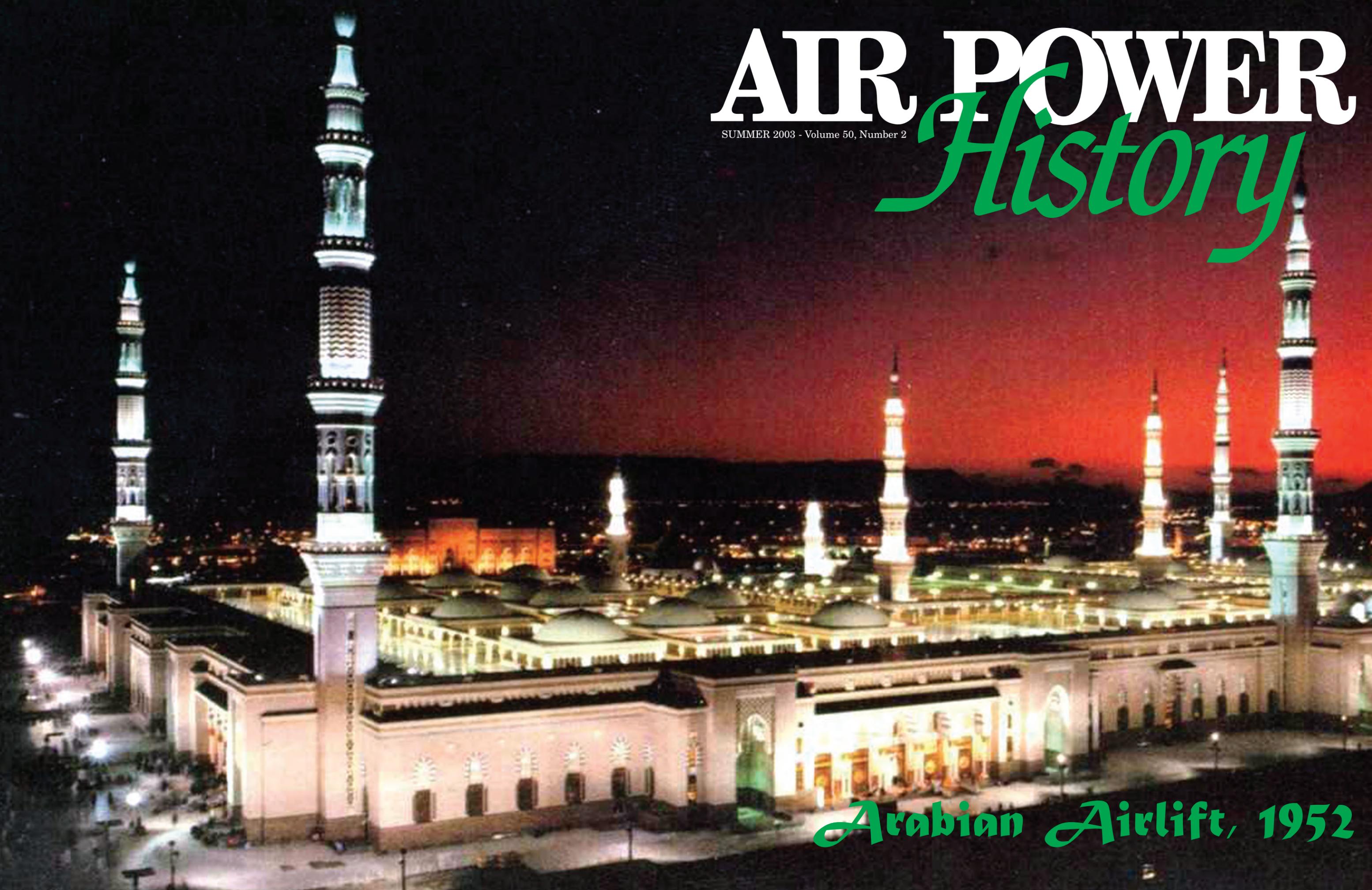


# AIR POWER

SUMMER 2003 - Volume 50, Number 2

# *History*



*Arabian Airlift, 1952*

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# AIR POWER

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In “Operation Hajji Baba,” James Currie recounts a little known and long forgotten episode of the U.S. Air Force’s 1952 airlift of several thousand Islamic pilgrims from Lebanon to Saudi Arabia. Despite the success of the operation, Currie notes, it did not overcome the region’s deep mistrust and dislike of the United States.

The second article, “Starting from Scratch,” James Corum’s account of how the U.S. Air Force rebuilt the German Air Force — the *Bundesluftwaffe* — demonstrates that the task took much longer to complete than anyone had anticipated.

Daniel Haulman likens Japanese Admiral Isoroku Yamamoto, the architect of the Pearl Harbor attack, to the modern terrorist Osama Bin Laden. Haulman casts another look at the April 1943 Yamamoto Mission, not from the perspective of which American pilot deserves credit for the famous “shootdown,” but rather on the effects of the assassination.

John Maher writes a poignant tribute to his childhood chum, Bill McGlynn, a World War II B-17 ball turret gunner. McGlynn and his crew mates aboard their plane, *Lucky Lady*, all survived being shot down.

Finally, because the year 2003 marks the fiftieth anniversary of the creation of the Air Force Historical Foundation, *Air Power History*’s parent organization, we present a photo gallery of the past presidents (see pages 38 to 41). From General Carl A. “Tooney” Spaatz, the first president, to General W. Y. Smith, the current president, all of the incumbents have been men of accomplishment who contributed greatly to promoting United States air power. We will continue the celebration in upcoming issues for the remainder of the year. Please write and share any stories you may recall on this subject.

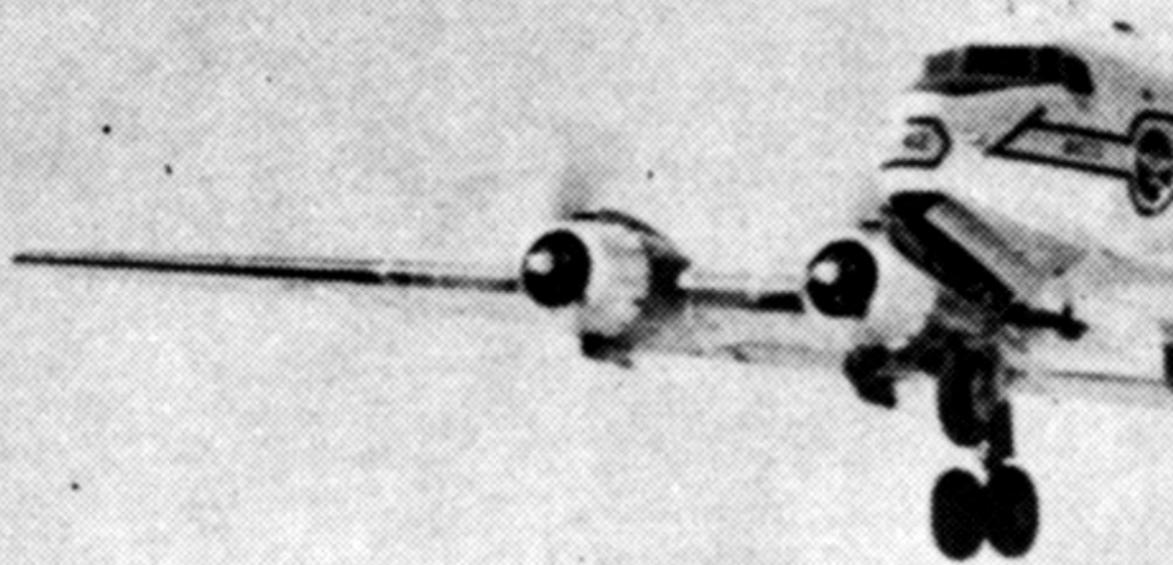
Once again, thanks largely to the skill and tenacity of Colonel Scott Willey, our book reviews pile is bulging. I believe that this issue may contain the greatest number of reviews in recent memory. But it’s not just the number of reviews, the quality seems to be rising as well. We also are proud to present entertainment and information in the departments section, notably Bob Dorr’s “History Mystery,” George Cully’s upcoming events, letters to the editor, notices, and reunions.

With sadness, we also say farewell to three U.S. Air Force leaders who passed away recently: former Secretary of the Air Force Russell A. Rourke; former commander of the Tactical Air Command, General Robert J. Dixon; and former Chief Master Sergeant of the Air Force Thomas N. Barnes. Rest in peace.

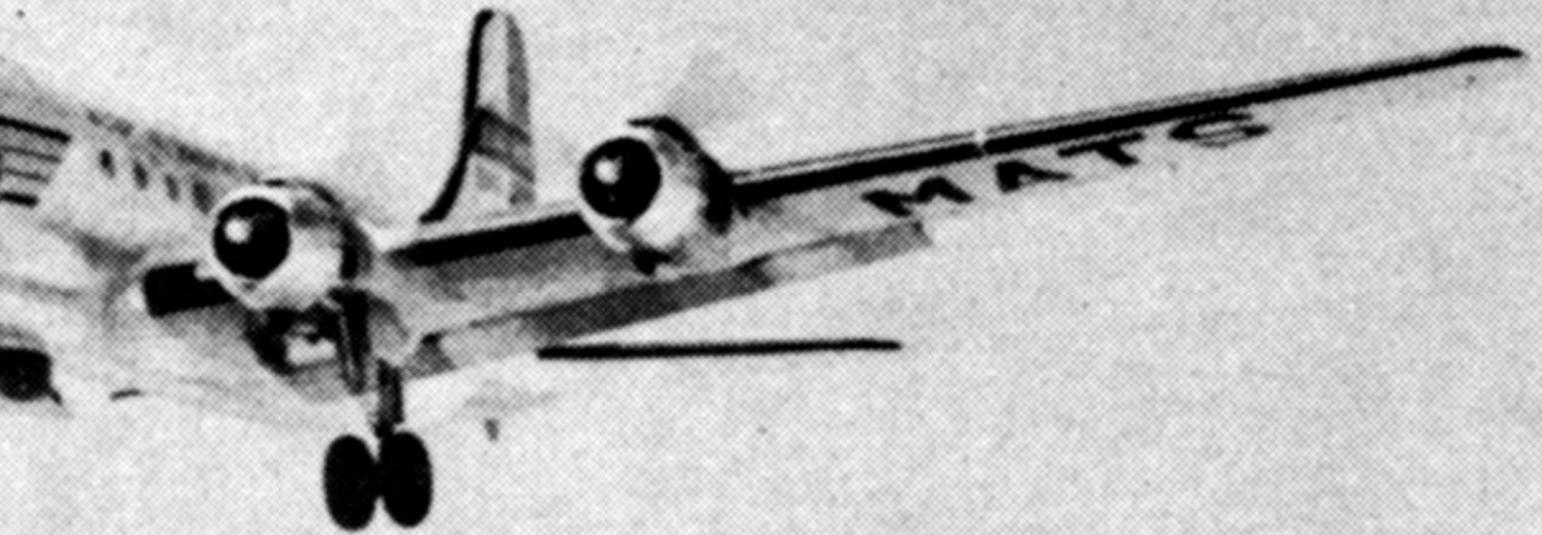


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# Operation



# Saiji Baba



James T. Currie

(Overleaf) A C-54 taking off from Beirut's Khaldi international airport. (All photos courtesy of the Air Force Historical Research Agency.)

**THERE WERE MANY MORE PILGRIMS THAN THE AIRLINES COULD POSSIBLY HANDLE**

**LEBANON RESPONDED TO THE CRISIS BY CLOSING ITS BORDERS**

**THE LEBANESE POLITICIAN IMMEDIATELY ASKED WHETHER THE UNITED STATES AIR FORCE COULD FLY THE STRANDED PILGRIMS TO SAUDI ARABIA**

It was the end of August 1952. The eighty-five year old Iranian Muslim had been hoarding his money since he was ten years old. He had hidden coins under the dirt floor of his hut in a lifetime of saving to make the pilgrimage to Mecca, a pilgrimage that all Muslim faithful are expected to undertake at least once in their lives. He had chosen this year to make the journey—the *hajj*—because the Saudis, keepers of the holy city, were receiving so much money from the Arabian-American Oil Company that they had eliminated the \$100 tax previously levied on each pilgrim. He had made it to Beirut, crossroads for many pilgrims and jumping-off point for a flight to Saudi Arabia. He was now, however, stranded at Beirut's international airport. It was hot. He had nowhere to stay; and he had run out of money. He had also almost run out of time. On August 27 the Saudis were scheduled to close the gates to the holy city, and his pilgrimage would come to an abrupt and disheartening end.<sup>1</sup>

This unnamed pilgrim had not planned on being stranded in Beirut. He had thought that if he made it to that city, he could fly the rest of the way on one of the three Middle Eastern airlines that traditionally carried pilgrims to Jidda, the airport closest to Mecca. The problem this year was that there were many more pilgrims than the airlines could possibly handle, despite the fact that each of these travelers, including the octogenarian Iranian, had purchased an airline ticket to Jidda before leaving their home country.<sup>2</sup>

Multiply this elderly pilgrim by a thousand, throw in a hot Lebanese sun, a near-complete lack of shelter, dwindling food supplies, and only a few outdoor water faucets; multiply the confusion by the fact that many pilgrims spoke neither Arabic nor French, and the potential for a disaster was brewing. Lebanon responded to the crisis by closing its borders, but there were still close to 1,000

Islamic travelers in Beirut, and it appeared that their *hajj* would end 850 miles short of its goal.<sup>3</sup>

Enter Saeb Salaam. Mr. Salaam had dual reasons for wanting the pilgrims to be allowed to continue on their way to Mecca. First of all, he was a member of the Lebanese parliament, and these visitors were taking over the city of Beirut, living in the streets, and clogging the space around the airport. There was no indication that they were prepared to leave Beirut unless they were going on to Mecca. This was a political problem for a Lebanese office-holder.

Second, he was president of Middle East Airlines, one of the three air carriers (the others being Saudi Arabian Airlines and Air Lebanon) that had proven inadequate to the task of transporting the travelers to Jidda, because over-zealous agents in countries from Turkey to Senegal had sold more tickets than there were seats on flights to the Saudi Arabian port city. Salaam could not conjure up more aircraft for his own airline, but he thought he knew where he could obtain additional resources—the United States.<sup>4</sup> Salaam decided to visit the U.S. embassy in Beirut.

Harold B. Minor was the American ambassador to Lebanon in 1952. Lebanon was a pleasant country to which to be posted, and Minor, a graduate of Georgetown University and a career diplomat who had served in numerous overseas locations, had been in Beirut since 1951. He received Salaam in his office, and the Lebanese politician immediately asked whether the United States Air Force could fly the stranded pilgrims to Saudi Arabia.<sup>5</sup>

Minor understood instantly the potential political benefits of doing what Mr. Salaam asked. The United States had incurred the displeasure—if not the wrath—of much of the Middle East with its support of Israel during the 1948 war, in which the Jewish state gained its independence. Accord-

*Since July 1991, James T. Currie has been Professor of Political Science at the Industrial College of the Armed Forces (ICAF), where he occupies the Bernard M. Baruch Chair of National Security Studies. He directs both the News Media Industry Study and the Central America/Caribbean Regional Security Study and teaches an elective on "Congress and the Legislative Process." Students have twice named him "Educator of the Year." He graduated Summa cum Laude from the University of Mississippi, with majors in history and political science. He then earned the M.A. and Ph.D. degrees from the University of Virginia. Dr. Currie is a graduate of both ICAF and the Army's Command and General Staff College. He has taught history and government at the college level and served as historian for the United States Department of Education. He was also associate historian of the United States House of Representatives. He served six years as a legislative assistant to Senator Lloyd M. Bentsen, Jr., and was concurrently a professional staff member and Chief of the Latin America Division of the Senate Select Committee on Intelligence. He additionally served as the committee's press spokesman for two years. He is the author of three books, including histories of both the United States House of Representatives and the United States Army Reserve, and twenty-two articles. One of his articles, "Benjamin Montgomery and the Davis Bend Colony," won the prestigious Charles Thomson Prize, awarded jointly by the National Archives and the Southern Historical Association. His OpEd pieces have been published in the New York Times, Washington Post, and other newspapers. Dr. Currie served almost four years on active duty with the United States Army and retired from the Army Reserve with the rank of colonel after a total of thirty years of service. Military awards include the Legion of Merit, the Meritorious Service Medal with three Oak Leaf Clusters and the Army parachute badge. His last reserve assignment was with the Army's Office of Legislative Liaison.*



Muslim pilgrims leave a MATS C-54 transport airplane after their arrival in Jiddah.

**MINOR UNDERSTOOD "THE PROPAGANDA BENEFITS TO THE U.S.**

**MINOR WAS NOT NAIVE ABOUT MIDDLE EASTERN POLITICS**

**MINOR OFFERED ... THAT THE U.S. PROVIDE THE AIRLIFT**

ding to one reporter, Minor understood "the propaganda benefits to the U.S. if the Air Force and the State Department could be persuaded to meet Salaan's [sic.] plea."<sup>6</sup>

Minor was not naïve about Middle Eastern politics, and it is most unlikely that he believed that a Mecca airlift would ameliorate the hard feelings of the Muslims. At best, as reflected in the words of a *Time* magazine correspondent, "it might well be the beginning" of better relations between the United States and the Muslim world.<sup>7</sup> Under no illusions, then, about the ultimate outcome and benefits of the proposed airlift, but hopeful that this effort might provide an opening to the Arab world, the ambassador quickly sent a "night-action" cable to Henry A. Byroade, Assistant Secretary of State for Near Eastern, South Asian, and African Affairs. In the cable, Minor offered a strong recommendation that the U.S. provide the airlift, admitting that he was "asking for the impossible."<sup>8</sup>

The cable reached State at 11:07 a.m. on Thursday, August 21, but it was not decoded and delivered to Byroade until 5:00 p.m. that day. Within two hours Byroade had presented the airlift idea to Deputy Under Secretary of State H. Freeman Matthews and to Air Force Secretary Thomas K. Finletter, both of whom approved the request. Barely three hours after he had received the cable from Minor, Byroade sent his response to the ambassador. The State Department, he said, was "looking into the possibility of moving some of the pilgrims by air." He asked Minor to respond to several questions regarding the nationality of the pilgrims, whether they had visas for admittance to Saudi Arabia, and whether there were any other means of transporting them.<sup>9</sup>

Minor's response to these questions reached Byroade at noon on Friday, August 22. In addition to affirming that a U.S. airlift seemed to be the only way these individuals would reach Mecca that year, he delivered a bit of disturbing news: the situation was growing worse in Beirut, as there were now 1,500 pilgrims awaiting transportation, rather than 1,000. Meanwhile, Air Force Secretary Finletter had cleared the airlift proposal with Secretary of Defense Robert A. Lovett, who added one crucial point—the United States government would not accept any payment from the pilgrims in return for the flight to Jidda.<sup>10</sup>

Byroade went immediately to the Pentagon and devoted Friday afternoon to working out airlift details with a group of Air Force officers. He cabled Ambassador Minor at 7:00 p.m. (2:00 a.m. Saturday, Beirut time) and told him that the plan had been approved, and that the Air Force would be tasked with organizing the lift. The next morning a cable was sent to the headquarters of the 1602d Air Transport Wing (ATW) at Wiesbaden, Germany, alerting them to the airlift. This warning order reached the 1602d at 10:45 a.m. (0945Z) on Saturday, August 23. The 1603d ATW, located at Wheelus Field, Tripoli, Libya, was similarly alerted, receiving its heads-up at 11:00 a.m. (1000Z) that same day. Each unit, which was equipped with C-54 transport aircraft capable of carrying up to 50 passengers each, started planning for the airlift.<sup>11</sup>

The 1602d developed its concept of the operation by anticipating that it would require two days to transport 1,500 people from Beirut to Jidda and that thirteen transport aircraft would be sufficient to accomplish the mission. Seven of these aircraft would come from the 41st Air Transport Squadron (ATS), located at Wheelus Field, Tripoli; six would be furnished by the 86th ATS in Rhein Main, Germany. In addition, a mobile maintenance aircraft from Orly Field in Paris, France, was designated to join the effort.<sup>12</sup>

The order to execute the airlift reached the 1602d at 6:10 a.m. (0510Z) on Sunday, August 24. It directed Brig. Gen. Wentworth Goss, commander of the 1602d, to establish a task force to accomplish this mission, with himself as its commander. Colonel Arthur C. Rush, deputy commander of the 1603d ATW in Libya, was named the deputy task force commander.<sup>13</sup>

The 1602d had done such a thorough job in its planning that the first C-54 left for Beirut barely an hour after order OTC E-169—the order to undertake the mission—had come in from the MATS. This first aircraft left Rhein Main and went to Wiesbaden, Germany, where it picked up Brig. Gen. Goss and continued on to Beirut, touching down at Khaldi Airport late on Sunday evening, barely seventeen hours after receipt of the order to execute the mission. Additional aircraft departed their bases in Germany, Libya, and France. By 5:00 a.m. (0300Z) on August 25, two additional aircraft had arrived from Rhein Main. By 11:50 a.m. (0950Z) on August 25, there were twelve C-54



(Above) Muslim pilgrims with their travel kits crowd together at Beirut's airport.

(Right) An Air Force mechanic works on an airplane engine as three hajjis look on.



**GETTING THE FIRST LOAD OF PASSENGERS ONTO THE AIR FORCE PLANES PROVED TO BE A CHALLENGE**

transports on the runway in Beirut, plus the mobile maintenance airplane and 209 Air Force personnel to run the operation. A thirteenth C-54 arrived in Beirut at 6:14 a.m. (0414Z) the next day.<sup>14</sup>

The airlift to Jidda did not wait for all the aircraft to arrive in Beirut. It started, in fact, with a sense of urgency at 8:00 a.m. on Monday, August 25, even as transports were streaming in from Germany and Libya. There was a tight deadline for the operation because all indications were that just two days later—on August 27—the Saudis would close their border.<sup>15</sup>

Getting the first load of passengers onto the Air Force planes proved to be a challenge. As the after-action report on the mission explained: "Routine matters such as passport inspection, clearance forms, ships paper, crew lists, weather folders, and weight and balance forms consumed nearly an hour to clear the first aircraft."<sup>16</sup> Given the short time frame in which the mission was to be completed, this type of red tape simply could not be allowed. A concerted effort from U.S. diplomats in Beirut, the U.S. Army attaché there, and the civil airport director quickly eliminated many of the requirements and allowed subsequent flights to proceed with much less paperwork. As a practical matter, the aircraft were cleared to



(Top, left) Brig. Gen. Wentworth Goss, commander of the airlift, and U.S. Ambassador Harold Minor listen to the pleas of a Muslim traveler.

(Top, right) Even at night the aircraft flew the mission: pilgrims board a C-54 in Beirut.

(Above) Pilgrims utter their prayers of thanks.

depart the airport as soon as the passengers had been loaded.<sup>17</sup>

The task force flew all the in-country aircraft on the first day. When it became clear that ferrying 1,500 pilgrims to Jidda by the August 28 deadline would not pose a problem, General Goss decided to remove three aircraft from the rotation and put them through a regular maintenance routine. These aircraft were then fed back into the cycle and three others removed. By doing this, reported Goss, "the operational capability of the whole fleet was enhanced as the operation continued."<sup>18</sup>



Most of the passengers were simple pilgrims, travelers whose names remain unknown to us today. But one man was special. He was the Ayatollah Sayed Abdol Ghassem Kashani, Speaker of the Iranian parliament. Kashani was both a religious and a political leader who only a month before had been instrumental in quashing a plot to overthrow the government of Prime Minister Mohammad Mossadegh. According to an Associated Press report, the Saudis had arranged to send a special airplane to pick him up and transport him to Jidda. The aircraft, however, never arrived, so Kashani became simply "Pilgrim #2157."<sup>19</sup> Because of the diplomatic dispute between the Iranians on one side and the U.S. and Britain on the other concerning the Anglo-Iranian Oil Company (AIOC), however, he did not make a quiet departure from Beirut.

Iran had nationalized AIOC in 1951, an event of which both the U.S. and Britain disapproved. Even as Kashani undertook his pilgrimage, U.S., British, and Iranian diplomats were meeting in an attempt to defuse a very difficult foreign policy situation.<sup>20</sup> Kashani was not directly involved in these talks, but he could not resist the publicity opportunity afforded him by his flight to Jidda. Unmoved by his supplicant status in Beirut and by the courtesies extended to him by the United States, Kashani paused before entering the aircraft that was to transport him to Jidda and issued a defiant statement that the West needed Iran's oil more than Iran needed Western money.<sup>21</sup>

Kashani's diatribe did nothing to slow the airlift. Around the clock the large, four-engine transports took off on their 850-mile flight to Jidda, delivering their 50-passengers and returning empty to Beirut's Khaldi Airport. In every twenty-four hour period, the Air Force made an average of 20 roundtrip flights carrying 935 pilgrims to Jidda. Flights left Beirut on the hour, taking five hours to reach Jidda. The Jidda end of the opera-



tion was remarkably lean, with only four persons assigned there: two officers and two airmen, each of whom worked twelve-hour shifts. Because each aircraft was loaded with 2700 gallons of fuel before it left Beirut, re-fueling in Jidda was unnecessary, and off-loading and turnaround time in the Saudi city was kept to 45 minutes.<sup>22</sup> When the aircraft returned to Beirut, Air Force crews achieved a 90-minute turnaround for the next flight, assuming there were no major maintenance problems to be taken care of.<sup>23</sup>

It soon became evident, however, that there were far more pilgrims than the 1,500 for which the airlift had been planned and that airlifting them all to Jidda would take longer than two days. In fact, the first twenty-four hours of the airlift put barely a dent in the number of persons at the airport. In a scene that must have been reminiscent of the Mickey Mouse-as-sorcerer's-apprentice sketch in Walt Disney's *Fantasia*, the more pilgrims who were transported, the more there seemed to be at the Beirut airport. Even after two days of virtually non-stop flying, during which some 1,700 travelers were transported to Jidda, there were just as many pilgrims as before. Furthermore, the time for transporting these men and women to Mecca was rapidly expiring. If the remaining number—estimated at close to 2,000—could not make it to Mecca by August 27, they would not be admitted to the holy city.<sup>24</sup>

The government of Lebanon had no more desire to see these pilgrims remain in Beirut than the Saudis had in not seeing them reach Mecca. The August 27 date was somewhat arbitrary, so Ambassador Minor contacted the Saudis and arranged a one-day deadline extension. When it became evident that even this deadline would leave hundreds of stranded pilgrims, the Lebanese government weighed in with the Saudis and got the deadline extended to the 29th. The airplanes did not stop flying, but it was unclear whether even the two-day extension would be enough to allow everyone to make the trip.<sup>25</sup>

To further complicate matters, there were pilgrims in cities other than Beirut. Three of the seventy-five flights were routed from Beirut through Baghdad, and one was sent through Marfaq, Jordan, on its way to Jidda.<sup>26</sup> For ninety-six hours straight, the transports flew back and forth, full one way, empty coming back. The seventy-fifth flight left for Jidda with the final group of pilgrims at 5:22 a.m. on August 29 and arrived at its destination just minutes before the Saudi-imposed deadline of noon. The airlift was over, and it had far surpassed anything contemplated in the beginning. A total of 3,763 Islamic pilgrims—against an original estimate of 1,000—had been transported to Jidda. From that city the Saudis took them on to Mecca. Everyone made it in time to reach the holy city before the opening of the *Id al Adha* festival. Their hajj was complete.<sup>27</sup>

The 86th ATS and its aircraft had flown a total of 414 hours by the time the operation came to a close. Its sister squadron, the 41st ATS, had flown

(Opposite page, top) The Iranian Ayatollah Kashani boards an airplane for the flight to Jiddah. He had just denounced the Americans and British for their policy toward Iran.

(Opposite page, bottom) Muslim pilgrims wait to board an Air Force MATS plane for the flight to Jiddah.

(Right) Most of the pilgrims wore a white over-garment as they journeyed to Mecca.



**THERE WERE  
NO  
ACCIDENTS**

**THE ENTIRE  
OPERATION  
HAD BEEN A  
MODEL OF  
EFFICIENCY**

**ISLAMIC  
PRAISE FOR  
THIS SPON-  
TANEOUS  
AND UNPRE-  
CEDENTED  
GESTURE BY  
THE UNITED  
STATES WAS  
IMMEDIATE**

even more: 527.5 hours. There were no accidents, though two flights were aborted due to engine failures. These engines were replaced with a minimum of delay and, according to the after-action report, "in record time."<sup>28</sup> The entire operation had been a model of efficiency. In the words of Col. Rollen H. Anthis, commander of the 1603d ATW, this operation demonstrated the ability of the Air

Force's Military Air Transport Service to use its "mobility, flexibility, and effectiveness in providing air transportation in a minimum of time from one distant point to another."<sup>29</sup>

Islamic praise for this spontaneous and unprecedented gesture by the United States was immediate. Saudi Arabian King Ibn Saud presented eighty-six sets of what were described as

(Right) Friends of the Middle East distributed lunches to Muslim travelers just prior to take-off. Their in-flight meal was much better than the one commercial air travelers receive today.

(Opposite page, top) Airman First Class John A. Matthews of Winston Salem, NC, receives a radio message from one of the C-54s.

(Opposite page, bottom) Capt. A.M. Beasley of August, Ga., pilots a C-54 through the Middle Eastern skies.

**A PRO-COMMUNIST NEWSPAPER [WROTE] THE AMERICAN GOVERNMENT USED THE PILGRIM AIRLIFT AS A MEANS TO SPREAD ITS PROPAGANDA**

**THIS GOODWILL GESTURE DID LITTLE IF ANYTHING TO ALTER THE DYNAMICS OF CONFLICT BETWEEN THE MUSLIM WORLD AND THE UNITED STATES**



“ornate Arab robes, head cloths and royal head bands” to Air Force personnel involved in the airlift. He did this, explained the Saudi king, in appreciation for the “magic carpet” that had transported so many pilgrims to the Islamic holy land. Lebanese President Bechara el Khoury expressed his personal gratitude for the airlift, and Sami Solh, President of the Lebanese Council of Ministers, asked Ambassador Minor to “transmit my thanks and appreciation to those authorities for the services which they were generous enough to furnish . . .”<sup>30</sup>

A major Lebanese newspaper lauded the United States in sort of a backhanded manner. “God the almighty, will certainly recompense this mission,” suggested the editorialist for Beirut’s *Al Massa*. “The Holy Koran says, ‘Good deeds efface bad ones.’ America’s bad deeds are many,<sup>31</sup> but God

will forgive them. . . . Is it not wonderful,” continued the writer, “that American Air Force planes carry pilgrims to Mecca? Has America at last found God’s way?”<sup>32</sup>

A pro-communist newspaper, *Ash Sharq*, was slightly more circumspect, identifying quite clearly the psychological benefit incurred by the United States as a result of the airlift. “There is no doubt,” wrote the newspaper, “that the American government used the pilgrim airlift as a means to spread its propaganda in Muslim countries in general and Arab countries in particular. . . . Although American authorities have used all these means to promote their own interest, there is no doubt, whether we like it or not, that they deserve to be thanked by the pilgrims and respected by public opinion.”<sup>33</sup>

More significant than the editorializing of these two newspapers was the pronouncement of



Mohammad Allaya, Grand Mufti of Lebanon. Allaya made an official call on Ambassador Minor and told him the following: "Speaking for myself and 40 million Arabs, I would like to say that this is the turning point of American relations with the Moslem world. This aid has been not to governments, but to people. It is neither military nor economic but spiritual." He then decreed that Muslims throughout Lebanon include the American people in their prayers.<sup>34</sup>

In a press release dated September 3, Secretary of State Dean Acheson also praised the airlift. "The successful and speedy action in setting into motion the airlift which permitted pilgrims to reach Mecca who might otherwise not have been able to do so was, in large measure, due to the close coordination between the Departments of State and Air Force. . . . Mr. Bruce [Undersecretary of the State Department], with my hearty endorsement, has congratulated the Embassy at Beirut for its outstanding work and has sent a letter commendation for the work of the Air Force to Secretary Lovett."<sup>35</sup>

A month later, William C. Foster, acting for the Secretary of Defense, sent a memorandum to the Secretaries of the Army, Navy, and Air Force and to the Joint Chiefs of Staff. He called attention to the airlift and to the resulting reaction to it. "Perhaps no single undertaking of the United States Government in recent months," he wrote, "has engendered a more favorable psychological reaction in the Middle East and the Moslem world in general than this relatively inexpensive gesture . . ." After commenting upon the desirability of the Defense Department's doing other such activities, Foster concluded with the following: "The Mecca airlift uniquely illustrates the capability of the Department of Defense to make a dynamic contribution to the cold war."<sup>36</sup>

This airlift was an unprecedented and never-since repeated gesture of brotherhood that transcended the political divide between Islam and the West. It demonstrated the imagination of the individuals who conceived of it and ordered its execution, and it showed the flexibility and professionalism of the United States Air Force in accomplishing a difficult mission with flawless precision. As for the results of the airlift, its psychological and diplomatic benefits were minimal and momentary, at best. Despite the best hopes of the State Department, this goodwill gesture did little if anything to alter the dynamics of conflict between the Muslim world and the United States. If anything, the backhanded compliments from the Lebanese press demonstrated just how wide a divide existed between the Western and Muslim civilizations in 1952.

Looking at the airlift from the benefit of fifty years, it is apparent that the division between the West and Islam was simply too great to be overcome, even in part, by one humanitarian gesture. The overwhelming feeling that comes through in the words of the Lebanese Muslim leaders and their newspapers, with their references to "bad



(Above, left) Muslim travelers clear customs at Jiddah's airport.



(Above, right) Pilgrims board Saudi-furnished buses for the final leg of their journey: the road to Mecca.

(Right) Pilgrims queue up to board one of the Air Force planes.

(Below, right) Muslim pilgrims travel the road from Jiddah to Mecca, courtesy of the Saudi king. "Fifty-two kilometers to Mecca" reads the sign.



**THE BACK-HANDED COMPLIMENTS FROM THE LEBANESE PRESS DEMONSTRATED JUST HOW WIDE A DIVIDE EXISTED BETWEEN THE WESTERN AND MUSLIM CIVILIZATIONS IN 1952**



deeds” and the United States’ having at last “found God’s way,” is that there can be no compromise with the United States and that the West will be accepted only on their terms.

The State and Defense Departments might have been surprised by the rapidity with which this humanitarian gesture was forgotten, but there is nothing in the historical record suggesting that either of them ever conducted an examination of the project to see if lessons might be

learned from it. It is probably going too far to suggest that the roots of September 11, 2001, can be seen in the reaction to Operation Magic Carpet. But the deep mistrust and dislike of the United States that was revealed in the aftermath of the Mecca airlift, reflected in the words of people who were not regarded as Muslim extremists, suggest that the animosity between our two civilizations is not likely to be resolved anytime in the near future. ■

## NOTES

1. “Moslem Pilgrims Swamp U.S. Airlift,” *New York Times*, Aug 26, 1952, p. 4; “Air Force Plays Magic Carpet Role to Fly Moslems to Mecca,” *The Washington Post*, Aug 26, 1952, p. 1.
2. Harry B. Ellis, “Airlift to Mecca,” *Christian Science Monitor*, August 30, 1952, 2d Section, P. 2.
3. *Ibid.*
4. Ned Russell, “The Bureaucrat of the Year,” *This Week Magazine (New York Herald Tribune)*, Jan 18, 1953, p. 7;
5. *Ibid.*, p. 42.
6. *Ibid.*
7. “Airlift for Allah,” *Time*, Sep 8, 1952, p. 32.
8. *Department of State Bulletin*, Sep 15, 1952, p. 406. It should also be noted that this airlift was played out amidst the tensions that had grown out of Iranian nationalization of the Anglo-Iranian Oil Company, which was the subject of on-going diplomatic maneuvering. In this dispute between the U.K. and Iran, the U.S. was on the side of the British, though it did not accept Britain’s position in totality.
9. “The Bureaucrat of the Year,” p. 42.
10. *Ibid.*
11. *Ibid.*; Memorandum, Headquarters, 1602d Air Transport Wing, to Commander, Atlantic Division, MATS, Subject: Report of Pilgrim Airlift Operation, Sep 9, 1952; Memo, Commander, 1603d ATW to CG, 1602d ATW, Subject: Report of Operation “Hajji Baba,” Sep 5, 1952. Copies of both documents can be found in microfilm of Project Hajji Baba, located in the Air Force History Support Office, Bolling AFB, Washington, D.C.
12. Memorandum, Headquarters, 86th Air Transport Squadron (Medium), to Commanding General, 1602d Air Transport Wing, Subject: Project “Al Hajj,” Sep 4, 1952, copy of memo found on microfilm of Project Hajji Baba, located in the U.S. Air Force History Support Office, Bolling AFB. Report of Pilgrim Airlift Operation; Report of Operation “Hajji Baba.”
13. “Moslem Pilgrim Airlift,” pp. 1-3; Report of Pilgrim Airlift Operation.
14. Report of Pilgrim Airlift Operation; Project “Al Hajj.”
15. *Ibid.*
16. Report of Operation “Hajji Baba.”
17. *Ibid.*
18. Report of Pilgrim Airlift Operation, p. 2.
19. Peter Avery, Gavin Hambly, and Charles Melville, *The Cambridge History of Iran*, Vol. 7, *From Nadir Shah to the Islamic Republic* (Cambridge: Cambridge University Press), pp. 261-62; “Iranian Leader Gets U.S. Lift to Mecca,” *The New York Times*, Aug 28, 1952, p. 6; “Airlift to Mecca.”
20. “Iran Reported Given Promise of U.S. Aid, British Concessions,” *The Evening Star*, Aug 27, 1952, p. A1.
21. “Airlift to Mecca;” “Iran Reported Given Promise of U.S. Aid, British Concessions.” The rest of Kashani’s story is also quite interesting. Though as mentioned above, his support of Prime Minister Mossadegh had saved the incumbent government from being overthrown in a coup in July 1952, he was not to remain a supporter of Mossadegh for very long. Indeed, he was instrumental in the very coup that overthrew the prime minister in August 1953 and brought Shah Reza Pahlevi into power. This coup, as was suspected at the time and confirmed much later by Kermit Roosevelt, the man who engineered it, was largely financed by the Central Intelligence Agency. Kashani was ultimately, therefore, an unwitting accomplice in carrying out U.S. and British foreign policy. See Kermit Roosevelt, *Countercoup: The Struggle for Control of Iran*, (New York: McGraw-Hill, 1979).
22. Report of Operation “Hajji Baba;” Project “Al Hajj.”
23. There were two engine failures during the operation, plus the failure of assorted other parts such as starters and generators. Project “Al Hajj;” Report of Pilgrim Airlift.
24. Report of Operation “Hajji Baba,” pp. 3-4.
25. “Bureaucrat of the Year,” p. 42; “Airlift to Mecca;” Report on Operation Hajji Baba, p. 6.
26. “Moslem Pilgrim Airlift.” chapter 1, p. 4.
27. “Airlift to Mecca;” Report on Operation “Hajji Baba,” p. 5; “Arabs Pray for Americans,” *The Washington Post*, Aug 30, 1952, p. A1.
28. Project “Al Hajj,” p. 3.
29. Report of Operation “Hajji Baba,” p. 8.
30. “Arab Garb for U.S. G.I.’s,” *The New York Times*, Sep 4, 1952, p. 9; “Arabs Pray for Americans After ‘Magic Carpet’ Airlift,” *The Washington Post*, August 30, 1952, p. A1; copy of letter, Sami Solh to Harold Minor, Aug 28, 1952, found as Incl. 5 to Report of Pilgrim Airlift Operation.
31. Foremost among the “bad deeds” cited by many in the Middle East was U.S. support of Israel during its 1948 war for independence.
32. Copy of telegram sent to Secretary of State by Harold Minor, quoting editorial in Beirut *Al Massa*, found in microfilm for Operation Hajji Baba, U.S. Air Force History Support Office.
33. Memorandum, E.A. Symans to A.M. Mayer, Subject: Editorial Comment in AL SHARQ and ALYOUUM on Pilgrim Airlift, no date. Found on Operation Hajji Baba microfilm, Air Force History Support Office, Bolling AFB.
34. “Airlift for Allah,” *Time*, Sep 8, 1952, p. 32; “Islam Gets U.S. Magic Carpet; Iran Rejects Joint Offer on Oil,” *Newsweek*, Sep 8, 1952, p. 36.
35. “The Mecca Airlift,” Secretary of State Bulletin, Sep 15, 1952, p. 406.
36. Memorandum, William C. Foster, Office of the Secretary of Defense, to the Secretary of the Army, Secretary of the Navy, Secretary of the Air Force, and Joint Chiefs of Staff, Subject: Psychological Significance of the Mecca Airlift, Oct 1, 1952, Records of the Psychological Strategy Board, Mail and Records Section, PSB 091 Arabia (1 Oct 52), Harry S. Truman Library, Independence, Mo.

STARTING FROM SCRATCH:  
ESTABLISHING THE  
*BUNDESLUFTWAFFE* AS A  
MODERN AIR FORCE,  
1955-1960





James S. Corum

(Overleaf) GAF students in aircraft and engines school receive practical exam on F-84 prior to graduation. (All photos courtesy of the Air Force Historical Research Agency.)

## WHEN GERMANY SIGNED THE NATO TREATY IN 1955...THERE WAS NO CORE GROUP FOR AN AIR FORCE

## THE FORMER LUFTWAFFE PILOTS HAD BEEN OUT OF THE COCKPIT FOR TEN YEARS

## THE U.S., UK, AND FRANCE HAD ALREADY GONE THROUGH THREE GENERATIONS OF MODERN JET FIGHTERS AND BOMBERS.

When Germany signed the NATO Treaty in 1955 and began the process of rearming, it faced the daunting process of creating large, modern, and effective armed forces virtually from scratch. Building a navy was a formidable task, but the German federal government had a solid foundation for a navy in the U.S.-supported and trained minesweeping squadrons that operated in the North Sea in the postwar era. For the core of an army, there were hundreds of carefully screened ex-*Wehrmacht* officers and NCOs serving in organized units of the federal border police. To establish an air force, however, was a very different matter. There was no core group for an air force. German civil aviation and aviation industry both were just getting started again and in no position to produce either modern equipment or trained pilots for an air force—as they had during the 1930s. Although Germany had a large air force in World War II, and had even fielded the world's first jet fighter and bomber units, the former *Luftwaffe* pilots had been out of the cockpit for ten years. In the ten years since the end of World War II, aviation technology had seen enormous advances. The U.S., UK, and France had already gone through three generations of modern jet fighters and bombers.

Despite the many problems that Germany faced, by 1960 the Federal Republic possessed a fairly modern and capable jet air force ready to play a major role in NATO defense. True, it was a force much smaller than NATO's initial goals for German rearmament and full aerial rearmament took several years longer than expected. Still, it was a fairly successful program by most standards. Germany was provided with a foundation on which to build a much more capable air force. Central to the program of aerial rearmament in Germany was the role of the United States Air Force (USAF) as trainer, mentor, supplier, and organizer of the *Bundesluftwaffe*. The RAF also played a role, albeit, a much smaller one.

The grand political and strategic issues of German rearmament and entry into NATO have been covered in considerable detail in several major works. What has been left out of the historical literature are the practical matters of just how the German Air Force initially built up, equipped, and trained and the role the USAF had in this mission. Once the grand design was set up and the agreements were signed in 1954 and 1955, the USAF and *Bundesluftwaffe* had to deal with

numerous leadership, management, financial, and technical problems in creating an air force. The USAF and *Luftwaffe* handled many of these issues at the middle and lower levels of command—among officers in ranks from captain to colonel. The USAF-*Luftwaffe* relationship provides an interesting case study in management and command. At the very least, it is an interesting account of friction, and technological problem solving on a grand scale. Although there were failures, setbacks, and innumerable problems, the USAF role in building up the *Bundesluftwaffe* into an effective and modern force was generally successful.

## Origins of German Rearmament: Initial Policies and Goals

Planning for German rearmament came only a year and a half after the founding of the *Bundesrepublik*. With Germany at the center of the Cold War, the formation of NATO in 1949, and the conflict in Korea, that prompted a large-scale buildup of U.S. forces in Europe, Chancellor Konrad Adenauer called a conference of fifteen former *Wehrmacht* officers in October 1950 to draft a plan for a German defense force for the Atlantic alliance. The Himmerod Conference, named for the monastery where the officers met, developed a plan for a German armed forces that would include an air force of at least 831 ground attack, interceptor, and reconnaissance aircraft.<sup>1</sup> Negotiations and diplomatic efforts began but the effort was soon bogged down by disagreements among the Allied powers as to command and organization structure of the German armed forces. The US and Britain wanted a national German armed forces incorporated into NATO. In late 1950, the French proposed a plan for a European army in which each division and corps would contain units from several countries, all under the authority of the European Union. The plan was created solely to ensure that no German officer would command more than a division of the European force. It was rejected from the start by the U.S. and UK as completely unworkable. It was tough enough to maintain command and control in NATO among various diverse military systems. One can imagine a division composed of units with different equipment, trained to different standards and operating with different doctrines. On top of that, there would be the inevitable language problems. However, once the proposal was laid on the table it had to be nego-

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Fourteen GAF personnel from Kaufbeuren AB addressed by Dr Karl Wiebel, Mayor of Kaufbeuren prior to their departure for training at Keesler AFB, Miss., 1956.

**SIX THOUSAND LUFTWAFFE PILOTS HAD SURVIVED WORLD WAR II, BUT AS TIME PASSED THEIR SKILLS QUICKLY FADED**

**THE TRAINING COMMAND OF THE NEW LUFTWAFFE WOULD HAVE APPROXIMATELY 300 AIRCRAFT**

tiated through the European Union. A decision on German rearmament was stalled for more than two years until the French finally withdrew their plan and agreed to allow German rearmament within NATO in 1954.<sup>2</sup> The long delay in rearmament made it ever more difficult to build a German air force. Six thousand Luftwaffe pilots had survived World War II, but as time passed their skills quickly faded. When the Luftwaffe began recruiting for pilots again in 1955-56, only 160 wartime veterans were available and pronounced fully fit for service as jet pilots.<sup>3</sup> In 1951, the U.S. military began making plans for German rearmament and began a process of consultation and joint planning with the German government's military experts. By November 1951, the Germans and Americans had created an informal air planning group to develop a program for building a new German air force. The greatest share of developing the new German air force actually fell on the staff of the US Air Force Europe (USAFE). From 1950 to 1955 the West German government maintained a shadow defense ministry and military staff. While the army staff organization and plans progressed nicely, the German defense authorities made little effort to build up an adequate air staff. In November 1954, on the eve of rearmament, the Luftwaffe Group in the shadow defense ministry had 28 staff sections in its organization table. Of these, six sections, including the very important organization, personnel and communications sections, had no section leader.<sup>4</sup> Despite personnel shortages on the German side the German and American officers worked closely together.

In 1954, the Germans signed a formal agreement with the U.S. and NATO nations and committed itself to rearmament. A cadre German force, to provide the foundation for the *Bundeswehr*, was to be recruited and enter service in 1955.<sup>5</sup> In May 1955, Germany signed the Treaty of Paris and became a member of NATO. Lt. Gen. Josef Kammhuber, a *Luftwaffe* general of World War II,

became the first chief of staff of the new *Bundesluftwaffe*. Kammhuber, with a small cadre of former *Luftwaffe* officers as his staff, faced the enormous challenge of building an air force from scratch.<sup>6</sup>

NATO and German plans, developed from 1951 to 1954, called for building a large German air force with the primary responsibility of providing support to ground forces and air defense of the Central Front. NATO and the German government anticipated a three-year buildup phase to create an air force of 6 fighter-bomber wings (75 planes per wing), 8 day fighter wings, 2 all-weather interceptor wings (36 planes per wing), 2 reconnaissance wings (54 planes per wing) and two transport wings (48 planes per wing) – for a total of 1,322 aircraft for combat operations.<sup>7</sup> In addition, the training command of the new *Luftwaffe* would have approximately 300 aircraft, to include Piper light trainers, T-6 Harvard primary trainers and T-33 jet trainers. The *Bundesluftwaffe* combat forces would occupy 16 air bases (one wing per base) and four training bases. Most of the equipment would be American (F-84F fighters, F-86 fighters/reconnaissance, C-47 transports) although the *Bundesluftwaffe* also planned to obtain 227 British Hawker Hunter fighters to equip their day fighter squadrons. The USAF and RAF drew up plans to turn over air bases to the Germans and deliver aircraft and equipment (radars, plane parts etc.) over a three to four-year period and to assist in their training and support until it was a mature force. It was expensive and ambitious, but not a completely unrealistic program.

The first major organizational decisions were made in 1950 and 1951, when the former *Wehrmacht* officers developed the Himmerod Memorandum for the Adenauer government and laid out the principles of rearmament. Germany was in no position to develop and build its own military equipment and aircraft in 1950, and would not be in such a position for years. European nations could provide a variety of good equipment to the new force, but then there would be the problem of relying on many different suppliers and having equipment incompatible with NATO's senior partner, the United States. Aircraft and other equipment ought to be first rate and completely modern. Thus, the former *Luftwaffe* officers involved in defense planning urged the government to choose one alliance nation to train and equip the *Bundeswehr* and to provide a model for the force. The Germans specifically had in mind the U.S.<sup>8</sup> Modeling the GAF on the USAF was, in fact, the only option seriously considered by the German air force planners. The reasoning was simple; the USAF had proven itself in combat in World War II and Korea as the world's premier air force. American industry could provide a large number of aircraft (although there were doubts at first whether F-84 production could meet the expected level) and only the USAF had the support and training infrastructure to equip and train a large new air force. In addition, the USAF had an



First German training group at Luke AFB, Arizona, 1957. Third from right, Major Erich Hartmann, Germany's top ace of World War II.

impressive systematic approach for training large numbers of pilots and support personnel. Germany might have been the first nation to fly jets in combat, but the Me 262s of 1944-1945 were primitive machines compared to the combat jets fielded by the USAF by the early 1950s. The German military cadre knew they were far behind in all aspects of aviation and that any German air force would have to spend years as pupils before they could stand on their own. If they were going to be pupils, they wanted the best teacher and schools.

The first leaders of the GAF were generally very enthusiastic about making the GAF a "carbon copy" of the USAF. Guether Rall, one of the most famous aces of the *Luftwaffe* and later the GAF chief of staff, commented on modern USAF train-

ing methods compared to the old, highly individualistic training program of the *Luftwaffe*:

*[T]he systematic and consistent American training methods were impressive.... All in all, these methods were better, more efficient in view of the aircraft we were being trained to fly. Indeed, we were going to fly jets—for most of us this was a new era. The memories of flying the Me 262 were nostalgic for some of us but not a secure foundation you could build on.*<sup>9</sup>

Former ace and a colonel in the new *Bundesluftwaffe*, Johann Steinhoff, also strongly supported the USAF model and training. As to any other approach he said, "occasional loud criticism of the allegedly slavish Americanization is just beating the air."<sup>10</sup>

With an organizational model and training system decided upon early, the German government, the cadre air staff, and the NATO staff set in motion the program for USAF involvement in building a new *Bundesluftwaffe*. By 1953-1954, when planning for German rearmament was well along, the headquarters of the U.S. Air Forces Europe (USAFE) was given the responsibility of developing a comprehensive program to train several thousand initial cadre of the GAF who would, in turn, serve as instructors and leaders for the rest of the air force as it expanded to its projected size of over 90,000 personnel by 1959.

### USAFE's Training Program

The USAF had the advantage of having an infrastructure specifically for training foreign air force personnel in place in Europe. As part of the U.S. defense buildup in Europe in the early 1950s, the USAF established several training units and

New main gate at Kaufbeuren AB, in 1955.

**LEADERS OF THE GAF WERE GENERALLY VERY ENTHUSIASTIC ABOUT MAKING THE GAF A "CARBON COPY" OF THE USAF**





Kaufbeuren AB, Germany, circa 1956.

**THE USAFE STAFF QUICKLY DEvised A PLAN TO TRAIN A CADRE FOR THE GAF BY ESTABLISHING A THREE-BASE COMPLEX IN SOUTHERN GERMANY AT U.S. AIR BASES AT KAUFBEUREN, LANDSBERG, AND FURSTENFELDBRUCK**

schools at air bases in Germany as part of the Mutual Defense Assistance Program (MDAP). For example, the 7330th Technical Training Squadron had been activated in 1953 at Furstenfeldbruck Air Base (AB) in southern Germany. The 7330th Technical Training Squadron, soon expanded to group size and transferred to nearby Kaufbeuren AB, where it set up dozens of courses in aircraft electronics operation and repair, radar maintenance, engine maintenance, munitions, intelligence operations, and so on. Air force personnel from Spain, France, Norway, Turkey, Denmark, Greece, Italy and other countries were soon enrolled as the Kaufbeuren Training Group expanded to 354 U.S. personnel by 1955.<sup>11</sup> There were numerous problems associated with the establishment of the school at Kaufbeuren. For months it was difficult to get all the equipment necessary and translating large numbers of manuals, and course curricula into foreign languages. Typing up new manuals and instructions for training in the latest U.S. technology fell behind due to a shortage of typists with security clearances.<sup>12</sup> Still, by 1955, the Kaufbeuren school was a going concern and able to provide numerous courses and a high standard of technical training to hundreds of foreign students. For examples, by mid-1955, 139 foreign students had completed all phases of the F-86K fighter maintenance course.<sup>13</sup>

In 1954, as German rearmament plans progressed, the NATO commander handed over responsibility to build up a German air force to USAFE, commanded at the time by Lt. Gen. William Tunner, of Berlin Airlift fame. Gen. Lauris Norstad, who had been deeply involved in the initial planning for the German air force as commander USAFE, was promoted to serve as the NATO commander for seven years. The USAFE staff quickly devised a plan to train a cadre for the GAF by establishing a three-base complex in southern Germany at U.S. air bases at Kaufbeuren, Landsberg, and Furstenfeldbruck, including logis-

tical support provided by the USAF depot at Erding. These bases already served as centers of the MDAP program and the basic concept of the plan was to simply expand the current training organization to take on the much larger mission of training thousands of German personnel. The next step was to draft a detailed agreement between the USAF and German defense ministry to establish joint German-American air bases that, after a period of training and American advice, would be completely turned over to the *Bundesluftwaffe*. The result was a 62-page contract between the Germans and the USAF and approved by the commander of USAFE on May 6, 1955. The contract set out the respective goals, obligations, supply, and financial arrangements between the two air forces.<sup>14</sup> The USAF planners envisioned a mission of 18 months to build an effective cadre for the *Bundesluftwaffe*, at which time the three U.S. bases would be completely turned over to German control. The start of the mission was designated “E-Day”—the day that the first German students began entering the USAF training pipeline. The primary objective of the operation was set out in the first page of the USAF-German base agreement; “The principal area of assistance... will be directed to assuring German self-sufficiency in a minimum of time by providing the necessary direct advice and assistance at training unit level to aid the Germans in the operation of their training establishment.”<sup>15</sup>

Through 1955, the USAF built up its fairly small MDAP organization in Europe into a large training organization with the primary mission of training the German Air Force, although training other allied personnel would still continue. In 1954, the MDAP squadrons were first reorganized and expanded as groups (3-4 squadrons) and then quickly expanded into wings (3-4 groups). In June 1955, the 7330th Flying Training Wing was organized and assumed jurisdiction over Landsberg AB. The 7351st Flight Training Group was redesignated as a wing. The 7331st Technical Training Group was reorganized as a wing in April 1955, to operate out of Kaufbeuren AB. Each wing consisted of several hundred air force personnel as well as a large number of American and German civilians. For example, by the end of 1955, the 7330th Flying Training wing had 956 officers and enlisted personnel assigned as well as 31 American civilians and 1,538 German civilians. Because building the German Air Force was given a high priority, it was deemed necessary to place the new three-training wing establishment under a single headquarters that would report directly to the commander USAFE. On July 1, 1955 the USAFE Training Headquarters, Provisional, was established as the organization responsible for the three wings and GAF training.<sup>16</sup>

Each wing was responsible for a major part of the training program. The 7331st Training Wing at Kaufbeuren carried out training of GAF technical, maintenance, and intelligence personnel—mostly enlisted men and NCOs. The 7351st Flying



Ribbon-cutting ceremony at the new German mess hall.

## GERMAN CIVILIAN EMPLOYEES OF THE USAF ATTENDED FORMAL USAF TRAINING COURSES

## SEVEN OF THE TWELVE BASIC FLIGHT INSTRUCTORS ... AT LANDSBERG WERE GERMANS

Training Wing at Landsberg, would provide initial pilot training on propeller aircraft (mostly World War II era T-6s, called Harvards) as well as initial pilot screening on light aircraft such as Piper Cubs (L-18). The 7330th Flying Training Wing, which moved to Furstenfeldbruck, was responsible for providing jet aircraft training in the T-33 jet trainer as well as advanced courses in IFR flight. The German personnel trained by the 7330th Flying Training Wing would become the flight-training instructors for the GAF at the end of the initial buildup phase of the GAF.<sup>17</sup> By March 1955, 248 aircraft had been delivered to Germany to support the training program and be transferred to the *Bundesluftwaffe*. The initial aircraft delivery included 69 T-33 jets, 128 Harvard Mark IVs, 40 L-18s (Piper Cubs) and 11 C-47s.<sup>18</sup>

Throughout 1955, the USAF carried out an extensive program of rebuilding and improving the infrastructure at the three air bases. Flying was discontinued at Landsberg AB, from July to December 1955, in order to completely rebuild the runways and taxiways. In the meantime, basic flying training was moved from Landsberg to a grass strip at Furstenfeldbruck.<sup>19</sup> A large-scale building program was carried out at Kaufbeuren in order to make it a state of the art facility for technical training. New infrastructure, such as jet engine test stands, was built as well as a new headquarters, barracks and dining facility. The U.S. government picked up most of the costs of improving the base infrastructure with \$69 million spent on the three-base-complex in 1954-1955. The U.S. also allocated \$26.9 million for training more than 371 pilots as well as technical personnel. The Germans were to pay \$26 million for the base property and infrastructure transferred to their use. The Germans were also committed to paying the cost for most of the pilot and technician training after May 1, 1956—\$65.2 million for flight training and \$40.7 million for technical training.<sup>20</sup>

The USAF MDAP training program in Europe was only large enough to handle fairly small groups of foreign students and had only a fraction of the fully qualified instructors to take on the mission of training the *Bundesluftwaffe* cadre. From

mid-1955 to the end of the year hundreds of USAF officers and NCOs were transferred from USAF bases in Germany or from training bases in the States to fill instructor slots in the new provisional training command. The problem for all three wings was that many of the newly assigned personnel were not currently certified either as technical or flight instructors. All three wings set up internal training and testing programs to ensure that their instructors were all fully certified before the first contingent of German recruits walked through the gates. The training program had grown so quickly that, by late 1955, there were still some shortages of instructors. The 7351st Flying Training Wing, for example, was authorized 530 military personnel, but only had between 435-473 assigned in 1955.<sup>21</sup> Yet, while a headache for the command, the personnel shortages did not pose a major limitation on the training program. The final stage of setting up the training program consisted of a series of exercises and alerts conducted to test the base personnel in communications, air base fire plans, and aircraft crash procedures. The USAF training command got ready to train the GAF to the same high standards of the USAF and there would be no corners cut in the training or curriculum. The training program would be conducted strictly by the USAF book. To ensure adherence to the curriculum and establish safety checklists and procedures, the flight training groups set up standardization boards in late 1955 to oversee student pilot training.<sup>22</sup>

### Initial Problems 1955-1957

The flow of German trainees soon increased and GAF officers and NCOs were assigned to staff positions throughout the Flying Training Wing staffs through the first half of 1956. An important part of the initial cadre of the *Bundesluftwaffe* were the thousands of German civilians employed at USAF bases, filling out a wide variety of instruction, maintenance, and administrative tasks. Many of the German civilians filled vital support jobs, such as firemen, supply clerks, civil engineers, and mechanics. German employees were even sent to formal USAF training schools to become certified in their jobs. For example, between 1949 and 1951, 640 German civilian employees of the USAF attended formal USAF training courses.<sup>23</sup> With aerial rearmament in the works, the USAF even employed German civilian pilots as flight instructors. For example, seven of the twelve basic flight instructors at the 7351st Wing at Landsberg were Germans.<sup>24</sup> At Furstenfeldbruck there were several German civilian flight instructors and four joined the new German Air Force and stayed in their positions.<sup>25</sup> In early 1955, the USAF employed 611 German civilians at Landsberg and 140 at Furstenfeldbruck.<sup>26</sup> While some would wear the *Bundesluftwaffe* uniform, the rest would remain in their civilian status and be transferred to *Bundesluftwaffe* employment as German civil servants. At the three training bases, the USAF

First visit of GAF officers to Kaufbeuren Air Base. Left to Right: Col. Robert Kendig (base commander), Lt. Col. Marlan Lowell (Air Base Group Commander), Col. Mark Vinzant (Commander Furstenfeldbruck AB), Lt. Col. Von Riesen (GAF), Maj. Schon (GAF), Capt. Emmerich (GAF), Lt. Col. Joe Beler (7332nd Group Commander), Eugene Stevens (deputy base commander)



**THE USAF WORKED TO FULLY "GERMANIZE" THE BASE SUPPORT SERVICES**

worked to fully "Germanize" the base support services. German employees were sent to formal training course as well as given on-the-job training to prepare for the complete turnover of the bases to the German government. The USAF provided additional training to German civilians in the fire department at Furstenfeldbruck in order to have them fully certified in crash rescue training—a requirement for conducting airfield operations after the U.S. turnover of the base.<sup>27</sup>

Despite a great deal of effort by the USAF to train German civilians and cadre personnel, the *Bundesluftwaffe* possessed so few trained staff officers, in 1955 and 1956, that it was close to paralysis. Very basic staff work had not been done at the defense ministry level and the small initial cadre of the *Bundesluftwaffe* was simply overwhelmed. Small groups of *Bundesluftwaffe* personnel who were to serve as instructor cadres were supposed to begin a several month course of training in mid-1955. However, although the U.S. training schools were ready to take the small groups of Germans at that time, Germany's new defense ministry had not recruited and processed the cadre personnel and the first groups would not be ready for USAF training until early 1956.

"E-Day" was set for January 1, 1956, when the USAF wings at Landsberg, Furstenfeldbruck, and Kaufbeuren were to receive large complements of trainees. The largest number of initial *Bundesluftwaffe* recruits were sent to technical training at Kaufbeuren, while most of the first Germans to report for pilot training at Landsberg were former *Luftwaffe* officers and NCOs detailed to the Americans for flight refresher training. The intent was to orient former officers and NCOs to the new jet air force and send them as quickly as possible to fill staff and command positions. The first sixteen

Germans reported to Furstenfeldbruck on January 16, 1956 for a four-week intensive English course. They were then detached to the 7351st Flying Training Wing at Landsberg for a refresher-training course in the Harvard trainers. After several weeks of flight training at Landsberg, twelve returned to Furstenfeldbruck in May for a course in the T-33 jet.<sup>28</sup>

Through 1956, the newly trained German cadres were integrated into the U.S. training structure and German officers and NCOs provided instruction along with the Americans. The goal was to systematically turn over all of the training and base administration to the GAF by late 1957, at which time the bases would be formally turned over to German command. At that time, the American instructor and support personnel would remain on the base with the status of a tenant unit. From the start, jointness was stressed and the German staff and commanders worked closely with their American mentors at every level. All of the American accounts of the 1956-1957 training program mention the close and very friendly cooperation between German and American air force personnel. The Germans saw the Americans as helpful and highly competent teachers. The Americans saw the German officer and NCO staff and instructors as cooperative and highly dedicated to the mission of building a new air force.

The first serious problem with the program was with personnel and the fault lay with the German defense ministry. Recruitment and screening of the officer and NCO cadre for the *Bundeswehr* went very slowly at first. Although the Germans had been planning rearmament in detail since 1950, the GAF was not ready to send its initial cadre of 660 men to the U.S. training bases in mid-1955, as

**THE BUNDESLUFTWAFFE POSSESSED SO FEW TRAINED STAFF OFFICERS, IN 1955 AND 1956, THAT IT WAS CLOSE TO PARALYSIS**

Kaufbeuren AB, 1956. Lt. Col. Joe Beler, USAF, Commander of the 7332d Training Group with his German Air Force counterpart, Lt. Col. Dr. Jaeschke.



## A MAJOR STUMBLING BLOCK ... WAS THE FAILURE OF THE GERMAN DEFENSE MINISTRY TO NEGOTIATE OVERFLIGHT RIGHTS

planned. When the cadre training began in January 1956, the program was already six months behind.<sup>29</sup> When the training program got underway in earnest in mid-1956, the Americans noted that the German screening process had been haphazard. Many of the men selected for pilot training did not speak English to the required standard and, even more troublesome, a large number did not meet the high physical standards for pilot training. This resulted in a higher than planned 'washout' rate in the first classes of German pilots that were trained. With a shortage of qualified German cadre, the USAF instructors had to stay at their posts longer than planned.<sup>30</sup>

A major stumbling block in the pilot training program was the failure of the German defense ministry to negotiate overflight rights, landing rights, and fueling payment with other NATO countries. Because this fairly simple task had not been accomplished, clearance for every German training flight over another NATO country had to go through the defense ministry, which needed a week to twenty days to approve any flight.<sup>31</sup>

Yet another major issue for the fledgling *Bundesluftwaffe* was the lack of a comprehensive supply system. The USAFE-GAF training agreement stated that the supply system of the three-base complex was to be turned over to the Germans in November 1956. The problem was that by November, the *Bundesluftwaffe* still had not created a comprehensive parts and supplies numbering, ordering, and depot storage system. The Germans were still struggling to write their supply regulations and there was a shortage of trained supply personnel. German technicians and support personnel who had trained with the Americans were constantly shuffled around, so that only 25 of the first 100 technical cadre were still in their

"OJT" training positions six months after their training began. This was the kind of problem that could have halted the *Bundesluftwaffe* unless immediate action could be taken.<sup>32</sup>

## Solving the Problems

The cause of most of the *Bundesluftwaffe's* start up problems was the inefficiency and slow pace of the German defense ministry. A large segment of the German population opposed rearmament and parliamentary debates on the subject were heated. Even though the government had made commitments to America and NATO that funds would be forthcoming, the defense ministry took its time to appropriate the necessary large sums. Even when money was appropriated, the GAF staff was not authorized to spend it. When Germany rearmed, in order to ensure absolute civilian control and preclude a resurgence of militarism, the laws creating the *Bundeswehr* specified that funds and resources were to be controlled only by the civilian officials of the defense ministry. Law strictly limited the powers of senior officers and the new German base commanders had no control over their budgets, or lack of budgets. Everything had to go through Bonn.

In contrast, the USAFE staff had the authority to reallocate funds and transfer people and resources as the need arose. American base commanders also had control over their unit budgets and had the flexibility to manage their own funds and resources. It was the American flexibility that proved a solution to most of the problems. The USAF and German defense ministry had previously agreed that the Germans would assume maintenance and operations costs at the three-base training complex not later than January 1,

## THE CAUSE OF MOST OF THE BUNDES-LUFT-WAFFE'S START UP PROBLEMS WAS THE INEFFICIENCY AND SLOW PACE OF THE GERMAN DEFENSE MINISTRY

Bundesluftwaffe officers being briefed at Landsberg AB, 1956.



IN ORDER TO MAINTAIN THE TRAINING, THE USAF IDENTIFIED \$1.7 MILLION TO PAY FOR TRAINING GERMAN INSTRUCTOR PERSONNEL

THE UNIT GOT APPROVAL TO CONDUCT TRAINING FLIGHTS TO USAF BASES IN EUROPE WITH USAF FUEL OUTLETS

1956. As 1956 approached the U.S. embassy repeatedly nagged the Germans about the issue and German defense minister assured the Americans that the funds for the bases would be forthcoming. Still, December came and there was still no sign of the money. Col. Schaal, USAFE's project officer for the German training project, pointed out that throughout 1955 the German defense ministry had avoided numerous American requests for funding major projects, including 32 construction and maintenance projects that the USAF had initiated. By the end of 1955, the German defense ministry was several million dollars in arrears.<sup>33</sup> Colonel Schaal pointed out that the situation was so serious that "the failure of the GAF will be foredoomed."<sup>34</sup> As frustrated as the Americans were at this point, the USAFE leadership did not accuse the German defense ministry of bad faith, but merely of "bureaucratic difficulties."<sup>35</sup>

In the last weeks of 1955, the USAFE commander and staff moved quickly to avoid the proverbial crash. Some *Deutschmark* occupation funds available to the NATO commander were made available and the U.S. Department of the Air Force agreed, at USAFE's suggestion, to make available \$9.3 million in military aid funds. In order to maintain the training, the USAF identified \$1.7 million to pay for training German instructor personnel. With funding assured, at least for a few months, the USAF would keep an account of the spending and present the bill to the German defense ministry in due time.<sup>36</sup>

Since the main problem in training the *Bundesluftwaffe* was the inefficiency of the German defense ministry, the USAF training base commanders used their initiative to work around the problem. Throughout 1956, the training aircraft were transferred to the GAF, while the USAF

was still responsible for maintenance and support. In November 1956, the GAF was scheduled to assume control of the supply system, but there was no system in place and few trained personnel to manage it. Luckily, the USAF-GAF 1955 base and training agreement included numerous clauses allowing the American base commanders, with the approval of their German counterparts, considerable leeway in modifying regulations and agreements to suit local conditions and problems.<sup>37</sup> The USAF officers involved in the German training program, with the approval and support of their German Air Force counterparts, often used their authority under the agreement to work around the roadblocks set by the German defense ministry. Thus, until the Germans got their supply system running, the USAF supply personnel continued to issue parts and major end items to the German units and kept a careful accounting that was presented to the German defense ministry, in due course. The 7330<sup>th</sup> Flying Training Wing at Furstenfeldbruck even developed their own special forms and system for German supply orders.<sup>38</sup>

The failure of the German defense ministry to negotiate fueling agreements and overflight rights with NATO countries proved a major headache for the advanced jet training unit at Furstenfeldbruck, which provided navigation and IFR training. For example, the commander of the 7330<sup>th</sup> Pilot Training Squadron found a work around to this situation. At first, only "round-robin" flights that originated and terminated at Furstenfeldbruck were allowed. However, as this would not provide a high enough standard of navigational training for the students, the unit got approval to conduct training flights to USAF bases in Europe with USAF fuel outlets. Now the German students could carry out realistic and challenging navigation training.



(Top) German civilians inspect jet engine on open house day at Kaufbeuren AB, 1956.

(Above) USAF sergeant teaching German maintenance NCOs.



Presumably, the USAF supply officers kept track of German fuel expenditure for eventual payment by the slow-moving defense ministry.<sup>39</sup>

### The Program Matures

After very enormous administrative friction in 1955 and 1956, the program for training large numbers of German Air Force personnel was finally working by late 1956 and went into high gear in 1957. By late 1956 hundreds of German Air Force personnel were in training at each of the three bases. The advanced flying school at Furstenfeldbruck graduated its first class of ten Germans in September. Three were retained for additional training to become T-33 instructors and the other seven enrolled in F-84 training to become the nucleus of the *Bundesluftwaffe's* first fighter unit. The training had gone smoothly and

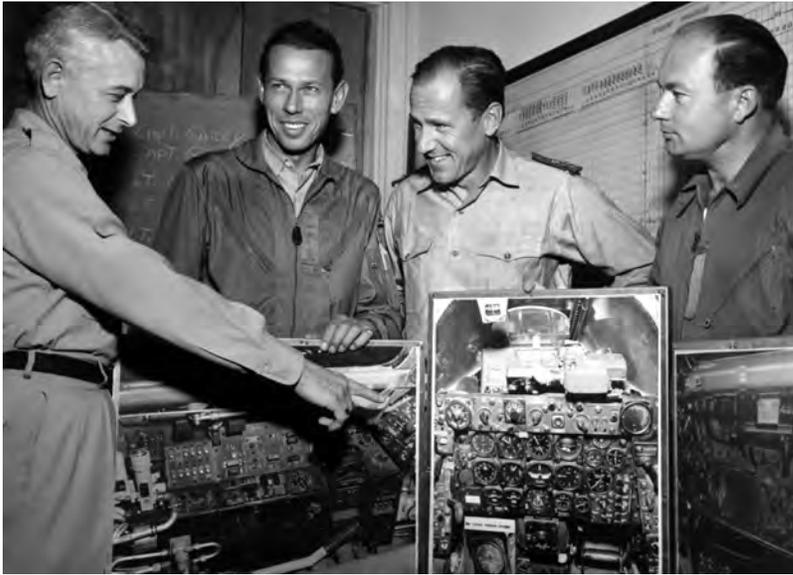
the only difficulty noted was in the instrument training phase, where the students needed additional flight time to qualify them to USAF standards.<sup>40</sup>

The initial problems with poor screening of recruits and student pilots was solved by the German Air Force training command, which set up a special team to create and administer aptitude tests and revised the personnel screening program. USAF unit histories refer with admiration to the "first-rate test-team and testing facilities" of the Germans as the aptitude testing program was initiated throughout the German training command in late 1956.<sup>41</sup> There were no further complaints from the Americans about the quality and screening of German recruits. Indeed, the response of the GAF training command to the personnel screening problem shows a dramatic contrast between it and the defense ministry staff in their respective abilities to tackle problems as they arose. Personnel screening and training was one function of the new *Bundeswehr* that was left in the hands of the uniformed soldiers and not in the hands of the defense ministry bureaucracy. When they had the authority to act, the *Bundesluftwaffe's* senior officers generally moved swiftly and intelligently to solve problems.

### Overseas Training

As *Bundesluftwaffe* personnel were graduated from the U.S. training schools, many were selected for advanced technical or flight training in the U.S. Fourteen graduates of the first class to go through the USAF technician course at Kaufbeuren AB in 1956 were immediately sent to Keesler AFB, Mississippi. While some F-84 fighter qualification courses were set up at Furstenfeldbruck AB, *Bundesluftwaffe* personnel selected as fighter pilots were normally sent to advanced fighter training in the U.S. By 1957 more than 1,000 GAF personnel were in training schools in Britain and the U.S.

The first Germans to be trained in the U.S. were three colonels selected for senior command posts in the *Bundesluftwaffe*. Colonels Steinhoff, Hrabek, and Kuhlmeier, all famous World War II *Luftwaffe* commanders, began an eight-month training course in modern jets in July 1955. After training at Lackland, Luke, and Williams AFBs, they returned to Germany in March 1956. In 1957, the 3600th Combat Crew Training Wing (Fighter) at Luke AFB, Arizona, began training groups of *Bundesluftwaffe* personnel, usually a dozen at a time, in its F-84 fighter plane course. At this time, Luke AFB was probably the premier fighter school in the world. The instructor pilots at Luke were highly qualified and usually possessed 1,500-2,500 hours of flying time. Some had seen combat tours in World War II and Korea. All instructors had been through a strict and demanding certification course. Courses in the F-84 and F-86 fighters, in which the Germans would train, were thorough and rigorous.<sup>42</sup>



F-84 cockpit instrument brief for German fighter pilots at Luke AFB, 1957.

**BY LATE 1958, ... THE USAF TRAINING PROGRAM FOR THE BUNDESLUFTWAFFE WAS SHUTTING DOWN**

**IN 1963, FIVE YEARS BEHIND THE NATO SCHEDULE, THE BUNDESLUFTWAFFE REACHED THE SIZE AND FORCE STRUCTURE THAT THE GERMAN GOVERNMENT HAD AGREED TO**

The F-84 fighter course lasted 60 days and consisted of 33 hours of flight time in the T-33 and 47 hours in the F-84F.<sup>43</sup> Among the first flying students in the U.S. were former *Luftwaffe* pilots, including Maj. Erich Hartmann, Germany's leading ace of World War II. These pilots needed only basic jet training (T-33) and familiarization in the F-84. However, by late 1957 and early 1958, groups of young German trainees in their twenties arrived. By the time they got to their final training at Luke AFB all had gone through basic USAF flight training and had considerable flight time in the T-33 jet trainer, a course usually offered at Williams AFB. The USAF instructors rated the young German fighter pilots as "satisfactory" students—actually high praise from the tough instructor corps.<sup>44</sup> The Americans noted that because many of the German pilots had been in the U.S. for some time doing the T-33 courses, they had all developed a good command of the English language and had learned to speak idiomatic English. The German pilots came to advanced training fully prepared linguistically and in flying skills. The USAF made no changes in the F-84 fighter training program. The Germans received exactly the same instruction as Americans—the only part of the course closed to Germans students being training in the delivery of tactical nuclear weapons.<sup>45</sup>

The Germans who came to the U.S. in the first training groups in the 1950s, began a tradition of *Bundesluftwaffe* training in the U.S. which has flourished ever since, and seem to have gotten along famously with their American instructors. The Americans consistently described the German students as competent and enthusiastic. The Germans, for their part, admired the professionalism of the USAF, especially their thorough and systematic training methods. The American instructor pilots, many of them veterans of World War II, enjoyed the irony of having their former deadly opponents as their eager pupils. The Luke AFB photographer took many photos of Hartmann and the first class of Germans who arrived in 1957, and

the photos usually had such captions as "Germany's lead ace with American instructors." For the Germans' part, Hartmann and old *Luftwaffe* veterans were very happy to be back in the cockpit.

## Conclusion

Through 1956 and 1957 the USAF systematically turned over every aspect of base operations at the three-base complex to the German Air Force. In October 1957 the GAF assumed full command of the three bases at Kaufbeuren, Landsberg and Furstenfeldbruck, with appropriate ceremony. This was, of course, not the end of the USAFE training program. U.S. specialists and instructors stayed at the three bases for another two years, teaching courses and advising the GAF training staff. As the GAF matured and was capable of running basic training and flight courses, the USAF training activity in Europe tapered off as a large number of *Bundesluftwaffe* personnel went to the U.S. for advanced training in modern aircraft and anti-aircraft missile systems.

By late 1958, as the USAFE training program for the *Bundesluftwaffe* was shutting down, the USAF could claim some success. Indeed, without the effort of the USAF, the *Bundesluftwaffe* would—literally—not have gotten off the ground. The USAF training program had been the central factor in getting the *Luftwaffe* through its first four difficult years of existence. Although Germany had been able to field its first fighter squadrons in 1957, the NATO air rearmament plan was several years behind schedule. Instead of the 1,300 combat and transport aircraft the GAF was to have three years after the start of rearmament, Germany had only 350 F-84 and F-86 jet fighters and 50 transports in 1959. At that point, the *Luftwaffe* matured fairly quickly. By 1961, the *Luftwaffe* had 80,000 personnel and 7 of the 16 planned-for wings. In 1963, five years behind the NATO schedule, the *Bundesluftwaffe* reached the size and force structure that the German government had agreed to in 1954: 92,000 men and 17 operational wings.<sup>46</sup>

The startup of the *Bundesluftwaffe* in the 1950s, and the central role played by the USAF offers a good case study in modern military management and leadership. The USAF leaders, from USAFE headquarters down to the wing and squadron level in the provisional training command, proved to be very effective managers and problem solvers. Friction and problems in setting up such a large training program were certainly expected, but nothing as serious as the glacial slowness and inefficiency of the German defense ministry was ever anticipated. The origin of most of the serious problems of the *Bundesluftwaffe's* early years can be laid at the door of the defense bureaucrats in Bonn. However, USAFE and the USAF officers involved in the training program achieved success because they found workarounds for the roadblocks. The officers of the new *Luftwaffe* worked closely and effectively with the



German technician course at Kaufbeuren AB, 1956.

USAF to accomplish the mission. It is normal, expected, and perhaps even healthy for uniformed military personnel to complain about their civilian leaders and bureaucrats in a democratic society. Bureaucrats and senior politicians often deserve strong criticism from the forces, often not. However, few air forces in the world have better grounds for complaining about their defense bureaucrats than the *Luftwaffe*.

Although the USAF helped the Germans develop an air force capable of playing an impor-

tant role in NATO defense by 1959, the flaws in the new force that would result in the “Starfighter Crisis” of the early 1960s were already apparent. The *Bundesluftwaffe* took much longer to develop as a mature force than anyone in NATO, Germany or the USAF had expected. In 1958, when it was just beginning to equip its first squadrons with the F-84s and F-86s, the defense ministry initiated plans to buy the newly developed F-104 Starfighter and equip several wings with the airplane. Moreover, the defense ministry contracted the German aircraft industry to build the F-104 under license. Given the state of the *Bundesluftwaffe* at this time and the rudimentary state of the German aircraft industry in the late 1950s, it was an absurdly ambitious decision and would prove disastrous. German pilots were still getting used to the subsonic F-84 when expected to transition to the supersonic F-104. Nor did the *Bundesluftwaffe* have the maintenance or industrial infrastructure to handle a highly complex aircraft such as the F-104. By 1963, Starfighters were crashing at the rate of almost one a week.

As the USAF and *Bundesluftwaffe* officers had learned for the training program, it took much longer to train large numbers of technically qualified personnel for a modern jet air force than anyone had realized. Already by 1959, the booming German economy and the demand for skilled labor was causing the *Bundesluftwaffe* serious problems in recruiting and retaining the specialized technical personnel that are the backbone of any modern air force. By the mid-1960s, when the Starfighter

First formal graduation, Class 07036 Electronics Fundamentals, Kaufbeuren AB, 1956.

**ALTHOUGH THE USAF HELPED THE GERMANS ... FLAWS IN THE NEW FORCE THAT WOULD RESULT IN THE “STAR-FIGHTER CRISIS” OF THE EARLY 1960S WERE ALREADY APPARENT**



Crisis was at its peak, the *Bundesluftwaffe's* personnel situation was at its worst. With 97,800 personnel in 1967, ten years after the establishment of its first operational units, the German Air Force had a shortfall of over 9,000 NCO technicians.<sup>47</sup> The USAF and the GAF had done a very fine job in training a corps of technical specialists in the

1950s, however the GAF and defense ministry had failed to develop the pay, housing, and benefits programs to get them to reenlist. Given a solid foundation in training, infrastructure and equipment by the USAF in the 1950s, the *Bundesluftwaffe* had to be largely rebuilt and reorganized a decade later. ■

## NOTES

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# The Yamato



# Photo Mission



Daniel L. Haulman

(Overleaf) A formation of P-38 Lightnings roars over the ocean. Only these planes had the range to reach Bougainville.

(Right) Adm. Isoroku Yamamoto, Imperial Japanese Navy (1884-1943). Official portrait, by Shugaku Homma, 1943. (U.S. Naval Historical Center Photograph.)

## JAPANESE ADMIRAL ISOROKU YAMAMOTO WAS THE OSAMA BIN LADEN OF WORLD WAR II

ON APRIL 18, ADMIRAL YAMAMOTO WOULD BE FLYING FROM ... RABAUL TO ... BOUGAINVILLE,

In terms of lightning rod animosity, Japanese Admiral Isoroku Yamamoto was the Osama Bin Laden of World War II. Americans in 1943 hated the commander of the Combined Japanese Imperial Fleet as much as their descendants hated the al Qaeda terrorist leader. Yamamoto had planned the December 1941 sneak attack on Pearl Harbor, that killed more than 2,400 Americans.<sup>1</sup> Yamamoto also had planned a bold attack on Midway in mid-1942, the success of which would have resulted in flying Japanese flags over the Hawaiian Islands. Fortunately, United States intelligence had already broken the Japanese code and learned of the operation in advance.<sup>2</sup> The information allowed the U.S. Navy to destroy four of Japan's aircraft carriers, and put Japan on the defensive for the first time in the war.<sup>3</sup>

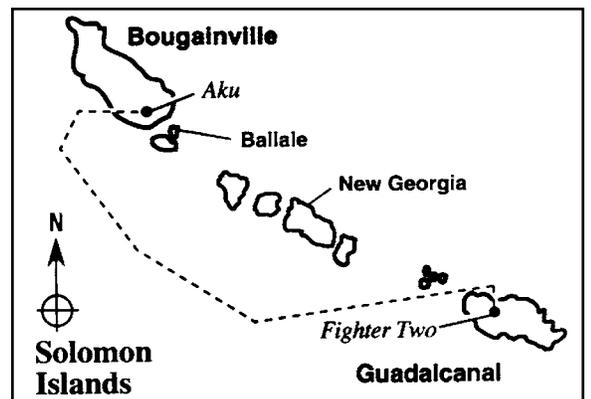
United States intelligence units continued to intercept and decode Japanese naval messages. On April 13, USMC Major Alva B. Lasswell, one of the intelligence analysts at Pearl Harbor's Fleet Radio Unit, Pacific, received and decoded a message from the commander of the Japanese Southeastern Air Fleet.<sup>4</sup> The message noted that on April 18, Admiral Yamamoto would be flying from the Japanese-held island of Rabaul to the island of Bougainville, the closest he had ever come to the U.S. front lines. It mentioned that Yamamoto would be in a medium attack bomber, escorted by six fighters, and even specified his times of arrival at each base. The Japanese admiral had a reputation for punctuality. If Yamamoto was scheduled to be at a certain place at a certain time, one could count on his being there.<sup>5</sup>

Admiral Chester W. Nimitz, commander in chief of the U.S. Pacific Fleet, pondered the wisdom of shooting down Yamamoto. On the negative side, a raid to kill him might reveal to the Japanese that the Americans had broken their code. It would also remove a leader whose behavior patterns had become familiar to intelligence analysts. On the other hand, here was a golden opportunity to deprive the Japanese of their leading admiral and demoralize them. A chance to avenge Pearl Harbor might have also been in the back of his mind.<sup>6</sup>

Historians have debated whether or not Nimitz consulted his superiors in Washington, which would have included Admiral Ernest King, the Chief of Naval Operations; Secretary of the Navy Frank Knox, and President Franklin D. Roosevelt.<sup>7</sup> Nimitz could have made the decision on his own. By the rules of war, a military commander in uniform in the field was fair game. Killing a soldier or sailor in combat could not be



construed as a political assassination. However, most other military leaders who died in warfare were killed with their troops in battle, and not singled out for elimination behind their own lines.<sup>8</sup> An attempt to kill Yamamoto was more akin to special operations.



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Adm. Isoroku Yamamoto, Imperial Japanese Navy Portrait photograph, taken during the early 1940s, when he was Commander in Chief, Combined Fleet. (U.S. Naval Historical Center Photograph.)

**EARLY ON SUNDAY MORNING, APRIL 18, 1943, THE EIGHTEEN P-38s LAUNCHED FROM FIGHTER ONE**

In any case, on April 15, Nimitz authorized Adm. William F. Halsey, commander in the South Pacific, to initiate preliminary planning.<sup>9</sup> Halsey passed on the project to RAdm. Marc A. Mitscher, commander of joint air operations in the Solomons. At Guadalcanal, Mitscher had jurisdiction over the only aircraft within range of the Yamamoto flight. The date was tempting. April 18, 1943 would be the first anniversary of the Doolittle Raid on Tokyo. Admiral Mitscher had been the commander of the U.S.S. *Hornet*, the carrier from which the Doolittle raiders launched.<sup>10</sup>

The question by this time was not so much whether or not to attack Yamamoto, but how. Planners of the Yamamoto mission on Guadalcanal included Admiral Mitscher, his chief of staff Brig. Gen. Field Harris; Cmndr. Stanhope C. Ring, deputy chief of staff for operations, Col. Edwin L. Pugh and Maj. John P. Condon, the latter U.S. Marines in Fighter Command, Solomons, and Lt. Col. Aaron W. Tyer, commander of an Army Air Forces base on Guadalcanal called Fighter Two. The planners decided the flight would have to avoid Japanese detection at all costs by flying around the islands between Guadalcanal and Bougainville, by keeping radio silence, and by flying low. They began plotting courses, and realized that the only type of aircraft on Guadalcanal that had the range to reach more than 400 miles to

Bougainville and return was the drop tank-equipped, twin-engine P-38 Lightning.<sup>11</sup>

The P-38s on Guadalcanal belonged not to the Marines but to the Army Air Forces. The Thirteenth Air Force's 347th Fighter Group rotated squadron detachments to the island. In mid-April 1943, the 70th Fighter Squadron was leaving Guadalcanal, being replaced by the 339th Fighter Squadron under Maj. John W. Mitchell. Condon and Pugh assigned the Yamamoto mission to Mitchell, but kept two of the former 70th Fighter Squadron pilots for their mission experience.<sup>12</sup> Among them was Capt. Thomas G. Lanphier, Jr., who had already flown from Guadalcanal to the Bougainville area, and who already had shot down four Japanese airplanes.<sup>13</sup> Mitchell agreed to appoint Lanphier as leader of a four-airplane attack flight. Mitchell would lead fourteen other P-38s in a cover flight to intercept large numbers of Japanese fighters he expected to rise up from Kahili, a Japanese airfield on Bougainville.<sup>14</sup> He wanted to be ready to pounce on them from above and increase his total of aerial victories, which already stood at eight.<sup>15</sup>

Major Mitchell, accompanied by Lanphier and Lt. Col. Henry Vicellio, from Thirteenth Air Force headquarters, met with mission planners on the afternoon of April 17. They debated whether to strike Yamamoto in the air or after he landed and transferred to a boat. Mitchell chose to attack Yamamoto in the air, because the Japanese admiral would have less chance of survival that way.<sup>16</sup>

The mission leader faced a busy evening on April 17. He had to convert the flight navigation plan from Major Condon into instructions for his pilots. The eighteen P-38s were to change course several times in radio silence, and they would have to know the exact times, speeds, compass settings, and altitudes. These would have to be determined after taking winds into account. If Major Mitchell were off by only a few degrees of direction or a few minutes in time, his flight would miss the crucial interception.<sup>17</sup>

Early on Sunday morning, April 18, 1943, the eighteen P-38s launched from fighter one. One blew a tire on takeoff and dropped out. Another failed to draw fuel from its drop tanks and had to abort as well. Both of these P-38s had belonged to Lanphier's four-plane attack flight. Two from Mitchell's cover flight, flown by First Lieutenants Besby T. Holmes and Raymond K. Hine, filled in. That left Mitchell with twelve and Lanphier with four, for a total of sixteen Lightnings, the same number of aircraft that exactly one year earlier had bombed Tokyo on the Doolittle raid.<sup>18</sup>

The long flight from Guadalcanal to Bougainville covered more than 400 miles and took about two hours. The formation went west for 183 miles, then turned west northwest for another 88 miles, then turned even more northward for another 125 miles. Sixteen miles from Bougainville, the P-38s turned northeastward on a path expected to take them into the right side of the Yamamoto flight, which would be flying southeastward. Mitchell

Adm. Yamamoto was flying in a Betty bomber like this when shot down.

**BOGEYS, 11 O'CLOCK HIGH**

**THE QUARRY WAS ALMOST STRAIGHT AHEAD**

**LANPHIER AND ... BARBER, ... FACE[D] THE TWO BOMBERS AND THEIR SIX FIGHTER ESCORTS AT LOW ALTITUDE**

**EACH ASSUMED HE HAD SHOT DOWN ONE OF THEM... NEITHER KNEW WHICH BOMBER YAMAMOTO WAS ON**



hoped to find a single Japanese medium attack plane or bomber escorted by six Zeroes.<sup>19</sup>

Just as the sixteen P-38s approached the western coast of Bougainville, about 9:35 in the morning, 1st Lt. Douglas Canning broke radio silence to announce "Bogeys, 11 o'clock high".<sup>20</sup> The Yamamoto and the Mitchell flights were both right on schedule. Mitchell's meticulous planning had paid off. The quarry was almost straight ahead.

Major Mitchell immediately led twelve of the Lightnings on a climb to at least 15,000 feet to meet the swarm of Japanese Zeroes he expected to rise from Kahili.<sup>21</sup> That left Lanphier's four-member attack flight to shoot down Yamamoto's bomber. They discovered, however that there were two Japanese bombers instead of one in the enemy formation.<sup>22</sup> The aircraft were identical twin-engine Mitsubishi G4M "Betty" airplanes.<sup>23</sup> The attackers did not know which of the bombers bore Admiral Yamamoto. They would have to get both to be certain. They also would have to contend with six Japanese fighters that were flying behind and above the bombers as escorts.<sup>24</sup> That was four against eight.<sup>25</sup>

Almost immediately, things began to go wrong for the Americans. Lieutenant Holmes, in one of the four P-38s on the attack flight, could not jettison his drop tanks immediately, and turned south-eastward to shake them off. His wingman, Lieutenant Hine, followed him, according to procedure.

That took them out of the area temporarily, leaving only two Lightning pilots, Lanphier and 1st Lt. Rex T. Barber, to face the two bombers and their six fighter escorts at low altitude. Now there were two against eight.<sup>26</sup> But Barber, like Lanphier, had experience shooting down Japanese airplanes. He had already scored three aerial victories from previous encounters with the enemy.<sup>27</sup>

Some of the Japanese escorts spotted Lanphier and Barber as they approached the bombers. The Zeroes dropped their belly tanks and dived at the Lightnings, while the bombers made a radical descent toward the treetops. Lanphier turned his aircraft left into the Zeroes, while Barber continued pursuing the bombers. Barber remembered shooting at one from the rear until it caught fire, but he lost sight of it as he maneuvered to escape the pursuing Zeroes. Lanphier, having flown quickly past the Zeroes, flipped over and dove back in an attempt to catch the bombers. He found one near the treetops now heading towards the beach, and fired from the side into its flight path. It burst into flames at an altitude too low for the occupants to survive bailing out. Neither Barber nor Lanphier saw what the other had done. After maneuvering to escape their attackers, both Lanphier and Barber spotted smoke from a crashed aircraft on the island. They had originally seen two bombers, and each assumed he had shot down one of them. Neither knew which bomber Yamamoto was on.<sup>28</sup>

The P-38 Lightning (shown here in the final L model configuration).



Meanwhile, Holmes and Hine spotted and attacked another Betty bomber that had flown out over the sea in their direction. Barber joined in their attack, and the crippled aircraft crashed into the sea off the coast of Bougainville. A battle with the Zeroes continued, and Hine was shot down. Lanphier, Barber, and Holmes, along with the P-38s in Mitchell's flight, returned the hundreds of miles to Guadalcanal.<sup>29</sup>

Participants in the post-mission debriefing that occurred after the long flight included Colonel Pugh, Major Condon, Lieutenant Colonel Vicellio, and two intelligence officers, Capt. William Morrison of the Army, and Lt. Joseph E. McGuigan of the Navy.<sup>30</sup> After interviewing Lanphier, Barber, Holmes, and Mitchell, the debriefers concluded that a total of three Betty bombers had been shot down in the mission, one each by Lanphier and Barber over Bougainville, and one by Holmes, with possible help from Barber and Hine, over the water.<sup>31</sup> They assumed that the two bombers on the Yamamoto flight were both shot down over Bougainville, and that the bomber shot down over the water had strayed into the area from Kahili on a training flight.<sup>32</sup> If Yamamoto were on either bomber shot down over the island, he was dead. Admiral Mitscher notified Admiral Halsey that the mission had been accomplished. Halsey sent a message in reply: "Congratulations to you and Major Mitchell and his hunters. Sounds as though one of the ducks in their bag was a peacock."<sup>33</sup>

Neither United States nor Japanese authorities wanted to release the news of Yamamoto's death right away. The Americans did not want the Japanese to know that their codes had been broken, and the Japanese did not want to demoralize their forces. On May 21, more than a month after the interception, both Radio Tokyo and the *New York Times* announced that Yamamoto had been killed in combat.<sup>34</sup> By then, the admiral's remains, which had been recovered on Bougainville and cremated shortly after the crash, had arrived in the Japanese capital aboard a ship.<sup>35</sup>

Previous histories of the mission have focused on who actually fired the shots that destroyed Yamamoto's aircraft.<sup>36</sup> Lanphier and Barber both later claimed sole credit for having taken Yamamoto out of the war, because each of them believed the Japanese admiral was on the bomber he had shot down over Bougainville. Japanese documents, interviews with Japanese personnel aboard some

of the aircraft in the Yamamoto flight, and wreckage discovered on the island of Bougainville after the war proved conclusively that of the two Betty bombers on the flight, one crashed on the island, and Yamamoto was aboard it.<sup>37</sup> The other one, which carried some of Yamamoto's associates, crashed at sea after it was attacked. Some of its passengers, including Yamamoto's chief of staff, survived.<sup>38</sup> There was no third stray bomber. If Lanphier and Barber both shot at a bomber that crashed over Bougainville, they were shooting at the same aircraft.<sup>39</sup>

There are more important questions than who fired the shots that brought down the Yamamoto aircraft. Such debates trivialize the mission. Regardless of who got the aerial victory credit, the operation was a spectacular success. Besides the shooters, the real heroes were mission leader Maj. John W. Mitchell, mission planner Maj. John P. Condon, and code breaker Maj. Alva B. Lasswell.

Did the killing of Yamamoto make any difference? Many Americans might have relished the death of the architect of the Pearl Harbor attack, but the killing of Yamamoto was more than merely revenge for the past. It had an effect on the future. Like the Doolittle raid of exactly one year earlier, the Yamamoto mission reduced the Japanese spirit and raised American morale. But did the elimination of Yamamoto change the course of the war?

Yamamoto had designated Admiral Mineichi Koga to be his successor.<sup>40</sup> Koga served as new commander of the Combined Fleet for about a year, until he, too, was killed in an airplane crash in the Philippines on March 31, 1944. Admirals Soemu Toyoda and Jisaburo Ozawa succeeded him in turn. Comparing the leadership of Yamamoto with his successors might help to answer the question of what difference the death of Yamamoto made on course of the war.<sup>41</sup>

Admiral Koga was a traditionalist in naval warfare. For him the battleship, not the aircraft carrier, was the most important capital ship. In his mind, carriers would serve primarily to provide air cover for battleships. Before Pearl Harbor, he had resisted attempts by his fellow admirals, such as Ozawa, to place carriers together in their own commands. He preferred to disperse them. Yamamoto favored Ozawa's idea and approved reorganization of the Japanese fleet to form carrier strike forces.<sup>42</sup> At the time of Pearl Harbor, Koga commanded a Japanese fleet off the coast of China. He was familiar with using the fleet in support of the army, and air power in support of the fleet. In short, Koga lacked Yamamoto's driving intellect and was more defensive and conservative.<sup>43</sup>

One can only speculate about what would have happened if Yamamoto had remained in command of the Japanese Combined Fleet. He probably would have been more eager than Koga to use offensive air power from carriers, but the number of Japanese carriers available to the Japanese by the latter part of April 1943 discouraged their use in offensive operations. Yamamoto might not have

**MORE THAN A MONTH AFTER THE INTERCEPTION, BOTH RADIO TOKYO AND THE NEW YORK TIMES ANNOUNCED THAT YAMAMOTO HAD BEEN KILLED IN COMBAT**

**LANPHIER AND BARBER BOTH LATER CLAIMED SOLE CREDIT FOR HAVING TAKEN YAMAMOTO OUT OF THE WAR**

Painting by Sgt. Vaughn A. Bass, of the 4th Air Force Historical Section, based on information provided by Lt. Col. Thomas G. Lanphier, Jr. It depicts then-Capt. Lanphier's P-38 fighter shooting down a "Betty" bomber that was carrying Admiral Yamamoto. Another P-38 is attacking one of the "Zero" fighters that formed the Admiral's escort. (U.S. Air Force Photograph.)

**OZAWA ORGANIZED ... NINE AIRCRAFT CARRIERS ... FOR A DECISIVE NAVAL BATTLE OFF THE PHILIPPINES**

**UNITED STATES SUPERIORITY ... MORE THAN OFFSET ANY LEADERSHIP ADVANTAGES ADMIRAL YAMAMOTO MIGHT HAVE ENJOYED**



been any more successful than Koga in stalling the relentless advance of the Allies in the Pacific.

After Admiral Koga's death in March 1944, Admiral Soemu Toyoda took control of the Japanese Combined Fleet.<sup>44</sup> Toyoda took the best ships and put them together into a Mobile Fleet under Admiral Ozawa. . In June 1944, in the Battle of the Philippine Sea, the Japanese faced a larger United States fleet, Task Force 58, which had fifteen carriers and more than twice as many airplanes. The outcome of the battle reflected the odds. The Japanese lost 284 aircraft and three carriers, and with them the last of their offensive power in the Pacific. It is difficult to imagine that Admiral

Yamamoto could have done much better given the numerical and qualitative advantages of the American ships and aircraft.<sup>45</sup>

United States superiority in numbers of troops, materiel, production, and intelligence by April 1943 more than offset any leadership advantages Admiral Yamamoto might have enjoyed over his American adversaries or his successors. Even if the death of Yamamoto shortened the war, it did not change its outcome. If Yamamoto had lived, Japan might have won a few more battles, but it still would have lost the war.

How practical is the killing of a military leader in modern warfare? In Yamamoto's case, it hastened

the inevitable. If General Robert E. Lee had been killed after the Battle of Gettysburg, the United States Civil War might have ended earlier, but the same victor probably would have emerged. Midway

was Yamamoto's Gettysburg. As outstanding as the interception mission was, the admiral's death did not mean the difference between victory and defeat in the world's most terrible war. ■

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29. Debriefing Report, printed in Hall, p. 161. A 1969 memo by Maurer Maurer notes that Holmes and Barber should share credit for the second bomber.
30. Ltr, Thomas Lanphier to John Mitchell, Jul 18, 1984, and Letter, Gen. D. C. Strother to Thomas Lanphier, Jan 21, 1985. Copies of both letters in Yamamoto file at HRA.
31. 13 Fighter Command Detachment Combat Report for April 18, 1943. Condon interview, pp. 23-26. Condon was present at the debriefing. Tommie Moore, "Story of 339th Fighter Squadron", Thirteenth Air Force Public Relations Office (call no. SQ-FI-339-SU-RE-D Mar-Apr 1943 at HRA), pp. 14-15. Debriefing Report, printed in Hall, p. 159. Davis, p. 183-84.
32. Debriefing Report, printing in Hall, p. 161. This is also reflected in a message from Halsey to Nimitz after the mission, reporting two bombers shot down and a third "believed to be on a test flight". Lewin, p. 185.
33. Msg no. 180724, commander, Third Fleet to commander, Air Solomons, April 18, 1943, quoted in Glines, p. 86. Also see quote in Lewin, p. 185.
34. Hall, p. 25.
35. Ugaki, pp. 330-31.
36. The two best of these are R. Cargill Hall's *Lightning Over Bougainville* and Carroll V. Glines' *Attack on Yamamoto*. The Second Yamamoto Mission Association, under the leadership of George Chandler, has endeavored for years to get Barber recognized as the only pilot to have shot down Yamamoto. Glines agrees with that conclusion, but the Air Force, for which Hall once worked, continues to grant half a credit each to Lanphier and Barber, taking the word of both from the debriefing records. Two official USAF boards have met about the controversy, and did not change the half credit for each.
37. Intvw, R. Cargill Hall with Kenji Yanagiya, conducted April 15, 1988 at Fredericksburg, Texas. Quoted in Hall, pp. 105-10. Hiroyuki Agawa, *The Reluctant Admiral* (Tokyo: Kodansha International, 1979), p. 358. Agawa mentions that Yamamoto's body was positively identified. Ugaki, pp. 330-31.
38. Ugaki, pp. 330-31. Tom Crouch, in foreword to Hall book, p. x.
39. This was the conclusion of Dr. Maurer Maurer, once head of the research division of what became the Air Force Historical Research Agency, in a 1969 memo in the Yamamoto file at the HRA. It was also the conclusion of a 1985 Victory Credit Board of Review, on which I served.
40. Ugaki, pp. 330-31.
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43. Holmes, p. 136. Lewin, p. 186.
44. Messenger, p. 177.
45. James L. Stokesbury, *A Short History of World War II* (New York: William Morrow and Company, 1980), pp. 337-38.

# Air Force History Fifty Years of Pro

Gen. W.Y. Smith, President  
of the Air Force Historical  
Foundation (1996-present).



# Historical Foundation Promoting Air Power

Gen. Carl A. Spaatz, first  
President of the Air Force  
Historical Foundation  
(1953).





Maj. Gen. Benjamin D. Foulois, (above), (1955-1965).

Gen. Hoyt S. Vandenberg, (right), (1953-1954).



Gen. Curtis E. LeMay, (right), (1965-1967).

Gen. Bernard A. Schriever, (far right), (1967-1970).





Gen. Bryce Poe, II (above),  
(1987-1996).



Maj. Gen. Ramsay Potts,  
(right), (1970-1974)

Lt. Gen. John B.  
McPherson, (1974-1983)



Brig. Gen. Brian S.  
Gunderson (right),  
(1983-1987).



# SHORT STORY

## The Resurrection of Bill McGlynn's Flying Fortress

John Maher

MY BEST FRIEND FROM CHILDHOOD WAS BILL MCGLYNN

IN SUMMER 1943, BILL QUIT HIGH SCHOOL AND WE JOINED THE ARMED FORCES

NOT MUCH OVER FIVE FEET TALL, HE WAS THE IDEAL MAN TO BECOME A BELLY GUNNER IN... THE B-17

My best friend from childhood was Bill McGlynn. We started life together. Our mothers met when we were born at St. Luke's Hospital in Utica, New York, I in late December 1925, and he in early January 1926. We each lived in a little bungalow on Auburn Avenue, where we raced our tricycles up and down the sidewalks. During the Great Depression, we attended John F. Hughes School, a grade school, and then high school. Both our families were Catholics of Irish descent.

Bill's father, George McGlynn, was a great entrepreneur who owned a taxi company and held a job at the Savings Bank, which promoted itself as "The Bank with the Gold Dome." Whether or not real gold leaf covered the dome, it still stands out on Genesee Street, downtown. As a reflection of that gold, the bank and taxi company provided the McGlynn's with such a solid, middle class income that they moved to a bigger house at 2409 Sunset Avenue. They also bought a commodious camp on Otter Lake in the Adirondack Mountains. I was often invited to spend a few weeks at that camp and almost learned to swim, a special blessing because I was destined to spend three years in the Navy during World War II.

We shared the same tastes in radio programs, usually shoot-em-ups like "The FBI in Peace and War" and "Gang Busters." We also enjoyed watching the criminal activities of James Cagney in such exciting films as "Public Enemy." Bill had a small gun collection given to him by his father. I recall a little 22-caliber revolver and an eighteenth century, single shot, and brass embossed pirate pistol. At least it reminded me of pirates. I must confess that I led Bill astray in getting him to go joy riding in an illegally borrowed car. This adventure ended with my spending a night in jail. Mr. McGlynn prohibited me from ever showing up at his home or resuming my friendship with Bill. However, Mrs. McGlynn allowed me to visit when George was not at home. She was a real softy.



Could any good come from such peccant teenagers? To some observers, we seemed prone to an exaggerated interest in violence. This interest, however, served Bill's country well.

In summer 1943, Bill quit high school and we joined the armed forces, he, the Army Air Corps and I, the Navy. We were eager for combat, but while I spent almost two years training to become a Navy pilot yet never reached that goal, he more quickly entered the fighting.

In 1944, Bill arrived at Nellis Airfield, in Las Vegas, Nevada. Because he was not much over five feet tall, he was the ideal man to become a belly gunner in America's most powerful bomber, the B-17 Flying Fortress. He was a good fit in the confined, swiveling ball turret on the bottom of the airplane, where he manned twin 50-caliber machine guns.

Bill's position on the underside of a B-17 would prove to be a lonely post. The turret hatch above his head separated him from the rest of the crew and below was the great expanse of earth. One advantage he later experienced when he flew combat missions was watching the bombs fall away from just ahead of him, where the bomb-bay doors opened. He also saw the explosions and fires resulting from the bombs.

Following basic instruction, Bill participated in bombing runs on Miami, Atlanta, and New Orleans. Fortunately for these cities, these were practice runs.

After being shipped to Camp Kilmore, New Jersey, he and his buddies set sail from New York

*John Maher is a writer in Prior Lake, Minnesota. His latest book is an autobiographical novel, Thinker, Sailor, Brother, Spy (iuniverse.com) wherein Bill McGlynn is treated with the admiration he deserves*

HE WAS IN THE EIGHTH AIR FORCE AND ASSIGNED TO A PLANE NAMED LUCKY LADY



on the liner *Mauritania*. Unlike its sister ship, the *Lusitania*, which was torpedoed by a German submarine in 1915, the *Mauritania* held a speed record for crossing the Atlantic, could steam at over 25 knots and easily outran the submarines. Bill counted himself lucky not to have joined the Navy, where seasickness is a serious disability.

Eventually he reached the B-17 base in Stowmarket, eighty miles north of London. Now he was in the Eighth Air Force and assigned to a plane named *Lucky Lady*. To his surprise, just when he began adjusting to his new environment and unrehearsed duties, he was pulled away from his fellow crewmembers to fill a vacancy in an immediately departing flight over Germany. The vacancy had been created because the previous belly gunner had been killed the day before. The initiation to combat was a lucky round trip with no casualties among the crew. Thereafter, Bill returned to his own crew.

Altogether there were thirteen machine guns, spread out forward, aft, on the top, bottom and both sides of the fuselage of a B-17. With a range of over 1,800 miles, the plane was able to pierce enemy air defenses and strike deep within the Third Reich. But, for lack of adequate fuel tanks, fighter aircraft were unable to accompany the B-17s all the way to their targets and back home again, until after the Normandy landings, when airfields could be moved inland behind advancing Allied troops. So, at first, each B-17 had to rely on its own firepower and that of fellow squadron planes for protection when fighter escorts had to return to their bases.

Despite its bristling guns, Flying Fortresses were shot down in large numbers. Of 12,731 planes produced, 4,735 were lost in combat—not counting planes lost outside of combat—such as, in training or during other maneuvers. The danger was sufficiently great that crews were given a break from flying after each completion of twenty missions.

After just two successful missions, however, Bill's luck took a turn for the worse. On March 3, 1945, the crew of *Lucky Lady* took off for its third combat mission. The flight out was uneventful, but while returning from bombing Dortmund, the

plane was so peppered with shots from enemy fighters that her engines failed and the pilot was forced to make a crash landing. From the picture of the disabled craft, it seems a miracle that no one was killed or severely injured. Thanking God for their deliverance from disaster, they emerged from the plane only to see six farmers, armed with rifles, approaching them. Bill was the only man packing a weapon, a 45-caliber automatic pistol. Such firepower was hardly a likely way of threatening a half dozen men armed with rifles.

As the only one armed, Bill turned to the pilot, the captain of the plane, and asked, "What should I do?" The pilot wisely advised dropping the gun and Bill obliged.

Again luck was with the crew. They had landed in Belgium between the Allied and German armies, but closer to their own lines! And the farmers who had met them were on the side of the Allies.

The farmers took the Americans into a small town where they enjoyed a good meal of sauerkraut and pork and were later given reasonable quarters, while awaiting their return to the Eighth Air Force in England. But their adventure was not quite over. In a café near their temporary residence they met a German pilot, now interned, who had been shot down the same day they had crashed. They surmised that this was the very man who had caused their own debacle. What a day of surprises.

While in Belgium, Bill sent his mother a postcard telling her that the Army had granted him a nice vacation in Belgium. But after two weeks, a Canadian plane flew the crew back to their base in England. There, each crew member received the Air Medal, along with orders to resume combat missions the following day. Several crew members thought their plane should now be named *Resurrection* because nobody had ever heard of a B-17 whose entire crew returned safely to their own lines after being shot down.

I end this story on a sad note. After a brief illness, Bill died on November 10, 2002, at his home in Utica. He is missed by his wife, Cis; their five children; many of the thousands of students whom he taught and counseled; and by me. ■

AFTER JUST TWO SUCCESSFUL MISSIONS, HOWEVER, BILL'S LUCK TOOK A TURN FOR THE WORSE

THE PILOT WAS FORCED TO MAKE A CRASH LANDING

**Irish Volunteers in the Second World War** by Richard Doherty. Dublin and Portland, Ore.: Four Courts Press, 2002. Illustrations. Photographs. Notes. Bibliography. Index. Pp. 378. \$29.95 ISBN: 1-85182-523-1

This is the author's second work to chronicle contributions made by Irish men and women to the Allied efforts to defeat the World War II Axis powers. I am somewhat handicapped by not having access to or having read the first book, *Irish Men and Women in the Second World War*. It is, therefore, possible that some of the deficiencies noted here may have been addressed or overcome in the first book. But, as the author provides no significant introduction to this book and is quite silent as to the coverage of the first book (save to indicate that at its conclusion he had more material he wished to offer), this review is presented on the basis that *Irish Volunteers in the Second World War* is a "stand-alone read."

The good news is that the author has done well chronicling the service and truly heroic exploits of many Irish who served the Allied cause—mostly in the British forces. The coverage has been rightly expanded to address the service of the Irish in the Merchant Marine and, perhaps more significantly, the many Irish men and women, including the author Samuel Beckett, who served as spies or in the Resistance in "the war behind enemy lines."

Also, a very appropriate chapter titled *The civilian war experience* is included, providing a look at the heroism and "simple" performance of duty by those on the home front. But, in this case, the home front is Britain, not Eire. In an excellent effort to offer balance to the many acts of sacrifice of Irish men and women in the crusade against the Axis, the author devotes an entire chapter to the IRA during the war. Although he calls them, by chapter title, *Hitler's Irish Allies*, his review of their activities and the reactions of the British, Eire and, indeed, German governments underscores their lack of any significant effect on the war effort.

This book is, by the author's account, the "small picture": the stories of many Irish who served as opposed to the "big picture" of the defeat of the Axis powers. That said, what is most glaringly missing from this book is an introduction that places these many inspiring "small pictures" of heroism and sacrifice into the context of the times, particularly why the Eire government remained neutral and actively suppressed or censored news of Nazi atrocities when many of their citizens were fighting to end the evil that had engulfed Europe.

A lesser criticism, also directed at the lack of a significant introduction, is the absence of a workable definition of who is Irish. The book recounts the service of people born in Eire and Northern Ireland and many others born far abroad of one or both Irish parents or in some cases, simply having an

Irish surname. William J. Donovan, widely regarded as the modern founder of the American CIA is included as Irish because he "considered himself Irish!"

Despite the foregoing, a reader with an interest in military or Irish history will find this chronicle a captivating read detailing the amazing service, sacrifice, and heroism of many Irish men and women who helped defeat the Axis when the world and, indeed, Ireland were truly threatened. In the author's words, "they are also a part of the history of Ireland, on both sides of the border, and it is right that they might be remembered."

*Dr. Gerald Abbott, Professor, Industrial College of the Armed Forces, National Defense University, Fort McNair, Washington, D.C.*



**Guts & Glory: The Making of the American Military Image in Film.** By Lawrence H. Suid. Lexington: University Press of Kentucky, (revised and expanded edition), 2002. Photographs. Notes. Appendices. Index. Pp. xvii, 748. \$29.95 Paperback ISBN: 0-8131-2213-9

In 1998, the American Film Institute named the 100 greatest American movies of all time, encompassing the first century of American film. A panel of experts included military classics such as *Patton*, *Dr. Strangelove*, and *Apocalypse Now* among the elite; it is possible that *Saving Private Ryan*, the powerful story about the Normandy invasion of World War II, would have joined the list had it been compiled a year or two later. Virtually from the advent of motion pictures, the services have enthusiastically provided the latest military equipment and platoons of fighting men and women for film projects that helped promote a positive image of military service. At the same time, Hollywood used America's fascination with war to make money. Lawrence Suid explores this symbiotic relationship in *Guts & Glory*. The author, a military and film historian, has published articles in the *Journal of American History* and *Naval History* among other periodicals and books such as *The Army's Nuclear Power Program* and *Air Force*.

Suid does not just tell the feel-good stories of the Pentagon-Hollywood collaboration. He also explores the dark side of the relationship when the services refused to cooperate in the making of films such as *Dr. Strangelove* and captures the agony of the services when caught up in projects that take liberties with history—for example, the recently released *Pearl Harbor*. During the 20th century, there was a revolution in warfare as tanks replaced the cavalry, airplanes added a third dimension to the battlefield, and submarines and aircraft carriers expanded the bounds of naval warfare. The timeless story of boys becoming men on the

battlefield or in basic training still tugs at our heartstrings. From *Birth of a Nation*, released in 1915, to *Saving Private Ryan* and *Pearl Harbor*, with their state-of-the-art special effects, the modern American military and films have grown up together.

This book is a revision and updating of Suid's 1978 study, revolutionary at the time of its release. *Guts & Glory* is the most detailed source of information about the stories Hollywood tells about the American military and how the Pentagon seeks to portray itself in the film media. Beyond the films themselves, Suid conducted extensive research in the National Archives; the Academy of Motion Picture Arts and Sciences Library in Beverly Hills, California; the Library of Congress, and the USC and UCLA cinema-television and film studies libraries, respectively. In addition, the author collected primary documents from a number of people involved in the production of war movies and conducted nearly 300 interviews, carefully listed in an appendix to the book.

While university libraries have shelves full of books about war movies, most do not explore in such detail the military's love-hate relationship with Hollywood. I would read this book first, given its scope of coverage and its fascinating look at the insider dealings between two of the most powerful forces in shaping American culture. Suid does not write about film as art, but he does provide the historical context for their production, helping the reader understand the motivations of both Hollywood and the armed services.

*Bruce A. Ashcroft, Staff Historian, HQ Air Education and Training Command*



**On War and Leadership: The Words of Combat Commanders from Frederick the Great to Norman Schwarzkopf.** By Owen Connelly. Princeton and Oxford: Princeton University Press, 2002. Notes. Bibliography. Index. Pp. viii, 347. \$29.95 ISBN: 0-691-03186-X

Owen Connelly has done us a favor by scouring the writings of the world's foremost warrior-leaders and presenting their thoughts in one well-connected volume. In these pages are the critical ideas of twenty great commanders in their own words; the reader will appreciate Connelly's careful analysis as he relates their common themes. The author is no stranger to the field. While best known for his scholarship on Napoleonic warfare, his credentials span active duty as an Army Ranger, research at Princeton's Institute for Advanced Study, and the University of South Carolina, where he is a professor of history.

Among the difficulties in such an undertaking is surely deciding on its scope—which of the "great captains" need inclusion and

which may be left out. A natural starting point for Connelly was to choose only those with extant writings, and the warriors quoted within these covers are almost entirely commanders from the Western world, from the late eighteenth through the twentieth centuries. Noticeably absent from these pages (without explanation by the author) are airmen and admirals. *On War and Leadership* is decidedly centered on those whose business was land warfare—a “muddy boots” school of leadership.

Nonetheless, there are rich ideas here and, while drawn from military experience, they may be universal to leadership applications. After Frederick the Great and Napoleon, they cross eras of the American Civil War (Sherman, Jackson, Mosby), World War II (Lawrence, Wavell, Rommel, Patton, DeGaulle, von Manstein, Montgomery, Slim, Stilwell), post-World War II (Ridgway, Moshe Dayan, Giap, Hal Moore, Nick Vaux [Falklands]), to Desert Storm (Schwarzkopf). All of these brave men confronted life and death challenges and led their followers to victories from which we can learn. Thankfully, they left written accounts of their many excellent traits which include leading from the front, taking care of one's troops, loyalty, decisiveness, perseverance, and unity of command.

Connelly does a very good job organizing this work and it makes enjoyable reading. Especially welcome is his straightforward, eight-page introduction that effectively summarizes over two centuries of warfare—its

changes and the effects of politics, societies and technology. Likewise, his short concluding chapter does a very tidy job of uniting the key thoughts of the twenty principals cited. If the book has a downside, it's the typographical errors that defied editing. For example, there is reference to Patton's taking command of Third Army in January 1945 (a year after the fact). And, while the extensive notes at the rear of the book appear to be a splendid reference, errors crop up (e.g., a difference on adjacent pages of 10,000 in citing the number of U.S. World War II battle casualties). Further, to an airman, one particular note appears hastily made and more myth than fact: commenting on the greater number of civilians killed in World War II than in any previous war, Connelly states that “most were killed by aircraft bombs.” Some historians put the number of twentieth century civilian casualties as low as between one and two percent from air power, with many more victims from small arms, artillery and other causes. Fortunately, these concerns are little more than distracting from an otherwise well-presented work on military leadership.

Why should we read the thoughts of the great military commanders? From the author's introduction, “Wars decide the fate of nations and the power balance in the world. That is a reality, however unpleasant. War has always been a part of human history, and promises to continue to be; thus it should be fruitful to examine what successful military leaders have said, over the past 250 years, about how to lead men to victory.”

Indeed, the leadership practiced on past battlefields can well serve us today.

*Col. John S. Chilstrom, USAF, AFROTC, Tulane University*



**Throwing Fire: Projectile Technology through History.** By Alfred W. Crosby. Cambridge: Cambridge University Press, 2002. Photographs. Notes. Index. Pp. 206. \$28.00 ISBN: 0-521-79158-8.

This is a delightful little book written by a professor emeritus in American Studies, History and Geography at the University of Texas at Austin. Part anthropology, part technology, part psychology, and part sociology, *Throwing Fire* covers four million years of history in just 200 pages. Professor Crosby contends that only three traits separate us from all other creatures on earth and have allowed us to propagate and conquer the entire planet: bipedalism, the ability to throw, and the ability to control fire.

When considering humans against all other animals, we have the distinct disadvantage of walking on two feet. We can neither outrun predators nor our prey. But, our brains compensated for this by giving us the unique ability to throw. Crosby explains that in order to hit a rabbit-sized target 12 feet distant, there is only an 11-millisecond window where we can let go of the rock and actually hit the rabbit. Couple this with a moving

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rabbit and the window gets even smaller. This exceptional ability allowed our ancestors to defend the herd from predators and to put food on the rock. If anyone thinks this is no longer necessary just watch almost any sporting event.

Although man conquered missile technology powered by muscle early in our history and tamed fire shortly thereafter, eons passed before he coupled the two. For ages, man relied on rocks, spears, atlatls, and the bow. Possibly the first coupling consisted of men firing flaming arrows shot over the village wall. Later Greek fire—a napalm-like liquid—proved a truly mysterious and fearsome weapon. It was not until extremely late in our development that we learned to use fire not only to kill but also to propel our missiles. Once the West copied the formula for gunpowder from the Chinese, the lethality of weapons increased exponentially. In just a few hundred years, man extended his range of killing power from a few feet to tens of thousands of miles.

Although Crosby includes military technology in the story (as would be necessary for a book on projectile technology), he is more concerned with how humans have adapted and used this technology. His concluding chapters cover ballistic rocketry in the twentieth Century. While man has unfortunately used missile technology for killing (beginning with the Nazi's V-2 ballistic missiles and continuing through the 1980s when Iran and Iraq exchanged terror during mutual city bombing and the 1991 Gulf War when Iraq fired Scuds on Saudi Arabia and Israel), this is not Crosby's main focus. He admits that man now has the capability to destroy himself, but he sees a hopeful future as mankind—always striving to throw further—will one-day venture to other planets on a permanent basis.

*Throwing Fire* is an interesting book. Readers of *Air Power History* who are interested in man's interaction with technology will find Crosby's arguments attractive. Those expecting a detailed discussion of aerospace technology will most likely be disappointed.

*Maj. Jim Gates, USAF, Air Staff, Pentagon*



**The Royal Air Force and Aircraft Design, 1923-1939: Air Staff Operational Requirements.** By Colin Sinnott. London: Frank Cass, 2001. Photographs. Notes. Glossary. Appendix. Bibliography. Index. Pp. xiii, 249. \$59.50 ISBN: 0-7146-5158-3

It would be difficult to find an individual better qualified to write this book. Colin Sinnott served as a British government research scientist, worked for Hawker Siddeley Aviation, and earned a King's College Department of War Studies Ph.D. in science. He thus brings to the task an unusual array of perspectives.

Operational requirements based on presumed threats define aircraft performance characteristics needed to implement service doctrine. These characteristics are issued in the form of specifications to aircraft manufacturers who submit bids on designs that may or may not achieve service-desired performance. Sinnott traces the evolution of RAF bomber and fighter requirements and claims to present a new perspective on the interwar years, contending that commonly accepted historical views are unsound—too heavily reliant on industry testimony to the neglect of Air Ministry sources.

On the assumption that enemy bombers would always get through, the RAF placed the weight of its defense on bombers to launch a counteroffensive against the enemy, since fighters would generally be unable to break up self-defending enemy bomber formations—curious assumptions not validated by World War I experience. Further, the Air Staff assumed bombers could find targets day or night and that bombing would be sufficiently accurate to be effective. Subsequent wartime experience showed these assumptions to be decidedly flawed.

Worse yet was the RAF threat concept. In Europe in the early postwar years, only France had a large air force. The danger from democratic France was negligible, as both nations needed each other to preserve peace. But RAF Chief Trenchard needed a threat to justify a significant build-up of his service (similarly, the U.S. Navy's war plans conjectured a worst case scenario of an attack by an alliance of Japan and Britain, a combination no one seriously contemplated). Sadly, the RAF began to act as if the French threat was real. It built air bases facing France, and it specified limited-range bombers capable of hitting nearby Paris.

Aircraft design rests on many tradeoffs. For bombers: range vs. fuel, fuel vs. bomb load, bomb load vs. takeoff distance, effective self-defense (heavy turrets and ammunition) vs. range or bomb load. Could catapults launch heavy bombers with maximum bomb and fuel loads, or would longer, paved airfields be a better solution? For fighters, rate of climb was critically important, but reduced fuel to improve climb rate cut down loiter time or endurance. Maneuverability was needed to tangle with enemy escort fighters, but was reduced with increased weight. Better engines meant greater top speeds, but dangerously increased landing speeds. Heavy armament meant drastic reductions in endurance. Should fighters have two-man crews (pilot and gunner as in the disastrous turreted Boulton-Paul Defiant)?

This book tells the story of how the RAF and Air Ministry grappled with such tradeoffs and decisions, often in the absence of unambiguous evidence from experience. By 1934, the folly of the French threat had become evident as the *Luftwaffe* expanded rapidly. One result was that bomber specifications had to be reworked to permit a counteroffensive against distant Germany.

Bombers would need greater range at the cost of reduced bomb load. To attain the range, altitude, and speed needed to improve survival against interception, bombers would need longer wingspans, but the Air Ministry stipulated 100-foot spans to conform to existing hangar dimensions! This sort of thinking makes one wonder how the RAF emerged victorious from the Battle of Britain, but somehow the Air Staff and Ministry, despite many blunders, managed to get enough of the tradeoffs right to achieve victory.

*I. B. Holley, Jr., Emeritus Professor of History, Duke University*



**Damn If They Ain't Flew.** By William A. Schoneberger. Virginia Beach, Va.: The Donning Company, 2002. [Aero Club of Southern California]. Illustrations. Photographs. Index. Pp. 96. ISBN: 1-57864-163-2

On the day that the Wright brothers made their first successful flight in North Carolina, an Outer Banks resident allegedly announced this event at the post office in Kitty Hawk, exclaiming, "Damn if they ain't flew!" This quaint quote furnished author Schoneberger his title.

The author headed the communications functions at General Electric's Aircraft Engine Group and at the Northrop Corporation. He was president and director of the Aero Club of Southern California, the organization that sponsored this book. Profits from the sale of this book go to the Marsha Toy Scholarship Fund. The award-winning author wrote or co-authored seven previous books, including *California Wings: A History of Aviation in the Golden State*.

*Damn If They Ain't Flew* is a collection of aviation "urban legends" about the famous and not-so-famous personalities involved in military and civilian aviation, the airplanes they flew, and the companies that built those airplanes. The reader is treated to an insider's view and personal observations about some of the people in the aerospace/aviation industry. The author offers no sources for these stories, claiming that "if (he) was a participant, (he knew) it happened." If the story was "related to (him) by an aviation legend, (he) believed 'em." If the tale came from his "archival, historical research," he accepted it. The reader may have read or heard some of these stories, and it is left to the reader to determine their credibility.

The book is greatly enhanced by reproductions of paintings by famed aviation artist Douglas Ettridge and other aviation illustrators. Unfortunately, these excellent portrayals of aircraft and significant aviation events are in black-and-white, appearing in color only on the covers.

This is a very light, easy to read book, with some of the anecdotes done in half a page. Other subjects, like Howard Hughes, his airplanes, his exploits and the people in

his organizations, require sixteen pages. As an example of the vignettes offered, the reader learns why the huge eight-engine flying boat, the Hughes HK-1 "Spruce Goose," earned another nickname—"The Savior." This same nickname was later awarded for a similar reason to the North American XB-70 bomber (when the big hangar doors are rolled back, the incredulous viewer looks up and usually murmurs, "Jesus Christ"). In another story, we learn that Delta Airlines has evolved from an entomologist's interest in aviation. With partners, he formed a company to use aerial crop-dusting to fight the boll weevil menace in the Mississippi Delta cotton crop.

Most of the stories are humorous, some are sentimental, but all are informative. The author does not settle on a central theme for his stories, but serves up an eclectic menu of aviation history with behind-the-scenes revelations about aviation personalities and the international Paris Air Show.

Readers will be entertained by this anthology about aviation and some of the principal players in its evolution that the author calls "the greatest show on earth."

*Lt. Col. Steve Horn, USAF (Ret), aviation history researcher and writer.*



**Billy Mitchell.** By James J. Cooke. Boulder Colo. and London: Lynn Rienner Publishers, 2002. Photographs. Notes. Bibliography Index. Pp. xii, 305. \$49.95 ISBN 1-58826-082-8

James Cooke joins seven earlier biographers with the second scholarly treatment of the controversial Brig. Gen. Billy Mitchell. Its most distinctive feature is Cooke's effort to present the fullest picture to date of Mitchell as a man.

An emeritus professor of history at the University of Mississippi, Cooke has published since 1994 three studies of various experiences of the U.S. Army in World War I. Especially relevant to this story of Mitchell—who won his star in that conflict—are two of Cooke's histories—one on the Army's Air Service, and the other on John J. Pershing's generals in their command and staff roles.

Much of what Cooke says in this book will not be new to the readers of my own biography of Mitchell. That first scholarly study appeared in 1964 and in a revised version adding new material in 1975. The trend before 1964 had been to depict the airman as a martyr who was court-martialed and, in effect, forced out of the Army because of his views on air power and its potential. I rejected that interpretation and argued that Mitchell delib-

erately provoked his court-martial as a dramatic way to win support for his views from the American people. Still, such questionable methods were weighed in the biography against the airman's major contributions as a military aviation leader and publicist.

Cooke reaches essentially the same final position while presenting Mitchell in greater depth in key matters, to include a fine description of his handling in combat of the infant U.S. air arm in France. His work also contrasts that and other contributions to what he characterizes as Mitchell's "dark side" in his professional and personal conduct. To demonstrate that dark side, Cooke presents lists of flaws and unbecoming actions. Preceding one list of such shortcomings is a question not immediately answered: "How much did he [Mitchell] do for himself and how much did he do 'for the good of the service?'" In two other instances, he even questions why the Air Force should continue to regard Mitchell as a hero.

Cooke ventures into a difficult-to-prove interpretation of the earliest influences on the dark side by claiming that Mitchell was "haunted" by an allegedly difficult relationship with a self-absorbed father and other problems in his youth. Another interpretation seems much more plausible when the author says that a dark side to Mitchell

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clearly surfaced because of the stress of combat and related experiences in France and his obsession that he alone could win the fight for independent, unified air services.

Still, Cooke ends his study by implicitly answering his question about Mitchell's motivations and explicitly responding to his question about Mitchell's standing as an Air Force hero. Reaffirming the airman's contributions and shortcomings, he asserts that "Billy Mitchell was a balancing act," but goes on to say that "he was not really understood by the Department of the Air Force establishment, but needed by them."

Contrary to Cooke's view, however, a significant example of a balancing act is available; one that seems to show that the Air Force establishment did understand Mitchell. On the one hand, in 1958 Secretary of the Air Force James Douglas refused to revoke the court-martial conviction of the deceased Mitchell. On the other hand, in the next year the Air Force named the cadet dining hall at its new Academy after him.

*Brig. Gen. Alfred F. Hurley, USAF (Ret), Professor of History at the University of North Texas (UNT), its President Emeritus, and Chancellor Emeritus of the UNT System.*



**The Praetorian STARShip: The Untold Story of the Combat Talon.** By Col. Jerry L. Thigpen, USAF (Ret.). Maxwell AFB, Ala.: Air University Press, 2001. Maps. Illustrations. Photographs. Notes. Appendices. Glossary. Index. Pp. xxxiv, 488.

*Praetorian STARShip* is the story of the unique and historically important version of the venerable Lockheed C-130 Hercules, the MC-130E/H Combat Talon, and of the men and women who designed, gave birth to, and mentored its development. Further, it was written by someone who was there. Colonel Thigpen spent twenty-one of his thirty-year career in special operations, from combat over northern Laos, to lead in a five-ship formation of Talons over Rio Hato during Operation Just Cause, to command positions worldwide. "He knows of what he speaks."

The book begins with the heritage of the Air Commandos, beginning with World War II OSS operations that reveal there was no one type of aircraft used or command established. It progresses to the "forgotten war" in Korea and then to Air Commando operations in the Middle East and behind the Iron Curtain

In the 1960s, Air Commandos operated in Southeast Asia. "Heavy Hook," "First

Flight," and "Stray Goose" were codewords of significance to only a select, knowledgeable few. For this period of operations, Colonel Thigpen covers the involvement of Lockheed Air Service (LAS) in Ontario, California; the Fulton Surface to Air Recovery System (STAR) and its inventor, Robert Fulton, Jr.; terrain following radar; ECM suites; in-flight refueling, as well as the Son Tay Raid. Air Force members bedecked in Aussie hats and bloused jungle fatigues and flying in black and green airplanes started a tradition in this conflict.

Special operations units fought deactivation and the boneyard in the 1970s, with Hurlburt Field unofficially renamed "Sleepy Hollow." But the takeover of the American embassy in Tehran proved to be the "headless horseman" who rides into Sleepy Hollow. Details, photos, and diagrams describe the Iran hostage rescue mission, overshadowed by the lack of central command and control. The Desert One aftermath became the foundation upon which future special operations capabilities were built and gives insight into how special ops embraced the technology of the time. *Credible Sport*, for example, was developed for a potential landing and takeoff in a soccer stadium. Three C-130Hs (designated XFC-130H Super STOL) were modi-

## Lancaster Index to Defence & International Security Literature

*Air Power History* (along with its predecessor *Aerospace Historian*) is one of nearly 350 publications indexed and abstracted in the bibliographic database *Lancaster Index to Defence & International Security Literature*. This information is produced by Military Policy Research Ltd., of Oxford, England, and can be found at [www.mpr.co.uk](http://www.mpr.co.uk). It contained over 90,000 citations and abstracts as of the end of May 2002, and is increasing at the rate of around 10,000 per year.

The *Lancaster Index* database is primarily designed for information professionals in the defense and security sector, and can appear somewhat daunting to the casual visitor. A look at the User Guide, downloadable from the site, is recommended. Free access, using the global index, scans the whole database, but returns literature citations that exclude the volume, issue, and page references. Researchers who need these references for serious research purposes will need to take out a paid subscription. Individual rates range from \$9.95 for a 24-hour pass to \$99.95 for a 365-day pass.

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fied with ASROC and Shrike rocket motors, dorsal fins, and double-slotted flaps.

The final chapters show how revitalized special operations forces found themselves tasked to support increasing training and real world commitments such as the invasion of Grenada. Just Cause, the invasion of Panama, brings to mind the adage that special operators never go on leave on holidays. The Air Force established Special Operations Command (AFSOC) and activated Talon II in the 1990s. Desert Storm and other special operations (e.g., the eruption of Mt. Pinatubo, Provide Comfort, Sierra Leone, Senegal, Indonesia, and leaflet drops over Haiti) are described with documents, crew lists, and photographs.

The book closes with comments on operations and changes within special operations that reflect the growing need for unconventional warfare air assets, and how Combat Talon will be the premier airlift source for SOF assets for several decades to come. For those with any interest in military special operations, *Praetorian STARShip* is a "must have."

*Jim McClain, former USAF Special Operations Forces member, Cape Coral, Florida.*



**The Big E, the Story of the USS Enterprise.** By Edward P. Stafford. Annapolis, Md.: Bluejacket Books, Naval Institute Press, 2002 (copyright 1962). Maps. Photographs. Index. Biographical Notes. Appendixes. Pp. xvii, 585. \$18.95 Paperback. ISBN 1-55750-998-0 and **The Ship That Held the Line, The USS Hornet and the First Year of the Pacific War.** By Lisle A. Rose. Annapolis, Md.: Bluejacket Books, Naval Institute Press, 1995. Diagrams. Photographs. Notes. Bibliography. Index. Pp. ix, 309, \$18.95 Paperback. ISBN 1-55750-0008-8.

*Enterprise* (CV 6) and *Hornet* (CV 8) were the second and third ships of the *Yorktown* class. During 1942, they participated in the Doolittle Raid and the battles of Midway, Eastern Solomons, and Santa Cruz (where the *Hornet* was sunk). The Big E's operations continued until May 1945, when she was damaged by a *kamikaze*.

Both authors are well qualified to address these sister ships. Commander Stafford served in World War II in the Mediterranean, became a naval aviator, and earned masters degree in literature. He went on to

win \$64,000 on the TV quiz show "\$64,000 Question," that led to his being contacted about writing a book on the *Enterprise*. Dr. Rose earned his Ph.D. at Berkeley and then taught history before joining the State Department. As a youth, he read a hastily written book about the USS *Hornet*, which started his interest in naval history and World War II in the Pacific.

Stafford's book is presented primarily from the perspective of the ship's crew and the attached air group; it is very much a unit history. Thus, the reader is presumed to know something about the ship itself. The Big E's operations are covered by balancing contemporary records and personal recollections of both the critical carrier battles of 1942, as well as less memorable night carrier operations in 1945. This gives the reader a feel for the operations that would have been lost if Stafford had concentrated only on the most important actions. Unfortunately, his first-hand accounts are sometimes a source of errors and inconsistencies. He states the Japanese carrier *Hiryu* was not involved in the Pearl Harbor attack, and on another page notes there were five Japanese carriers. However, *Hiryu* was one of the six carriers



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that participated. Elsewhere, a Japanese Navy Me 109 is shot down, and a Japanese pilot trying to land aboard the *Enterprise* responds to the Landing Signal Officer (LSO) in reverse "standard Japanese procedure." We now accept that the Japanese did not use Bf 109s or LSOs. Finally, he describes the collective emotions of the people involved. That works when developing a fictional character, but one has to question his ability to state this as historical fact.

Much later in the book, Rose's coverage becomes far broader than that of a unit history. He discusses U.S. naval rearmament and explains that *Hornet* was an obsolescent, but available, design. He describes the ship's structure, the risks inherent in the design, and how these factored in her loss. Living and working conditions (more uncomfortable than any ship a reader is likely to visit now) and the Navy's problem with race relations are also covered. Rose also discusses the Japanese perspective on operations. Understanding which parts of the story were based on historical overviews, contemporary documents, or personal reminiscences made reading easier because it provided additional context for evaluating the events being described. *Air Power History* readers will want to carefully evaluate the section on the Doolittle Raid. There is a detailed description of the picket line into which Halsey's force ran. Criticisms of B-25 maintenance are "sourced" to the "War Log." Overall, the battle descriptions in the book were average.

*The Ship That Held the Line* gives a good introduction to 1942 carrier operations and, thus, the early phase of World War II in the Pacific. It includes three of the four carrier battles where there was a reasonably even match. This book is a good place to start reading about U.S. naval aviation in World War II. *The Big E* is a classic, and Rose cites it in his introduction. While it is not as useful for gaining a general understanding of fleet operations, it does give a good picture of life aboard one of the most famous ships of the war.

William Rowe, Docent, NASM



**Prelude to Tragedy: Vietnam 1960-1965.** Edited by Harvey Neese and John O'Donnell. Annapolis, Md.: Naval Institute Press, 2001. Map. Photographs. Notes. Appendix. Bibliography. Index. Pp. 309. \$32.95 ISBN 1-55750-491-1

Between 1960 and 1965, before the United States took over the military war in Vietnam, a group of dedicated South Vietnamese and Americans tried to build a nation in the South. The Americans, in large part, were employees of the U.S. Agency for International Development (USAID) and were members of its Office of Rural Affairs. They quickly realized that a decentralized approach was needed to make an impact at the village level in this political

struggle against the so-called Viet Cong.

President Diem officially initiated the Strategic Hamlet program on April 17, 1962. This program was to be the principal vehicle for dealing with the growing Viet Cong threat. Its objective was to convince people in the rural areas that they should, and could, successfully oppose the Viet Cong. To do this, the program sought to create an environment in which the rural peasants could hope for a reasonable degree of safety, a reasonable degree of opportunity for themselves and their families, and a just and responsive government. In essence, the government of South Vietnam was competing with the Viet Cong for the loyalty and support of the rural population.

The program soon had been extended far beyond the capabilities of the South Vietnamese government to sustain and defend it. The VC, who had been carefully plotting their response to the Strategic Hamlet program, took advantage of this overextension and began an intensive military and psychological campaign against the government-controlled zones.

This book is a series of essays by early members of the Office of Rural Affairs of the USAID mission to Vietnam in the early 1960s. Two essays by South Vietnamese officers who participated in the early pacification efforts in Vietnam are also included. These dedicated individuals at the provincial level quickly realized the scope of the problem and what needed to be done in order to make the Office of Rural Affairs effective in assisting this effort at pacification of rural South Vietnam.

But these brave individuals were constantly frustrated and stopped by their bureaucratic superiors in Saigon and in Washington. The essays in this book talk of this frustration by these American developers who knew what to do about the problem but were ignored or frustrated by ill-informed superiors who never left their offices and who would not listen to these experienced field officers. These essays provide an excellent statement of the knowledge and competence of lower-level officials on the ground who were not listened to by often self-serving superiors who were looking for larger problems to solve.

Except for a few gratuitous remarks condemning Secretary of Defense Robert McNamara, these essays present well-written and compelling first-hand accounts of early American advisers in the field, who understood the issues and problems and thought they knew how to help. But clearly, higher headquarters had different ideas on how to pursue the war. In light of possible American adventures in future military operations, the wise advice of these knowledgeable and selfless field officers should be listened to and acted upon. This book serves that purpose well.

*Dr. Herbert Y. Schandler, George C. Marshall Professor of Grand Strategy, Industrial College of the Armed Forces, Ft. McNair, Washington, D.C.*



**The Precision Revolution: GPS and the Future of Aerial Warfare.** By Michael Russell Rip and James M. Hasik. Annapolis, Md.: Naval Institute Press, 2002. Maps. Tables. Diagrams. Illustrations. Photographs. Notes. Appendices. Glossary Bibliography. Index. Pp. xvi, 552. \$48.95 ISBN: 1-55750-973-5

More than a decade has passed since military theorists first envisioned a "Revolution in Military Affairs" based on rapidly maturing precision guidance and sensor technologies. Among these, the Navstar Global Positioning System (GPS) has become renowned for its highly accurate navigation, position, and timing signals, for which military and civilian users worldwide have found an astounding variety of applications. This satellite constellation has spawned a precision revolution of almost unbelievable proportions and, in less than a dozen years, has generated commercial enterprises valued in billions of dollars. Still in its infancy, GPS offers the prospect of even more spectacular chapters before its history is fully recorded.

Rip and Hasik present one of the first book-length studies of GPS applications. Concentrating on use of GPS in aerial warfare, they craft a richly detailed, thoroughly readable narrative tracing the progress in GPS-aided reconnaissance, target selection, weapon delivery, and combat search and rescue. The authors trace the growing importance of GPS applications in these areas from the Persian Gulf War in 1991 to the air war over Yugoslavia in 1999, with a brief postscript about the significance of the September 11, 2001 attacks and the resulting global war on terrorism. To their credit, they discuss the pitfalls as well as the promises, and the shortcomings as well as the strengths of GPS in both military operations and foreign affairs. While recognizing GPS as "without doubt the single most important development in command and control technology since the wireless telegraph," the authors properly characterize what it has wrought as "a revolution with limits."

Rip, whose research interests include the international security aspects of GPS, and Hasik, a former U.S. Navy officer who has worked as a consultant on the financial and technological aspects of weapons acquisition, have plumbed a variety of publicly available sources to produce a masterful synthesis. In addition to books and periodicals, they mined a large number of Internet sites—commercial, governmental, academic, personal, news groups, publications, and others—to extract as much raw material as possible. The depth of their research becomes even clearer when one peruses the exhaustive endnotes. Their work includes a thought-provoking analysis of the successes and failures of not only GPS but also laser, electro-optical, and inertial guidance techniques for precision weapons. They even go

so far as to provide a technical discussion of how GPS works, a comparison of GPS with the Russian GLONASS capability, and a brief history of military air and space navigation from World War I on.

Unfortunately, in their effort to be comprehensive, the authors open their work to criticism on several counts. First, it fails to adhere completely to the topic in its subtitle—aerial warfare. Readers will find numerous non-aerial GPS applications recounted as Rip and Hasik cover everything from Army engineers and artillery to troop movements and naval mine hunting. While interesting, these aspects of GPS usage digress from the focus of the book. Second, the authors' treatment of navigational history generally, and GPS history specifically, reveals startling gaps. Their failure to cite more recent literature—e.g., Michael Neufeld's *The Rocket and the Reich* (1994) on the V-2 guidance system, or Johns Hopkins University's *APL Technical Digest* issue (January-March 1998, Volume 19, Number 1) on the Transit navigation satellite system—is somewhat surprising. Equally amazing is their failure to include plans for a mobile ICBM capability in their discussion of how and why GPS originated. Furthermore, they correctly attribute portions of the GPS technical solution to the Naval Research Laboratory's Timation project and the Air Force's Program 621B without adequately explaining how the Applied Physics Laboratory's Transit system contributed.

Despite these flaws, *The Precision Revolution* stands practically alone on a shelf that awaits additional volumes about other aspects of GPS history. Rip and Hasik deserve the highest praise for pulling together from many sources an exciting piece of this new history and for presenting it in a way that should prove extremely useful to military strategists and foreign affairs specialists alike. The most telling lesson drawn from reading this book is that GPS represents the "technological taproot" of a new way of conducting warfare and this, in turn, will have significant implications for international activities outside the military realm.

*Dr. Rick W. Sturdevant, Deputy Director of History, HQ Air Force Space Command.*



**The Stars were Big and Bright: The United States Army Air Forces and Texas in World War II.** By Thomas E. Alexander. Austin, Tex.: Eakin Press, 2000. Maps. Photographs. Notes. Appendices. Bibliography. Index. Pp. 249. \$32.95 ISBN 1-57168-323-3.

Texas and Texans are usually painted with a big stripe of *braggadocio*. This book provides clear, well-researched facts about the state's role in World War II army aviation training that make it clear that in this case, at least, it's all fact, not brag! Tom Alexander

has both the personal and educational qualifications to treat his topic with respect and accuracy, and the fact that he is also a Texan does not detract. His handling of the main theme—Texas' and Texans' roles in delivering pilots and aircrew in World War II—is excellent. However, his handling of the context and the publisher's visual support to the text could have been a bit better.

Each of the chapters reads largely as a monograph about one of the eight major installations in the state—from great dusty void to explosive birth, frenetic life, and in most cases rapid, emotionally, and economically wrenching demise. The parallelism among the chapters makes for easy reading in the first third of the book but leads to the temptation to scan the remaining two thirds for information of interest. This leads the reader to miss the vignettes and anecdotes that give each of the training installations its own personality. As monographs, they are excellent. As a book, it needs a better organizing principle tying the story together.

The leading sub-theme here is the rapidity of growth and dissolution at each of the installations. Graphic support (perhaps histograms) capturing headcount, airframes, and buildings for the installations taken together might have helped readers get their minds wrapped around the facts. USAAF training in Texas hit like a *tsunami* and, in historical terms, receded just as fast. But this big picture deserved more than words.

Other big picture elements could have included a correlation of the Texas events portrayed against a timeline for World War II in general, graduation rates vs. accident rates (they got safer as they went), the total aviation horsepower over time (this made the people explosion look puny), and so on.

Another sub-theme here is the immensity and desolation that made Texas so attractive as a training ground. For folks who have not been there, the words don't do this much justice. Some graphical support for immensity (such as an overlay of a Texas map on the Central ETO) would have helped. As far as the desolation element is concerned, a little more on the history of Texas, particularly in its west, might have helped. Texans of that place and time were not simply provincial, they were anchored in the Old West of the 1880s—autos, telephones, and movie houses notwithstanding.

Another consistent sub-theme that came through was the amount of funding allocated by the Army to create this capability. While the amount was huge in the 1940s—though lost in the total cost of the war—the dollar figures are so deflated compared to those of today that understanding its impact on local economies is lost. Information on year 2000 equivalents would have saved the reader a lot of distracting mental math.

The greatest disappointment is the maps and photographs. The choice of paper and printing method has left these looking like something taken from a decade-old photocopy. For a book that relies on photographic

support to capture the *gestalt* of the era to the degree this one does, the publisher clearly let financial considerations overcome editorial judgment. In doing so the author was ill served. The reader approaches each new chapter with mild irritation from the photos at the close of the prior one.

This is an important book. It captures human events that are lost in the myriad books, films, and other media that focus exclusively on combat. It brings home both our true lack of preparedness for war and the youth and lingering aviation inexperience the graduates took to the front. Having been born among the scorpions and dust devils of West Texas and having learned to fly under that blue dome made endless by the lack of human scarification below, I had a great deal of empathy for this story. Even so, I found I had to put it down from time to time because it reads more like a textbook than a tale.

*Col. Christopher A. Waln, USAF (Ret), Executive Director, Strategic Operations, TASC*



**Air Warfare: An International Encyclopedia.** Edited by Walter Boyne. Santa Barbara, Calif.: ABC-CLIO, 2002. 2 volumes. Photographs. Bibliography. Index. Pp. xxix, 771. \$185.00 ISBN: 1-57607-345-9.

This handsome, massive, and imposing publication will prove very useful to many. Over 110 authors and historians, some of the most prominent in the field, contributed to this effort. The resulting collection is impressive in its scope and quality as the editors and writers dealt with this awesome task in an outstanding manner.

*Air Warfare* consists of 990 entries and 770 pages of text, covering the last 150 years from an international perspective. All entries are signed, which establishes their credibility. Bibliographic references accompany most articles; and cross-references and an index are very useful. A bibliography of perhaps 175 books is excellent. There are many fine, clear, large photographs that are very appropriate, which together comprise an excellent photo essay. The selection of topics is wide, covering the subject quite well. There are many strong pieces, particularly those that cover some of the obscure wars (Afghanistan, Ethiopia, Finland, and Somalia) and aviation personalities. As with all collections, however, this one is a mixed bag, compounded by the grand scope of the project:

Certainly other items could have been included, depending on one's taste. I was disappointed that there were no entries on anti-aircraft (flak) defenses, barrage balloons, cruise missiles, the Gulf War Air Power Survey, Operation *Bodenplatte*, and individuals such as John Boyd, Anthony Fokker, Edgar Schmued, and George Welch (but these number only nine out of almost one thousand items). The omission of Boyd is curious as there is an entry (which does not mention

him) on “energy maneuverability,” a concept Boyd conceived. The omission of *Bodenplatte* is also strange as the German attack is depicted on the cover of both volumes! A more serious lapse is absence of an entry or mention of the Gulf War Air Power Survey, clearly an important event and significant document of that conflict.

Bibliographic references are sometimes too brief and not necessarily the best books on the subject, and some entries lack cross-references.

There is an entry for Stanley Baldwin, a pre-World War II British Prime minister, but for what reason? His closest connection with air warfare is his famous quote that “the bomber will always get through,” but this is not mentioned in the entry.

There are errors. In the sketch of Benjamin Davis, the authors have Davis and his father as the first and second African-Americans to graduate from West Point and the younger Davis in combat in Korea, which is incorrect (pp.165-66). It is a stretch to credit Ronald Terry, solely, with creating the concept of the modern fixed wing gunship (p.284). And contrary to the assertion that the F-104 had a “safety record similar to other single-engine jet fighters” (p.372), the Starfighter had the highest accident rate of any fighter in USAF service since the F-86. Haywood Hansell’s nickname was “Possum,” not “Woody” (p.295). The Soviet I-153 (a biplane) is not “the cannon-armed version of the I-16” (a monoplane) (p.349).

The balance of some of the pieces can be questioned. The article on the Spanish Civil War is dominated by the German participation, while the Soviet effort (at least as large and, arguably, more important) receives a mere few lines. Nowhere is there any mention of the Soviet aerial victory at Guadalajara, which turned back an Italian ground offensive and showed what tactical air could do to unprotected armored and mechanized columns. The entry on Mitsuo Fuchida does not center on his flying career but instead on his postwar conversion to Christianity and his evangelism.

There is also the question of length of some of the entries—some too long, some too short. For example, the attempted rescue of French aviators and the shoot down and rescue of F-16 pilot Scott O’Grady in Bosnia in 1995 perhaps deserve mention, but not 60 lines for the first and 48 for the second. How many will agree that “the notion of terror-bombing...has continued since World War II and was used during the Vietnam War and Gulf War” (p.625)? Finally, and with all due respect, to include Robert Pape, much less to write that he “has greatly influenced both civilian and military audiences,” is at the very least premature (p.482).

To be very clear, however, these problems are far outweighed by the positive aspects of this effort. This is an excellent collection. While the hard cover edition is probably too expensive for most, it surely merits a place in libraries. There is good information here on

important and interesting topics that cover air warfare in both width and breadth. Many will reach for this set when a quick and authoritative answer is required on the subject of air warfare.

*Dr. Kenneth P. Werrell, Christiansburg, Virginia.*



**Controlled Bombs and Guided Missiles of World War II and the Cold War Eras: An Inside Story of Research and Development Programs.** By Vernon R. Schmitt. Warrendale, Pa.: Society of Automotive Engineers, 2002. Diagrams. Illustrations. Photographs. Appendices. References. Index. Pp. x, 127. Paperback. ISBN: 0-7680-0913-8

The first fifty pages of this small book are devoted to the guided bombs developed by the U.S. Army Air Forces in World War II. Although the author has included some very excellent photographs and technical drawings on these weapons, the text falls far short of fulfilling the subtitle’s premise, as it provides very little information on how these precursors to today’s “smart bombs” came about. Missing also is any reference to the radar controlled guided bombs (e.g., ROC, SRB, GB-14) developed jointly with the U.S. Navy or the assault drones developed independently by that service.

The remaining pages contain a cursory survey of post-World War II guided missiles and pilotless aircraft developed by the United States Air Force, a brief description of the concept behind the aborted Supersonic Low Altitude Missile (SLAM), and a series of detailed technical notes. Why the latter were included is unclear, as no reference is made to any of the weapons or aircraft previously discussed.

Readers seeking to understand how the pioneering weapons listed in this book came into being will be highly disappointed with the limited scope of this work and the lack of solid historical data concerning the origins of these important weapons.

*Thomas Wildenberg, National Museum of American Jewish Military History.*



**Gateway to the Moon: Building the Kennedy Space Center Complex and Moon Launch!** Both by Charles D. Benson and William B. Faherty, Gainesville: University Press of Florida, 2001. Maps. Tables. Diagrams. Illustrations. Photographs. Footnotes. Source notes. Bibliography. Index. Pp. xcvi, 316 and Pp. xcvi, 316, respectively. \$24.95 each. ISBN: 0-8130-2094-8 and ISBN: 0-8130-2091-3

The NASA official history series includes *Moonport*, a history of facilities development

used in the Apollo-Saturn program. Using this as the basis for their narrative, the authors have addressed the subject in two paperback volumes: *Gateway to the Moon* and *Moon Launch!*. They present this extremely complex story from the perspective of program development, minimizing extraneous material but fleshing out and clarifying important points based on correspondence and personal interviews with key participants.

The authors have divided the entire program into facilities development in the first volume and facilities usage in the second. They designed the chapters to address the phases, projects, and sub-projects as individual topics from start to finish and their relationships to relevant subsequent phases. Topics addressed include management, funding and budgets, the political climate, turf battles, project control, technical problems, logistics, quality control, and reliability. As a result, a comprehensive picture of specific topics relative to the entire program becomes clear.

The earliest phases of the program—covered in *Gateway to the Moon*—dealt with the relationships and rivalries among the Army, Air Force, and NASA over program control and responsibility, management and budgets, site selection, and contracting. These evolving considerations thread through the Mercury, Gemini, and Apollo programs. The technical and logistical problems dealt with site selection, preparation and construction. Anecdotal material included on subjects, such as the determination of the rocket assembly location, transportation, and equipment is engrossing.

*Moon Launch!* deals with the use of the launch complexes during the many rocket launchings, mission objectives, schedules, successes, and failures. It chronicles the many reasons for delays during each phase. Some are evolutionary due to technical effects in new technologies; some are logistical; some managerial and scheduling; some contractual; and others are weather-related. Interestingly, one of the problems that occurred a number of times during this period continues to plague the space program to this day: fractures in fuel lines recently grounded the Space Shuttle vehicles.

Appendix A in *Moon Launch!*, “Launches of Saturn IB and Saturn V,” is of particular value since it tabulates the objectives, key dates, key personnel, and objectives for each launch event. As such, it is a ready reference and provides a road map for the events in this volume.

The two volumes combined render a well-rounded picture of a tremendously complex endeavor. The photographs provide perspective. Each chapter has footnotes and references. Most of the appendices are useful, although some have entries too small to be of any value without a magnifying glass! The authors have provided a clearly organized, and informative presentation of one of the most complex undertakings of the twentieth century.

*Maury J. Zubkoff, retired engineer and Division Head, David Taylor R&D Center*

# Books Received

Bowman, Martin. *B-24 Liberator*. [Combat Legend Series] Shrewsbury, UK: Airlife Publishing, 2003. Illustrations. Photographs. Appendices. Index. Pp. 96. \$14.95 Paperback ISBN: 1-84037-403-9

Childers, Thomas. *In the Shadows of War: An American Pilot's Odyssey through Occupied France and the Camps of Nazi Germany*. New York: Henry Holt and Co., 2002. Maps. Notes. Bibliography. Index. Pp. xiii, 443. \$27.50 ISBN: 0-8050-5752-8

Cooper, Alan W. *Bombers over Berlin: The RAF Offensive, November 1943-March 1944*. Shrewsbury, UK: Airlife Publishing, 2003 [first published in 1985]. Maps. Illustrations. Photographs. Notes. Appendices. Index. Pp. 319 \$19.95 Paperback ISBN: 1-84037-429-2

Crickmore, Paul. *F-117 Nighthawk*. [Combat Legend Series] Shrewsbury, UK: Airlife Publishing, 2003. Illustrations. Photographs. Appendices. Glossary. Index. Pp. 96. \$14.95 Paperback ISBN: 1-84037-394-6

Davis, Richard G. *On Target: Organizing and Executing the Strategic Air Campaign against Iraq*. Washington, D.C.: Air Force History and Museums Program, 2002. Maps. Tables. Illustrations. Photographs. Notes. Glossary. Bibliography. Index. Pp. xii, 385.

Davis, Richard G. *Anatomy of a Reform: The Expeditionary Aerospace Force*. Washington, D.C.: Air Force History and Museums Program, 2003. Illustrations. Notes. Glossary. Pp. vii, 103.

Feaver, Peter D. *Armed Servants: Agency, Oversight, and Civil-Military Relations*. Cambridge, Mass. and London: Harvard University Press, 2003. Illustrations. Notes. References. Index. Pp. xi, 381. \$49.95 ISBN: 0-674-10151-5

Garber, Stephen J., Ed. *Looking Backward, Looking Forward: Forty Years of U.S. Human Spaceflight Symposium*. Washington, D.C.; NASA History Office, 2002. [NASA History Series SP 2002-4107] Photographs. Notes. Pp. vi, 234. \$17.00 Paperback GPO Stock No. 033-000-012249=7

Gole, Henry G. *The Road to Rainbow: Army Planning for Global War, 1934-1940*. Annapolis, Md.: Naval Institute Press, 2003. Maps. Photographs. Notes. Appendices. Bibliography. Index. Pp. xxi, 224. \$34.95 ISBN: 1-55750-409-1

Lihou, Martin G. *Out of the Italian Night: Wellington Bomber Operations, 1944-45*. Shrewsbury, UK: Airlife Publishing, 2003 [first published in 1992]. Maps. Photographs. Appendices. Index. Pp. 196 \$16.95 Paperback ISBN: 1-84037-405-5

Logevall, Fredrik. *Choosing War: The Lost Chance for Peace and the Escalation of War in Vietnam*. Berkeley, Los Angeles, London: University of California Press, 1999. Notes. Glossary. Bibliography. Index. Pp. xxviii, 529. \$19.95 Paperback ISBN: 0-520-22919-3

Moulin, Herve and Donald C. Elder, Eds. *History of Rocketry and Astronautics: Proceedings of the Thirtieth History Symposium of the International Academy of Astronautics, Beijing, China, 1996*. [AAS History Series, Vol. 25,

## PROSPECTIVE REVIEWERS

Anyone who believes he or she is qualified to substantively assess one of the new books listed above is invited to apply for a gratis copy of the book. The prospective reviewer should contact:

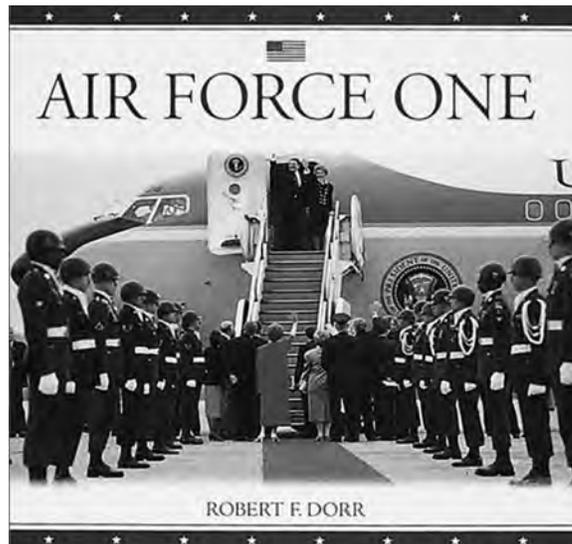
Col. Scott A. Willey, USAF (Ret.)  
3704 Brices Ford Ct.  
Fairfax, VA 22033  
Tel. (703) 620-4139  
e-mail: [scottwille@aol.com](mailto:scottwille@aol.com)

Donald C. Elder, Series Editor; IAA History Symposia, Vol. 16] San Diego, Calif.: American Astronautical Society, 2003. Tables. Diagrams. Illustrations. Photographs. Notes. Index. Pp. xii, 358 Paperback \$60.00 ISBN: 0-87703-477-X

Rose, Paul Lawrence. *Heisenberg and the Nazi Atomic Bomb Project: A Study in German Culture*. Berkeley, Los Angeles, London: University of California Press, 1998. Notes. Bibliography. Index. Pp. xx, 352. \$19.95 Paperback ISBN: 0-520-22926-6

Smith, Myron J., Jr. *The Airline Encyclopedia, 1909-2000*. Lanham, Md. and Oxford: The Scarecrow Press, 2002. (3 vols). Photographs. Notes. Appendices. Index. Pp. xiv, 3376 \$695.00 ISBN: 0-8108-3790-0

Tooker, D. K. *Stand Well and Clear: More Adventures in Military Aviation*. Annapolis, Md.: Naval Institute Press, 2003. Photographs. Pp. xi, 208. \$26.95 ISBN: 1-59114-871-5



New from this journal's technical editor.

## Air Force One by Robert F. Dorr

### History of Rocketry and Astronautics

Donald C. Elder and Christophe Rothmund, Editors



AAS History Series, Volume 23

IAA History Symposia, Volume 15



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# Coming Up



Compiled by George Cully

#### June 14

The **Western Front Association** will hold a regional seminar at the Indiana War Memorial in Indianapolis, Indiana. Contact:

Len Shurtleff  
(352) 379-3200  
e-mail: lshurtleff@aol.com  
<http://www.wfa-usa.org/new/index.cfm>

#### July 14-17

The **American Institute of Aeronautics and Astronautics** will co-host an "International Air and Space Symposium and Exposition: The Next 100 Years," to be held in Dayton, Ohio. Contact:

AIAA  
1801 Alexander Bell Dr., Ste. 500  
Reston, VA 20191-4344  
(703) 264-7551  
<http://www.aiaa.org>

#### August 14-17

The **Mars Society** will hold its international conference and exhibition at the Eugene Hilton Hotel in Eugene, Oregon. Contact:

The Mars Society  
P. O. Box 273  
Indian Hills CO 80454  
<http://www.MarsSociety.org>

#### August 21-26

The **30th Symposium of the International Committee for the History of Technology (ICOHTEC 2003)** will be held in St. Petersburg, Russia (August 21-24) and in Moscow, Russia (August 25-26). The general theme for the Symposium is "Technology, Society and Nature in the History of Civilization." Contact:

Barton Hacker (Smithsonian Institution)  
150 12th Street, N.E.  
Washington, DC 20002, USA  
Fax: (202) 357-1855  
e-mail: hackerb@si.edu  
<http://www.icohtec.org>

#### September 4

The **Marine Corps Association** and the **U.S. Naval Institute** will co-host "Forum 2003" in Arlington, Virginia. Contact:

U.S. Naval Institute  
Beach Hall  
291 Woods Road  
Annapolis MD 21402  
(410) 295-1067, Fax x1048  
e-mail: frainbow@usni.org  
<http://www.usni.org/>

#### September 10-11

The **League of World War I Aviation Historians** will hold its annual meeting in Dayton, Ohio. Contact:  
Membership Secretary  
League of World War I Aviation Historians  
3127 Penrose Place  
Cincinnati, OH 45211  
<http://www.overthefront.com/>

#### September 12-13

The **Institute of Contemporary British History** will host a conference on "Britain and the Cold War," at the University of London. Contact:

Tony Shaw  
Humanities Faculty  
University of Hertfordshire  
Watford, Hertfordshire WD2 8AT  
United Kingdom  
e-mail: a.t.shaw@herts.ac.uk, j.r.chapman@open.ac.uk  
<http://www.ihr.sas.ac.uk/icbh/bulletinboard.html>

#### September 12-14

The **US Air Force Museum** will host its annual Great War Aeroplanes Dawn Patrol Fly-In and display at the Museum adjacent to Wright-Patterson AFB, Ohio. Contact:

USAF Museum  
1100 Spaatz St.  
Wright-Patterson AFB, OH 45433  
(937) 255-3286  
<http://www.wpafb.af.mil/museum/usafm.htm>

#### September 13-17

The **Air Force Association** will hold its annual national convention at the Marriott Wardman Park Hotel in Washington, D.C. This year's theme is "Up From Kitty Hawk—the 100th Anniversary of Powered Flight." Contact:

AFA  
1501 Lee Highway  
Arlington, VA 22209-1198  
(703) 247-5800  
<http://www.afa.org>

#### September 18-21

The **Tailhook Association** will hold its 46th Annual Convention at the Nugget Hotel and Casino in Reno, Nevada. Contact:

The Tailhook Association  
9696 Businesspark Ave.  
San Diego, CA 92131  
(858) 689-9223 / (800) 322-4665  
e-mail: thookassn@aol.com  
<http://www.tailhook.org>

#### September 19-21

The United States Branch of the **Western Front Association** will hold its annual national seminar at the Marine Corps University in Quantico, Virginia. Contact:

Len Shurtleff  
6915 NW 49th St.  
Gainesville, FL 32653-1152  
e-mail: lshurtleff@aol.com

#### September 23-25

The **American Institute of Aeronautics and Astronautics** will host a Space 2003 Symposium and Exhibition in Long Beach, California. Contact:

AIAA  
1801 Alexander Bell Dr., Ste. 500  
Reston, VA 20191-4344  
(703) 264-7551  
<http://www.aiaa.org>

#### September 24-27

The **Society of Experimental Test Pilots** will hold its 47th Annual Symposium and Banquet at the Westin Bonaventure Hotel in Los Angeles, California. This year's theme is "the Celebration of 100 Years of Powered Flight." Contact:

SETP  
P. O. Box 986  
Lancaster, CA 93584-0986  
(661) 942-9574, Fax (661) 940-0398  
e-mail: setp@setp.org  
<http://www.setp.org>

#### October 1-3

The **USAF Academy Dept. of History** will host its 20th Military History Symposium, "Winged Crusade: The Quest for American Aerospace Power," on the grounds of the USAF Academy in Colorado Springs, Colorado. Contact:

Maj. Mike Terry, USAF (Ret.)  
2354 Fairchild Dr., Ste. 6F101  
USAF Academy CO 80840-6246  
(719) 333-8593, Fax x2970  
e-mail: 20MHS@usafa.af.mil  
<http://www.usafa.af.mil/dfh/sympo20>

#### October 1-4

The **Northern Great Plains History Conference** will hold its annual meeting at the Radisson Hotel in Fargo, North Dakota; the **Society for Military History** will sponsor NGPHC conference sessions. Contact:

<http://personal2.stthomas.edu/jcfitzharris/NGPHC>  
e-mail: david.danbom@nds.u.nodak.edu

#### October 6-8

The **Association of the U.S. Army** will hold its annual convention and symposium at the Washington Convention Center in Washington, DC. This year's theme is "The Army - At War and Transforming." Contact:

Association of the United States Army  
2425 Wilson Blvd.  
Arlington, VA 22201  
(800) 336-4570  
e-mail: ausa-info@ausa.org  
<http://www.ausa.org/>

#### October 8-9

The **United States Naval Institute** will host its 8th Annual Naval Institute Warfare Exposition and Symposium in Virginia Beach, Virginia. Contact:

U.S. Naval Institute  
Beach Hall  
291 Woods Road  
Annapolis MD 21402  
(410) 295-1067, Fax x1048  
e-mail: frainbow@usni.org  
<http://www.usni.org/>

#### October 17-19

The **Conference of Historic Aviation Writers** will hold its 12th biennial meeting in Oklahoma City, Oklahoma. Contact:

Mathew Rodina, Co-Chair  
(340) 773-4669  
or  
Dr. Erik Carlson, Co-Chair  
(972) 883-2570  
e-mail: carlson@utdallas.edu

#### November 18-19

The **American Astronautical Society** will hold its 50th Annual Meeting and National Conference at the South Shore Harbour Resort in Houston, Texas. Contact:

American Astronautical Society  
6352 Rolling Mill Place, Suite #102  
Springfield, VA 22152-2354  
(703) 866-0020, Fax -3526  
e-mail: info@astronautical.org  
<http://www.astronautical.org>

#### December 15-18

The **American Institute of Aeronautics and Astronautics** will host its 12th International Symposium on Space Planes and Hypersonic Systems and Technologies in Norfolk, Virginia. Contact:

AIAA  
1801 Alexander Bell Dr., Ste. 500  
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(703) 264-7551  
<http://www.aiaa.org>

## 2004

#### January 8-11

The **American Historical Society** will hold its 118th annual meeting in Washington, DC. This year's theme is "War and Peace: History and the Dynamics of Human Conflict and Cooperation." Contact:

The American Historical Society  
<http://www.theaha.org>

#### March 25-28

The **Organization of American Historians** will hold its annual meeting at the Boston Marriott Copley Place Hotel in Boston, Massachusetts. This year's theme is "American Revolutions—Transformations in American History." Contact:

OAH Annual Meeting  
112 North Bryan Ave.  
Bloomington IN 47408-4199  
(812) 855-9853  
e-mail: meetings@oah.org  
<http://www.oah.org/meetings>

#### May 5-9

The **Council on America's Military Past** will hold its 38th Annual Conference at the Eastland Park Hotel in Portland, Maine. Contact:

Col. Herbert M. Hart, USMC (Ret.)  
Executive Director  
Council on America's Military Past  
Post Office Box 1151  
Fort Myer, VA 22211  
(703) 912-6124. Fax (703) 912-5666  
e-mail: camphart@aol.com

**If you wish to have your event listed, contact:**

George W. Cully  
230 Sycamore Creek Drive  
Spingboro, OH 45066-1342  
(513) 748-4737  
e-mail: 71022.1100@compuserve.com

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The “What is it?” aircraft in our last issue was the Helio U-10 Courier. The Air Force became interested in the Courier after the Army tested L-24 and L-28 versions in the 1950s.

The Air Force purchased 100 of the planes, each powered by a 295-horsepower Lycoming GO-480 piston engine. Some U-10s went to the Central Intelligence Agency (CIA), which liked being able to get in and out of tight places.

Air Force Maj. (later Brig. Gen.) Heinie Aderholt ramrodded the purchase while on detail to the CIA. A pilot hired by the CIA, Ronald Sutphin, demonstrated the aircraft in several locations, including the grounds outside of the Pentagon building.

The Air Force was developing its special operations forces, known as Air Commandos, in the early 1960s. Air Force U-10s went to Hurlburt Field, Florida, and to Vietnam where, among other duties, they carried out psychological operations, dropping leaflets and broadcasting with loudspeakers. The

CIA used the nimble Couriers to place agents in Cuba. In Southeast Asia, the planes were operated by Air America, an airline owned by the CIA.

Today, examples of the U-10 Courier belong to the Air Force Museum at Wright-Patterson Air Force Base, Ohio and the Army Aviation Museum at Fort Rucker, Alabama.

Our follow-up photo, taken by Air Force photographer Staff Sgt. Harry P. Mall, shows a U-10B Courier (66-14374) of the 5th Special Operations Squadron on a flight over South Vietnam on December 12, 1968.

The Army also operated a small number of U-10s to support Special Operations Forces.

Apparently, readers are having difficulty rising to the “History Mystery” challenge. Only fourteen sent in postcards this time around. All identified the Courier correctly.

Our History Mystery winner is Earl D. Lock of Talmadge, Ohio. Earl receives a copy of the book *Air Force One*, by the author of this column.

## This Issue's Mystery Plane

Once more, we present the challenge for our ever-astute readers. See if you can identify this month's “mystery” aircraft, shown in a photo by Morton Kelman. This time around, you must identify the exact model of the aircraft shown. But remember please, postcards only. The rules, once again:

1. Submit your entry on a postcard. Mail the postcard to Robert F. Dorr, 3411 Valewood Drive, Oakton VA 22124.

2. Correctly name the aircraft shown here. Also include your address and telephone number, including area code. If you have access to e-mail, include your electronic screen name. Remember that a telephone number is required.

3. A winner will be chosen at random from the postcards with the correct answer. The winner will receive an aviation book by this journal's technical editor.

This feature needs your help. In that attic or

basement, you have a photo of a rare or little-known aircraft. Does anyone have color slides? Send your pictures or slides for possible use as “History Mystery” puzzlers. We will return them.

Bob's latest book, *Air Force One*, is available in bookstores or directly from Bob.

See the advertisement on page 55.



## Letters

Congratulations on the "Centennial of Flight" issue [Vol. 49, No. 4]. It is well written and beautifully illustrated. One to keep. I read it from cover to cover. As one interested in reconnaissance, let me add a couple of items. In 1909, the Wright brothers went to Europe and achieved the first photograph known to have been obtained from an airplane: a "motion-picture" picture taken by Wilbur Wright over Centocelli, Italy. I don't think it survived history. The first aerial photo was taken on January 15, 1911, by Lt. John Walker over San Francisco. I don't have it, but I do have a copy of the aerial photo

of San Diego taken in 1911 from a Curtiss hydroplane. There was some doubt if pilots could be trained as aerial observers. There was also experimentation to see if a pilot could radio his observations to headquarters elements on the ground. In U.S. Army war games in Connecticut in 1912, Lt. Benjamin Foulois flew from Stratford to Redding, Connecticut, marking the "enemy" positions on a map on a clipboard fastened to his knee. He telegraphed messages from his aircraft during those war games. When Gen. Jimmy Doolittle was a member of PFIAB [President's Foreign Intelligence Advisory Board], he would come to the NPIC [National Photo Intelligence Center] and I was his host and I marveled at his stories of early avi-

ation. He described "Benny" Foulois as being short in stature but long on ego. Keep up the good work.

*Dino Brugioni*

## Notice

I'm seeking information on the B-29 "Hog Wild," Serial #44-70136 BW, with the 882nd Bomb Squadron, 500th Bomb Group, under the command of Lt. Joseph Queen on its last mission at the close of World War II.

I can be reached at:

Dr. Robert Sligh  
374 AW/HO  
Unit 5078  
APO AP 96328-5078  
docsligh@hotmail.com

## Reunions

The **17th Bomb Group (World War II)**, **319th Bomb Group (World War II)**, **17th/452d Bomb Wing (Korean War)** reunion will be held August 27-30, 2003, in San Jose, California. Contact:

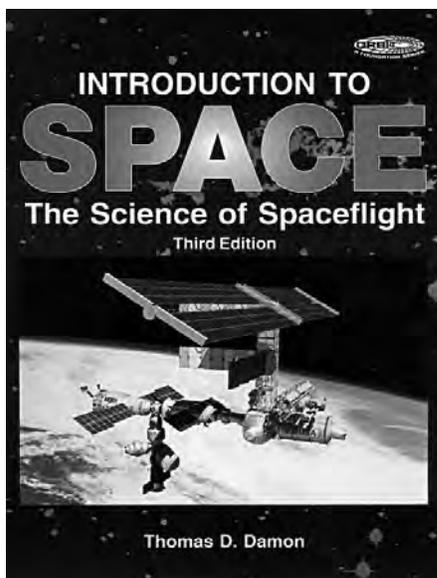
17th BGRA  
453 Hamilton Ave.  
Almont, MI 48003-8620  
(810) 798-8758  
e-mail: tbaker26@eesc.com

The **Recon Rendezvous 2003** reunion will be held September 3-6, 2003, in Fairborn, Ohio. Co-sponsored by the USAF Museum and 55th SRW Association, all USAF units that flew or supported reconnaissance during the Cold War are invited. Contact:

John H. Kovacs  
564 Satrell Dr.  
Fairborn, OH 45532  
e-mail: Jla2c3k@aol.com

or

Bill Ernst  
410 Greenbriar Ct.  
Bellevue, NE 68005  
e-mail: BillErnst@aol.com



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The **27th Air Transport Group (310th, 311th, 312th, 325th Ferrying Sqs.; 86th, 87th 320th, 321st Transports Sqs.; 519th, 520th Service Sqs.)** reunion will be held September 11-13, 2003, in Spokane, Washington. Contact:  
Fred Garcia  
6533 W. Altadena Ave.  
Glendale, AZ 85304  
(623) 878-7007

The **Air Force Photo Mapping Association** reunion will be held October 1-3, 2003, in Nashville, Tennessee. Contact:  
Dwayne and Betty Flatt  
PO Box 3536  
Jackson, TN 38303-3536  
(731) 427-7783  
e-mail: 2flatts@bellsouth.net

The **306th Bomb Group Association** reunion will be held December 4-7, 2003, in Savannah, Georgia. Contact:  
Savannah Marriott Riverfront  
100 Gen. McIntosh Blvd.  
Savannah, GA 31401  
(912) 233-7722; FAX (912) 233-3765

The **459th Bomb Group (World War II), 15th Air Force** reunion will be held September 18-21, 2003, in Las Vegas, Nevada. Contact:  
Harold Sanders #503, Chairman  
18071 Beneda Lane No. 207  
Canyon County, CA 91351-5417  
(661) 250-@115

or

John Devney #002, Director  
90 Kimbark Rd.  
Rochester, NY 14610-2738  
(585) 381-6174

The **Order of Daedalians** will meet June 18-21, 2003, in Dayton, Ohio. Contact:  
Daedalian Foundation  
P. O. Box 249  
Randolph AFB, TX 98148-0249  
(210) 945-2113; FAX (210) 945-2112  
e-mail: icarus@texas.net

The **62d Troop Carrier/Airlift Wing Association** reunion will be held August 13-16, in Tacoma, Washington. Contact:  
George Phillips  
(253) 582-6059  
e-mail: gphildc@aol.com  
62d TC/AW assn.  
P. O. Box 4220  
McChord AFB, WA 98438-0220

The **394th Bomb Group (584th, 585th, 586th, 587th Squadrons)** will meet on September 26-28, in Chattanooga, Tennessee. Contact:  
Elden Shook  
P. O. Box 277  
Enon, OH 45323  
(937) 864-2983  
e-mail: shook585@aol.com

If you would like to have your reunion listed here, contact:  
  
Editor, Air Power History  
P.O. Box 10328  
Rockville, MD 20849-0328  
e-mail: jneufeld@comcast.net

# THE AIR FORCE

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## **General Robert J. Dixon 1920–2003**



Retired United States Air Force Gen. Robert J. Dixon died of cancer on March 21, 2003, at his home in Fair Oaks Ranch, Texas. A memorial service was held at Randolph Air Force Base, Texas, and funeral services at the Protestant Chapel, United States Air Force Academy, Colorado Springs, Colorado.

General Dixon retired from the U.S. Air Force as Commander of the Tactical Air Command on April 30, 1978. He was a command pilot with more than 5,000 hours of flying time. He was born in New York City on April 9, 1920. After graduation from Dartmouth College in 1941, with a BA degree in Literature, he entered pilot training in the U.S. Army Air Corps, followed by training in the Royal Canadian Air Force and was commissioned a pilot officer in the RCAF. He transferred to the Army Air Corps in 1943 as a first lieutenant, serving in the United Kingdom. After assuming command of the 14th Photographic Reconnaissance Squadron in 1944, he was shot down over an oil refinery in Germany and taken prisoner. He was a prisoner of war until May 1945.

General Dixon flew twenty-eight combat missions in F-86s before the armistice in the Korean War. He was the Vice Commander of the Seventh Air Force during the Vietnam War where he flew thirty-six combat missions in the F-4, RF-4 and other Seventh Air Force aircraft. Upon his return from Vietnam on August 1, 1970, General Dixon was promoted to lieutenant general and became the Deputy Chief of Staff, Personnel, Headquarters USAF. General Dixon was in this position when the Vietnamese released the U.S. prisoners of war and, drawing on his personal experiences, was instrumental in developing and implementing the actions necessary to welcome them back to the Air Force and transition those who so desired back into successful career paths.

During his thirty-five-years of military service, he held numerous key positions, including Vice Commander, Seventh Air Force, Republic of Vietnam; Assistant Deputy Chief of Staff, Personnel for Military Personnel, and Commander, U.S. Air Force Military Personnel Center, Randolph AFB, Texas; Commander, 45th Air Division, Strategic Air Command, Loring AFB, Maine; Assistant for Joint and National Security Council Matters, Deputy Chief of Staff, Plans and Operations, Headquarters USAF; and Assistant Deputy Director for War Plans, Deputy Chief of Staff, Plans and Operations, Headquarters USAF.

On October 1, 1973, he was promoted to general and selected as Commander of Tactical Air Command (TAC) until his retirement in 1978. While TAC Commander, General Dixon implemented and developed Red Flag Combat Training and began the "Flags" exercises in Command/Combat Maintenance, and with the RCAF, among others. General Dixon, and TAC, were awarded the Collier Trophy for developing Red Flag. He was also inducted into the Tactical Air Command Order of the Sword, the highest honor bestowed by non-commissioned officers.

After his Air Force retirement, General Dixon was President and Chairman of the Board of the

Fairchild Republic Company from 1978 to 1982. After 1982 he was an independent consulting contractor with various aerospace industries and served on numerous boards including the Charles Stark Draper Laboratory and Burdeshaw Associates. He also served as a trustee of the Air Force Historical Foundation and the Falcon Foundation, United States Air Force Academy.

His military decorations include the Distinguished Service Cross, Distinguished Service Medal with two oak leaf clusters, Legion of Merit with oak leaf cluster, Distinguished Flying Cross, Bronze Star Medal, Air Medal with eleven oak leaf clusters, Purple Heart, British Distinguished Flying Cross and French Croix d'Officier de la Legion d'Honneur. He also received other decorations for his meritorious service in World War II, the Korean War, and the Vietnam War.

General Dixon is survived by his wife, Kelly; son, Tom (Linda); son, Roland; daughter, Mary; daughter, Kelly Lee Cooper (William); and grandchildren, Hillary Dixon, Adam Dixon, Charlotte Cooper, and Emma Cooper.

## *In Memoriam*

### **Russell A. Rourke** **Former** **Secretary of the Air Force**



Russell A. Rourke, the fifteenth Secretary of the Air Force (December 1985-April 1986), died on January 19, 2003, at Anne Arundel Medical Center, near his home in Annapolis, Maryland. Mr. Rourke had a long and distinguished career in public service during the Ford and Reagan administrations. He was an administrative assistant to Republican congressmen for New York John Pillon and Henry Smith. In 1974, he became the deputy to Presidential Counselor John O. Marsh Jr., and in 1976, a special assistant to President Gerald R. Ford. Mr. Rourke's primary duties included legislative liaison between the White House and Congress. He joined the Department of Defense in 1981 and served as principal adviser on congressional matters to Secretary Casper Weinberger.

In 1953, Rourke enlisted in U.S. Marine Corps, completing active duty as a first lieutenant, after serving a tour in the Korean War. He retired as a colonel from the Marine Corps Reserve in July 1985, after thirty-two years of service. His military service included a tour as commander of Marine Air Control Squadron 24, at Quantico, Virginia, from 1972-1974.

His decorations include a Legion of Merit. Mr. Rourke is survived by his wife, Judith Muller, and three daughters: Patricia Ogden, Elizabeth Cody, and Mary Frances Johnson.

## **Chief Master Sergeant of the Air Force Thomas N. Barnes 1930-2003**



Former Chief Master Sergeant of the Air Force Thomas N. Barnes, an adviser to Secretaries John L. McLucas and Thomas C. Reed and also Chiefs of Staff Gen. George S. Brown and Gen. David C. Jones on matters concerning the welfare, effective utilization, and progress of the enlisted members of the Air Force, died on March 17, 2003.

The fourth chief master sergeant appointed to this ultimate position for noncommissioned officers, Chief Barnes was born on November 16, 1930, in Chester, Pennsylvania, where he attended elementary and secondary schools.

In April 1949, Chief Barnes entered the U.S. Air Force, and received his basic training at Lackland AFB, Texas. He later attended Aircraft and Engine School and Hydraulic Specialist School at Chanute Technical Training Center, Illinois. In November 1950, following brief service at McChord AFB, Washington, he transferred to the 4th Troop Carrier Squadron based at Ashiya, Japan, in support of the Korean War. Shortly after arriving in Japan, he completed on-the-job training for flight engineer duties. Then, due to low unit manning, he performed both flight engineer and hydraulic specialist duties. In September 1951, he transferred to Tachikawa, Japan, and continued flight engineer duties.

Chief Barnes transferred in June 1952, to the 30th Air Transport Squadron, Westover AFB, Massachusetts, where he attended C-118 school and continued his flight engineer duties in that aircraft. In September, he volunteered for temporary duty with the 1708th Ferry Group at Kelly AFB, Texas, and participated in ferrying aircraft from various depots to Air Force organizations in Hawaii, Japan, and Northeast Air Command. Upon completion of temporary duty, he returned to Westover.

In December, he transferred to Andrews AFB, Maryland, and served as a crew chief and flight engineer on B-25, T-11, C-45, and C-47 aircraft in support of various requirements of Headquarters U.S. Air Force, Headquarters Military Air Transport Service, and the Air Research and Development Command. Chief Barnes transferred, in June 1958, to the 42d Bombardment Wing at Loring AFB, Maine, and served as a B-52 crew chief, flight chief, and senior controller. In September 1965, he went to Fairchild AFB, Washington, and continued duties as senior controller.

In October 1966, he entered the F-4 Field Training Detachment at George AFB, California, and in December went to Southeast Asia. There, he served with the 8th Tactical Fighter Wing as NCOIC, reparable processing center; senior controller; and NCOIC, maintenance control.

He returned from Southeast Asia to Laughlin AFB, Texas, in December 1967, where his duties were T-38 section line chief; NCOIC, maintenance control; and senior enlisted advisor to the commander of the 3646th Pilot Training Wing. He was promoted to chief master sergeant on December 1, 1969, and was transferred to Headquarters Air Training Command in October 1971, to assume duties as command senior enlisted advisor.

His major awards and decorations include: the Legion of Merit, Meritorious Service Medal with oak leaf cluster, Air Medal, Air Force Commendation Medal, and Outstanding Airman of the Year.

On October 1, 1973, he was appointed Chief Master Sergeant of the Air Force. At the time, the military was beset by drug abuse problems and racial tensions. Chief Barnes established a solid reputation for defusing potentially explosive situations and resolving issues peacefully. His performance so impressed the Air Force chief of staff that Barnes was extended for an additional year. In February 1976, he was selected to serve an unprecedented second year extension. Chief Barnes retired on July 31, 1977. Subsequently, he went to work as vice president and director of employee relations for the Associates Corporation of North America.