

Twenty years ago, the Air Force activated its first Ground Launched Cruise Missile wing in Europe.

The Short, Happy Life of the Glick-Em

By Peter Grier



The Ground Launched Cruise Missile, with its combined transport and launch vehicle shown here, had a short operational life but proved to be an effective counter to Soviet SS-20 intermediate-range missiles.

ON JULY 1, 1982, USAF's 501st Tactical Missile Wing was activated at RAF Greenham Common in Great Britain. That step—taken 20 years ago this month—marked the start of what would prove to be a major political upheaval in Europe. Noisy protesters came early for the arrival of the wing's first batch of Ground Launched Cruise Missiles. However, US troops brought them in late at night, as the protesters slept.

Flash forward 18 months, to Dec. 12, 1983. Greenham Common on that day was besieged by thousands of women anti-nuclear activists. They were chanting, singing, and blowing trumpets in protest of the presence

of the nuclear-tipped cruise missiles. These anti-nuclear zealots even briefly penetrated a perimeter fence protecting the base against intruders.

A makeshift "peace camp" had been established outside the main gate. Resident activists vowed to live there indefinitely in an attempt to force NATO to abandon its planned deployment of several hundred BGM-109G GLCM (pronounced "glick-em") weapons and the US Army's nuclear-tipped Pershing II ballistic missiles.

The burgeoning Western anti-nuclear movement did not regard these new weapons as a much-needed counter to the Soviet Union's SS-20 intermediate-range missiles. For the protesters, they were a terrifying sign

of the Western alliance's determination to be able to fight and win a nuclear war, if necessary. In short they were, by definition, bad.

"They don't add to our security, but [they] increase our insecurity," asserted Bruce Kent, who was at the time the head of Britain's Campaign for Nuclear Disarmament.

Now They're Gone

Today, all of the GLCMs are gone, withdrawn from Greenham Common and every other NATO base in Europe and dismantled. The huge M.A.N. (Maschinenfabrik Augsburg-Nuernberg) diesel tractors no longer haul the GLCM canisters around the surrounding Salisbury Plain on mid-

night deployment exercises, as they once did. The protests are no more.

However, the demonstrations had nothing to do with the removal of the weapons. Contrary to the protesters' beliefs, the GLCMs (and their strategic cousins, the Pershing IIs) did not destabilize the West. In fact, NATO's deployment of the weapons in the face of popular unrest had a destabilizing effect in the other direction. The West's ability to stand firm and carry out the deployments in the face of nerve-wracking Soviet threats convinced the Kremlin that NATO could not be intimidated.

It was this realization that led to the opening of the more serious Intermediate-range Nuclear Forces (INF) talks and an INF treaty that eventually removed an entire class of nuclear arms from the superpower arsenals—a major step in the weakening and ultimate dissolution of the Soviet Union itself.

The GLCM existed for less than a decade. Because the weapon system had such a short operational life, some Air Force members had the unusual experience of being on hand at both the beginning and the end. The happy circumstances of its demise also gave many GLCM personnel the feeling that they had helped shape world events for the better.

"We thought GLCM held a very important place in history," said retired Col. Doug Livingston, former commander of the 868th Tactical Missile Training Group. "It was one of the key elements that helped win the Cold War."

Throughout the tumultuous years of US-Soviet INF negotiations, the Army's Pershing II tended to get the most media attention. It was big, powerful, accurate, and fast-flying. It would have been the weapon of choice to strike time-sensitive Soviet targets in the event of all-out war.

In some ways, however, the GLCM was the system most feared by the Soviets. For one thing, they were to be more numerous than the Pershings. Plans called for deployment of 464 cruise missiles in Belgium, Britain, Italy, Netherlands, and West Germany. By contrast, NATO forces were to receive only 108 Pershing IIs, and they would be based only in West Germany.

The GLCMs also represented an area of NATO technological superiority. At the time, Soviet weapons-



Anti-nuclear protesters feared GLCMs would destabilize the West. By 1981 they established a permanent "peace camp" outside the main gate of Greenham Common.

makers were unable to duplicate the sophisticated guidance systems of US GLCMs.

The GLCM deployment of the 1980s had roots in political events of the 1970s. By the middle of that decade, it had become clear to NATO planners that the Soviet Union intended to undertake a concerted effort to modernize its Intermediate-range Nuclear Force targeted on NATO Europe.

The SS-20 Threat

Until that time, the most threatening weapons aimed at Western Europe were the single-warhead SS-4 and SS-5 theater missiles, based at vulnerable fixed sites. In 1977, however, Soviet forces began to field the new SS-20, a missile fitted with three accurate, independently retargetable warheads. Worse, its launcher was highly mobile, allowing their dispersal at times of tension. Each launcher was equipped with refire missiles. This signified an increase in Soviet firepower on a tremendous scale.

By 1979, Soviet forces had fielded SS-20s in significant numbers. In that year, NATO political leaders agreed on a historic "dual track" approach to solving the problem. One track was political: The West would attempt to engage the Soviets in serious talks aimed at curbing the INF forces of both sides. The other track was military: NATO would deploy in Europe hundreds of GLCMs and Pershing IIs unless Moscow agreed

to stop and then reduce its SS-20 deployments.

For the Western alliance, the matter went far beyond the need to have equivalent forces. NATO's worry was that, in nuclear parlance of the time, the Soviet buildup would "decouple" the defense of Europe from the US strategic nuclear arsenal. In other words, Moscow might believe it could threaten Western Europe's high-value targets—ports, rear-echelon areas, and the like—with SS-20 nuclear attack and not provoke US retaliation because it was not threatening US strategic weapons or US soil.

Deployment of NATO INF forces was an attempt to make the West's nuclear deterrent more credible, by providing commanders nuclear options short of all-out retaliatory war. Western Europe's leaders, in particular, were eager to show that the continent was still shielded by the US strategic nuclear umbrella despite the existence of the SS-20 threat.

Harold Brown, the Secretary of Defense, told Congress in a 1980 message: "We do not plan to match the Soviet program system by system or warhead by warhead, which might be construed as an attempt to create a European nuclear balance separate from the overall strategic relationship. ... Instead, we seek to strengthen the linkage of US strategic forces to the defense of Europe."

NATO planners chose to deploy a pair of weapons to counter the So-

viet SS-20 because the GLCM and the Pershing II had distinctive, complementary characteristics.

The new Pershing was a follow-on to the existing, shorter range Pershing IA. As a ballistic missile, it offered a high assurance of penetrating any Soviet defenses. Its speed enabled it to threaten time-sensitive targets. It was designed to take advantage of the existing Pershing IA infrastructure in Europe.

The smaller GLCMs were projected to have lower life-cycle costs. Their longer range—1,550 miles—allowed them to be based farther from the front lines. This increased their survivability and—not incidentally—allowed more allied nations to accept deployments on their territory.

As Brown put it: “The deployment of a mixed ballistic/cruise missile force hedges against the failure of one type of system, provides the flexibility to select the best weapon for a given mission, and greatly complicates enemy planning.”

Naval Origins

The Air Force’s BGM-109G GLCM, nicknamed Gryphon, did not begin life as an Air Force system. It was a modified version of the Navy’s Tomahawk sea launched cruise missile. Development began in 1977.

Because of the political need for the system, the GLCM passed rapidly from concept through development, but its progress was not al-

ways smooth. Engineers found that they needed to do much more than simply slap a Tomahawk on a trailer and hand the driver a portable radio.

Development of the Transporter Erector Launcher and associated infrastructure such as the launch control center was a task that proved to be far more complicated than first imagined. Crashes of test vehicles also caused the Joint Cruise Missiles Project Office to decertify the missile on two occasions.

The finished production missile was almost 21 feet long, with its stubby wings stretching out to about nine feet. Top speed was just under Mach 1. The Convair Division of General Dynamics was the prime

contractor. McDonnell Douglas made the guidance system, and Williams International/Teledyne provided the small F107 turbofan power plant

GLCMs were stored in protective aluminum canisters with their wings, control fins, and engine inlets retracted. In a crisis, the canisters would be loaded onto Transporter Erector Launchers—giant 78,000-pound tractor trailers. The TELs and their support vehicles would be deployed to secret, presurveyed launch sites in remote areas of the host country. Coordinates for the launch location, along with weather information, were then to be entered in the missile’s flight computer. Two launch officers would have taken 20 minutes to en-



USAF photo by TSgt. Bill Thompson



In a crisis, the GLCM system would be deployed to secret, presurveyed launch sites. At top, a camouflaged GLCM unit was hard to spot. Here, a GLCM was fired during a test launch in the US.

ter launch codes received by satellite. Once authorized, the officers would have simultaneously pressed “execute” buttons.

GLCMs were blasted out of their launch tubes by a solid-fuel rocket booster. Once clear of the canister, the booster was jettisoned and the missile’s wings, control fins, and engine inlet would snap into place. The turbofan engine then took over and powered the missile on a precise, preprogrammed route to a target hundreds of miles away.

The GLCM was intended to overfly friendly nations at high altitudes to save fuel. Approaching hostile territory, it would then drop to an altitude of about 50 feet above ground level and its terrain-following guidance system would steer it toward its target. On final approach it would swoop upward to avoid any physical

barriers and then plunge down onto the designated impact point.

Likely targets would have been second-echelon fixed sites such as the Kronstadt naval base or the Severomorsk headquarters of the Soviet Northern Fleet.

Source of Crews

On July 1, 1981, the 868th Tactical Missile Training Squadron, Davis-Monthan AFB, Ariz., became operational. The 868th was the only US-based GLCM unit and the source of the crews that staffed the forward deployed wings a year later.

Many GLCM personnel were missileers who switched over from ICBM duty. Coming from an environment that focused on fixed-site systems, many found the mobility of their new weapon, and all the bouncing about the countryside that training entailed, both strange and exhilarating.

"It was new to everybody," said Livingston. "That's what made it so exciting." Livingston served as a GLCM test official and then training group commander. He can claim to have been involved with the launch of the first Gryphon as well as the destruction of the last one under the INF accord.

The six overseas NATO units, in order of their deployment, were as follows:

- July 1982, 501st Tactical Missile Wing, RAF Greenham Common, UK
- June 1983, 487th TMW, Comiso AB, Italy
- August 1984, 485th TMW, Florennes AB, Belgium
- April 1985, 38th TMW, Wiesbaden AB, West Germany
- December 1986, 303rd TMW, RAF Molesworth, UK
- August 1987, 486th TMW, Wonsdrecht AB, Netherlands

Comiso Air Base, located on Sicily, was far removed from Italy's large population centers and thus was somewhat insulated from the anti-nuclear movement then sweeping Europe. All of the other GLCM bases were, to some extent, subjected to political protests—sometimes intense ones.

The permanent Greenham Common peace camp was probably the most famous concentration of protesters. The peace camp, a semiorganized band of squatters who lived outside the facility's gates for years, was a con-



USAF photo by Sgt. David Jablonski

Formal talks began between the US and USSR in 1981, but the INF treaty wasn't signed until 1987. The US then began removing GLCM systems from Europe. Here, a unit is loaded aboard a C-5A for the trip back to the US.

stant irritant to base officials. Anti-nuclear protesters occasionally would breach exterior defenses and reach logistics buildings. They always seemed to know when GLCM units would be leaving the base to practice launch deployments on Salisbury Plain.

Not that such convoys were easy to hide. A full deployment consisted of more than 20 vehicles, most of which were filled with security guards and logistics support for the TEL and the mobile launch centers.

"It was tough," recalled Livingston, then the GLCM wing's deputy commander for logistics at Greenham Common. "We had to 'protester proof' the vehicles."

That meant, for instance, installing safety wiring over the gas caps to prevent the insertion of foreign material or protecting parts of the vehicles against the ever-present paint bombs thrown by protesters.

"They may have slowed us down a bit, but there were never any serious accidents," said Livingston.

Fringe and Freeze

Greenham Common residents were the colorful fringe of the anti-nuke movement. Protests were often scheduled to coincide with solstices, equinoxes, and other astrologically significant events and took on overtly pagan characteristics. The camp survived for years following the withdrawal of the last GLCM. It was maintained as a permanent protest against nuclear weapons everywhere.

At one point, its residents petitioned the local council to have the camp declared a historic national site.

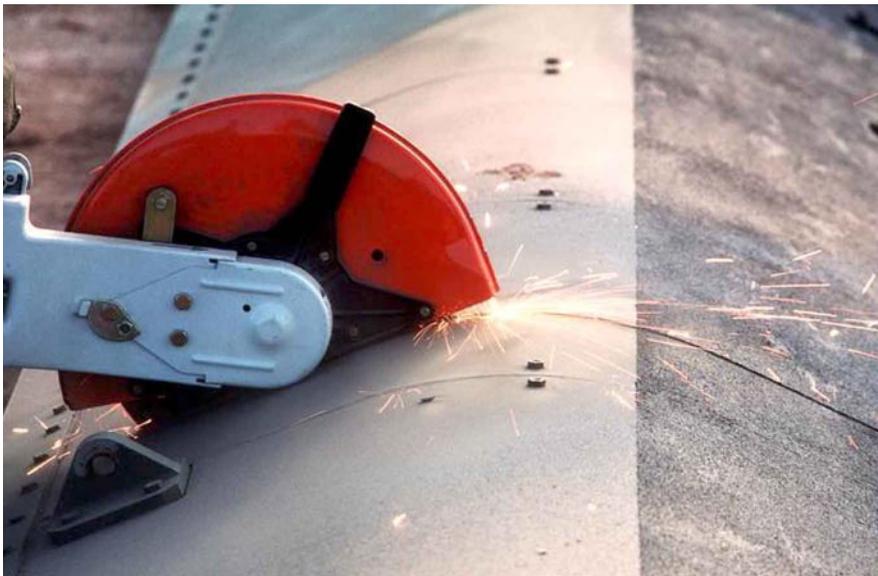
The Greenham Common protesters were part of a larger Western movement that gathered considerable force in the 1980s. In some European nations, the anti-nuclear sentiment grew so large that political leaders weren't sure they could fulfill commitments to host the weapons. In the US, anti-nuke sentiment surfaced in a widespread nuclear freeze movement.

In many ways, the opposition to NATO's new INF forces reflected the old split between what might be called "nuclear minimalists" and "nuclear warfighters."

The former group included those who believed that a small, survivable force of nuclear weapons was adequate for deterrence. The godfather of this view was Robert S. McNamara, the Secretary of Defense who, in his years at the Pentagon (1961–68), moved to limit the nuclear weapons budget as much as possible.

The latter group believed that a more elaborate, flexible arsenal produced sounder deterrence. Those who held this view—including most of the senior leadership of the Air Force and the other military services—thought that an adversary would be less likely to launch a nuclear strike if it believed a US president had retaliatory options short of all-out nuclear response.

To minimalists, the GLCMs and



The INF treaty called for destruction of all but eight display articles. Here, at Davis–Monthan AFB, Ariz., a circular saw cuts through the door of a GLCM transport–launch vehicle.

Pershing IIs were at best redundant and at worst provocative. They rejected the whole idea of “linking” US and Western Europe together via placement of new INF systems on European soil.

The leading proponent of this view was Paul Warnke, the dovish director of the Arms Control and Disarmament Agency in the Carter Administration. “There is no military justification” for cruise missile deployment, Warnke wrote in an op–ed article in the *Washington Post*. “The potential targets for these missiles are already covered by ballistic missiles.”

Warnke was enthusiastic about depriving the US of nuclear weapons. He urged the Reagan Administration to quickly strike an arms deal that would halt the deployment of the American GLCMs and Pershing IIs in return only for a reduction—not the elimination—of the Soviet SS-20 force. Warnke opined that, without progress on arms control, “The United States will face a further deterioration in its relations with the Soviet Union, and Western Europe’s confidence in American leadership will decline.”

In the end, of course, Reagan declined to take Warnke’s advice. Formal INF talks between the US and the USSR began in 1981 but didn’t really get serious until the major deployments began. The US position was a simple one: “zero–zero”—elimination of the new longer-range INF systems in Europe by both sides.

Moscow, for its part, proposed a limit of 300 missiles and nuclear-capable aircraft, with British and French nuclear systems counting toward NATO’s quota.

Soviet Walkout

At the time, GLCM deployments had not yet begun, and with the power of the anti-nuclear movement still building, the Soviets must have thought time was on their side. But NATO hung together. After additional US systems began arriving in Europe in late 1983, the USSR walked out of the talks. No negotiations took place in 1984.

Eventually, Moscow blinked and agreed to come back to the negotiating table. In January 1985, Secretary of State George P. Shultz and Soviet Foreign Minister Andrei Gromyko agreed to parallel talks on INF, strategic forces, and defense and space issues. That fall, Moscow hinted that it wanted an INF treaty separate from the other negotiating tracks. Soviet negotiators offered a proposal that would have allowed NATO to keep some GLCMs—but which still would have permitted SS-20 warheads equal to GLCM and British and French forces combined. This was clearly unacceptable to the West.

Then the pace of events began to

accelerate. High-level discussions took place in 1986, capped by the confusion caused by the October 1986 summit between Reagan and Soviet leader Mikhail Gorbachev in Reykjavik, Iceland.

In February 1987, the Soviet Union announced that it was ready to work an INF deal detached from all other nuclear issues. That July, Gorbachev agreed to the original US zero–zero position. He also agreed to then unprecedented verification protocols, including on-site monitoring of INF production facilities.

The political context of the INF accords will be a subject of historical inquiry for years to come. Deteriorating internal conditions in the USSR clearly played a part in Soviet decisions. Perhaps Reagan’s determination to pump billions into strategic defense technology contributed, too.

The agreement also validated NATO’s original two-track response to the advent of the SS-20. The deployment of GLCMs and Pershing IIs demonstrated in a convincing manner the depth of the US commitment to European security and the strength of alliance solidarity.

The two sides signed the INF treaty in 1987, and soon thereafter the Air Force began withdrawing its GLCMs from Europe. By May 1991, all were gone, sawed up into expensive scrap. All, that is, except for the eight display articles permitted under terms of the treaty. The US Air Force Museum at Wright–Patterson AFB, Ohio, has the first of the Gryphons that went on alert at Greenham Common. The Ground Launched Cruise Missile Historical Foundation dedicated a second display article this spring at the Pima Air and Space Museum in Tucson, Ariz.

Eventually the GLCM foundation hopes to have a full display reflecting all the capabilities of a squadron, including launch facilities and security forces.

“We knew all along we were political pawns,” said Livingston, who serves as president of the foundation. “Everybody knew the importance of what we were doing. That pride has carried over to today.” ■

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