

YPG: Ensuring the reliability of munitions

By Mark Schauer

If mere inches can separate life and death in combat, how important is 700 feet?

With conventional artillery rounds fired at long range, accuracy diminishes with distance; projectiles can land as far as 850 feet off target, a potentially fatal outcome.

A wide variety of factors can cause this loss of accuracy, from minor variations in the muzzle velocity of the projectile to weather conditions in the field. One of the first technologies born of the push for more accurate artillery in the past 20 years was the Precision Guidance Kit (PGK), a screw-on fuse that transforms a conventional artillery round into a guided semiprecision projectile accurate to approximately 150 feet of a target. "It is a 155mm artillery fuze

that enables the Soldier to reduce a four-football field-wide grid down to roughly the size of half an endzone using GPS technology," said Zackary Long, mechanical engineer for the U.S. Army Combat Capabilities Development Command . "It is used in projectiles in the current U.S. inventory as well as in future projectiles that are being developed now."

U.S. Army Yuma Proving Ground (YPG) in Arizona tested PGK extensively throughout its development and continues to do so today. One such example of current evaluations is lot acceptance testing,

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One of the first technologies born of the push for more accurate artillery in the past 20 years was the Precision Guidance Kit (PGK), a screw-on fuze that transforms a conventional artillery round into a guided near precision projectile accurate to approximately 150 feet of a target. U.S. Army Yuma Proving Ground tested PGK extensively throughout its development and continues to do so today. (Photo by Mark Schauer)

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Yuma came out strong to honor veterans at the annual American Legion Post #19 Veterans Day Parade on the morning of Nov. 11. Yuma Proving Ground Commander Col. Patrick McFall with wife Heidi and Soldiers from YPG's Airborne Test Force (ATF) were in the vanguard. BELOW: Yuma Mayor Douglas Nicholls chats with YPG ATF Soldiers following the Veterans Day Parade. (Photos by Mark Schauer) See more photos on page 5.



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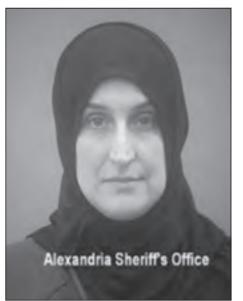
Antiterrorism Awareness Corner

Remain vigilant to terrorist activities

ATEC Mission Antiterrorism Officer Alfonzo Brown

Due to the hard work and efforts of many supporting agencies surrounding Yuma Proving Ground (YPG) and our Army Test and Evaluation Command (ATEC) employees, we don't hear as much about terrorist networks. However, they are still around and could potentially cross our borders into YPG. The threat is real and something we should always stay vigilant of. Even today with our many advances in technology the best defense against terrorist networks is our workforce.

On Nov. 1, a court sentenced Allison Fluke-Ekren, a.k.a. Umm Mohammed al-Amriki, to 20 years in prison for leading Khatiba Nusaybah, an all-female ISIS battalion in Syria, according to the Department of Justice. From September 2011 through May 2019,



On Nov. 1, a court sentenced Allison Fluke-Ekren, a.k.a. Umm Mohammed al-Amriki, to 20 years in prison for leading, an all-female ISIS battalion in Syria. (Photo courtesy of Alexandria Sherriff's Office)

Fluke-Ekren traveled overseas and engaged in terrorist acts in countries including Syria, Libya, and Iraq. This can happen anywhere at any time. The case is a reminder to stay aware of those around us, and report suspected terrorist activities to law

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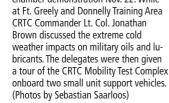
enforcement or within ATEC to your ATEC Antiterrorism Officer (ATO).

It is my responsibility as your ATEC ATO to keep our workforce aware of threats both foreign and domestic. There is no wrong time for you to seek me out for question or to provide information you feel will protect our testing mission from threats or adversaries. As we continue to support the Department of the Army's first quarter theme of Community Resilience, being aware of threat information sharing, working with our civilian and military partners such as the Federal Bureau of Investigation or Naval Criminal Investigative Service and ATEC employees continuing to understand their role in antiterrorism vigilance, regardless of location is vital to a successful ATEC ATO Program.

Contact your YPG ATEC Mission ATO, Alfonzo D. Brown, by email at Alfonzo.d.brown@army.mil or phone at 928-328-6498, for more information on remaining vigilant to terrorist activities.

Cold Regions welcomes staff delegates







It's probably happened to most of us. That momentary lapse of inattention thinking about a personal problem or distracted by an activity that ends in a slip, trip, or fall. It can lead to a variety of regrettable events ranging from a simple bruised shin to an extremely serious injury.

According to the U.S. Department of Labor, slips, trips, and falls make up most general industry accidents, which account for:

15% of all accidental deaths per year (the second-leading cause behind motor vehicles)

About 25% of all reported injury claims per fiscal year

Over 95 million lost workdays per year – about 65% of all workdays lost

In general, slips and trips occur due to a loss of traction between the shoe and the walking surface or an inadvertent contact with a fixed or move-able object which may lead to a fall. There are a variety of situations that may cause slips, trips, and falls.

Below are some common causes of incidents that occur at YPG:

Slips

 Wet spills (e.g., water, mud, grease, oil, food, blood, etc.)

 Dry product spills (e.g., powder, dust, wood chips, granules, plastic wraps)

· Weather hazards (e.g., ice, snow)

* Loose, unanchored mats and rugs

- . Concrete, ceramic tile, or marble floors
- · Newly waxed floor
- Sloped or uneven walking surfaces
- * Wet, muddy, greasy shoes
- Ramps or planks without skide or slipresistant surfaces
- Metal surfaces
- Climbing ladders
- Loose gravel / debris

Trips

- · Clutter on the floor
- Obstructed view
- · Poor lighting
- Misshapen, wrinkled carpets or mats
- Uncovered cables, wires, hoses, and extension cords
- Open drawers, cabinets, doors, etc.
- Uneven walkways / platforms
- Unmarked steps or ramps
- Missing floor tiles and brick
- Damaged steps
- Irregular, improper, or nonuniform steps

Falls

- · Weak or damaged ladders / stairs
- Ledges without proper railing
- · Carrying heavy objects
- Failure to use guardrails on scaffolding
- · Unprotected edges

Not using 3 point of contact when climbing or descending

- Unsafely positioned ladders
- Misused fall protection equipment

Here are some solutions to prevention for the common incidents that occur at YPG:

Clean work areas throughout the day and at the end of day

Submit services orders for burnt out bulbs

Identify lack of safety signs and submit service orders

Clean spills immediately

- Inspect ladders/stairs
- Inspect handrails daily
- Request handrails where needed

Like driving, do not texting while walking

Create a culture where reporting potential accidents is a common practice

Use a checklist to create a culture where slips, trips and falls can be corrected before incidents occur.



YPG supports Veterans Day continued....

YPG Chaplain leads 11th Hour ceremony



At the traditional 11th Hour Ceremony following the Veterans Day Parade, Yuma Proving Ground Chaplain Capt. Ryan Pearse gave the invocation. (Photo by Mark Schauer)

Employees nutrition linked to safety





Yuma Proving Ground (YPG) leaders are making nutrition education a priority the workforce. YPG Commander Col. Patrick McFall told attendees that nutrition ties in with workplace safety. On the morning of Nov. 3, a registered dietitian nutritionist from Fort Irwin's Weed Army Community Hospital spoke with YPG supervisors about how nutrients affect a person's body. These supervisors are tasked with educating their teams about prioritizing nutrition and sleep. (Photos by Ana Henderson)

YTC Commander visits Veterans Home



Yuma Test Center Commander Lt. Col. Shane Dering visited with residents at the Arizona State Veteran Home-Yuma's during its first 'breakfast with a veteran' on the morning of Nov. 10. The 80-bed home opened in early October and is one of four in Arizona. (Photo by Mark Schauer)

Military Free Fall School and American Red Cross join efforts





U.S. Army Yuma Proving Ground Soldiers, employees and community members rolled up their sleeves to give the gift of life. The American Red Cross was on hand to collect blood donations on the morning of Nov. 9. Command Sgt. Major Herbert Gill was all smiles as he donated. The blood drive was organized by Military Free Fall Instructor Charles Brooks and he estimates the drive collected about 30 units of blood this time around. He's organized two other donation events and estimate they have collected over 100 units of blood. (Loaned photos)

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Next phase of Highway 95 lane expansion begins

By Mark Schauer

Highway 95 lane expansion effort marked another milestone

Starting this month, a stretch of U.S. Highway 95 from Rifle Range Road to the Wellton-Mohawk Canal Bridge is being expanded to five lanes, a project scheduled to be completed in February 2024.

On Nov. 3, Yuma Proving Ground (YPG) Commander Col. Patrick McFall participated in a ceremony that kicked off the latest phase of construction on the highway that the Yuma Metropolitan Planning Organization (YMPO) has identified as having the highest traffic volume of any two-lane road in Arizona. Also at the event was YPG Command Sgt. Maj. Herbert Gill, former YPG Commander Ross Poppenberger, and numerous officials from local city, county, state, and federal government. Among these were Arizona State Representative Tim Dunn, who represents the district that YPG is in, and Yuma City Councilmember Gary Knight, who is also a member of the Arizona State Transportation Board, along with officials from the Department of Defense's Office of Local Defense Community Cooperation, the Arizona Department of Transportation (ADOT), and the Federal Highway Administration. "This is the result of all the great



U.S. Army Yuma Proving Ground (YPG) Commander Col. Patrick McFall speaks at a ceremony kicking off the latest phase of U.S. Highway 95 lane expansion on Nov. 3. "This is the result of all the great cooperation we had from federal, state, and local officials with one purpose in mind: the safety of the YPG Family," said McFall. (Photos by Ana Henderson)

cooperation we had from federal, state, and local officials with one purpose in mind: the safety of the YPG Family," said McFall. "Any time a safety project comes to any U.S. military post, I support it."

Of the roughly \$29 million cost of this phase of the construction, \$13 million comes from a Department of Defense grant from the Defense Community Infrastructure Pilot Program that intends to enhance military value, installation resilience, and military family quality of life.

Successfully applying for the competitive grant took the cooperation of multiple entities, including YMPO and ADOT.

"It's amazing what kind of fire can start with a little spark," said Ross Poppenberger, McFall's predecessor as YPG Commander, who also attended the ceremony. "It's the result of our leaders listening to the needs of our workforce and taking action."

The morning and evening

commutes to and from the proving ground have long been dubbed the 'YPG 500,' an amusing sobriquet if not for the grim list of lives the road has claimed over the past decades. The road is shared not only with farm vehicles working the adjacent fields, but also with winter visitors whose presence normally doubles Yuma's population for half of the year. In his remarks at the event, Dunn recalled attending Poppenberger's retirement luncheon at YPG at the conclusion of his command.

"One of the guys who tests bombs for a living got up giving him accolades and said the most dangerous part of his job was the commute to and from work every day. That hit me hard, and I took that information back to my Speaker."

In his remarks, Knight called getting Highway 95 expanded to Aberdeen Road outside of YPG's Kofa Cantonment Area 'imperative,' stating that the project had been his top priority as a member of the Arizona Transportation Board since his appointment in 2018. He outlined not only the safety benefits of doing so, but also the long-term economic benefits to Arizona given Highway 95's potential as a future CANAMEX corridor.

"It's really an enormous tribute to collaboration," said Knight of the expansion effort's progress to date. "This is what can happen when we all work together, and Yuma is very good at that."



YPG Commander Col. Patrick McFall, Command Sgt. Maj. Herbert Gill, YPG personnel and community leaders attended a Yuma Metropolitan Planning Organization ceremony celebrating the beginning of the next phase of the U.S. Highway 95 lane expansion project, which will widen the highway from Rifle Range Road to the Wellton-Mohawk Canal Bridge.

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the testing of a sample of fielded but newly produced munitions in realworld conditions to ensure reliability and effectiveness, is another important part of YPG's munitions and weapons mission.

"We're ensuring that the fuze guides the projectile to the target within a certain distance," said Amber Steele, test engineer. "We want to make sure that the item is



Every component of a shell, from the round and casing to the primer and propellant, are tested at Yuma Proving Ground. The velocity of the fired round is measured, as is the dispersion of the shell when it hits its target. (Photos by Mark Schauer)



One such example of current evaluations is lot acceptance testing, the testing of a sample of newly produced munitions to ensure reliability and effectiveness.

safe and effective for the Soldiers." Every component of a shell, from the round and casing to the primer and propellant, are tested at YPG. The velocity of the fired round is measured, as is the dispersion of the shell when it hits its target. Testers also look for residue in the gun tube, using a camera aimed at the breech during the test and physically inspecting it after the round has been fired.

Accurately measuring this data on rounds that travel about one mile per second requires the assistance of some of the world's most sophisticated high-speed cameras and triggering equipment. YPG's scientific photographers have cameras capable of shooting 100,000 frames per second, though for this particular test they use only a small fraction of this impressive capability.



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As each round is in flight, workers back at the howitzer take readings from pressure gauges inside the gun barrel.

"The YPG personnel are always

making sure we can get every single test we want done," said Long. "Due to their support we're able to ensure that every product we give the Army is safe, efficient, and precise."





8 NOVEMBER 21, 2022 Military Family Life Counselor: Someone who can offer solutions

By Ana Henderson

If you've attended community events at Yuma Proving Ground (YPG), you've probably seen Penny Collins.

She's active in the community because she wants to make her services as the YPG Military Family Life Counselor known to Active Duty and recently retired military (less than 180 days separated) members and their family members.

Collins can provide a listening ear to those who need to work through stress, grief, relationship issues, deployments, and daily life issues. She's been a licensed professional counselor since 1996 and has a wide variety of experience.

"I've worked in the public-school settings, I've worked in community mental health, I've worked with U.S. vets serving the homeless, the veteran population and I've owned my own private practice," explained Collins. She is also a Certified Trauma Practitioner.



Penny Collins is active in the Yuma Proving Ground (YPG) community because she wants to make her services as the YPG Military Family Life Counselor known to Active Duty and recently retired military (less than 180 days separated) members and their family members. (Photo by Ana Henderson)

As a nationally certified counselor and nationally certified school counselor with a license in Arizona, Collins can provide counseling services to all ages. She spends time at the YPG youth centers and James D. Price Elementary School making her presence known, too.

Those looking for help don't have to embark on the journey alone. Collins provides one-on-one, couples, family, group, child, and youth counseling. She's flexible on where she can meet those who need to talk.

"I can meet them on base, off base, anywhere where they feel comfortable," she remarked.

She reassures those thinking of reaching out that all sessions are confidential unless it deals with cases of abuse. She can provide up to 12 free sessions per issue and they are not recorded or sent to command. Collins wants to help Soldiers and their family work through their issues. "It's more short-term and more solution-focused with strategies with how to move forward."

Collins can be contacted via cell phone at (928) 430-8037. She is available for briefings and presentations as well.

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This fifteenth century battle, and the king who led the English to victory are well-known even today because of Shakespeare's play, Henry the Fifth. The play captures the heroic as well as the divine aspects of the English victory. In August of 1415, to enforce his claim to his ancestral lands in France, King Henry V of England landed a large force along the coast of Normandy and lay siege to the castle at Harfleur. The siege took far longer than Henry anticipated and despite his eventual victory, he was forced to limit the scope of his conquest. The delay at Harfleur gave the French time to gather their forces. By the time Henry and his troops reached the small villages and open country south of Calais, the French were blocking their route and itching for a fight.

Cold, wet, hungry, and thoroughly exhausted, the English realized they were vastly outnumbered. Accounts vary, but the English were outnumbered at least three to one. The French commander could call upon thousands of archers, but their battle array placed them at the rear of their formation, whereas the English placed their archers at the front of their battle line.

The French knew they had the English trapped and easily within their grasp. The prospect of getting revenge for French losses in battles decades earlier, and the anticipation of the complete annihilation of the English army, and their young and daring King, emboldened the French nobles and knights. They pushed forward.

At Agincourt, there was mud

Chaplain's Corner The Battle of Agincourt

on both sides of the battle lines. The French forces were confident in their numerical superiority and the prowess of heavily armored knights and noblemen. They were fighting on very familiar ground of their own choosing against a foe that was tired and attempting to retreat. On the other side, the English troops found confidence in their leader. They trusted Henry. Here was a leader whose commitment to fight a just cause with honor, instilled in his men a firm resolve, and a commitment to do their duty.

When the arrows began to fly, the men who arrayed for battle on both sides were to put on their mettle and it was their hearts and not their battle plans that were the deciding factor in the fight. When the tide of the battle turned suddenly against the French, their confidence was the first casualty.

Their minds and spirits were routed well before their army was and their ability to fight as a cohesive and coordinated force collapsed, just like the ground beneath their feet.

The English knew the enemy and knew the odds, yet they were committed to fight with honor and principle. This perspective locked them firmly into a brotherhood of arms; a band of brothers committed to each other because they were committed to a higher calling - a noble cause that would not die even if they did. In the end, the King insured that all his men understood that the cause of their victory was God himself, the only true source of honor, nobility, and a cohesive and purposeful life. Remember Psalms 105:4 teaches us to, "Look to the Lord and his strength; seek his face always."



Family game night





Army Community Services (ACS) hosted a game night in celebration of Month of the Military Family. About 45 parents and kids attended the outdoors event featuring all types of games. From cornhole to jumbo Checkers, Connect 4 and basketball. The families were provided with information from the ACS, the Post Chapel, and the Red Cross. McGruff the Crime Dog also made an appearance. (Photos by Ana Henderson)







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