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AFA's Mission

Our mission is to promote a dominant United States Air Force and a strong national defense and to honor airmen and our Air Force heritage. To accomplish this, we:

Educate the public on the critical need for unmatched aerospace power and a technically superior workforce to ensure US national security.

Advocate for aerospace power and STEM education.

Support the Total Air Force family and promote aerospace education.

Back to the Future

It looks like we're going backwards. Recent articles pertaining to the Air Force's plan to acquire a new advanced jet trainer have thus far identified potential candidates that appear to be aerodynamically inferior to the T-38s that they are supposed to replace [*"Teeing Up the T-X," June, p. 48*].

In these challenging budgetary times, it appears obvious to me that a brand-new T-38 airframe, with futuristic new avionics, might be superior to any candidate thus far proposed and likely far less expensive (because the airframe is already proven). Higher quality at less cost. Worth consideration.

Col. David R. Haulman,
USAF (Ret.)
Ridgeland, Miss.

Night Flight Alright

Great story! I know there have been thousands of supersonic flights at Edwards [AFB, Calif.]. Not sure how many were night supersonic [*"Edwards Renaissance," July, p. 38*].

In 1972 while at Eglin AFB, Fla., I was the operational test and evaluation project manager of a replacement passive infrared sensor for the RF-4C. Part of the OT&E was to test the sensor resolution flying supersonic in fly-off between the new Honeywell AAD-5 and Texas Instruments revised AAS-18. Edwards was the only location we could fly supersonic at night and had the sensor array targets. Base officials even published a notice of the event, alerting all in the area of our week of night supersonic flights.

Maj. Gayle P. Johnson,
USAF (Ret.)
Watertown, Wis.

This is a minor comment about the "moving blades of metal" that play havoc with radars at Edwards Air Force Base. If you dig a little deeper into wind turbine technology, you will find blades are made of fiberglass composite with carbon composite in areas of high stress. In spite of fiberglass being an electrical nonconductor, the radar return may be only a few decibels down from metal. (Perhaps down several dB.) The few dB can still play havoc. Also blades typically have an ice sensor at the tip

with a wire running to the hub; this wire contributes to the radar return. Each blade has lightning protection, which is a conductor and enhances radar cross section. Older and smaller wind turbines likely have metal blades. The solution to the radar interference is not obvious.

Allen E. Fuhs
Wright-Patterson AFB
Dayton, Ohio

Counting Down

I have seen AC-47s fire in Vietnam and have always been amazed by the firing rate of miniguns: up to 6,000 rounds a minute. However, the claims that three of them could hit every square foot of a football field in a three-second burst don't seem to add up [*"Gunships on the Trail," June, p. 64*]. My math (admittedly, not one of my strengths) tells me that there are 48,000 square feet in an NFL football field (160 x 300 = 48,000). A firing rate of 18,000 rpm (rounds per minute) works out to 300 rps (rounds per second). At that rate, it seems to me that it would take about two minutes and 40 seconds to cover a football field. Or did I miss something?

MSgt. Stephen Childers,
USAF (Ret.)
Woodside, Del.

Finest

I would like to commend John Correll for his excellent article, "Their Finest Hour," in the July issue [p. 30]. His summary and characterization of the Battle of Britain was well-done and moving. I would like to add some background to the subsequent treatment of Air Chief Marshal Hugh Dowding. I call it, "The Rest of the Story."

Do you have a comment about a current article in the magazine? Write to "Letters," *Air Force Magazine*, 1501 Lee Highway, Arlington, VA 22209-1198. (Email: letters@afa.org.) Letters should be concise and timely. We cannot acknowledge receipt of letters. We reserve the right to condense letters. Letters without name and city/base and state are not acceptable. Photographs cannot be used or returned.—THE EDITORS

In World War I, Hugh Dowding was a wing commander of the Royal Flying Corps that was under the overall command of Brig. Gen. Hugh Trenchard. Trenchard developed a broad policy of aggressive “offensive spirit”—attacking everywhere, everything in sight. Trenchard enforced his policy ruthlessly. One of the officers who dissented from Trenchard’s policy was Lt. Col. Hugh Dowding. This indomitable leader was one of the public school fellows who had joined the army early and served with distinction in India and the Orient. Back in England, he had learned to fly at his own expense and joined the RFC in his mid-30s. He had many of the same qualities as Hugh Trenchard—highly competent but uncompromising. The difference was that Dowding had a passionate concern for his aircrews and the high rate at which they were being consumed. While not opposing the offensive spirit in principle, he believed and advocated to Trenchard and others that the crews be given realistic and adequate training before being sent into combat. Instinctively, he knew the truth of the high loss rate curve that ruthlessly eliminated inexperienced pilots in their first few combat missions. Dowding’s wing contained four squadrons, one of which had suffered 50 percent casualties by early August 1915. After one of his squadron commanders and two flight commanders had been shot down, Dowding went to

Trenchard and requested the squadron be withdrawn from the line for a few weeks’ rest. Trenchard was upset with this request, and although he approved it, he privately thought Dowding’s compassion outweighed his duty. In official correspondence, he referred to Dowding as a “dismal Jimmy” and had him removed from command and sent back to England. Never being allowed back to the front in World War I, Dowding nevertheless rose to become the commander of Fighter Command in the Battle of Britain. Trenchard never forgot this episode. When the Battle of Britain ended in late 1940, Trenchard was one of the voices that persuaded Winston Churchill to retire Dowding!

This vignette is from my forthcoming book *Oswald Boelcke: Man of Valor*. I hope it is useful to you and your readers.
 Brig. Gen. R. G. Head,
 USAF (Ret.)
 Coronado, Calif.

A superb article by John Correll about the Battle of Britain. It details the perilous military and political situation for Great Britain in 1940. An apt subtitle would be, “How Winston Churchill Saved Western Civilization.” As is made very clear in the Churchill biography, *Warlord*, he was a man who broke all the molds for England in three wars. Infuriating as he might have been for the political establishment and military leaders, that characteristic made him precisely the

man to take over in the dark hours of 1940. Without him and the RAF fighter force, life since then would have been very different for England, the US, and Europe.

Lt. Col. Cal Taylor,
 USAF (Ret.)
 Olympia, Wash.

Being a dedicated [reader] and always interested in the aviation of the World War II, I found John T. Correll’s piece “Their Finest Hour” an entertaining and thought-provoking look back into another critical time for Britain, our nation (though most of the citizens were scarcely aware of it), and the world. The lessons of the so-called “Battle of Britain” should never be overlooked, as it pertains to readiness, resolve, and technical superiority! If it were not for the decisional errors of the Luftwaffe and German management (Goering and Hitler), the outcome of the battle and the war could have been far different.

I also wanted to commend Mr. Ivan Berryman on his excellent artwork and only regret I did not receive the copy with the cover showing the shootdown of the Dornier 17 by a Spitfire at the cliffs of Dover.

The artwork on pages 30 to 31 struck me initially as a bit odd, being captioned as a Spitfire chasing a Bf 109 during the Battle of Britain. What is odd to me is it portrays a Bf 109F, which did not enter service until very late during the

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battle, the major variant serving during the battle being the Bf 109E. The Bf 109F is painted in the colors of JG26, which was not equipped with Bf 109Fs until February 1941, when it was stationed at Dusseldorf. Thus, while unlikely to have been engaged during the battle, it's not impossible that Bf 109Fs did have a go against the RAF, but it is unlikely it was JG26. However, the Spitfire is also suspect, being in the markings of Wing Commander Douglas Bader after his promotion to wing commander in March 1941, well after the battle. Bader was shot down 9 August 1941, so it appears the time frame of this beautiful artwork would be during the period March to August 1941.

I hope my critique doesn't detract from an excellent and well-illustrated article, which I thoroughly enjoyed and whose lessons of history should never be ignored, particularly during these days. Thank you so much for your efforts to put together a well-balanced, timely, and informative magazine.

Robert Taylor
Ventura, Calif.

■ *Robert Taylor is correct in his interpretation of the artwork, and should any reader wish to purchase a copy of the July magazine with one of the four alternate covers, please contact our membership department at membership@afa.org. They will be happy to assist you.—THE*

EDITORS

Warrant Officers Warranted

I totally agree with Paul Stonehouse's comments in his letter on p. 7 of the July issue, especially concerning returning to the warrant officer position [*"Letters: Open it Up"*]. I was one of the last master sergeants to enter the warrant officer program, before the E-8/E-9 positions were established. The Air Force, in its infinite wisdom, decided that it wanted an all-commissioned officer corps. The command structure was strictly pilot-rated officers. I had one wing commander who held separate commander's calls for the rated and nonrated troops, referring to the nonrated as "overhead." Apparently that mind-set is still prevalent today!

The killing of the Air Force's warrant officer program left the remaining warrant officers in a state of limbo, with the loss of their specialized job ratings in the unit manning documents. In my case, I was very fortunate that I spent the last 12 years of my Air Force career filling field-grade officer positions. My last position was an assignment to the airborne battle staff of one of the major air commands.

Also, USAF's reasoning (at that time) that with the upcoming addition of the E-8/E-9 program, the warrant officer

position was no longer needed does not hold water. All the other military services still effectively maintain their warrant officer structure, even to the extent of adding an additional grade of W-5. With all due respect to the fine job our senior and chief master sergeants are doing, I personally, at the age of 90 and from a strictly finical standpoint, would rather retire at the W-4 or W-5 retired pay.

Yes, it is time the Air Force re-evaluated its command structure and tap into the wealth of talent down in the ranks!

CWO Robert V. Bush,
USAF (Ret.)
Swansboro, N.C.

Paul Stonehouse raised an interesting issue, if you can get beyond his obvious enlisted vs. officer slant. I agree with him that the Air Force should create a warrant officer branch for RPA pilots and other noncombat pilot positions. USAF is the only service in NATO that does not have a technical officer corps, and it restricts our ability to adapt to changing demands.

I was recalled to Active Duty in 2009 to fly RPAs after 10 years in retirement, along with some 40 other retired Air Force pilots assigned to Creech AFB, Nev. All of us were in our late 50s, most of us former fighter pilots. We named our group the "Knights of Viagra" and designed our own morale patch with the motto: "Always Stalwart"—or in Latin, "Semper Erectus."

Stonehouse was right in his assertion that the younger generation does a much better job of playing video games than us old fogies. But that doesn't qualify them to be pilots. We retrained the Knights of Viagra, brought them into the RPA community that was populated with mostly first-tour pilots and sensor operators. I often heard my younger crew members for help to get out of me of the operating computer commands and I appreciated their indulgence. But when it comes to killing people who dearly deserved to die, the experienced hand wins every time. Playing video games against imaginary zombies doesn't equate to me being a pilot.

As a prior-enlisted troop (E-5, 1972), prior warrant officer (CW-2, 1975), and retired Air Force pilot (O-5, 2013), let me cast my vote for the establishment of an Air Force warrant officer corps that will fix many of the pilot shortage problems we're facing today. Warrant officers should have an associate degree or 60 semester hours toward a bachelor's degree, and at least an FAA commercial license for entry into the RPA pilot program or certification to fly C-12s and such. But the finger on the trigger needs to be that of an officer.

Mr. Stonehouse, and all those other video gamers who think flying an MQ-1B Predator is simply a matter of computer

expertise, have no idea what it takes to fly a remotely piloted aircraft in common airspace, shared with fighters and transports and bombers in a hostile environment, while coordinating with troops under fire. Let the video geeks enjoy their pseudo wars, and leave the rest of us to defend the country without your silly contrivances.

Lt. Col. Gary Peppers,
USAF (Ret.)
Cape Coral, Fla.

After reading "Open it Up," July, p. 7, I felt it necessary to add my two cents. I could wholeheartedly agree with Mr. Stonehouse on many of the points he makes. I do take exception to his comment, "Today's enlisted Air Force is exceptionally educated, and yet they continue to be treated like the unschooled folks they might have been 50 years ago."

My experience in the Air Force of 65 to 42 years ago was that many of the airmen were equally as proficient in the technology of their time as the current airmen are today in technology in this current time. Thus my conclusion is they were adequately schooled for the tasks they faced. Similarly, current airmen are facing very different tasks, but seem to have the training/education to accomplish same.

Examples of the unschooled with whom I worked during my 22-year career: All the officers had college degrees in fields such as electrical engineering, electronic engineering, chemical engineering, chemistry, mathematics, aeronautical engineering, and general engineering (24 semester hours in five different engineering disciplines). Many of the NCOs and airmen were similarly qualified by schooling. My feelings are that they were all adequately schooled for the tasks at hand.

I must say that I do agree that the Air Force should make use of the warrant officer and limited-duty-officer program, which the Army and Navy seem to be able to use effectively. That certainly would have been seriously taken into consideration when I made the decision to retire at age 40.

CMSgt. Harold W. Thomas,
USAF (Ret.)
Sierra Vista, Ariz.

Captain Phillis

You omitted Capt. Steve Phillis from the list of A-10 Silver Star recipients [*"Airpower Classics: A-10 Thunderbolt II," July, p. 80*]. He gave his life protecting his wingman during Desert Storm. "Syph" was the epitome of a fighter pilot.

Col. John M. Poutier,
USAF (Ret.)
Yorktown, Va.