual biography of Billy Mitchell,7 along with a raft of sensationalist books about him and an occasional dictated memoir-those of Foulois, Brereton, Kenney, and LeMay come to mind-there was virtually nothing beyond what Theodore Ropp used to call the "*Look*, Ma, I'm *flying*!" stable of historical anecdote. All that has changed in the intervening decade.

Among those whose career paths have at length been revealed are Hap Arnold, Ira Eaker, Benny Foulois, Jimmy Doolittle, and Curtis LeMay; soon to join this group will be Carl Spaatz and Hoyt Vandenberg. Even subsequent generations have joined up; witness Chuck Yeager, Chappie James, and Lance Sijan.8 It is my thesis this evening that, rightly approached, these volumes can prove both fun *and* rewarding.

Take Hap Arnold for example. Here was a young man destined by his father to attend Bucknell to become a Baptist minister. Then, when his older brother refused to accept the appointment to West Point his well-connected father had arranged for him, young "Harley" was directed to take and pass the entrance examination that was required to select his brother's replacement. To the surprise of all he came in second, a respectable finish but one that left him off the hook. Then, the evening before the winner was scheduled to depart for West Point, he admitted to being married. And so Arnold, on the 27th of July, 1903, four and a half months before Kitty Hawk, found himself, to his considerable bewilderment, just one month after his seventeenth birthday, in a plebe's uniform at West Point.

I referred earlier to his membership in the "Black Hand." One of its triumphs involved the overnight dismemberment of the reveille cannon, along with its displacement to, and reassembly upon, the roof of the cadet barracks, straddling the apex. You can imagine his delight when it took the entire Engineering Department, aided by a team of six horses, an entire day to disassemble, lower, reassemble, and return the gun to its proper place. On the same roof Arnold would later be caught silhouetted against the glare of an elaborate, pinwheeled fireworks display spelling out "1907-Never Again." And yet, in the end the permanent cadet private was graduated and, in part to teach him a lesson, shipped off to a disappointing assignment with the Infantry. And then everything changed almost overnight.

It is to what happened *next*, rather than to his reputation as a happy-go- lucky cadet prankster, that I would like to call your future attention. How he went to the Philippines, impressed everyone with his new-found diligence (his resourcefulness was never at issue!); met, in addition to 1st Lt. George C. Marshall, a certain Capt. Cowan who two years later, back with the Signal Corps in Washington, remembered Arnold when he, Cowan, was stuck with the task of recruiting a couple of volunteers to go out to Dayton and learn how to drive air machines; how he accepted the offer, how he fared in training under the Wrights, and how he came to change his mind about the Cavalry being "the last romantic thing on earth;" how he "SIEed" (self-initiated elimination)9 from flying duty yet managed to remain assigned to the Aviation Section; how he conquered his fears, returned to flying, and how he responded to the disappointment in 1917 and 1918 of being considered so important to the stateside buildup of military aviation that he was denied the opportunity to go to France until late in October of 1918, arriving at the front, in an automobile of all things, at almost precisely 11:00A.M. on the

eleventh day of the eleventh month of 1918. The guns he heard were firing in celebration; the Armistice had begun.

Arnold returned from France in December and was assigned to take charge of the demobilization of some 8,000 troops and 375 officers at Rockwell Field in San Diego, up until then the principal flying training field. He would have only a handful of regular Army officers to assist him, one of whom was a young war hero, Maj. Carl A. Spaatz, whom he had met briefly in New York in October as Spaatz was returning from France and Arnold was racing against the clock to get to Europe. Another was 1st Lt. Ira C. Eaker, a youngster who had won his wings in July 1918 and was just finishing up aerial gunnery training at Rockwell when the war ended. Spaatz was West Point, Class of 1914, seven years after Arnold; Eaker was Southwestern Normal School, Durant, Oklahoma, Class of 1917, who, along with all the boys enrolled in the school, had marched off to Greenville, Texas, on April 7, 1917 (70 years ago yesterday), to enlist in the Army. Let's look for a few minutes at these two youngsters the young Col. Arnold had to lean on. (I should perhaps point out that when Arnold was appointed a temporary colonel in August 1917 he thereupon became the youngest colonel in the Army. "Thirty-one-year-olds just didn't become colonels in those days. At first, he later recalled, he used to take back streets to his office, 'imagining that people would be looking at me incredulously.' “)10

Spaatz, like Arnold, was the son of a politically well-connected Pennsylvanian.11 Also like Arnold, he was an "area bird"-out marching tours right up to graduation day; a "clean sleeve"-never made cadet rank; and was graduated near the top of the bottom half of his class (57th out of 107). En route he survived a losing fight on the very first day of beast barracks, a mysteriously disapproved letter of resignation on the 21st day of beast, a court-martial for "conduct to the prejudice of good order and discipline"- for which read: establishing, in collusion with the janitor, a stag bar of sorts in the basement of the library-and one of the most severe cases of "firstyitis" ever recorded. During his final year he fell all the way from #38 to #98 in academics and all the way to 102, out of 107, in conduct. And yet there was something about the way he bore himself that allowed him to escape the wrath of either his betters or his peers. "He was one of our number," a classmate recalled, "who was known to take things easy, play bridge and poker and enjoy life as much as possible for a cadet, and still maintain a creditable class standing without much apparent effort. He was always himself and seemed never to be troubled by the stresses and strains that plagued [the] engineers who were striving for tenths [of a point in GPA] and goats who were struggling [just] to remain cadets." Another remembered that "he seemed always to feel sure of himself and to know just what to do in any situation."12

Also like Arnold, Spaatz apparently got serious about life immediately following graduation in June 1914, perhaps inspired in part by the guns of August. At the end of his mandatory year with the 25th Infantry, his captain wrote: "Attention to duty, professional zeal, general bearing and military appearance, intelligence and judgment shown in instructing, drilling, and handling enlisted men [are] all excellent. Should be trusted with important duties. I would desire to have him under my immediate command, in peace or war."13

In October 1915 Spaatz reported to the Signal Corps Aviation School at San Diego, where the commander-the same Captain Arthur S. Cowan who had recruited Arnold in 1911-reported that Spaatz revealed a peculiar fitness for Signal Corps aviation duties. "I would desire to have him under my immediate command in peace and in war. In the event of war [he] is best suited for aviation duty." 14 Upon receiving his Junior Military Aviator wings in May 1916, Spaatz was sent off to Columbus, New Mexico, to join Capt. Benny Foulois's 1st Aero Squadron, then assigned to the Punitive Expedition under Gen. Pershing. Equipment shortcomings by themselves rendered the air portions of that adventure a fiasco, so it was perhaps in the end not important that the secretary of war had specifically excluded any attempt at offensive operations for the air arm. In July Spaatz was promoted to first lieutenant and in December reported to San Antonio to take command of the 3rd Aero Squadron.

In part as a result of the dismal record of the 1st Squadron in Mexico, but also with an eye to possible future involvement in the European war, the Congress in August 1916 had at last appropriated almost $14 million for aviation. (Only a few years before, so tradition had it, a congressman had querulously asked, "What's all this fuss about an aerial machine for the Signal Corps? I thought they already had one!") In any event, Spaatz's selection for command brought with it another promotion, to captain, and a new flying experience.

Although an air war had been underway in Europe for more than a year, in the United States the only uses to which military aircraft had been put were liaison and observation; accordingly, in the absence of any requirement for aerial combat, aerobatics was not only not included in flying training, but was forbidden to all army aviators as both unnecessary and too dangerous. A few civilians, however, had begun to develop the art, one group being the Stinson family in San Antonio, proprietors of an imaginative flying school. The Army contracted with the Stinson school to train three of its aviators in aerobatics and Spaatz was one of the three chosen. It is perhaps of interest to some in this audience that his instructor in this daring enterprise was one Marjorie Stinson, a daughter of the school's owner, subsequently one of America's premier woman pilots.15

By August of 1917 Spaatz was on his way to France where his first duty was to the Department of Instruction, Headquarters, Line of Communications, AEE By November he had been appointed officer in charge of training at Issoudun, about 150 miles south of Paris, where the Air Service had established an in-theater advanced flying school. There he would remain for nine long months, advancing to post commander and promoted to major, but stuck in a training job because his seniors knew of no one better qualified or more effective. He faced a few problems. One was to build the base complex at Issoudun itself, in mud, in the winter, and while using flying cadets as common laborers, then build ten auxiliary fields; then run a training program with thirty-two different types of airplanes, including seventeen different versions of the Nieuport alone. And, of course, all the relevant technical orders were in French and the measurements metric.

All of this Spaatz managed somehow to accomplish just three years out of West Point and finally, in September of 1918, he managed to informally attach himself to the 13th Aero Squadron at the front. The squadron commander being a captain, Spaatz simply removed his insignia and flew as a junior wing man. He saw combat on the 15th and 26th, on the second occasion recording two confirmed kills, but managing to survive largely because his commander, Capt. Biddle, came to his rescue when Spaatz, having failed to "check six," was about to be shot down himself. "Once more the same old story," Captain Biddle later wearily recorded, "of a man forgetting that there is any danger other than that which may come from the machine which he is attacking. . . Only bitter experience teaches them, and that is dearly paid for. The man who was being pursued by the Fokkers I drove off was a major temporarily attached to the squadron to get some practical experience. He got it all right."16

If Captain Biddle had not been impressed, Billy Mitchell at headquarters certainly was, and, in due time, young Major Spaatz was awarded the Distinguished Service Cross for conspicuous gallantry in action.

And so, less than four years after commissioning, Carl Spaatz had found himself at the center of the effort to organize and train an air force for war-the first such effort in our history. "In nine month's time, he had been directly or indirectly involved in practically every kind of problem to be faced in organizing an air force for total war. . . . Further, he had gained a reputation and broadened his set of human relationships in a way that was to have a vital impact on his future and that of the U.S. air arm."17 Shortspoken, indeed terse to the point where his tact was often called into question by his seniors, Spaatz nonetheless won the admiration of those around him for both effectiveness and courage, the first of which lay dormant at West Point but the second of which he had revealed on the first day of "beast." Such was the background of Colonel Arnold's young deputy early in 1919 at Rockwell Field in San Diego.

The third member of the Rockwell triumvirate of 1919 was 1st Lt. Ira C. Eaker, who will celebrate his 91st birthday next Monday. Born in Field Creek, Texas, on April 13, 1896, Eaker moved with his family about a hundred miles to Eden, Texas, at the age of nine. The move took five days- in a covered wagon. "We camped where night overtook us, and where there was water and grass." A few years later, driven out by drought, the family removed to Durant, Oklahoma, where young Eaker enrolled in Southeastern Normal School to prepare himself for a career in law. His grades were phenomenal: English Composition, 97; English Literature, 97; Physics, 93; Physiology, 95; Latin, 93; Zoology, 97; Solid Geometry, 93. On April 6 of his senior year, war was declared and the men of Southeastern marched off to war.18

Shortly after enlisting on April 7, Pvt. Eaker saw his first general officer, Robert Lee Bullard. "He rode a horse; we marched afoot. It occurred to me then that this general's job was good work if you could get it."19 So he took the examination for appointment as an officer in the Regular Army, at least in part out of curiosity over how well he could do. While waiting to hear the results he was appointed a reserve second lieutenant and briefly considered joining his friend, Eugene Hoy Barksdale, who had volunteered for aviation duty. He decided instead to wait on the results of his Regular examination.

A chance meeting with an Aviation Section recruiter a few months later (November 1917) led him to reconsider. He entered flying training in March 1918, completed it on July 17th, and was promoted to first lieutenant. It was wartime, and events moved rapidly. Then his regular appointment came through, and in October, a month before the war ended, he was sent to Rockwell Field for advanced training.

> Then, much more suddenly than most expected in view of the huge battles of mid-1918, came the Armistice. Instead of going overseas, Eaker found himself on the receiving end of fliers coming home, most of them to return to civilian life. Eaker was tempted to resign also. But he could not do so. "I was signed up. I had a Regular Army commission. And they weren't letting any Regulars out. They were using them to process all those fellows they couldn't handle."20

So Hap Arnold, Tooey Spaatz, and Ira Eaker joined up in San Diego, more by accident than design. When the post adjutant cracked up while out flying one day, Arnold and Spaatz picked Eaker to replace him. That he performed splendidly was made clear when he was selected the next year to organize a squadron to go to the Philippines. There he conducted some of the first realistic tests of flying in clouds, experimenting with plumb bobs and carpenter's levels rigged in the cockpit. A year later he received his most important promotion-to captain in the Regular Army only three years after enlisting as a private. The West Point class of 1918, by comparison, waited until 1935-a mere seventeen years-to make captain! He was on his way.

Gen. Eaker's subsequent career, careers actually, are brilliantly portrayed in James Parton's new biography, Air Force Spoken Here: General Ira Eaker and the Command of the Air. He would serve in the office of six future chiefs of the Air Corps-Patrick, Fechet, Foulois, Westover, Arnold, and Spaatz. Along the way he would survive innumerable forced landings, five full-fledged crashes, and an extremely low-level bailout from a P-12 over Bolling Field.

> His life was saved when he bailed out at about 200 feet over a house only because his half-opened chute came down on one side of the pitched roof and he on the other. His risers took up the shock, and his only serious injury was a broken right ankle. As he was struggling painfully on the doorstep to get out of his harness, the lady of the house peeked out, then shut the door. Reappearing a few minutes later, she explained that she had paused to call the local newspaper: "They give five dollars to the first person who calls on an ambulance case."21

His key role as a pilot in the 1926 Pan American Goodwill Flight and as the pilot of the Question Mark in January 1929 are well known to all of you- or should be- or certainly now can be. Earlier, along with Arnold and Spaatz, he had helped prepare testimony for the Mitchell court-martial in 1925, an experience from which he,

> drew conclusions about method that governed. . . the rest of his life. He was, to be sure, a strong admirer of Mitchell. . . . But he also noted that Patrick's procedures gained more in the long run. "General Patrick became in time our most respected and effective advocate of air power. His erudite and impressive testimony before the many boards and commissions formed to consider the organization, status, and budget for military aviation often turned the tide in our favor. He was as responsible as any other individual for raising the status of Army aviation. Eaker decided that persuasion was better than confrontation and deliberately set out to become Army Air's most persuasive spokesman.22

His approach, which he developed gradually over time and perfected into an art form, was to force himself "to suppress the quick reactions that leapt to his agile mind, never to raise his voice or lose his temper, and always to couch his arguments against an adversary in amiable, low-key style."23 Or, as another of his admiring subordinates put it recently, he "developed a trait of leadership as priceless as his steadfastness of purpose: the talent for amicable persuasiveness in the face of powerful dissent."24

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I have at length arrived on initial approach and am about to turn onto the downwind leg of this long flight. What on earth, or above it, you must surely be asking, is the point of looking back now on the Air Corps of the 1920s and 1930s? Of what possible relevance can be the aspirations, adventures, hopes, dreams, successes, and failures of then young officers in a small, quiet, peacetime service composed of a mere 1,500 or so officers and less than 15,000 men?

Well, to begin with, puzzling over the Arnold and Spaatz experiences as cadets might serve to remind you that Robert E. Lee and Douglas MacArthur did not take out a patent on the path to leadership and command. You don't have to be in the top ten percent of your class, let alone first captain/wing commander, to emerge later as the man of the hour. At least some of the best officers of the nineties will surely come from among the tunnel rats and curve riders, the ones with guts and faith in themselves and their vision. Add Eaker and even LeMay to the list here as reminders that an Academy ring earns you nothing by itself; that in fact you'll be out-numbered, often out-gunned, and sometimes even out-classed by your future contemporaries from Officer Training School and Reserve Officer Training Courses. Eaker would for certain have become the Corps adjutant at West Point, but he never even *thought* of going there. Absent the declaration of war in 1917, he would have become a successful lawyer or corporation executive. Not one of the four I've just mentioned had *any* idea when they were your age of where they were going, let alone where they'd end up. Life and careers unfold *despite* the so-called system, let alone one's own dreams and schemes. The *real* object is to be ready- prepared- when the window of opportunity opens to boldly go where no one else has gone before. Yes, I know this is difficult to see from your present vantage point, where such matters as choosing one's major academic field are sometimes elevated to a level of significance equivalent to a go/no-go decision for a space shuttle launch. (The secret here, by the way, is to pick something you like and can do well; then do the latter and everything else will fall into place!)25

If you were to limit your investigations to just these four (Arnold, Spaatz, Eaker, and LeMay) but extend your vision to their careers as junior officers, you would find that they were different in more ways than they were alike. You might even decide that this was just as well since when the

moment of truth came in 1941-42, more than one model was needed. Arnold became the dynamo of energy in Washington, gifted in selecting and using people to attain impossible goals. Spaatz became the overall manager overseas of the effort to work out procedures and relationships for the application of *all* the roles of air power in modern war. Eaker became commander of the Eighth Air Force, carrying it through its most dire days with unflappable calm, despite the outrageous impatience and second guessing of Arnold back in Washington. And LeMay became the group commander down on the line, flying in the lead aircraft, devising the tactics, and demanding from all and sundry exactly what he gave of himself-his best, always.

I hope that my focus on these individuals has not left you with a false impression that it was only a small coterie of officers who eventually achieved flag rank who carried the lambent flame of the Air Force dream. Then, as now, there were hundreds of individuals- men like Captain Cowan or Captain Biddle- who also shared the dream (along with a love of flying and patriotic adventure) and who *collectively* fueled the notion that military aviation was a unique profession, a calling that transcended narrow, careerist pursuits. For every Spaatz or Eaker there were also individuals like Val Borque, Class of '60 (the first grad to be killed in action), or Wallace "Buzz" Sawyer, class of '68 (who gave his life last year in the jungles of Nicaragua)- airmen who will, at best, be memorialized in a footnote in someone else's memoirs- men whose *collective* contributions to the airman's creed far exceeds the contribution of the greatest of our "few great captains." The challenge truly begins the moment you pin on those shiny brown bars, and it can continue long after you leave active service- for whatever reason. All that really matters is that you share the vision and be prepared to accept the call to perform great deeds- the call to glory, if you will- that comes to each of us at least once in a lifetime.26

And yet, you might insist, the flying club of the 1930s, in which "everybody knew everybody else" and the atmosphere was that of an exclusive military club with branches scattered all over, is no model for today- let alone tomorrow. In response I would remind you again that situations do not repeat themselves but people do; that the challenges that lie before you are conceptually far less different from those faced in the 1920s and 1930s than you think. When you remind me that their task was to create an air force, I will suggest that yours might prove to be only the obverse of the coin, to *preserve* one, *and* to create an *aerospace* force at the same time, and to do all of that in an era when the service faces a combination of severe cutbacks in funding and a less than universal vision of its future roles.

Consider a few particulars. As the service approaches its fortieth birthday, we must remain on guard against the tell-tale signs of mid-life crisis that affect institutions as well as individuals. Occasionally over the past five or six years, for example, concerns that the service speak with one voice on controversial topics have tended to smother the kind of intellectual ferment and debate that are absolutely necessary to growth. The new Chief of Staff, however, along with the new commander of the Air University, and the new President of the National Defense University (a 1959 graduate, by the way) speak as one against any squelching of responsible debate. In the words of Lieutenant Gen. Brad Hosmer, "We need to get the dialogue heated up over our ideas about tomorrow's air power, testing the testable and subjecting the rest to hot, honest, professional debate."27

Consider in this respect that even basic air power doctrine seems less sure of itself today than it might be,28 while the question of roles and missions is as much in flux now as it ever has been. The United States today deploys four separate air forces; the concept of unified air power is in shambles. Even within our own service questions multiply regarding, for examples, what should be the Air Force's role in space or what to do about the plain and simple fact that as presently constituted the USAF is incapable of fielding special operations forces in multiple remote areas simultaneously.29

Over-arching all the conceptual problems is the down-to-earth reality of rapidly spiralling costs. In 1985 the combined Navy and Air Force tactical air and related accounts consumed close to one half the total general purpose forces budget. But platform costs running in excess of $45,000,000 a copy for F-15s are only a part of the problem. Looming on the horizon are avionics bills for the

AMRAAM, LANTIRN, and IIR-Maverick AGM 30 that will surely have the effect of reducing even further what is now an annual aircraft buy of some 200 aircraft at most. What shall we do on the day that a president, let alone the Congress, loses patience over these costs?

Well, it wouldn't be the first time, nor surely the last. Way back in the mid-twenties, in a moment of frustration over the prospect of paying more than $25,000 for a squadron of aircraft, President Calvin Coolidge asked, "Why can't we buy just one aeroplane and let the aviators take turns flying it?" Rather more recently, in 1981, Dr. Norman Augustine analyzed the rate of increasing unit costs for aircraft between 1940 and 1980. Upon projecting that rate into the future, he offered up what he called his "First Law of Impending Doom":

> In the year 2054, the entire defense budget will purchase just one tactical aircraft. This aircraft will have to be shared by the Air Force and Navy three and one-half days per week, except for leap year, when it will be made available to the Marines for the extra day.31

So much for everything being different. It's time now to turn onto final approach. The good news is that I have the runway in sight. The bad news is that some among you are so concerned just now with merely staying alive within the system that you've already read me out. Not to worry, Mr. Arnold or Miss Spaatz!

Not to worry because the *really* good news is that the reading and puzzling I've suggested to you constitute a *post-graduate* assignment, not to be undertaken until the evening of your first day back to duty following commencement. I know as well as anyone that you already have a full plate as cadets. I also know that the Academy years cannot provide you with an education but only the tools for pursuing one. The need to continue your self-education after graduation- or as I prefer to say, your commencement, or beginning- thereby fitting yourself for the time when, in a fighting service, you are called upon to shoulder the heavy and lonely responsibility of high command, cannot yet be readily apparent to you. Yet it cannot- indeed, must not- be put off until you decide you need it. Why? Because by then you'll be so busy trying to stay up with the everyday problems of being, or seeking to become, a wing commander that there'll be no time to play catch-up ball.32 More concretely to the point is a simply stated point: those who don't get started early in their careers never get started at all and hence end up like the senior officers long ago derided by Marshal de Saxe- those who, in the absence of knowing what to do, do only what they know.

No more than you should ever confuse what you are doing at a particular time with what is necessarily right, no more than you should fall prey to confusing quantitative data with significance- easy enough in this age- should you ever allow yourself to think that it is enough merely to excel in the duty to which you are assigned. It is implicit in the meaning of a profession that its members concern themselves with the development and improvement of the state of the art. To do your part you must *add* to the total state of the art.33 And to do that effectively you must never forget for a moment that your education only *began* here at “The Great School in the Sky."

It is in the hope that some of these ideas might stimulate some of you to further thought and discussion of such matters, might even suggest-to end on the same note as the first lecturer in this series-that history can give depth to our understanding even in the extraordinary age in which we live, at the very least providing respect for the imponderables, the uncontrollable and unknowable forces that govern our lives, that my comments might lead you to question seriously the eternal heresy that our own times are unique, that I at length bring to a close what I have to offer here this evening in the Harmon Memorial Lecture for l987.34

Notes

1. Juliette A. Hennessy, The United States Army Air Arm, April 1861 to April 1917 (Washington: Office of Air Force History, 1985; New Imprint), pp. 15, 217. OTF is USAF cadetese for AWOL.

2. Thomas M. Coffey, HAP: The Story of the US. Air Force and the Man Who Built It (New York: The Viking Press, 1982), pp.1-89.

3. Ensign Lawrence Bauer, USNR, "Return to Tradition," Proceedings [of the U.S. Naval Institute], September 1986, pp.130-32.

4. Russell F. Weigley, The American Way of War (New York: Macmillan, 1973), p. xx.

5. On the uses and misuses of history, especially comfortable or convenient analogies, see Richard E. Neustadt and Ernest R. May, Thinking in Time: The Uses of History for Decision Makers (New York: The Free Press, 1986), passim.

6. Earl Wavell, Soldiers and Soldiering; or Epithets of War (London: Jonathan Cape, 1953), pp. 33-34.

7. Alfred F. Hurley, Jr., Billy Mitchell Crusader for Air Power (New York: Franklin Watts, 1964; New Edition, Indiana University Press, 1975).

8. For Arnold, see n. 2, above; James Parton, “Air Force Spoken Here": General Ira Eaker and the Command of the Air (Bethesda, MD: Adler and Adler, 1986); John F. Shiner, Foulois and the US. Army Air Corps, 1931-193S (Washington: Office of Air Force History, 1983); Lowell Thomas and Edward Jablonski, Doolittle: A Biography (Garden City, NY: Doubleday, 1976); Thomas M. Coffey, Iron Eagle: The Thrbulent Life of General Curtis LeMay (New York: Crown Publishers, 1986). Forthcoming books on General Spaatz include a full- scale biography by David R. Mets, sponsored by the Air Force Historical Foundation, and a published version of Richard G. Davis's recent Ph.D. dissertation, "The Bomber Baron: Carl Spaatz and the Army Air Forces in Europe, 1942-45." [See also Wayne Thompson, ed., Air Leadershin (Washington: Office of Air Force History, 1986), pp.2-55 for the essays by David R. Mets and I.B. Holley, Jr.] Phillip S. Meilinger is preparing his 1985 University of Michigan Ph.D. dissertation on General Hoyt S. Vandenberg for publication; see also Jon A. Reynolds's 1980 Duke University Ph.D. dissertation on General Vandenberg's early career. On Sijan, see Malcolm McConnell, Into the Mouth of the Cat (New York: W.W. Norton, 1985). Yeager: An Autobiography, by Chuck Yeager with Leo Janos (New York: Bantam Books, 1985). On General Daniel "Chappie" James see James R. McGovern, Black Eagle (University of Alabama Press, 1985). Two other important books from the last decade, both biographical in approach, are DeWitt S. "Pete" Copp's A Few Great Captains: The Men and Events that Shaped the Development of US. Air Power (Garden City, NY: Doubleday, 1980), and Forged in Fire: Strategy and Decisions in the Air War over Europe, 1940-45 (Garden City, NY: Doubleday, 1982), both sponsored by the Air Force Historical Foundation. In the field of military aviation civilians have played crucial parts; Lindbergh is the most obvious example, but see also Clarence L. "Kelly" Johnson with Maggie Smith, Kelly: More than My Share of It All (Washington: Smithsonian Institution Press, 1985) for the story of the father of the U-2 and SR-71 aircraft.

9. "S. I. E." is Air Force talk for self-initiated elimination from training school, usually, but not always, applied to flying.

10. Coffey, HAP p.90.

11. My sources for Spaatz, in addition to those cited in n. 8, are: Edgar F. Puryear, Jr., Stars in Flight A Study of Air Force Character and Leadership (Novato: Presidio Press, 1981), pp.47-98; and occasional conversations with General Spaatz between 1968 and 1972. I am particularly indebted-not for the first time-to Dr. David R. Mets for his allowing me to use the initial draft of his forthcoming biography.

12. As quoted in Puryear, Stars, pp.50-52.

13. Ibid., p.53.

14. Ibid., p.55.

15. Mets draft, p.45. Cf. Marjorie Stinson, "Wings for War Birds: How a Girl Taught Fighters to Fly," Liberty (December 28, 1929), pp.25-27.

16. Mets draft, p.92.

17. Ibid., p.93.

18. My sources for Eaker, in addition to James Parton's biography cited at the beginning of n. 8, are the five oral history interviews with General Eaker that are on file at the Air Force Historical Research Center, Maxwell AFB, Alabama, and both extensive notes and fond memories of many long conversations with him (in locations as disparate as Washington, London, Colorado Springs, and Montgomery, Alabama) between 1967 and 1981.

19. Parton, Air Force Spoken Here, p.27.

20. Ibid., pp.31-32.

21. Ibid., p.80.

22. Ibid., p.47.

23. Ibid.

24. Major General Haywood S. Hansell, Jr., USAF, Retired, in a review of the Parton biography, Strategic Reviest Vol. 14, No.3 (Summer 1986), pp.77-80; statement on p.78.

25. I sometimes think that altogether too much significance is attached to the formative effects of Academy life. Roger Nye has suggested that changes in fundamental attitudes and values are difficult to discern among cadets and probably rare. The most obvious ones are limited to external or visible things, like greater confidence in speech, a sense of promptitude, and a greater concern for personal appearance. His own experience accords with mine as an Academy instructor. See Roger H. Nye, "The U.S. Military Academy in an Era of Educational Reform, 1900-1925," Columbia University Ph.D. dissertation, 1968, pp.176-77 (cited in Mets draft, p.23).

26. This and the preceding two paragraphs are less idiosyncratic than they might at first glance appear. They are composed primarily of comments (on a first draft of these remarks) furnished to me by graduates of the Classes of 1960, 1962, 1963, 1965, 1966, 1974, and 1977.

27. Lt. Gen. Bradley C. Hosmer, USAF, "American Air Power and Grand Thctics," Air Power Journal, Vol.1, No.1 (Summer 1987), pp.9-14.

28. See Col. Dennis M. Drew, USAF, "Two Decades in the Air Power Wilderness: Do We Know Where We Are?" Air University Review, Vol.37, No.6 (September-October 1986), pp. 2-13.

29. For a fuller discussion of the current state of affairs, see my chapter, "The Evolution of Air Power since 1945: The American Experience," in Air Vice-Marshal R. A. Mason, ed., War in the Third Dimension: Essays in Contemporary Air Power (London: Brassey's, 1986), pp.11-31, especially pp.25-31.

30. AMRAAM = advanced medium range air-to-air missile; LANTIRN = low altitude navigation and targeting infrared system for night; IIR-Maverick AGM = imaging infrared Maverick air-to-ground missile. For recent dire reports on future funding, see: Jacques S. Gansler, "The Dangerous Dive in Aircraft Production," Air Force Magazine (December 1986), pp.112-15; and Michael Ganley and Glenn W. Goodman, Jr., "Air Force Tries a New Spanner as Its Budget Fuel Drips," Armed Forces Journal International (January 1987), pp.52-57.

31. Norman R. Augustine, "Augustine's Laws and Solutions 4," Military Science and Technology, Vol.1, No.4 (1981), p.14. Cf. Col. Walter Kross, USAF, Military Reform: The High-Tech Debate in Thctical Air Forces (Washington: National Defense University Press, 1985), especially chapter 3; and, for the broader context, Franklin D. Margiotta and R. Sanders, eds., Technology, Strategy and National Security (same publisher, same date), especially pp.43-76.

32. Captain S. W. Roskill, R.N., The Art of Leadership (London: Collins, 1964), p.29.

33. Major Everest E. Riccioni, USAF; "A Professional Mandate for Academy Graduates and Military Aspirants," 6-page ms., undated but assuredly from 1964-66, addressed to The Cadets of the 15th Squadron, United States Air Force Cadet Wing.

34. With apologies to the late Wesley Frank Craven and to Gen. Sir John Winthrop Hackett and Mr. Martin Blumenson.

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