



1964  
TO  
2014

FIFTY YEARS of

577th Expeditionary Prime BEEF Squadron –

# What Can We Do for You?

Capt TJ Gabrielson  
577 EPBS/TC

Air Force Engineers are charged 24/7/365 with providing, operating and maintaining installations as weapon platforms. Air Force Engineer Operations Doctrine (Annex 3-34) postures civil engineers to be able to “operate from fixed bases, yet be mobile enough to project combat airpower worldwide.” The 577th Expeditionary Prime BEEF Squadron can do this and more. The squadron is highly trained and flexible, tailoring teams to projects and locations.

## History

In 2009, installation engineers in Afghanistan across all services were tasked beyond sourcing capacity. Many Air Force engineers were assigned to Facility Engineer Teams spread across 10 organizations and seven installations, with tactical command in the hands of battlespace commanders. In response to this misalignment of resources, U.S. Central Command established the Prime BEEF construct of Airmen leading Airmen. Today, the 577th EPBS, along with the 557th Expeditionary RED HORSE Squadron, is part of the 1st Expeditionary Civil Engineer Group and continues to provide a unique theater civil engineer capability.

## Construct

The 577th EPBS is organized into three flights. The Special Capabilities flight, postured in Afghanistan, comprises more than 70 engineers divided among four teams: rubber removal; paint striping; tension fabric shelter J2; and configurable small maintenance and repair teams, or C-SMARTs. The Troop Construction flight has more than 50 assigned engineers and is responsible for light construction projects throughout the Combined Joint Operations Area-Afghanistan, or CJOA-A, and countries within the Gulf Coast Coalition — the GCC. Finally, the third flight is providing stop-gap base operating support-integration maintenance and upkeep for a base at an undisclosed location in Southwest Asia.

## Special Capabilities Flight

### Rubber Removal & Paint Teams

The 577th EPBS's rubber removal team is an essential asset to U.S. Air Forces Central Command. The team is a cost-effective and expedient solution to clear rubber deposits from runways throughout South West Asia. Team members

utilize Avion® detergent and Toolcat Utility Work Machines® with an angle broom attachment to remove deposits on as much as 20,000 square feet per hour. In the past three months, the rubber removal team has cleared more than 1.1 million square feet of runway surface at eight airfields throughout the area of responsibility.

The paint striping team follows, marking the recently cleaned runway to ensure standardized flight safety for coalition aircrews. The team has painted more than 300,000 square feet of runways, taxiways, parking aprons, roads and parking lots throughout CJOA-A and GCC countries. The rubber removal and paint striping teams coordinate with each location's airfield operations and CE squadrons to minimize runway closure. As soon as the job is complete, the teams are off to the next airfield.

### Tension Fabric Shelter Teams

The tension fabric shelter J2 teams work directly with the Theater Engineer Brigade, “Trailblazer,” to align shelter deconstruction drawdown plans with U.S. Forces-Afghanistan. Led by subject matter experts from the 49th Materiel Maintenance Squadron, Holloman AFB, N.M., the teams can safely disassemble and reconstitute a TFS measuring over 42 feet high, covering 14,000 square of floor space, and valued at \$350,000 in fewer than five days!

In the past six months, the TFS J2 teams deconstructed over 40 TFSs at more than 15 locations throughout CJOA-A, recapitalizing more than \$14 million in War Reserve Materiel. With more than 50 TFSs left to deconstruct, the J2 team is in high demand. The Director of Joint Engineering, USF-A, recognized this potential planning shortfall and requested the J2 team train an Army platoon to meet the Dec. 31 deadline to close forward operating bases.

### C-SMART

The EPBS dedicates about 20 personnel to the configurable small maintenance and repair teams. Based on the project size and type, teams of up to eight craftsmen travel to locations across CJOA-A fixing life, health and safety issues. For example, a team traveled to a FOB recently attacked by a vehicle-borne improvised explosive device and repaired the damaged facilities in less than two weeks. Another team installed 5 miles of fence and fixed 2,000 fence posts to improve force protection for personnel numbering in the tens of thousands. At yet another remote site, several thousand troops were without heating, ventilation and air conditioning for six months until a C-SMART helicoptered



in to repair the 80 HVAC systems. This is a token glance of the more than 360 work orders C-SMART completed in the last six months at more than 20 FOBs throughout CJOA-A.

## Troop Construction Flight

The Troop Construction flight focuses its efforts on light construction projects at 12 sites spread across nine countries. The team recently renovated and added 700 square feet to an existing facility to provide the Office of Special Investigations detachment with its first dedicated interview room and operations center supporting outside-the-wire counter-intelligence and counter-terrorist operations.

A nine-person team from the flight also renovated a large dining facility by removing and replacing 2,500 square feet of deteriorated flooring and 175 linear feet of failed plumbing. The project was completed in 20 days, 6 days ahead of schedule.

Engineers are engaged in upgrading 18 facilities to prepare for the new Intrusion Detection System. Construction includes concrete masonry unit vestibules and installation of bulletproof doors and windows. The team is securing interior offices with reinforced walls and sound-dampening materials to protect sensitive information. This project will pave the way for AFCENT's \$2-million IDS upgrade at three major installations.

The TC flight improved a 6-acre helicopter landing zone, grading 5,300 cubic yards of rock and assembling 166,000 square feet of AM-2 matting. This herculean effort allowed five FOBs to retrograde their equipment and close.

The TC flight saved the busiest airfield in the AOR from a potentially catastrophic foreign-object damage, or FOD,

hazard. On the runways, the aircraft arresting system poly panel anchor bolts broke loose and vibrated to the surface. The TC engineers collaborated with AFCENT, the ECEG, the Air Force Civil Engineer Center, and the Air Expeditionary Wing to innovate an anchor bolt test and installation procedure. The team tested, replaced and verified 992 AAS anchor bolts on the airfield.

## BOS-I Flight

A team of multi-craft engineers expanded a base in an undisclosed area from an exercise location to a fully operational base. In the past three months, craftsmen have completed more than 320 maintenance requests, supporting 181 facilities and a large number of personnel. They also constructed a \$500,000, 11-acre 440,000-gallon fuel farm to enable 24/7 air operations. The flight installed and is operating a \$2.3-million, 2.25-megawatt prime power plant and a 30,000-linear-foot distribution network to support base electrical demands.

577 EPBS was born out of the necessity to better utilize Air Force engineers to address AFCENT's top priorities, regardless of location. They continue to perform that unique mission today, constantly adapting to new environments to get the job done. The 577th's engineers are a "prime" example of how Air Force "Engineers Lead the Way!"

*Capt. Gabrielson leads the Troop Construction Flight for the 577 EPBS.*

The 577th Expeditionary Prime BEEF Squadron builds a Tactical Operation Center in Southwest Asia. (U.S. Air Force photo/Senior Airman Hannah Landeros)

