

## The First-Ever Gruber Award for the Outstanding FA Professional

**M**aster Sergeant (MSG) Dennis J. Woods (pictured on the right), recently of A Battery, 3d Battalion, 319th Field Artillery, 82d Airborne Division, Fort Bragg, North Carolina, won the first Gruber Award for the outstanding FA professional of 2002. While in A Battery, MSG Woods invented the gun electronic laying optical night sight (GELON), a sight mounting system used by towed howitzers to engage direct fire targets at night without illumination rounds, allowing FA units to maintain night discipline. During the Senior Fire Support Conference Banquet on 3 October at the Fort Sill Officers' Club, the Command Sergeant Major of the FA, CSM Rodney L. Beck (on the left), presented Woods a statue of "The Cannoneer" in recognition of his professionalism and contribution to the FA.

The purpose of the Gruber Award is to recognize outstanding individual thought and innovation that results in a significant contribution to or enhancement of the Field Artillery's warfighting capabilities, morale, readiness or maintenance.

The award was named after Brigadier General Edmund L. Gruber, 1879-1941, the composer of the Field Artillery's "The Caisson Song" that later was adapted to become the Army's song. The inspired composition of then First Lieutenant Gruber's "The Caisson Song" in 1908 has contributed to Field Artillery and Army morale for more than 90 years.

Lieutenant Gruber composed the "The Caisson Song" at Camp Stotsenburg, Pampanga, Philippine Islands, in March 1908. The original lyrics reflect the routine activities in a horse-drawn Field Artillery battery. Gruber's purpose was to commemorate the arrival of the 1st Battalion, 5th Field Artillery to relieve the 2d Battalion in the Philippines.

With minor revisions to Gruber's original verse and refrain plus the addition of verses, the "The Caisson Song" became "The Caissons Go Rolling Along," the official song of the US Army Field Artillery, in 1917. Then in 1952, H.W. Arberg adapted Gruber's song to make it "The Army Goes Rolling Along," the official song of the United States Army.

Although Gruber was most famous for his 1908 composition, his career proved he continued as a professional, innovative Field Artilleryman. As the commander of the 2d Field Artillery in the Panama Canal Zone during the 1933 maneuvers, he conducted the earliest known experiments in airborne artillery techniques, transporting three 75-mm howitzer batteries with men, ammunition and equipment by plane. The following year, he marched the 2d Field Artillery with full field equipment through the jungle across the isthmus from the Atlantic to the Pacific sides, a feat unequaled since the time of Balboa and Morgan. He also commanded the 7th Field Artillery at Fort Ethan Allen, Vermont. Brigadier General Gruber became the Commandant of the Command and General Staff College (CGSC) and Commander of Fort Leavenworth, Kansas, in 1940, revising the instruction for CGSC. He was serving in this position at the time of his death on 30 May 1941.

MSG Woods is described by his 82d Division Artillery Command Sergeant Major as "...an All-Army man. His personal involvement with and commitment to the goals and ideals of the Field Artillery and the Army are without equal."

MSG Woods' invention of GELON led to its testing and release by the Tank-Automotive and Armaments Command, Rock Island, Illinois. As his CSM said, "His 30-dollar fix has saved the Army millions." Woods' innovativeness has enhanced the warfighting capabilities of the Field Artillery significantly.

(Much of the information on BG Gruber in this article was taken from "General Order No. 17, Headquarters Fort Leavenworth, Kansas," dated June 2, 1941, by order of Colonel Lewis and signed by Dana C. Schmahl, Lt. Col, Field Artillery, Executive Officer, announcing the death of BG Gruber at Fort Leavenworth.)



### Caisson Song, 1908

(Original First Verse and Refrain)  
By First Lieutenant E.L. Gruber

Over hill over dale we have hit the dusty trail  
As our caissons go rolling along.  
Up and down, in and out,  
Countermarch and right about,  
And our caissons go rolling along.

For it's hi-hi-hee  
In the Fifth Artillery,  
Shout out the number loud and strong.  
Till our final ride,  
It will always be our pride  
To keep those caissons a rolling along.  
(Keep them rolling—keep them rolling)  
Keep those caissons a rolling along.  
(B-a-t-t-e-r-y H-a-l-t!)

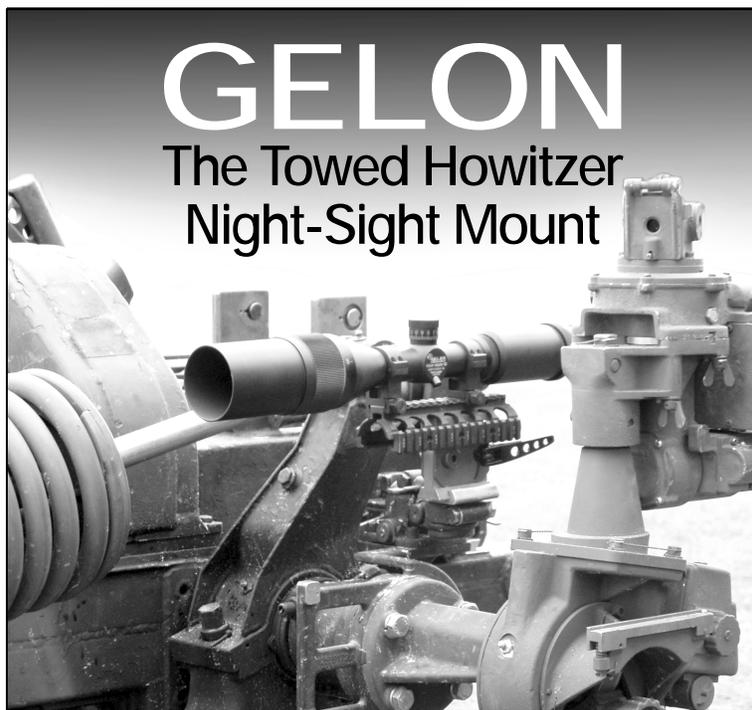
**A** visionary in the artillery world, then Captain Henry L. Eisenbarth, my battery commander, tasked me to develop a night-sight system in 1986. Over the years I have developed different systems for both towed and mechanized howitzers and, on occasion, submitted them for acceptance. But only in the 319th Airborne Field Artillery Regiment, 82d Airborne Division, Fort Bragg, North Carolina, did the officers and NCOs support one.

I used my experiences with night operations in the 82d Airborne Division during Grenada 1983, Desert Shield/Storm 1990-1991 and Operation Desert Fox 1998, the latter while attached to the 5th Special Forces Group, to develop the gun electronic laying optical night sight (GELON). GELON is a mounting system that allows units to use existing and future night weapon sights, laser aimers and (or) thermal weapon sights to conduct direct fire, including towed howitzers and 120-mm mortars. It enables M119 and M198 howitzers to engage direct fire targets at night without firing illumination, allowing FA units to maintain light discipline. This device also enables gunners to use the Killer Junior technique (detonate a high-explosive round above ground to produce a linear spray of shrapnel) under the cover of darkness.

The 319th AFAR is using GELON on its 105-mm howitzers and 120-mm mortars in Afghanistan.

The mount consists of a metal block milled to fit the existing direct fire mount and a deep metal hinge that pivots in line with the howitzer. This allows the gunner to correct the line of sight to compensate for the round's ballistic arch as the tube is raised. A bicycle seat clamp locks the mount in place, but a standard rail taken from an M4 modular weapon system provides the mount's true utility.

The rail system with rail grabber was developed for sniper systems and allows soldiers to bore-sight instruments to it and then remove them



# GELON

## The Towed Howitzer Night-Sight Mount

for storage or transport. When the instruments are returned to their numbered positions on the rail, they remain bore-sighted.

GELON's operation is based on parallel aiming. In indirect fire, the gunner's Pantel sight is used for directional control and his quadrant sight for range. His priority of work is sight-bubble-sight. In a direct fire engagement using the GELON mount, a gunner uses his night weapon sight for directional control and his quadrant sight for range. His priority of work remains sight-bubble-sight.

The mount allows the gunner to measure the difference between the gun and target in elevation to refine the firing solution as well as measure the range-to-target using a rangefinder, also mounted with a rail grabber.

There are many advantages to the night-sighted cannon in battery defense. For example, by having a laser aimer attached, the chain of command can employ the gun line much like it would an AC-130 aircraft by going laser dot to laser dot to confirm the targets before engaging them. Sections close to a wood line use a common thermal sight, and those watching observations points and entry control

points use a passive night sight.

Rock Island Arsenal Manufacturing, Rock Island, Illinois, now produces the mounts. Units can contact Barbara VanOpdorp at vanopdorp@ria.army.mil or Don Bowen at bowend@ria.army.mil in the Tank-Automotive and Armaments Command-Rock Island. TACOM estimates GELON will save the Army \$27.2 million.

MSG Dennis J. Woods, Master Gunner 82d Airborne Div Arty, Fort Bragg, NC 2002 Gruber Award Winner

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