



Soldiers from "Hamilton's Own," 1st Battalion, 5th Field Artillery Regiment, 1st Heavy Brigade Combat Team, 1st Infantry Division, fire "Old Thunder," a Revolutionary War-era canon, March 7, 2012. The Soldiers were taking part in a ceremony at Fort Riley, Kan. (Amanda Kim Stairrett/1st Infantry Division)

Entangled history

How the field artillery and air defense artillery separated

By Dr. Boyd Dastrup

Over the years, the field artillery and the air defense artillery have shared a close association, dating back to the birth of the Continental Army's Artillery on Nov. 17, 1775. During the early years of the country's history, the coast artillery, the ancestor of air defense artillery, and the field artillery composed the War Department's artillery forces. While the coast artillery defended the country's harbors from enemy naval attack, the field artillery provided fire support on the battlefield. With the rise of airpower in the first decades of the twentieth century, the Army created the anti-aircraft artillery as component of the coast artillery to defend the ground forces from enemy air attack. The advent of modern naval guns and

aircraft in the twentieth century, meanwhile, rendered coastal fortifications armed with heavy coast artillery obsolete. Together with the need to modernize the Army's force structure, the out-of-date coastal fortifications eventually led to the Army Reorganization Act of 1950. In the act Congress gave statutory recognition to the infantry, armor and artillery as combat arms, among other things. The act also inactivated the coast artillery and merged the field artillery and the anti-aircraft artillery into one artillery branch. When this arrangement proved unworkable, the Army separated the two artilleries in 1968. For almost four decades, the two artilleries went their own ways until 2005 when Congress approved the recommendation



A steel engraving titled 'A Soldier's wife at Fort Niagara,' depicts a woman lifting cannon balls in an artillery bunker during a battle at Fort Niagara, N.Y., during the War of 1812. (T. Walker/Library of Congress repository)

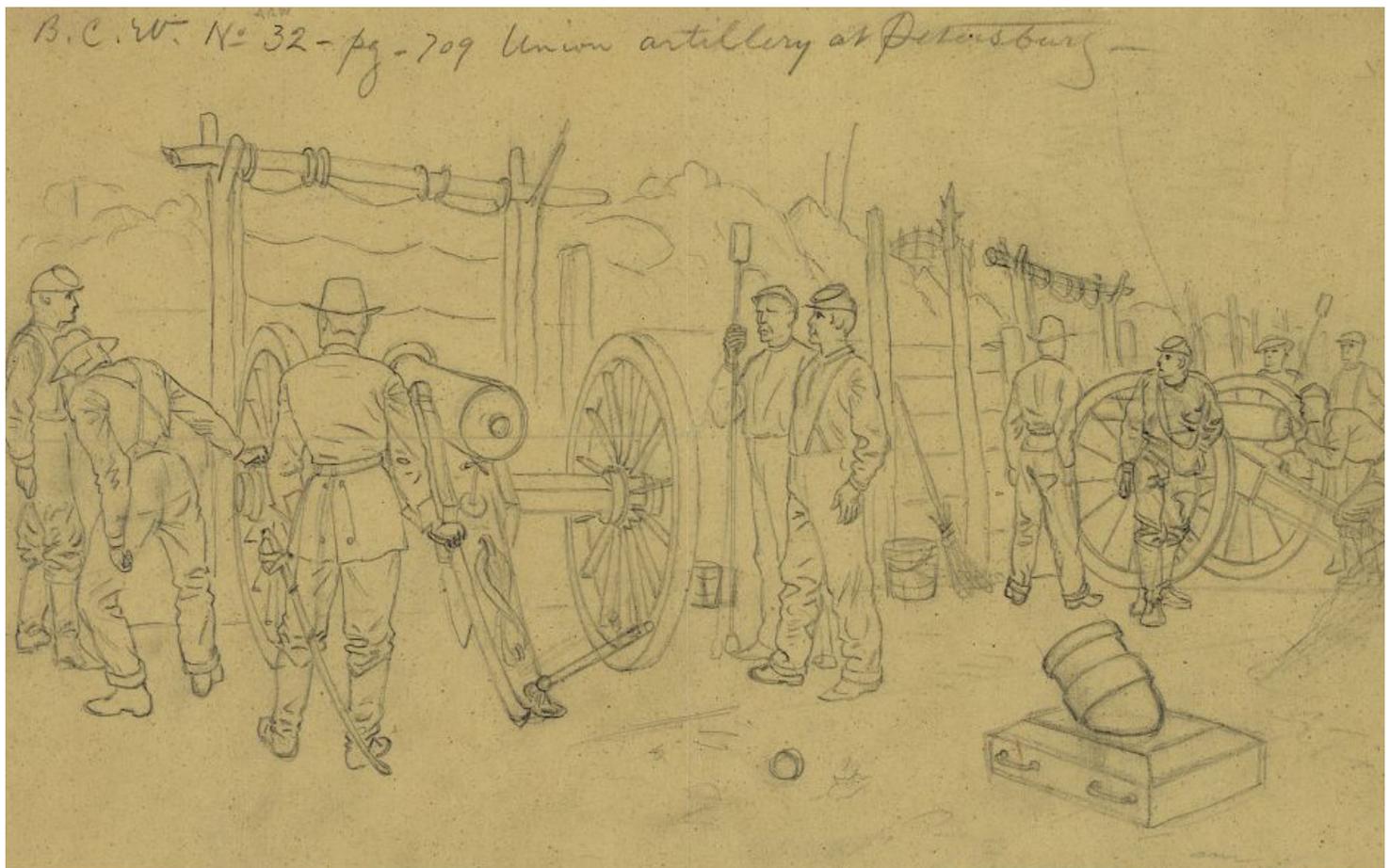
of the Base Realignment and Closure (BRAC) commission to consolidate the two artilleries at Fort Sill, Okla., to save money.

During the American Revolution of 1775-1783, the regimental system governed artillery organization. Following the colonies' disastrous defeats in New York in 1776, the Continental Congress reorganized the Continental Army by providing for 88 infantry battalions and five artillery battalions, also called regiments. However, only four regiments were ever created; and they consisted of foot artillery (a branch of field artillery) where the cannoneers walked beside the draft animals pulling the cannon, siege artillery and garrison artillery. Such composite regiments forced artillerymen to be trained to serve on all three kinds of artillery to provide flexibility in assigning officers and Soldiers.

Following the American Revolution, Congress repeatedly restructured the Army and its artillery over the next three decades to keep them in harmony with national security requirements. In the spring of 1785, the standing Army of the United States consisted of the First Regiment of eight infantry companies and two artillery companies to guard the frontier. Two years later, Congress permitted Secretary of War, Henry Knox, to organize the artillery as a separate battalion to give the standing Army of the United States one infantry regiment and one artillery battalion with artillerymen serving primarily as infantry on the northwest frontier. As the ten-

sions with Native Americans increased on the northwest frontier and Great Britain over its failure to cede its forts in the territory gained by the United States in the Peace Treaty of 1783 that ended the American Revolution, the size of the Army grew. Following the disastrous defeats of Josiah Harmer's column in 1790 and Arthur St. Clair's column in 1791, both at the hands of Native Americans in the Ohio River Valley, Congress created the Legion of the United States in 1792 with an organic battalion of foot artillery. Under Maj. Gen. Anthony Wayne, the legion marched into the Ohio River Valley and decisively defeated Native American tribes at Fallen Timbers in August 1794. Although the Legion had 3-inch howitzers with it at the Battle of Fallen Timbers, the broken terrain covered with fallen trees prevented their effective employment and reaffirmed the difficulty of using artillery in mobile warfare against Native Americans. Artillery of the day, including the small 3-inch howitzers, was simply too heavy and cumbersome to drag along when campaigning against Native Americans on the trackless frontier. As a result, the artillery on the frontier existed in name only; and artillerymen functioned mainly as infantry on the frontier through the rest of the 1700s even though they were responsible for the care of the guns and equipment.

With a war looming with Great Britain in 1794 and later France in 1798, Congress reorganized the Army's artillery. Besides fund-



A sketch of Union Army artillery at Petersburg, Va., drawn 1864. (Alfred Rudolph/Library of Congress repository)

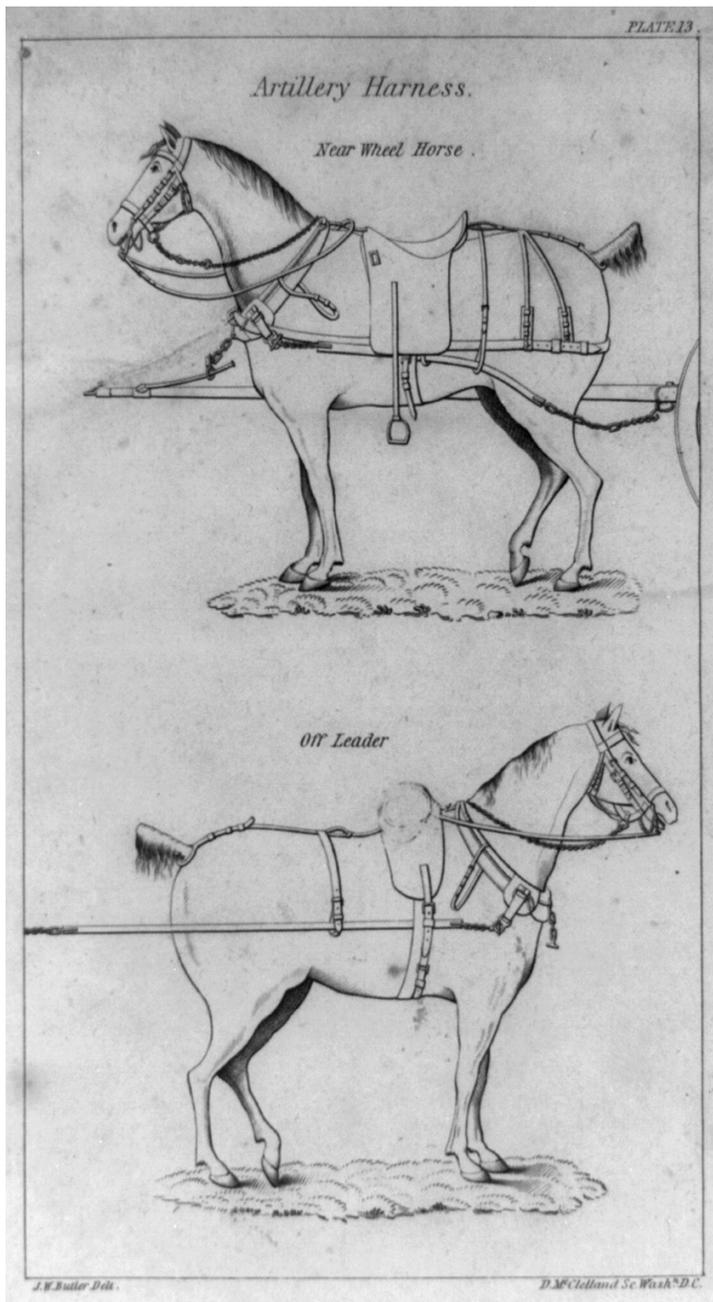
ing earthen and masonry redoubts along the Atlantic Ocean, a Congressional Act of 1794 created the Corps of Artillery and Engineers that absorbed the existing artillery battalion from the Legion of the United States and authorized the President to employ the corps on the frontier or the coast as he saw fit. This meant that artillerymen had to be trained to serve in either foot artillery or coast artillery units. Because the British threat to the coasts was more serious, the Army shifted artillery from its frontier posts to the coast to arm coastal fortifications. Later in 1798, the prospect of war with France prompted Congress to create a regiment of artillery and engineers to augment the corps to give the Army two artillery units. As with the Corps of Artillery, the regiment's artillerymen had to serve on coast and foot artillery cannons, but they served primarily in coastal fortifications which were seen as the greatest security requirement. When the threat of war disappeared, President Thomas Jefferson and Congress separated the artillerists from the engineers. They created the Corps of Engineers and simultaneously decreased the number of artillery regiments from two to one in 1802 with the artillery's primary responsibility revolving around defending the ports on the Atlantic Coast.

Imitating the successes of the Europeans with horse artillery, a branch of field artillery where the cannoners rode on horses to give more mobility than existing foot artillery, the Americans subsequently organized the Light (Horse) Artillery Regiment in 1808. Although this action recognized the distinct differences in missions between light artillery and coast artillery, provided for training and equipping the batteries of light artillery and intended to end the practice of rotating officers and Soldiers between coast and light ar-

tillery units, it accomplished little. A parsimonious Congress failed to provide the funds to equip the regiment as light artillery except for one company formed under Capt. George Peter. At the Fourth of July celebration in Washington D.C. in 1808, Peter's battery demonstrated its ability to maneuver and fire its weapons and impressed Congress and onlookers. However, Secretary of War William Eustis subsequently dismounted the battery, sold the horses because feeding them was too expensive, and issued muskets to the cannoners to serve as infantry on the frontier.

Although the Light Artillery Regiment remained on the books and served with mixed results in the War of 1812, the Reorganization Act of March 1815 recognized its utility. The act created the Corps of Artillery by merging the 1st, 2nd, and 3rd Artillery Regiments that had been formed in the war to defend the coasts and retained the Light Artillery Regiment with the intention of properly equipping it. In its haste to reduce the wartime Army and conserve money, Congress unfortunately permitted the regiment to disappear except on paper.

Additional restructuring followed in a few years. The Reorganization Act of 1821 consolidated the Corps of Artillery, the Light Artillery Regiment and the Ordnance Department into the Corps of Artillery composed of four regiments of nine companies each. Of the nine companies, eight were coast artillery, and one was designated as light artillery. By combining the Ordnance Department, the Corps of Artillery and the Light Artillery Regiment into one organization and creating four composite artillery regiments as a cost-saving measure, the act effectively legislated the first and only light artillery regiment out of existence and threatened artillerists with



The artillery harness developed for field artillery units during the U.S. Civil War. (Library of Congress repository)

duty in any kind of artillery unit. Recognizing the need for trained artillery officers and enlisted Soldiers with the ability to serve on field, coast and siege artillery weapons, the War Department later established the Artillery School at Fortress Monroe, Va., in 1824 as a school of practice for artillerymen. The school emphasized coast artillery training because it was viewed as the most pressing need to a country with a long, vulnerable coast line. Without an urgent requirement for trained light artillerymen, the War Department allowed the light artillery to languish until 1838 when Capt. Samuel Ringgold assumed command of the first horse artillery battery. The following year, the other light artillery batteries received their horses. However, they were organized as mounted (a branch of field artillery) artillery where the cannon crew rode on the limbers and caissons because it was less expensive than horse artillery.

Although field artillery performed well in the Mexican War of 1846–1848 and the American Civil War of 1861–1865, Congress established the peacetime artillery organization at five regiments of twelve batteries each in 1866. Two of a regiment's batteries were field artillery; and the rest were coast artillery. While coast artillery batteries stood as the guardians of American harbors against enemy naval attack, the field batteries were scattered on remote posts in the Trans-Mississippi West where commanding officers generally saw little or no use for them in campaigns against Native Americans. With the exception of Maj. Gen. Nelson A. Miles, most commanders believed that field artillery hampered their mobility and had limited utility against Native Americans who relied upon hit-and-run tactics and mobility for survival. As a result, field artillerymen were frequently pressed into service as infantry and cavalry and with a few exceptions served on a gun. Such circumstances caused their field artillery skills to deteriorate.

By dictating officer assignments the regimental organization also adversely influenced field artillerymen. Because of the heterogeneous regiments created after the Civil War and economy measures, the War Department continued the pre-war practice of rotating officers and Soldiers between coast and field artillery batteries. This obliterated the differences between the two artilleries and further eroded the skills of field artillerymen. Not even the School of Application for Cavalry and Light Artillery created in 1892 at Fort Riley, Kan., to train field artillery officers and units could offset the policy of rotating officers and Soldiers between the two artilleries, creating a generic artilleryman. Shortages of personnel and detached service for units that took them away from training for other more pressing duties also prevented the school from providing effective training.

Along with indirect fire that was beginning to replace direct fire, the Spanish-American War of 1898 where the Spanish employed state-of-the-art Krupp smokeless propellant 3-inch field guns with on-carriage recoil systems highlighted the Army's dependence upon obsolete field artillery (M1885 and M1897 3.2-inch field guns) and reinforced the need for reform. In view of such circumstances, Congress passed the Reorganization Act of 1901. Among other things, the act created a Chief of Artillery to oversee all artillery activities with Brig. Gen. Wallace F. Randolph serving as the first chief. The act also abolished the regimental system for artillery and replaced it with an Artillery Corps of 126 companies of coast artillery and 30 batteries of field artillery. While the coast artillery retained its mission of defending the country's harbors, the field artillery supported the infantry and cavalry. This reorganization act officially recognized the difference in fire missions between the coast artillery and the field artillery and made provisions for them. Yet, it failed to abolish the harmful practice of rotating officers between the two artilleries. Preserving such a practice continued hampering the creation of competent officers for either artillery branch. This was particularly true of field artillery officers and Soldiers because the Artillery School at Fortress Monroe, which focused on coast artillery training, closed down its meager field artillery training in 1906. The Mounted Service School at Fort Riley that opened in 1907 to pick up the slack and replaced the School of Application for Cavalry and Field Artillery at Fort Riley, formerly the School of Application for

Opposite page: An Army recruiting poster states, "Adventure and action. Enlist in the field artillery, U.S. Army." The recruiting poster showing Soldiers on horseback while pulling an artillery cannon. The poster was created in 1919. (Harry Mueller/Library of Congress repository)

ADVENTURE *and* ACTION



Harry S. Mueller
Major - Infantry

ENLIST IN THE FIELD ARTILLERY · U.S. ARMY

NEAREST
RECRUITING
OFFICE

Engineer Recruitment Photo, U.S. Army, Washington Barracks, D.C., 1919

2249-1



Top: Soldiers from Fort Story, Va., operate an azimuth instrument to measure the angle of splash in sea-target practice, March 1942. (Alfred Palmer/Library of Congress repository) Bottom: An artilleryman from Fort Story, Va., mans a 16-inch coast artillery gun, March 1942. (Alfred Palmer/Library of Congress repository)

Cavalry and Light Artillery, never lived up to the War Department's expectations. Focusing upon equestration, the school failed to graduate competent field artillerymen with the ability to maneuver their guns around the battlefield with the infantry.

The dearth of qualified field artillery officers and Soldiers created by the rotation policy and the lack of appropriate training prompted successive chiefs of artillery during the first decade of the 1900s to campaign for the complete separation of the two artilleries and specialized training for each. Convinced by this logic, Congress passed an act on Jan. 25, 1907, that created two distinct artillery branches — the coast artillery and the field artillery. The 30 field batteries in existence at the time were increased by six; and these 36 batteries were organized into six field artillery regiments of two battalions each. Equally important, the act ended the pernicious practice of rotating officers between the two artillery branches and promoted specialization. It also paved the way for reorganizing the Artillery School at Fort Monroe as the Coast Artillery School in 1907 to signal its sole mission of training coast artillerymen and the

founding of the School of Fire for Field Artillery, the forerunner of the Field Artillery School, at Fort Sill in 1911.

Although the field artillery performed effectively in World War I, the War Department convened a board of officers in April 1919 under Maj. Gen. Joseph T. Dickman who was a corps commander in the war to examine coast and field artillery missions in light of wartime experiences and to determine their appropriate relationship. The Dickman board believed that the introduction of motor vehicles had given even the heaviest artillery pieces, such as coast artillery, unprecedented mobility and had erased the differences between the two artillery branches. As such, the board concluded that coast artillery was a naval function and that heavy, mobile artillery for supporting the field army should be a field artillery function. By taking such a position, the Dickman board proposed stripping the coast artillery of its historical harbor defense mission and giving it to the Navy.

In his annual report to the Chief of Staff in October 1919, the Chief of Coast Artillery, Maj. Gen. Frank W. Coe, subsequently responded. He urged the War Department to reconsider his branch's mission. According to Coe, the day was over when the coast artillery should be thought in terms of only maintaining platform-mounted heavy artillery and mine defenses for harbor defense. Recognizing that modern naval guns had rendered coastal fortifications obsolete, that tractor-drawn and railway-mounted coast artillery guns of the coast artillery had performed well during the war as field artillery to attack strong fortifications, and that thousands of coast artillerymen had served in field batteries, he urged merging the two artilleries. The lack of mobility for heavy artillery, one of the primary reasons for the separation in 1907, no longer existed while coast artillerymen functioned as field artillerymen during the war. Together, they blurred the distinction between the two artilleries and justified merging them.

The debate over the future of the coast artillery continued. In 1920 Congress passed the National Defense Act which governed Army organization until 1950. The new law retained the coast artillery and field artillery as separate branches even though the motor vehicle gave unprecedented mobility to the former to fight on the modern battlefield, defined their missions, preserved the Chief of Coast Artillery, and created the Chief of Field Artillery. Notwithstanding this congressional legislation, the possibility of merging the two arose in 1927 as an economy measure. This prompted the War Department to issue General Order 22 to define missions for both artilleries. While the field artillery supported the other combat arms on the mobile battlefield and included pack artillery, division artillery, corps artillery with the exception of anti-aircraft artillery, and general headquarters artillery, with the exception of anti-aircraft artillery and railway artillery, the coast artillery defended the harbors and received the anti-aircraft artillery mission. In 1939, an economy drive by the War Department prompted examining the integration of the artilleries once again. When a staff study revealed that such a measure would produce only minor savings, the War Department dropped the matter for the duration of World War II.

With World War II ending, the Chief of Staff of the Army, Gen. George C. Marshall, appointed a board of officers under Lt. Gen. Alexander M. Patch in the fall of 1945. Patch had the assignment of investigating the roles and missions of the various branches of the Army and making proposals for post-war organization with the goal of streamlining organization and saving money. After careful study, the Patch board recommended combining the coast artillery with its anti-aircraft artillery mission and the field artillery to form



Soldiers of an artillery unit stand by and check their equipment while the convoy takes a break during a maneuver in Belgium. (US. Army Signal Corps/Library of Congress repository)

one artillery. Although the coast artillery's irrelevance in the face of modern naval guns and aircraft undoubtedly influenced the recommendation, other reasons played a prominent role. The fear of losing anti-aircraft artillery to the Army Air Force that was pushing for independence from the Army and budget and personnel reductions in the wake of demobilization also drove the recommendation. Budget and personnel reductions meant the War Department had to find ways to conserve and use resources wisely. In view of this, the War Department urged Congress in 1946 to consolidate the coast artillery and the field artillery as one artillery branch.

Before Congress could act on the recommendations, the Army combined what it legally could in its drive to reduce overhead. Influenced by Brig. Gen. Bruce C. Clarke, the operations officer (G-3) of the Army Ground Forces that had responsibility for all institutional training, the War Department acted. Effective Nov. 1, 1946, the War Department redesignated the Field Artillery School as the Artillery School with the Anti-aircraft Artillery School at Fort Bliss, Texas, and Sea Coast Artillery School, at Fort Winfield Scott, Calif., as branches of the Artillery School. The merger did not mean physical collocation. Each school stayed at its existing location. In keeping with the need to economize with the attending requirement for personnel flexibility, the three schools created a basic integrated course for all newly commissioned officers where they would learn the fundamentals of the three artilleries by moving from school to school. The schools also developed an integrated advance course for officers with three to 10 years of experience for additional training on all three artilleries. Like the lieutenants, captains would move from school to school for training. Instituted in 1947, cross training or integrated training as this practice was called, permitted moving officers from branch to branch (called cross assigning) to husband

scarce personnel resources, de-emphasized specialized training and created a generic artillery officer. According to Lt. Gen. Jacob L. Devers, the commanding general of the Army Ground Forces, artillery officers would be ground force officers first and gunners second. Ironically, this consolidation of training, the revival of rotating officers between the artilleries and training on all the artillery systems came at the precise time when technology was becoming more sophisticated and required even more specialized training than in the past.

Three years later, Congress picked up where the Army had left off in 1946-1947 when it passed the Army Reorganization Act of 1950. The act legally recognized the infantry, armor and artillery as statutory combat arms, among other things. The Army inactivated the coast artillery and the Sea Coast Artillery School, legally merged anti-aircraft artillery and field artillery as one branch to economize, and solidified the practice of integrated training for officers and cross assigning them while preserving specialized training for enlisted personnel as either field artillerymen or anti-aircraft artillerymen.

For the next 19 years the merger produced mixed results. It saved money, allowed moving officers easily between the anti-aircraft artillery (renamed air defense artillery in 1957) and the field artillery, and produced a generic artillery officer. Because of the growing complexity of equipment related to field artillery and anti-aircraft artillery, the differing employment techniques, and the failure of integrated training to provide adequate preparation for an officer to serve in either artillery effectively, the Continental Army Command took action. Believing that the Army no longer could train all artillery officers in both field artillery and anti-aircraft artillery tactics, techniques and procedures and that officers should be ei-

ther field artillery or anti-aircraft artillery, especially second and first lieutenants, it formulated a plan in 1955 to restructure officer training. It wanted to develop separate basic courses in field artillery and anti-aircraft artillery for new officers. It also wanted to move all surface-to-surface rocket and missile courses and weapon systems from Fort Bliss to Fort Sill. With support from the Army's Assistant Chief of Staff for Training, the Continental Army Command subsequently created separate basic courses for the two artilleries in 1957. The command also moved all surface-to-surface rocket and missile courses and systems to Fort Sill. In the meantime, the Continental Army Command retained the integrated artillery advance course for officers with five to eight years of experience because of pressure to maintain flexibility in officer assignments and the shortage of officers.

In the 1960s, the pressure to abolish integrated training and cross assigning and to separate the two artilleries mounted. Based upon the Army Officer Education and Review Board of 1958, the Continental Army Command reintroduced separate basic officer courses in 1962 to provide specialized training for new officers that they were not receiving with the integrated courses. Meanwhile, the drive for flexibility in assignments so that the Army could shift artillery officers easily between air defense artillery and field artillery to offset officer shortages caused the Continental Army Command to retain the integrated officer advance course for officers with five-to-eight years of experience. A student thesis written at the Army War College by Col. William F. Brand challenged the wisdom of this practice. He argued that integrated training provided inadequate training in either branch. As a result, officers left the integrated advance course without mastering any of the weapons and without any real expertise in either branch. In view of this, Brand urged separate training for each branch. At the direction of the Continental Army Command, the U.S. Army Artillery and Missile School and the U.S. Army Air Defense Artillery School explored the desirability of dividing the artillery into two branches. In 1963 they recommended separation because of the difficulty of furnishing integrated training, the continued production of generic artillery officers, and the growing differences between the two artilleries. In line with this, the authors of "The Artillery Branch Study" of 1966 wrote that integrated training "spawned mediocrity."

The demand for competent field artillery officers for duty in Vietnam in 1965-1966 finally caused the Army and the Continental Army Command to reorganize the artillery and artillery training. Because the one-year tour of duty left little time for on-the-job training, combat in Vietnam required the officer to arrive as a proficient field artilleryman and not a hybrid field and air defense artilleryman. In view of this, "The Artillery Branch Study" urged abandoning integrated training and forming two separate artilleries.

The Army concurred with the recommendations and split the field artillery and air defense artillery into two distinct combat arms with their own training programs in 1968. This freed field artillery and air defense artillery officers to concentrate on becoming experts in their respective branches. Yet, separating the two artilleries had little impact on the U.S. Army Artillery and Missile School, renamed the U.S. Army Field Artillery School in 1969, and the U.S. Army Air Defense Artillery School because they were already focusing their energies on their areas of expertise.

By separating the two artilleries, the Army reaffirmed the folly of merger of 1946-1968 and the wisdom of forming two distinct branches in 1907. When both artillery branches were together at

different times in the 1800s as part of a composite artillery regiment and 1946-1968 as one artillery branch, mediocrity reigned, especially for officers. Officers simply did not have the time to learn the intricate skills of both branches and became generic artillery officers.

Although the field artillery and the air defense artillery remained separate entities over the next 36 years, national security concerns changed that relationship. Between 1988 and 1995, the BRAC process closed 112 Army installations and realigned 26 others to create more efficiency and effectiveness within the Army's installation infrastructure. In view of this achievement, three successive Secretaries of Defense urged further rationalization of the military's infrastructure through additional BRAC actions to save billions of dollars annually, to free up excess capacity, to permit funding facilities that were actually required, to support warfighting and to furnish quality of life improvements for the military services. Yet, the secretaries found little Congressional support.

In the fiscal year (FY) 2002 National Defense Authorization Act, Congress finally permitted a BRAC to be conducted in FY 2005. As Secretary of Defense Donald Rumsfeld explained in November 2002, BRAC 2005 would permit reconfiguring the Department of Defense's current infrastructure to maximize warfighting capability and efficiency. It would also create multi-mission and multi-service installations, would optimize military readiness and would help create significant monetary savings.

As anticipated, BRAC 2005 produced significant changes with the field artillery and the air defense artillery. To save money and improve warfighting capabilities, BRAC 2005 recommended relocating the Air Defense Artillery Center and School from Fort Bliss to Fort Sill and consolidating it with the Field Artillery Center and School to form a Net Fires Center, later renamed the Fires Center of Excellence in mid-2005. This would consolidate field artillery and air defense artillery training and doctrine development at a single location and would functionally align related branch centers and schools at one location to foster consistency, standardization and training proficiency. At the same time creating the Fires Center of Excellence would permit the Army to reduce the total number of military occupational skills (MOS) training locations and support Army Transformation by colocating institutional training and would be accomplished by 2011. Yet, collocating at Fort Sill did not mean merging the branches into one as the Army had recently done between 1946 and 1968 and reviving integrated training and cross assigning officers so that they could serve in both artilleries. The branches would remain separate.

As such, the lessons of the past had been learned. Although the collocation of the two branches and schools would generate monetary savings and provide other benefits, the BRAC process retained the field artillery and the air defense artillery as separate branches to retain their integrity. A merger of two branches into one would not occur. Artillery Soldiers would serve in the air defense artillery or field artillery and not both.

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