

# 451<sup>st</sup> EXPEDITIONARY CIVIL ENGINEER SQUADRON



## MISSION

## LINEAGE

451<sup>st</sup> Expeditionary Civil Engineer Squadron constituted and converted to provisional status, 17 Jul 2006

## STATIONS

## ASSIGNMENTS

Air Combat Command to activate or inactivate at any time on or after 17 Jul 2006

## COMMANDERS

## HONORS

### Service Streamers

None

### Campaign Streamers

None

### Armed Forces Expeditionary Streamers

None

## Decorations

None

### **EMBLEM**

On a disc Azure, a gear wheel of sixteen teeth Silver Gray, fimbriated Or, surmounted by two lightning bolts Gules, edged of the third, bends to base and between a bull's head affronté Sable, detailed of the second, eyed of the fourth, emitting from its nostrils two air vapors Argent, edged of the fifth, all within a narrow border Yellow. Attached below the disc, a Blue scroll edged with a narrow Yellow border and inscribed "451ST EXP CIVIL ENGINEER SQ" in Yellow letters. **SIGNIFICANCE:** Ultramarine blue and Air Force yellow are the Air Force colors. Blue alludes to the sky, the primary theater of Air Force operations. Yellow refers to the sun and the excellence required of Air Force personnel. The Black Angus bull is the symbol of the Prime Base Engineer Emergency Force (Prime BEEF) and represents capacity. The gear wheel signifies the essence of engineering: applying scientific principles and technology to practical ends. The two lightning bolts symbolize the fundamental connection between Air Force Civil Engineers and air power.

### **MOTTO**

### **NICKNAME**

### **OPERATIONS**

It is a dynamic time to be an Air Force civil engineer. With the war in Iraq nearing the mandated withdrawal of U.S. troops, and the war in Afghanistan ramping up, we have proven to be critical enablers in support of the warfighter. Recently, more than 60 percent of deployed Air Force engineers were in Joint Expeditionary Taskings (JETs), and the DOD joint engineering force has capitalized on this by aggressively pursuing our skill sets.

Few of us during a military career will ever be given a chance to close down a detachment, let alone stand up a squadron. With a move from Iraq to Afghanistan and the history-making establishment of Air Force Expeditionary Prime BEEF squadrons, my team was fortunate to be involved in both challenges.

In April 2009, I was a member of a 57-person team composed of 11 AFSCs, assigned Airmen for the next rotation for 732 ECES, Detachment 10, at Contingency Operating Base Adder, Iraq. We were one of three construction companies (Air Force, Navy, and Army) embedded with the 14th Engineer Battalion. Our mission was to expand some rural bases and build others to house troops displaced by a security agreement requiring U.S. troops to withdraw from major cities by the end of June 2009. After convoying more than 27,000 miles and completing 29 projects at 11 forward operating bases (FOBs), our mission ended. As part of the 2009 Afghanistan troop surge, we were given a new mission: lead an ADVON team for the AFCENT initiative (directed by CENTCOM) to stand up Prime BEEF Squadrons to support the build up to increase capacity for air and ground forces across Regional Command - South and Regional Command - East.

The growing requirements within U.S. Forces - Afghanistan (USFOR-A) for installation engineering provided an opportunity to leverage the unique skills Air Force civil engineers bring to the fight.

There were already eight separate Air Force teams in Afghanistan — Facility Engineer Teams and Base Operation Detachments — operating under a variety of decentralized OPCON/ TACON arrangements dedicated to individual FOBs. A FRAGO by CENTCOM outlined the realignment of USFOR-A installation engineering responsibilities under an Expeditionary Prime BEEF Group (EPBG) and most Air Force civil engineers under a single component command — AFCENT. While each Expeditionary Prime BEEF Squadron (EPBS) would provide direct support to USFOR-A and their delegated regional command leads, OPCON/TACON/ADCON responsibilities were aligned under AFCENT — a first in Air Force Civil Engineering history. The plan was to establish two squadrons — one to "hub and spoke" out of Kandahar AF (777 EPBS) and the other from Bagram AF (577 EPBS); both would work for the commander of the 577 EPBG, who would report directly to AFCENT. This concept would give unity of command and effort and provide robust installation engineering, master planning, project management, and light troop labor for repair/construction coverage of all FOBs, focusing on priorities and maximizing efficiency of limited engineering resources. This move allowed Air Force engineer leadership increased responsiveness, flexibility, and theater-wide integration of engineer forces to ensure the most efficient and effective use of assets in meeting the supported commander's priorities. The Prime BEEF squadrons would now be empowered to determine the tactics, techniques, and procedures to best leverage our unique skill sets against USFOR-A priorities.

The ADVON team arrived at Kandahar AF in early July, but decisions at USFOR-A on how best to leverage this new concept, more from the command and control aspect than execution, delayed the FRAGO's release. While our team was en route, 85 tons of WRM, valued at \$3M, were being mobilized to support the new squadron. However, because we did not officially exist, we could only begin beddown planning but not coordination with external agencies at Kandahar. Our team was placed on the books of the newly established 451 AEW. The 809 ERHS graciously housed our team in their compound, and with no compound of our own but our billeting tents, 809 ERHS and the 451 ECES allowed us to use their facilities at night.

Proper coordination made this beddown even more of a challenge; unlike Bagram AF, where U.S. Forces controlled the base, Kandahar AF was under the control of the British and 13 other NATO coalition partners.

Between the time when we arrived and when the FRAGO was officially released, the ADVON team spent many long, grueling weeks surveying potential beddown sites; designing multiple beddown plans; working with FM to establish our own funding account and delegation of approval; and preparing requests for project materials, shop tools, furniture, admin supplies, and bench stock items. The remaining 75 days proved just as challenging and rewarding. The ADVON team began conducting site surveys in support of future projects, including designs, execution plans, and bill of material lists. Work began with AFCENT on establishing our supply accounts, vehicle authorization list, unit manning documents, TPFDD flow, and sourcing of equipment. Phase I plans for the initial beddown of WRM assets and supporting contracts were initiated and executed. Plans for Phase II's semi-permanent structures were finalized, briefed, and coordinated. Teams began forward deploying in support of some of the first official projects for the newly established 777 EPBS. The composition of the team was ideal, and the experiences we

gained in Iraq proved instrumental in ensuring we met IOC on such a tight timeline. However, the most important challenge we faced was the availability of real estate.

In our search for a suitable piece of soil to call our own, the ADVON team soon realized there was opportunity for efficiency at Kandahar AF. Though we were offered other plots of land at various locations, we held out despite a 45-day delay due to the temporary occupation of the section we desired. This decision supported the team's vision — an Air Force engineer compound that would complement the future location of a U.S. Forces Engineer Compound. The master plan included expansion of existing RED HORSE real estate. The 777 EPBS would build adjacent to this property on the east; and the 451 ECES would relocate to the northern end of the 777 EPBS compound, sharing a boundary with the 777th's material storage yard. Given that the 777 EPBS and 809 ERHS provided support to the same customer, the 30th Naval Construction Regiment (NCR), this vision allowed for the sharing of a common boundary, MWR facility, and lodging area. This \$13M joint master plan included the construction of 18 semi-permanent facilities and supporting infrastructure to sustain all 3 squadrons. It masterfully ensured Air Force engineering synergy within the joint environment. The master plan was first briefed to U.S. Forces, and then the NATO Alliance. The plan spanned 18 months of construction and was approved for execution with one caveat: reengage before each phase of execution to ensure it still supported the warfighter in the dynamic, changing environment. The 30 NCR agreed with the strategy and began plans to move their operations out to this area of the airfield.

The U.S. Forces Engineer Compound would help ensure partnerships flourished for all engineer components, including the 30 NCR, 777 EPBS, 809 ERHS, 74th and 22nd Naval Mobile Construction Battalions, 14th and 19th U.S. Army Engineer Battalions, and the U.S. Army's Logistics Contract Augmentation Program. The ADVON team's early insight and perseverance paved the way for future success, in just 45 days, contracts were beginning to mobilize in laying the foundation for the new compound. And just like clockwork, the first official Airmen of the new 777 EPBS began arriving shortly thereafter.

"I am honored to be the first commander of the 777th Expeditionary Prime BEEF Squadron, of what will soon become the template for all future joint engineer taskings," stated Lt Col Jason Dudjak as he assumed command of the 777 EPBS on September 17. "We have a long road ahead of us, but by working together and leveraging our unique capabilities, we can persevere."

The groundbreaking ceremony for the new squadron occurred shortly thereafter, attended by The Civil Engineer, Maj Gen Timothy Byers, as well as Brig Gen Dave Howe, ACC's Director of Installations and Mission Support, Col Theresa Carter, AMC's Director of Installations and Mission Support, Col Brian Yolitz, Director for Installations, USAFCENT, Col Brian Duffy, Deputy Commander of the Joint Force Engineer Command, HQ.USFOR-A, and CMSgt Patrick Abbott, The Civil Engineer's Chief of Enlisted Matters.

"Since the inception of Air Force civil engineering, our CE warriors have been a driving force in supporting operations overseas," said Maj Gen Byers. "Much like our early CE veterans

spearheaded the development of Prime BEEF units in the 1960s to support operations on the front lines in Vietnam, we are at it again, supporting the coalition warfighter in Afghanistan."

Over the roar of fighter jets, the buzzing of unmanned aerial vehicles, and the hum of cargo aircraft, one can hear hammers pounding on 2x4's. Currently, the 777 EPBS is furiously building for an influx of troops after President Obama announced he would send an additional 31,000 troops to Afghanistan.

"Battalions are coming in whether we like it or not.. .and how quickly we can bed them down will determine if they are sleeping outside in a cot huddled in their sleeping bag or in a shelter," said CMSgt Larry Alt, the 777th's superintendent.

The coming months will only bring more work, but the Expeditionary Prime BEEF Squadrons are up for the challenge. The soldiers will need shelters to sleep in, dining facilities to eat in, and bathrooms and showers to use as well as heat in the winter and air conditioning in the summer. The engineers are working these issues, but it will take time as they work with the many different battlespace owners in Regional Command South: the Marine Expeditionary Brigade, the Stryker Brigade Combat Team, and Combat Aviation Brigade. More than 100,000 U.S. and NATO troops are presently in Afghanistan. The addition of 31,000 more U.S. troops will bolster the already 68,000

we have in country. Most of the surge will be concentrated on the southern part of Afghanistan in the Kandahar and Helmand Provinces. Helmand, in the southwest, is relatively flat and remote with little infrastructure and no major city. Kandahar, known as the spiritual capital of the Taliban, is in the southeast and is also a hotbed for fighting. The country is much less developed than Iraq and there are few paved roads outside the largest cities. The unpaved roads make it difficult to mobilize Airmen and construction supplies, so helicopters and C-130s are relied upon heavily. But the 777 EPBS, composed of a robust force of civilian and military alike, now have the tools necessary to persevere and ensure their place in history.

This new Prime BEEF organization will serve as the template for future joint engineer operations. It is being incorporated into joint doctrine and will be the basis for Joint Forces Command's standing joint task force organization for war and counterinsurgency and humanitarian relief operations. The cornerstone laid in the summer of 2009 at Kandahar AF is currently being implemented across Iraq; and the beddown template used for the 777 EPBS was used to support the April 13, 2010 activation of the 877 EPBS in Afghanistan.

In September 2009, 45 years after the Air Force established and implemented the Prime BEEF program, the first Expeditionary Prime BEEF Squadrons were activated in Afghanistan. Engineers will read history books of this generation's involvement in these wars, but, for the next few years each Air Force engineer will write history. We will write new chapters; whether it be from the dusty fields in the Helmand Province of Afghanistan or the now thriving streets of Baghdad; whether it be the history of the United States military or the history of our coalition partners in

NATO's International Security Assistance Force, let it be known that Air Force engineers have led the way, and we have not disappointed!

---

Air Force Order of Battle

Created: 17 Jan 2011

Updated:

Sources

Air Force Historical Research Agency. U.S. Air Force. Maxwell AFB, AL.

The Institute of Heraldry. U.S. Army. Fort Belvoir, VA.