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Fodder for Professional Development

Reference Works for the Air Warrior/Scholar

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NOW HERE IS the ultimate challenge for a reviewer: write a piece on reference books that is interesting enough to get even a single person to read it! Still, in some ways, browsing the Internet is like passing the time of day with a random trek through some reference works, and it can be interesting—even to those of us not given to the accumulation of trivia. But more important to you air warrior/scholars are the efficiencies that a good desk set of reference books can introduce to your professional development program. It can save you untold trips to the library, even when there is one within reach. It can help you get into the habit of a skeptical (not a cynical) approach to the study of war. Doubtless, there are as many armchair generals as admirals, and their pontificating certainly bears checking.

So one of the purposes of this review-article is to weigh the value of three new reference books as candidates for inclusion in your personal professional library. Another is to

*I wish to thank my colleague Dr. Karl Mueller for his valuable assistance in preparing this (and other) manuscripts. Without him, both the style and the substance would be less than it is; the remaining faults are certainly my own.

suggest some ways that you can use reference works to enhance your own participation in the intellectual life of the Air Force. Finally, I offer a list of 10 books I would recommend for the personal reference desk set of the professional student of air war. I limit my discussion to works that are focused on the military art; the officer also will certainly want to acquire a more generic set of references appropriate to all professions and to thinking citizens. Increasingly, the latter are available in an electronic format that is much more economical in space, time, and money than the hard copy, but authoritative reference works specializing in air war are still largely confined to the printed page. I have arbitrarily omitted bibliographies. They become dated so rapidly, and the building of electronic databases in libraries, along with their electronic finding aids, has reduced the utility of the old hard-copy bibliographies in searches of airpower literature.

What Should a Reference Book Be?

There is some virtue in concocting a catchy title. If you don't somehow capture your audience's attention, there will be no transfer of knowledge—nor even any entertainment. But that is the province of novels, biographies, articles, and TV shows—not of reference works. For the latter, a title should be comprehensive and accurate. It should tell the audience what the work is about.

A reference work should be new; it should not merely duplicate something that has already been done just for the sake of keeping the presses running. We have wall-to-wall encyclopedias of World War II, many of them accurate and with all the other virtues of good references. But how much is enough?

Compilers deserve our pity. If they include too much, reviewers will thrash them for being uneconomical or obsessed with meaningless trivia. Further, their work will be too bulky to be hauled all over the world in the hold baggage of Air Force practitioners—not to mention too expensive for their budget. If compilers do not include enough, they will be bashed for being too sketchy—purveyors of abstractions of no use in the real world.

Compilers have no dilemma when it comes to quality. There is no choice to be made. Either their reference works are accurate or they are not reference works. The point seems lost on many people. Accuracy is painful. Accuracy is expensive. Because the fundamental purpose is to produce a *reference* for use in checking the accuracy of other works, precision must be the paramount value. That brings me to the first new book under review.

The Biographical Dictionary of World War II Generals and Flag Officers: The U.S. Armed Forces by R. Manning Ancell with Christine M. Miller. Greenwood Publishing, 88 Post Road West, Box 5007, Westport, Connecticut 06881-5007, 1996, 706 pages, $95.00.

The authors rightly claim that their dictionary entailed an enormous amount of labor; they (and the publisher) wrongly claim that it is needed and definitive. At $95.00, it is certainly too expensive for your desk set. In any event, there are already many worthy reference books on World War II that contain most of what is in this book. Moreover, the pattern for assembling entries is not uniform. The Battle of Midway does not appear in the Raymond Spruance entry, but Ploesti does appear in the Uzal Entpiece. Command of the Third Fleet does appear in the William Halsey entry, but command of the Fifth Fleet (same ships) does not appear under Spruance. Sometimes books authored by the subject of the entry are mentioned, sometimes not (e.g., *The* [Lewis] *Brereton Diaries: The War in the Air in the Pacific, Middle East and Europe, 3 October 1941–8 May 1945* and Haywood Hansell's *The Air Plan That Defeated Hitler)*.

The prime requirement—the accuracy of the work—is poorer than in many other World War II references. A common and trivial mistake is leaving the "s" off "Army Air Forces" (AAF)—in this day of computers, the error occurs hundreds of times throughout the book.

William Kepner is shown here alongside a Boeing P-26 "Peashooter" in the early 1930s. Kepner started out as a combat marine in the trenches in World War I, came into flying as a balloon pilot, and won fame after he took command of 8th Fighter Command from Frank Hunter in the summer of 1943. Kepner led the 8th through the great battl es of the following winter that won air superiority for the Allies. Later he was at the head of Air Proving Ground Command and retired as a lieutenant general.

James Chaney is cited as assistant chief of the Air Corps un til 1938; in fact, he left that of fice in 1935. Hansell is identified as the commander of 25th Bomber Com mand—he really commanded 21st Bomber Command. Hugh Knerr is placed in Europe and America at the same time through a garbling of the dates on which he commanded various ser-vice commands. Lau rence Kuter is placed in com mand of the Allied Tactical Air Forces in North Africa long af ter Air Mar shal Ar thur Con ing ham had taken over. The work says that Curtis LeMay was awarded a bachelor's degree in 1927; ac tu ally he left Ohio State with out a degree in 1928 to go to flying school—although he ultimately received the degree. Joseph Smith is cited as being in the operations part of the Gen eral Head quar ters (GHQ) Air Corps staff, which probably means GHQ Air Force. Similarly, Carl Spaatz is placed in GHQ Air Force in 1939, by which time he had already gone to Wash ing ton for good. And O. P. Weyland is placed in command of 14th Tactical Air Command when it really was 19th.

In short, we need not tarry with this work since its many errors disqualify it. Neither of the compilers is a military or naval historian, so we cannot blame many of the seemingly trivial mistakes on them. Rather, if the book was to be definitive, the publisher should have felt obliged to hire copy edi tors with suf-fi cient ex per tise to check every name and date

This photo shows some of the near greats of World War II who in 1926 served on the Bombardment Board. On the left is Harold L. George, later of Air Corps Tactical School fame and still later the wartime commander of Air Transport Command. In the center with his hands in his pockets is Lewis Brereton, air commander in the Philippines when the Japanese attacked on 8 December 1941 and later the commander of the First Allied Airborne Army when it tried the Arnhem operation in 1944. Next to Brereton in civilian clothes is Muir Fairchild, also of Air Corps Tactical School fame and later the Air Force vice chief of staff under Hoyt Vandenberg. Fairchild died in office, and the academic building at the Air Force Academy and the library at Air University are both named for him. He was also the founder of what is now Airpower Journal. *The airplane is probably the Handley-Page 0/400, a few of which were built under license in the United States.*

against at least two sources. Of course, that takes money and time—and everybody knows that the greater the delay in getting a book in bookstores or catalogs, the greater the delay in generating revenue.

In any case, many sources contain most of the same biographical data, one of the most respected coming from the same publishing house: Roger Spiller's *Dictionary of American Military Biography* (1984—granted, a long time ago). Try to find one of those other sources for your personal library. It is now time to turn to a reference work of another kind.

America's Armed Forces: A Handbook of Current and Future Capabilities edited by Sam C. Sarkesian and Robert E. Connor Jr. Greenwood Publishing, 88 Post Road West, Box 5007, Westport, Connecticut 06881-5007, 1996, 475 pages, $99.50.

The first complaint concerns the title *America's Armed Forces.* Wrong! The book is thoroughly green. One finds only a small input from a professor at the Air War College and practically none from anyone with any particular expertise in naval affairs. Thus, a more accurate and just title might have been

America's Army: Sometimes Assisted by Other Services. Equally defective is the subtitle *A Handbook*. Some of the chapters do fit that description—for example, the ones on the Air Force, Navy, and reserve components, all of which are competent. But at least two, those on the air and maritime arms, are no more than what appears in the May issues of *Air Force Magazine* and the Naval Institute's *Naval Review*. The chapters in part two are mere essays on various subjects and do not resemble what belongs in a handbook at all.

I suppose that the greenness of the book reflects the background of the two editors. Both are career Army officers now in their second careers. Both have taught in Army-oriented programs: Sarkesian at West Point and Connor at Boston University. Further, their other writings concentrate on Army-related subjects. This is not a criticism; people necessarily write on what they know best. It *is* a lament that a disproportionate share of national-security literature emanates from the officer corps of the Army and the Navy. It lends further credence to the commonly held theory that the officer corps of the Air Force is largely made up of doers, not thinkers. Although this may be changing now, one result has been that the Air Force case often has not been well articulated, either in national-security literature or the media. One case in point is that the Air Force underwrites only four issues per year of *Airpower Journal*, while the Army finds it possible to produce six issues of *Military Review* and four more of *Parameters* in the same period.

As for the book's contributors, there can be little doubt that Allan Millett, himself a colonel in the Marine Corps Reserve, can write with real authority on that service. The same is true of Prof. James A. Mowbray, long a teacher at the Air War College at Maxwell Air Force Base, Alabama. But that is about as cosmopolitan as the book gets. The Navy chapter, for example, is written by John Allen Williams, a political scientist at Chicago's Loyola University and an editor of *Soldiers, Society and National Security* as well as *The U.S. Army in a New Security Era*. Judging only from the book itself, six of the 15 contributors have had full careers with the US Army; only Mowbray has an obvious connection with the air arm; and apparently none of them has any naval expertise.

America's Armed Forces features good organization. It is divided into two parts, the first of which has a chapter on each of the armed services (except the Coast Guard), one on the reserve components, and a summary. The second part is topical. The fact that it has one chapter on the American way of war and another on the Gulf War suggests that the editors are clearly playing to the market. But it does include four more chapters on other kinds of conflict.

What about the "handbook"? I doubt that we can condemn it on grounds of insufficient scope or comprehensiveness—qualities required in such a work—because the title is the problem: it is not really a handbook. The chapters on the various services are generally sound but superficial; they will quickly become dated. Those in part two are also generally sound. But since they are the work of different authors, they favor abstractions and truisms and therefore are unsatisfying in a "handbook" that should be useful in checking facts found in other works.

The technical quality of the work, though, is far superior to that of the *Biographical Dictionary* reviewed above. I suppose the implication is that the correctness of the work is directly proportional to the expertise of the editors and the pains they take before delivering the manuscript to the publisher—quality in, quality out. For all of that, though, the work is not a candidate for your personal library of desk references. It is not really comprehensive enough for that; in any case, it is more skewed to the green view of the world than one would like in a reference work. Even as they protest the need to avoid fighting past wars, the editors and some of the contributors continually hark back to an idea propounded a half century ago by T. R. Fehrenbach (himself a soldier) to the effect that boots on enemy turf are essential if the adversary is to change his will.[1] Too, though the book pays lip service throughout to "jointness," there seems to be little doubt that the Army doc-

World War II photograph of Brig Gen Haywood Hansell of Air Corps Tactical School fame and Maj Gen Follett Bradley (on the right). Bradley was one of three Naval Academy graduates who rose to flag rank in the Army Air Forces; the other two were Maj Gen Hugh Knerr and Lt Gen Lewis Brereton.

trine of Air Land Bat tle won the Gulf War. One finds lit tle evi dence of a broader view, such as that expressed by Adm James A. Winnefeld and Dr. Dana J. Johnson:

> The Marines must admit that there are occasions when Marine air is not tied to a MAGTF [Marine Air/Ground Task Force]. The Air Force must recognize that there are sometimes legitimate reasons for task-oriented commanders to retain control of their own air forces, under mission rather than task orders. The navy must acknowledge that carrier air wings are a joint asset and that it should be prepared to act as a JFACC [joint force air component commander] in a future campaign. *All must realize that an air-only operation is a valid force employment option.* (Emphasis added)[2]

Doubtless, by now you are thinking that never is heard an en cour ag ing word from this reviewer. Wrong. We now turn to one of the fin est books I have read in years—truly a ref er-ence work of the first order.

The Papers of George Catlett Marshall, vol. 4, **Aggressive and Determined Leadership, June 1, 1943–December 31, 1944** edited by Larry I. Bland et al. Johns Hopkins University Press, 701 West 40th Street, Suite 275, Baltimore, Maryland 21211-2190, 1996, 773 pages, $55.00.

Having gone through the Carl A. Spaatz and Henry H. Arnold Papers in the Library of Con gress, I knew it would be easy to get lost in the day-to-day concerns of the lives of these

two men and forget about the "big picture." But in the end, the devil is in the details. Most decision-theory books are artificial, in that they address problems in isolation—one at a time. Life is not like that. Any given problem—as we all know—is imbedded in a host of others, which are interdependent.

All that held true for the book at hand. Perhaps the greatest military biography in America is Forrest C. Pogue's on George Marshall.[3] Even that work, however, cannot yield the same sorts of insights that emerge from reading the general's own correspondence, set in context by the annotations of an expert editorial team. *The Papers of George Catlett Marshall* reveals the complexity of leadership at the top level in a way not obtainable in any other way I know of—aside from being a top leader. Marshall could not consider in sequence or in isolation the problems of the war in Europe, the one in the Pacific, the equipping and training of armies and air forces, and the combat death of his stepson. Those and many others impinged on his consciousness in a seemingly unending and chaotic cascade. To his everlasting credit, he seemed able to retain his composure through it all.

Prof. Larry Bland of the Virginia Military Institute heads the editorial team that has assembled the four volumes published thus far. After reading the fourth volume, I sought him out to explore the subject of documentary editing—on the surface of things, a dull subject if there ever was one. Instead, I found the topic engaging indeed. Bland was born in Indiana just before World War II, earning his bachelor's degree at Purdue and a doctorate at Wisconsin in 1972. After teaching at Gaston College until 1976, he joined the George C. Marshall Research Foundation at Lexington, Virginia, to head the editing of the Marshall Papers. The first volume appeared in 1982, and the fourth in 1996. Bland told me that the authoritative job on a first volume of such a series should take about five years, with the help of an assistant. Subsequent volumes could probably be done in four.

That statement is probably astounding to the lay person. How difficult could it be to keyboard the letters in chronological order and then press the print button? Plenty difficult! In the first place, Bland claimed that only about 10 percent of the papers available made it into the published volumes. Thus, the editors confronted a major selection job.

That is where the historical expertise of the editorial staff comes in. Extensive annotation throughout the text firmly places all of Marshall's correspondence in the context of American history and the military history of both the Pacific and European wars. The editors did their homework. Properly selecting the 10 percent of the correspondence that would simultaneously convey the big picture and provide the details of Marshall's life and work required not only a special competence going into the labor, but also the willingness and ability to do extensive travel and research to guarantee the accuracy of the work. It is a clean work indeed.

Doubtless, the work was much facilitated by the location of the George C. Marshall Foundation at Lexington, Virginia—just a short drive into Washington for the Library of Congress and old National Archives and into College Park, Maryland, for the new National Archives. Of equal importance, Professor Bland pointed out, was the Editorial Advisory Committee, which boasted some of the leading military historians in America. Members included Maurice Matloff, Edward M. Coffman, and Pogue himself. Clearly enough, their collective advising and critiquing contributed mightily to the balance, and especially the accuracy, of the work. Bland added that their active support and prestige also opened doors for the editorial staff time and again.

But why should professional air warriors/scholars trouble themselves with a soldier's letters from a time before the US Air Force existed? A number of reasons come to mind. For example, Carl von Clausewitz informed us that many frictions distinguish real war from war in the abstract. World War II is the closest thing we have ever had to an air war in the abstract form—an all-out air war relatively uninhibited by the constraints endemic in all the limited wars that have been fought since then. Further, there are no Ar-

A Preliminary List of Post–World War II Published Writings and Papers of the US Army and Air Force Four- and Five-Star Generals

Army

George C. Marshall
The Papers of George Catlett Marshall, 4 vols.
Selected Speeches and Statements of General of the Army George C. Marshall[4]

***Dwight D. Eisenhower* (excluding papers and writings relating to the presidency)**
The Churchill-Eisenhower Correspondence, 1953–1955
The Eisenhower Diaries
The Papers of Dwight David Eisenhower (those relating to his career up to the end of his military service go through vol. 10)
Crusade in Europe
Letters to Mamie
At Ease: Stories I Tell to Friends
Dear General: Eisenhower's Wartime Letters to Marshall

Omar Bradley
A Soldier's Story
A General's Life: An Autobiography

George S. Patton
War As I Knew It (edited by Paul D. Harkins, himself later a four-star general)
The Patton Papers, 2 vols.

Douglas MacArthur
A Soldier Speaks: Public Papers and Speeches of General of the Army, Douglas MacArthur
Reminiscences

Walter Bedell Smith
My Three Years in Moscow
Eisenhower's Six Great Decisions: Europe, 1944–1945

Mark Wayne Clark
From the Danube to the Yalu
Calculated Risk

Thomas Troy Handy
None

Jacob Devers
None

Brehon Somervell
None

Air Force[5]

Henry Arnold
Global Mission

Carl A. Spaatz
None

Joseph T. McNarney
None

Hoyt S. Vandenberg
None

George Kenney
General Kenney Reports: A Personal History of the Pacific War
The MacArthur I Knew
The Saga of Pappy Gunn
Dick Bong, Ace of Aces

A 10-Book Sampler for the Air Warrior/Scholar's Desk Set

Vincent Esposito, *The West Point Atlas of American Wars*. This two-volume work is a classic without question. If you can find one in a used-bookstore, especially around Washington, by all means buy it. Each plate is accompanied by an authoritative narrative of the battles and wars in question. It is especially important because the typical air warrior is insufficiently cognizant of the importance of terrain to the soldier.

Roger Spiller, *Dictionary of American Military Biography*. There are wall-to-wall biographical reference books, some authoritative, but the single most useful and authoritative work that is comprehensive and compact enough to include in a desk set is Spiller's.

R. Ernest Du Puy and **Trevor N. Du Puy,** *Encyclopedia of Military History: From 3500 B.C. to the Present*. Although the airman might not agree with some of the biases of the editors and contributors, this work is the single most comprehensive and compact reference on military history and has reappeared periodically in updated editions.

Charles D. Bright, *Historical Dictionary of the U.S. Air Force*. The editor is a retired Air Force officer, and the volume is probably the most authoritative and comprehensive work that is focused on the USAF.

Enzo Angelucci, *The Rand McNally Encyclopedia of Military Aircraft, 1914–1980*. There are dozens of reference works on aircraft, and almost all of them are hard to use because the performance figures usually come from the manufacturers' hype and are more optimistic than those found in practical applications. This work is among the most comprehensive, is blessed with some fine artwork, and is generally accurate.

JCS Publication 1-02, *Department of Defense Dictionary of Military and Associated Terms*. One of the functions of theory and doctrine is the development of a common vocabulary that will facilitate discussion and learning among its practitioners. The imprecise use of words is the bane of air theory and doctrine, and it will behoove Air Force scholars to acquire this work and rely on it in their study and writing.

Noble Frankland, *The Encyclopaedia of Twentieth Century Warfare*. The editor is a former Royal Air Force official historian of considerable stature. The world abounds with so many encyclopedias of various wars that there are too many for a desk set. This work covers a wider array, is authoritative, and has some fine essays and artwork.

Robert Debs Heinl Jr., *Dictionary of Military and Naval Quotations*. The editor was a Marine Corps colonel known for his erudition and wit. This is only one among many reference books focused on military quotations, but it is among the best.

Victor Flintham, *Air Wars and Aircraft: A Detailed Record of Air Combat, 1945 to the Present*. Published in 1990, this book gives a comprehensive summary of all the air conflicts since 1945, along with authoritative information on the aircraft used in them.

AF Pamphlet 13-2, *Tongue and Quill*. This is one of the best works ever published by the Air Force. Now if we professors could figure out how to persuade our students (and ourselves) to take its advice, the world would be a better place.

One for Good Measure

Office of History, Air Force Development Test Center, *Glossary of Abbreviations and Acronyms Extracted from Histories*. I probably will get on the black list of my former colleagues of this office for setting their telephone to ringing, but if you can acquire this work, it will be a wonderful antidote for our common occupational disease—the excessive use and misuse of acronyms.

nold Papers in print. Both Arnold's autobiography and his biography are too short (among their other limitations) to comprehensively depict the problems at the center of things. So the Marshall Papers are the nearest thing we have in print that would help us build a picture of what planning an all-out air war at the national level might be like.

According to General Kuter, who spent the greater part of World War II in Washington, George Marshall was the very best nonairman friend the AAF had.[6] Unquestionably, Marshall went much further than necessary to give a maximum of autonomy to the AAF, short of a change in legislation. After the war, he remained the stalwart champion of an independent air force. Without his support, the US Air Force would have come out of the unification debate much weaker than it did.[7] To understand what they are, professional air warriors/scholars must understand where they came from. They can gain a large part of that understanding from reading the Marshall Papers—and Pogue's biography of Marshall.

Another reason for the Air Force professional to take time to consider George Marshall is that doing so provides a fine case study to supplement one's examination of decision-making theory. One of the most renowned books on the subject is Graham T. Allison's *Essence of Decision: Explaining the Cuban Missile Crisis* (Boston: Little, Brown, 1971), a classical examination of President Kennedy's decision making in 1962. One could hardly have hoped for more laborious research and analysis than is evident in that book. Yet, it is but a single case, and the author is a preeminent member of the Harvard community (President Kennedy's alma mater). Thus, one must suspect that a bias in his favor crept into the analysis. A detailed study of Marshall, during another time and with a set of different problems, would certainly serve as a useful check on the student's thinking on the decision-making process.

I suppose that few of you serving warriors/scholars will have time to read the entire four-volume Marshall set from stem to stern. Too, your book budgets would seldom bear the burden of buying the whole set. However, I strongly recommend that you take the time to spend a few hours in the library with these papers. It will be interesting, add to your database, and give you some fine ideas about one kind of good leadership.

But why do I have to make such a recommendation in the professional journal of the Air Force? Where are the published papers of the great air leaders of the past? Why can't we use the papers of Arnold, Spaatz, Billy Mitchell, Hoyt Vandenberg, and the others instead? Doubtless, the "preliminary list" of publications I have assembled here (page 60) is not definitive, but perhaps it is enough to suggest that the ideas of airmen have not found their way into print nearly as often as have those of soldiers. Although some mechanical reasons account for this situation (e.g., ground generals outnumbered air generals, and they unquestionably received better offers from the publishing industry at war's end), it does lend credence to the widely held idea that soldiers are of a more contemplative cast of mind than are airmen.[8]

The world of the Air Force has changed a lot since Danny Kaye painted his little Air Force vignette in the movie *The Secret Life of Walter Mitty* in 1947. That image of an Air Force officer was highly popular in Annapolis when Carl Builder and I were there soon afterward: an addled teenaged colonel, bedecked with ribbons extending all the way over his shoulder and a great white scarf, flitting around the world with great speed but not much direction.[9] Well, six years after Danny Kaye first portrayed that view to the American public, only 32 percent of the Air Force officer corps had college degrees. Now all of them have bachelor's degrees, and from the senior captains on up, probably more than 32 percent hold graduate degrees. So where are the books? Why do the other services still seem to dominate the market for national-security literature? Why is that literature so disproportionately Army green or Navy blue? One of the reasons is that Rome was not built in a day. It takes some time for the newly (relatively speaking) educated officer corps to get into its golden years to produce the writings

that the Eisenhowers, Bradleys, and Clarks did in the wake of World War II.

But another mechanical factor is inhibiting the growth of the subfield of airpower history and national-security literature written by people with an insight to airpower theory and doctrine. In colleges all over America, one of the first things all new history graduate students and many political science candidates learn is that they must have primary sources in their footnotes! To get such information on Arnold or Spaatz or Vandenberg, one has to go to Washington to the Library of Congress. The last time I was there, the hotel bill was $115 per night. Not many graduate students can afford that kind of green to spend days and days poring over the papers of the chiefs of staff. The official records of the commanding generals of the AAF and the chiefs of staff of the Air Force are at the new National Archives in College Park, Maryland. When I last visited, I got an "econo" motel room for a mere $84—but still well above what a new graduate student can contemplate.

The result is that everywhere, semester after semester, more and more graduate students are considering this problem. They can go into their own university libraries for free and find lovely footnotes from the Marshall Papers, from the Eisenhower Papers, from the Patton Papers, and from the many memoirs done by any number of soldiers. That might be good for an A. Or they could go for the airpower stuff (and a B maximum) by looking at the memoirs of William H. Tunner, Arnold, and Brereton and get the rest from secondary sources. The result is that at the entry level, there is a strong current in the direction of military and naval studies, to the detriment of airpower studies. But when these budding theorists overcome their poverty by becoming tenured professors or congressional staffers, they already have a long road of surface-oriented studies behind them, and as the twig is bent, they say, so goes the tree.

But what is the point of writing all that for the audience of *Airpower Journal?* What in the world can its members do about it? Not much, I suppose. We have seen that Larry Bland has been at work on the Marshall Papers for a couple of decades—few among us can make that kind of commitment. I suppose that in our own studies and teaching, we can at least recognize this as a biasing factor of our raw material. Also, perhaps we can do a little to induce our students and colleagues to take up the ambition of putting it down on paper, as Eisenhower did and as Spaatz consistently refused to do. Maybe the leadership of the Air Force might also start thinking about attracting support for something like Larry Bland's George C. Marshall Foundation—say perhaps the Henry H. Arnold Institute with the mission of putting the published version of Arnold's papers into every university library in the land.

Grandison Gardner is another of the world war leaders of the second rank who are now little remembered. He led the proving-ground command during most of the war and was in place with a missile unit in the Philippines as the war ended. Later he was the founding commander of the Air Force Institute of Technology. According to Eglin AFB lore, Gardner never permitted a photograph without his hat because he was sensitive about his baldness.

Left to right: George C. Marshall, Frank Andrews, Henry Arnold, and Maj Gen Oliver Echols, circa 1942. Four volumes of the Marshall Papers are now in print, but those of both Andrews and Arnold are in the Library of Congress in unpublished form. Those of Arnold have been microfilmed, and a copy is at the Air Force Historical Research Agency at Maxwell AFB, Alabama.

Conclusion

Students of air war would probably do well to assemble a compact set of desk references specialized to their own profession. Some of the books listed in "A 10-Book Sampler" (page 61) are not in print, yet they remain among the best in the field. Rather than accept something that is in print but inferior, the air warrior/scholar might want to make a habit of roaming some of the used-book stores in Boston, New York, and especially around Washington. Avery Publishing of New Jersey has issued a set of books related to the *West Point Atlas* cited above. Many of the maps are the same, and new narratives are provided in separate volumes under a series title *The West Point Military History Series.* These are in print and are useful, but if you can get the original *West Point Atlas of American Wars,* you should do so. Several generations of the Long Gray Line have carried the *Atlas* away from the Military Academy. Some have retired and passed on, and their books often wind up in Washington used-book stores.

A very useful book for students of war is *Thinking in Time: The Uses of History for Decision Makers* (New York: Free Press, 1986) by Richard E. Neustadt and Ernest R. May. One of its strongest recommendations is that decision makers faced with a new problem should look into three histories before they do their analysis: that of the organizations involved, that of the problem being considered, and the personal histories of the main actors. The air warrior/scholar can use some of the biographies and biographical dictionaries for the

lattermost sources, and other useful ones are the alumni registers of the various federal academies. They are easy to acquire and yield a modicum of helpful information on every graduate. Ten of the first 13 Air Force chiefs of staff were graduates of West Point, and all are entered in the *Register of Graduates and Former Cadets of the United States Military Academy*. They are useful for many things, such as noting that Benjamin Davis, William Westmoreland, and Creighton Abrams were all classmates.[10] Further, the registers do not become dated very rapidly.

Such reference works are good for checking the accuracy of briefings and the like, and for understanding something about the people one deals with. All doctrine is wrong, and all books are no more than one view of the truth—and your reference desk set can serve as a check there, too. Also, when you are assigned a staff study or research project of another kind, reference works are handy for a quick overview or summary for an opening move. As noted, electronic reference works are great force multipliers, in that they enable the storage of huge amounts of material in minimal space, and they enable the retrieval of information at a much faster pace than with hard copy. However, most such works are as yet too general in nature for the scholar of air war, and I suspect that the accuracy and currency of such sources are often unreliable. Once a mistake gets into one of them, like making a singular out of "US Army Air Forces," it tends to become like a virus and spreads indefinitely.

Finally, some of the most wonderful theories of air power are built on a firm foundation of supposition. It therefore behooves true air warriors/scholars to check those undeclared assumptions against the facts, if they can. A good personal reference desk set will help them do that. □

Notes

1. The same Fehrenbach passage is quoted twice, on pages 199 and 284.

2. James A. Winnefeld and Dana J. Johnson, *Joint Air Operations: Pursuit of Unity in Command and Control, 1942–1991* (Annapolis: Naval Institute Press, 1993), 171.

3. Forrest C. Pogue, *George C. Marshall,* 4 vols. (New York: Viking, 1963–1987).

4. This collection was privately published and is therefore included. The Office of the Chief of Military History has recently published a complete set of Marshall's wartime reports to the secretary of war, but I did not include them here because Arnold had written similar reports, although they have not been republished. Too, Marshall's memoirs of his World War I service were first written in four volumes while he was a major in the 1920s and republished in 1976. I did not include them because Arnold had authored and coauthored (with Ira Eaker) several books before the war that I decided not to list.

5. Lewis Brereton and William Tunner both wrote memoirs that were published after the war, but neither officer ever became a four-star. General LeMay came out of the war a two-star and coauthored one book much later. This picture, I know, is skewed by the fact that the Army had many more generals than did the AAF and that the latter's were generally younger—and none of them rose to the prominence of Eisenhower, MacArthur, Bradley, and even Smith. Also, General Vandenberg died very young and could not have had the time to do any writing.

6. Gen Laurence S. Kuter, "George C. Marshall, Architect of Airpower," *Air Force Magazine,* August 1978, 65–67.

7. There seem to have been limits to his enthusiasm for airpower, however. Brig Gen Noel Parrish, in "Behind the Sheltering Bomb: Military Indecision from Alamogordo to Korea" (PhD diss., Rice University, 1968), argues strongly that George Marshall was obsessed with the standard Army view that final victory can come only with "boots on enemy turf." Indeed, he refused to consider the arguments of many air and naval officers that the submarine blockade and strategic bombing would bring Japan down without the thousands of casualties that would have been involved in the invasion of the home islands. According to Parrish, only the atomic bombs prevented Marshall from having his way and saved all those lives.

8. This is a common theme of many authors, one of whom is Carl Builder in *The Masks of War: American Military Styles in Strategy and Analysis* (Baltimore: Johns Hopkins University Press, 1989) and *The Icarus Syndrome: The Role of Air Power Theory in the Evolution and Fate of the U.S. Air Force* (New Brunswick, N.J.: Transaction Publishers, 1994).

9. *The Biographical Dictionary of World War II Generals and Flag Officers* does yield some interesting trivia. It shows that the youngest US Marine Corps general in World War II was born in 1898. The youngest AAF general was born in 1915 and was 28 years old when he became a brigadier general. One of his colleagues was born in 1914; 140 AAF generals were born in the twentieth century, while none of the Marine generals was born after 1898. That is one significant way that the Air Force officer corps has changed since the creation of the USAF.

10. They were members of the class of 1936; Davis's class standing was the highest of the three.