



FEBRUARY 17, 2021

# *Forensic review of a AAR claimed 4,600 yard shot by a M36 GMC*

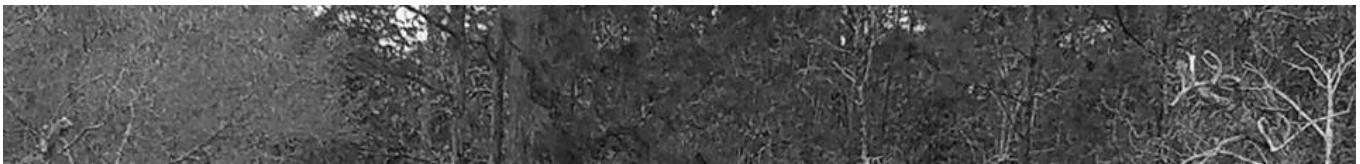


Now hear this!

According to the U.S. After Action reports, and witnessed by several people, on the 1st of December, Lt. Alfred Rose of the 814th Tank Destroyer Battalion used an M36 Jackson's 90mm main gun to direct-fire engage and destroy a German Mk V Panther tank at a range of 4,600 yards or 2.61 miles away.

That's only 500 yards short of the longest tank shot recorded, performed by a Challenger 1 in 1991 which engaged and destroyed an Iraqi tank 2.9 miles away or 5,100 yards.

**The Sniper:**





Meet BALAGAN, WW2 Armor's M36 Jackson. It's a similar model to the one in the tale although not the exact vehicle. Based on the proven M10 GMC Tank Destroyer which was in turn based on the M4 Sherman's proven chassis and powertrain, it married a new 90mm gun adapted from anti-aircraft usage and turret with the M10A1 variant's chassis. These chassis were powered by the Ford V8 GAA tank engine versus the normal GM 6046 dual diesel, which had stayed in the United States for driver's training. As the hulls were released from this duty, they found new life as the M36 Jackson. First arriving in the ETO in September 1944, it found first blood in that October where crews found it to be a very capable tank killer. The 90mm could at 1,500 yards penetrate 5.6 inches of armor, according to FM 6-40, 1 JUN 1945.

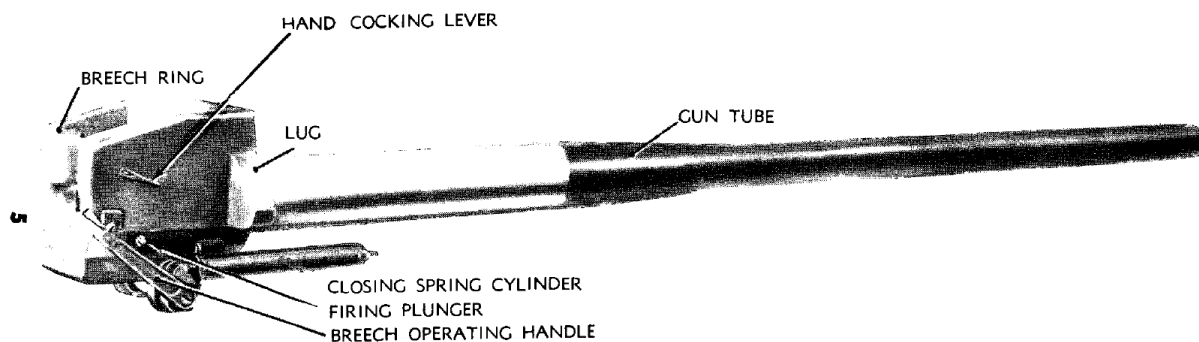
## **16. EFFECT ON ARMOR (HOMOGENEOUS PLATE).**

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| Thickness of armor perforated by single

Weapon; Projectile	round (Angle of impact normal to surface of armor) (inches)		
	500-yard range	1000-yard range	1500-yard range
37-mm gun, M3A1, M6; APC-T, M51B1 or M51B2	2.9	2.6	2.2
57-mm AT gun, M1; APC-T, M86	4.0	3.5	3.1
75-mm gun, M3, M6; APC-TM, 61A1	3.3	3.0	2.7
75-mm how, M1, M1A1, M2, M3; HE-AT, M66	4 to 4.5	4 to 4.5	4 to 4.5
3-inch gun (TD), 76-mm gun, M1A1, M1A1C; APC-T, M62A1	4.7	4.3	3.9
105-mm how, M2A1, M3; HE-AT, M67	5 to 5.5	5 to 5.5	5 to 5.5
155-mm gun, M1918 (motor carriage M12); AP, M112 (2360 f/s)	6.9	6.7	6.5
155-mm gun M1; AP, M112 (2745 f/s)	7.6	7.5	7.2
2.36-inch rocket; HE-AT, M6A3	4		
76-mm gun, M1A2; APC-T, M62A1	4.7	4.4	4.1
76-mm gun, M1A1, M1A1C, M1A2, and 3-inch gun, M5, M7; HVAP-T, M93	8.4	7.3	6.2
90-mm gun, M1, M1A1, M2, M3; APC-T, M82 (2800 f/s)	6.4	6.0	5.6
90-mm gun, M1, M1A1, M2, M3; HVAP-T, T30E16 (3350 f/s)	11.2	10.0	9.0

10



DESCRIPTION AND DATA

**The Victim:**

The German Mk V Panther, as U.S. troops would refer to it was a formidable nut to crack. Its frontal armor was not only thick, but it was also well sloped to take advantage of basic trigonometry. At 5 ½ effective inches thick, while an M36 Jackson was one of the few tanks that could hope to penetrate it from the front, the thinner side armor at 1 ¼ inches thick was a much more attractive target even at very long distances.

**The Action:**

Buried in the 814th Tank Destroyer Battalion After Action Reports for the month of December, we find the following report regarding the action of one Lt. Rose.

Company B

1. 1 December found Company B in billets at Groot Haasdal, Holland, with the exception of the 2nd Platoon which was attached to Company C, which was in turn attached to CCR. This Platoon was in dug in positions between Prummern and Suggesterath, Germany.

2. About 1600 hours on 1 Dec Lt Rose, the platoon leader, was in the gunners seat of an M-36 experimenting with the controls so as to be familiar with them when he spotted a tank at a distance. Knowing that it was at a great range he sighted on it at a 4600 yard range which is the maximum range on the direct telescope sight. The first round was short, so he went up beyond the reticule and got an over, believing that the first shot was close he dropped down to 4600 again and got a hit. He fired 5 more rounds getting two hits and the tank exploded. This is the greatest range at which the organization has knocked out a tank by direct fire.

3. On 2 Dec the 1st Platoon (M-36) was attached to CCB and occupied dug in positions on high ground NE of Gereonsweiler to cover Linnich - Lindern road prior to daylight 3 Dec. These guns remained in positions until the night of 16 Dec when all units reverted to Bn control. The crews were changed at regular intervals to allow all men to get some rest and hot food.

4. The company moved with the battalion to Vielsalm and on 18 Dec (- 1 Plt) was attached to CCR and went into position in town of Petit-Thier where they remained until the withdrawal. They reverted to Bn control at Harze, Belgium on 24 Dec.

- 4 -

S E C R E T

To be thorough, we also pulled the Operations reports for the 814th from the archives and found even more details of the incident.

"B" Co. (Atchd Div Trs. 7 AD) Co. 654565 B1 945655 B2 654565 B3 654565  
(CP Locations at end of Period)

- 26-27 Nov. - Co B in billets in GROOT HAASDAL. Rcd 4 additional M-36 TD's 27 Nov.
- 28 Nov. 2nd Plat (M36 TD) atchd CCR moved w/C Co. 814 TD to CCR assy area vic. UBACH, GERMANY 1200. During night of 28-29 Nov. Pioneer Plat. Pcn Co., 814 TD dug positions for 2nd Plat. (3 M-36 TD's) in locations reconnoitered by plat. ldr. between PRUMMERN and SUGGERATH (89596500, 89506515, 89456540), and platoon occupied these posns. before daylight 29 Nov without incident  
Mission: to fire on targets of opportunity on high ground of BEECK (CP)
- 29 Nov. 2nd Plat remained in dug in and camouflaged posns. Enemy did not discover them as no direct fire received. Haze and smoke laid by friendly tps obscured target area. No firing.
- 30 Nov. About 1410 2nd Plat sighted MK V tank 3290 yards to the East behind a pill box (918666) #5 destroyer fired 2 rds HE and 14 rds APC, getting at least 3 hits and causing tank to burn. Friendly artillery falling in the vic. of a supporting Panther caused it to withdraw.

Artillery fire received in PRUMMERN at noon. No damage to TD's. 2nd Plat tied in by wire to 638 TD Bn, 113 Cav Sqn, and 207 FA (155 How) as AT warning net.

About 1555 hours plat ldr. personally destroyed MK V tank at 4600 yards with 9 rds APC, 2 rds HE. Panther smoked and finally exploded about 1630. 2nd Plat rld CCR, cleared posns at 1615; closed Bn Area 2015 hours.

2 Dec. 1st plat (M-36 TD) atchd C Co 814 TD, CCB moved to assembly area vic HUNSHOVEN at 0615, Ren for direct fire positions to be dug in on high ground NE of GERHONSWETLER to cover LINNICH-LINDEFN road was made and during night of 2-3 Dec positions were dug by security sections and pioneer plat. by daylight 3 Dec. 1st Plat w/2nd Plat, C Co occupied these positions.

3 Dec. No change. No targets appeared in 1st platoon field of fire.

This account expands on the original after-action report, it's identified as a

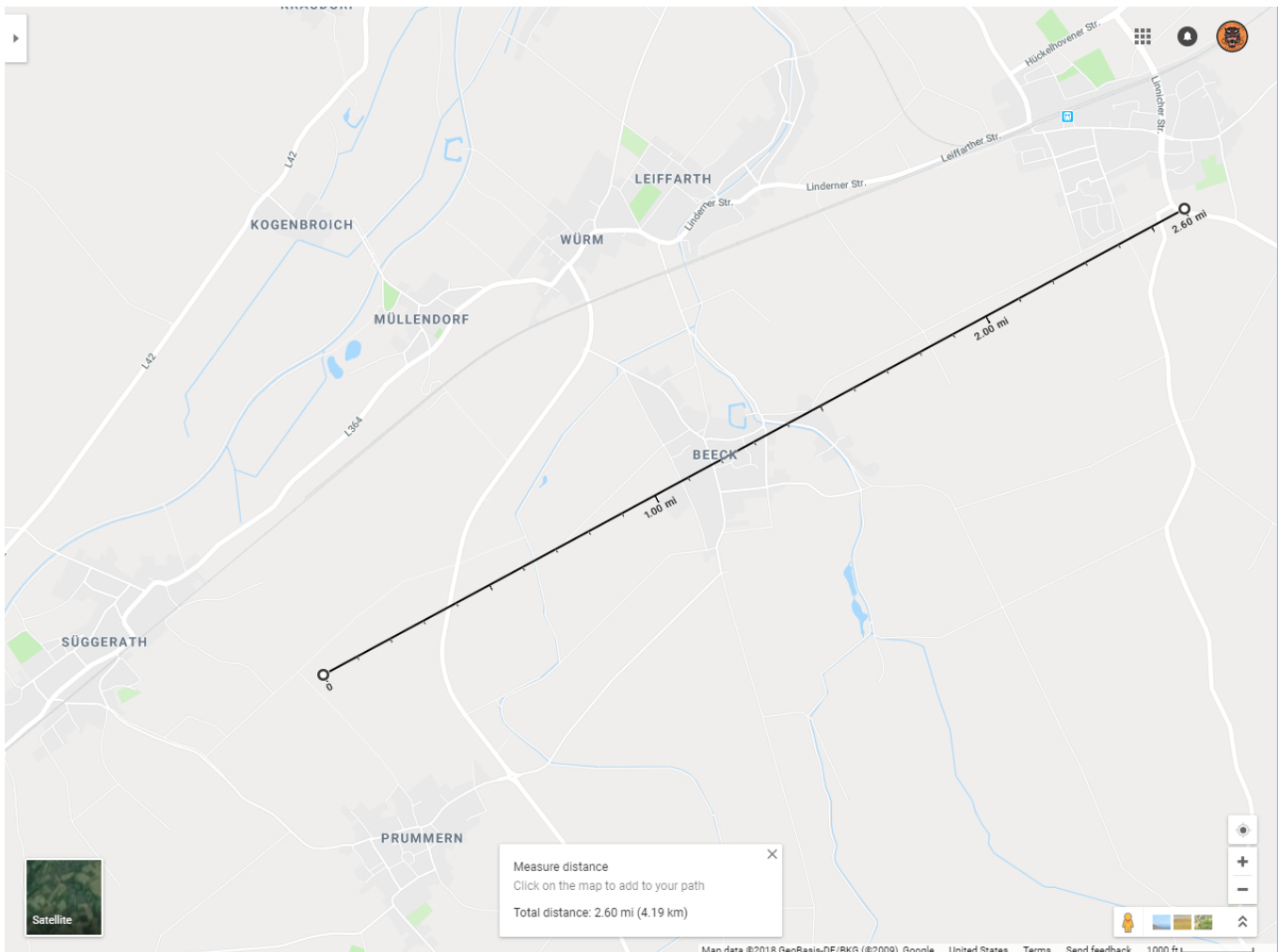
Mk V Panther, the range is reaffirmed, and the previous page provides their positions between Prummern and Suggesterath, along with grid numbers. As researchers this information is useful stuff, because we can reverse engineer those locations to give us a better overview of the battle.



Welcome to Suggesterath and Prummern Germany, just 35 miles East of Cologne and barely over the border from the

Netherlands! From topographical maps we can see why U.S. tank destroyers were likely detached and emplaced here, there's a high point there that would have a height advantage on the surrounding countryside with good lines of sight.

Because we have the grid numbers of where the tank destroyers were emplaced and the direction they were firing, "high ground ^NE of BEECK", we can plot out 4,600 yards and come up with a rough approximation of where the action took place. (89596500, 89506515, 89456540) Note, we must assume that the actual location could be anywhere in an arc close to NE of the tank destroyer platoon's location, as noted by the operational reports.



There's a highway running along the arc

at that range, which is worth considering when we note they were ordered to look for targets of opportunity.

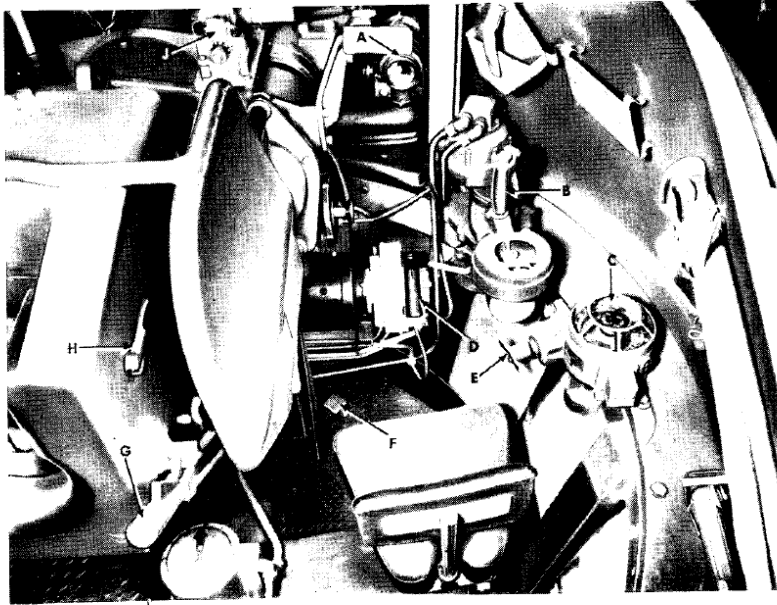


Modern Google Earth satellite imagery of the area.

The mechanics of the shot were simple. Lt. Rose was sitting in the turret familiarizing himself with the controls when he spotted the Panther at extreme distance. Firing two ranging rounds, he settled on 4,600 as the correct distance according to the reticles ranging grid, scored a hit on the third shot, and kept firing AP and HE until the tank was burning. This ultimately added one very long-range kill to the archives, according to the original account.

The Gunner's controls for an M36 Jackson.



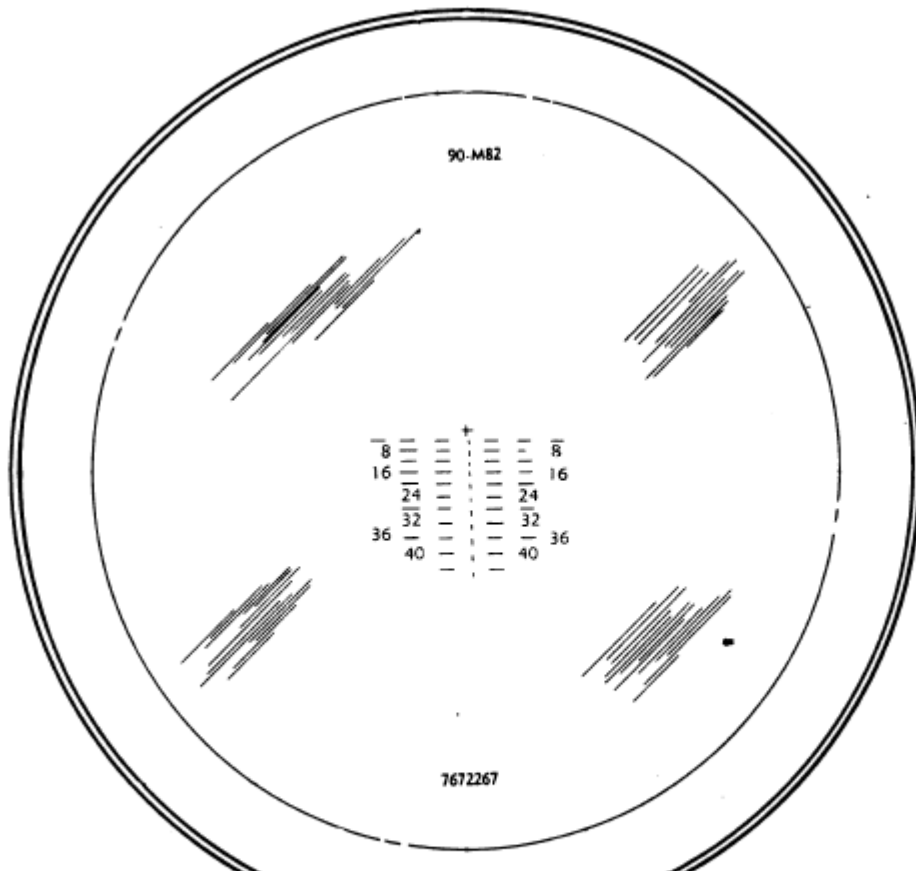


- A — TELESCOPE - T93E3
- B — MANUAL TRAVERSE CONTROL HANDLE
- C — AZIMUTH INDICATOR - M 18
- D — POWER TRAVERSE CONTROL HANDLE
- E — TURRET LOCK
- F — MANUAL FIRING PEDAL
- G — BREECH OPERATING HANDLE
- H — HAND COCKING LEVER HANDLE
- J — ELEVATION QUADRANT - M9

RA PD 59236

Figure 12 — Gunner's Seat and Controls

Pulled from the M36 Jackson manual, the reticle pattern shows the 4,600 markings as the longest range.





**Figure 205 – Reticle Pattern for Telescope M76F**

We also tried finding pictures of a knocked-out Panther near BEECK/LINDERN, but unfortunately, the archives haven't yielded up that nugget, yet... We'll keep looking though!

That is all.

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