

THE OUTPOST

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Honing on the range

Germans fire precision artillery rounds at YPG

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 manufacturing process to weather conditions in the field. Yet, when a Precision Guidance Kit (PGK) fuse with guidance capability is screwed onto a conventional round, its accuracy is correct to within 150 feet of a target.

PGK has undergone a variety of YPG testing for nearly a decade,



(PHOTO BY MARK SCHAUER)

When fully rigged, the German PzH 2000 self-propelled howitzer seen here weighs in at over 55 tons, nearly twice as heavy as the U.S. Army's Paladin self-propelled howitzer, and boasts a range of nearly 40 kilometers. The German howitzer was at YPG for a test of the Precision Guidance Kit (PGK) fuze, which turns conventional artillery rounds into guided 'smart' rounds.

and the latest involved firing PGK-enhanced rounds from the German Army's massive armored howitzer, the PzH 2000, which is significantly larger than its American equivalent, the Paladin.

"It's a good opportunity for us

to understand how PGK works when fired out of a 52-caliber tube, which differs from the 39-caliber U.S. tubes," said Pete Burke, deputy project manager for Combat Ammunition Systems. "The longer tube means longer range and higher

muzzle velocity, which is something the PGK wasn't designed for, but should work in. This is to verify the performance and hopefully spark interest in Europe to buy PGKs."

In recent years, the PzH 2000 has

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YPG Fire: Working Smoke Alarms Save Lives

Submitted by Chuck Beasley

Working smoke alarms can make a life-saving difference in a fire. That's the message behind this year's Fire Prevention Week campaign, "Working Smoke Alarms Save Lives: Test Yours Every Month!"

Along with firefighters and safety advocates nationwide, YPG Fire Department is joining forces with the nonprofit National Fire Protection Association (NFPA) during Fire Prevention Week, October 5-11, to remind local residents about the importance of having working smoke alarms in the home and testing them

monthly.

According to the latest NFPA research, working smoke alarms cut the chance of dying in a fire in half. Meanwhile, almost two-thirds of home fire deaths resulted from fires in homes with no smoke alarms or no working smoke alarms.

"In a fire, seconds count," said Charles Beasley, Fire Inspector "Roughly half of home fire deaths result from fires reported at night between 11 p.m. and 7 a.m. when most people are asleep. Home smoke alarms can alert people to a fire before it spreads, giving everyone enough time to get out."

This year's Fire Prevention



Week campaign includes the following smoke alarm messages:

- Install smoke alarms in every bedroom, outside each separate sleeping area and on every level of the home, including the basement.
- Interconnect all smoke alarms throughout the home.

This way, when one sounds, they all do.

- Test alarms at least monthly by pushing the test button.
- Replace all smoke alarms when they are 10 years old or sooner if they don't respond properly.
- Make sure everyone in the

home knows the sound of the smoke alarm and understands what to do when they hear it.

To learn more about smoke alarms and "Working Smoke Alarms Saves Lives," visit NFPA's Web site at www.firepreventionweek.org.

ARTILLERY

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grown in popularity among the members of the North Atlantic Treaty Organization (NATO). When fully rigged, the German self-propelled howitzer weighs in at over 55 tons, nearly twice as heavy as the Paladin self-propelled howitzer, and boasts a range of nearly 40 miles. Partner nations within NATO need compatibility between their respective weaponry and have a keen need for a semi-guided artillery capability at relatively low cost, which makes testing the PGK fuse critical.

"Yuma is an ideal destination for artillery testing," said Hans-Peter Albert, German project manager for the PzH 2000. "The test conditions cannot

be found in Europe: we do not have these wide open spaces. YPG is a flexible organization and we really like the culture."

YPG has extensive experience testing materiel for friendly foreign nations, and in this test YPG weapons operators shared test fire duties with their counterparts in the German Army's acquisition force.

"Our gunners do the actual firing and preparatory work on the round prior to firing," said Ron Jackson, YPG test officer. "They then turn it over to the German crew."

With each test fire that took place last month, high speed camera operators used three cameras to capture the round's first 200 feet of flight at more than 2,000 frames per second, while trackers operating kineto tracking

mounts filmed the round's distant flight, and also collected telemetry data from the PGK fuze in mid-air.

In addition to the data gathered, the test provided a working forum in which to discuss the possibility of future cooperative artillery programs between the United States, Germany and the Netherlands.

"YPG has a capability that doesn't exist anywhere else in terms of test capability and the ability to fire large caliber projectiles with long ranges and track them in flight," said James Shields, acting program executive officer for ammunition. "The degree and level of instrumentation can't be found anywhere else. We gain much more information in the limited testing we do in Yuma than anywhere else."

THE OUTPOST

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