

AIR POWER

FALL 2020 - Volume 67, Number 3
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History

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The Air Force *Historical* Foundation

Founded on May 27, 1953 by Gen Carl A. “Tooe” Spaatz and other air power pioneers, the Air Force Historical Foundation (AFHF) is a nonprofit tax exempt organization. It is dedicated to the preservation, perpetuation and appropriate publication of the history and traditions of American aviation, with emphasis on the U.S. Air Force, its predecessor organizations, and the men and women whose lives and dreams were devoted to flight. The Foundation serves all components of the United States Air Force—Active, Reserve and Air National Guard.

AFHF strives to make available to the public and today’s government planners and decision makers information that is relevant and informative about all aspects of air and space power. By doing so, the Foundation hopes to assure the nation profits from past experiences as it helps keep the U.S. Air Force the most modern and effective military force in the world.

The Foundation’s four primary activities include a quarterly journal *Air Power History*, a book program, a biennial symposium, and an awards program.

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- Membership helps preserve the legacy of current and future US air force personnel.
- Provides reliable and accurate accounts of historical events.
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The Air Force Historical Foundation



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Our issue this time seems to be, if you want to impose a theme on it, all about pre-1950 activities in the Army Air Forces. It wasn't planned that way, but it does seem to be an area of interest for many of our contributors.

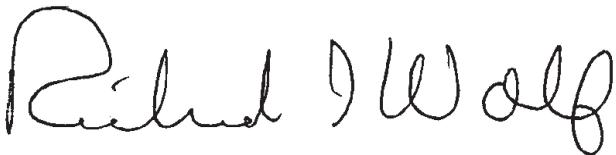
Our first article is a lengthy piece from repeat contributor Bill Cahill, with a very interesting, story of a little-studied area, interwar air operations in the Hawaiian Islands. Don't be daunted by its length, it's worthy of reading.

Our second article is by repeat contributor Ken Werrell, who examines the story of Lt. Martin Monti, a defector/turncoat/traitor of late World War II, and makes you ask the question about what he intended and what did he hope to accomplish? It's a forgotten saga, but not an unknown phenomenon.

Our third article is the first of two personal stories from first-time contributors. This one, from Brian Dillon, is about his father's World War II experience. It's always good to get a personal touch.

The final article in this issue is by Don Madar and his cousin Jeff Antol, with a story of how their uncle's plane ride in a B-17 for a little R&R resulted in his tragic death very late in World War II.

The President's Message begins on the next page, and is followed on page 6 by a memorial for Gen Thomas Moorman, who recently passed away. Don't miss Upcoming Events on page 64, although I fear you must take all dates in that section as still uncertain at this point. If you see something scheduled, be sure to check with the organization sponsoring the event to ensure it will take place. It's a most uncertain world today. And the closing story is this issue's Mystery. Enjoy!



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President's Message



Dear Members,

To Foundation members and all Airpower History readers, I again join other AFHF leaders in wishing you and your loved ones good health and good spirits as the world works to overcome challenges and regain normalcy. Over the last few months, the AFHF has not been immune to the COVID-19 pandemic's impact. Despite this, air and space power history continues to be made, dedicated historians continue to document and interpret it, and the Foundation—and growing numbers of loyal members—continue to value and support our mission to *know the past* and *shape the future*.

Among other disruptions, our annual membership meeting and luncheon has been postponed since May to avoid unnecessary risk to members and participants. Given extant public health guidelines, our current intent is to replicate that meeting via virtual technology before the end of this year, although we will miss the collegiality of a physical gathering and a good meal.

In addition to postponing our annual meeting, ongoing travel and meeting challenges make it sensible to waive the Bylaws term limits for current Foundation Directors, facilitating Board continuity and our ability to recruit into the coming year. We will soon conduct voting to elect new, and confirm previously appointed, board members both online at our website and by mail (per normal AFHF procedures). When seated, the Board will continue to assess the need to adjust our battle rhythm and we will put any significant changes to the membership as required.

Pandemic uncertainty also necessitates changes to the Foundation's signature Awards presentations and banquet this Fall, in contrast to last year's very successful events when we presented the Doolittle Award to the 55th Wing at the Air Force Memorial, then hosted over 160 people for a banquet featuring Chief of Staff General David Goldfein, who introduced our Spaatz Award winner, General John Jumper. Tremendously generous support by corporate partners made this our largest fundraising success in recent years. Unfortunately, a similar gathering is simply not an option in the near term. Foundation leadership will continue to evaluate health and travel constraints and make a decision in the coming months on the timing, venue, and mode—virtual or physical—that best balances the well-being of potential attendees and ensuring our awards are fitting and memorable for all involved.

We continue the Foundation's efforts to document American air and space power in the form of two potential book projects, one specifically designed to coincide with the Air Force's 75th anniversary, and another adding to our series of chronicles covering the full span of Air Force history. We will be moving forward briskly on the 75th Anniversary book—so look for an opportunity to participate in the coming weeks on afhistory.org. The Board continues to consider the best format, timing, and content through which AFHF should fulfill its charter of chronicling Air Force history and celebrating Air Force heritage. As the Department of the Air Force plans to celebrate its 75th year, this is a pivotal time for the Air Force Historical Foundation to push up the throttles and enhance our impact. CSAF Gen C.Q. Brown has said the Air Force must “accelerate change or lose;” Chief of Space Operations Gen Jay Raymond has noted we are “on the cusp of a tectonic shift in warfare.” Both are reminders that AFHF has documented decades of innovation by Airmen—we must continue to record, assess, share, and innovate, just as today's air and space professionals are doing.

Air Power History remains a preeminent reflection on airpower history—and reinforcing APH, our outreach via social media continues its steady growth. We continue to gain active recipients for daily “This Day in Air Force History” emails (please continue to forward to anyone interested), increased our following on Twitter by nearly 10 percent, and we routinely see nearly 8,000 Facebook followers for each AFHF post. Our JSTOR archives have been accessed frequently during the last few months, reflecting increased interest from various students of airpower history. All of these have contributed to a Membership increase in our Associate (online) category.

Finally, I leave you with a serious request: this is a time for all of us to be introspective, to be forward-looking, and to be bold. Our nation faces increasing challenges from historical competitors and from the very pace of change across the globe. These trends are rendering physical borders less meaningful and making the famous OODA loop a matter of microseconds rather than minutes in air and space combat, even as the time required to evolve immensely complex systems begins to exceed our reliable ability to detect and decide on the need for such change. In this environment, America's history remains a relevant source of insight on technologies and the amazing men and women who are our nation's warriors. We have a role to play. Hence my request: if you have ideas for what AFHF can do differently or better, now is the time to share. I earnestly welcome your thoughts by email to president@afhistory.org. Thank you for your continued support in every way.

With best regards,



Christopher D. Miller, USAF (Ret.)
President and Chairman of the Board

Thomas S. Moorman
1940-2020



General Thomas S. Moorman, Jr., USAF (Ret.) died June 18, 2020, at the National Institutes of Health in Bethesda, Md. He was born at Walter Reed Medical Center on November 16, 1940 to Thomas S. Moorman and Miss Atha G. Moorman. Tom was a wonderful father and family man, and a friend to many who he mentored and guided through life's circumstances.

Tom began a distinguished 35-year Air Force career after graduating from Dartmouth College in 1962. He served as an intelligence officer with a B-47 bombardment wing, the Director of the Office of Space Systems, Vice Commander of the 1st Space Wing, several staff positions at Air Force Space Command, and numerous operational and staff positions in space, aircraft reconnaissance and intelligence units.

In 1987, Tom became Director of Space and Strategic Defense Initiative Programs where he directed the development and procurement of satellites, launch vehicles, anti-satellite weapons, strategic radars and space command centers. From 1990 to 1994, he served as vice commander and commander of Air Force Space Command, responsible for the operation of the Air

Force space systems, space surveillance radars, and the ICBM force. Tom's last military assignment was as Vice Chief of Staff of the Air Force. From July 1994 until his retirement in August 1997, he oversaw and managed the day-to-day activities of the Air Staff, chaired the Air Force Council, and was the Air Force representative to joint and interagency organizations, including the JROC and Quadrennial Defense Review.

After retirement, he served until 2008 as senior executive advisor and partner with Booz Allen Hamilton, responsible for the firm's Air Force and NASA business. Tom remained engaged with numerous boards and studies, including the congressionally directed Space Commission. He also served on space-related studies and task forces on behalf of the Department of Defense, U.S. intelligence community, and the National Oceanographic and Atmospheric Administration.

Tom is survived by his loving family, including wife of 54 years, Barbara Stadler Moorman; son, Thomas S. Moorman, III of Alexandria, VA.; son, John R. Moorman and daughter-in-law, Amy, and cherished granddaughter, Elizabeth Jane of Alexandria, VA. He is also survived by his brother, Robert W. Moorman and sister-in-law, Beth Moorman of Colorado Springs, CO; his brother-in-law Serge Demchuk of Virginia Beach, VA; as well as his many nieces, nephews, grandnieces and grandnephews across the country. Tom is predeceased by his sisters, Margaret M. Demchuck and Allyn M. Sullivan. An inurnment at Arlington National Cemetery in Virginia will be held at a future date.

Foundation of Pacific Air War Strategy: Interwar Hawaii Air Operations



Thomas Morse MB-3A fighter crashed at Wheeler Field, circa 1926. In its first year of service in Hawaii, 40 percent of the assigned MB-3A crashed and went onto their back as depicted – crushing the reserve fuel tank which caused maintenance issues due to a lack of spare tanks in Hawaii.

William Cahill

The Air Service and Air Corps units assigned to the Hawaiian Department prior to the Second World War were a Petri dish for air power experiments. Over a three decade period, the tropical airmen evolved from acting as a supporting adjunct to ground forces to becoming a genuine ‘air force’ with stand-alone reconnaissance and strike capabilities. Given the economic privations of the Great Depression, this transformation was not only unexpected—but it proved critical in ultimately forming the doctrinal basis for future air power operations in the Pacific.

A Slow Start

Aircraft were still an unknown quantity for the Signal Corps in the 1910s. Air stations were established in the United States both to train pilots and to understand how this new capability could be integrated with Army operations. On June 29, 1913, Lt Harold Geiger and twelve enlisted men set out from San Diego, California to establish an air station in Hawaii. Equipped with two used seaplanes, a Curtiss E and a Curtiss G, the unit arrived at Honolulu on July 13 and was ordered to Schofield Barracks, Oahu, the main army base in Hawaii located to the north of Pearl Harbor. After surveying the area for a suitable airfield, Lt Geiger settled on Fort Kamehameha, a coast artillery installation at the mouth of Pearl Harbor. Though the site was not a perfect fit for seaplane operations, Geiger persisted and flew his first flight on August 8, 1913. A few flights were undertaken over the next couple months but flight operations were limited by unreliable aircraft and a Hawaiian Department commander who would not sanction regular flying instruction or participation in department maneuvers. As a consequence, both aircraft were put into storage on November 25. Though maintenance was done on one of the aircraft in June 1914, Lt Geiger and his men returned to the States in August 1914 and both aircraft were sold on November 12, 1914.¹

While Lt Geiger’s experiences on Oahu were underwhelming, a similar detachment in the Philippines was having greater success at demonstrating the utility of aviation to overseas forces. Tests conducted with seaplanes on Manila Bay in the Philippines proved the utility of aircraft in support of the coast defense mission and the Army decided to take the next step forward. On April 9, 1915, the Signal Corps directed that after an aero squadron had been established at San Antonio, it would organize three companies for service overseas in the Philippine Department, the Hawaiian Department, and the Canal Zone. The Philippine and Hawaiian companies were to be equipped solely with seaplanes and were not to have any motor vehicles assigned.²

Though the 1st Company, 2nd Aero Squadron was operating in the Philippines by May 1916, flight operations in



A Martin B-12 likely assigned to the 23rd Bombardment Squadron flying near mountainous terrain with pilot's canopy cranked open. The B-12 differed from the more familiar B-10 by having flotation chambers for safety on overwater flights and being fitted with Pratt & Whitney R-1690-11 radial engines in place of the B-10's Wright R-1820-31 engines.

Hawaii and Panama lagged behind. It was not until late 1916 that the 6th Aero Squadron was organized at San Antonio. On February 15, 1917, Capt John Curry arrived at Honolulu to establish the 6th Aero Squadron in the islands and develop a seaplane base for squadron operations. Capt John Brooks and the rest of the squadron arrived from San Diego on March 13, 1917. While the squadron was temporarily established at Fort Kamehameha, Curry, by then appointed as commander of the 6th Aero, surveyed for a more permanent location and settled on Ford Island in the center of Pearl Harbor. A Joint Army and Navy Board on Aeronautic Cognizance agreed as well and recommended the island be purchased for joint use as an aviation station in Hawaii, with the Army occupying the land along the northwest coast and the Navy along the southwest coast. After agreements were drawn up in Washington, the land was finally purchased on June 21, 1918, the Army and Navy splitting the cost. On September 25, 1918, the 6th Aero Squadron moved from Fort Kamehameha to Ford Island. Ford Island's initial facilities consisted of two double seaplane hangars, two land plane hangars, a small repair shop and a supply warehouse. Soon a small airstrip was cleared on the center of the island, but it would be another year before personnel quarters were added. On April 30,

William Cahill is a retired Air Force intelligence officer who contracts for DoD in the Washington D.C. area. An Intelligence Weapons Officer with squadron and wing-level experience, he has also served on the Air Staff and in an inter-agency capacity outside of DoD. Mr. Cahill is a graduate of San Jose State University and has MS degrees from Embry Riddle Aeronautical University and the National Defense Intelligence College. Mr. Cahill has been published in Air Power History, FlyPast, the USAF Weapons Review and C4ISR Journal.

1919, the field was named Luke Field in honor of Great War Air Service ace Lt Frank Luke. Expansion continued over the next few years, with additional hangars, barracks, and ancillary structures being constructed.³

While Washington was wrangling over ownership of Ford Island, the 6th Aero started flight operations from the beach of Fort Kamehameha with its two assigned Curtiss N-9 seaplanes but it was soon apparent that the aircraft were insufficient to meet all department needs.⁴ In January 1918, 6th Aero commanding officer Major Clark wrote his superiors in the States asking for a Curtiss R-4 "land machine" for advanced flying in order to stay current on aircraft "in use on the battle fronts." Washington promised to provide a suitable machine when available.⁵

In the meantime, the two N-9 seaplanes were augmented with three Curtiss HS-1L flying boats in 1918.⁶ With this small group of aircraft, the 6th Aero got to work. By mid-1918, the squadron was flying from Oahu to the other islands in the Hawaiian chain with its Curtiss N-9 seaplanes. In September 1918, the squadron was asked to help with spotting fire for coast artillery guns. Using the two N-9s, the aircraft crudely communicated to the gun batteries using throttle movements of an un-muffled engine to send Morse code. Follow-on tests in November used a modified civilian wireless set that proved the utility of using an aircraft to aid the firing of coast artillery guns in Hawaii.⁷ In June 1919, Chief of Training and Operations Group Brigadier General (BG) William Mitchell directed the Hawaiian Department Air Service Officer to investigate spotting for coast artillery using radios for targets both within visible range and targets over the horizon.⁸

Post-War Plans

A 1917 plan for aircraft for coast defenses of the U.S. and overseas possessions outlined the need for three aero squadrons and three balloon companies for Hawaii. The

final plan put forth in 1919, was for two squadrons (4th and 6th Observation Squadrons) to be allocated to Hawaii. Both squadrons would be under the 2nd Observation Group, with an attached Photo Section and two balloon companies. The 2nd Observation Group was organized in September 1919 by the commanding general, Hawaiian Department.⁹ On January 24, 1920, ten officers and 120 men of the 4th Aero Squadron arrived in Hawaii from Hazelhurst Field, New York.¹⁰ Overseas Air Service units such as the 2nd Observation Group fell under a unique dual chain of command. Though the Air Service would provide guidance on the matters of training and operations, the local Department Commander would “supervise” the units as well as control matters relating to supply and discipline. All matters concerning the units would run through the Department Commanding General except those “strictly technical.”¹¹

In April 1919, BG Mitchell outlined his vision for the role of air power in Hawaii to the new Hawaiian Department Air Service Officer. Mitchell’s view was that the Air Service units providing “proper defenses of the Hawaiian Department” were to fulfill two functions: support land forces in Hawaii and act as an air force capable of defensive and independent offensive actions. Though the squadrons were designated as observation, it was viewed that the aircraft and crews could function in the bombardment role as well as pursuit.¹² A short-lived plan in 1919, would have augmented the two observation squadrons in Hawaii with a pursuit squadron, but the 2nd Observation Group would need to wait another two years until this came to fruition. In early 1919 the 6th Aero completed its move to Ford Island, removing its “shorehouse and garage” from Fort Kamehameha and setting up a landing field capable of operating DH-4 and JN-4 aircraft. Equipment for the soon-to-be 2nd Observation Group was slowly trickling into Oahu. The original plan for the 6th Aero Squadron was for it to be equipped with four N-9 seaplanes, nine HS-2L flying boats, nine DH-4 bombers, and six JN-4HG and three JN-4D trainer aircraft, with one third of these being kept in reserve. In March 1919 eight DH-4 bombers and six HS-2L flying boats were enroute to the 6th Aero, accompanied by six months of spare parts and twelve spare engines.¹³ When the expansion of Air Service presence in Hawaii to two squadrons was approved, Director of Military Aeronautics Brig Gen Mitchell recommended sending additional personnel and sufficient equipment for two DH-4 squadrons with 80 percent replacement “as soon as possible.” Sixty DH-4 aircraft were crated and sitting at the Army Dock in New York City awaiting shipment to Hawaii when Mitchell directed the cancellation of this shipment and its replacement with updated DH-4B bombers.¹⁴

Between 1919 and 1923, the Air Service contracted to have 1,538 DH-4s remanufactured into DH-4Bs by moving the pilot’s seat back and the gas tank forward, correcting the most serious problems in the DH-4 design. Of these, 100 were allotted to the Hawaii with a further reserve of fifty, but the first group of twenty five DH-4Bs did not arrive until June 2, 1920. Machinations from Washington notwithstanding, aircraft continued to trickle into

Hawaii. The two squadrons allocated to the Hawaiian Department were authorized thirty-eight DH-4s with 100 percent reserves, but the DH-4 rebuild delayed the full allocation of aircraft. Instead of a homogenous set of aircraft, by the end of 1919 the 2nd Observation Group had one HS-1L, two HS-2L, six JN-6HG, three JN-4D, three N-9, twelve DH-4, and the one Curtiss R-6. Due to slow delivery of re-manufactured DH-4Bs, DH-4s were shipped in their stead to Hawaii, with a total of sixty-four of these outdated aircraft sent to the Department by April 1920.¹⁵

In February 1920, the 3rd and 21st Balloon Companies were ordered to Hawaii from Fort Ross, California. By May 6, 1920, the 3rd Balloon Company was at Fort Ruger and the 21st Balloon Company at Fort Shafter, coast artillery forts located on the outskirts of Honolulu.¹⁶ Fort Shafter was as interim stop for the 21st Balloon Company as the original plan was to base this unit at Fort Kamehameha. In late 1920 construction was started at Fort Kamehameha on the twelve buildings for housing a balloon company, including barracks, balloon hangar, and technical buildings.¹⁷ Once these facilities were complete, the 21st Balloon Company moved from its temporary spaces at Fort Shafter to its permanent home on October 2, 1920, with construction work continuing for another year.¹⁸

The Aero Coast Defense Project plans for Hawaii also included funds for the maintenance of Air Service facilities in the Hawaiian Department.¹⁹ In December 1919, these funds were used to repair and extend the landing field at Luke Field since the flying field was in “no condition for the operation from it.” Luke’s flying field was located in the center of Ford Island and was a joint-use landing strip for both Army and Navy flight activity. By December 1920, work had begun on the erection of permanent buildings at Luke Field. Foundations were completed on three large storehouses and framing constructed for ten sets of officers’ quarters.²⁰ Early on, sharing of Ford Island was not seen as ideal and any growth in unit size beyond two squadrons would require an additional air base, likely at Schofield Barracks.²¹ Though not an ideal location, the Air Service maintained its presence on Ford Island for the present because of its proximity to coast artillery, the primary purpose of the 2nd Observation Group.

Aircraft continued to trickle in, with twelve Curtiss JN-6HG-1 aircraft shipped from Rockwell Air Intermediate Depot in San Diego on February 7, 1920 and the initial 25 DH-4B aircraft and material for lighter than air flight arriving on June 2, 1920.²² The JN-6HG-1 dual control trainers were in lieu of a request sent in December 1919 for twelve Vought VE-7 dual control aircraft to aid in training DH-4 pilots. Also arriving in mid-1920, were three Fokker D.VII aircraft acquired as reparations after the Great War, likely sent for 2nd Observation Group pilots to maintain competence in acrobatics in preparation for the stand up of a pursuit squadron.²³ The influx of JN-6HG aircraft allowed the earlier JN-4D aircraft to be retired by July 1920. Ten HS-2L aircraft that arrived at Ford Island on October 15, 1920, were received in a “more or less damaged condition” and put into reserve for refurbishment and future use.²⁴ A final installment of fifteen DH-4B aircraft

arrived on December 18, 1920. The only additional aircraft to arrive over the next 18 months were three DH-4B for the squadrons and one DH-4-BP-1 aircraft that was assigned to the new 11th Photo Section.²⁵

The airmen of the 2nd Observation Group continued to expand the mission of the Air Service in the islands. The 6th Aero started work with the Hawaiian Division, searching for operating fields in early October 1919 in order to support planned department maneuvers starting on October 15.²⁶ This airfield survey work continued after the maneuvers and would become a regular activity of the Hawaiian air force in 1919 and 1920. These trips served one of two functions: familiarization of pilots with the different islands of Hawaii and surveys of new airfields or emergency landing fields. Though many of the over water flights to distant islands were done with HS-2L seaplanes, DH-4 aircraft did venture from Oahu to the neighboring island of Molokai on at least two occasions. Flight activity of the 2nd Observation Group in 1920 averaged 60-70 flights per week, totaling 30-45 flight hours.²⁷ While some of these hours were expended in flights to explore the islands or routine training, others were put towards working with other Army components on Oahu.

In early 1920 the 2nd Observation Group added a course on artillery adjustment to their Curriculum of Unit School. All pilots and observers took the course, though a shortage in observers in the group was causing pilots to take training to act as observers for artillery cooperation missions.²⁸ Group pilots conducted the first in a series of coast artillery adjustment exercises on April 6, 1920, with Battery Barri, Fort Kamehameha using a DH-4 to adjust fire via radio and ground panel communication. The group continued to work with Battery Barri on a weekly basis into July 1920.²⁹ Based on this experience, 2nd Observation Group Liaison Officer Lt Johnston toured the island's coast artillery forts to politic for coast artillerymen from each station to be trained on communicating with aircraft, relieving the Group from having to send details of airmen to the batteries for each shoot.³⁰ A DH-4B fitted with both SCR-73 transmitter and SCR-59 receiver was also used to adjust coast artillery fire, an improvement over the DH-4 which only had a transmitter and had to receive ground messages via ground panel.³¹

The 2nd Observation Group also worked with infantry units of the Hawaiian Division. Infantry contact missions were a relic of the Great War and involved aircraft flying along the front lines in order to track advancing friendly units and relay their location and any messages back to the Division Headquarters. Infantry contact flying practice started in late May 1920 and continued through July 1920.³² This training was put to use in the Hawaiian Department war games conducted over a ten day period in October 1920. Air Service support to the war games featured unit aircraft performing aerial patrols, ground attack, reconnaissance, infantry contact, and artillery spotting against the enemy (White) forces. Most support came from the DH-4, though HS-2L flying boats with two-way radios assisted with four days of coast artillery firing. A total of 103 flight hours were flown in support of the Hawaiian Di-

vision, split between patrol, reconnaissance, and artillery observation though the 2nd Observation Group airmen were able to slip in a few attack and 'bombing formation' missions.³³ In a nod towards Mitchell's original vision for air power in Hawaii, the 2nd Observation Group established a bombing course based on training from the Great War. Curriculum was developed and a bombing range set up near Schofield Barracks for training use by DH-4s fitted with bomb racks.³⁴ The training of airmen had progressed to a point that by the week of June 11, 1921, the Luke Field units could fly a combined group attack mission with two squadron formations of six aircraft each.³⁵

Names Change but the Mission Continues

As the Air Service evolved after the Great War, unit designations started to change to better reflect the independence of the air units. In March 1921 the 4th and 6th Aero Squadrons were re-designated 4th and 6th Squadrons (Observation) and on April 12, 1921, the 2nd Observation Group became the 5th Group (Observation) and was authorized to form Air Park No. 10.³⁶ The Balloon Companies had similarly been redesignated Balloon Company (Coast Defense). The 5th Observation was nearing its authorized strength, as the year prior the 11th Photo Section, consisting of Lieutenant Weddington and eleven airmen, had arrived on Oahu.³⁷ In late 1921, the 19th Squadron (Pursuit) and 23rd Squadron (Bombardment) were in the process of organization at March Field, California with a plan to move to Hawaii in April 1922.³⁸

Other missions notwithstanding, the original reason for having aircraft in Hawaii—coast artillery—still occupied a fair amount of time. In early September 1921, the Hawaiian coast artillery units opened their annual target practice season. The Balloon Company (Coast Defense) No. 21 and the 4th and 6th Squadrons (Observation) worked with the four long range batteries assigned to Fort Kamehameha throughout September while the Balloon Company (Coast Defense) No. 3 worked with gun batteries at Forts Ruger and DeRussy. The Balloon Company (Coast Defense) Number 21 was starting to refine its tactics for working with guns, developing a new plotting board for balloon use that could be operated by one man who communicated with the observer in the balloon. Most of the plotting work was still done by the coast artillerymen who were loathe to enable airmen to support firing beyond the visual range of their terrestrial observation stations. The balloon airmen had also become quite proficient maneuvering inflated balloons, taking only fifteen minutes to move from the balloon field at Fort Kamehameha to positions behind the gun battery and even towing an inflated captive balloon the twenty miles from Schofield Barracks to Fort Shafter. Balloon Company (Coast Defense) Number 3 had even shifted a balloon from Fort Ruger via road through the city of Honolulu to Fort DeRussy and back again over the course of three days.³⁹

The Coast Artillery units also worked with the 5th Group to develop ways to defend Hawaii's shores from enemy amphibious forces. Coordination was done with the



A Boeing DH-4M-1 aircraft parked on a grass field in Hawaii circa 1926-27. The DH-4M aircraft started to arrive in Hawaii in 1926, essentially a re-manufactured DH-4B with a new steel tube fuselage. The last DH-4 variant would serve until 1930 before being replaced by more modern types.

64th Coast Artillery (Anti-Aircraft [AA]) Regiment to support night attacks on hostile landing parties.⁴⁰ Training was done one night in mid-October 1921 with 64th Coast Artillery (AA) searchlights locating floating barrel targets and illuminating them for aerial attack. DH-4s performed diving attacks on the lit targets and also attacked targets illuminated with parachute flares dropped from their own aircraft. Training of this type continued the following February. Additional maritime bombing training was done off the coast of Oahu, with a new sea target being installed off Barber's Point. The 5th Group even flew a simulated night attack against ships in the Middle Loch of Pearl Harbor.⁴¹

In order to complete the organization of the Hawaiian Division, the 4th Squadron (Observation) and the 11th Photo Section were assigned to Schofield Barracks and designated as 'Divisional Air Service' under command of Major George E. Stratemyer. On February 6, 1922, the units moved from Luke Field to Schofield Barracks. The new flying field was previously a cavalry drill field and had sufficient space for permanent structures, though canvas hangar tents were initially used. The departure of the 4th Squadron also opened up space at Luke Field for the arrival of the 23rd Squadron, which reached Honolulu on March 29, 1922, and was assigned to Luke Field. By May 1922, the 5th Group (Observation) was re-designated the 5th Group (Composite) and consisted of the 6th Squadron [re-designated from (Observation) to (Pursuit)], the 23rd Squadron (Bombardment), and Air Park Number 10. The 19th Squadron (Pursuit), destined for Hawaii, was still forming up and training at March Field.⁴² With new units forming, old units were also disappearing. Determined to be of questionable value to the newly emerging concept of air power, the balloon companies in the Philippines and Hawaii were ordered demobilized on July 24, 1922.⁴³

The DH-4 still continued to figure prominently in the

5th Group. Since Hawaii was far from the supply depots in the U.S. and required a week's shipping by naval transport, the War Department deemed it wise to store the Hawaiian Department's wartime reserve on Oahu. In May 1922, an additional 123 DH-4B aircraft arrived in Hawaii in for storage as this emergency stockpile. The Hawaiian Department received permission from Washington to substitute used DH-4 and DH-4B aircraft for forty-one new DH-4B aircraft, leaving eighty-two new aircraft in wartime reserve, the number called out in the Air Annex to the Project for the Defense of Oahu. Washington conceded to this action by acknowledging that the design of aircraft was progressing so rapidly that the new DH-4B aircraft would become obsolete should an emergency arise even in a reasonable length of time and that long-term storage in the tropic environment would cause the aircraft to deteriorate anyway.⁴⁴ The fears on tropical storage proved well founded, for when 114 wartime reserve DH-4 aircraft were inspected in 1925, ninety-three were condemned on the spot.⁴⁵

As new DH-4Bs arrived in Hawaii, existing DH-4s were dismantled and kept as a source of spares for the DH-4Bs. By 1923, Hawaii was down to thirty-six DH-4 airframes. The DH-4B itself was getting old by this date as well, as later that year the Hawaiian Department turned in thirty-six DH-4 and DH-4B aircraft for shipment to the U.S. for conversion by Boeing to the updated steel tube fuselage DH-4M.⁴⁶ Fortunately, something other than DH-4s was finally enroute across the Pacific.

Thirty Five LWF-manufactured Martin NBS-1 bombers were allotted to Hawaii, later reduced to twenty with two having dual controls. An initial group of sixteen was shipped in February 1923, with the final four being allocated as reserves and not shipping until June 1924. Also arriving in Hawaii around this time were two Loening S-



The crowded pre-war flight line of Wheeler Field, likely taken in mid to late 1939. Aircraft lineup starts with a Martin B-12, followed by two possible North American BC-1s, two Douglas BT-2 instrument trainers and approximately fifteen P-36As.

1 Air Yacht flying boats. To round out the new set of airframes in the department was the first dedicated pursuit aircraft for Hawaii, the Boeing MB-3A. The MB-3A was an improvement over the Thomas-Morse MB-3, the design changes addressing some of the structural design flaws associated with the original aircraft. The Air Service distributed its 200 MB-3As to the 1st Pursuit Group at Selfridge Field and the overseas pursuit squadrons in the Philippines, Hawaii and the Canal Zone. Twenty-four MB-3A aircraft were shipped to Hawaii in 1923 along with five JN-6HG-1 and three Eberhart SE-5E advanced training aircraft. An additional three MB-3A and four SE-5E trainers were shipped to Hawaii in 1924 along with one DH-4-BP-1 survey aircraft.⁴⁷

The Schofield Barracks airfield, named Wheeler Field on November 11, 1922, in honor of Major Sheldon H. Wheeler, former commander of Luke Field, slowly grew over time. By June 30, 1923, ten shop and storage hangars and four oil and gas storage tanks were complete.⁴⁸ Also emerging at Wheeler was the 17th Composite Group which stood up on May 1, 1923 along with the 19th Squadron (Pursuit). On the same day the 72nd Squadron (Bombardment) stood up at Luke Field. Sometime in 1923 the clumsy nomenclature of “squadron (pursuit)” was replaced by “pursuit squadron.” On January 15, 1924, the 17th Group was dis-established and the 19th Pursuit transferred to Luke Field with its six MB-3A and one SE-5E aircraft.⁴⁹ Once at Luke, it was brought up to full strength of twelve MB-3As and three SE-5Es and in April 1924, 1Lt Claire Chennault took command of squadron, one of many soon to be famous aviators who served in Hawaii.⁵⁰

4th Observation Squadron was once again the sole occupant of Wheeler Field and continued in its role as the primary air component working with ground forces. To support this mission, squadron personnel established separate schools for working with coast and division artillery. In March 1924, the 4th Observation took part in Hawaiian

Division Maneuvers at Schofield Barracks and that summer observed fire for each of the battalions of the three field artillery regiments during annual tactical inspections as well as spent a week working with the 55th Coast Artillery Regiment. Supporting the 64th Coast Artillery (AA) was not the sole purview of the 4th Observation, though; in April through July 1924, the 23rd and 72nd Bombardment Squadrons made two Martin bombers available for daily target towing support over Fort Shafter.⁵¹ By 1925 the 5th Group was also providing aircraft as targets for 64th Coast Artillery (AA) searchlight crews to practice tracking.⁵²

Target flights aside, the bombardment squadrons did get to train for their primary function. In March 1924 the squadrons dropped 350 bombs for a joint Coast Artillery and Air Service Board appointed to investigate the comparative accuracies of bombing and long range firing and also practiced bombing ships in harbors as targets of opportunity. Their pursuit brethren practiced combat maneuvers, dive bombing, aerial gunnery and acrobatics but only in daylight hours. The common thread between all the Hawaii-assigned units was inter-island flying. On at least a monthly basis, if not more frequently, formations of Martin bombers would fly to the islands of Maui, Molokai, Lanai and Hawaii. The 4th Observation would fly similar missions with its DH-4s as did the pursuit squadrons, though they would often have a DH-4 ‘radio ship’ or Martin bomber escort. One of the more frequent destinations, the airfield at Lanai, was planned for use as a base of operations to protect the island of Hawaii, 100 miles further distant.⁵³

The Emergence of Air Power Missions

In mid-1924 the 5th Group changed their focus from inter-island flights to attack and patrolling missions in preparation for the Hawaiian Department exercise in Sep-

tember 1924. One training mission saw a flight of Martin bombers escorted by three flights of MB-3As fly out to attack a notional enemy fleet of battleships and aircraft carriers. For the exercise, the 6th and 19th Pursuit were detailed to protect Oahu with two patrols of three aircraft, one stationed five miles south of Diamond Head and one five miles north of Makapu'u Point. A formation of four DH-4s were flown in the Kaiwi Channel between Oahu and Molokai to report via radio any inbound attacking aircraft to enable launching of pursuit aircraft. The bomber squadrons flew in the adversary role, with three Martin bombers flying to Molokai and returning for a simulated attack on Luke Field as well as flying night bombing missions.⁵⁴ After the exercise was completed, a gasoline shortage curtailed most flying for the 5th Group. Flight hours for October 1924 were barely half of those flown in September.⁵⁵

Though night flying had been going on for years, it was not until October 1924 that the Fairfield Air Depot shipped equipment to properly equip eighteen NBS-1 and eight DH-4B aircraft for night flying.⁵⁶ By May 1925 the NBS-1 bombers were concentrated in the 23rd Bombardment Squadron, with the 72nd Bombardment Squadron and 4th Observation Squadron still operating DH-4Bs. The pursuit squadrons operated a few DH-4Bs and SE-5Es in addition to their eleven assigned MB-3As while the 11th Photo Section operated the department's lone DH-4-BP. All these aircraft were used not only in exercises and training, but also in a publicity role that became part of Hawaiian Department tradition, so-called "Aloha Flights" and Division Reviews. Starting in the early 1920s the Hawaiian air force would fly "Aloha flights" to greet the bi-weekly inbound Army Transport from San Francisco. Whenever a distinguished visitor was in town, the entire Hawaii Division would turn out for a review on the parade ground, an event accompanied by a mass fly-over of 5th Group aircraft. These events would continue into the 1930s.

The clear delineation of roles between the Army and Navy air services with respect to aerial defense of the coast lines was still undefined in the mid-1920s. In June 1924, all Army Corps Area and overseas departments were directed to ensure a "competent Air Service officer" was made a member of the local joint planning committee.⁵⁷ This nascent inter-service rivalry was readily apparent in Hawaii. The Air Service was very interested in presenting its best capabilities in front of the Navy for the Joint Army-Navy Maneuvers planned for April 1925. In June 1924, Chief of the Air Service Maj. Gen. Mason Patrick wrote the Commanding General of the Hawaiian Department promising "proper quantities" of the "latest authorized equipment" in order to ensure that "the most accurate conception" regarding the possibilities and limitations of air power could be derived from the maneuvers.⁵⁸ Included in this equipment delivery were new SCR 134 and 135 radio sets that were received and installed prior to the start of the exercise. The 5th Group also focused its training, holding four tactical exercises the month prior to the exercise that were similar to what was expected to be done in the upcoming joint maneuvers.⁵⁹ The Air Service believed the objective of the

Navy was to use the exercise as an example of why coast protection should be turned over to the Navy and naval aviation. Hawaiian airmen felt every effort was made by the Navy to discourage Army over water reconnaissance but that did not stop the Hawaii-based units from carrying out an aggressive program to include night operations.

The purpose of Hawaii's Army-Navy maneuvers was to test plans for the defense of Oahu and train Army and Navy personnel in joint operations. The exercise scenario had the U.S. (Blue) capturing Hawaii from an adversary (Black) to make a naval base out of it. The Blue Fleet, including the aircraft carrier *USS Langley* and accompanied 1,500 Marines (representing two divisions for the exercise), left San Francisco on April 15. The Navy provided additional assets to augment the Black forces in Hawaii including twenty-six scouting and torpedo planes.⁶⁰ The exercise started on April 25, and saw Black forces, in the form of Army and Navy aircraft, concentrated on Oahu except seven 4th Observation DH-4Bs deployed to Lanai. The remainder of the 4th Observation and most of the 5th Group conducted "vertical defense" of the Hawaiian Islands, with 4th Observation DH-4Bs playing the role of fighters. The exercise also featured an Air Intelligence and Message Center co-located with 64th Coast Artillery (AA), hinting at an integrated air defense of Oahu. On the first day of the exercise, the Blue forces were able to brush aside the 4th Observation's deployed DH-4Bs and land Marines to secure Molokai and Lanai. *USS Langley* dispatched her aircraft to landing fields on the two islands and the Blue fleet continued towards Oahu. Black patrols flown by Oahu-based Air Service aircraft soon located portions of the Blue fleet. An attack on the Blue Scouting Fleet in a severe rain storm resulted in complete surprise and was considered successful. Though the Blue Main Fleet was discovered, it was outside of striking range and while it could have been attacked later, night attacks were not authorized for the maneuvers due to safety. The following morning, April 27, the Blue forces launched their main attack against the north coast of Oahu and the exercise concluded.⁶¹

Exercises aside, the daily grind of Hawaiian flight operations slowly whittled down the pool of available aircraft. The 5th Group pursuit squadrons were having a hard time maintaining flight operations with their MB-3A aircraft, having no replacements for the reserve fuel tanks which were crushed every time the aircraft went on its back – which 40 percent of the aircraft did in the first year of service in Hawaii.⁶² The Air Service shipped an additional six aircraft to Hawaii in early 1925, to keep the overseas stations fully stocked with their allotted numbers, with another twenty-one scheduled for delivery after overhaul. These aircraft were desperately needed on Oahu, for by March 1925, Hawaii was thirty-one aircraft below the target number of MB-3As, only having seventeen of the required forty-eight aircraft.⁶³ The solution lay in new fighter aircraft, and by the end of the year twelve Boeing PW-9s had been shipped. Though the PW-9s were assembled and sitting on the ramp at Luke Field by March 1926, a shortage of propellers for the aircraft kept the pursuit squadrons soldiering on in their MB-3As.⁶⁴ Nine NBS-1s, twenty one

DH-4M-1s and one DH-4M-2P were also received in the first part of 1926, finally allowing obsolescent DH-4Bs to be retired.⁶⁵ The Martins, though, were already being eyed for replacement, with some of the twenty five Keystone LB-5A tagged for shipment to Hawaii by 1928.

In April 1926, all units completed their preliminary aerial and ground gunnery tests with record practice in machine gun firing and bombing held in May. Lt Chennault of the 19th Pursuit had the high score of 97 percent. Unfortunately, the following month a stuck throttle caused him to roll off the end of the runway when landing his PW-9, hitting a motorcycle and putting the plane on its nose. Thankfully, Chennault walked away with little more than a bruised ego. In July the 5th Group conducted group-level maneuvers with its squadrons, to include problems in group rendezvous; theoretical bombing attacks on battle fleets, bomb dumps and airfields; and alert and interception problems.⁶⁶ November 1926 was devoted to individual aerial gunnery training. A strip of Waimanalo Military Reservation was allotted to the Air Corps for the fall gunnery season and was made into a ground gunnery range for the bombardment squadrons.⁶⁷ This gunnery range would see much use over the next fifteen years, evolving into Bellows Field.

Service tests of two Loening COA-1 Observation Amphibians were held in Hawaii at Wheeler Field and Pearl Harbor in early 1926.⁶⁸ Test results proved the utility of having an amphibian observation in Hawaii and the Department Air Officer promptly requested that the 4th Observation be completely equipped with the type.⁶⁹ The two COA-1s stayed in Hawaii after completion of the tests as a 'down payment' until additional aircraft could be assigned. The squadron continued its coast artillery spotting work, and the ability to alight on the water provided peace of mind for the pilots of these types of missions. In August 1926, three 4th Observation aircraft, one fitted with a radio, made the flight to Molokai and spent three days marking existing airfields and looking for new ones. In October the 5th Group provided two DH-4M aircraft to accompany three Martin bombers that rendezvoused with three Navy Curtiss F5L flying boats for a flight to Kauai, with radio contact being maintained with Luke Field.⁷⁰

The utility of the radio—not only for safety monitoring of distance flights but also scouting—had been known for years in Hawaii, but by late 1926 very few of the 5th Group aircraft were actually fitted with radios. On average, only 34 percent of the operational fleet carried radio sets to include none of the 72nd Bombardment's DH-4M-1 aircraft and only two of the 4th Observation's six DH-4M-1s. The Hawaiian Department wrote Washington, asking to bring this number closer to 90 percent.⁷¹ Major General Lewis, Commanding General of the Hawaiian Department, also took the time to outline the inadequacy of the strength of aircraft on hand in the island to The Adjutant General of the Army. Lewis noted a shortage of sixty-seven aircraft, to include thirty pursuit and seventeen bombers. Washington responded that the plan was to have in place an additional forty-four aircraft by July 1, 1927, to include twelve DH-4M, six COA-1, five NBS-1, and twenty one PW-9.⁷²



A 26th Attack Squadron Curtiss A-3B parked in front of a hangar at Wheeler Field. The Air Corps procured seventy-eight of these aircraft, based on the O-1E, from Curtiss with deliveries starting in 1929. The 26th Attack replaced these veteran biplanes with 'used' A-12s in 1936.

Continued Organizational Growth

Even with the reduced number of aircraft available to the Hawaiian Department, Ford Island was getting crowded with a number of squadrons operating in the limited space. During the 1926 maneuvers, the senior umpire recommended the pursuit squadrons move to Wheeler Field. The Air Corps was also concerned about the 4th Observation being under the direct control of the Hawaiian Division and wanted to bring it back into the fold of airmen. On January 10, 1927, orders were received at Luke Field relieving 6th and 19th Pursuit from assignment to the 5th Group and organizing them into a Provisional Pursuit Group stationed at Wheeler Field. The 4th Observation moved from Wheeler to rejoin the 5th Composite Group at Luke Field on January 11. On January 20, 1927, the Provisional Pursuit Group was named the 18th Pursuit Group.⁷³ One of the reasons that the pursuit aircraft left Luke Field was the condition of the landing strip. While Wheeler Field had a nicely sodded smooth surface, that at Luke was very rough and not conducive to the lighter pursuit ships with their higher landing speeds. By October 1927, the condition of the landing strip at Luke Field had reached the point that the Office of the Chief of the Air Corps was notified that remedial measures were necessary to prevent "possible destruction of equipment." Funds were released, with the War Department seeking reimbursement from the Navy for maintaining the joint use field.⁷⁴

The Hawaiian Department aircraft maintenance was handled at the squadron level and by the 65th Service Squadron with some assistance from Supply Base Honolulu, both components of the original Air Park Number 10 that had split up sometime prior to 1923. The Supply Base offered the ability to store and distribute Air Service supplies for local units, but had no facilities for overhaul, repair or heavy maintenance on aircraft or aero engines. The



Douglas B-18 tied down on a concrete parking pad, likely at Hickam Field. The "BE/22" painted on tail denotes the 22nd aircraft of the 5th Bombardment Group. B-18 aircraft started to arrive in Hawaii in February 1938, replacing B-12 aircraft in service in the bombardment and reconnaissance squadrons.

Service Squadron could perform some repairs, but was not manned nor did Air Service regulations permit it to perform major overhauls. In 1925, the Air Service started to investigate what it would take to turn Supply Base Honolulu into an Air Intermediate Depot. It was envisioned the 65th Service Squadron would be released from the 5th Composite Group and combined with the Supply Base and a "few expert civilians" to form the depot. The impetus for this change, besides cost savings, was that most of the aircraft in Hawaii were rapidly approaching their flying time and requiring a major overhaul.⁷⁵

The resulting change appeared in 1927 with the organization of the 65th Service Squadron into the Station Repair Section and Station Supply Section at Luke Field. Ten civilians were brought over from the Rockwell Air Intermediate Depot, Scott Field and Wright Field as key men and an additional hangar built at Luke Field for use as "aero repair and assembly shop." By April 1931, the Station Repair Section had ninety civilian employees and fifty-one enlisted airmen. The depot was run by a Shop Superintendent and included Engine Repair, Welding, Sheet Metal, and Maintenance Departments along with the Machine Shop, Aero Repair Shop to include Parachute and Woodworking Departments, and Final Assembly Shop.⁷⁶ The depot was tasked with assembly of new aircraft, annual overhauls of aircraft and engines, technical changes on fielded aircraft, and rebuild of crashed aircraft to include manufacturing new parts as required.

The 65th Service Squadron wasn't the only growth planned for the islands. Under the Air Corps Five Year Program for Hawaii authorized on July 1, 1927, the 18th Composite Wing was to be established on September 1, 1929. On that same date, the 73rd and 74th Pursuit Squadrons, the 75th and 76th Service Squadrons, the 19th Bombardment Group, and 31st and 32nd Bombardment Squadrons were to be established. The 50th Observation Squadron was to have been established earlier, on January 1, 1929, and the 26th Attack Squadron later, on June 1, 1930. \$1.7 million was also to be authorized between 1929 and 1932 for construction, with land procured for what was to be-

come Hickam Field. The Pursuit Group would be stationed at Luke Field, the Bombardment Group and Air Depot at Hickam Field, and the Composite Group at Wheeler Field. The subsequent Depression would have a dramatic impact on these plans, with their full accomplishment slipping almost ten years.⁷⁷

The Depression, though, was still in the future. The 1920s witnessed an excitement about the potential growth of aviation as records were made and broken and airmen were in the headlines on a regular basis. This excitement soon spread to Hawaii, literally winging in to Oahu one summer day. On June 29, 1927, the Trans-Pacific flight with Lt's Maitland and Hegenberger landed at Wheeler Field in their Fokker C-2. After the Fokker C-2 toured the islands it was turned over to the Hawaiian Department for transport use. The 65th Service Squadron fit standard landing gear as well as seats to replace long range gas tanks. As the C-2 was being fitted out, the 5th Composite Group did its first "airways" flight, a mission out to Upolu Point, Hawaii with four DH-4Ms and the DH-4B-P to inspect airways fields and associated buildings and test a radio beacon on Maui. On January 30, 1928, an airways flight was made to Hawaii with the Fokker C-2 to photograph landing fields on various islands of the Hawaiian group.⁷⁸ The next month the Fokker made another airways trip back to Hawaii and on February 10, the Fokker flew to Hilo, Hawaii with members of the Territorial Aeronautical Commission to dedicate the new airport.⁷⁹ The 18th Pursuit Group continued flying airways flights through mid-1928.⁸⁰

Roaring through the Twenties

The 4th Observation Squadron continued its relationship with both field and coast artillery. In July 1927, the squadron worked with the Harbor Defenses of Pearl Harbor for two days. In September 1927, the squadron was flying five to six sorties each morning, working with field and coast artillery as well as conducting reconnaissance training. In this time period, there was also considerable flying done in support of the 64th Coast Artillery (AA), both towing targets and acting as targets for searchlight training.⁸¹ Though the 4th Observation was the only unit focused on supporting ground forces, the pursuit squadrons also assisted in working with the Hawaiian Division. In March 1928, the 18th Pursuit Group flew eight ground attack missions in support of the division and participated in an "Army and Navy Exercise" held May 14-17.⁸² The bomber squadrons were also not above supporting the ground forces either. On August 1, 1929, the 5th Composite Group was directed to fly tow target missions for the 64th Coast Artillery (AA) through October 31. There were usually two day missions flown five days per week with eight night sorties per month, all flown by LB-5A aircraft. Since there were only fourteen pilots within the group at that time, all pilots were trained to fly the missions as the bomb squadrons only had six assigned pilots.⁸³ Mostly, though, the Hawaiian units spent time exploring air power roles and refining tactics.

In September and October 1927, the 23rd and 72nd Bombardment Squadrons engaged in extensive bombing training, flying up to thirteen missions per month. Some of the flights involved bombing a target anchored in the water near Fort Kamehameha.⁸⁴ Besides dropping bombs, the Martin bombers of the 5th Composite Group were used as transports. The 23rd Bombardment Squadron was used to support two 'annual field service' deployments in October. On October 3, 1927, the 4th Observation sent eight DH-4M-1s to Lanai City, Lanai for a one week deployment. Seven Martin bombers hauled mechanics and equipment to the deployed camp. While deployed, the DH-4Ms flew reconnaissance missions against the Islands of Kahoolawe, Lanai, Molokai, and Maui. The 72nd Bombardment Squadron did a similar deployment to Molokai the following week, deploying seven DH-4M-1s that flew simulated bombing raids each day on different islands in the Hawaiian.⁸⁵ Not to be left out, on October 25, the 18th Pursuit Group did a group tactical flight of seventeen PW-9s to Lanai.⁸⁶ These activities continued to ingrain the expeditionary nature of life in an archipelago into the airmen of the Hawaiian Department.

In March 1928, three OA-1s were turned over to the 4th Observation from the Station Repair Section, with three additional to follow. This was part of the full order for Loening amphibians that had been promised back in December 1926—four OA-1Bs had arrived in November 1927 and two OA-1Cs in February 1928.⁸⁷ By June 30, 1929, the last of the six radio equipped-amphibians joined the squadron's four DH-4M-1s for service, primarily focusing on performing missions with the coast artillery.⁸⁸ Also joining the Hawaiian Department in 1928 were LB-5A bombers and a C-1 transport, bringing Hawaii up to its full allotment of two transport aircraft. Though nine LB-6 bombers were supposed to be dispatched to Hawaii in 1929, they would not actually arrive until 1930.⁸⁹

Moving into 1929, 5th Composite Group continued its policy of inter-island training flights. The 4th Observation flew at least two of these missions in October 1929 and one in November.⁹⁰ Multi-group rendezvous missions also continued to be flown. In April 1930 alone the 5th and 18th Groups flew five combined missions which helped pilots solve rendezvous problems with aircraft of differing speeds. On May 14 the 18th Pursuit Group flew twenty one PW-9s and its Fokker C-2 as escort for a 5th Composite Group bombing mission to Hilo, Hawaii. The Pursuit Group landed on the Inter-Island Airways Field at Wailuku, Maui while the Composite Group continued on to Hawaii, but lost one bomber and two OA-1s in the crossing due to bad weather. All remaining aircraft returned to Oahu the following day.⁹¹ This training by the Hawaiian airmen stood them in good stead for the continued joint training that was taking place in the Pacific.

A minor Joint Army-Navy Exercise was held June 26-July 2, 1930. It was conducted in two parts—a Navy problem on June 26-27 with tasking controlled by the Navy, and an Army problem on June 30 – July 2 with the Army controlling tasking. Missions were relatively standard but did include night flying. The training highlighted the fact that

though the different services could operate together, it was recommended that additional combined training take place.⁹² Even with successful training being accomplished, the summer of 1930 was a low point for the Hawaiian airmen in terms of aircraft.

Due to aging aircraft and an apparent backlog in maintenance work, at one point in August 1930, all three tactical squadrons at Luke Field had no bombers and only an odd mix of eight aircraft in commission—four DH-4Ms, two OA-1s and two PW-9s.⁹³ Wheeler Field and the 18th Pursuit Group were doing better, having received eighteen new P-12B aircraft from Boeing in June.⁹⁴ Still, the situation was critical enough that the Hawaiian Department complained to the Chief of the Air Corps, noting the department operates "old and obsolete equipment" and that one bomb squadron and the 4th Observation were still flying DH-4M aircraft. The response from Washington noted that ten O-19Bs and eighteen A-3s were shipping over the next four months, with twenty O-19Cs to follow along with two Sikorsky S-38/C-6A amphibians.⁹⁵ The C-6A aircraft were allocated to ask as 'guard ships' for over-water inter-island flights and not transports, even though the transport was halving with the planned retirement of the Fokker C-2 in January 1931.⁹⁶ Bombers arrived as well, with the first LB-6 being assembled and test flown on September 7, 1930.⁹⁷ By November 10, 1930, fifty-five new airplanes had been received at Wheeler and Luke Fields, with another twelve O-19s and the two C-6As still to deliver by year end. By the end of 1930 the DH-4, a fixture in Hawaii for the past eleven years, would finally retire.

In August 1930 the 65th Service Squadron, sometimes referred to as the Hawaiian Air Intermediate Depot, was notified that twelve A-3B aircraft were enroute to the Hawaii. When the 5th Composite Group commander inquired when the 26th Attack Squadron was to be formed, Washington replied he was authorized to organize the 26th Attack and the 75th Service Squadrons using over-strength personnel from existing squadrons and unassigned Air Corps personnel in the Hawaiian Department.⁹⁸ Both new units were assigned to the 18th Pursuit Group, with the 26th Attack forming on August 30, with a strength of eleven aircraft. The four officers assigned to the 26th Attack, including future Air Force Chief of Staff Lieutenant Nathan Twining as commander, worked with ninety enlisted men transferred from other units to literally build a squadron from the ground up. Flight training began in earnest in February 1931, and the following month the unit flew a nine plane formation on a three-day inter-island flight.⁹⁹ Also forming up at this time was the 50th Observation Squadron. On November 1, 1930, the unit was reconstituted under Captain Frank Pritchard and was assigned four O-19B aircraft.¹⁰⁰

To accompany the new units, the air infrastructure in Hawaii received a needed refresh. After a couple years of planning, the expansion of Wheeler Field was finally underway by early 1931. Work continued through 1932, with grading of the landing strip and construction of NCO housing, barracks, officers' quarters and hangars.¹⁰¹ Under the current Air Corps Five Year Program, the 18th Pursuit



An 18th Pursuit Group P-26 parked on the ramp at Wheeler Field. A large 18th Pursuit Group symbol is painted aft of the cockpit. Three P-26As from the mainland were received by the 18th Pursuit Group on July 14, 1937 for tests to determine their suitability for use in Hawaii's climate with a further twenty eight arriving the following March.

would have two additional pursuit squadrons added, the 36th and 77th Pursuit Squadrons, expected in early 1932, when the new barracks were completed at Wheeler Field. The same plan also authorized the 19th Bombardment Group, 30th and 32nd Bombardment Squadrons, and 80th Service Squadron.¹⁰² Unfortunately, Hawaii did not have the facilities to absorb this growth—Luke Field was full and Wheeler's facilities were just starting to be built. Washington decided to keep the units in the U.S. and the 19th Bombardment Group was eventually formed with the 30th and 32nd Bombardment Squadrons at Rockwell Field, California in June 1932. Likewise, the pursuit squadrons formed under the 20th Pursuit Group and moved to Barksdale Field, Louisiana.¹⁰³ Hawaii did receive a boost in organizational structure in 1931 with the activation of the 18th Composite Wing as the senior Air Corps element in Hawaiian Department on May 1 at Fort Shafer.¹⁰⁴ The structure was now in place that would see Hawaii's air element through the end of the 1930s.

Through the Depression

The Annual Training Plan for the Air Corps in the 1930s ran from November 1 to October 31. In the early 1930s, the training plans for 18th Composite Wing units continued to emphasize many inter-island flights, with each pilot being required to fly to Hawaii three times and Kauai at least twice.¹⁰⁵ Each squadron was also scheduled for an annual two week gunnery and bombing practice at Waimanalo Range. Permanent buildings were slowly built at the range using maintenance funds, and soon a mess hall, recreation room, shower and latrines, officers' quarters, and wooden framed and floored tents for use by enlisted airmen were in place.¹⁰⁶

In 1931 the 4th Observation continued its close cooperation with the Hawaiian Division, testing infantry liai-

son with 21st and 22nd Infantry Brigades using two-way radios installed in its new O-19Bs as well as practicing low altitude bombing training. Officer exchanges also continued, with the squadron hosting both Coast Artillery as well as Field Artillery officers for the purpose of understanding Air Corps operations.¹⁰⁷ One change to years past was the addition of two other units to share the burden of supporting the ground forces—the 50th Observation and 26th Attack Squadrons. The 50th Observation started slow, assisting with the target towing missions with the 64th Coast Artillery (AA). The 26th Attack developed a close relationship with the Hawaiian Division from early on. In 1931 the squadron supported the division's infantry regiments with simulated air attacks and flew as targets for small arms anti-aircraft firing training. Soon the 26th Attack A-3B aircraft were equipped with a smoke screen apparatus used to lay smoke curtains during Division maneuvers.¹⁰⁸ The pursuit squadrons continued their training regimen for pursuit pilots with air-to-air gunnery. The squadrons also worked on their secondary mission of light attack with air-to-ground gunnery and low altitude bombing. Pursuit pilots would also work with the bombardment squadrons to practice both escorting missions as well as using the bombers as training targets for aerial attacks.¹⁰⁹

5th Composite Group exercises emphasized navigation, inter-plane communication, and radio contact with Luke Field as well as rendezvous operations.¹¹⁰ The Group also worked with the 26th Attack, which was more aligned in mission to the Luke Field squadrons than its pursuit brethren at Wheeler Field. For four days in March 1931 the 5th Group and the 26th Attack did extensive maneuvers to include establishing patrols around Maui, Molokai and Hawaii for cooperating with the Coast Artillery Command Post. The maneuver culminated in an attack on Oahu, which was defended by the 18th Pursuit Group.¹¹¹



A 4th Observation Squadron Thomas Morse O-19C parked on grass with other O-19 aircraft. The large 4-pointed star on the fuselage side was the insignia of the 4th. O-19Cs arrived in April 1931 and the last aircraft were surveyed out in 1936.

18th Composite Wing tactical exercises were a culmination of the squadron and group exercises. On May 19-21, 1931 a wing exercise envisioned a scenario that Maui had been attacked and occupied by an adversary. The wing conducted a bombing attack against the Maui towns of Wailuku and Wailea using five LB-6 and two O-19 escorted by a Sikorsky amphibian and supported by eighteen P-12 and nine A-3. On the second day, the pursuit squadrons became the defending adversaries, operating from Wailea to defend Hilo from attack by the 5th Group and 26th Attack. On the last day, the bomb, pursuit and attack squadrons attacked Pearl Harbor with the two observation squadrons conducting air patrols to detect intruding aircraft.¹¹² A reduced exercise was held June 25-26, where the wing flew fifty-two aircraft to Wailea, 'bombed' enemy forces, then recovered at the airport and flew back to Oahu the following day.¹¹³ In July two wing exercises were flown to attack an "enemy" ammunition and supply dump at Waimanalo on Oahu. A smaller exercise held in August witnessed bomb and observation aircraft attacking an objective defended by the 6th Pursuit Squadron.¹¹⁴

In early November 1931 the wing participated in the Hawaiian Department maneuvers. Though heavily scripted, the exercise did reveal planned air power employment for the era. The 4th Observation was tasked with defense against enemy landing forces. The airmen also played the adversary, with the 26th Attack and the two bomb squadrons performing a night attack on Pearl Harbor defended by the 64th Coast Artillery (AA).¹¹⁵ In December the wing continued training in preparation for the Joint Army-Navy Maneuvers/Grand Joint Exercise Number 4 in February 1932, including inshore and offshore patrols, range finding and spotting missions, bombing, and support to ground forces.¹¹⁶

As the airmen started to understand the role that airpower would play in the archipelago, they began to modify their war plans. The wing exercises made it apparent that inter-island bombing missions were possible and if an enemy gained a toehold in the islands they could rapidly bring forces to bear on any of the other islands. Dispersed operations were starting to appear in wartime planning at

the wing. In August 1931, the 18th Composite Wing Headquarters worked to have a strip of land adjoining Molokai Airport transferred to the War Department to be utilized as a site for underground gas and oil storage, radio installation and shelter as part of a program establishing operating bases on each of the Hawaiian Islands. This plan was apparently approved, for by the end of November an inspection was made of recently installed service tanks at Upolu Point, Hawaii, fueling facilities at Port Allen airport, Kauai, and a warehouse at Homestead Field, Molokai. By June 1932 radio personnel were stationed at Upolu Point, Hawaii.¹¹⁷

The planned 1932 joint exercise was viewed with apprehension by the airmen in Washington. On April 1, 1931, a new Naval Air Operating Policy took effect, changing naval air stations to fleet air bases with a primary fleet support mission. This policy also provided long range patrol aircraft to Navy units in Hawaii. Though dedicated to the fleet, the aircraft could be utilized in support of the Army when requested for local defense work. There was still concern in Washington over which service would cover the overwater reconnaissance mission.¹¹⁸

Grand Joint Exercise Number 4 lasted for eight days in February 1932, and was fought with the 'Blue' Expeditionary force fighting to capture the Hawaiian Islands from 'Black'. In the week prior to the start of the exercise, 18th Composite Wing aircraft flew to various islands to transport supplies, equipment and personnel to establish ground observations posts and air operating bases. The 50th Observation was designated to remain at Luke Field to fly aerial offshore and inshore patrols of Oahu. The 4th Observation was tasked with establishing outposts to detect the approaching enemy fleet and dispersed its aircraft throughout the Hawaiian Islands. A Flight with four O-19B and one Douglas amphibian operated from Homestead Field, Molokai; B Flight with three O-19B flew from Port Allen, Kauai; and C Flight with three O-19B was based at Hilo, Hawaii. Each 4th Observation flight covered three routes three times per day. Regular dawn and dusk patrols were dispatched starting February 6 with special patrols flown as ordered during periods of darkness whenever a ground sector reported activity.

The other 18th Composite Wing squadrons were dispersed throughout Oahu. The 72nd Bombardment flew nine bombers from a field site in the Waianae Pocket south of Kole Kole Pass while the 23rd Bombardment flew its nine bombers between multiple emergency fields. The 6th Pursuit moved its thirteen aircraft into a camouflaged position near Wheeler Field while the 19th Pursuit moved its 19 aircraft to the Division Review Field at Schofield Barracks. The 26th Attack flew from different emergency landing fields. All aircraft were camouflaged and dummy aircraft displayed at Wheeler and Luke Fields.¹¹⁹ The exercise started on February 7, when 172 'Blue' aircraft launched at dawn from the USS Lexington and USS Saratoga against Wheeler and Luke Fields. The defending 'Black' forces stayed concealed, not trying to counter the overwhelming force. On February 8, Navy 'Blue' aircraft struck the outlying airfields, but 'Black' aircraft were air-



Aerial view of Luke Field, Oahu, T.H. in April 1932 depicts 18th Composite Wing aircraft lined up for inspection. The “Navy side” of the base is in the foreground and the “Air Corps side” is at the center of the photograph.

borne over Kahuka Point, intending to follow ‘Blue’ back to their carrier but weather intervened. ‘Black’ Air Corps observation aircraft found 31 Navy PK and PD seaplanes at Hilo harbor, Hawaii resulting in a strike by the 26th Attack Squadron against the seaplanes and Hilo Airport. On February 9, 18th Composite Wing ‘Black’ observation aircraft were out again searching for the ‘Blue’ fleet. Once it was located and reported back to Oahu, orders were radioed to the bombers of the 23rd and 72nd Bombardment Squadrons to attack the carriers fifty-five miles off Barbers Point, Oahu. An attack was made on the carriers by the bombers while the two pursuit squadrons and the attack squadron engaged Navy fighters off Barbers Point. The *USS Saratoga* was declared sunk by the umpires. On early February 10, enemy transports were reported off the north coast of Oahu; the bomb squadrons took off and were joined by the 26th Attack and struck under the light of aerial flares, hitting three transports. On February 11, the pursuit squadrons attacked the remaining carrier while February 12 wrapped up the exercise with an attack on the remaining transports off the west coast of Oahu.¹²⁰ The exercise validated 18th Composite Wing’s dispersal plans and scouting and attack tactics but highlighted the need for more aerial forces for the Hawaiian Department.

Unfortunately, the Depression-era budget of the Air Corps could do little more than keep the squadrons at their required strength—there were no resources to grow. Twenty new P-12C and twelve O-19C aircraft arrived in April 1931. This brought both observation squadrons up to their required strengths. In May the first of twelve B-5A aircraft

arrived in Hawaii.¹²¹ Eight P-12E aircraft arrived on the transport ship *USAT Meigs* on Dec 21, 1931.¹²² Though this put the Hawaiian Department at over forty pursuit aircraft, with an average of twelve in the depot this left about fifteen operational aircraft per squadron with a planned attrition rate of four per year. In a note to Washington, the 18th Composite Wing outlined their wartime requirement as dictated by the Primary Tactical Plan, Hawaiian Department, to be fifty-two aircraft. The wing preferred this to be all P-12E aircraft, an aircraft seen as a “very satisfactory pursuit type for the work required here,” a fact backed by the Air Corps view that noted the metal-skinned P-12Es were “especially adapted to Foreign Possessions” due to the ease of maintenance as compared to the fabric covered P-12B and earlier pursuit aircraft.¹²³ Headquarters Air Corps responded to the request by stating no additional fighters planned for FY33 and equipping Hawaii with more airframes would require stripping other units.¹²⁴

On June 1, 1931, the 18th Composite Wing consolidated all Air Corps repair and supply functions in Hawaii by combining the 65th Service Squadron’s two sections at Luke Field with the Air Section of the Hawaiian General Depot in Honolulu, established in July 1921, to create the Hawaiian Air Depot.¹²⁵ By June 1932, Wheeler Field opened its new officer and NCO quarters, barracks, and upgraded flying field and started construction of new hangars.¹²⁶ A new range for gunnery training was also installed south of Wheeler Field for use by 18th Pursuit Group, saving transit time to Waimanalo Range.¹²⁷ In late 1932, a new high altitude bombing range for the bombardment



Aerial view of Upolu (Upolu) Landing Field, Hawaii, T.H. taken in June 1932. This appears to depict a 18th Pursuit Group navigation exercise with three probable amphibian aircraft and forty six smaller aircraft including possible P-12s. By this time underground gas and oil installations were in place at Upolu and radio personnel were assigned to the field.

squadrons was constructed on the flats of Ahua Point, replacing an old hulk sunk outside of Pearl Harbor. The target was a 200 ft diameter circle with a 30 ft diameter bulls eye constructed of metal drums filled with sand.¹²⁸

Continued Work with Less

In September 1929, the Commanding General of the Hawaiian Department recommended that Battery Williston, two 16-inch coast artillery guns with a range of 49,000 yards, be fired using data furnished with aircraft. Initially the request was turned down by the Office of the Chief of Coast Artillery in Washington because similar tests were being conducted in Panama that could inform the tests on Oahu. In 1931, Washington agreed to go forward with Hawaiian tests in Fiscal Year 1932 (FY32) with a special allotment of ammunition provided for the firing.¹²⁹ The Coast Artillery Board secured a spotting instrument from the Navy and after modifications flew it in an observation aircraft from Langley Field. The actual firing exercise was relatively complicated for its day. In order to know the exact location of the aircraft, it was tracked with radio direction finding stations in order to get a precise fix on the airplane and enable the depression and azimuth angles from the spotting instrument to be converted to actual coordinates for the gun battery. In March 1932, the plans were carried out against targets at 40,000 yards and greater from the gun battery, located at Fort Weaver. The 5th Composite Group provided one of its newly-delivered Y1C-21 Dolphin aircraft for the work, with an observer's cockpit in the nose mounting the special spotting equipment. The aircraft remained five miles from the target to simulate staying out of the effective range of anti-aircraft fire. In October 1932 additional missions were flown, building on the work from earlier in the year.¹³⁰

Training in 1932 was little changed from 1931. Both observation squadrons and the 26th Attack continued their work with field and coast artillery units as well as the infantry while the 18th Pursuit Group did cooperative small arms anti-aircraft training with the Hawaiian Division. Searchlight tracking missions were flown for the 64th Coast Artillery (AA) by the 18th Pursuit Group's Sikorsky C-6A and 23rd Bombardment bombers. In a view towards their wartime role of attacking ships, the 72nd Bombardment experimented with hitting a target towed across the water.¹³¹ The two week annual gunnery camp was again held at Waimanalo Military Reservation, though squadrons were now required to transport the majority of their personnel and equipment to camp by air and Waimanalo's runway was now paved.¹³² Wing exercises appeared to concentrate on the pursuit squadrons defending against attacks by the other squadrons of the wing.¹³³ The 5th Composite Group practiced group tactical exercises controlled by the command plane of the group commander and also did minor joint exercises with the U.S. Navy.¹³⁴ In a nod to its planned wartime task, the 4th Observation flew to an advanced operating base on Molokai and set up an observation line between Molokai and Oahu to look for marauding 14th Naval District aircraft operating from Hilo. When the Navy patrol aircraft were spotted, a radio message alerted the 18th Pursuit Group and enabled them to perform an intercept.¹³⁵ Inter-island 'airways' flights also continued to be flown at the group level, up to five per month, with the added task of inspecting and maintaining the facilities of the unmanned dispersal airfields.¹³⁶ These facilities had been expanded from the prior year, with underground gas and oil installations constructed at Upolu Point, Hawaii and Molokai airport, Molokai; warehouses were also built at Molokai. Fort Allen airport, Kauai was upgraded with underground tanks, warehouses, and new

twenty-man barracks and radio tower and hut. Fifteen emergency landing fields on Oahu were improved, with obstructions removed and wind cones and landing tees installed. Finally, a new landing field was constructed at Fort Shafter for the Wing Headquarters as well as future air ambulance use at Tripler General Hospital.¹³⁷

The next Grand Joint Exercise was scheduled for early 1933 and involved the *USS Lexington* and *USS Saratoga*. The operation started with the dispersal of 18th Composite Wing squadrons on January 30. The 72nd Bombardment flew from Waimanalo while the 19th Pursuit returned to its familiar haunt of the Division Review Field. The 50th Observation, flying from Kauai, Molokai and Hawaii, joined three U.S. Navy patrol plane squadrons from Pearl Harbor in searching for the 'Black' fleet by maintaining patrols about Oahu, Molokai, Kauai and the northern shore of Hawaii. On the morning of February 1, a 'Blue' patrol aircraft sighted the *USS Lexington* 40 miles north of Molokai. A radio call went back to Oahu and the entire 18th Composite Wing assembled over Waimanalo and, reinforced by twelve Navy bombers, headed out to attack the carrier. The *USS Lexington* had already launched a strike on Pearl Harbor when the Air Corps attacked, sinking the carrier. As the 18th Composite Wing recovered, the *USS Saratoga* launched an attack on Oahu. Waiting 'Blue' observation aircraft followed the attacking aircraft back to their carrier and call went back to Oahu for a second strike. As the 18th Composite Wing was launching its forces, the umpires issued a recall message and ended Phase 1 of the exercise. Phase 2 entailed airborne control of the wing via radio and bombing of targets (enemy landing parties) on the Waimanalo Range but was hampered by weather. The 26th Attack, supported by the 19th Pursuit, interdicted enemy naval forces doing coastal bombardment off Haleiwa, followed by a general wing attack against enemy landing forces. Phase 3, run from February 7 through 9, saw the entire 18th Composite Wing becoming the adversary force alongside a battalion of infantry and attacking the defending forces of the Hawaiian Division.¹³⁸

Though 18th Composite Wing activities in 1933 appeared to continue as before with airways flights and training missions Depression budgets were starting to bite flight operations in Hawaii. In September 1933, the 18th Composite Wing tried to order spare parts for P-12 and A-3 aircraft but was told that purchase of spare parts was curtailed for the remainder of FY34. In addition, operating funds had also dried up, impacting the ability of the Hawaiian Department to purchase shop equipment for the Hawaiian Air Depot.¹³⁹ Lack of spares and degraded depot capabilities had already started to impact Hawaiian air operations even before this date; in November 1932 three of the fourteen bomber aircraft assigned to 5th Composite Group were past due for overhaul with two declared unsafe to fly. The average number of airplanes in commission in each tactical organization during the training year was six.¹⁴⁰ Still, the Hawaiian Department made do with what it had.

Flight activities in the years 1933 to 1935 were little changed from the prior years. Airways flights were still

flown for the dual purpose of pilot proficiency and dispersal field inspection. A Training Memorandum of the era from the Hawaiian Department required each pilot to visit all outlying fields in the Territory once each year. Support for the Hawaiian Division included not only the annual field exercises held at the end of the training year, but also tactical work with the infantry and artillery units – both requiring Air Corps support either in the cooperation role or to act as aggressors. Training missions for the 64th Coast Artillery (AA) continued to draw a fair amount of attention, with three to five observation squadron aircraft assigned to support the firing at Waimanalo for six weeks in 1935.¹⁴¹

Group and Wing level exercises continued to be refined, becoming more realistic in their scenarios and increasing in complexity. Gone were the 'wing rendezvous' missions of an earlier era. In December 1935, the 18th Composite Wing held a "Wing Communications exercise" with the 23rd Bombardment playing the role of the adversary and deploying to Hilo airfield. The next morning all remaining 18th Composite Wing squadrons deployed to outlying stations and prepared to respond to an enemy attack. The two observation squadrons were on Molokai and established a constant patrol to intercept incoming bombers. Soon the bombers of the 23rd Bombardment were airborne, enroute to attack Pearl Harbor. Once sighted by the observation craft, the 'enemy' bombers were trailed and position reports sent to Luke Field. The pursuit squadrons took off and intercepted the enemy at Koko Head while the remaining 18th Composite Wing bombers and attack aircraft took off and were ready to trail the returning enemy and "sink their carrier."¹⁴² There was also an increase in joint activities with local Navy aviation units. "Minor Joint Communication Exercises" and "Minor Joint Training Exercises" filled the training calendars of the groups. For example, in June 1933, Minor Joint Training Exercise Number 2 saw one of the bomb squadrons cooperating with naval aviation and 18th Pursuit Group in simulated attacks on enemy aircraft carriers east of Oahu.¹⁴³ The Joint Army Navy Fleet Exercise held in May 1935, saw attack, bombardment, pursuit, and observation squadrons perform surveillance missions to include flying at low altitude to locate hostile submarines trying to attack the fleet.¹⁴⁴

"Mission creep" started to appear as the federal government tried to spread out its budget. In the first ten months of FY34 the 18th Composite Wing flew over sixty-nine hours for the Hawaiian Department on missions such as sowing seeds, looking for lost persons, and working with the National Guard. To counter this, in FY35 the 18th Composite Wing requested 100 hours for supporting the Hawaiian Department, though not all support missions turned out to be routine.¹⁴⁵ On December 24, 1935, Colonel Emmons, wing commander, flew over the Manua Lea lava flow on Hawaii and after witnessing the impending natural disaster, committed to trying to save the city of Hilo. Two days later the 5th Composite Group dispatched ten bombers, two amphibians and two observation aircraft to Hilo. All pilots were loaded into an amphibian with a National Park Service volcanologist and flown over the Manua Lea lava flow to study the target and hear recom-



Brig. Gen. Billy Mitchell inspecting Luke Field, likely early 1920s. Mitchell's vision for the role of air power in Hawaii was to fulfill two functions: support land forces in Hawaii and act as an air force capable of defensive and independent offensive actions.

mended targeting solutions. The plan was to drop 600-lb. demolition bombs to divert the lava flow from the city of Hilo and the headwaters of the Wailuku River. Five bombers took off on December 27, bombed the lava flow, returned to rearm, and attacked again, each bomber dropping two demolition bombs per sortie. After the second attack, the flow was diverted.¹⁴⁶

Aircraft assigned to Hawaii slowly evolved in the mid-1930s. The Air Corps desperately tried to keep abreast of the rapid technology changes occurring in this era with its limited budget. New Martin B-10/B-12 bombers purchased under the FY33 procurement program were assigned to stations in the continental US. Once the new Martin bombers were delivered, ten older B-4A bombers displaced by the new order were delivered to Hawaii, topping the 18th Composite Wing off with twenty-five bombers.¹⁴⁷ One Douglas C-26/OA-4 was also delivered to Hawaii in early 1933 for observation, transport and plane guard purposes. Ten additional P-12E aircraft were also allotted to Hawaii at the same time, with the Boeing fighters being in place by December 1934.¹⁴⁸ With "new" B-4A aircraft in place, four of the older LB-6s were retired with five older P-12B/C aircraft also retiring with receipt of additional P-12Es.¹⁴⁹

By 1936, Waimanalo was becoming ill-suited for the modern aircraft that were starting to equip the units in Hawaii. Renamed Bellows Field on August 19, 1933, the base's runway had sand dunes and the beach at one end and coral knolls at the other, with cuts made through these obstructions to allow a paved 1800-foot runway. This runway work had been done incrementally through the use of annual maintenance and repair funds, as had the slow build up of frame buildings for the housing of deployed personnel. A shorter dirt strip was used as the cross runway. The P-12s and A-3s were confined to the paved runway, resulting in many crashes under cross-wind conditions; the paved runway itself was not suitable for modern aircraft such as B-12s and A-12s. In December 1936, a proposal was put forth to double the width of the paved runway to 150 feet and lengthen it to 2,500 feet as well as improve

the cross-wind runway. Unfortunately, the proposal was turned down in Washington for lack of funds with a recommendation to resubmit for FY39 funds.¹⁵⁰ Lack of funds not only impacted Bellows Field, it also was delaying the final phase of development of the Hawaiian Air Corps infrastructure—the replacement of Luke Field.

A New Home and Changing Roles for the Airmen

In 1928, the War Department recognized the necessity of expanding the air defenses of Hawaii and appointed a Board of Officers to select a suitable airdrome site on Oahu. Only one location was found, 2,225 acres owned by private landowners located at the inlet to Pearl Harbor near Fort Kamehameha. Condemnation proceedings were started but quickly suspended due to lack of funds. Funds were finally available in January 1935 and by April 9 the land was acquired. On May 21, 1935, Hickam Field was established, named in honor of Lt Col Horace Hickam who had died the prior year in an aircraft accident. On July 26, 1935, Capt Howard Nurse, Quartermasters Corps, arrived to supervise construction. Nurse's plans for Hickam Field incorporated the airfield, facilities, plus the Air Depot and were projected to cost \$5M. The plans were approved by Hawaiian Department Commanding General Maj Gen Hugh Drum on August 16. The funds, contained within the Second Deficiency Act signed by President Roosevelt, were allocated with construction projected to take 2.5 years.¹⁵¹

With the loosening of Air Corps aircraft procurement budgets, new aircraft—or at least new to Hawaii—started to arrive in 1936. During the year, the 18th Composite Wing received six P-12E, fifteen A-12, eighteen B-12A, and six BT-2 aircraft as well as enough new trucks to increase the vehicle fleet by 400%.¹⁵² The P-12Es that arrived were the last pursuit aircraft the Hawaiian Department would see for a year, the obsolete P-12s having to soldier on because of higher priorities stateside. P-26s were scheduled to replace the P-12s when they were no longer serviceable.¹⁵³ The A-12s were 'used' aircraft from bases in the Continental U.S. that were refurbished at San Antonio Depot prior to shipment to Hawaii and the BT-2s were assigned for instrument flying purposes, joining newly-delivered Link trainers.¹⁵⁴

In 1934 a "new set up" for the two observation squadrons in Hawaii changed their function from ground-focused corps and division support assets to Air Force support. This change was in line with the overall defense plans for Oahu and required the units to be equipped with longer range aircraft. Since none were available when this change was made, a conscious decision was made to survey the O-19s when they came due for overhaul. The observation squadrons would then have to make do with borrowed aircraft from other squadrons and the four assigned amphibians until new aircraft were available.¹⁵⁵ By the early part of 1936 the 4th Observation surveyed its last eight O-19s and six B-12s were received for long range reconnaissance.¹⁵⁶ This action was apparently at odds with the Hawaiian Department Commander who in November 1936, fired off a note highlighting the inadequacy of B-12s



A DH-4B from the 5th Composite Group on display at the Territorial Fair in Honolulu, October 1921. Between 1919 and 1923 the Air Service contracted to have 1,538 DH-4s remanufactured into DH-4Bs by moving the pilot's seat back and the gas tank forward, correcting the most serious problems in the DH-4 design. Of these, 100 were allotted to the Hawaii with a further reserve of fifty, with aircraft serving at Luke Field between 1920 and 1926 before replacement by the DH-4M.

supporting ground troops and adjusting artillery fire and requested six corps observation aircraft to assist with the department.¹⁵⁷ Air Corps staff responded that while they understood the requirement, no aircraft of that type were available and recommended using assigned attack aircraft for supporting ground forces.¹⁵⁸ Eventually six O-46A aircraft were added to the Hawaiian Department allotment table in September 1937 and though plans were made to ship the aircraft in mid-1938 they ended up being re-routed to the Philippines.¹⁵⁹ On January 25, 1938, the 4th and 50th Observation Squadrons were redesignated as reconnaissance squadrons, with a focus on working with the bombardment squadrons. Training had already switched to bombardment tactics the prior June.¹⁶⁰ As interim support for Hawaiian Division cooperative missions, four B-12A aircraft were assigned to the 18th Pursuit Group for that purpose in November 1938.¹⁶¹ It would not be until February 1940 that the Hawaiian Division received its dedicated support unit with the activation of the O-47-equipped 86th Observation Squadron.

The eighteen B-12s received in 1936, were spread across the 5th Composite Group, with three to each bomb squadron and six to each observation squadron. To bulk up available airframes for training, each bomb squadron was also assigned six B-4/B-5 aircraft while the observation squadrons had P-12As and an OA-4. With the new aircraft came a new mission, and in June 1937, the 50th Observation Squadron training objective for the new fiscal year showed a focus on both observation as well as bombardment tactics.¹⁶² Though the Hawaiian Department was starting to get healthy with aircraft, another problem cropped up—trained pilots. The B-12s were considered such a change over the Keystone bombers that “considerable training will be necessary before an even passable bombing performance can be obtained.” The Department commander requested pilots be assigned to the 18th Composite Wing with prior B-12 experience.¹⁶³ The response from Washington stated five officers were already enroute who fit those qualifications. Unfortunately the situation

would only worsen the following year, for in 1937, Air Corps seniority restrictions for piloting multi-engine aircraft reduced the number of 5th Composite Group pilots who could fly B-12s as most pilots in Hawaii were too junior.¹⁶⁴

Unfortunately for the Air Corps, the B-12s were not delivered and integrated into operations by the 1936 Joint Maneuvers. The 5th Composite Group was lacking suitable long range modern aircraft and let the Navy, equipped with forty-eight long range patrol aircraft, fly the majority of the “Army mission” with these and carrier aircraft, not reflecting well on the Army’s ability to defend Hawaii.¹⁶⁵ This matter remained unresolved in the 1937 maneuvers as still too few B-12s were available for both the reconnaissance and strike role. All aircraft, including fifty Navy flying boats, were under the command of the 18th Composite Wing commander. The Navy flying boats, modern Consolidated PBV-1s, were assigned the long range reconnaissance role and all Army long range aircraft—B-12s in ‘drab camouflage’—were held as a strike force. On the first day of the exercise the *USS Ranger* was located and attacked by eight B-12s; on the second day seventeen B-12s attacked the *USS Lexington* and *USS Saratoga* with Navy PBVs attacking the *Lexington* as well. The last day featured landing operations. It was felt that the Pursuit Group would have been “smothered” under actual conditions due to the Fleet’s “immense superiority in all types of aircraft” and the Hawaiian Air Force wiped out.¹⁶⁶ For Navy Fleet Problem 19 held March 25-30, 1938, the 5th Bomb Group operated under the command of “Red Fleet, Air Patrol and Attack Force,” the Navy unit that coordinated land based aircraft. Naval aviation flew from Oahu, Hilo, French Frigate Shoals and Johnson Island while the 5th Bomb Group flew from Luke and Hickam Fields. Like the year prior, the Navy utilized 60 PBV-1 aircraft for the initial patrolling and reserved the Martin bombers for the final attack on “Blue Fleet”, including the carriers *USS Ranger* and *USS Saratoga*. Post-exercise, Colonel Harmon, 5th Bomb Group commander, complained to Brigadier General H. H. Arnold about the poor command and control of the Navy.¹⁶⁷

The Joint Exercises of the early and mid-1930s helped define the air power mission in Hawaii. By the time the Army Operating Defense Plans for the Hawaiian Coastal Frontier were issued in 1938, the 18th Composite Wing was an integral part of the joint defense solution. The overall objective of the plan was to hold Oahu as a main outlying naval base against enemy attack. The mission of the 18th Composite Wing was threefold: 1) conduct air operations against hostile naval air and expeditionary forces 2) defend air stations, bases and auxiliary fields against air attack and sabotage 3) conduct reconnaissance essential to own combat efficiency and supplement naval air forces in securing information on hostile fleet movements. The 5th Group was to be prepared for reconnaissance and strike missions against hostile naval forces out to a 300 mile radius area of responsibility, with squadrons deploying to designated dispersal fields. The 72nd Bombardment Squadron was to remain on alert as a strike force at Oahu, while the other squadrons dispersed to Maui, Hawaii,



Aerial view of Luke Field, Oahu, T.H. in 1925 depicts 5th Composite Group aircraft lined up for inspection. Aircraft lined up include fourteen MB-3A, five SE-5E, thirteen DH-4, and eight NBS-1.

Oahu, and Kauai. The 18th Pursuit Group's mission was to intercept and destroy hostile aviation within the 300 mile radius of action, with a focus on defending Oahu. The pursuit ships were to be dispersed into revetments and under camouflage but still operating from Wheeler.¹⁶⁸

The later 1930s showed no dramatic change in how the 18th Composite Wing trained its airmen. All squadrons continued to spend two weeks per year at Bellows Field for annual gunnery camp.¹⁶⁹ Squadrons also would venture to South Cape, Oahu for a week of field training; these two deployments made up the annual field training requirement for 18th Composite Wing units.¹⁷⁰ The 18th Pursuit Group was tasked with attacking adversary landing forces at day and night with both the pursuit and attack aircraft. In 1936 and 1937, the group conducted tests at night against floating targets simulating landing craft, using aircraft-dropped parachute flares, coast artillery searchlights and natural moonlight to aid in target acquisition. The floating targets varied, including a fifty-foot steel boat that had run aground and salvaged Quartermaster boats that were set adrift.¹⁷¹ The 5th Composite Group continued its work with coast artillery, flying its OA-4 to spot for gun batteries and continuing to support 64th Coast Artillery (AA) firing practice with target towing and providing targets for searchlight crews to track at night.¹⁷² Airways flights continued as well, with squadrons adding in overnight stays or field exercises. Longer distance flights to the southern islands allowed the pilots in the Hawaiian Department to meet their 500 mile cross country flight annual training requirement.¹⁷³ Hawaiian Department maneuvers were unchanged from prior years, though squadrons did deploy to emergency landing strips and operate under field conditions for day and night missions in both adversary and defending roles.¹⁷⁴

The FY37 aircraft plan was to ship six A-12 aircraft to Hawaii in February 1937, to supplement the earlier shipment of fifteen airframes to ensure eighteen were available

for squadron use with three in depot maintenance; this did not actually occur until early FY38. Hawaii had twelve P-12B, C, and D aircraft on hand that were expected to be surveyed by June 1937 but the thirty remaining P-12E aircraft were deemed to have at least two years life left and not requiring replacement. Two C-33 aircraft were later added to the annual allotment in January 1937 and after delivery flew a steady routine of inter-island flights.¹⁷⁵

The stingy FY37 aircraft plan was the result of limited procurement by the Air Corps in Fiscal Years 1930 to 1935 due to a lack of funds. Once funds were released in FY36, priority went to repairing the run down units in the States with a conscious decision made to let the overseas units weather through the storm with their existing stocks of obsolete aircraft. 18th Composite Wing Commander Brig Gen Barton Yount voiced his concerns about aging aircraft to Air Corps Chief General Westover during a visit in fall 1937, earning a mild rebuke from Assistant Chief of the Air Corps Brig Gen Henry H. "Hap" Arnold. Arnold concurred on the need for modern aircraft in Hawaii, but asked Yount "if you will tell me where they are coming from, it will solve a lot of problems back here" and proceeded to outline delays in delivery of Seversky P-35s and observation aircraft.¹⁷⁶ In a follow-up letter regarding Hawaii's lack of pilots, Arnold explained to Yount that like aircraft acquisition, personnel manning was also restricting Air Corps operations though "the future looks brighter."¹⁷⁷ To get through this tough patch, the Hawaiian Department was authorized to make do with what they had and allowed to convert B-4 aircraft to transports to make up for a lack of cargo planes available to the department and use B-5A aircraft for the tow target role.¹⁷⁸ On October 27, 1937, the 72nd Bombardment turned in its last B-5A. It was flown to Bellows Field for use as a bombing target.¹⁷⁹

In 1935 the Hawaiian Air Depot was still operating as a sub-depot of Rockwell Air Depot in San Diego, California. This had the unfortunate effect of adding delays onto the already long supply line to Hawaii as some items had to be sent back to California for repair. A program was initiated to address these deficiencies and prepare Hawaii to operate a larger number of more complex and modern aircraft.¹⁸⁰ On August 31, 1936, the Hawaiian Air Depot had 223 civilian employees. forty-seven were clerical—typist, storekeepers, stenographers, etc—twelve were "higher" skilled such as foremen and senior aircraft mechanics, 114 were "mechanics" and fifty skilled and unskilled laborers.¹⁸¹ In addition, eighty-nine enlisted men of the 65th Service Squadron were on duty with the Hawaiian Air Depot.¹⁸² By October 1937, the 'civilianization' of the depot was complete, with all enlisted personnel being replaced by civilian employees. At the same time certain departments of the depot to include sheet metal, instrument, and machinist were expanded with the intent of making the Hawaiian Air Depot as nearly self-sustaining as possible.¹⁸³

The Pace Towards War Picks Up

The pace towards modernizing the 18th Composite Wing continued to gain steam. Even though Hickam Field



Photo taken in March 1929, likely at Luke Field, depicting a Martin NBS-1 with a Boeing MB-3A. The higher landing speeds of the pursuit aircraft made operations of them from Luke Field a challenge.

was still under construction, the 18th Composite Wing Headquarters Flight moved into its new facilities on September 1, 1937. On that date, the organization was also redesignated as 18th Wing, Air Corps. The rest of the 18th Wing finally moved on October 30, 1937 and marked the formal opening of Hickam.¹⁸⁴ As part of its plan to build the Composite Wings in Hawaii and Panama, on January 20, 1938 the General Headquarters Air Force ordered the 31st Bombardment Squadron from Hamilton Field, California to the Hawaiian Department. Movement of personnel and aircraft occurred via Army Transport in February 1938, with the arriving airmen sleeping under canvas at Hickam Field until their barracks were completed the following January.¹⁸⁵ The Air Corps viewed that the transfer of the 31st Bombardment and its thirteen B-18s coupled with an additional twenty B-18s would substitute for the B-10Bs originally scheduled to be shipped to Hawaii during FY38.¹⁸⁶

Organizational name changes were also occurring during this time period. On January 25, 1938, the 65th Service Squadron became the 17th Air Base Squadron and the 75th Service Squadron became the 18th Air Base Squadron.¹⁸⁷ On March 25, 1938, the 5th Composite Group became the 5th Bombardment Group. In September 1938 the 4th and 50th Reconnaissance Squadrons were relieved from assignment to the 5th Bomb Group but were attached to the group; the 26th Attack Squadron was relieved from assignment to the 5th Group and assigned to the 18th Pursuit Group.¹⁸⁸ With name changes and reorganizations came moves. General Orders Number 1, issued by Headquarters 18th Wing on January 1, 1939, moved Headquarters 5th Bomb Group from Luke Field to Hickam Field.¹⁸⁹ Later in the year the 4th and 50th Reconnaissance Squadrons were ordered to move from Luke Field to Hickam Field with a deadline of October 31. Buildings small enough to be moved by barge were floated to Hickam to augment the tent city.¹⁹⁰ The last occupant to move out of Luke Field was the Hawaiian Air Depot, which did not shift to Hickam Field until September 13, 1940, due to the last of its construction funds not releasing until FY40.

The FY38 aircraft plan had promised three transports, twenty five bombers, and fifteen pursuit aircraft to

Hawaii.¹⁹¹ What actually arrived was a slight mixture and included a used Sikorsky Y10A-8 from Hamilton Field, one OA-4B, and four BT-9B for instrument training.¹⁹² Three P-26As from the mainland were received by the 18th Pursuit Group on July 14, 1937, for tests to determine their suitability for use in Hawaii's climate.¹⁹³ After the tests proved their fitness for Hawaii, twenty-eight "used" P-26A aircraft arrived in March 1938. This was the start of a rapid shell game of pursuit aircraft movements between Air Corps bases in the Pacific. In June 1938, the Hawaiian Department was directed to select ten of the recently arrived P-26A aircraft, refurbish them, and load them on the transport ship *USAT Meigs* bound for the Philippines in September.¹⁹⁴ The *Meigs* would unload fourteen P-26Bs for Hawaii at the same time.¹⁹⁵ By the end of the transactions, Hawaii was left with twenty one P-26A and fourteen P-26B pursuit aircraft. A transition aircraft, the P-26 Peashooter soon found itself displaced by more advanced designs like the Curtiss P-36. Delivery of the P-36 to the Air Corps started in April 1938 and by late 1939 twenty P-36s were on hand in Hawaii.

New bombers were on the way to Hawaii as well. B-18s fresh from the Douglas production line started delivery in early 1938 and continued at a pace of six per U.S. Army Transport until thirty were in place by July, with the final three scheduled for August 1938.¹⁹⁶ For a period of the year airmen in Hawaii were treated to the interesting sight of the old and the new, with 23rd Bombardment Squadron Keystone bombers parked next to the gleaming new B-18s.¹⁹⁷ Though the Hawaiian Department was getting flooded with new aircraft, there were limits to what facilities and manpower could absorb. In 1938 the Commanding General of the department turned down four BC-1, five P-26B and fifteen A-17 aircraft to ship in first half of FY 39, stating that additional aircraft other than cargo were not desired at present due to an inability to house or operate them.¹⁹⁸ Changes would come in FY40 as new pursuit aircraft arrived to start replacing the obsolescent P-26s, but by then facilities had been upgraded and Hawaii was well on its way to a war footing.

In the first week of March 1938, the 23rd Bombardment was transferred from Luke Field to Hickam Field. All its B-12A aircraft were left behind at Luke as its pilots started training on the B-18 under instruction from the 31st Bombardment Squadron. The next month the 72nd Bombardment followed its sister squadron, leaving behind its B-12s and picking up five B-18s for training at Hickam. With the bomb squadrons transitioning to B-18s, the older B-12s were transferred to the reconnaissance squadrons to give them more long range aircraft. The 4th Reconnaissance grew in strength from five to ten aircraft in April-May 1938 and by September 1938 pilots from both the 4th and 50th Reconnaissance were training on the B-18.¹⁹⁹ The B-12s still had utility for the department and were used by the bomb squadrons for aerial gunnery training as well as support to the tow target mission for the 64th Coast Artillery (AA).

The new aircraft enabled the 18th Wing to start training in earnest for its mission of protecting the Hawaiian



Loening OA-1C serial number A.C. 28-79 was assigned to the 5th Composite Group and is depicted in Hawaii in 1930. This aircraft was wrecked in surf at Waimanalo, T.H. on September 25, 1931.

Coastal Frontier against hostile naval forces. All 5th Bomb Group squadrons saw an increase in instrument flying training to include ascending and descending through overcast.²⁰⁰ The reconnaissance squadrons, new to the long-range overwater mission, witnessed an increase in training on dead reckoning, search and patrol methods at sea, combat bombing and gunnery and had their officers start training as navigators.²⁰¹ In May 1938, 5th Bomb Group navigators were using ships' weather reports to plan and conduct overwater search and interception missions.²⁰² The Bomb Group's new skills were put to the test in practical exercises. On July 19, 1938, the 23rd Bombardment used the departing *USAT Republic* as a target, squadron B-18s doing an interception problem and finding the transport in open ocean twenty four hours after she left Honolulu.²⁰³ A similar exercise was performed on September 29, with bombers ranging out 329 miles from Oahu.²⁰⁴ On August 11, 1938, the 23rd Bombardment flew to French Frigate Shoals with five combat-loaded B-18s. After reaching the shoals, the formation circled for 15 minutes then proceeded to Necker Island for bombing practice before returning to Hickam Field.²⁰⁵

The new training focus in 1938 was codified in the 5th Bomb Group's FY40 training plan that started on July 1, 1939. Training was now planned out three months in advance as opposed to one month, and the first three months of the year were designated "Regular Practice Season" to knock out all Training Regulation (TR) 440-40 bombing and gunnery training requirements. Field deployments continued as part of the training regime, with squadrons spending two weeks at Bellows doing gunnery and one week at Morse Field on the southernmost tip of Hawaii for bombing training.²⁰⁶ To accommodate its training schedule, the 5th Bomb Group was assigned six water areas adjacent to islands in the Hawaiian chain for bombing, two anchored targets off Oahu and one land target at Morse Field on Hawaii. Five tow target ranges were also set up adjacent to Oahu for aerial gunnery work.²⁰⁷

The 18th Pursuit Group had a similar emphasis on field exercises. In September 1938, the 19th Pursuit spent one week at a Field Training Exercise at Lanai City Air-

port, Lanai. C-33 and Y1-OA-8 flights moved personnel and supplies to Lanai with airmen living under canvas while flying and maintaining eight P-12 aircraft that flew patrols off Lanai, Molokai and Maui. In May 1939 the 6th Pursuit spent five days at Hilo, Hawaii for field maneuvers, with three B-12s, a C-33 and the Y1-OA-8 providing airlift. Formation flying and patrolling over Hawaii were practiced by the deployed pilots. The 19th Pursuit did a similar deployment to Hilo in June 1939.²⁰⁸

Though the 18th Wing was becoming more focused in its role as an air force, support to the Army ground forces in Hawaii continued as before. Tow target and searchlight target missions for the 64th Coast Artillery (AA) continued through 1938 and 1939, utilizing B-12, B-18 and OA-8 aircraft.²⁰⁹ The 5th Bomb Group also participated in the Joint Anti-Aircraft - Air Corps Exercise held November 5-16, 1938.²¹⁰ On May 18, 1939, the 18th Wing conducted a blackout exercise with the Hawaiian Department. During the day, 18th Pursuit Group squadrons flying from Bellows Field did dive bombing attacks on AAA positions. That evening, 18th Wing aircraft were airborne when the blackout alert was given. The aircraft ranged over Oahu, checking for compliance and any visible light while assessing the impact on adversary night operations.²¹¹

Even with their new long range overwater missions to train for, the reconnaissance squadrons continued their cooperative work with artillery units on Oahu. In May 1938 the 4th and 50th Reconnaissance continued cooperative work with the gun batteries at Fort Kamehameha and that August worked with the 16-inch guns at Fort Weaver. Both squadrons also continued their relationship with the 11th Field Artillery.²¹² The 31st Bombardment did an interesting air mobility experiment on June 13, 1939, using B-18s to carry Co D, 19th Infantry Regiment, from Hickam Field to Burns Field, Kauai. Each bomber carried ten soldiers plus equipment in special containers in the bomb bay.²¹³ The 18th Pursuit Group also conducted air mobility exercises of sorts, using six aircraft to drop aerial delivery containers of food to a detachment of 21st Infantry Regiment soldiers to demonstrate infantry support in a March 1939 exercise.²¹⁴ The 26th Attack also joined in, playing the role of adversary air against 35th Infantry soldiers.²¹⁵

Inter-island mass flights continued to provide airmen understanding of their area of responsibility as well as experience in overwater navigation. Flights to Hilo, Hawaii were performed by both 5th Bomb Group squadrons as well as 18th Pursuit Group units, with deployments sometimes combined with overnight stops or multi-day training events.²¹⁶ These training flights provided the experience necessary to perform complicated wing-level exercises as well as joint exercises. On January 25, 1939, the 18th Wing performed a tactical exercise that started with bomb squadrons dispersing to airfields on other islands. The reconnaissance squadrons deployed to outlying fields on Oahu but flew patrols to keep the 'enemy' bomber airfields under surveillance. Once the bombers launched for a raid, the reconnaissance planes trailed the 'enemy' force, providing updates for the 18th Pursuit Group in order for pursuit squadrons to perform an intercept.²¹⁷

The War and Beyond

By the end of 1939, Hawaii's air force was a far cry from its humble beginnings just twenty years earlier. The air presence on the islands had grown from one squadron to a wing, and two groups now encompassed eight flying squadrons performing specialized functions. Facilities now included two upgraded airfields with room for expansion, a bomber force with front-line aircraft, and pursuit squadrons that were scheduled to be similarly equipped within a year. Personnel were also flowing in as the Army increased its size.²¹⁸ And while all of this growth was indeed impressive, the most important outcome was that the

18th Wing had at last found its role for the future.

As architects the Hawaiian airmen developed doctrine to rapidly move throughout the archipelago, deploying to contingency airfield upon airfield in order to provide mobile defense against hostile powers. Tactics developed during that period could now locate and attack enemy fleets as well as shelter Oahu against air and amphibious threats. Air power ideas, developed during group and wing level exercises and then tested in joint exercises, delivered on Brig Gen Mitchell's promise of what air power could deliver – a striking force capable of both offensive and defensive actions. The now robust 18th Wing was the foundational organization that proved able to provide just that. ■

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91. Eighteenth Pursuit Group. Unit Histories, 1921-1940. Various Dates. Air Force Historical Research Agency, IRIS 78042, Maxwell AFB, Ala.; Air Corps Newsletter: June 9, 1930, p. 158; July 2, 1930, p. 197.
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111. Air Corps Newsletter, June 5, 1931, p. 216.
112. Lt Col Gerald Brant, Commanding Officer, 18th Composite Wing. Memorandum to Commanding General, Hawaiian Department. Subject: Air Corps Maneuvers, May 19th – 21st, 1931. May 29, 1931. Box 3017, Entry 172: Project Files – Departments; Hawaii Department, Central Decimal Files 1917-1938, RG 18, NA.
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122. Air Corps Newsletter, January 25, 1932, p. 30.
123. C.A.C. (Chief of Air Corps) Synopsis of cable to Chief, Material Divn. No subject. 16 July 1932. Folder 452.2 – Amphibians, Box 3090, Project Files – Departments; Philippine Department, Central Decimal Files 1917-1938, RG 18, NA.
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128. Air Corps Newsletter, November 30, 1932, p. 469.
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133. Air Corps Newsletter, August 12, 1932, p. 322.
134. Air Corps Newsletter, March 27, 1933, p. 72.
135. Air Corps Newsletter, October 18, 1932, p. 424.
136. Air Corps Newsletter: August 12, 1932, p. 324; October 18, 1932, p. 424; Commander, Luke Field. Memorandum to Commanding Officer, 18th Composite Wing. Subject: Activity Report for the month of November, 1932. December 10, 1932. Box 3013, Project Files – Departments; Hawaii Department, Central Decimal Files 1917-1938, RG 18, NA.
137. Commanding Officer, 18th Composite Wing. Memorandum to The Chief of Air Corps. Subject: Annual Report – Air Corps Activities. July 1, 1932. Box 3013, Project Files – Departments; Hawaii Department, Central Decimal Files 1917-1938, RG 18, NA; Commander, 18th Composite Wing. Memorandum to Department Surgeon, Hawaiian Department. No subject. July 31, 1931. Box 3024, Entry 172: Project Files – Departments; Hawaii Department, Central Decimal Files 1917-1938, RG 18, NA.
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139. Office, Chief of the Air Corps. Memorandum to Commander General, Hawaiian Department. No subject. September 14, 1933. Box 3013, Project Files – Departments; Hawaii Department, Central Decimal Files 1917-1938, RG 18, NA.
140. Commander, Luke Field. Memorandum to Commanding Of-

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141. Air Corps Newsletter: February 1, 1936, p. 7; April 1, 1935, p. 152; April 15, 1935, p. 162; May 15, 1935, p. 23.

142. Air Corps Newsletter, February 1, 1936, p. 7.

143. Hawaii Department, Central Decimal Files 1917-1938, RG 18, NA; Commander, Luke Field. Memorandum to Commanding Officer, 18th Composite Wing. Subject: Activity Report for the Third Quarter, Fiscal Year 1933-34. April 8, 1933; Commander, Luke Field. Memorandum to Commanding Officer, 18th Composite Wing. Subject: Activity Report, Fourth Quarter, F.Y. 1933. July 9, 1933. Both in Box 3013, Project Files – Departments; Hawaii Department, Central Decimal Files 1917-1938, RG 18, NA

144. Air Corps Newsletter, July 1, 1935, p. 4; Eighteenth Pursuit Group. Unit Histories, 1921-1940. Various Dates. Air Force Historical Research Agency, IRIS 78042, Maxwell AFB, Ala.

145. Commanding General, Hawaiian Department. Memorandum to The Adjutant General. Subject: Flying Hours for Cooperative Missions, Fiscal Year 1935. May 15, 1934. Assistant Adjutant General, Hawaiian Department. Memorandum to The Adjutant General. Subject: Flying Hours for Cooperative Missions, FY 1935-36. June 15, 1935. Both in Box 3016, Entry 172: Project Files – Departments; Hawaii Department, Central Decimal Files 1917-1938, RG 18, NA.

146. Air Corps Newsletter, February 15, 1936, p. 20.

147. Assistant Chief of the Air Corps. Memorandum to Chief, Material Division, Air Corps, Wright Field. Subject: Shortage of Airplanes in the Hawaiian Department. January 31, 1933. Box 3023, Entry 172: Project Files – Departments; Hawaii Department, Central Decimal Files 1917-1938, RG 18, NA.

148. Chief of the Air Corps. Telegram to Wright Field. No subject. June 14, 1934; Major Laurence Stone, Commander, Hawaiian Depot. Memorandum to Chief, Material Division, Wright Field. Subject: Report of Status of Airplanes in the Hawaiian Department. August 31, 1934. Both in Box 3023, Entry 172: Project Files – Departments; Hawaii Department, Central Decimal Files 1917-1938, RG 18, NA.

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150. Appendix No. 3 (of what document?). History of Air Service Troops in Hawaiian Department, 1917-1936. No date. Air Force Historical Research Agency, IRIS 259020, Maxwell AFB, Ala.; Air Corps Newsletter, June 1, 1935, p. 5; Commander, Hawaiian Department. Memorandum to The Adjutant General. Subject: Funds for Improvement of Bellows Field. December 9, 1936. Box 3031, Entry 172: Project Files – Departments; Hawaii Department, Central Decimal Files 1917-1938, RG 18, NA.

151. Air Corps Newsletter: October 1, 1935, p. 7; July 1, 1938, pp. 9-10.

152. Commander, Hawaiian Depot. Memorandum to Chief, Material Division, Wright Field. Subject: Report on Status of Airplanes in the Hawaiian Department. July 31, 1936; Commander, Hawaiian Depot. Memorandum to Chief, Material Division, Wright Field. Subject: Report on Status of Airplanes in the Hawaiian Department. August 31, 1936; Both in Box 3023, Entry 172: Project Files – Departments; Hawaii Department, Central Decimal Files 1917-1938, RG 18, NA; Air Corps Newsletter, June 15, 1936, p. 19.

153. Unknown, likely Office of the Chief of Air Corps. Synopsis of cable to Wright Field. No subject. August 18, 1936; C.A.C. (Chief of Air Corps). Synopsis of cable to Commanding General, GHQ Air Force, Langley. No subject. October 22, 1936. Chief of the Air Corps. Telegram to Chief, Material Division, Wright Field. No sub-

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155. Capt H.W. Holden, Office of the Chief of the Air Corps. Memorandum to Major Spatz. Subject: Observation airplane situation, Hawaiian Department. May 15, 1934. Box 3023, Entry 172: Project Files – Departments; Hawaii Department, Central Decimal Files 1917-1938, RG 18, NA.

156. 13th Air Force Publications Officer. The Story of the Fifth Bombardment Group (Heavy). (Commercial Printing: Raleigh, 1946). Air Force Historical Research Agency, IRIS 1043686, Maxwell AFB, Ala.

157. Commander, Hawaiian Department. Memorandum to The Adjutant General. Subject: Request for Corps and Army Observation Airplanes. November 20, 1936. Box 3023, Entry 172: Project Files – Departments; Hawaii Department, Central Decimal Files 1917-1938, RG 18, NA.

158. Office of the Chief of the Air Corps. Memorandum to The Adjutant General. No subject. January 12, 1937. Box 3023, Entry 172: Project Files – Departments; Hawaii Department, Central Decimal Files 1917-1938, RG 18, NA.

159. Office of the Chief of the Air Corps. Memorandum to The Adjutant General. No subject. September 30, 1937; C.A.C. (Chief of Air Corps). Synopsis of cable to A.G. (Adjutant General?). No subject. May 4, 1938. Both in Box 3023, Entry 172: Project Files – Departments; Hawaii Department, Central Decimal Files 1917-1938, RG 18, NA.

160. The Adjutant General. Memorandum to Commanding General, Hawaiian Department. Subject: Redesignation of Air Corps Units, Hawaiian Department. January 25, 1938. Box 3014, Entry 172: Project Files – Departments; Hawaii Department, Central Decimal Files 1917-1938, RG 18, NA; Air Corps Newsletter, August 1, 1937, p. 21.

161. Commander, 18th Wing. Memorandum to Chief of the Air Corps. No subject. November 18, 1938. Box 3023, Entry 172: Project Files – Departments; Hawaii Department, Central Decimal Files 1917-1938, RG 18, NA.

162. Commander, Hawaiian Department. Memorandum to The Adjutant General. Subject: Airplane Situation, Hawaiian Department. November 2, 1936. Box 3023, Entry 172: Project Files – Departments; Hawaii Department, Central Decimal Files 1917-1938, RG 18, NA; Air Corps Newsletter: September 15, 1936, pp. 18-19; August 1, 1937, p. 21.

163. Commander, Hawaiian Department. Memorandum to The Adjutant General. Subject: Officer Personnel – 18th Composite Wing, Air Corps. September 30, 1936. Box 3004, Entry 172: Project Files – Departments; Hawaii Department, Central Decimal Files 1917-1938, RG 18, NA.

164. Air Corps Newsletter, November 15, 1937, p. 25.

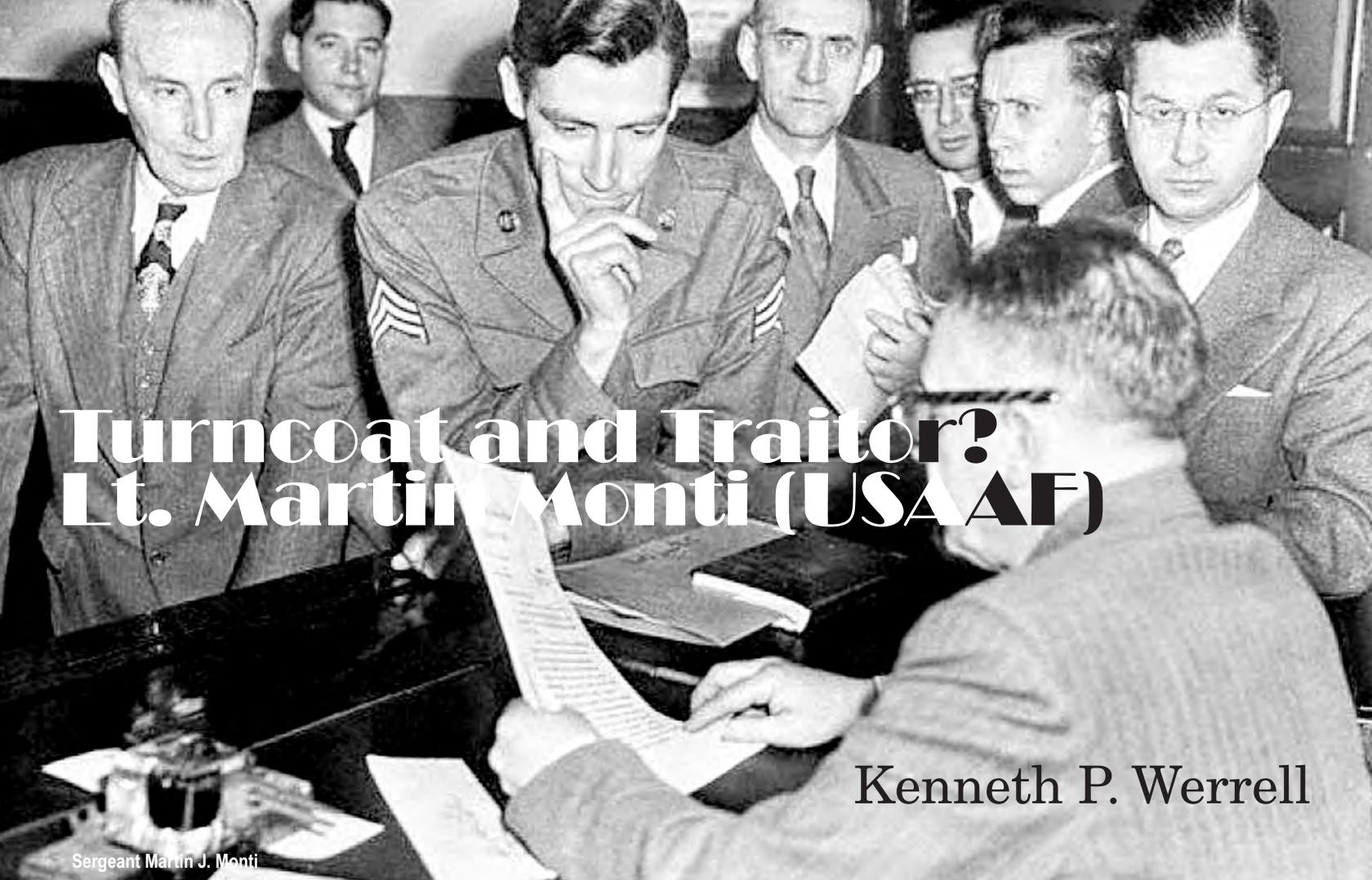
165. Commander, Hawaiian Department. Memorandum to The Adjutant General. Subject: Airplane Situation, Hawaiian Department. November 2, 1936. Box 3023, Entry 172: Project Files – Departments; Hawaii Department, Central Decimal Files 1917-1938, RG 18, NA.

166. Commanding General, 18th Composite Wing. Memorandum to Brigadier General H.H. Arnold, Assistant Chief of the Air Corps. No subject. June 5, 1937. Box 3016, Entry 172: Project Files – Departments; Hawaii Department, Central Decimal Files 1917-1938, RG 18, NA; Air Corps Newsletter, June 1, 1937, p. 8.

167. Air Corps Newsletter, May 1, 1938, pp. 9-10; Colonel Millard Harmon, Commander, 5th Bomb Group. Memorandum to Brig Gen H.H. Arnold, Office of the Chief of Air Corps. No subject. May 7, 1938. Box 3014, Entry 172: Project Files – Departments; Hawaii Department, Central Decimal Files 1917-1938, RG 18, NA.

168. Army Operating Defense Plans – Hawaiian Coastal Fron-

- tier. Operations Orders, 18th Pursuit Group. 1938. Air Force Historical Research Agency, IRIS 78080, Maxwell AFB, Ala.
- 169.** Eighteenth Pursuit Group. Unit Histories, 1921-1940. Various Dates. Air Force Historical Research Agency, IRIS 78042, Maxwell AFB, Ala.; Air Corps Newsletter, September 15, 1936, pp. 18-19.
- 170.** Air Corps Newsletter, December 1, 1937, p. 23.
- 171.** Air Corps Newsletter: October 1, 1935, pp. 11-12; February 15, 1936, p. 17; Eighteenth Pursuit Group. Unit Histories, 1921-1940. Various Dates. Air Force Historical Research Agency, IRIS 78042, Maxwell AFB, Ala.
- 172.** Air Corps Newsletter: January 15, 1938, p. 20; December 1, 1938, p. 6.
- 173.** Air Corps Newsletter: January 15, 1937, p. 8; March 1, 1937, p. 19; July 15, 1938, p. 14.
- 174.** Air Corps Newsletter, August 15, 1936, p. 20.
- 175.** Chief of Air Corps. Memorandum to Commanding General, GHQ Air Force, Langley Field, VA. Subject: Airplanes to Hawaii and Philippine Departments. 22 October 1936. Folder 452.1C, Box 3089, Entry 172: Project Files – Departments; Philippine Department, Central Decimal Files 1917-1938, RG 18, NA; Air Corps Newsletter, November 15, 1937, p. 25.
- 176.** Assistant Chief of the Air Corps. Memorandum to Brig. Gen. Barton Yount. No subject. November 15, 1937. Box 3003, Entry 172: Project Files – Departments; Hawaii Department, Central Decimal Files 1917-1938, RG 18, NA.
- 177.** Assistant Chief of the Air Corps. Memorandum for Brig. Gen. Barton Yount, Wing Commander, Ft Shafter, Hawaii. No subject. December 10, 1937. Box 3013, Project Files – Departments; Hawaii Department, Central Decimal Files 1917-1938, RG 18, NA.
- 178.** Office of the Chief of the Air Corps. Memorandum to The Adjutant General. No subject. January 12, 1937. Box 3023, Entry 172: Project Files – Departments; Hawaii Department, Central Decimal Files 1917-1938, RG 18, NA.
- 179.** Air Corps Newsletter, December 1, 1937, p. 23.
- 180.** Major General Drum, Commanding General, Hawaiian Department. Memorandum to The Adjutant General. Subject: Change of Status of the Hawaiian Air Depot. April 27, 1935. Box 3014 Entry 172: Project Files – Departments; Hawaii Department, Central Decimal Files 1917-1938, RG 18, NA.
- 181.** Report of Civilian Employees, Air Corps, Hawaiian Department. August 31, 1936. Box 3007 Entry 172: Project Files – Departments; Hawaii Department, Central Decimal Files 1917-1938, RG 18, NA.
- 182.** Air Corps Newsletter, September 15, 1937, p. 24.
- 183.** Hawaiian Air Depot. Memorandum to Major General Westover, Chief of the Air Corps. No Subject. October 11, 1937. Box 3014 Entry 172: Project Files – Departments; Hawaii Department, Central Decimal Files 1917-1938, RG 18, NA.
- 184.** Air Corps Newsletter: October 1, 1937, p. 9; December 1, 1937, p. 8.
- 185.** Air Corps Newsletter: February 1, 1938, p. 13; March 15, 1938, p. 6; 31st Bombardment Squadron. Historical Supplement, 26 June 1917 to 1 January 1944. Air Force Historical Research Agency, IRIS 43823, Maxwell AFB, Ala.
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- 203.** Air Corps Newsletter, September 1, 1938, p. 4.
- 204.** Air Corps Newsletter, November 1, 1938, p. 15.
- 205.** Air Corps Newsletter, September 15, 1938, p. 8.
- 206.** Air Corps Newsletter, September 15, 1939, p. 12.
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Turncoat and Traitor? Lt. Martin Monti (USAAF)

Kenneth P. Werrell

Sergeant Martin J. Monti

The public prefers its history in a heroic fashion on the side of the “good guys.” In that vein World War II is remembered as the war that rallied the American people behind a common effort and that had clear-cut villains and clean-cut heroes. Certainly it was an episode of the “good guys versus the bad guys.” For most Americans remember that war as the model war – the kind of war with which Americans are most at ease: a popular and successful crusade. If there ever was one, this was “a good war.”

Thus, little attention is focused on American military misbehavior, specifically that of deserters, defectors, and traitors. Certainly desertion has been a problem in a number of American wars. However, compared to the millions of men and women who have worn this country’s uniform, less than 10 percent deserted, and of these, only a handful became defectors and traitors. The case of Lt. Martin Monti touches on these elements of defection and treason and is the focus of this essay. But first it is appropriate to review similar cases to provide context. I have limited this overview to instances of defection by individuals serving in the military.

Context

Although small in numbers these defections have occurred in most, if not all, American wars. The most notorious was the treason of Benedict Arnold during the American Revolution, a sad story of one of Washington’s best generals trying to sellout his country.

In the Mexican war a number of deserters joined the Mexican army.¹ Most were immigrants, as many as 700, mainly from Ireland although other national groups were represented, serving in a unit known as the Saint Patrick’s Battalion.² They saw action in the major battles of that war in which they fought well and were, and are, regarded and better known, as heroes in Mexico and Ireland. Some eight-five were captured at the battle of Churubusco, seventy-two were tried, convicted, and initially sentenced to death. There was an uproar at these verdicts and General Winfield Scott pardoned five and reduced the sentences of others so that about fifty were executed. Those with reduced sentences received fifty lashes, were jailed, and branded on the face with the letter “D.”³

Defectors were also seen in the Civil War. In 1862, Col. J. A. Mulligan sought permission to enlist Confederate prisoners of war for service in the Federal army. By October he had enrolled some 228 men. They were to serve on the western frontier to maintain order and defend against Indian raids, and were promised that they would not fight Confederates. They had only to take an oath of allegiance to the U. S. and were called “galvanized Yankees.” In 1864, the program was expanded

to field six regiments with some 6,000 men. The Union Navy enlisted some 400 Confederate prisoners. The miserable conditions in the prison camps and the high mortality rates were the major inducements to change sides. Although none of these men engaged their former comrades, the “galvanized Yankees” allowed Federal troops to be transferred from the west into the fighting in the east.⁴

America’s brief and successful war with Spain at the end of the 19th century was followed by a much more difficult and brutal conflict against Filipinos fighting for their independence. There were problems of motivation throughout the army due to the tough physical conditions in a difficult anti-guerrilla campaign. In addition, some troops saw the conflict as imperialistic, while in the ranks of the black units racism in the American army and society created sympathy for the insurgents. Among American forces were over 6,000 black regular army and volunteers in segregated units.⁵ A majority of the secondary sources write that fifteen to thirty black soldiers defected to the rebel’s forces.⁶ The most famous (infamous) of these was David Fagan who gained fame as a rebel officer for his bravery, audacity, and flamboyance.⁷ He led many attacks and his prominence was acknowledged with a \$600 dead or alive reward. Twenty captured defectors were sentenced to death, two of whom were executed,⁸ however Fagan was never caught. Instead a Philippine hunter presented American authorities with a bag containing the decomposed head of a black man and a number of items known to have belonged to Fagan. However, there are those who believe this was a ruse and Fagan peacefully lived out his days.⁹

I have found no evidence of this sort of misbehavior in World War I, and only three cases in World War II. One of these is the subject of this essay. The second involved John D. Provoo, who as a teenager became a Buddhist and began to study Japanese.¹⁰ In 1940, he went to Japan to further study the Japanese religion and the language. He returned to the U. S. after seven months. In May 1941, he enlisted in the army, was sent to the Philippines, and was captured on Corregidor.¹¹ Provoo’s language skills proved useful to the Japanese and allowed Provoo to gain special treatment. Most serious of the allegations against him was that he bore responsibility for the execution of an army captain with whom he had a conflict. The Japanese took Provoo to Tokyo where he made a number of propaganda broadcasts. After the war he was investigated but not charged for his wartime conduct. He was granted an honorable discharge in April 1946 and reenlisted in September. Then in June 1949, he was discharged and immediately arrested by the FBI on charges of homosexuality. There were further investigations, but no trial. As one author has written, the question was “Had Provoo joined the Japanese voluntarily,

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Lt. Martin J. Monti.

as the government argued, or was he a confused, psychologically distraught and sexually misguided soldier placed in a horrible set of circumstances.”¹²

The investigations continued for literally years, 1949 to 1952, after which his trial in civilian court began that lasted from October 1952 until February 1953. It focused on Provoo’s homosexuality and that few of his peers liked him and believed that he was a traitor. On February 12, 1953 he was found guilty of betraying the U.S. and sentenced to a life term and a \$10,000 fine. Provoo was the eighth American citizen convicted of treason after the war. The judge stated that he spared Provoo’s life due to a mitigating condition of “great emotional instability.”¹³ However an Appeals Court unanimously overturned that verdict. It found the venue improper and that the focus on Provoo’s homosexuality was irrelevant, inflammatory, and prejudicial, meant to humiliate and degrade. However it did hold that a second trial was in order. This was conducted starting in November 1954 and concluded in March 1955 when the judge threw the case out due to the long delays and long incarceration (five years in prison). In October 1955, the Supreme Court upheld that opinion. Provoo died a free man in August 2001.¹⁴

Dale H. Maple was the third American World War II defector. A brilliant individual, he graduated from high school at age fifteen, from Harvard at nineteen, and had mastered a dozen or two languages according to three sources. Yet he exhibited a near fatal flaw, his enthusiasm

for Nazi Germany. This caused him grief at Harvard and in the army. He was assigned to the 620th Engineer General Service Company along with 200 other men suspected of similar positive sympathies for Germany. The men of the unit became friendly with German prisoners that worked in their Colorado army camp. Maple went one step further, in February 1944, he helped two prisoners escape and with them headed south toward Mexico. The trio made it to Mexico, but were turned over to American authorities.

In April 1944, Maple was court-martialed and charged with desertion and aiding the enemy, capital offenses. Found guilty of both charges, he was sentenced to death by hanging. However, President Roosevelt reduced the sentence to ten years imprisonment. Maple was released short of that sentence in February 1951. He died in May 2001.¹⁵

At the end of the Korean War a number of American soldiers shocked the country when they elected not to return to the U. S. but instead chose to remain in Communist China. The experience of U.N. captives in Communist's prisons was very bad with an overall death rate of about 40 percent.¹⁶ Again, as to be expected under such harsh conditions, not all prisoners performed well. Some estimate that as many as one-third of the prisoners collaborated with their captors, and that one-seventh were considered guilty of "serious collaboration." This included signing false confessions, making propaganda radio broadcasts, lecturing fellow inmates, and acts considered "aiding the enemy." Some went further, informing on, stealing from, and beating fellow prisoners. As a result, after their return 500 former prisoners were investigated for misconduct and fourteen were court-martialed.¹⁷ (Early discharge prevented court-martial proceedings against others.)

In the postwar exchange of prisoners, initially twenty-three Americans and one Briton refused to return home. After a 90-day period, two of the Americans changed their minds, leaving twenty-one to live in China.¹⁸ Eventually all but one who remained in China and three or so who settled in Europe, returned to the U.S. The reasons advanced to explain their actions varied from man to man but included, acceptance of communism, fear of punishment, personal background, and opportunity.¹⁹

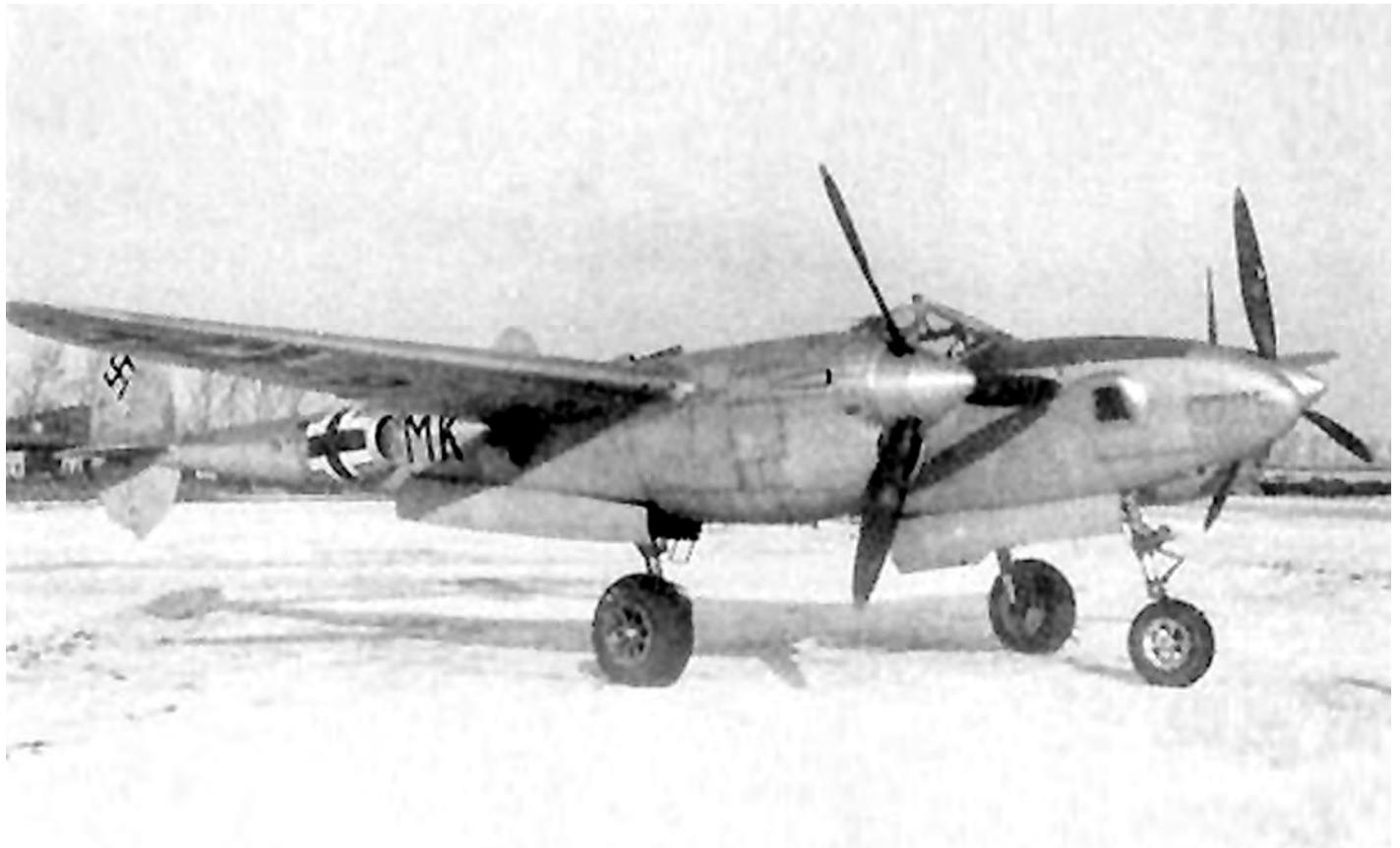
At the end of the Vietnam War in 1973, when 561 American prisoners returned to the U.S., two did not. One of these was a Marine, Robert Garwood, captured by the Viet Cong on September 28, 1965 and returned to the U. S. in March 1979. In a long court-martial (August 1980 to February 1981) Garwood was charged with severe offenses. The most serious involved a July 1968 firefight during which a Marine reconnaissance team engaged an enemy unit that included a Caucasian, who the team identified as Garwood. American prisoners also testified that Garwood guarded, interrogated, and lectured them. He was seen in an enemy uniform with a gun. Although the court-martial found him not guilty of the more serious charges, it did find him guilty of collaboration and assaulting a prisoner. He received a sentence of a reduction in grade from PFC to Private, forfeiture of pay and allowances, and a dishonorable discharge, but no prison time, which in view of the allegations seems mild.²⁰

McKinley Nolan deserted in November 1967, two weeks short of completing his second Vietnam tour. Some explain his motivation as his opposition to the war, his sympathies for the Vietnamese people, and his reaction to racism. Another explanation is that he was caught stealing military supplies and selling them on the black market. In any event, he worked with the Communists producing broadcasts and leaflets in which he urged fellow blacks to lay down their weapons and join the revolution. He was also seen in a North Vietnamese uniform carrying a gun. The common view is that he was killed by the Khmer Rouge in Cambodia where he had been living a simple life. However, in light of an apparent/possible sighting of Nolan in 2005, that led to the making of a documentary film ("The Disappearance of McKinley Nolan"), there is a counter view.²¹

The most recent case of misbehavior involved Bowe Bergdahl who left his post in Afghanistan on June 30, 2009, was captured by the Taliban, and held captive for five years. On May 31, 2014 he was exchanged for five top Taliban prisoners. His conduct and the prisoner swap that brought him home ignited a furious controversy. The Obama administration celebrated and praised the recently released prisoner with a White House Rose Garden ceremony with Bergdahl's parents on the day of the exchange and the following day Susan Rice, National Security Advisor, asserted that Bergdahl had served with "honor and distinction." There was a public and press pushback on this episode.

Certainly the army had a different view. Although an army investigation recommended against punishment, the army court-martialed Bergdahl.²² He was charged with desertion to shirk important or hazardous duty and misbehavior before the enemy by endangering his unit. Conviction of the latter charge could result in a life sentence. The soldier's case was not helped by evidence that he was critical of the war and America. Just three days before his desertion he had emailed his parents writing that "I am ashamed to even be an American" and that the army is an "army of liars, backstabber, fools, and bullies."²³ Certainly a factor in his conduct was Bergdahl's mental health; an army sanity board reported he had a severe mental disease or defect. Nevertheless they opined that Bergdahl "was able to appreciate the nature and quality and wrongfulness of his conduct."²⁴ However, the army knew this prior to this incident and had granted him a mental health waiver.²⁵

Bergdahl stated that he was going to the next American post to report misconduct in his unit and intended to quickly return. An army report found no evidence of misconduct during his imprisonment. Further the investigation's head testified that there was no evidence that Bergdahl was sympathetic to the Taliban or intended to desert. He concluded that imprisonment would be inappropriate. An army review agreed on this and that a punitive discharge was also inappropriate. But higher authority rejected these recommendations. After President Barak Obama turned down a pardon petition and the system rejected the claim of command influence, that is, the public



A U.S. P-38, dressed in Nazi markings.

statement by President-elect Donald Trump that Bergdahl was a “dirty rotten traitor” prejudiced a fair trial, Bergdahl plead guilty to desertion and misbehavior before the enemy. On November 13, 2017, he was sentenced to demotion to private, a dishonorable discharge, and a \$10,000 fine. There would be no jail time.²⁶

Martin J. Monti: World War II Traitor or Fool?

A third individual who seriously misbehaved in U. S. military service during World War II was Army Air Forces Second Lieutenant Martin J. Monti. Unique in this case was the fact that Monti was an officer.²⁷ What follows is the story of an American army officer and his escapades late in the war.

On May 13, 1945, only a week after the German surrender, Second Lieutenant Martin J. Monti was interviewed by American forces following his return from enemy-controlled territory. Monti stated he was a member of the 97th Fighter Squadron, 83d Fighter Group shot down on his first mission to Milan, Italy, on October 13, 1944. The airman related how German flak set one engine on fire and knocked out the other, forcing him to bail out. He told how he was immediately captured by the Germans, jailed, interrogated, and housed for several days near Verona with another pilot who he thought was named Smith. Monti described being taken to Germany and transferred to a number of prison camps. During one of these transfers he was able to escape and, with the aid of some

peasants, worked his way south. For six weeks he was on the road, getting through the Brenner Pass and moving towards Switzerland. Near the end of April 1945, just as the war was ending, he made it to Milan and awaited the arrival of Allied ground forces.²⁸

Monti's interrogation was standard for all Allied airmen shot down during the war and had escaped from captivity. He went through the same routine as a matter of course. That is until the next day when he was arrested in the Red Cross Officers' Club in Bari, the charges were violations of the 58th and 94th Articles of War: desertion and misappropriation of a P-38.²⁹

Under these changed circumstances, Monti elaborated on his experience. He told the investigating officers that he had left Florida in August 1944, and arrived about five days later in Karachi (present day Pakistan), where he was put into a pilot pool awaiting assignment. Having been idle for six weeks, he left Karachi and attempted to get to the European Theater to join his friends and comrades and to fight the war. He hitchhiked aboard military aircraft that touched down at Abadan, Cairo, Tripoli, and finally Naples. From there Monti got a ride to Foggia where a number of his friends were assigned to the 82d Fighter Group, a P-38 outfit. He asked the unit commander to let him join, but was rebuffed. On his return from this visit, he stopped at Pomigliano airfield and spoke to some mechanics who told him that a P-38 needed a test hop. Since he had not flown in weeks, Monti explained that he was unable to resist the temptation and took the aircraft up without proper, in fact



A U.S. P-38, dressed in Nazi markings being rolled into the shelter.

without any, authorization. He easily got the brand-new Lightning into the air,³⁰ flew over the front lines, and then got lost. The aircraft was hit by flak, disabling one engine, forcing him to bail out near Milan. He then repeated his earlier story of his captivity, escape, and return.

Only a few additional details emerged from this interview. Monti was able to recall the name of only one American in the prison camp with him, a Sam Sorokin from North Figueroa Street in Los Angeles. The agent also learned that Monti had been in Italy for six months in 1938-39, mostly in Naples, but traveled to other parts of the country, including Milan. The purpose of the trip was to help a great aunt who was coming to the United States.

The agent was struck by a number of inconsistencies in Monti's account, but reached no firm conclusions. He reported:

There are many improbabilities but no impossibilities in subject's story. Getting hit by flak in a single P-38 is not impossible; being helped by Germans and Austrians (farmers) for two months is difficult to believe, but it could be done, that in all this time he is missed by the Allied escape underground is also not impossible, that he comes through Treviso, which is on the east side of Italy and goes to Milan instead of heading due south for the nearest Allied army might be explained by the contingencies of travel by one who must not be seen.

The agent concluded that these doubts were serious, but might be cleared up if Sorokin could confirm at least part of the story. The agent also noted that Monti did not try to conceal his identity either when he took off or returned.³¹

The Army conducted a second interview with Monti ten days later. At first Monti was reluctant to talk with the agent, citing his rights and asking how long he would be held before charges were filed against him. Nevertheless, the agent was able to get Monti to repeat his story and add a few more details. He recalled that while imprisoned in Verona, he was joined by a B-24 pilot from Texas by the name of Jones. Monti again mentioned Sam Sorokin, but could not recall any other names. He explained that he purposefully did not learn any names as he had been briefed on numerous occasions not to remember the names of those helping escaped fliers. (This policy was to protect civilians in German occupied territory, not the escapees.) Monti "admitted his story sounded extraordinary," but that it was the truth and he could not change it to make it sound better.³²

The Army interviewed a number of individuals in its investigation of this case. One of Monti's friends, Second Lieutenant Marvin E. Andrews, told the authorities that during his trip to Italy, Monti looked up Andrews and told him that he had been transferred to Italy. Monti tried to get a transfer to Andrews' P-38 unit, but the commander would not go along with that proposal. The next day Andrews flew Monti to Pomigliano, and that was the last time he saw him. Andrews went on to say that Monti's family was from Genoa, Italy, but that Monti could not speak Italian. Finally he recalled Monti saying he had not flown in over three months and "was itching to get his hands on a plane again." A month after Monti's disappearance, Andrews received a letter from Monti wherein he wrote of his disgust with both the U. S. and his military future as there were "thousands" of pilots without assignments in the pilot



Martin Monti being escorted in the courtroom.

pool.³³ In late December 1944, Monti sent a letter to his parents that indicated he was a prisoner of war in Stalag 3D. Monti's prisoner status was confirmed by the government in May.³⁴

One officer that had known Monti both stateside and in India, said that Monti was an Italian-type in appearance and spoke Italian and Swiss fluently, had friends in Italy, and knew girls in Switzerland. More seriously, he mentioned that Monti "avowed that he would fly over Switzerland, bail out with a distress signal, and be reported missing in action." According to this officer, Monti was bitter about being in the Army and against U.S. participation in the war. The officer recalled that Monti "claimed that we were misled and that propaganda was as responsible for our being in the war as it was for the German people. He stated on occasions that the Italian and German people were as much in the right as we were." After Monti disappeared, the officer received a letter from a mutual friend who wrote that Monti had shown up in Italy, secured a P-38, took off and disappeared. He believed that Monti headed for Switzerland to get out of the fighting. "I do not believe he would sell out to the Germans," the officer stated, "but he was so queer and strange that he might well do this."³⁵

Monti was examined by a psychiatrist in July 1945, who opined that the lieutenant was legally sane, entirely rational, friendly, and cooperative. He did note, however,

that Monti seemed to have less self-control than the average man, but "not enough variation from normal to make a psychiatric diagnosis." A few months later Monti wrote his parents and related a somewhat different story of his session with the psychiatrist, stating that his "psycho tests" went pretty good. In his words: "I have a trace of psychopathy which, as it was explained, meant I was inclined not to stay in one place so well as the Army desires. The doc's recommendation was that I be sent to the States and discharged."³⁶ A psychological diagnosis in 1948 recorded no psychosis or mental defect, but did indicate a psychopathic personality with paranoid and obsessive compulsive features.³⁷

On August 4, 1945, Monti was tried before a general court-martial in Naples for violation of two articles of war: that he deserted his unit in India; and had "wrongfully, knowingly and willfully misappropriated one P-38-type aircraft." Monti plead not guilty to both charges. The witnesses backed up what they had already told the authorities without much trouble. (One exception was a leading witness, a British airman in the operations room when the P-38 was taken, who at first could not identify Monti, but instead embarrassingly pointed to an investigator of the accused.) One clarification, perhaps, came from the man who had told the authorities of Monti's comment on faking engine problems and flying to Switzerland. He admitted this conversation took place during a bull session, perhaps muffling the impact of that statement. The government did confirm that Private Sorokin was a prisoner-of-war, but apparently could not locate him, as nothing was added on that score.

Monti testified on his own behalf. He claimed that he left India because of the inactivity there, a desire to join his buddies, and the urge to get into combat. He repeated his story and summed up by stating: "I went too far and stuck my neck out a little too far and was shot down." This time he mentioned that the bomber pilot's name that he met in Verona was Smith, not Jones. He explained away his Swiss comment by claiming that he said it jokingly and that it was a common expression. He admitted what he did was legally wrong, but that his "only purpose was to get into action and be able to do some good for the country and fly as soon as I could." The court-martial trial lasted two days, and found Monti guilty of two charges. The desertion charge, however, was changed to the less-serious one of absence without leave (AWOL). Nevertheless, Monti was sentenced to dishonorable discharge and fifteen years at hard labor.³⁸

Meanwhile stateside, the Monti family was working the political angles. By September 1, General Harry Vaughan's office—Vaughan was an aide to the president and one of Truman's political cronies—received a cry for help from Monti's father. The senior Monti also contacted his congressman who wrote to President Truman that his son's sentence was too harsh. The younger Monti added to the pressure on the government by claiming mistreatment of prisoners sentenced by court-martial and confined in Italy. He wrote that the men were so hungry that they frequently ate from garbage cans; that one man died of pneu-

monia after being doused with water every hour; and another hanged himself awaiting review of his court-martial. These allegations, along with Monti's version of events were published in a stateside newspaper early the next year. It is probably no accident that in short order favorable action was taken for the convicted man. On February 4, 1946, Monti's sentence was remitted on the provision that he enlist in the Army.³⁹

Monti complied and served in the enlisted ranks at Eglin Field, Florida. On January 26, 1948, he was mustered out with a general discharge under honorable conditions at Mitchel Field, New York. This was not the end of the case, however, for within minutes he was arrested by FBI agents. The charge was treason.⁴⁰

The Charge was Treason

As strange as Monti's original story might appear, the tale that now emerged was even more bizarre. The government asserted that Monti flew the P-38 to Vienna where he surrendered to the Germans and then worked for them. Perhaps the most damning was the testimony of Monti's German interrogator, who testified that the airman made clear from the outset that he was a defector, not a prisoner, by writing "Landed deliberately" on an interrogation questionnaire. He stated that Monti also volunteered to fly and fight against the Russians. Monti insisted he "wanted to fight the Bolsheviks, not the Germans," but also added that he would "not undertake anything detrimental to the interests of the USA." He told the German that the U.S. would eventually realize that Russia was America's real enemy and that Germany was an ally. The Germans were unaccustomed to such requests and suspected a trick.⁴¹

These suspicions may explain why Monti did not get a chance to fight against the Soviets, but instead made numerous radio broadcasts for the German overseas short-wave propaganda office under the name of Martin Wicthaupt, which was his mother's family name. (The use of an alias may explain why the American authorities did not know of Monti's treasonous activities when he was originally court-martialed.) This job did not work out too well perhaps because Monti was reluctant to talk against America or perhaps because Monti was "inarticulate," as a later writer noted. After delivering fifteen to twenty broadcasts, he was sent to Hungary to see the damage caused by the advancing Red Army.

He then went off to an S.S. detachment in a German lieutenant's uniform supposedly as a leader in the American contingent, consisting of American prisoners of war, of the German Foreign Legion to fight the Soviets.⁴² (He was wearing the German uniform when he reached Allied lines.) Monti never got to the Front, but did convince the Germans to give him permission to visit his sick grandmother in Italy.⁴³

By late 1947, Monti had modified his story somewhat. He now claimed his aircraft was running out of fuel when he landed at what he thought was an abandoned airfield in Allied territory, but it turned out to be held by the Ger-

mans. He insisted that the Germans made subtle threats that convinced him to cooperate with them. Monti admitted making fifteen to twenty broadcasts and writing six of them, but asserted that he was attempting to reveal to American authorities the effectiveness of their bombing. He also said that he joined the S.S. to get out of Berlin before the Soviets arrived.⁴⁴

Who was Martin Monti?

Born in October 1921, he stood 6 feet, 1 and ½ inches, weighed 160 pounds in 1944, but 180 pounds at an Army physical shortly after his trial. The Army identified him as having straight brown hair and brown eyes. His German interrogator described him as tall, dark haired, good looking, with brilliant teeth. He was a little clumsy perhaps, but not shy or embarrassed and a good speaker, firm and frank. Raised in a respected St. Louis family, he was one of five sons (the other four served in the Navy during the war) and two daughters. His father was an investment broker. During his upbringing, Martin Monti spent his time reading religious, isolationist, and anti-New Deal literature and developed a strong, if not fanatical, view that the Soviet Union was enemy of the U. S. and became a vehement Roosevelt hater. Along with his father, he attended meetings of the prewar isolationist America First Committee. He was strongly influenced by Father Charles Coughlin, a popular radio personality, an anti-Semite who espoused fascist policies. When he reported for service as a flying cadet in February 1943, Monti believed that the United States was on the wrong side in the war.⁴⁵

The man who connected the flier to his stint as a German propagandist was a Department of Justice official, Victor Woerheide, who ironically had also lived in St. Louis. He was tracing cases of Americans who made broadcasts for the Germans, and in 1946, concluded that Wiethaupt was Monti. After a minor snag of jurisdiction was resolved between the Army and the Department of Justice, the latter called Monti to testify against an alleged radio traitor. After a second interview, Monti hired a lawyer and stated that he was forced to make the broadcasts because of Nazi threats. Nevertheless, Monti was indicted and accused of twenty-one overt acts of treason, to which he plead not guilty. At the request of his defense counsel, he was put into a mental hospital for three week's observation, where the doctors concluded that Monti was psychotic with paranoid traits, but legally sane.

Legal action against Monti was pushed by a November 1947, *Washington Post* newspaper gossip column that laid out the case against Monti. In it, Drew Pearson asked why Monti's "case, for some strange reason, has been bottled up in the War and Justice Departments for months."⁴⁶ Three months later Monti was arrested.

The government prepared a powerful case and planned to present one hundred witnesses to the jury, of whom thirty or so were Germans. Then, as the trial was about to begin in January 1949, Monti pleaded guilty to the charges. Due to the seriousness of the crimes, and the special requirements for treason cases, the judge ordered



Father Charles Coughlin, Depression-era radio personality, and an anti-Semite who espoused fascist policies, whose speeches may have helped influence Monti's beliefs.

Monti to confess in open court. A newspaper account wrote that "the tall, handsome figure strode to the stand and admitted calmly that he had turned traitor." The newspaper went on to note that while Monti at times "wore an arrogant grin," at other times he was somber, but throughout he spoke in an almost inaudible voice. The prosecutor made allusions to the Cold War, not mentioning that Monti had offered his services to fight America's present enemy, the Communists. Instead, he stated that "We are now engaged in a 'cold war.' We hear of others who have held or may now hold positions of high trust that they used to aid and comfort, say, a potential enemy. Those so inclined will closely regard what Your Honor does here today." He concluded by reminding the Judge that treason was the most serious crime that could be committed against the U.S.⁴⁷

Monti's lawyer pleaded for mercy, stating that, although Monti was legally sane, that he was "mentally affected." He made this appeal for his client not because he applauded what he had done, but because "in a legal sense, he did not know what he was doing, no matter what the psychiatrists said."⁴⁸ Monti's parents and two of his four brothers were present when he was sentenced to twenty-five years' imprisonment.⁴⁹

As he had in Italy, Monti proved to be less than a model prisoner. Shortly after beginning his sentence at Fort Leavenworth he went on a hunger strike and was put into solitary confinement. Monti's sentence was later extended as punishment for breaking into the prison kitchen and stealing food. He also lodged two appeals of his sentence in 1951 and 1958. During the former he attempted to withdraw his guilty confession, claiming that his statement at his 1949 trial was not a confession of guilt, instead that the guilty plea was based on his misapprehension of its meaning and that he was coerced to plead guilty. Monti stated that his lawyers had failed to make clear that his actions were directed against the Communists, not against the U.S., and that he feared his choices were freedom or death. "I thought I was making a plea of technical guilt," he told the court, "but denying any treasonable motive."⁵⁰ Further he asserted that the indictment was double jeopardy. At the treason trial Monti's lawyers had presented him with three options: go to trial and risk the death sentence; plead insanity; or plead guilty and throw himself on the mercy of the court. They strongly recommended the third choice as they believed if the case went to trial only a miracle could produce a not-guilty verdict. Monti asserted he was put under "moral coercion," a claim confirmed by a chaplain who testified that Monti's parents and the lawyer put considerable pressure on the defendant to sign a confession, which the chaplain described as "moral coercion."⁵¹

It also emerged that Monti made ten recordings in an effort to get to Berlin to see Hitler to advise him on how to stop the Allied bombing of German cities. Monti later claimed his motivation was to warn the U.S. of the threat of Communism and to fight against it. He also claimed he expected his lawyers to do more than just plead for mercy; he expected them to explain his actions. The court ruled on August 1, that Monti's application had no merit.⁵² Later in the decade he appealed on a technical ground that he should have been arrested and tried in Florida, not New York. That motion was also denied.⁵³

Whatever happened to Martin J. Monti? On July 1, 1960, Monti completed the confinement portion of his sentence and was released from the U. S. Penitentiary at Lewisburg, Pennsylvania on parole. He remained on parole until January 1974.⁵⁴ Nothing more appears in the official records available or in the newspapers concerning this case and this individual.

Conclusion

Was Martin Monti a traitor? Technically yes, but more likely a confused individual who had mental problems. Monti was an impulsive man who did not necessarily plan to defect, but probably did so when the opportunity presented itself. His movements in Italy prior to stealing the P-38 and the absence of efforts to hide his identity argue against the conclusion that Monti had any drawn-out plan to defect.⁵⁵ He did not plan to betray his country, but was convinced that Russia, not Germany was America's enemy. Certainly some of his actions and some of his words at the

time of the incident and at his trial indicate that he did not have a firm grip on reality.

One other speculation is perhaps in order. Would the results have been different if the times were different? During the period Monti was tried for treason there were two dozen other Americans indicted for treason, half for making broadcasts for the enemy. In January 1949, at the very time he was facing the federal court, fourteen of these

individuals had been convicted.⁵⁶ Yet Monti, who wanted to fight the Soviets and saw the Germans as allies, was just a few years too early. The bottom line may be that no matter how popular a war is, there will always be some individuals who will buck the tide and see another side, or are drawn into the other side. The lasting question may be, how does a democratic society treat these individuals? And finally, how does history treat such cases? ■

NOTES

1. An excellent source is Wikipedia, "Saint Patrick's Battalion." en.wikipedia.org/wiki/Saint_Patrick%27s_Battalion. One secondary source notes the following desertion rates: the Mexican War 8.3 percent, World War I 1.3 percent, World War II 5.3 percent, and Vietnam 4.1 percent. Desertion in the Civil War was high on both sides. R. A. Burchell book review of Roger Miller, *Shamrock and Sword, California History* (Fall, 1991), p. 315.
2. One source writes that 39 percent were from Ireland and 13 percent from Germany, another that the unit included some runaway slaves. Wikipedia, "Saint Patrick's Battalion"; John Mahon, book review of *Shamrock and Sword, The Journal of American History* (Sep 1990), p. 673. The causes for the desertions varied, but included the harsh treatment and the anti-Catholic atmosphere in the American army, Mexican inducements (land and bounties), along with conduct issues. Fairfax Downey, "Tragic Story of the San Patricio Battalion," *American Heritage* (Jun 1955), p. 21.
3. In one of history's twists of fate, the leader of the unit, John Riley was not hung as he had deserted before the declaration of war. Downey, "Tragic Story," 21,23; Turtle Bunbury, "The San Patricios and the Mexican War of 1847" newstalk.com/newstalk-breakfast/the-san-patricios-and-the-mexican-war-of-1847-718572; Amy Greenberg, *A Wicked War* (NY: Knopf, 2012), p. 209; Texas State Historical Association, Pam Nordstrom, "San Patricio Battalion." tshaonline.org/handbook/online/articles/q1301.
4. There were also Federal prisoners who switched sides, and according to one source were also confusingly called "galvanized Yankees." Mark Boatner, *The Civil War Dictionary* (NY: McKay, 1959), p. 322; William Unrau, "Justice at Fort Laramie: The Trial and Tribulations of a Galvanized Yankee," *Arizona and the West* (Summer 1973), p. 108; R. K. Evans, "Extract from Paper on 'National Enlistment'" *Infantry Journal* (Jul-Aug 1911), p. 10; Elden Billings, book review of D. Alexander, *The Galvanized Yankees, Military Affairs* (spg 1964), p. 37. The most famous of the Civil War deserters was an Englishman, Henry Stanley, who deserted from the Confederate army, Union army, and the Union navy. Later as a newsman he achieved international fame by "finding" doctor Livingston in Africa. Billings, book review.
5. The U. S. Army was officially desegregated in the late 1950s, nevertheless entered the Korea War with segregated units and desegregated during that conflict.
6. E. San Juan, "An African American Soldier in the Philippine Revolution: An Homage to David Fagan." academia.edu/242727/a_homage_to_david_fagan_african_american_soldier_in_the_philippine_revolution; Sandra Averhart, "The Story of David Fagan Turncoat Hero for Black History Month." wuwf.org/post/story-david-fagan-turncoat-hero-featured-black-history#stream/0; Gill Boehringer, "Buffalo Soldiers in the Philippines." blackagenda.com/content/black-american-anti-imperialist-fighters-philippine-american-war.
7. He taunted the Americans, specifically the commander of his old unit, 24th Infantry regiment, and even challenged the most celebrated U. S. commander in the war, Frederick Funston, (who had captured the insurrection's leader Amilio Aguinaldo in a daring coup), to a duel. Averhart, Story of David Fagan.
8. San Juan, "An African-American Soldier."
9. San Juan, "An African-American Soldier"; Timothy Russell, "I Feel Sorry for these People: African-American Soldiers in the Philippine War," *Journal of African-American History* (Summer 2014), p. 209.
10. Two sources were primarily used for the Provo account: Barak Kushner, "Traacherous Allies: The Cold War in East Asia and American Postwar Anxiety," *Journal of Contemporary History* (Oct 2020); Wikipedia, "John David Provo" en.wikipedia.org/wiki/John_David_Provo.
11. Kushner begins his article writing that Provo initially met the Japanese attired in a kimono, with a deep bow, and welcoming the Japanese officers in their language. I have found no confirmation of this incident, which if true, is so unusual as to be unforgettable to all in attendance. Kushner, "Traacherous Allies," p. 813.
12. Kushner, "Traacherous Allies," p. 829.
13. However he was seen as being legally sane. Of this group of eight, one was sentenced to death, three to life, with remaining four to prison terms of six to thirty years. Kenneth Campbell, "A Stunned Provo Gets Life Term: 'Instability' Averts Traitor Death," *New York Times* (Feb 18, 1953), pp. 1, 14.
14. Kushner, "Traacherous Allies," 834-841; "Treason Conviction of Provo is Upset," *New York Times* (Aug 28, 1954), pp. 1, 6.
15. Fred Borch, "Legal Lore: Tried for Treason: The Amazing Case of Private Dale Maple," *American Bar Association* (Spring 2012); Emily Breslow, "Harvard to Treason," *The Harvard Crimson* (Mar 3, 2011); "Dale H. Maple," *Colorado Encyclopedia*.
16. In World War II the American death rate in Japanese camps was about 50 percent, while in German camps less than 1 percent. For Russians in German camps and Germans in Russian camps the mortality rate was about 50 percent.
17. There were no USAF or Marine Corps court-martials. Five officers were tried for misconduct. Deane Denfeld, "Otho Bell of Olympia and 20 Other U.S. Soldiers from the Korean War Defect to China on February 24, 1954." History Link essay 11263. historylink.org.11263; Max Hastings, *The Korean War* (Simon and Schuster, 1987), 287,293,302,304. Another source writes that of 1,600 prisoners, over 200 merited further investigation. "Misconduct in the Prison Camp," *Columbia Law Review* (May 1956), pp. 737n198, 760, 781n546.
18. Brendan McNally, "The Korean War Prisoner Who Never Came Home," *The New Yorker* (Dec 9, 2013).
19. "Misconduct in the Prison Camp," p. 735; Wikipedia, "List of American British Defectors in the Korean War." en.wikipedia.org/wiki/List_of_American_and_British_defectors_in_the_Korean_War.
20. Wendell Rawls, "A Marine Court Finds Garwood Helped Foe as a Vietnam P. O. W.," *New York Times* (Feb 6, 1981), p. A1; "Robert R. Garwood." en.wikipedia.org/wiki/Robert_R._Garwood.
21. Richard Linnett, "A U.S. Traitor's Odd Twist of Fate," History Net. historynet.com/u-s-traitors-odd-twist-fate.htm; Gregg Jones, "Missing Soldier's Family Finds Clues to His Fate in Cambodia," *Seattle Times* (Mar 27, 2009). Some go as far as to see Nolan, not

- as a traitor, but an unsung hero. Nicholas Proffitt, "Friendly Fire," book review of Monica Jensen-Stevenson, *Spite House*, *New York Times* (Mar 30, 1997), BRR.
22. Charlie Savage, "Bergdahl, Branded a 'Traitor' by Trump, Seeks a Pardon from Obama," *New York Times* (Dec 3, 2016), A18.
 23. Wikipedia, "Bowe Bergdahl." en.wikipedia.org/wiki/Bowe_Bergdahl.
 24. CNN, "Bowe Bergdahl Fast Facts" (Mar 22, 2020).
 25. Wikipedia, "Bowe Bergdahl."
 26. Savage, "Bergdahl," A18; CNN, "Bowe Bergdahl Fast Facts"; "The Soldier Trump Called a Traitor," *New York Times* (Nov 27, 2020), SR10. Prior to his army service, Bergdahl had been in the Coast Guard for twenty-six days before his discharge for psychological reasons with a "uncharacterized discharge." Wikipedia, "Bowe Bergdahl."
 27. CNN, "Bowe Bergdahl Fast Facts"; Wikipedia, "Bowe Bergdahl." The most recent case of this kind of misbehavior involved John Walker Lindh in Afghanistan. However, as Lindh was not in the U. S. military, his story is outside the range of our discussion.
 28. Another AAF officer was considered for court-martial for having worked with the Germans, but apparently due to the statute of limitations was not tried. Some may claim he was treated differently than Monti as he was of higher rank, a fighter group commander, and a West Point graduate. This officer's transgressions were different than Monti's; he was alleged to have given classified information to the Germans and to have ordered captured airmen to do the same. This is based strictly on one brief newspaper account. Robert Allen, "Said to Have Given Nazi Plane Secrets," *Globe Democrat* (Jan 5, 1949).
 29. Headquarters Fifteenth Air Force, Escape Statement, Monti, Martin J., May 13, 1945. [2LT Martin J. Monti court-martial records, US Army Judiciary. Hereafter cited as cm.]
 30. Review of the Staff Judge Advocate General, Martin J. Monti, Aug 23, 1945, pp. 1, 21; Telephone conversation with PFC William H. Soloman, Jul 31, 1945. [both cm]
 31. The aircraft in question was an unarmed photo reconnaissance version of the P-38, an F-5E.
 32. Louis S. Wilkerson, SUB: Monti, Martin J. Case No. 4322-G, May 14, 1945. [cm] He filed a flight plan for the P-38 flight using his true name.
 33. J. D. Kincaid, SUB. Monti, Martin J. Case No. 3043-F, 3816-H, 4322-C, May 24, 1945. [cm]
 34. Myron G. Hoffman, SUB: Monti, Martin J. Case No. 3816-H, Nov 30, 1944. [cm]
 35. AGWAR from TAG to AFHQ, MSG W87096, May 24, 1945. [cm]
 36. Statement of 2d Lt Samuel P. Rugh to Special Agent Proctor H. Page, Oct 8, 1945 with extract from Martin J. Monti letter of Sep 15, 1945. [cm]
 37. Capt Henry H. W. Miles to Capt L.S. Wilkerson, SUB: Examination of Officer, Jul 14, 1945; Martin Monti, Jr. to Mr. Ploeser, Oct 12, 1945 with extract from Martin J. Monti letter of Sep 15, 1945. [both cm]
 38. Jason Pipes, Detailed Post. forum.axishistory.com/viewtopic.php?t=52047.
 39. Headquarters of Mediterranean Theater of Operations, Office of the Theater Judge Advocate, United States v. 2d Lt Martin J. Monti, Review of Theater Judge Advocate, on Record of Trial by General Court-Martial, Aug 29, 1945. [cm].
 40. Maj Charles G. Heitzeberg, Memorandum for General Vaughan, Sep 1, 1945; Representative Walter C. Ploeser to Truman, Jan 25, 1946. [both 303-M, Harry S. Truman Library]; "15-Year Sentence for Pilot A.W.O.L. to Seek Action," *St. Louis Post Dispatch* (Jan 25, 1946); Adjutant General AGKC-M 201 Monti, Martin J., Feb 4, 1946. [cm]
 41. "Treason Charged to Ex-Air Officer," *New York Times* (Jan 27, 1948), p. 15; 168 Federal Supplement 671,672-73.
 42. Raymond F. Toliver, *The Interrogator* (Fallbrook, CA: Aero, 1978), pp. 247-52.
 43. Two secondary sources assert that the claim of American defectors organized into a fighting unit (the George Washington Brigade) was strictly fiction created by the Germans. Rod Soodalter, "A Yank in the SS." historynet.com/a-yank-in-the-ss.htm; "US Volunteers in the Waffen-SS," Jan 26, 2012. axishistory.com/books/137-germany-military-other/foreign-volunteers/2119-us-volunteers-in-the-waffen-ss.
 44. Nathaniel Weyl, *Treason* (Washington, DC: Public Affairs, 1950), pp. 393-94; "Ex-Flier Confesses 21 Acts of Treason," *New York Times* (Jan 18, 1949); "Treason Suspect Seeks His Release," *St. Louis Post-Dispatch* (Sep 22, 1948); "Florissant War Pilot Indicted for Treason," *St. Louis Globe-Democrat* (Oct 15, 1948).
 45. "St. Louisian Tells of Joining Nazi S.S. Troops After Being Captured: Conduct Under Inquiry by U. S.," *St. Louis Globe-Dispatch* (Oct 15, 1948).
 46. Toliver, *The Interrogator*, pp. 247-52; "Treason Charged," *New York Times* (Jan 27, 1948), p. 15; "Ex-Army Officer Held for Treason," *New York Times* (Oct 15, 1948), p. 6; "Ex-Flier Confesses," *New York Times* (Jan 18, 1949), p. 2; "Attorneys Clash at Monti Hearing," *New York Times* (Jul 27, 1951), p. 5; Msg 31450, Sulton to AFHQ for Eaker, Nov 24, 1944; Report of Physical Examination, Monti, Martin [Sep 29, 1945]; United States v. 2d Lt Martin J. Monti, Aug 29, 1945, pp. 24, 46. [all 3 in cm]; Alvin Goldstein, "Testifies Monti Said U. S. was on Wrong Side in War," *St. Louis Post-Dispatch* (Jul 27, 1951).
 47. Drew Pearson, "High Army Officials Study Treason Charge," *Washington Post* (Nov 1, 1947), p. 12; "The Curious Case of Martin James Monti," Short Rounds, strategypage.com/cic/docs/cic304b.asp.
 48. Alvin Goldstein, "Martin Monti of St. Louis Pleads Guilty in Treason Case and Gets 25 Years," *St. Louis Dispatch* (Jan 17, 1949).
 49. *Ibid.*
 50. "Ex-Army Officer Held," *New York Times* (Oct 15, 1948), p. 6; "Monti Goes Back to Jail," *New York Times* (Dec 25, 1948), p. 20; "Ex-Flier Confesses," *New York Times* (Jan 18, 1948), p. 7; "Ex-Flier Denies Guilt as Traitor," *New York Times* (Jun 6, 1951), p. 10; Headquarters European Command, SUB: Orders, Aug 25, 1948. [cm]; Weyl, *Treason*, pp. 395-96; Alvin Goldstein, "Monti Testifies He was Misled into Guilty Plea at Treason Trial," *St. Louis Post-Dispatch* (Jul 19, 1951); "Monti Gets 25 Years, \$10,000 Fine for Treason," *St. Louis Post-Dispatch* (Jan 18, 1949).
 51. "Court in Effect Says Monti Must Serve Out Term," *St. Louis Post-Dispatch*, (Aug 2, 1951); "Monti Gets 25 Years, \$10,000 Fine for Treason," *St. Louis Post-Dispatch* (Jan 18, 1949); Pipes, Detailed Post.
 52. "Ex-Counsel denies Coercion of Monti," *New York Times* (Jul 28, 1951), p. 5.
 53. "Ex-Flier Denies," *New York Times* (Jun 6, 1951), p. 10; "Monti to Appeal Treason Ruling," *New York Times* (Aug 16, 1951), p. 10; "Judge Rebukes Mrs. Monti for Signals to Son on Answers in Treason Trial," *New York Times* (Jul 25, 1951), p. 12; "Attorneys Clash," *New York Times* (Jul 27, 1951), p. 4; "Ex-Counsel Denies Coercion of Monti," *New York Times* (Jul 28, 1951), p. 5; Martin J. Monti, Jr. to the President, Nov 8, 1949. [470 M. Harry S. Truman Library]; "Monti Loses Fight to Change His Guilty Plea," *St. Louis Post-Dispatch* (Aug 2, 1951); "Testifies Monti Said U.S. Was on Wrong Side in War," *St. Louis Post-Dispatch* (July 27, 1951); Alvin Goldstein, "His Confession of Treason True, Monti Testifies," *St. Louis-Post Dispatch* (Jul 20, 1951).
 54. United States v. Monti, 168 F. Supp. 671.
 55. J. Michael Quinlan, Director Federal Bureau of Prisons to Congressman Rick Boucher, Oct 8, 1992.
 56. He filed a flight plan using his true name. The only alias he used were on the propaganda broadcasts. Louis Wilkerson, Discussion and Summary of Evidence; Counter Intelligence Corps, Memorandum to the Officer in Charge, SUB: Monti, Martin J., Case number 4322-G. [both cm]
 57. Lewis Wood, "Ex-Clerk in U.S. Embassy at Berlin is Held as Broadcaster for Nazis," *New York Times* Jan 13, 1949, p. 11.

THE BOMBER ON THE BEACH



Undated photo of a twin-engined British bomber, with German Luftwaffe non-com standing before it, crashed on an unidentified European beach during World War II. This photo was liberated by Private Richard H. Dillon in Germany in 1945 and sent home to his mother in California shortly afterwards. (All photos courtesy of the author's Dillon collection.)

Brian Dervin Dillon

My father, Richard H. Dillon (1924-2016) was a World War II combat soldier who “liberated” German guns, medals, photographs and documents, sending them home through the G.I. mail as he fought his way across France, Belgium, Holland, Germany and Czechoslovakia in 1944-45. One of the most intriguing photographs I found in my father’s World War II collection after his death was of a British twin-engined bomber, crash-landed, wheels-up on a European beach, with a German Luftwaffe non-com standing in front of it (**above**). The nose of the plane, which might have made identification easy, was cut off in this photograph. Similarly, the angle of the wing obscured the fuselage top where, had a rotating gun turret been visible, identification would also have been fairly simple. Most frustrating, however, was the position of the German in front of the airplane: blocking the usual location where identification numbers were stenciled.

Hoping to find more information, I circulated copies of this photo amongst aviation-savvy friends of mine, and also sent it to the official Royal Air Force Museum in London. The conclusion offered by those more familiar with WWII British twin-engined bombers than I was that the photo was probably that of a Bristol Blenheim Mk. IV, but since the aircraft I.D. was unknown, no additional information could be elicited. So back I went to the ongoing examination of my late father’s World War II photographic collection, then in its third consecutive year.

My Dad was a mortarman in the Weapons Platoon of Love Company, 315th Infantry Regiment, of the famous “Cross of Lorraine” 79th Infantry Division. A combat casualty replacement, he landed in Normandy three months after D-Day to join his division in the bloody fighting in Lorraine in September, 1944. He was nick-named “the Perfesser” by his “semi-literate, hillbilly buddies” because of his two years of college at U.C. Berkeley before he was drafted just after his 19th birthday.

After only a month in combat my father was badly wounded by a German “daisy-cutter” mortar round. Following three months in Army hospitals, his wounds and broken bones still not completely healed, “Perfesser” Dillon was sent back into the line, for his second episode of combat in eastern France. In February, 1945, the battered 79th Division was pulled out of Lorraine, and sent north to rest, refit, and retrain, in anticipation of the Rhine crossing. Soon it would spearhead the American assault into the heart of Germany’s industrial region, the Ruhr. Private Dillon now moved from France to Belgium, and then to the southernmost tip of Holland. Still limping, he invaded Germany, and fought through the Ruhr until VE Day. Afterwards, his unit kept pushing east, until it occupied westernmost Czechoslovakia, confronting the Russian armies moving west (**next page**).

The old World War II joke was that the Germans fought for *der Vaterland*, the British for King and Country, the French for *La Belle France*, but the Americans fought for *Souvenirs*. This was true for “Perfesser” Dillon and also, perhaps,



Twenty-one-year-old “Perfesser” Dillon near Pilsen, Czechoslovakia, after VE Day, 1945. A combat soldier in the Weapons Platoon of Love Company, 315th Infantry Regiment, 79th Infantry Division, he fought and served in France, Belgium, Holland, Germany, and Czechoslovakia.

to an even greater extent for his older brother John A. (Jack) Dillon (1915-2001). Captain Jack Dillon was in combat as the lead scout ahead of an American armored division also fighting in 1944-45. Both Dillon brothers ended up WIA at the same time, but in different Army hospitals, not too far from where their father (and my grandfather) U.S. Army Artillery officer William T. Dillon (1869-1938) had also fought and been WIA 27 years earlier, in 1918: same enemy, same battlefield, *different* war.

So looting and pillaging through Germany in 1945 seemed only the most minimal kind of payback for all of the

Brian Dervin Dillon is both the son and the father of historians, and was the youngest (aged 25) archaeologist to earn a Ph.D. at the University of California, Berkeley. A Phi Beta Kappa, former Fulbright Fellow, and the recipient of more than two dozen fellowships, grants, and research awards, Dr. Dillon has done fieldwork in California, Guatemala and three other Central American countries since 1972. He has published more than 200 books, monographs, and articles on archaeology and history, including American military history.



The two decorations that meant the most to any foot soldier in the ETO of World War II: my father's combat infantryman's badge, and his purple heart.

trouble caused by Teutonic bellicosity to two generations of the Dillon family during two World Wars. My father sent back captured pistols, rifles, swords, bayonets, knives, helmets, uniform elements, medals, Nazi party pins, SS death's head insignia, hundreds of German postcards, and thousands of captured German photos, all courtesy of the free G.I. mail. Older brother Jack Dillon even outdid his younger brother Dick in an experiment to see just how “honest” the G.I. mail really was. Armor Captain Jack, in 1945, mailed home to Sausalito, California, a confiscated, beautifully engraved, very expensive, Krupp double-barreled shotgun in its original hard leather case. He simply scrawled his address on that case in grease pencil, without any attempt to wrap up his prize, nor camouflage it in any way. The shotgun, of course, made it home intact. My Uncle Jack gave it to me many years later, and I still have it.

Younger brother and budding historian Dick Dillon thought that the documentary and photographic evidence for the triumph of American arms was just as important as the captured pistols and rifles he mailed back to California. The “liberated” photographs he sent home included those of Wehrmacht soldiers in German-occupied countries, from North Africa to Russia, of Luftwaffe flyers in



The second photograph of the bomber on the beach discovered shortly after the first. Now identifiable as a Blenheim Mk. IV, its identification number (T1945) is also clearly revealed. From this photo the pilot's name and the location and date of the crash were quickly determined through the courtesy of the Royal Air Force Museum, London. And then the pilot's descendants were traced to British Columbia, Canada.

their cockpits, and of SS men and Nazi bigwigs, including Hitler and Goering. All were candid photographs ripped out of photo albums found in the smoking ruins of one German town after another as the 79th Division advanced. My Dad sent these photos home to California six, eight, or ten at a time, in addition to 359 separate postcards and dozens of multi-page letters. "Perfesser" Dillon's widowed mother, my own grandmother, pasted his "liberated" German photos into one photo album after another in anticipation of his return.

And return he did, after three years with his Uncle Samuel, in early 1946. But my father was so sick of war, and so eager to re-enter civilian life, that most of his captured German loot, including his thousands of photographs, was simply put away in his army footlocker. My WIA father had survived the war, but, unfortunately, *all* of his best childhood friends had been KIA. Consequently, Richard H. Dillon's WWII photo collection, and the painful memories it represented, remained all-but-forgotten for 70 years, until I found it after his death in 2016.

Some of my father's captured photographs were of the Allies in defeat early in the war: French soldiers surrendering in 1940, or Germans rounding up Greek civilians in 1941. But the most unique photo of all that I discovered in 2019 was of the Bomber on the Beach. Almost miraculously, a couple of weeks later while still plowing through my father's WWII photo collection, I discovered a second, companion, photograph of the same crashed bomber (**above**). This exposure had its nose, fuselage top, and iden-

tification number (T1945) all clearly visible. With this final, all-important, bit of information in hand, my second Internet query sent to the London Royal Air Force Museum quickly bore fruit.

Mr. Andrew Renwick, Curator of Photographs, was able to tell me that the plane in my father's two captured photographs was indeed a Blenheim IV, of the No. 2 (Coastal) Training Unit, Catfoss airfield, just inland from Hornsea on the Yorkshire coast. Renwick's skillful search of RAF records revealed that the bomber crashed at 5:40 A.M. on the morning of August 28, 1941. The beach was on the west coast of Texel Island, Holland, about a hundred miles north of Amsterdam, and about 185 air miles due east of the English coastline. Better yet, Renwick was able to identify the unfortunate pilot of T1945 as Flight Lieutenant Melville Harrison Gifford (1912-1961), serial No. J/5141, Royal Canadian Air Force.

Gifford was on a night training flight, and through either compass or navigation error ended up out of fuel near the Dutch coast, and had to make an emergency, wheels-up, landing on Texel beach. Flying Officer Gifford fortunately survived the crash, but was made a prisoner of war. He was sent to the Luftwaffe's infamous *Stalag Luft III*, near Zagan, Poland, immortalized by the 1963 hit movie *The Great Escape*. He is also mentioned in the 1985 book *Fragments of War* by Joyce Hibbert. Gifford returned to Canada after the liberation of Europe, and married Brenda Emily Walley (1923-1980) in Sherbrooke, Quebec, in 1948. Lieutenant Gifford died in 1961, and was buried in the



It could have been my Dad on that Dutch beach...Nineteen-year-old Richard H. Dillon proudly stands in front of his 65hp Taylorcraft “grasshopper” on the day he soloed, Texas, 1943. He could fly, but he couldn’t navigate, so after flunking out of the U.S. Army Air Force, off to the infantry he went.

Champ d’Honneur Military Cemetery in Quebec City, Canada. Melville and Brenda Gifford had two sons: two of their grandchildren live in British Columbia.

Two remarkable, serendipitous, coincidences attach themselves to this unique story of the two photographs of the *Bomber on the Beach* which have just come to light after 79 years in the shadows. The first is that, although my father died before my own recent research revealed the time, place, and cause (navigation error) of the 1941 crash depicted in his two captured photographs, he himself could very easily have been the pilot slamming an out-of-gas twin-engined bomber onto a German-held beach. A year before “Perfesser” Dillon entered combat as an infantryman, he had been trained as an American Army Air Force pilot, and, in fact, soloed at age 19 (**above**). Sent on to navigation school, and to twin-engined light bombers not too different from Flight Lieutenant Gifford’s Blenheim, my father could *fly* but he couldn’t do the math necessary for *navigation*. His final test was a long-distance, twin-engined bomber flight from his home airfield in central Texas up to Springfield, Illinois, and then back again, “boxing the compass” through successive course changes. Unfortunately, in a classic error, he flew instead to Springfield, *Missouri*. So after turning in his wings, off to the infantry he went. Closing the “small world, isn’t it?” circle, I traced and made contact with some of Flying Officer Melville Harrison Gifford’s

descendants. They live a short distance from my cousin’s wife’s relatives. Her own father was a very proud Royal Canadian Air Force Pilot and British Columbia aviation history author. Flying Officer Gifford’s daughter-in-law and grandchildren had no idea that his near-death experience in 1941 had been photographically commemorated. So, seventy-nine years after the event, I was honored to share my father’s captured photos with them.

Acknowledgements: Many thanks to my friend and pilot Ken Pauley for early suggestions putting me on the proper research track. Thanks also to proofreader extraordinaire Ed Riegler for helping convert Dillonese into English. I am also most grateful to London RAF Museum photographic curator Andy Renwick for positive identification of the plane and its pilot. Many thanks to Paula Simpson, my cousin Doug Soderland’s wife, and the daughter of an historically savvy Royal Canadian Air Force pilot herself, for tracking down Flying Officer Gifford’s descendants in Quebec and in British Columbia. And finally, thanks to my late Father, without whose compulsive collecting habit in 1944-45 as he fought his way across the ETO, the two unique *Bomber on the Beach* photographs would doubtless have been lost to history. And thanks again, Dad, for not throwing away your WWII photograph collection, even though for 70 years you could not bring yourself to look at it. ■



THE FINAL FLIGHT OF B-17G 43-38856M

Don Madar/Jeff Antol

B-17G L 43-38856M in mid-flight. The author's uncle was a passenger on the aircraft's last flight.

The tragic events of April 23, 1945, will forever live on in our family and as part of the history of one of the most notorious bomb groups of World War II, the 381st. The crash of the B-17G Flying Fortress with serial number L 43-38856M was one of drama, personal tragedy and is recorded as the worst aviation crash in the history of the Isle of Man, an island between England and Ireland in the Irish Sea.

Our uncle, Andrew Piter, Jr., would lose his life that day on the mountain of North Barrule after two years of hard work in maintenance serving in the 381st as part of the 1775th Ordinance and Maintenance Group. Andy was drafted into the Army Air Force in the summer of 1942 and left his home in the small town of Banning, Fayette County, Pennsylvania. He was the only son of Andrej and Dorothy Piter (married in Connellsville in June of 1915) and was one of six children (all born in Star Junction), our grandmothers, Ann Piter Odelli and Dorothy Piter Antol being among his 5 sisters. His other sisters were, Mary Piter Risner, Ruth Piter Pavlus and Mildred Piter Crilley – all of who would move to live in the Cleveland, Ohio area. Our commemorating group was made up of seven of Andy's nieces and nephews – offspring of his sisters.

He did his basic training at Ft. F. E. Warren in Cheyenne, Wyoming, and then returned home for the last time in April, 1943. Andy graduated from Ordinance School in Pomona, California, and then joined the 381st in February, 1943 in Pueblo, Colorado, where the entire Group prepared for deployment to Ridgewell, England. The 8th Air Force would be key in liberating Western Europe in World War II. Andy and the Group arrived at Ridgewell in June, 1943 and he would serve his country there up until the fateful day of his death in April, 1945.



Andrew Piter and his parents, Andrej and Dorothy Piter and sisters Ann Piter Odelli, Dorothy Piter Antol, Mary Piter Risner, Ruth Piter Pavlus and Mildred Piter Crilley. (All photos courtesy of the author.)



Andy Piter, on left, working on the famous B-17, "Stage Door Canteen."

The B-17G, 43-38856, that was delivered to the USAAF on September, 30, 1944, flew from Lincoln, Nebraska in the fall of 1944 and would arrive at Ridgewell in October of that year. Upon its arrival, it was assigned to the Eighth Air Force, 381st Heavy Bombardment Group, 534 Squadron, based at Army Air Force Station 167, Ridgewell, Essex. The station was then under the command of Colonel Conway S. Hall. There the plane would receive its Triangle "L" for Ridgewell and its radio call letter "M".

Donald J. Madar is a retired chemical engineer with a passion for history. He is particularly interested in family history and the stories behind the history. His studies unearthed a connection between his paternal grandfather and the first Czechoslovak Legion in Russia during World War I. He also discovered the story of his maternal grandfather's brother who played for the Pittsburgh Steelers after World War II, where he was a B-24 tail gunner. He also wrote a book about his great-uncle, his maternal grandmother's only brother, who was a member of the 381st Bomb Group. So this story of Andrew Piter is a continuation of his interest. Jeff Antol, who assisted with this article is a cousin of the author.



The tail wreckage of B-17G, 43-38856

The energy in the air at Ridgewell in April, 1945 was becoming a bit more relaxed. On Monday, April 23, 1945, no operations over Germany were planned for the group. Excitement was felt around the station, and a flight was organized by Colonel Hall to take a group of servicemen, primarily men who had serviced the airbase throughout the nearly two years at Ridgewell. This select group would travel from Ridgewell to Belfast, Ireland, where they would spend some time resting and relaxing as a thanks for their effort and hard work at the base.

The B-17G 43-38856 M was flown by Captain Charles E. Ackerman, a veteran combat officer with over 455 hours experience on B-17's. He had completed a first tour of twenty-five combat missions and had only two more missions left to complete his second tour. Captain Ackerman was a very experienced pilot, even at twenty-two years of age. The aircraft was to be co-piloted by Flight Officer Edwin A. Hutcheson. Edwin was twenty years old and had sixty-one hours experience on the B-17G. In addition, there were twenty-nine other men, which included Andy, that would take off from Ridgewell that spring morning.

At 9:04 AM, the aircraft lifted off from Ridgewell. Captain Ackerman positioned the aircraft heading north



The rugged hillside where 43-38856 crashed.



The bodies of the victims, gathered for repatriation.



The original burial site, in England, of Andrew Piter, Jr.

by northwest, for what he thought should be a routine flight. His estimated time of arrival at Nutt's Corner, Belfast, Ireland, was approximately 11:00 AM. At 10:15 AM the aircraft was approaching the north east coast of the Isle of Man.

"Harold Ennett was working that morning where he was employed as a tractor driver. At 10:20 AM he noticed a four-engine aircraft flying in from the east coast. He estimated its height at no more than 500 ft. from his position, and could clearly see a star on its wing as it passed over. He stared at it in disbelief, as he realized it was flying straight towards the mist-covered slopes of North Barrule. He lost sight of it after a few seconds and then heard a great explosion as the B-17G crashed into the mountain, approximately 300 feet below safely clearing the peak."

As RAF personnel arrived, the grim task of recovering the bodies began. The bodies were brought down on stretchers by the RAF and were then conveyed to Andreas. It was there that the task of identification began.

The following day, Colonel Hall and Colonel George Shackley, with a team of personnel including a dentist and flight surgeon, helped in the identification procedure. Hall and Shackley also went to the crash site to see what could be learned of the cause of this accident. A personal account from one of the members of the recovery team

was that Andy's body was easily recognizable.

Colonel Hall was advised by senior RAF officers, that he would have to proceed through diplomatic channels with the Manxian Government before being allowed to take the bodies of his men back to Ridgewell. He was told this could take a couple of days. Going against diplomatic channels, Colonel Hall had the bodies loaded onto his plane, 'Little Rockette' by RAF personnel on April 24th! He really made a courageous call in getting the men back to English soil.

Andrew Piter, Jr. and the other thirty men who died that day on North Barrule were buried on April 27, 1945, at Cambridge American Military Cemetery. It was the largest funeral ever seen there as seventeen truckloads of men from Ridgewell attended. This truly was a tragedy, with human interest, fifteen days before the end of the war in Europe. Andrew's body was returned to the United States in the summer of 1948, and is laid to rest next to his parents in Olive Branch Cemetery outside of Smithton, Pennsylvania.

The site of the crash is now a peaceful hillside with little left to tell of the events of seventy-five years ago. A memorial to the men who lost their lives that day was erected at the crash site in 1995. This was, and still is, the worst aircraft accident in the history of the Isle of Man, and a tragic one in American history. ■



A memorial to the crash victims on the site.



The final resting place for Andrew Piter, Jr.

Book Reviews

SAC Time: A Navigator in the Strategic Air Command. By Thomas E. Alexander. College Station: Texas A&M University Press, 2020. Photographs. Pp. 102. \$27.00. ISBN: 978-162349843-6

This book is a transcription of an oral history provided by Alexander. As such, it is his recollection of events that occurred 50-60 years ago. It is important that a reader recognizes that he is seeing a story unfold thru a glass, darkly. In addition, Alexander acknowledges that “there is a stream of alcohol that runs through these military memories.” So, it is best if a reader adjusts his expectations of what he hopes to gain from the book.

Alexander began his military experience through the Reserve Officer Training Corps. After commissioning, he proceeded to basic navigator training and eventual assignment to a KC-97 air-refueling unit assigned to the newly created Strategic Air Command (SAC). Although a member of SAC for only a short time, Alexander’s strongest and most consistent memories are of the Commander-in-Chief of SAC, General Curtis LeMay. LeMay served as the North Star for Alexander’s early military career, and he holds the general in the highest esteem to this day.

Alexander left the active duty Air Force but continued to fly as part of an Air National Guard tanker unit until his final separation from service in the late 1960s. He maintained an inactive reserve status for several years. Alexander makes clear that, while he built a successful post-service career in the retail sector, his military service and aviation experiences hold a special place in his heart.

SAC Time is clearly a labor of love and—as is true of some love affairs—flaws are overlooked. While following a general chronological organization, the chapters’ internal structure is haphazard and confusing. A chapter on celestial navigation diverges into a description of aircrew survival training at Reno-Stead AFB. There are precious few memories of the aircraft he flew on or of his fellow crew members. Other than the folks he “partied” with, there was no clear picture of the social side of the Air Force of that time. And there is very little information on Alexander as an aviator. He mentions that he served as an instructor but makes no mention of his flying time or navigator rating.

As a SAC navigator myself, I had hoped that this book would connect me with the generation of aviators who went before me. In that, I was disappointed.

Gary Connor, docent, Smithsonian National Air and Space Museum’s Udvar Hazy Center



Victor Boys. By Tony Blackman with Garry O’Keefe. London UK: Grub Street Publishing, 2019. Photographs. Illustrations. Maps. Drawings. Pp. 198. \$22.95 paperback. ISBN: 978-101162125-6 [and](#)

Valiant Boys. By Tony Blackman and Anthony Wright. London UK: Grub Street Publishing, 2019. Photographs. Illustrations. Maps. Drawings. Pp. 192. \$22.95 paperback. ISBN: 978-191162124-9

Readers know what they are going to get when they pick up one of Tony Blackman’s “Boys” series: a brief background of the particular aircraft, followed by a series of first-person essays written by “boys” directly associated with the aircraft, and a closure containing ancillary information of interest to a reader who wants a bit more. The format is a bit formulaic but, sometimes, less is more. In the case of these books that cover two of the three aircraft types of the RAF V-Force strategic platforms, the straightforward approach works quite well.

Although it was the first of the V-Force to become operational, the Valiant is probably the least well known of the triumvirate. In many ways it was a transitional design that was rushed into service before it was ready and before the limitations of its design were completely understood. The results were numerous accidents, a relatively short service life, and something of a black eye for the RAF. Blackman points out the retirement announcement was timed to coincide with the funeral of Sir Winston Churchill to ensure it received as little attention as possible. None of which diminished the bravery and creativity of the “boys” who brought the aircraft into squadron service and developed operational tactics and maintenance procedures on the fly. And many of the lessons learned on the Valiant formed the foundation of the careers of the Victors and Vulcans which followed.

Blackman builds a compelling case for the Victor as the most successful of the V-Force platforms. While always operating in the shadow of its more photogenic sibling, the flexibility of the platform and its role as an air refueling tanker were critical to the RAF’s mission in the Falklands Campaign and the RAF contribution to Desert Storm. The Victor’s role as an active combatant provides a wealth of material for the book—so much material, that Blackman includes several chapters that were not included in the book on his website. The book is lavishly illustrated with both color and black-and-white photography and numerous illustrations. Chapters on the website offer detailed technical information on navigation and weapons systems as well as examples of nose art and livery worn by the Victor during Desert Storm.

Both *Valiant Boys* and *Victor Boys* are quality products and good value. The style and structure are formulaic, and the differing styles of the many contributors can be disconcerting. Seeing one contributor describe the RAF Quick Reaction Alert program as crewmen waiting to “Start World War III” seemed to indicate the author or editor didn’t understand the concept of deterrence. Several contributors rely heavily on jargon and slang, which places the non-British or non-Commonwealth reader at a distinct disadvantage. But these are minor criticisms. For readers

interested in these platforms and the V-Force overall, these books are highly recommended.

Gary Connor, docent, Smithsonian National Air and Space Museum's Udvar Hazy Center



Lockheed F-104 Starfighter: A History. By Martin W. Bowman. Barnsley UK: Pen & Sword Books, 2019. Photographs. Tables. Index. Pp. 320. \$39.95. ISBN: 978-1-47386-3262

Martin Bowman has written a really good book covering the significant and exciting history of the F-104 Starfighter. The book has over 200 color photographs and provides a detailed discussion of the type's complex 20-year-plus history. The F-104 is probably one of the most iconic and "coolest looking" fighter aircraft ever designed. It was first called "the missile with a man in it." And pilots wore spurs for locking their legs into the ejection seats! Besides all the facts, figures, and technical information, there are also many firsthand stories and experiences from RAF, USAF, USN, USMC, Israeli, German, and other nations' pilots.

Some interesting facts Bowman brings out include: The USAF had 296 F-104s. One of its original purposes was to replace the F-100 Super Sabre as an interceptor to incoming enemy formations.

The Air Forces of fifteen nations flew the many models of the F-104; the German Luftwaffe had 916. Models were produced under contract to Lockheed in seven different countries.

Germany called the F-104 the "Widowmaker," having lost 292 of them in accidents.

In 1959 at Edwards AFB, the F-104 set a zoom altitude record of 103,389 ft. The F-104 routinely intercepted U-2s on training flights above 60,000 feet.

The Starfighter was used in many chase plane roles at Edwards AFB for flight tests and X-15 test flights.

In 1962, Capt Charles Tofferi became the USAF Top Gun in his Starfighter by winning the World Wide Weapons Meet at Nellis AFB.

Worldwide, 2577 F-104s were produced—1241 of them in Europe.

Bowman's introductory chapter gives a very good summary of the history of Lockheed and the F-104. Tony LeVier, the famous Lockheed chief test pilot, made the first flight in an F-104 prototype in 1954. Service deliveries began in 1958. Unfortunately, by the time the F-104 had logged 100,000 flight hours in 1961, forty-nine out of 296 Starfighters operated by the USAF had been lost with eighteen pilots killed—none of them in combat. This did not help the F-104's future.

However, the growing Communist threat and Germany's need to join with other nations opened up a whole

new F-104 opportunity. German maintenance, GE military jet engines, and upgrades to Martin-Baker ejection seats added to the Widowmaker's accident history. "Many problems with the F-104 in the early days were mainly due to the shallow learning curve that maintenance was on. They had to get used to a rather sophisticated technology and were not able to provide the pilots with the flight hours necessary to build efficiency." The Indian AF (IAF) later named the plane the "Wicked One" due to its challenging history.

In 1978, three NF-104As were purposely built for the USAF Aerospace Research Pilots School at Edwards AFB. Each had an additional Rocketdyne liquid-fuel auxiliary rocket engine and hydrogen peroxide thrusters at the nose, tail, and wing tips to control attitude at high altitudes—like a spacecraft. These aircraft were designed to operate above 100,000 feet to expose astronaut candidates to space-flight conditions. In 1963, Maj. Smitty Smith took his NF-104 to 118,600 feet, an unofficial world altitude record from a ground takeoff.

Bowman's book is packed with F-104 history but needs a more comprehensive index to all this information. Despite this, the book is a great summary of the F-104 Starfighter, its aviation records, and pilot achievements.

Paul D. Stone, Docent, NASM's Udvar-Hazy Center



Sighted Sub, Sank Same: The United States Navy's Air Campaign against the U-Boat. By Alan C. Carey.

Havertown Penn.: Casemate, 2019. Maps. Tables. Photographs. Notes. Appendices. Bibliography. Index. Pp. xx, 217. \$34.95 ISBN: 978-1-61200-783-0

Having published more than ten books about World War II naval aviation, Carey is well qualified to discuss America's use of aircraft to counter the impact of the German submarine effort to disrupt allied commercial sea traffic in the Atlantic Ocean and Mediterranean Sea. As the title suggests, this work focuses almost entirely on the Navy's efforts. Mention of the U.S. Army Air Forces and Britain's Coastal Command is generally limited to their involvement with the Navy in successfully sinking U-boats.

The book's ten chapters combine a chronological and topical approach. The first chapter examines the impact of U-boat operations from 1939 into 1941, prior to America's formal entry into the war. U-boat activity along the United States' Atlantic coast prompted the Navy to organize the Eastern Sea Frontier to help protect commercial shipping. The second chapter details these operations from January 1942 to July 1943.

Chapters 3 through 5 examine the Navy's efforts in the Caribbean, South Atlantic, and particularly the Brazilian coast through the summer of 1943. Operations out of Ascension Island from November 1943 through April 1944

comprise the sixth chapter followed by a chapter on activity in the Mediterranean from November 1942 to May 1944.

By the summer of 1943, the Navy's commitment to battling the U-boats had expanded substantially, demanding a significant reorganization—formation of Fleet Air Wing Seven. Its operations through the end of the war are discussed in Chapter 8.

Chapters 9 and 10 review the role of hunter-killer groups comprised of an escort aircraft carrier and several destroyers or destroyer escorts or both from April 1943 through August 1944. The final chapter summarizes the use of blimps deployed along America's coastlines.

Relying on after-action reports, Carey has compiled a very detailed account of how the Navy utilized a wide variety of aircraft to successfully accomplish its mission of subduing the U-boat threat. The most interesting report concerns the capture of *U-505*.

Carey assembled an exceptional collection of representative photographs, including twenty in color. One could argue that emphasizing the images over the narrative might have been a better approach. Most photos are presented in a relatively small format. Furthermore, like most operational histories, this work becomes a bit tedious at times as Carey recounts one intercept after another. The emphasis is on what happened, making this volume quite valuable when it comes to tracing a specific action. This might be of particular value to a family member interested in learning more about granddad's time in the Navy.

Other than relatively brief mention, little space is devoted to the technology battle—the impact of the Ultra code-breaking intercepts, acoustic homing torpedoes, highly sensitive airborne radar, depth-charge improvements, and air-to-surface rockets. German countermeasures are, for the most part, ignored. Alfred Price's classic *Aviation Versus Submarines* is recommended for those interested in the cat-and-mouse technical side.

Some patience is required in dealing with the numerous typos—far more than I have observed in other works over the past decade. Another annoyance was the decision to describe distances and heights of less than a mile in both meters and yards or feet. Despite these, anyone with an interest in aircraft as a counter to the submarine should consider this work.

Steven D. Ellis, Lt Col, USAFR (Ret), docent, Museum of Flight, Seattle



Blind Bombing: How Microwave Radar Brought the Allies to D-Day and Victory in World War II. By Norman Fine. Lincoln NE: Potomac Books, 2019. Photographs. Pp. 230. \$29.95. ISBN: 978-16401220-8

Fine's book describes the World War II development of microwave radar concentrating on those employed for anti-

submarine operations and bombing of industry and cities. He writes for a general audience stating in his forward that while there have been excellent technical studies on the subject, "its implementation and critical influence on the war's outcome have been largely ignored by historians writing for a general readership. I hope this book will fill that gap."

Fine does an excellent job in discussing the development of radar in general and specifically microwave radar. He credits the well-known and not-so-well-known personalities involved. The book puts the reader into the European and Atlantic war with a concise but adequate context.

The book describes the use and value of radar, first as the basis of an effective air defense system in the Battle of Britain (he states that radar was the "deciding factor" in that campaign—an arguable assertion). He then goes into its effective use in the anti-submarine battle. It certainly was a major factor contributing to the defeat of the submarines along with ship building, long-range aircraft, direction-finding gear, and broken codes. The German submariners lost the battle and suffered extraordinary losses; two thirds of their boats and 70% of their crews. The German failure to starve out the British, knock Britain out by air, or to launch an invasion made German victory more difficult. It was, however, the invasion of Russia, and its long, costly combat, that sealed the fate of Germany. To be sure, German inability to neutralize Britain was a major factor in the outcome of the war.

Radar was also important in the bombardment of Europe. Among the problems Allied airmen faced were poor weather conditions over their bases, to and from their targets, as well as over the targets. While the British developed new equipment and tactics and turned from visual day bombing to night bombing early in the war, the American response to weather issues was slower. It was not until the fall of 1943 that they conducted their first non-visual raid. Accuracy using radar techniques was poor. But the Germans were forced to defend against these radar-guided attacks in the poor weather which imposed a high rate of operational losses. The bombing and the associated air-to-air battle led to the defeat of the Luftwaffe and Allied control of the air for the 6 June invasion and the remainder of the war.

What makes this book different and better than average is getting the air war down to the personal level. Fine does this by interspersing into the technical discussion the story of his uncle, a radar navigator who flew 28 of these missions. The result is a good overview of the development of this vital device and its employment down to human level.

However, a few cautionary notes. Fine has produced a book, as he intended, clearly for a popular audience. There are over 500 endnotes, mostly citations from published secondary sources. But notably absent are such significant authors as Roger Freeman, Steve McFarland, Wesley Newton, Richard Overy, Wesley Craven, and James Cate.

The only new material consists of interviews with his uncle and a scientist involved in radar development. Further, he does not discuss, or even mention, the use of radar in the bombing of Japan. The proportion of blind bombing there was much greater than in the European campaign and included the use of not only the APQ-13 radar that Fine discusses in detail, but also the more sophisticated APQ-7.

Blind Bombing is an easy read strong on discussion of the development of radar, adequate in treating operations, good on crediting the various men involved in the story, and excellent with the personal touch of an operator in action. As such, it provides an effective introduction to the subject.

Kenneth P. Werrell, Culpeper VA



Storm Over Europe: Allied Bombing Missions in The Second World War. By Juan Vazquez Garcia. Havertown Penn.: Casemate Publishers, 2019. Photographs. Drawings. Illustrations. Maps. Pp. 160. \$42.95. ISBN: 978-152674098-4

Innumerable authors have produced books on RAF Bomber Command's and the U.S. Eighth Air Force's strategic bombing offensive against the Third Reich during World War II. Most focus on the desired outcome of the offensive, or the men and machines who participated in the campaign. And most have a strong opinion on the effort and its outcome. Garcia is no different; but I hoped, since he is neither a British nor American national, that his perspective might avoid the nationalist approach many other authors take. His book is divided into sections on Bomber Command and U.S. Army Air Forces with some ancillary information on the Luftwaffe opposition.

Despite some Ministry of Defence experience, Garcia is not an apologist for Bomber Command or its senior leadership. He is highly critical of Air Marshalls Peirce and Harris: Peirce for his failure to prepare and equip Bomber Command for its mission, and Harris for allowing his visceral hatred of the Germans to influence his prosecution of the war. Garcia describes the use of area bombing tactics as growing out of technical and training shortfalls at the war's beginning. But he makes clear that Harris's continued use of area bombing when the tide of war had shifted was nothing short of terror tactics designed to produce massive German civilian casualties. He acknowledges their disruptive effect on the German war effort but also points out that area bombing came at a disproportionate cost in men and material. The effect of conducting these missions with their attendant heavy losses took a heavy toll on RAF crew morale.

Garcia paints the US contributions in much broader strokes, including the missions of Ninth and Twelfth Air Forces. He describes early Eighth Air Force efforts to con-

duct a strategic campaign in the same unforgiving terms he used to describe that of Bomber Command, listing a steady stream of early missteps and miscues and of heavy losses and failures of leadership. Garcia builds a strong case that Harris used these early problems in a failed attempt to justify absorbing the American bombers into RAF Bomber Command. Garcia does go to some pains to show that the US emphasis on bombing specific targets vice areas was uniquely American. And this more precise tactic was abandoned late in the war when bombardiers were removed from all aircraft except the lead ship in a formation; the "togglers" pickled their bombs when the lead bombardier, using his Norden bombsight, dropped his weapons. Garcia also delves into the psychological cost paid by the American B-17 and B-24 crews during the European air war.

Garcia does miss a crucial point. He mentions the Eighth Air Force change in leadership that sent Eaker to the Mediterranean Theater and installed Doolittle at the helm of Eighth Air Force. But Garcia misses that Doolittle brought a philosophical mindset that changed the air war for Bomber Command and Eighth Air Force. He unleashed the American storm over Europe by prioritizing destruction of the Luftwaffe on a par with destruction of industrial, transportation, and fuel targets. A decimated Luftwaffe would bring the war ever closer to an ending.

In a brief analysis offered as a summary, Garcia finds the USAAF contributed more directly to Allied victory in Europe than their RAF counterparts. But both services paid a tremendous price for their efforts in both aircraft and aircrew losses. On one mission, Bomber Command lost more aircrew than all the RAF pilots lost during the entirety of the Battle of Britain. The RAF and its Commonwealth partners could not sustain those losses regardless of the civilian casualties Harris inflicted.

Storm Over Europe is an excellent entry-level introduction to the Allied strategic bombing campaign in Europe. The book is printed on quality stock that shows the many photographs and illustrations to full advantage. Most aircraft are depicted with graphics to explain their capabilities, an invaluable resource to the novice aviation historian.

Gary Connor, docent, Smithsonian National Air and Space Museum's Udvar Hazy Center



Beyond the Quagmire: New Interpretations of the Vietnam War. By Geoffrey W. Jensen and Matthew M. Stith, eds. Denton Texas: University of North Texas Press, 2019. Index. Notes. Maps. Photographs. Pp xii, 425. \$29.95 ISBN: 978-157441748-7.

I read this book with anticipation, knowing how difficult a task it has been for the past 50 years to make any

sense of the Vietnam War. As a combat veteran of the most intense year of the war, I continue to look for answers to the whys of the war and, ultimately, its impact on America. Many Americans of that era believe the war should never have been fought; others are certain that the war was lost in Washington and not on the battlefield. Adding to the controversy is President Johnson's acknowledgement, as early as 1964 and before he significantly escalated the war, that he could not see the way ahead to victory.

A similar dilemma faced the writers of this book's essays: how were they to make any sense of the war and its aftermath. They followed new directions and ideas to assess 13 different aspects divided between the politics of war, the combatants and their war, and remembering Vietnam. This collection pursues diverse subjects ranging from China's direct participation in the war and the consequences, the impact of topography on the American way of war, and how American soldiers in the conflict connected popular songs to their experiences.

One essay provides insights to South Vietnam's president Ngo Dinh Diem's nation building efforts and why they failed to win over the peasants.

Another examines the lasting impact of the war on Laos, where more bombs were dropped than all the ordnance dropped in World War II. It examines especially the US's duplicitous post-war policies towards the Hmong, its erstwhile allies during the secret war in Laos.

A well written essay examines controversial Project 100,000, explaining its societal motives beyond simply recruiting soldiers for the Vietnam War, and its impact on both the military and the individual.

There is a discussion in one essay of the five-years-long peace negotiations in Paris that identifies the root causes for intransigence on both sides.

One essay addresses the strategic considerations behind Nixon's goal to significantly increase Saigon's rural population control in the wake of a vacuum created by the National Liberation Front's incredible losses in the 1968 Tet offensive. This would, in turn, strengthen the US position at the Paris Peace Talks.

A different essay is focused on social activism in America driven by the war and its impact. "Women, Gender, and the War" proved interesting because it not only discussed the military's female participants but also touched on the war experiences of all women sent to Vietnam, including journalists and "Donut Dollies."

The essay on Chinese intervention in the war is an eye-opener. Beyond aid by both the Chinese and Russians in the billions of dollars, both countries posted large numbers of troops within North Vietnam and shot down over a thousand American aircraft.

The essays are heavily footnoted, leaving no doubt that there was a great deal of supporting research done. The essays naturally stand alone while examining different char-

acteristics of the war and do not necessarily reinforce each other. The topics are, however, interesting and give clarity to issues and the various elements of the war and their impact. I suspect that readers will be enlightened by the scholarship behind the essays and see the war in a clearer context.

John Cirafici, Milford DE, recipient of a National Endowment for the Humanities fellowship researching the "Vietnam War and its Legacy"



KAIS: A True Story of a Daring Rescue in the Swamps of New Guinea, Summer 1944. By Bas Kreuger. Leiden, The Netherlands: Kinsbergen Publishing (independent), 2020. Maps. Photographs. Appendix. Illustrations. Notes. Glossary. Bibliography. Pp. v, 254. \$15.50 paperback, \$9.90 Kindle. ISBN: 978-862874445-1

Bas Kreuger is a Dutch historian and museum curator. He has written the fascinating World War II story of the loss of an American B-25 deep in the heart of Japanese-held Dutch New Guinea, the daring rescue of the crew, and the search decades later for the wreck.

But Kreuger does more than tell that. In a remarkably compact text, he also gives his readers an excellent picture of the conditions under which Gen Kenney's Fifth AF operated while also laying out what the overall background of the war in that theater and how the Fifth contributed to the victory.

Primarily, this is the story of one mission of a B-25H assigned to the 418th Night Fighter Squadron. Taking off from Wakde on July 27, 1944, the crew's mission was to attack Japanese shipping on the western side of the Vogelkop (Birdshead) Peninsula. These coastal barges and ships were the only way the Japanese could reinforce and resupplye their far-flung and separated units. Lt "Herky" Barnett and his crew of three bombed a barge but were themselves hit, losing power in the left engine. After it became apparent the B-25 couldn't reach any friendly bases, Barnett put it down in a swamp near a tributary of the Kais River—the Sigi. The four crewmen pulled themselves out of the wreckage and set up "camp" on the wing of the aircraft. Another of their B-25s spotted the wreckage and began what became one of the strangest rescue tales of the war. In a remarkable effort, an eclectic group of men supported by USAAF OA-10 Catalinas and local natives paddled up the Kais and Sigi Rivers, camped in some of the worst terrain in the world, found the crew, and brought them out. Meanwhile, part of the ground force was several days downstream at one of the few villages keeping a large Japanese force from interfering. They had their own battle. After returning by canoes down the river to the village, the four men were taken by Catalina to Biak on August 19, having spent nearly three weeks in the swamp or on the river.

After R&R in Australia, they returned to fight again in P-61 Black Widows.

Kreuger gives short and fitting background information on all of the key players in this drama: the aircrew, Dutch, Australian, American, Malay, white locals, and natives—both civilian and military. Despite horrible conditions and circumstances, they pulled off an amazing rescue.

That is Part I. Part II of the book is an equally interesting account of how Kreuger and others rediscovered and put together this story. After exhaustive research and contact with as many knowledgeable people as possible, they set out to find the aircraft. An expedition in January 2019, got them close, but they could not find the wreckage. What they did was figure out how to do it better at a later date. Next time, Kreuger and his friends will be better equipped and prepared. I wish them luck.

This book is a real page turner. Far less has been written about combat operations in this bleak part of the world than about Europe or the Central Pacific. This book—while covering only one little episode of the New Guinea operations—substantially adds to the body of information about MacArthur's area of operations.

Col Scott A. Willey, USAF (Ret), Book Review Editor, and Docent, NASM's Udvar-Hazy Center



Early Jet Bombers: 1944-1954. By Leo Marriott. Yorkshire: Pen and Sword Aviation, 2019. Illustrations. Photographs. Bibliography. Pp. 157. \$26.95 paperback. ISBN: 978-1-52675-389-2

Early Jet Bombers provides a look at aircraft such as the American B-45 Tornado, British Canberra, and Russian IL-28. While important, these are usually overshadowed by their more well-known fighter counterparts of the era. These aircraft and others discussed mark an important stage in the development of airpower that would help defend their respective nations during the expanding Cold War and help maintain the balance of power as nuclear weapons and their delivery systems came to dominate strategic thinking.

Marriot is a retired professional air traffic controller and private pilot who has written numerous other books on early jets and aircraft. His passion for his subject is evident. The breadth of coverage and detail included make this a genuine resource. The book is a pictorial history with brief chapter narratives and extensive captions supplementing and complementing the narrative and explaining the aircraft, their variations, and development. The emphasis is on aircraft design and capabilities vs. operational employment. One of the best features is inclusion of experimental and conceptual aircraft that never made it into production and, in some cases, never made it off the drawing boards. These aircraft show some groundbreaking tech-

nologies (e.g., forward swept wings as early as 1944) and awkward failures that really show the breadth of thought in early jet-aircraft design.

The book is organized by country (Germany, Great Britain, USA, France, and the USSR). The narratives provide a brief history of that country's bomber development leading to and including these early jets. There are the more well-known types (e.g., American B-47 and B-52, British V-bombers, and Soviet Tu-16) but also experimental types such as the German Junkers Ju 287 (forward-swept wing), British Short SA.4 (twin wing-mounted engines stacked atop each other), and American XB-51 (engines slung under the forward fuselage). This broad coverage makes for an informative and interesting read.

There are a few issues, however. Factual errors are few but egregious. Marriot claims that Billy Mitchell was court-martialed as a result of the 1921 bombing trials where his forces sank the German battleship *Ostfriesland*. This made him unpopular with Navy admirals, but Mitchell was actually court-martialed in 1925 after publicly accusing military leaders of misadministration. There is a statement that the B-36 made its maiden flight on "8 August 1946, one year to the day after the first atomic bomb had been dropped on Hiroshima." Hiroshima was bombed on August 6. One has to wonder what other information could be in error. More information on several points would have been welcome. He talks about the B-45's engines being more reliable on other aircraft but offers no explanation as to why. Also, he notes the XB-46 had pneumatically driven controls but gives no explanation as to the significance of this design. These are minor deficiencies, however.

Overall this book provides excellent coverage of a lesser-known aspect of airpower development, and the wealth of photos makes it enjoyable and interesting. Its price is not unreasonable; and, for students of the era or the military transition from props to jets, it is worth the money.

Golda Eldridge, Lt Col, USAF (Ret), EdD



Bait: The Battle of Kham Duc. By James D. McLeroy and Gregory W. Sanders. Havertown Penn.: Casemate Publishers, 2019. Maps. Appendices. Photographs. Illustrations. Glossary. Bibliography. Index. Pp. xx, 251. \$34.95 ISBN: 978-1-61200-812-7

McLeroy and Sanders are highly experienced combat veterans of the Vietnam War with firsthand knowledge of the lay of the land at Kham Duc and—in James McLeroy's case—the battle itself. These perspectives bring a great deal of credibility to their discussion of the battle. Their book represents an historical account as it should be presented: informed, well researched, intelligently written, and very readable, while avoiding the pitfalls of hype. As a

writer, I envied McLeroy's and Sanders' easy-to-follow road map leading the reader from the war in general to the day of the battle. They smoothly knit together the separate events taking place as the massed enemy closed on the airstrip.

While reviewing this book, I benefitted from firsthand accounts of my teammates in Vietnam and fellow veterans of the earlier battle of Khe Sanh, Sergeants Mort Freedman and Jim Lundie. At Kham Duc, they were the very last to be lifted out of an already-abandoned base as it was overrun; while I was, at that same instant, on a parallel operation to the north in the A Shau Valley. Consequently, I could second so much of what the authors describe. As a historian of that era, I was doubly impressed with the manner in which they provide the necessary background to understanding why events at Kham Duc unfolded as they did.

Many readers who are not very familiar with the Vietnam War (and, in particular, the events of this book which took place over fifty years ago), will greatly appreciate the authors' highly informative lead-in to the 1968 Tet Offensive and, in particular, the battle for Kham Duc. The very useful appendices supplementing the book's text further explain the strategies of the opposing forces; the units involved at Kham Duc; the tactical aspects of the battle; and, ultimately, the nature of warfare in Vietnam. The excellent maps and illustrations provide additional clarity to the narrative.

McLeroy and Sanders accurately capture the chaos of battle and the heroics of those in contact with a determined enemy. They highlight the impact of an inexcusably dysfunctional chain of command on the ground and confused command and control while in the midst of a developing battle, both of which placed the troops in grave danger.

This is more than simply an account of an obscure battle in the Vietnam War. It is one more important piece of the puzzle helping to explain the dynamics of the conflict that led to America's disillusionment with the war, especially in the aftermath of the Tet Offensive.

This book is well worth reading and will leave lasting impressions about what the war in Vietnam was really like.

John Cirafici, Milford Del.



Helicopter Boys: True Tales from Operators of Military and Civilian Rotorcraft. By Richard Pike. London: Grub Street, 2018. Photographs. Diagram. Index. Pp. 175. \$35.00. ISBN: 978-1-910690-55-0

Richard Pike began his distinguished 40-year aviation career in 1961 at the Royal Air Force College. During his career in the RAF, he flew the Lightning and the F-4. After leaving military service, he became a civilian helicopter pilot. Pike flew helicopters during the Falklands War and

later in Kosovo for humanitarian aid for the UN World Food Program.

Pike introduces the book with his transition in 1981 to rotorcraft, training to fly Sikorsky 61-Ns to North Sea oil rigs as a civilian pilot. This story sets the scene for the rest of the narrative, featuring stories by fellow pilots about the helicopters and missions they flew. The overarching theme of the book is a collection of remembrances and recollections about their experiences in types such as the Chinook, Sea Hawk, Huey, Sea King, Osprey, and Wessex. The vignettes feature rich descriptions and details about missions, techniques and skills, and historical backdrops about politics and wars, ranging from the Indo/Pakistani and Falklands Wars to sea rescues and medical evacuations. They take place in Australia, Nigeria, Scotland, Germany, Argentina, and other sites. Pike concludes the book with his most recent experience helping distribute food in 1999 in Kosovo as part of the United Nations humanitarian work.

Each chapter of *Helicopter Boys* is a stand-alone text. The vignettes feature actions by pilots framed in specific wartime or peacetime contexts. Vignettes range from a couple of paragraphs to five pages in length. The organization of the chapters was a bit difficult to follow, since they were not written in chronological order, clustered by region or country, or grouped by missions. For example, a chapter describing a medical evacuation (with a happy ending), precedes a chapter on a very tragic incident that occurred on a North Sea oil rig with a large loss of life. This was followed by a chapter about oil rig construction in Sumatra, where the helicopter pilot and crew survived a harrowing crash caused by an incorrectly fitted bonding strip. This sequencing is a bit distracting, jumping from topic to topic without any framing commentary or transition. Pike also included a few vignettes with a humorous twist or unexpected turn, such as how one S 61-N morphed into a large Van de Graaf generator that discharged when the ground crew approached the Sikorsky (startling the crew but without major injuries).

Other chapters provide greater insights into the situations and challenges faced by pilots trying to accomplish their missions, while also being empathetic to the soldiers and civilian populations in these life-threatening contexts. In several cases, Pike provides background information and interpretations about political and historical factors framing wartime situations. This helps the reader better understand the circumstances surrounding missions.

The high-quality color photographs feature some of the pilots discussed in the chapters (but are not referenced or cited in the narrative). The index is well done; and the book's grammatical style, spelling, and photo captions are without any errors or mistakes. All in all, the book is very professional in appearance.

Pike's stories are intended to represent a cross section of life as a helicopter pilot. In a limited respect, he accomplishes this goal. The strengths of his writing lie in the lit-

eral short-story format, providing a quick and easy read. However, as mentioned before, the stories do not have common themes (other than the obvious theme of rotorcraft pilot) and are not organized to build on each other. As I read the short chapters, I kept waiting to see some form of commentary or perspective that would illustrate how the stories were connected, along with sharing any wisdom or insights about rotorcraft and pilots that highlight why these stories are unique hallmarks for aviation history. One other minor complaint is that the technical details may be too elaborate for the general reader to stay interested or engaged throughout the text. However, in general, the book will appeal to helicopter pilots or other enthusiasts who will appreciate the details about the mechanics and flying maneuvers described.

P. E. Simmons, Ph.D., docent, Smithsonian National Air & Space Museum



The Luftwaffe in Africa 1941-1943. Jean-Louis Roba. Oxford, UK: Casemate, 2019. Maps. Tables. Diagrams. Illustrations. Photographs. Bibliography. Index. Pp. 128. \$24.95 paperback. ISBN: 978-1-61200-745-8

Roba has made it his life's work to seek out and publicize lesser known people, units, aircraft, and campaigns of World War II. He has written over 80 books and many articles in various magazines. His latest and thoroughly interesting and well-done work is part of the Casemate Illustrated series that focuses on men, battles, and weapons: it delivers on all three counts. The emphasis is on pictures—and lots of them. One sees the faces of not only pilots, but also the ground crew as they service and prep the aircraft for combat. Color plates are a boon to modelers looking to create authentic reproductions of these aircraft.

Organized chronologically, the book starts with the failed Italian offensives in North Africa that prompted Hitler to dispatch the Afrika Corps to bolster the fortunes of his unfortunate ally. It then covers the various 1941-43 campaigns that rolled across the African desert, including the Luftwaffe's efforts against both Commonwealth forces in the east and Americans in the west. The focus is on the pilots, aircraft, and units, with a heavy emphasis on the pilots. The narrative reads like a unit diary; it is relatively terse and concentrates on unit designations and losses. Individual pilot aces, award winners, and commanders are highlighted.

While the book covers the major offensives and troop movements, there is little discussion of aerial strategy or tactics. Given the book's brevity, this is understandable but regrettable. Photo captions are typically short and direct but are clear and add to the reader's knowledge and understanding. Roba unearthed a fair number of color photos,

making the people and places seemingly more real than black-and-white photos do. The color plates are nicely done and include all varieties of Luftwaffe aircraft (transports, bombers, fighters, and reconnaissance).

There are some issues which center on how information is presented. A glossary would have helped, as the unit organizational tables have no legend. A reader unfamiliar with Luftwaffe unit designations has no idea what the abbreviations mean. Tables for each campaign compare available German and Allied airpower, but the German side of the table shows aircraft numbers available/serviceable, while the Allied side shows only units with no numbers. There is no mention at all of Italian air strength and its potential impact (or lack thereof). This is critically important, because Roba emphasizes the impact the numerical disparity had on the Luftwaffe's performance but never shows what it actually is. The maps appear useful but, in reality, name only towns and not airfields; so it is difficult to picture where aircraft were based.

One very positive aspect that to some degree balances these shortcomings is Roba's discussion of the contentious issue of aerial victory claims. While he doesn't deliver any definitive answers, his recognition and discussion of the issue speak to his objectivity. Another plus is Casemate's inclusion of color-coded tabs on the outside edge of the pages corresponding to the various chapters. These allow a reader to quickly find a desired time period.

This book delivers on its title's promise. It is certainly worth the price. The book is also available in a digital edition for those who prefer their books via the computer.

Golda Eldridge, Lt Col, USAF (Ret), EDD



Lone Wolf: The Remarkable Story of Britain's Greatest Nightfighter Ace of the Blitz -Flt Lt Richard Playne Stevens DSO, DFC & BAR. By Andy Saunders and Terry Thompson. London: Grub Street, 2019. Photographs. Appendices. Bibliography. Index. Pp. 160. \$25.33. ISBN: 978-1-911621-34-8

In 1986, researcher Terry Thompson asked historian Andy Saunders whether there were any well-known RAF aces who had never been properly written about. Sanders immediately named Hurricane pilot Richard Playne Stevens. Over twenty-five years, Thompson had amassed "a dozen or more bulging lever-arch files (nothing was stored electronically)" that were "the most remarkable archive I have ever seen on a single RAF pilot," Sanders says. Thompson died while the two men were sorting the voluminous handwritten notes, but he had willed the archive to Saunders who used it to write this book.

The biography covers Stevens' activities from his birth in Kent, England, in 1909, to his death during a solo intruder mission against Gilze-Rijen airfield, Netherlands,

in 1941. The book's strength is lengthy quotations from observers of Stevens' accomplishments supplemented with after-battle reports of his 15.5 aerial victories. This wealth of information forms a well-defined picture of Stevens' individualistic approach to life as a warrior and as a man.

Stevens' combat mostly occurred during the second half of the nighttime 1940-1941 London Blitz by the Luftwaffe. His air-to-air tactics greatly differed from practices of the day. Following his own impulses, he randomly flew his black-painted Hurricane at night as a single ship in search of the enemy, which earned him the "Lone Wolf" sobriquet.

Nightfighting against German bombers was a difficult task. Winter weather and limited technical support compounded the problem of simply finding the enemy. Stevens formulated personalized tactics based on his superior night vision, consummate marksmanship, and willingness to take risks. With some sort of dispensation—official or otherwise—Stevens flew and fought how he saw fit, according to one of his commanders. When Stevens transferred between squadrons, he took his Hurricane with him. Reading accounts of his exploits is stunningly entertaining.

He fearlessly followed a quest to destroy Germans. For example, flying above East London with an open cockpit to improve visibility, he chased a Dornier 17 from an altitude of 19,000 feet to 30,000 feet, from where both pilots dove practically vertically to 3000 feet before Stevens scored a kill. In the dive, he temporarily blacked out from excessive G-force. The all-out maneuver grounded the Hurricane and caused Stevens to endure three flightless weeks while recovering from a damaged eardrum.

Not only is the book's storytelling excellent, but its hardcover construction is top quality. Its heavy paper has a permanency pleasant to touch, and its layout is pleasing to the eye. Plentiful and exceptionally sharp photographs portray people and scenes from long ago.

For Saunders, however, time is nearly timeless. Like the best historians, his prose makes everything sound as if it happened yesterday. His career resume shows 35 years of studying the 1939-1945 air war over Europe and writing 22 books about that period. This book is certainly among his best.

Henry L. Zeybel, Lt Col, USAF (Ret), Austin TX



Early French Aviation: 1905-1930. By Graham M. Simons. Havertown Penn.: Pen & Sword Books (Air World), 2019. Photographs. Pp. 128. \$24.95 paperback. ISBN: 978-152675874-3

Graham Simons was formerly the engineering director for the East Anglian Aviation Society (one of the world's finest historical-aviation organizations) and has written more than fifteen books, mostly detailing a specific aircraft.

In this book, he changes direction by highlighting more than 220 images from France during aviation's formative years. More than likely this was a "backburner" project since Simons discovered a collection of more than 500 images many years ago. Meticulously combing contemporary sources such as aviation journals of the day, he provides the reader with a peek at what many would call those magnificent men and their flying machines.

After a brief introduction, the images appear in the following sequence: expositions, lighter-than-air, pioneers, airfields, seaplanes, and post-World War I. The vast majority of the images deal with experimental or private flying. Fewer than twenty are directly associated with military aviation.

The section devoted to pioneers is by far the richest with about 120 images, more than eighty of which are unique aircraft. The selection includes some failures. Throughout the book, he sprinkles in technical data. In addition, he introduces the reader to stories behind some of the prominent names in early aviation. When applicable, he mentions how some of the better-known French aircraft manufacturers evolved.

While the seaplane and post-war sections feature relatively few aircraft, they nevertheless have important stories to tell. Readers are introduced to the beginning of French naval aviation. The seaplane races at Monaco receive considerable attention. In the post-war section, three images from 1921 depict French efforts to fly a Voisin by remote control—albeit with a safety pilot on board.

Because France was the center of world aviation before World War I, enthusiasts from other nations located there. In addition, the prestige of flying events hosted by the French attracted aircraft from elsewhere. While relatively few in number, there is a scattering of American, British, German, and Italian aircraft images.

One of the challenges of producing aviation picture books is balancing text and images especially with space limitations usually defined by the publisher. In this instance, Simons admirably achieves a comfortable mix. However, following the text would have been much easier if the captions were defined as such, perhaps with a different font. In some cases, the two run together, creating a distraction that could have been avoided.

Perhaps because of the aforementioned possible space limitations, the book lacks a critical element—an index of aircraft and personalities—that would make it far more useful as a valuable reference work. While Simons claims all the images came from a private collection and are published for the first time, there are some possible exceptions such as exposition posters and personality shots. If such is the case, then the exceptions could have been easily noted.

These nitpicks are minor given the incredible research effort that went into this book. Quality publications on French aviation, especially for this time period, are rarely found in English. Simons has produced a real gem—a work

that should be of great interest to anyone curious about early aviation.

Steven D. Ellis, USAFR (Ret), Lt Col, docent, Museum of Flight, Seattle



Forgotten Heroes: Aces of the Royal Hungarian Air Force in the Second World War. By Csaba B. Stenge. Warwick UK: Helion & Co., 2019. Photographs. Maps. Tables. Diagrams. Notes. Illustrations. Glossary. Bibliography. Pp. xii, 438. \$58.52. ISBN: 978-1-911512-68-4

This book's purpose is to preserve the memory and historical record of Hungarian pilots flying for the Axis who downed at least five enemy planes. Stenge, a Hungarian, feels the world has forgotten these men and has taken it upon himself to correct this.

The book starts with forwards from a surviving ace and from the son of the highest scoring ace. The first third of the book then includes information intended to help the reader better understand aspects of air combat and things specific to the Hungarian military. He discusses what constitutes an aerial victory, tactics and combat methods, decorations, ranks, personnel and units; and Hungarian organizations—all of which is definitely useful.

In the entry for the first ace, he discusses the confusion of air combat and makes the point that assessing a kill is not always as clear cut as one would assume. His extensive discussion of what constitutes an aerial victory explains the approach of various countries and the process he used when there were questions about the validity of a claim. He credits non-fighter aces with kills when anyone on their plane shot something down. Unfortunately this is not explained in the discussion of aerial victories, and the information is found only in a photo caption toward the end of the book.

The fliers are arranged like an encyclopedia—grouped by aircraft type and then victory total. It starts with fighter pilots who achieved more than 20 victories, then more than 10, then more than 5. He also includes reconnaissance, bomber, and ground attack pilots and then a few aces of Hungarian descent who flew with other militaries (including the USAAF). Each entry gives essential data and a narrative. The narratives are solid, with interesting facts about the ace and often of a victim or the one who bested the ace. This adds personal interest to what otherwise could be a dry recitation of facts.

Without question, Stenge devoted an extraordinary amount of time and effort to his research. His biggest challenge was the paucity of records: many were lost or destroyed in the chaos at the war's end, and the postwar Hungarian communist regime had no incentive to preserve the records of pilots who flew for the Axis. Also, many surviving witnesses fled Hungary after the war making it

harder to locate and interview them. Further, surviving records exist in four different languages in the archives of Hungary, Germany, Russia, and the US (to gain direct access, he learned German, Russian, and English).

Stenge's academic credentials are impressive and his process is very methodical and thorough. He used sources from all combatants and relied to a great extent on first person accounts. There is a good glossary and many pictures of both people and aircraft.

The book's biggest weakness is context. There is no explanation or discussion of how the Hungarian Air Force fit into the larger picture of the war or how the shifting political situation in Hungary affected the military. The reader picks this up in pieces from the individual entries; but, without outside knowledge of Hungary in World War II, it is confusing. A chapter covering this with appropriate maps would be very helpful.

Stenge unfortunately makes some unsupported claims about American aviators. The first is that Fifteenth AF fighter pilots frequently strafed enemy pilots in their parachutes after they bailed out. He says several Hungarian pilots suffered this fate. This comment is made as if it were an accepted fact without any source to support it. The second claim is that Americans were more prone to overclaim kills than anyone, again with no supporting documentation. This argument is actually contradicted by his own discussion elsewhere that all American aircraft had gun cameras (which the Russians and Hungarians did not), so they would have documentary evidence of any claims.

These weaknesses are significant, but anyone interested in this subject will never find a more complete source: no other researcher will ever take the time or combine the tools shown here. If this is something you want to know about, this book is where to find it.

Golda Eldridge, Lt Col, USAF (Ret), EdD



They're Killing My Boys: The History of Hickam Field and the Attacks of 7 December 1941. By J. Michael Wenger, Robert J. Cressman, and John F. Di Virgilio. Annapolis Md.: Naval Institute Press, 2019. Maps. Photographs. Bibliography. Notes. Index. Pp. 272. \$42.00. ISBN: 978-168247458-7

This is one of a series of books from the Naval Institute Press providing a detailed study of the Japanese attacks on the island of Oahu on December 7, 1941. Though there are many books on Pearl Harbor, most tend to focus (as did the Japanese attackers) on the U.S. Navy's Pacific Fleet, including Battleship Row and the *USS Arizona*. Many authors provide only a brief description of what transpired at the Army, Navy, and Marine Corps airfields on Oahu. This book on the attacks of Hickam Field that Sunday morning and companion volumes on Naval Air Station (NAS) Ka-

neoe Bay and NAS Pearl Harbor help fill that gap.

Hickam Field was established in 1935, but Army aviation in Hawaii dates to World War I and the use of Luke Field on Ford Island. By 1941, Hickam Field was the Headquarters of the Hawaiian Air Force, comprising two major tactical units: the 18th Bombardment Wing and the 14th Pursuit Wing. The authors provide a detailed history of Hickam Field, the Hawaiian Air Force defense posture on the eve of the Pearl Harbor attacks, and the day-to-day experiences of officers and enlisted personnel both on and off base. As one Army Air Corps officer recalled, new arrivals had been delivered to the “land of coconuts and swinging hula girls.”

The overall story of the Japanese strikes on Oahu are well known, but the authors provide a comprehensive, first-hand description of the devastation that overtook Hickam Field. Both American and Japanese (where available) accounts are included, including a list of the Japanese aircrews assigned to attack Hickam Field with an individual’s photograph. From attempts to save damaged aircraft, to fighting back with small arms, the response by military members and civilians caught completely off guard is detailed. Probably the best known incident was the arrival in the midst of the first attack wave of a flight of Boeing B-17 Flying Fortress bombers from California. Destined for the Philippines, the unarmed B-17s had to scatter to land at fields all over Oahu. After the second Japanese attack wave departed, Hickam Field began the slow recovery process—fighting fires and tending to casualties. As did the Navy, the Army Air Corps also sent out surviving aircraft to search for the Japanese fleet, but to no avail.

Today, more than seventy years after the Pearl Harbor attack, Hickam AFB (now part of Joint Base Pearl Harbor-Hickam) is the Headquarters of the Pacific Air Forces and home to the 15th Wing (C-17s and F-22s) and the Hawaii Air National Guard’s 154th Wing (F-22s and KC-135s). Many of the buildings and hangars date to World War II, and one can still see preserved damage from the Japanese attacks.

This book is a well-illustrated and detailed account of Hickam Field’s searing experience on December 7, 1941. I highly recommended it to those interested in knowing more about that “date that will live in infamy.”

As a docent at the National Air and Space Museum’s Udvar-Hazy Center, I’m fortunate to show visitors an airplane directly associated with Pearl Harbor. Though based on Ford Island, our Sikorsky JRS-1 amphibious “Baby Clipper” is one of a handful of airplanes known to have survived the Japanese attack. It’s a fitting memorial to all those serving in Hawaii on that long-ago December morning.

Jeffrey P. Joyce, Major, USAF (Ret)



Aero-Neurosis: Pilots of the First World War and the Psychological Legacies of Combat. By Mark C. Wilkins. Havertown, Penn.: Pen and Sword, 2019. Photographs. Bibliography. Notes. Pp. 162. \$39.95. ISBN: 978-1-52672-312-3

This groundbreaking book explores the effects of combat fatigue on World War I fighter aces Elliot White Springs, William Lambert, Roy Brown, Ernst Udet, “Mick” Mannoek, and Georges Guynemer. Wilkins exploits official records and personal correspondence to recount the painstaking efforts of doctors, military leadership, and the pilots themselves to recognize symptoms and develop treatments for what they dubbed “aero-neurosis.” A prolific World War I military aviation historian, Wilkins writes authoritatively of air combat strategies, tactics, aircraft, and aces. He avoids jargon and complicated medical theories, letting the story unfold in lively, unfettered combat accounts that make gripping reading.

The first few chapters outline the birth of combat aviation as part of the maturation of warfighting technology that characterized World War I. Aerial warfare-induced combat fatigue was a novel phenomenon that took time to identify and treat. Military commanders wrestled with notions of cowardice vs. bravery. Physicians prescribed rest. Combatants tried to relieve stress through hobbies, leaves, and writing correspondence and diaries. They affected an air of jaunty cheer and bonded with fellow pilots experiencing the same horrors. In what now is recognized as a classic psychological indicator, they embraced the source of their fear, living “only for the battle.” On leave in his hometown, Ernst Udet was startled to realize that he wanted nothing more than to return to his unit. Elliott White Springs noted that despite being a “total nervous wreck” after months of combat, he wanted “to stay at the Front at all costs.” Unconsciously, they took extreme risks that could result in a release from the stress—death. After Guynemer’s demise at the hands of an enemy plane’s rear gunner, observers noted that normally he would have maneuvered in the blind spot behind and below it. Violating one of his own air combat precepts, Mannoek followed a victim too low and was shot down by ground fire.

Despite Wilkins’ adroit arguments regarding “air neurosis” as new and unique, a World War I infantry soldier would argue that combat fatigue was hardly novel to air combat. Indeed, combat fatigue is one of the better-documented phenomena of war. Military doctors had been concerned with what now is termed post-traumatic stress disorder (PTSD) since ancient times. Diagnosis in the modern era traced to what US Civil War medics called “nostalgia.” Military leaders of World War I encountered “war neurosis” or “shell shock.” No effective solutions existed at first. The stigma attached to such stress disorders in those days resulted in men being confined; discharged; or, worse, executed for cowardice. Doctors experimented with electroshock therapy with doubtful results. After the futile Battle

of the Somme, the military recognized combat fatigue as a medical issue and no longer blamed victims for their condition. Treatments evolved: soldiers went on leave, were sent to convalescent centers, or were assigned duties in the rear. A more cohesive description of this background would have provided context to the phenomenon of “aero neurosis” described in this book. Readers wanting such perspective will find it in such works as Fiona Reid, *Broken Men: Shell Shock, Treatment and Recovery in Britain, 1914-30* (2010), and Taylor Downing, *Breakdown: The Crisis of Shell Shock on the Somme* (2016). The best basic works are probably Stefanie Linden, *They Called it Shell Shock: Combat Stress in the First World War* (2017), Anthony Babington, *Shell Shock* (1997), and Wendy Holden, *Shell Shock: The Psychological Impact of War* (1998).

Despite the title, this is an air power book. Its heart is chapters devoted to the background, careers, and combat experiences of each ace, related in detailed narratives of searing, relentless World War I air combat. It hammers home the psychological effects of battle, affecting the subjects’ professional and personal relationships, leadership styles, and health, told as much as possible in the words of the pilots themselves through excerpts from letters and diaries, eyewitness accounts, and contemporary interviews. After reading just these chapters, the reader has an understanding of “aero-neurosis.” The book is worth the rather steep cover price for this portion alone.

Although a few chapters relate the effect of advancing technology on war, I missed context of the role of World War I fighter plane technology in the development of “aero-neurosis.” The aircraft were technologically unsophisticated and had few safety features. Pilots knew there was no escape from a burning or damaged aircraft. Worse, the static nature of the ground war often enabled victors to land and view the bodies of their victims. The book is especially strong at quoting the subjects’ thoughts but, otherwise, leaves readers to learn the peculiarities of World War I dog-fighting on their own.

Carefully selected photographs illustrate the aces and their aircraft. A list of original sources would have been helpful. Also, the bibliography is somewhat limited. It is puzzling that more of the numerous works published on these famous aces over the course of the last century were not referenced. Overall, however, this book provides a trail-blazing description of the creation of the new medical science of “air neurosis.” It is recommended reading for anyone interested in the birth of airpower.

Steve Agoratus, Hamilton NJ



Red Star and Roundel: A Shared Century. By Philip Wilkinson. Stroud UK: Fonthill Media. 2019. Photographs. Illustrations. Notes. Bibliography. Maps. Pp. 400. \$60.00 ISBN: 978-1-78155-7334

Wilkinson structures his work around an interesting coincidence. The birthdates of the Royal Air Force (1 April 1918) the Soviet Union (Mar 1917) are proximate: these two institutions share much of the twentieth century. He promises to show how their institutional stories interweave throughout the twentieth century. His narrative focuses on three broad events: British intervention in the Russian Revolution supporting anti-Bolshevik forces; deployment of Royal Air Force (RAF) units to prevent German Forces from capturing Murmansk; and, finally, the Cold War and subsequent collapse of the Soviet Union.

The first section draws heavily on diaries and personal papers of actual participants. Wilkinson fills in gaps in the story. Interestingly, the 1904 Kronstadt and 1905 Potemkin mutinies in Russia had direct counterparts in the UK’s military establishment. A Royal Marines battalion deployed in Murmansk mutinied themselves. The combat was brutal. British airmen were told that if captured by the Bolos (slang for Bolsheviks), they should expect to be crucified; the Bolo’s using five nails, one for each extremity and a fifth for the genitals. In counterpoint, some of the main weapons employed by the RAF against the Bolos were chemical weapons.

In discussing RAF operations in Russia during the early stages of the Second World War, Wilkinson again relies on personal papers and oral histories of veterans. He describes a Russia demanding increasing amounts of equipment from the UK while struggling to absorb totally alien technologies. Inefficiencies are exacerbated by Russian winters and obdurate Russian bureaucrats. Wilkinson apportions a share of the responsibility to the RAF. He describes early British efforts as “missionaries.” Wilkinson makes one very important point: while many of the airframes the RAF provided to Russia were considered inadequate under-performers (e.g., Mustang I, Albemarle, and Stirling), these types could have been used by the RAF to defend the Commonwealth’s global interests. The UK placed its short-term security at risk to support a difficult and demanding ally.

The book has a short chapter on the Berlin Airlift and aftermath. One anecdote discusses use of RAF Chipmunk training aircraft based in Berlin as intelligence-gathering platforms. British intelligence created a “circuit” flight path that passed as close as possible to Russian and German installations. On one circuit, a Chipmunk got the first photographic evidence of Soviet SA-2 deployments in the GDR. Wilkinson takes great pride in noting that copies of the photos were on President Eisenhower’s desk within three days of the photo shoot.

The story ends with a relatively short discussion of RAF–Russian relations and events at the end of the 20th century. Wilkinson acknowledges that this section relies heavily on his personal experience as an air attaché. This final chapter is most disappointing. He set the stage and established his credibility to offer comparisons between the RAF and Russia at the beginning and end of the twentieth

century. Instead, the conclusion is a list of characters from each segment of the book and their respective career paths and honors. Wilkinson talks nothing of Russian resurgence in the face of RAF reductions.

Red Star and Roundel: A Shared Century is an uneven and imbalanced book. Its reliance on diaries, personal papers, and official histories in early sections offer unique anecdotes and insights. Later chapters lack that foundation and become less useful to the aviation historian and more useful to RAF biographers. Numerous spelling mistakes are unfortunate.

Gary Connor, docent, Smithsonian National Air and Space Museum's Udvar Hazy Center



The United States Air Force in Britain. By Darren Willmin. United Kingdom: Fonthill Media, 2019. Photographs. Glossary. Bibliography. Pp. 223. \$29 paperback. ISBN: 978-1-78155-699-3

In this book, Willmin has two objectives. First, he outlines the history of the USAF in the UK and continental Europe from the years immediately following World War II to the present day. And second, he presents an in-depth discussion of current USAF bases, organizations, and operations in the UK.

He begins with an historic narrative that discusses strategic events (e.g., the Berlin Blockade and France's departure from NATO's military structure), tactical or operational matters (e.g., numbers and types of aircraft deployed to the UK at a given point in time), and trivial details (e.g., a description of the unit markings painted on the tails of deployed aircraft). This broad range of issues, from the high-level to the miniscule, might be interesting and informative if presented clearly and coherently; but this is not the case. Rather, the reader sees a collection of miscellaneous facts that do not flow logically from one to another and which lack sufficient context to allow for a clear understanding of the story that is being told. From one paragraph to the next, the story was difficult to follow.

Today the USAF occupies active bases at RAF Mildenhall and RAF Lakenheath, and also maintains a standby base at RAF Fairford. Mildenhall is home to the 100th Air Refueling Wing, flying KC-135s, and the 352nd Special Operations Wing, flying C-130Js and CV-22s. The primary unit at Lakenheath is the 48th Fighter Wing, equipped with F-15s. Willmin devotes several chapters to each of the active bases, going into considerable detail on the nature of their missions and the aircraft they operate. This is the book's greatest strength, in particular Willmin's description of the aircraft types and variants stationed at the operational bases.

A further strength is the outstanding collection of photographs. There are hundreds of high-quality photos, al-

most all in color, that show the aircraft, airmen, and facilities.

Willmin devotes a chapter to air traffic control procedures at Mildenhall and Lakenheath. This is an interesting discussion, made more so by the fact that the two bases are less than five miles apart, creating a challenge for controllers to coordinate their operations. A map to show the reader how close together the two bases are and where they are in relation to the rest of the UK would have helped. Perhaps even a map showing the overlapping approach and departure routes for the two bases could have been provided.

Willmin wraps up the book with a summary chapter that isn't a summary of anything that precedes it. In this one-page conclusion, he talks about "disarray" in the US defense budget, continued active aggression by Russia, and the rise of the Islamic State. He says that more money is needed. One can agree or disagree with that statement, but as the conclusion of a book it should relate directly to, and be supported by, what has been said in the preceding chapters. There's no connection whatsoever. This chapter left me scratching my head.

Whether Willmin's or the editors fault, there are too many cases where careful proofreading of the text should have led to corrections or revisions, but clearly this didn't happen. Just a few examples will suffice. Willmin uses the term "dissimilar air combat" in quotes to indicate that it is a unique term that requires explanation; unfortunately, he provides none. In describing a preflight briefing for a KC-135 crew, he says the crew discussed ditching procedures because ditching is, in Willmin's words, "inevitable"; surely, he meant to say something other than that. And lastly there are factual errors, the most glaring of which is the statement that there was a U-2 base in the UK in 1952—several years before the legendary reconnaissance airplane's first flight.

All told, this book addresses an interesting topic, and it is evident there was a great deal of research. But Willmin's ability to organize and present the material leaves something to be desired. One is left with the impression that this is a first draft rather than a finished product.

LTC Joseph Romito, USA (Ret), docent, National Air and Space Museum



The Complete History of U.S. Cruise Missiles: From Bug to Snark to Tomahawk. By Bill Yenne. Forest Lake MN: Specialty Press, 2018. Maps. Tables. Diagrams. Illustrations. Photographs. Appendix. Index. Pp. 204. \$34.95. ISBN: 978-1-58007-256-4

As a writer, Yenne has three important characteristics: he is prolific, eclectic, and insatiably curious. His impres-

sive body of work includes nearly sixty non-fiction titles and eight novels. His prolificacy and eclecticism are fed by his wide-ranging curiosity and imagination. One reviewer stated that Yenne is "... a perfect example of what happens when a child reads too many books and doesn't watch enough television. He ends up with an imagination." Imagination and curiosity feed off one another and generate writing that is comprehensive and readable.

This work meets these tests. It is wide-ranging, logically organized, and satisfying to read. It is notable from other works on the subject in that it is at once limited in scope to US cruise missiles but is comprehensive enough to enable peripheral awareness of the broad scope of cruise missiles globally.

Of course, Yenne's is not the only book on cruise missiles, but ten other promising works currently in print do not cover the subject as broadly. Kenneth Werrell's 1985 *The Evolution of the Cruise Missile*, and Norman Polmar and John O'Connell's 2020 *Strike from the Sea: The Development and Deployment of Strategic Cruise Missiles since 1934*, are both good, however. Werrell's is more a strategic overview of cruise missiles than a description of them. Polmar and O'Connell provide extensive details on the Navy's Regulus missile program but limit coverage to sea-launched weapons.

Yenne provides detailed descriptions of twenty-five U.S. cruise missile types dating from World War I to the future. His opening chapter, a fascinating and interesting narrative, covers developments to the end of World War II. He writes about three talented geniuses—Elmer Sperry, Peter Hewitt, and Charles Kettering—and how they influenced the development of the first cruise missiles called flying bombs in the Navy and aerial torpedoes in the Army. Each was a piston-powered, propeller-driven, unmanned aircraft carrying high explosives.

Sperry, who patented the gyrocompass in 1908 and, with his son Lawrence, the gyroscopic autopilot in 1912, was joined in 1915 by Hewitt, best known for inventing the mercury vapor lamp and the first non-mechanical rectifier to convert alternating current to direct current. Together they developed the Hewitt-Sperry Automatic Airplane based on applications of guidance technology installed on Curtiss C-2 flying boats and a Curtiss N-9. For the next two years, they experimented diligently but with limited results.

Meanwhile, "Ket" Kettering, who had founded the Dayton Engineering Laboratories Company (Delco) and developed a wide range of automobile electrical devices, created his aerial torpedo for the Army. He was helped by Orville Wright, who envisioned mass production by the Dayton-Wright Airplane Company. In fact, the Army contracted with Dayton-Wright in January 1918 for twenty-five Dayton-Wright Liberty Eagles. Overseeing the program for the Army was a 1907 West Point graduate, Colonel Henry H. "Hap" Arnold.

Yenne writes entertainingly about the development

and testing of the two military services' platforms. The Navy "flew" on top of a car driving eighty mph on the Long Island Motor Parkway. The Army's aircraft crashed into a farmer's field southeast of Dayton. When Army vehicles and officials arrived on the scene, the farmer noted there was no sign of the pilot. Secrecy was paramount; and Arnold, clad in leather flying jacket and goggles assured the farmer that he had successfully bailed out of the aircraft.

Although the Navy enthusiastically promoted development of their aircraft, they met with few successes in flight testing. The Army's *Kettering Bug* was deemed ready for deployment in late 1918, but the armistice obviated its employment.

Yenne's first chapter notes developments in navigation and control through the interwar years concluding with the US military's reverse-engineering of Germany's V-1 "Buzz Bomb," which were test fired but never operationally employed. The rest of the book is an 11-chapter trek through the chronological development of the first Air Force cruise missiles (Matador and Mace), through the Navy's Regulus, the Navaho, the Tomahawk to the twenty-first century's Joint Air-to-Surface Standoff Missile (JASSM) and the future Joint Strike Missiles (JSM) being tested today. Each of the missiles is described in detail, and its evolution is effectively explained. The dots are connected.

Illustrations and schematics are plentiful, and the prose and pictures are professional. Only three things are lacking in this book: a more complete index, a bibliography, and a glossary. Each would be helpful in a second edition. It is hoped that Yenne will one day go beyond the U.S.-only story and provide a more global description of cruise missiles.

Todd Riebel, DoD (Ret), NASM Udvar-Hazy Center docent



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.)

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Coming Up



Compiled by
George W. Cully

September 11-16, 2020

The **Air Force Association** has cancelled its 2020 Convention previously set for September 11-13 and instead will present "AFA 20/20: a Celebration of Where We've Been, Where We Are, and Where We're Going" in a virtual format followed by its annual Air, Space and Cyber Conference, also to be offered in a virtual format. For details, see the Association's website at <https://www.afa.org/events>.

September 23-26, 2020

The **Society of Experimental Test Pilots** will hold its 64th Symposium & Banquet at Disney's Grand Californian Hotel & Spa in Anaheim, CA. For details, see the Society's website at www.setp.org/annual-symposium-banquet.

September 24-25, 2020

The **Society of Experimental Test Pilots** will hold its annual Symposium in virtual form. For details, see the Society's website at <https://www.setp.org/>.

October 4, 2020

The **National Aviation Hall of Fame** will celebrate its 58th annual enshrinement at the Hope Hotel and Richard C. Holbrooke Conference Center in Dayton, Ohio. For additional information, see their website at <https://www.nationalaviation.org/enshrinement/>.

October 5-8, 2020

The **Association for Unmanned Vehicle Systems International** will present Xponential 2020, its premier annual convention, in virtual form. For more details, see the Association's website at <https://www.auvsi.org/events>.

October 7-11, 2020

The **History of Science Society** will hold its annual conference in New Orleans, Louisiana. For more details as they become available, see the Society's website at <https://hssonline.org/meetings/annual-meeting-archive/>.

October 7-11, 2020

The **Society for Military History** will hold its annual meeting at the Sheraton New Orleans hotel in New Orleans, Louisiana. Details regarding paper submission and registration can be found at

the Society's website: <https://www.history-of-technology.org/annual-meeting/2020-shot-annual-meeting-7-11-october-new-orleans-louisiana/>

October 20-25, 2020

The **Oral History Association** will hold its annual meeting in virtual form. For more details, check the Association's website at <https://www.oralhistory.org/annual-meeting/>.

October 24-25, 2020

The **League of World War I Aviation Historians** will hold its annual seminar in Kansas City, Missouri, with planned visits to the National Museum of World War I and Memorial. For more details as they become available, see the League's website at www.overthefront.com

October 26-28, 2020

The **American Astronautical Society** will host its annual Wernher von Braun Memorial Symposium at the University of Alabama in Huntsville. For additional details, see the Society's website at <https://astronautical.org/events/vonbraun/>.

October 31-November 2, 2020

The **Space Foundation** will host its 36th annual Space Symposium at the Broadmoor Hotel in Colorado Springs, Colorado. For registration and other details, see the Foundation's website at www.spacesymposium.org/.

February 24-26, 2021

The **Air Force Association** will host its annual Air Warfare Symposium at the Rosen Shingle Creek Hotel in Orlando, Florida. For more information, see the Association's website at www.afa.org/events.

March 18-21, 2021

The **Society for Military History** will hold its 87th annual meeting in Norfolk, Virginia. This year's theme will be "Turning the Tide: Revolutionary Moments in Military History." For additional details as they become available, see the Society's website at <https://www.smh-hq.org/smh2021/index.html>.

March 24-27, 2021

The **National Council on Public History** will host its annual meeting at

the Hilton Salt Lake City Center in Salt Lake City, Utah. This year's theme will be "The Presence and Persistence of Stories." For details, see the Council's website at <https://ncph.org/conference/2021-annual-meeting/>.

April 15-18, 2021

The **Organization of American Historians** will hold its annual meeting and conference at the Sheraton Grand Hotel in Chicago, Illinois. The theme of this year's gathering will be "Pathways to Democracy." For further information, see their website at <https://www.oah.org/meetings-events/oah21/>.

April 21-23, 2021

The **Army Aviation Association of America** will host its annual Mission Solutions Summit at the Gaylord Opryland Hotel and Convention Center in Nashville, Tennessee. For more details as they become available, see the Association's website at <https://s15.a2zinc.net/clients/aaaa/aaaa21/Public/Enter.aspx>.

July 7-10, 2021

The International Womens Pilot Association, better known as The Ninety-Nines, will hold their annual meeting on board the SS Queen Mary moored in the harbor of Long Beach, California. For registration, see their website at <https://travelplanners-texas.swoogo.com/99s2021/333555>.

In light of the coronavirus pandemic, the events listed here may not happen on the dates listed here, or at all. Be sure to check the schedules listed on the individual organization's web sites for the latest information.

Readers are invited to submit listings of upcoming events. Please include the name of the organization, title of the event, dates and location of where it will be held, as well as contact information. Send listings to:

George W. Cully
3300 Evergreen Hill
Montgomery, AL 36106
(334) 277-2165
E-mail: warty@knology.net



The Northrop F-89 *Scorpion* first flew in August 1948. Equipped with a AN/ARG-33 radar, and Hughes E-1 fire-control system, along with permanently mounted wing-tip fuel tanks, the F-89 became the USAF's first purpose built jet interceptor. Operated by a crew of two (pilot and radar operator), the *Scorpion* entered operational service in 1950. A total of 1,050 *Scorpions* were produced. The final version: the J model, was capable of carrying two AIR-2 *Genie* missile.

The AIR-2 *Genie* was armed with a nuclear warhead for attacking large formations of Soviet bombers. On July 19, 1957, a F-89 *Scorpion* fired a nuclear armed AIR-2 *Genie* air-to-air rocket over the Yucca Flats test range. The air-to-air rocket firing was the first and only time an air-to-air nuclear rocket was detonated. The test detonation was part of the Operation Plumbbob nuclear test program. Each Plumbbob test detonation was also given a second name to distinguish it from other test. This test detonation was called Operation Plumbbob John. As part of a public relations effort to show that a nuclear air-to-air missile could be safely detonated over U.S. cities, the Air Force had 5 volunteers and 1 cameraman observe the test from ground zero below the detonation.

The more capable supersonic fighters (F-101, F-102

and F-106) century series fighters would replace the F-89 as the U.S. Air Force's primary air defender. The final F-89 would retire from the USAF in 1969 closing the book on the Air Force's only fighter to fire and detonate a nuclear air-to-air missile. As for the AIR-2 *Genie*, three aircraft would be made capable of carrying it: the F-89J, F-101B and F-106A. The AIR-2 *Genie* would serve in the Air Force's inventory from the 1950s until the mid-1980s.

To learn more about:

The F-89 and other U.S. aircraft: <https://media.defense.gov/2010/May/26/2001330287/-1/-1/0/AFD-100526-027.pdf>

The F-89: <https://www.nationalmuseum.af.mil/Visit/Museum-Exhibits/Fact-Sheets/Display/Article/198080/northrop-f-89j-scorpion/>

The AIR-2 Genie: <https://www.nationalmuseum.af.mil/Visit/Museum-Exhibits/Fact-Sheets/Display/Article/197594/mcdonnell-douglas-air-2a-genie-rocket/>

The Operation Plumbbob test: https://www.dtra.mil/Portals/61/Documents/NTPR/1-Fact_Sheets/19_PLUMBBOB.pdf

To see video of the Operation Plumbbob John test shot: <https://www.youtube.com/watch?v=1VZ7FQHTaR4>

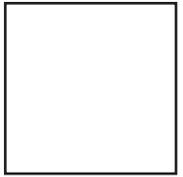


This issue's quiz:

At the beginning of the Cold War, the United States Air Force established Air Defense Command (ADC) to defend the United States from an air attack from the Soviet Union. To end the United States, ADC used a ring of ground radars and fighter interceptor aircraft. Initially ADC used P-61 and F-82 as its primary intercept aircraft. Both of these aircraft were inferior to the task at hand. This led the Air Force to procure a twin-engine jet aircraft to serve as an interceptor charged with the task of defending the United States against attack from Soviet bombers. This first purpose built jet interceptor would serve on active duty for over twenty years. This aircraft would take part in Operation Plumbbob John test shot; the first U.S. firing and detonation of a nuclear air-to-air rocket. Can you name the aircraft? Can you name the missile?



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