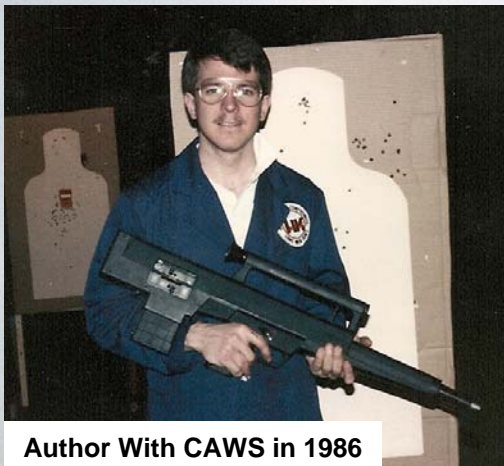


The HK Decades

By Jim Schatz

Compiled for the 2008 HKProFest



Author With CAWS in 1986





Background

Jim Schatz



- **Jan. 1986** - Hired on as Govt Sales Rep at Chantilly VA “Palace”
- **1987** – Dual role as Training Instructor
- **1989** – Manager, Caseless Technology
- **1991** – Manager, Federal Operations
- **2000** – VP Military Programs, Corp. Officer
- **May 2006** – Departed HK



Demo # 1 - Mount Weather, VA - 2006



Professional Accomplishments



- **G11 (ACR)
PM/Trainer**
- **US APM – M1014**
- **US PM – HKM4/
HK416 as fielded
with US SOF**
- **US PM XM8**
- **US PM XM320**
- **US PM MK23 MOD 1
(SCP, JCP, CP)**



US Developer for



- **USP** (started with FBI requirement for a 10mm handgun)
- **MP5/10 & 40** (started with FBI requirement for 10mm SMG)
- **MP5K-PDW** (resulted from need for compact SMG – TF160)
- **HKM4/HK416** (this need began in 1988 when select US SOF units began migrating away from SMG's for CQB – an “HK53 CQB” to compete with the M4 was a non-starter with HK management)
- **USP45T, USP9SD, USP45CT, HK45, P7M13SD** (user requests for smaller, lighter “MK23”)



US Developer for (cont.)



- **M4 Super 90/US M1014** (developed as a result of M1 S90 failure in DEA tests and JSCS requirement for accessory mounting)
- **MSG90 & MSG90A1** (US M24 contender - never submitted due to .300 Win Mag conversion requirement **that was never exercised**)
- **HK417** (first sample **made from an original Dutch AR-10** with op rod gas system added at HKO in > 30 days based on direct user request)
- **LEM** (resulted from failures in FBI, USCP, DEA, INS bids due to poor USP V7 DA-Only trigger pull)
- **PCAP's** (for XM8 – from HK05 “Negative Mounting Interface”) – @ 1lb weight, mass, front end, and \$300 cost reduction, and improved bore sight retention versus MIL STD 1913 rail systems



The 4 “Phases” of HK



Phase 1 Circa 1960/70
The Golden Years of the G3
(Roller-Locked Stamped Sheet Steel)



Phase 2 Circa 1980's
Hard Times Wake Up Call
(Move to Gas-Operated Polymer)



Phase 3 Circa 1990's
The Mauch Era
(Gas-Operated Stoner Multi-Lug, Polymer)



Phase 4 Circa Y2K
Uncertain Times Afoot
(Gas-Operated Stoner Multi-Lug Aluminum)





Phase 1 Circa 1960/70

The Golden Years of the G3



- HK heydays. **Daily production rate of 2,000 G3's possible.**
- **G3's sold to 80+ countries. More than 3M produced.**
- **Licensed facilities set-up in 13 countries.**
- **Family of HK roller-locked guns “matures” into various calibers, weapons.**
- **G11 studies, work commences**



1,000,000th G3 Rifle



Circa 1960/70



The Golden Years of the G3 (cont.)

- **Evolutionary 4.6x36mm HK36 work commences. Dies on vine due to terminal ballistics “pressure” (100K rounds loaded at Santa Barbara with HK head stamp – still there!) Basis for MP7 4.6x30mm round, and “spoon nose” projectiles (Wolfgang Katzmaier)**
- **Many of HK’s more talented designers on board (Rudi Brandl, Helmut Weldle, Norbert Fluhr, Manfred Guhring, Rudi Beckman – and Ernst Mauch) and Technicians (Gunter Schaeffer, Rolf Kreher, Sepp Klausmann) **all began their careers at HK during this period.****
- **First HK’s (MP5’s, G3’s, HK33’s, G41’s) arrive in the US through H&R, Saco, etc.**



Phase 2



Circa 1980 – Hard Times Wake Up Call

- 2,400 employees (heavy with excess staff, pensioners)
- Decentralized production (NLT 3 locations, a la WWII “decentralized production”)
- 1980’s failure to change with the times, listen to needs of user
- Too much “arrogance” towards non-roller-locked product - “Not invented here syndrome” *e.g. HK passed on Glock design?*



Circa 1980's Hard Times Wake Up Call (cont.)



**Example:
first GMW [GMG] –
single 40x53mm
HV rounds
inserted into
“drum” mounted
on rear of
weapon!)**

**“We’ll design it,
you sell it!”**





Circa 1980's Hard Times Wake Up Call (cont.)



- Great “delusional expectations” for US success with legacy products (P7 in XM9, HK53 in Port Firing Weapon and HK21/23 in SAW trials, MP5 in general military issue!)
- Resulted in however the creation of “The Palace” – *the right US image; wrong product mix*. 12 acres in prime “Virgin” territory in the 3rd fastest growing county in the US. 4 buildings planned to provide full HK production capabilities. Only one built (HQ's, Finally Assembly/Testing/Shipping). 3 under ground ranges (2 x 25, 1 x 100 meter), classified storage vault, imported German furniture, *even German trash cans!*



Circa 1980's Hard Times Wake Up Call (cont.)



- Not well positioned for transmigration to 5.56x45mm (HK33, G41 poor competitors to M16/M4)
- G11/Caseless “Distraction”
- Forced divestment in non-core products (Machine Tools, Electronics, Ranges)
- Active times in US R&D programs (SMG, CAWS, ACR, P11) & RFP's (M9, SAW, Port Firing Weapon)
- **MP5 keeping it afloat.** All the rage in US agencies and LE SWAT. But that begins to change in 1987/88 with SMG failures by US SOF units in combat. Age of the 5.56mm CQB weapon begins in US SOF units. MP5 days numbered. **No suitable HK candidate available.** Opens door wide for the M4 (fielded in 1994).



Circa 1980

Hard Times Wake Up Call (cont.)



- All items made at HK (springs, magazines, etc.). No longer.
- HK Inc. abandons “The Palace” due to extreme exchange rate change with DM and dollar. Moves into Sterling location.
- Beginning of the “lessening” of the US image.
- **Departure from core business** (90’s) (e.g. Heym, FABARM, logo items, ITD)
- Loss in the US of the Roller-Locked AR’s. US becomes HK Pistols and Benellis only (80’s & 90’s)





Circa 1980

Hard Times Wake Up Call (cont.)



- G11/ACR program stalled – NC becomes HITP.
US Program redirection to 100% pH over M16A2.
Impossible hill to climb. Program doomed!
- Missed opportunities –
WSG2000, HK53 CQB Weapon,
Caseless LMG, .45 ACP MP5





Phase 3



Circa 1990's - The Mauch Era

- **Transition from “Roller-locked Sheet Steel to Poly Based Gas Operation” and a strong focus on the needs of the customer**
- **BAE Systems (Royal Ordnance) purchases HK Gruppe. Staff reduced to 500 employees. (Increases to 800 later.)**
- **Management changes (Walter Lamp leaves, revolving door opens – 5+ HK Gruppe Directors in 6 yrs)**
- **G11 and ACR Programs “sunset” with German reunification (G36 vs East German AK74's use) and US ACR test conclusion**



Phase 3



Circa 1990's - The Mauch Era

- Production centralized at the “Lindenhopf” facility – present HK GmbH location (stamping plant retained in the town of Boll across the Neckar valley from Lindenhopf)
- “Distraction” business units sold. HK eliminated unprofitable Machine Tools/Electronics, Ranges divs.
- HK begins to “rise to the top” with new products, a new commitment to the customers (listening and making what they ask for) and strong sales worldwide, *with the reorganization direction and funding by new HK owners Royal Ordnance/BAE Systems.*



Phase 3



Circa 1990's - The Mauch Era (cont.)

- MP5 sales continue strong in US with “you name the agency” (Postal Inspectors, Federal Reserve Bank, BIA).
- Military however falls in love with M4, then federal LE then local LE. **Common thread.** G36 not configured to compete in US (unique magazine, attachment points, controls, polymer “fear”).
- US Pistol sales lacking. FBI 10mm Auto requirement opens the door for a new “US Pistol” (USP) with M1911-style feel & controls; but with modern materials. RO provides support and funding. **Germans insist the USP will sell only in the US.**
- First USP's in .40 S&W developed in early 1990's. **Leads to largest HK issue weapon “sale” in the US** with continuing sales to INS/ICE/Border Patrol/DHS of > 60,000 units (USP40C, P2000, P2000SK). **Many other countries buy “the US pistol”!**



Phase 3



Circa 1990's - The Mauch Era (cont.)

- Ernst Mauch promoted to Head of Technical Services (R&D, Production). With the support of Royal Ordnance funds he leads the firm on:
 - Facilities modernization
 - Technique modernization
- New Products and Sub Systems developed. Most of those that exist today; *arguably HK's finest "suite" of weapons ever*. USP, G36, GMG, MP7, AG36, MG4, P2000/SK, P3000 (P30), HK45/45C, HK416, HK417, LW 7.62mm MG (HK211), P46, SA80A2, SA80KA2, GPMG"A2", **UMP?**, **SLB200?**, etc.





Phase 3



Circa 1990's - The Mauch Era (cont.)

- New HK Test Evolutions Started (Yuma "Desert" Testing)

Yuma MG4 Testing – 102K Rounds on a single barrel!





Phase 3



Circa 1990's - The Mauch Era (cont.)

- Mid-life Improvement Programs
 - >L85A2/L86A2
 - “Spend 1 DM on this and I’ll fire you!”*** - RO CEO Ernst’s “Black R&D Money”, his vision, customer commitment and courage made this happen –
arguably HK’s most successful weapons program in 20 years!
 - >HKM4 (USSOCOM PMOD program “answer”)
 - >UK GPMG Mid-life Improvement
- New US R&D Programs (MK23 MOD 0, and OICW) later open the “XM8 door” and “XM320 door”.



Phase 4



Circa Y2K – Uncertain Times Afoot

- Staffing at HK GmbH remains @ 600 persons
- G36 and SA80 contract deliveries remain strong – **but concluding.** **HK needs another multi-year program to keep the expanded staff working.** In enters COL(P) Moran and PEO-S, and “XM8”.
- OICW contract is “moded” to expedite development of the OICW 5.56mm “KE module” to become a family of 5.56mm weapons for general US Army issue. Weapon becomes “XM8”. A strong handed attempt to “force” XM8 through “the system” quickly draws fire from within DA, Industry and USSOCOM. The “German made” rifle as “designed by a General” is maligned by detractors (many of which have never seen, handled or fired the weapon) as having no rails, is unreliable and unnecessary – all untrue. ***Ironically the combat Inf Div soldiers loved the XM8’s during demos!*** **In the end @ \$50M is spent to develop it with nothing to show for the troops or taxpayers.**



XM8 Myths & Lies



Very first XM8 Compact Carbine. Highly modified G36C. Fully compliant with “Specs” yet rejected by COL(P)/BG Moran – *“looked too much like a German G36!”*



XM8 Myths & Lies (cont.)



First XM8 Baseline Carbine. Note aluminum **Picatinny rails** and **sliding stock**, mostly standard G36 receiver, trigger group, G36K flash hider and standard magazine. Note AG36 mounting hole and 2-piece free-floating rail hand guard.



XM8 Myths & Lies (cont.)



**First XM8 Baseline
Carbine with G36 stock**



**First XM8 Baseline Carbine
with XM8 sliding stock**



XM8 Myths & Lies (cont.)



***Artists' Rendering
The 1st "Stylized" XM8***



XM8 Myths & Lies (cont.)



XM8 after the “Udelhoven” treatment (Audi stylizing). Baseline Carbine with model shown with 12.5” barrel, ISM mock-up. In “flat dark earth” color.



XM8 Myths & Lies (cont.)



Note absence of
“XM8” markings



MWSF (Modular Weapon System
Family) proposal samples. Spiral 3
Guns with Picatinny rails added.



Note add-on Picatinny
rail adapters in the PCAP's
on the Baseline Carbine
(middle photo) and HK QD
PCAP gangster grip on
Compact Carbine (below)



XM8 Myths & Lies (cont.)



The “last” XM8’s! The SCAR test samples (XM8-R’s)



Fully SCAR L compliant.
Delivery rejected by USSOCOM 5 days out from SCAR proposal delivery date to the NSWC Crane!



XM8 Myths & Lies (cont.)



**XM8-R Baseline Carbine with 14.5" barrel (SCAR Light candidate)
HK AG-C/GLM (SCAR EGLM) candidate mounted. Note KAC/
SOPMOD QD Sound Suppressor flash suppressor front QD sling
swivel on rifle.**



XM8 Myths & Lies (cont.)



The first and the last.
And how many so-called
“experts” have insisted the
XM8 did not have Picatinny
rails? *Fools!*

First XM8
prototype



It was that ignorance and arrogance
that doomed the XM8 program to
failure and prevented the troops from
getting a new weapon system just
when it was most needed.

SCAR
solicitation
test sample
“XM8-R”



**In the end the troops who loved
the XM8 were the biggest losers!**



XM8 DMAR with AMO sight during Arctic testing in Alaska



Phase 4



Circa Y2K – Uncertain Times Afoot (cont.)

- HK was able to design, test, and deliver the first 20 “Spiral 1” XM8’s to APG in < 120 days after the receipt of the final specs. It normally takes NLT 18 months to develop and test a new weapon. (SCAR is in its 3rd year of development)
- Many differences in XM8 versus G36 contrary to popular opinion.
- “Spiral 3” weapons “out test” everything else with 18,000 MRBF/S at APG (and SCAR L, HK416 [4X] and M4 [7X] during 2007 ATEC Extreme Dust Tests).



Phase 4



Circa Y2K – Uncertain Times Afoot (cont.)

- **New ownership courted to “relieve” management from RO/BAE Systems control.**
- **Leads to decisions on Corporate “separation”, no AR sales in US, no support for HK416 (then HKM4) in SCAR competition (“XM8-R’s [Rails]” samples rejected by USSOCOM 5 days out!).**

**HK missed out on the most important US rifle competition in 40+ years (SCAR) while it possessed 3 of the worlds best, most innovative assault rifles!
(G36, XM8, HKM4/HK416)**



Phase 4



Circa Y2K – Uncertain Times Afoot (cont.)

- In the early 2000's HKD had:
 - THE US Army contract for the next generation assault rifle (CC, BC, DMAR) *for 600,000 to 1.2M units*
 - Won the XM320 contract (RFP by in-house staff only) *to replace 88,000+ US M203's, plus FMS sales*
 - Helped compile the specs for the MK23 MOD 1 (later SCP, JCP, CP) and had the HK45 two years before the rest of industry
 - The 40mm GMG (best COTS AGL) and best op rod AR (HK416) in service with select US SOF units (replaced MK19 and M4)
 - Won the largest pistol contract in the history of US Law Enforcement yet *in 2005 Ernst Mauch was forced from the company!*



The “Green Saloon”





The “Green Saloon” (cont.)





Rare HK “Pattern Room” Photos



“GR” series

Rare HK “Pattern Room” Photos



Early CETME's, G3 prototypes



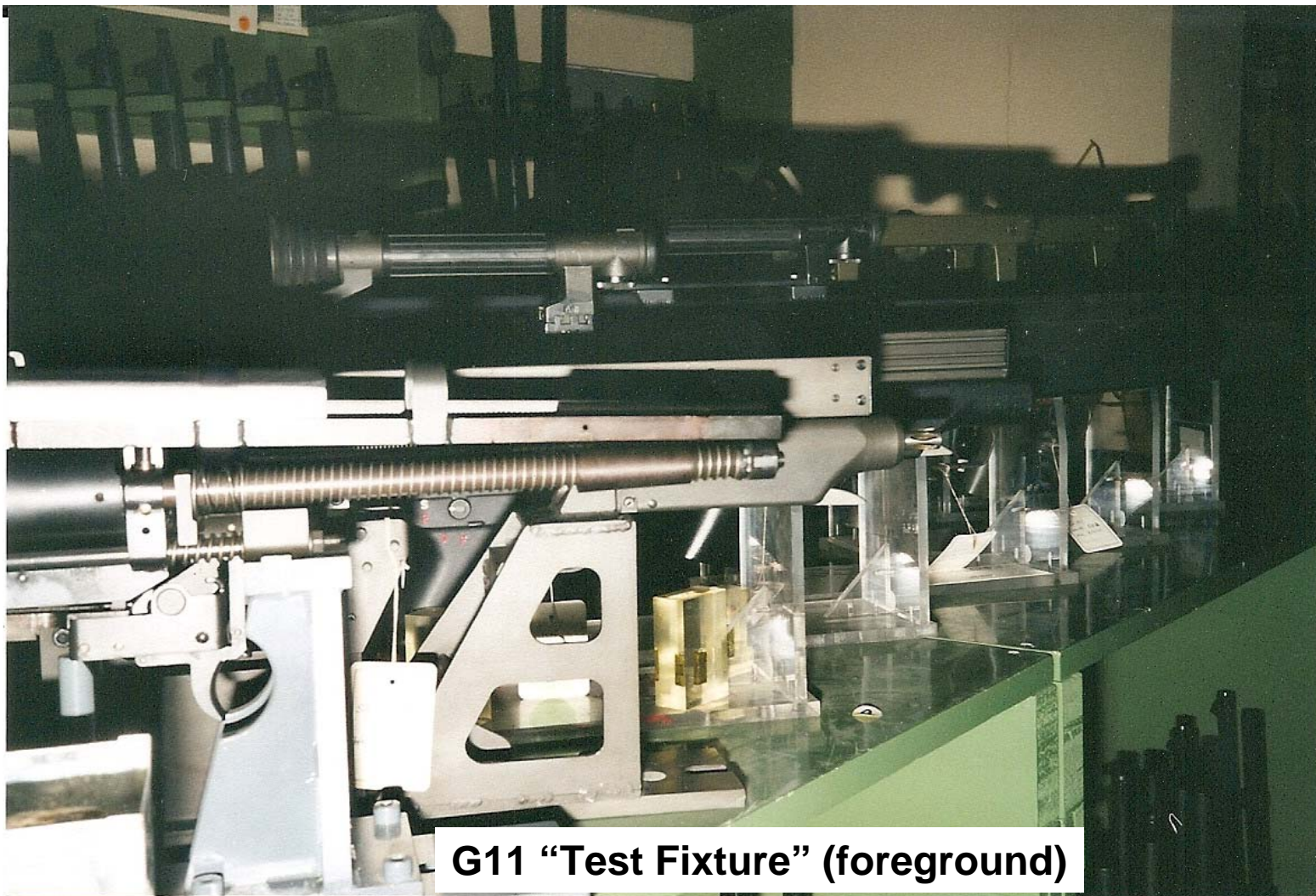
Rare HK "Pattern Room" Photos



G11 Lineage



Rare HK "Pattern Room" Photos



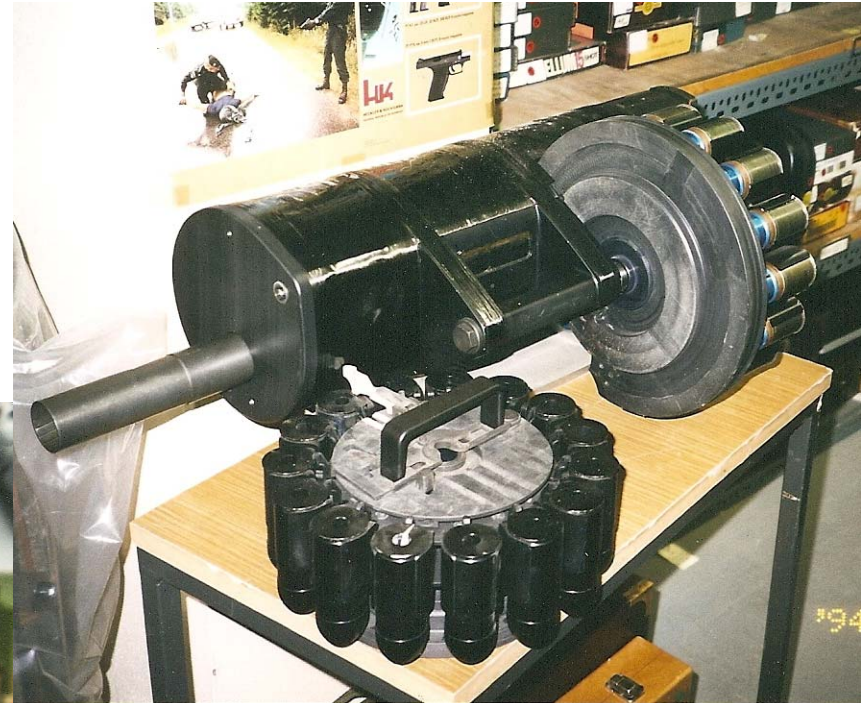
G11 "Test Fixture" (foreground)



Rare HK "Pattern Room" Photos



First GMG Belt Feed Test Fixture



1st GMG Prototype (drum feed)



Rare HK “Pattern Room” Photos



PSG1 Match Rifle



HK54A1 with Drum



Rare HK “Pattern Room” Photos



HK32K – 7.62x39mm Russian



HK64 and Saudi "Golden Gun"



HK64



MP5 Golden Gun

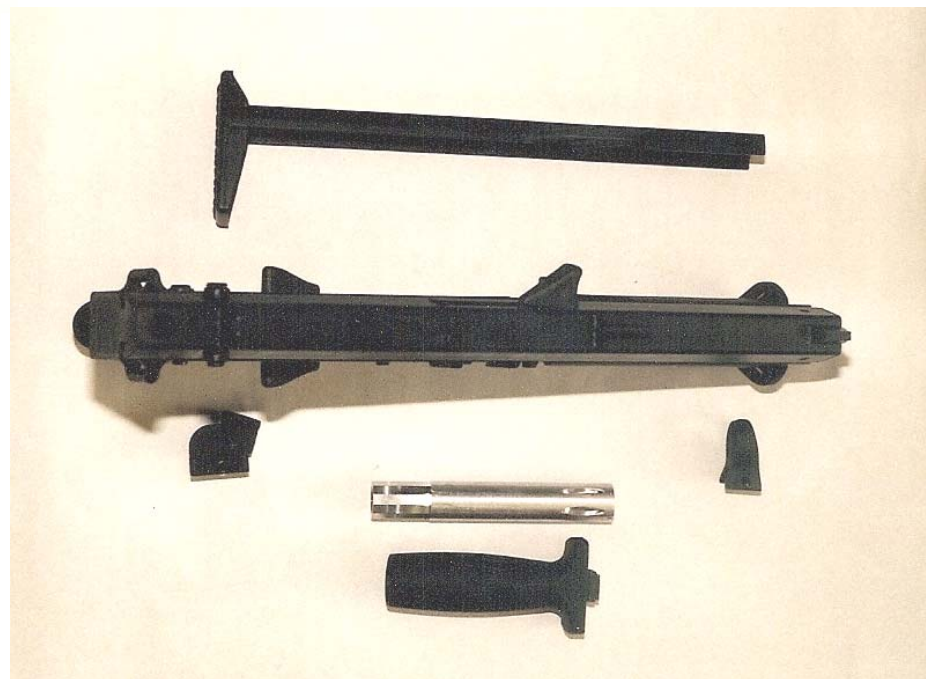


MP2000





MP2000 (cont.)





PSG's



With Ti matrix test barrel





SL9SD – 7.62x37mm





Very First HKM4 and GLM Prototypes





First HKM4 Op Rod Gas System





HK1911

(note seal in lower left corner)





Oberndorf am N. and HK



Aubert Duval barrel steel blanks



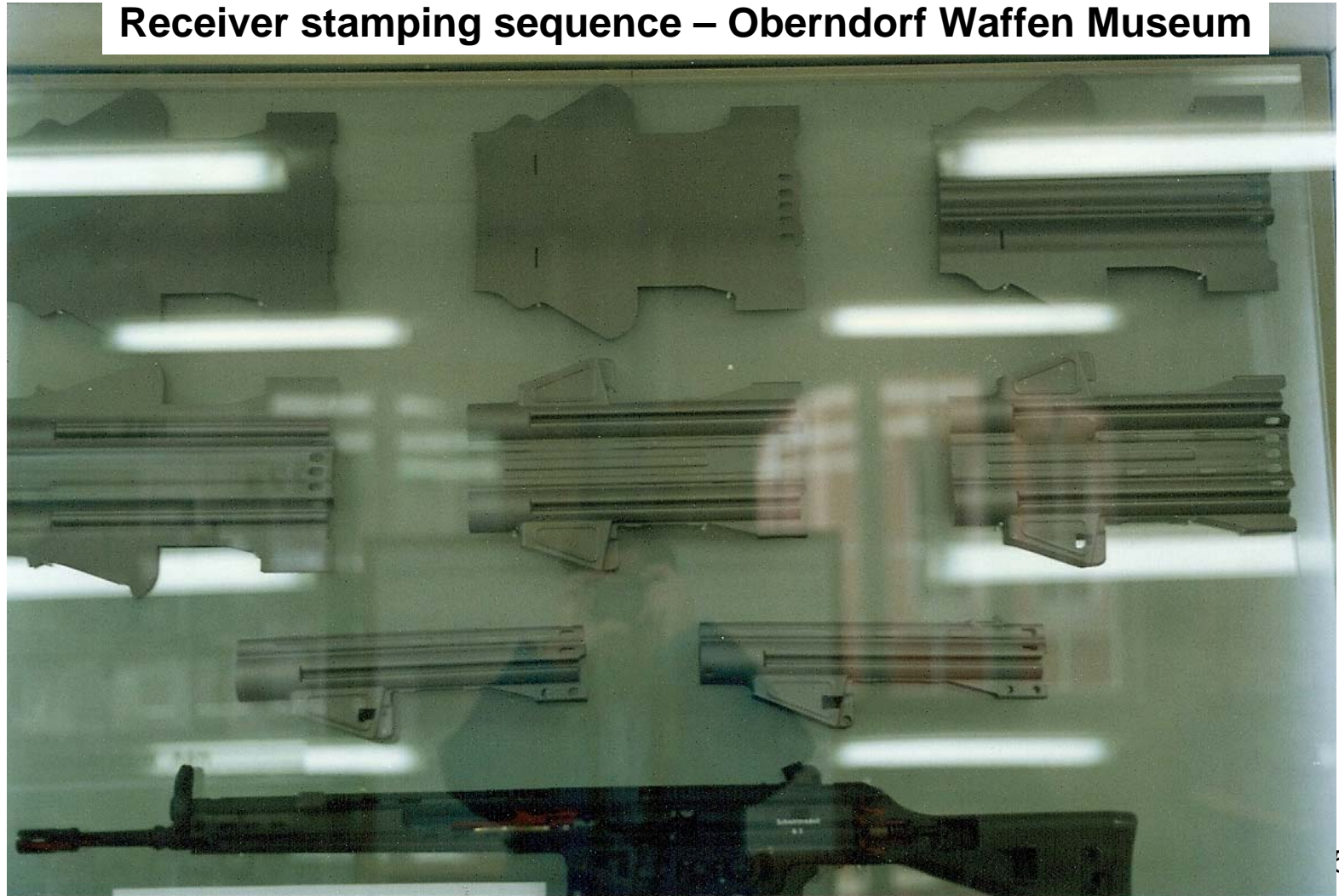
Volker Kurtz and the author check the many parts bins on the factory floor



Oberndorf am N. and HK



Receiver stamping sequence – Oberndorf Waffen Museum



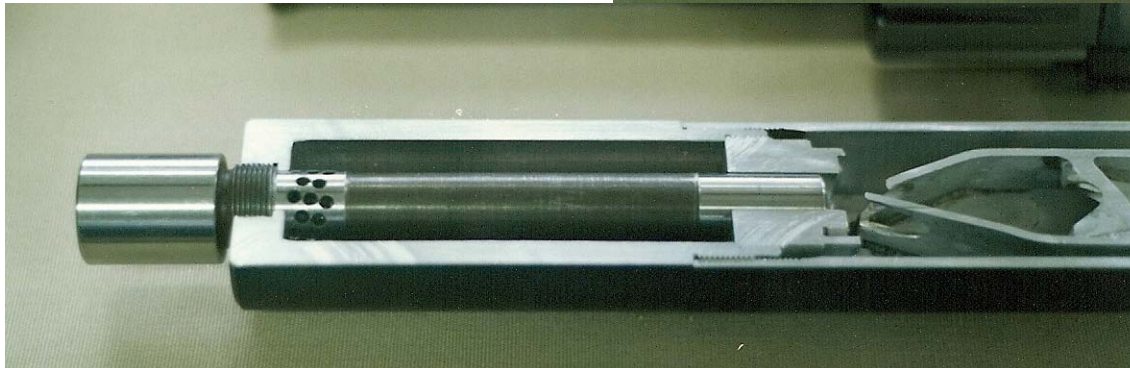
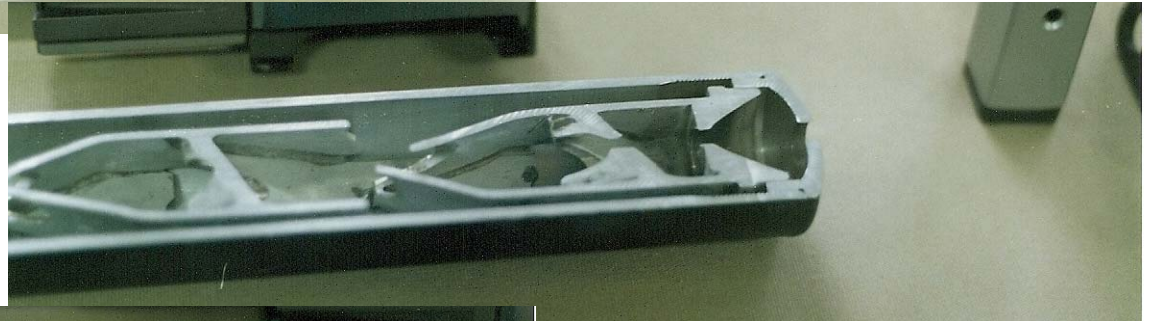


Oberndorf am N. and HK



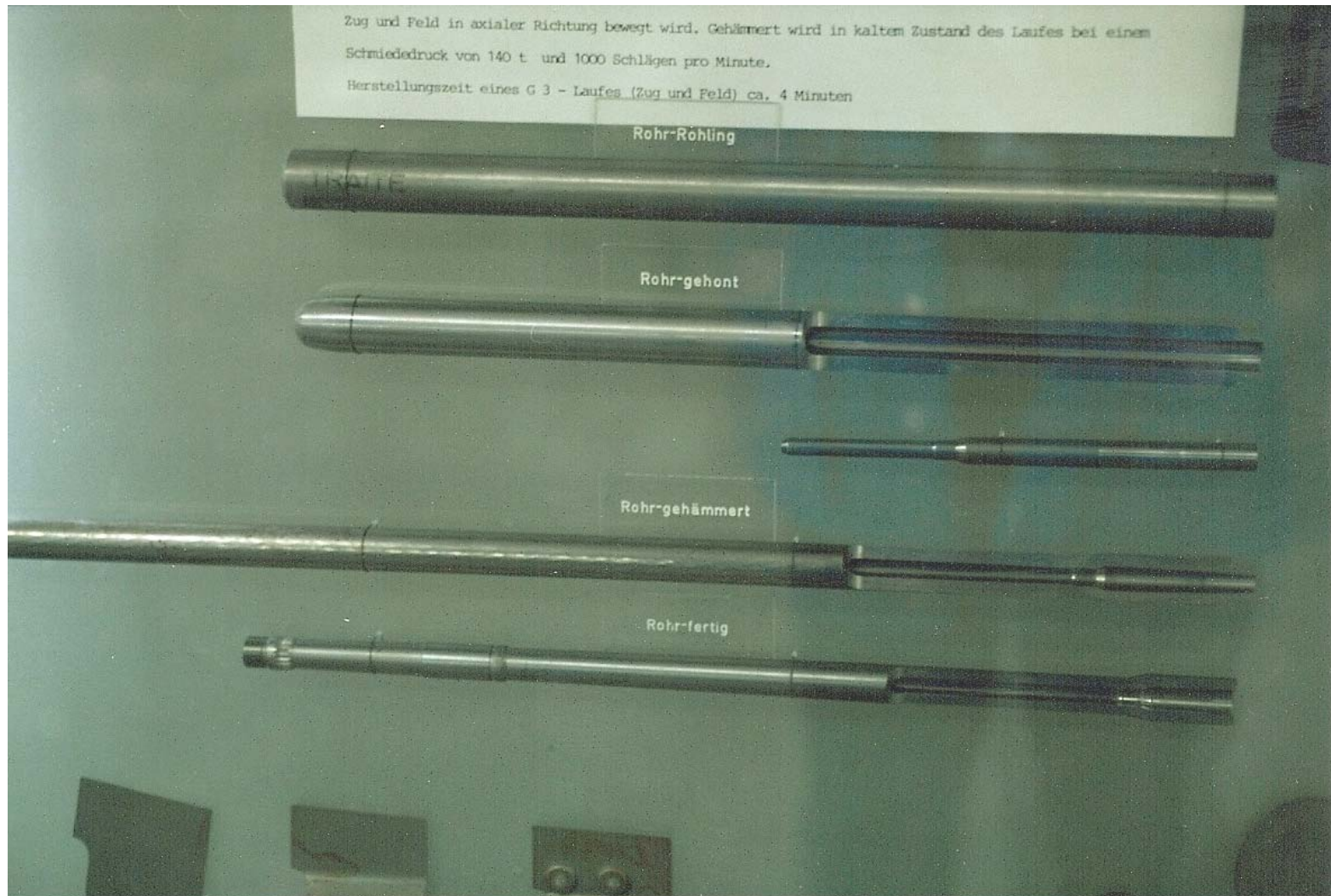
Schnittmodell eines Schalldämpfers für die MPi 05

**MP5SD Suppressor
Cutaway**





HK Barrel Production

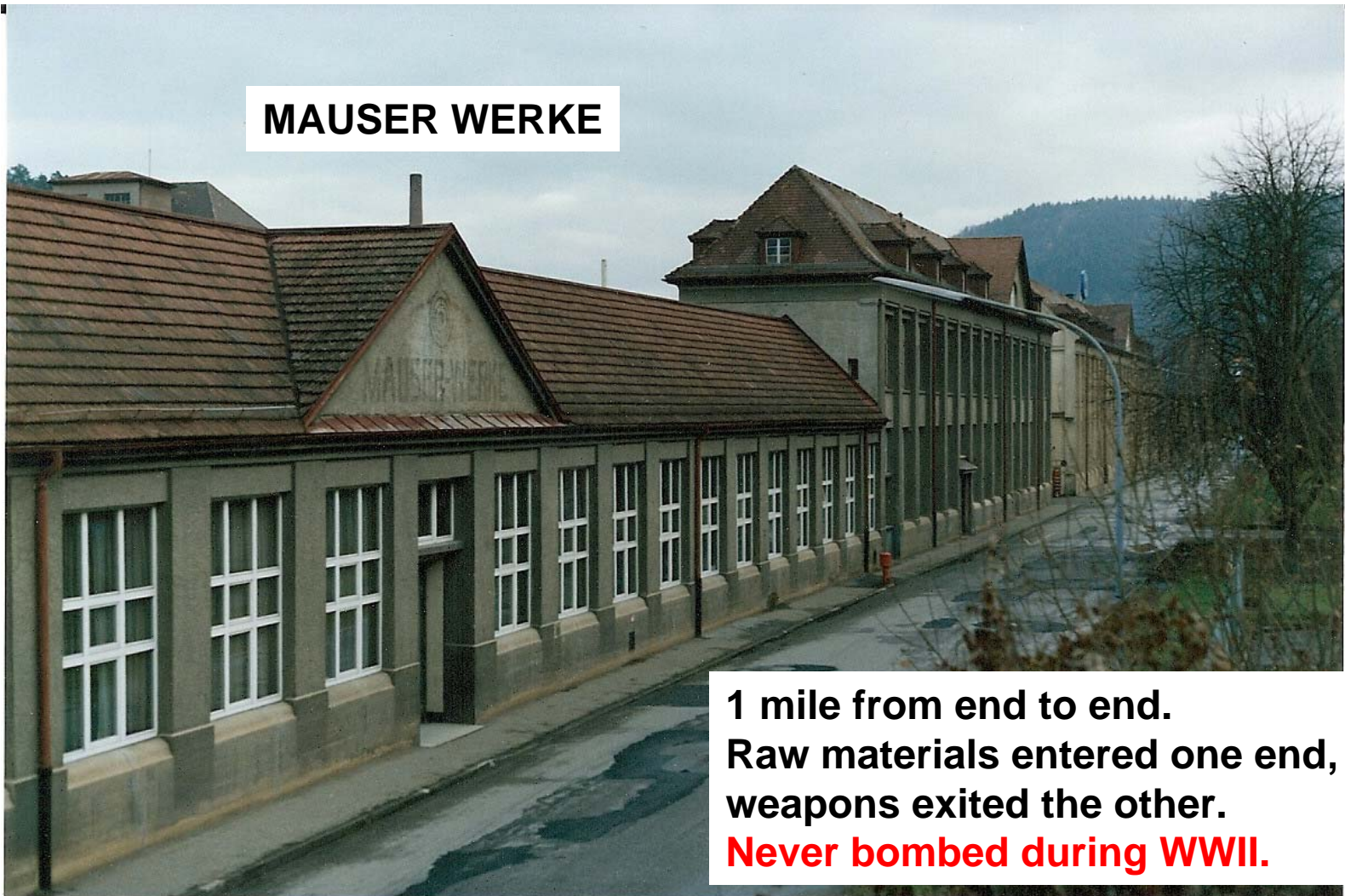




HK's Oberndorf "Neighbor"



MAUSER WERKE



**1 mile from end to end.
Raw materials entered one end,
weapons exited the other.
Never bombed during WWII.**



Oberndorf am N. and HK



Neckar River



Oberndorf am N. and HK



HK GmbH - 1995



HK GmbH - @ 2003





Oberndorf am N. and HK



Black Forest



Neckar Valley



The Lineage – Oberndorf Waffen Museum

www.waffenmuseum-oberndorf.de



StGw44

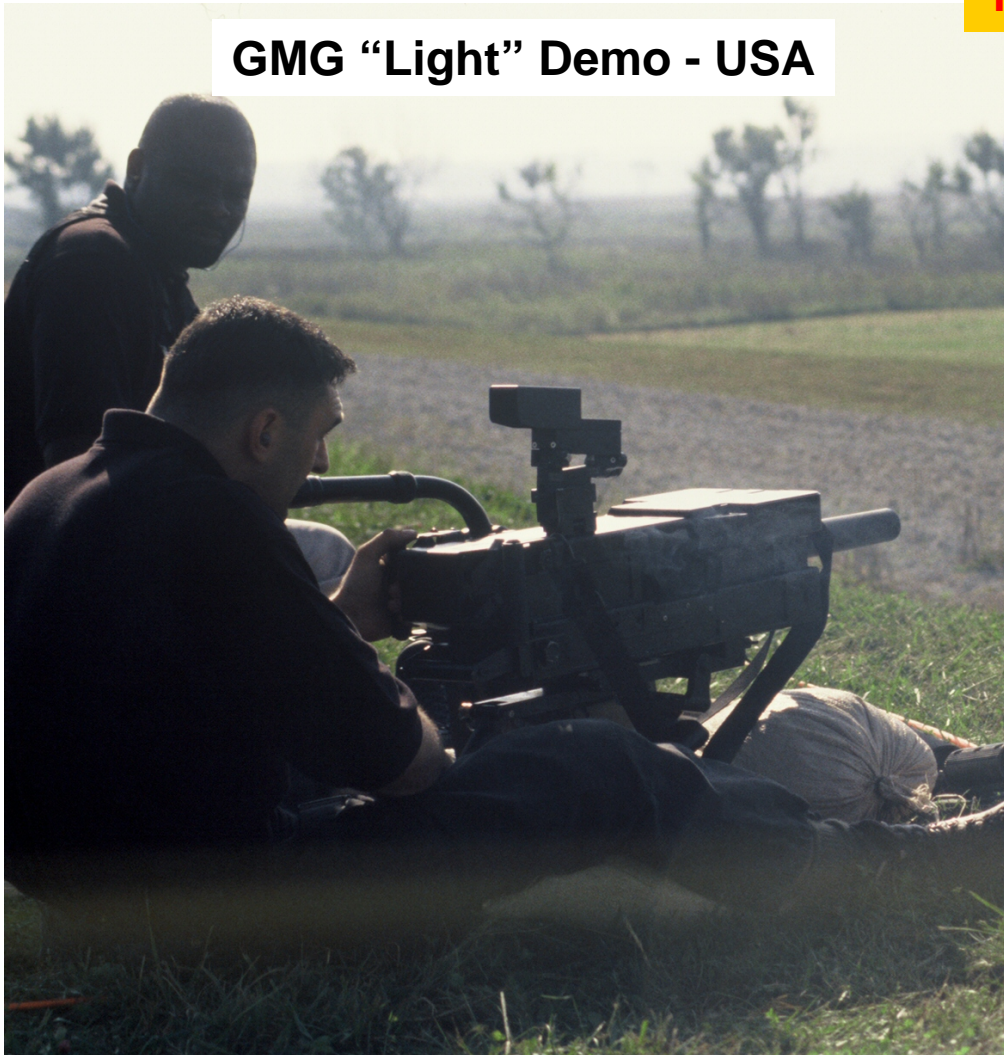
Early CETME



W.A.S. (Wild Ass Shooting)



GMG "Light" Demo - USA



Yes! Robert Hirt sling firing a GMG!





W.A.S. (cont.)



HK21E/M13 Belt Pull Demo
1 demo of @ 475



Sepp and new HK Owners in Yuma



5 shot group, 100 m, red dot sight



W.A.S. (cont.)



Single MG4, Single Barrel!



HK Cold hammer forged barrels and cooling on the range – *no problem!*



W.A.S. (cont.)



**Wesley Snipes during
“Demolition Man” filming**





W.A.S. (cont.)





The best HK?





Thanks for your Attention!

