



Civil Engineer



EXPEDITIONARY ENGINEERING

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Newsletter

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New Civil Engineer Leadership

CE Family –

Please join me in congratulating Maj Gen(s) Theresa Carter to replace me as “The Civil Engineer.” Her selection is a testament to her ability to lead people to make a positive difference where they serve and deliver mission success. Her career is filled with exceptional service at the Squadron, Group, Wing, MAJCOM, and Air Staff levels, and she is more than ready to lead our phenomenal engineering Airmen, military and civilian, to overcome the challenges on the horizon. I’m confident her leadership will empower our engineers to continue leading the change for our Air Force, and add another chapter to our proud engineer legacy filled with success. Congrats Gen Carter!

Today’s announcement also includes the formal acknowledgement of Brig Gen Dave Howe’s retirement. Brig Gen Howe has been a staunch advocate for our Airmen throughout his career; most recently, his service as our Director of Installations and Mission Support in both USAFE and ACC have left those commands, their airmen, and our entire Air Force better because of his leadership. He will be sorely missed. Thanks Gen Howe!

However, with such departures comes other opportunities for our proven leaders. In that vein, we’re glad to welcome Brig Gen Tim Green as our next ACC/A7. His proven leadership over the past 2 years directing our mission support portfolio in AMC makes him supremely qualified to build upon the legacy Brig Gen Howe leaves behind. Although his departure leaves big shoes to fill in AMC, we’re thrilled



to serve alongside him in our engineer community. Congrats Gen Green!

Congratulations to each of these leaders. Our community and our military and civilian engineer Airmen are in great hands!

VR MG B

TIMOTHY A. BYERS Maj Gen, USAF
The Civil Engineer
DCS/Logistics, Installations & Mission Support

“Build to Last...Lead the Change”

Please assist us in future publications by providing your inputs to: Mr. Larry Lomax, DSN 523-6143, larry.lomax@tyndall.af.mil, Air Force Prime BEEF Program Manager and MSgt Michael Mabe, DSN 523-6127 michael.mabe@tyndall.af.mil, RED HORSE Program Manager at AFCEC/CXX

Army Recognizes RED HORSE, Prime BEEF Airmen

4/12/2013 - SOUTHWEST ASIA (AFNS) -- Eighteen Airmen assigned to the 557th expeditionary RED HORSE and 577th Expeditionary Prime BEEF Squadron were awarded an Army Commendation or Achievement Medal for their support of the 1st Battalion, 43th Air Defense Artillery, April 9.

The expeditionary Airmen, who partnered with the Army from the 1-43 ADA, were responsible for the start of construction of one of the U.S. Central Command's top priorities at an undisclosed location in Southwest Asia. The project, which took seven months for the RED HORSE and Prime BEEF Airmen to complete, finished four months earlier than projected by an outside contractor, said Air Force Capt. Ben Thomas, 557th ERHS construction site officer in charge.

"This was a great example of a very successful integration of RED HORSE and Prime BEEF capabilities along with the Army," Thomas said. "To establish a remote installation, with everything from roadways to the infrastructure, was just amazing."

The Airmen and Soldiers, who endured austere conditions during construction, moved more than 36,000 metric tons of dirt, constructed more than three miles of roadway and set up a 36-acre site, all while being geographically separated from their supplies.

"It was a great challenge to bring everyone together, and the earthwork alone was a huge undertaking for us," said Air Force Staff Sgt. Darren Zimmerle, 557th ERHS NCO in charge of heavy equipment. "We had to make do with what we had because we were apart from our maintenance depot and had to keep the equipment running. From the Airman on the ground to the NCOs, we had to come up with solutions to accomplish the mission."

To accomplish the task given to them, Thomas said they leveraged the experience of Prime BEEF Airmen, who specialize in bare base operations.

"It was a lot of work, but I got to learn a lot more about new construction while also assisting RED HORSE with what I know," said Air Force Senior Airman Justin Costa, 577th EPBS structural journeyman.

The ability to work with the Air Force on this project was important to the 1-43 ADA as well as the Army as a whole, said Col. Randall McIntire, 69th Air Defense Artillery Brigade commander. A joint environment is necessary to be successful in the U.S. CENTCOM area of responsibility.

"This was a great partnership that was absolutely huge for us," said Army 1st Lt. Michael Meehan, 12th Missile Defense Detachment operations site officer in charge. "The RED HORSE and Prime BEEF Airmen provided us daily feedback, and without that teamwork the mission would not have been as successful as it was." (Staff Sgt. Joel Mease 379th Air Expeditionary Wing Public Affairs) This is a reprint of an article from www.af.mil dated 4/12/2013.



Army Col. Randall McIntire, 69th Air Defense Artillery Brigade commander, thanks 18 Airmen assigned to the 557th Expeditionary RED HORSE Squadron and 577th Expeditionary Prime BEEF Squadron for their support of the 1st Battalion, 43rd Air Defense Artillery after awarding them an Army Commendation or Achievement Medal, April 9, 2013. (U.S. Army photo/Capt. Steven Modugno)



Army Col. Randall McIntire, 69th Air Defense Artillery Brigade commander, awards Air Force Capt. Ben Thomas, 557th ERHS construction site officer in charge, with an Army Commendation Medal for his team's support of the 1st Battalion, 43rd Air Defense Artillery, April 9, 2013. (U.S. Army photo/Capt. Steven Modugno)



JOINT TACTICAL RADIO SYSTEM (JTRS) UPDATE

Since 2004, Air Force civil engineers have acquired more than 4,000 AN/PRC-152 tactical radios, base stations, repeaters, vehicle adapters and accessories — in several different models — through the JTRS office. DOD fielding of JTRS did not go smoothly, resulting in extensive accountability and ownership issues. Identification of JTRS components continues to be a challenge, as many part numbers have changed since initial fielding. Many components and accessories have been shipped and received, but very few UTCs have been completed. Additionally, many of the units are either short components/accessories or have excess from receiving duplicate shipments.

To establish effective accountability and maintenance procedures, we have initiated a JTRS equipment consolidation effort at Grissom ARB, IN. MAJCOMs will ship their JTRS assets to the Contingency Equipment Management Facility (CEMF) at Grissom for evaluation and determination of maintenance needs. The CEMF has already received JTRS assets from the Air Force District of Washington and Air Force Global Strike Command, as well as from the AF JTRS office (assets received from the AF JTRS office were the final shipment of CE JTRS assets).

AIR FORCE CIVIL ENGINEER REACH BACK CENTER

The Air Force Civil Engineer Center (AFCEC) Reach Back Center (RBC) is dedicated to answering and tracking engineering requests, questions, and tasks in support of DoD Civil Engineers in the execution of their mission across the full operational spectrum. The RBC's mission is to provide accurate and timely solutions to engineering challenges that exceed the in-place knowledge or expertise.

The RBC has handled more than 49,000 requests since it opened in 2005, fielding a range of questions from deployed locations, the Pentagon, MAJCOMs, bases, industry, and even other services.

“When the request for information comes in, many times the caller doesn't know what person or division to contact; as a centralized hub we do,” said Mr. Jeff Warnecke, an RBC agent and the center's manager. The RBC approaches its mission with a focus on providing excellent customer service. Every question or information request is prioritized, with the goal of timely response to each and every one.



AFCEC-East/CXXE is developing a JTRS component breakdown guide for units and MAJCOMs to use to identify the major components and sub-components to ensure that all of the assets are being shipped to the CEMF at the correct time. AFCEC will notify MAJCOMs when to instruct their units to start shipping their JTRS assets to the CEMF. Units need to identify their JTRS equipment by UTC or flight to help the CEMF process it and maintain a historical record of its origin.

These financially constraining times are a challenge, but we expect to get equipment shipped to the CEMF from three MAJCOMs this fiscal year, three in FY14, and two in FY15. As the CEMF receives JTRS equipment from the MAJCOMs, it will also be sending updated and repaired JTRS equipment back to Explosive Ordnance Disposal flights because of their high operational tempo.

(Mr. Mark A. Shackley, AFCEC/CXXE, DSN 523-6212, mark.shackley@tyndall.af.mil)

“If we are unable to provide the exact answer to the caller immediately, we will track the call in our ticketing system, which generates an email so the requester knows we'll get back to them, usually within 24 to 72 hours,” said Mr. Greg Hummel, an RBC agent.

As former Air Force civil engineers, the three RBC agents, Mr. Jeff Warnecke, Mr. Greg Hummel, and Mr. Al Wackowski, bring practical experience to the table, having more than 80 years of Air Force Civil Engineering knowledge between them.

“The RBC has proven to be one of our agency's most effective resources,” said Col David Reynolds, AFCEC-East Deputy Director. “AFCEC is working to expand our collective 'reach' across the Civil Engineering enterprise as an important step in making us even more effective and efficient.”

Anyone needing answers or assistance from the AFCEC should contact the RBC at any time with one call or email:
DSN: 523-6995 COMM: 1-850-283-6995
Toll Free: 1-888-232-3721
Email: AFCEC.RBC@tyndall.af.mil

RED HORSE Supports EUCOM Construction Priorities

The 819th RED HORSE Squadron (RHS) from Malmstrom AFB, Montana embarked on a new mission, responding to a Navy Request for Forces (RFF) for 200 engineers to support European Command (EUCOM) operations on 1 October 2012. The initial rotation from the 819 RHS is only the beginning of two years of RHS rotations, followed by the 823 RHS deployment in April 2013. Embarking on a new mission, in a new theater, with new customers, and significantly different operations than CENTCOM comes with inherent challenges. Due to the complex command structure with HQ EUCOM in Stuttgart, Germany, HQ NAVEUR in Naples, Italy, and HQ USAFE at Ramstein AB, Germany the ADVON team was immediately dispersed and geographically separated. TACON and OPCON were delegated from EUCOM to NAVEUR and Combined Task Force (CTF) 68 located in Rota, Spain. The initial seven person planning cell, a mixture of officers and SMEs, were assigned to Ramstein AB, Germany and established operations in the Construction and Training Squadron (CTS) Compound.

The team quickly identified engineer requirements across the EUCOM AOR and conducted numerous site visits in support of Exercise Related Construction (ERC) and Humanitarian and Civil Assistance (HCA) projects. Projects were assessed in accordance with CTF-68 directives and team members dispersed across several countries; including Georgia, Macedonia, Latvia, Poland, Bulgaria, Romania, Belgium, Israel and Spain. The planning cycle, design timelines, material procurement, and the logistical challenges of moving personnel and equipment to remote European countries have limited construction during the European winter months but a robust program is primed for execution. The 819 RHS will turn over twenty one projects for execution to the 823 RHS; four in Bulgaria, three in Romania, two in Latvia, three in Macedonia, and nine in Israel.

In addition to the projects in various stages of planning and design the 819 RHS deployed a team to Vaziani South Training Area (VSTA), Republic of Georgia to support the



819 RHS personnel begin construction of tent flooring for the expeditionary camp at Vaziani South Training Area, Republic of Georgia

Georgia Deployment Program – International Security Assistance Force (GDP-I). In the GDP-I program, US Marines train Georgian forces to supplement ISAF forces in Afghanistan. VSTA is home to 700 Georgian Soldiers and 70 US Marines and Soldiers. RED HORSE was called upon to correct camp electrical deficiencies that posed a safety risk to US and Georgian personnel. A joint team of USMC and 819 RHS personnel palletized 24 tents, two shower units, electrical generation and distribution, heaters, and cots. A C-17 assigned to the Heavy Airlift Wing then flew in from Hungary to transport the material from Norway to the Republic of Georgia. Upon arrival, HORSEmen erected a tent camp to provide temporary billeting for GDP-I personnel during electrical repairs.

In the second phase, the team installed more than one mile of new underground electrical distribution to 40 facilities. Each facility also received a new interior panel and a full wiring inspection and repair. To foster multinational relations and improve future construction, all work was accomplished alongside Georgian military and civilian personnel.

Future large-scale construction projects are slated for execution throughout the theater and one particular effort will take place in Israel. The 819 RHS is primed for execution of nine projects across three sites in Israel with a total of forty two aircraft pallets of equipment and beddown assets staged for air transportation at Malmstrom AFB, MT. The scope of the projects will provide shelter facilities for US and Israeli aircraft as well as operational space for munitions maintenance. Additionally, the team will construct pre-cast concrete JTF buildings for future use in joint, US and Israeli exercises. The scope of construction will require 90 personnel a total of 18 months to accomplish.

RED HORSE can tackle any challenge it's presented and lead engineer support in theaters around the world. Throughout the drawdown of CENTCOM the transition to EUCOM support will be seamless, leading to future construction, supporting the theater's priorities.



SrA Tony Rice, 819th RED HORSE Squadron Electrician, is correcting electrical deficiencies at Vaziani South Training Area, Republic of Georgia

166th CES Prepares For Demolition and Renovation of Korean War-Era Hangers



Over 20 members of the 166th CES, Delaware Air National Guard started work in late winter on a project that will significantly transform the look of the base. The Airmen are toiling on the far side of the base inside the Korean War-era alert hangars so HVAC and other valuable equipment can be removed before the hangars are torn down in June 2013, fulfilling a modernization decision made by the National Guard Bureau.

The flight line maintenance and aircraft generation equipment shops now in the alert hangars must be relocated to new work areas in the old main hangar and fabrication shop. However, before this can be done, extensive renovations must first be completed by the 166th CES team. These skilled tradesmen are conducting HVAC, electrical, dry-wall, and other work to bring these new work spaces up to current building code specifications.

Lt Col Elias Danucalov, 166th CES base civil engineer, indicated that initially the 166th CES requested funds to construct a new facility, but that proposal, and a request for a \$590,000 for renovation, were labeled as unfunded due to federal budget constraints.

In an effort to salvage the project, a scaled-down proposal was re-submitted and approved due to cost saving of more than \$65,000 in labor costs by using squadron personnel from the Prime Base Engineer Emergency Force (BEEF) team.

SMSgt Paul Duca, 166th CES project superintendent, stated “More than 1,700 manpower hours have already been logged and the work is only half-way completed. In order to effectively complete this project normal repair and preventative maintenance projects have been delayed to allow focus on vacating these alert hangars.” (TSgt Sean M. Cline, 166th CES)



Installation of ceiling tiles during renovation



Installation of lighting fixtures

History of the 554th RED HORSE Assessment and Repair Operations (AARO) Team

In light of recent events that have taken place on the Korean peninsula, it's significant to look back at the beginnings of a special capability that the 554th RED HORSE squadron still brings to the fight today. While true, that the 554th is now relocated to Guam, the capability can still be utilized in Korea and throughout the Pacific theater.

It all started back in 2003, when the 554th (then located at Osan AB, Republic of Korea), was tasked to develop a highly mobile, Air Assault team which could be inserted with their equipment in austere locations to perform airfield damage assessment and repair. The 554th also set a new standard during this time by graduating five HORSEmen from the U.S. Army Air Assault School with soldiers of the 25th Infantry Division, Schofield Barracks, Hawaii. Those five were the first Air Assault-qualified RED HORSE engineers and they formed the foundation for the 554th RHS AARO team, which is intended to advance wartime engineering capabilities on the Korean Peninsula and in the Pacific theater. Focused on using seized airfields, rather than establishing new ones, AARO teams can provide air component commanders the rapid engineering capability necessary to turn cratered runways into hubs of operation.

There are four phases of Air Assault School and they are preceded by "Zero Day," the infamous rite of passage. This is a Friday "o'dark-thirty" formation and inspection of 100 candidates. This comes right before an intense "Smoke Session" with cadre members in the middle of Oahu's wet and



First five Air Assault Graduates from the 554 RHS.
(L to R) SSgt Rudy Moreno, SSgt Mike Mabe, TSgt Mike Mandolin, SrA Jeremiah Shelton, and Capt. Terry Vance, AARO OIC.

overgrown East Range. The many "Sergeant Air Assaults" seek to separate those with the necessary physical ability and determination from those without it. "Go ahead and quit!" they yell while candidates perform countless flutter kicks and push-ups in the muddy, red clay. "I'll still have my job on Monday morning!" screams Sergeant Air Assault.

Once the Air Assault hopefuls are either effectively "smoked" or reach total muscle failure, the Obstacle Course begins. Nine obstacles are included, with two attempts at each. The Tough One and Confidence Climb are required "gos," and only two total "no-gos" are allowed. Candidates carry several five-gallon water cans wherever they go, and double-time and sing Jodies between obstacles. Immediately after the Obstacle Course, candidates head out on a two-mile run through the East Range's toughest terrain, with just 18 minutes to complete it. At the end of the long, rocky road, Heartbreak Hill waits—more than a quarter mile straight back up. 18 minutes may seem like an ample amount of time to complete two miles, but after getting "smoked" for hours and completing the obstacle course, you have to dig deep within yourself and drive on. By lunchtime on Zero Day, everyone's in pain. Some are headed home—better luck next time!

All too quickly, Monday comes and Air Assault School begins. Each phase intensely tests both the physical and mental capabilities of the attendees. The first phase, Pathfinder Operations, deals with aircraft familiarization; medevac operations; helicopter landing site operations and marking; hand and arm signals; and operation planning. Pull-ups and decline diamond push-ups during each hourly break from class help keep soldiers and HORSEmen "enthused." The mornings are also filled with formation runs and a rugged, four-mile forced ruck march. The standard ruck load is 40 pounds, including helmets and rifles. Fall an arm's length behind the soldier in front of you, and you're on your way home.

The second phase, Sling load Operations, is considered the most challenging. In a typical class, more than 20 percent of the students may fail the hands-on sling load inspection test and be gone. Students learn about aircraft limitations; sling load equipment and requirements, and rigging/inspection of sling loads. Following an early-morning forced march—six miles with a standard ruck—students get two minutes each to inspect four separate sling loads, and must cite four out of five deficiencies on each. Miss one gig and you'll survive. Miss two? Again, better luck next time.

Third is the Rappel Phase. In the first few hours of exposure to rappelling, all students learn to tie their own military rappel seats and are soon bounding from the 45-foot tall rappel

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Upcoming Prime BEEF/UDM and Automated Civil Engineer System Personnel and Readiness (ACES PR) Training

To sign up for any of the classes below, access the Expeditionary Engineering CoP at: <https://afkm.wpafb.af.mil/community/views/home.aspx?Filter=21340> or contact Mr. Larry Lomax at larry.lomax@tyndall.af.mil or DSN 523-6143/Com 850-283-6143.

- 15-19 Jul 13: 9 CES, Beale AFB, CA (Prime BEEF/UDM Training)
- 12-16 Aug 13: Dobbins ARB, GA (Prime BEEF/UDM Training)
- 16-20 Sep 13: Gunter Annex, AL (Prime BEEF/UDM Training/Includes ACES PR)

LESS CBTs....REALLY?

One complaint that CE leaders all the way up to MGen Byers hear from Airmen is that they hate the volume of Computer Based Training (CBT) they are required to complete. These complaints don't fall on deaf ears. The contingency training team at AFCEC have been working on reviewing all Home Station Training (HST) products to ensure they are necessary, current and relevant. In an effort to provide more options for training, lesson plans are being developed to offer a replacement to CBTs to meet existing HST requirements. The HST CBTs that are provided on the CE Virtual Learning Center are not the only method to conduct training, leaders should still make every effort to deliver training to their subordinates in a classroom, workshop or field in lieu of CBTs. How to record and report training that is done as a group is explained in paragraph 4.3. and 4.5.1.2. of AFI 10-210, Prime Base Engineer Emergency Force (BEEF) Program. AFI 10-210, paragraph 4.5. provides directions on completing HST. It is important to review the instruction in AFI 10-210, it uses language such as..."Units must make every effort to incorporate realism into their respective HST programs" and "computer based training products can be used in a classroom setting to train as many personnel as possible." The bottom line is that it is the responsibility of leaders at all levels to ensure they are engaged in the training of their Airmen.

Civil Engineer Manpower and Equipment Force Packagers (MEFPAK) Update

The Prime BEEF & Contingency Training (PB/CT) Panel held 20 Feb 13 agreed to conduct the Prime BEEF Engineering & Operations Equipment and Supply List (ESL) review 24-28 Jun 13 at Dobbins ARB, GA. This review will encompass 14 Equipment UTCs, 19 Personnel UTCs, and mobility bags.

Once reviews are completed recommendations for change will be briefed to the PB/CT Panel and then to the Expeditionary and Emergency Services Program Group (EESPG) for final approval. Immediately following EESPG approval, an allowance standard review will be scheduled and final action taken to update ACES PR and the logistics details (LOGDETs). (Larry Lomax, AFCEC/CXX, DSN 523-6143)

Readiness Reporting Changes Update

Readiness reporting of Status of Resources and Training Systems (SORTS) will be changing at the end of FY13. The days of reporting in the G-SORTS data base will end and a new reporting era will begin in the Defense Readiness Reporting System (DRRS). A separate module within DRRS has been developed and will provide the ability to automatically pull SORTS calculations directly from the Automated Civil Engineer System (ACES) and provide an accurate report based on the data managed.

This is a new concept for our Civil Engineer community, we will be able with a few clicks of a mouse create an entire SORTS report. The SORTS reportable data would be pulled, calculated, analyzed, and results provided in a manner of seconds based on the information in ACES. The key to success in this new reporting process will be how well we maintain our personnel, equipment, and training stats in ACES.

AFI 10-201, Status of Resources and Training System, is scheduled for a new release in the late spring or early summer of 2013. With this new publication we can expect a lot of changes from what the previous publication contained, to include; a change from unit type code (UTC) reporting to a unit manning document (UDM) reporting criteria; designed operational capabilities (DOC) statement preparation; and only high side access to tables, charts and figures. (Larry Lomax, AFCEC/CXX, DSN 523-6143)

History of the 554 RED HORSE

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tower. By the end of the phase, students must be able to correctly tie a military rappel seat within 90 seconds and execute four separate technical rappels, including two with a full combat load. If you fail to lock in properly, or lose your brake hand...see you next class! Total success in this phase is followed by the pinnacle of Air Assault School, a 90-foot combat rappel from a UH-60 Blackhawk.

But class is not quite over when you hit the ground...The fourth phase begins with formation the next morning at 0300 hours. That gives the cadre enough time to transport, thoroughly inspect, and stretch students for the final test of will—the 12-mile ruck march. Positioned under the Air Assault School arch at 0500 hours, students are released in the dark on their predetermined course with three hours to return. Thoroughly exhausted, feet blistered, and drenched in sweat, soldiers, along with five HORSEmen, rejoice at the finish line. They've now earned the right to wear the coveted Air Assault wings. For those five members of the 554th RHS, it was a special day. They proudly represented the best the Air Force had to offer, and they proved to the soldiers of the 25th Infantry Division that “those Air Force guys are in pretty good shape.”

By September 2004, the 554th AARO team was configured and consisted of 21 highly trained Horsemen. In addition to their usual RED HORSE skills, they also trained in air base defense, infantry tactics, heavy weapons and field medicine, which prepared them for joint operations within various threat levels. RED HORSE is well known for constructing the physical backbone necessary to project air power from forward locations, although not necessarily after inserting their equipment with helicopters. Under certain circumstances, air insertion gives RED HORSE units a faster, safer method of movement, rather than traditional convoys of today.

Major segments of this article were contributed by then Capt. Terry Vance, 554th RHS, AARO OIC.



SSgt Mike Mabe completes a combat rappel from a UH-60 Blackhawk during Phase 3 of Army Air Assault School.