## Executive Director’s Corner, National Meeting
The US Needs a New ICBM Now
A Tribute to General John Gordon
GLCM - A New World for Missileers
USAFE Plans for GLCM
Thoughts on GLCM Beddown
GLCM: Before There Were Bases
The Last GLCM Alert
Missileers and Public Service, Part II
Help Wanted for AAFM, Trivia Quiz
Patch Gallery Makeover, New AAFM Web Page
The 20th Air Force Page
Grand Forks MAF Antennas, Letters to AAFM
New Members, Taps for Missileers

## Inside Front Cover
New Member Form
Reunions and Meetings

## Inside Back Cover

The Mission of the Association of Air Force Missileers:
- Preserving the Heritage of Air Force Missiles and the People Involved With Them
- Recognizing Outstanding Missileers
- Keeping Missileers Informed
- Encouraging Meetings and Reunions
- Providing a Central Point of Contact for Missileers
Kathy and I cautiously transitioned from our home in Naples, FL back to Johnstown, CO, in May in the midst of varying phase of the country reopening. We have never travelled through Atlanta, Memphis, St. Louis, and Kansas City with such ease (the only positive of the COVID crisis).

Our Board of Directors met via Zoom on June 20th to select our new officers and welcome our newest member. A special thanks to Bob Mattson who retired from the board this year after serving since 2009, most recently as our Vice President. We welcomed Monte Watts to the Board--his energy is already being felt across the organization! Gen Lord will continue as our President, Mark Silliman moves up to be Vice President, Shane Finders will monitor our expenditures as Treasurer, and Tom Cullen will document all we do as Secretary. We have established six new committees that report to the board and each chairman has been asked to find a non-board member to be part of his committee. We want each of you to feel that this is your association and you have a say in its future. Here is a list of committees and the chairs. If you would like to support any of these efforts, just let me know. We’ll have more on what each committee is doing in future newsletters. Our committee chairs are: Strategic Vision: Don Alston; Finance: Bob Parker; Membership: Bob Kelchner; Governance: Tom Cullen; Recognition: Jock Dodson; Nominating Committee: Mark Silliman; Museums and Grants: Mike Kenderes; and Marketing: Randy Tymofichuk.

I hope you are finding these editions of the AAFM newsletter informative and interesting. We continue to reach out to you for inputs and ideas. Up front in this newsletter is a reprint of an article penned by General (Ret) Bob Kehler on the importance of modernizing the Triad. If you ever get in a conversation with friends on the benefits of nuclear deterrence, share this article. Our newly updated website has a current news section to keep you current on this issue and others. Check out the article on changes to the website - a scavenger hunt will take you through our recent changes including access to membership data, the ability to change your data online, and a revised current news section. In the news section we have posted a letter from previous Air Force Secretaries and Chiefs of Staff on the importance of keeping the Ground Based Strategic Deterrent funded and on schedule (first missile is scheduled for emplacement around 2028). There is a lot more in the newsletter including a look back at GLCM from our President and Executive Director Emeritus. Think you know a lot about ICBMs? In this edition we have added a trivia section to test your knowledge - the question is not meant to be easy.

All of you have been impacted by the COVID 19 pandemic, some more than others! The Air Force has released a little news on the status of our alert forces but what is lost in the noise is the herculean efforts each wing has gone to meet and exceed mission requirements. Our operators, maintainers, defenders, and support teams have continued to deploy to the field under extended timeframes. Twentieth Air Force gives us a little insight into what our warriors have been doing. AAFM salutes those who have kept this mission alive during the pandemic and hopes to have some stories from the front line in our next edition!

Meanwhile, as we start our “return to normal,” our museums around the country are returning to a new normal. Much of their existence depends on your visits so if you are looking for a local staycation, check out the museum in your local area. There is a full listing of museums featuring missile exhibits on our website. There is a lot more in the newsletter including a look back at GLCM. Enjoy and be safe!

National Meeting – October 2021

In April the Board of Directors voted to move our 2020 National Meeting to 6-10 October 2021. Our schedule remains the same, just a year later. We hope you can join us for some great local tours and an outstanding visit at Hill AFB to see our Air Force team at work sustaining MM III and working towards the acquisition and deployment of GBSD. For those of you who already had reservations at the hotel, no action is required. Registration forms for the events will appear on line in September and in the next edition of the newsletter. Until then you can make your hotel reservations at: https://www.redlion.com/create-booking?property=6121&type=group&code=ASSO1004&redirect=checkout&start=2021-10-04&end=2021-10-11 or call the RL at (800) 733-5466 and ask for the AAFM rate.
The United States relies on nuclear weapons to deter adversaries from attacking us and our allies and to assure allies that we will stand by our security commitments to them. While 21st Century strategic deterrence and assurance strategies must be tailored to a larger number of independent actors and be built on a broad array of capabilities and elements of U.S. power, nuclear weapons remain foundational in all our national security calculations. History shows that nuclear weapons provide a unique contribution to the highest U.S. national security priority, the prevention of war and attacks on the United States and allies. As the late renowned professor Bernard Brodie observed decades ago, “We have ample reason to feel now that nuclear weapons do act critically to deter wars between the major powers, and not nuclear wars alone but any wars.”

Since the early 1960s, U.S. strategic deterrence has been based on a triad of nuclear-capable ballistic missile submarines (SSBNs), land-based intercontinental ballistic missiles (ICBMs), long-range heavy bombers, and a supporting command, control, and communications (C3) system. Each leg of the U.S. nuclear triad contributes uniquely to deterrence. Submarines at sea are the most survivable, bombers are the most flexible, and ICBMs are the most responsive. Together, the three legs of the triad provide unparalleled support for deterrence; there is not a more effective way to meet our deterrence objectives. As seven other former commanders of United States Strategic Command and I wrote in early 2017: “The combined capabilities of the triad provide the president with the mixture of systems and weapons necessary to hold an adversary’s most valuable targets at risk, with the credibility of an assured response if needed—the essence of deterrence.”

The nuclear triad has enjoyed bipartisan support in the United States for many decades. In 2010, during New START deliberations, Congress and the Obama administration reached a consensus to modernize all three legs of the nuclear triad and the critically important nuclear C3 system. That consensus continued under the Trump administration. As a result, after years of deferred investment, replacement bomber and submarine programs are proceeding and nuclear C3 is receiving much needed and long overdue attention. But recently, it seems that the program to replace the aging ICBM system is being called into question or deferred by endless studies, cost concerns, industry squabbles, and a sense in some quarters that ICBMs are no longer needed.

In my view, delaying or deferring ICBM modernization threatens the enduring value of the triad and risks compromising the foundation of U.S. strategic deterrence and allied assurance. Land-based ICBMs remain as critical today for these objectives as they were during the Cold War, and the need to retain and recapitalize them without delay is based on the sound strategic contributions they make. Specifically:

**ICBMs provide the U.S. with responsive deterrence options that otherwise would not be available.** Dispersed in
secure underground launch facilities, ICBMs can hold an adversary’s key targets at risk within minutes of a presidential command. While no U.S. nuclear weapon is targeted on another country today (ICBMs are targeted against broad open ocean areas), ICBMs can be retargeted very rapidly in response to emerging crises or warning of attack and can be used singly, in small numbers, or in large options. Single-warhead ICBMs allow planners to adjust quickly to changes in enemy forces or targets. Because ICBMs are continuously under secure control, in a high state of readiness, and have assured connectivity to the president, the U.S. has a prompt response capability that can help deter a wide variety of extreme threats—to include an unlikely, but still possible, surprise nuclear attack.

The ICBM force introduces a difficult set of problems to enemy attack planning, and thus helps to deter enemy attack. Russia remains the only potential adversary that could attack the U.S. homeland in a massive way. To do so, Russian planners would have to contend with 400 operationally deployed ICBMs, in addition to the other two triad legs. They could ignore the U.S. ICBM force (assuming it would be launched on warning) or try to destroy it on the ground before it could be launched—employing their most capable weapons to attack America’s single-warhead ICBMs. But either approach would carry the enormous risks and potential costs for Moscow that help to ensure the deterrence of any such attack.

Neither China nor any other rising nuclear-armed adversary can meaningfully threaten the current U.S. ICBM force without a large increase in force structure and improvements in their hard target kill capabilities. However, if the U.S. ICBM force were retired, an enemy’s attack planning against the United States would become dramatically easier; Russia or China could use a relatively small-scale attack force within their current means to strike at the remaining limited number of nuclear-related strategic targets in the U.S. In the absence of U.S. ICBMs, others could be motivated to build such a force as well.

ICBMs have additional importance today that wasn’t envisioned during the Cold War. Not only is today’s triad far smaller than during the Cold War, it is configured differently than it was at that time. At the end of the Cold War, President George H. W. Bush removed heavy bombers and supporting aerial refueling tankers from their daily nuclear commitment, which means on a day-to-day basis the bomber leg of the triad is no longer loaded and poised to take off with nuclear weapons. In essence, the U.S. now relies on a relatively small dyad of ICBMs and SSBNs to meet daily deterrence requirements. The U.S. still has the classic nuclear triad with all its benefits, but only when the president orders the bombers to be readied for nuclear use (“generated” in nuclear parlance). ICBMs and SSBNs together have allowed the bombers and tankers to be released for use by military commanders with great effect in a wide variety of conventional missions. This has raised the importance of ICBMs as a mainstay of deterrence, as a hedge against unforeseen technical problems or geopolitical events, and as an enabler for other operational needs such as adjusting at-sea operations of the SSBN fleet when needed for major submarine maintenance or modernization.

Retiring ICBMs and leaving the U.S. with SSBNs alone for daily deterrence as some suggest means we would go into an uncertain future relying on only a single nuclear platform (SSBNs) and sea-launched ballistic missile (Trident D-5) to meet our deterrence and assurance needs, unless heavy bombers are returned to nuclear alert. The U.S. is modernizing a nuclear deterrent force that must endure for decades to come. While I have great confidence in the SSBN force, a day-to-day submarine “monad” introduces the unprecedented and unacceptable risk that a single-point failure or advancement in enemy anti-submarine capability would seriously degrade the daily deterrent. The absence of the U.S. ICBM force could indeed encourage an opponent to focus ever greater resources on anti-submarine capabilities in a bid to escape the constraints now provided by U.S. deterrence capabilities. Addressing that risk without ICBMs would require the U.S. to either return bombers to nuclear alert duty as a complement (and hedge) to the SSBNs or return them to nuclear duty after an issue arises; either move would create visible signals and carry its own risks and costs. Significantly, bombers and tankers re-committed to the day-to-day nuclear deterrence mission would not be available to project conventional military power (an essential role to counter adversaries deploying anti-access strategies); nor would they be available to provide conventional options intended to reduce the role of nuclear weapons and strengthen strategic deterrence below the nuclear threshold.

ICBMs have not outlived their usefulness nor does having them present more security risks than benefits. Critics contend that ICBMs are “Cold War relics” and that they increase the likelihood of miscalculation because they are “vulnerable” and on “hair trigger alert”. Neither assertion is valid. ICBMs remain an essential contributor to deterrence as a key element of both a day-to-day dyad and a fully generated triad. And, as a U.S. Department of State report during the Obama Administration emphasized, “U.S. nuclear forces are not on hair-trigger alert.” Layers of safeguards are in place to prevent unauthorized or inadvertent use of all U.S. nuclear weapons with ICBMs among the safest and most secure. The U.S. has revised contingency plans, adjusted weapon loading, refined response procedures, upgraded warning systems, and implemented other steps to increase decision time to mitigate any “use or lose” pressures on decision makers.

ICBM modernization is long overdue. I have participated in numerous studies and reviews that show we are well
beyond the time to recapitalize the ICBM force and that further life extensions are insufficient. The Minuteman ICBM system was originally fielded in the early 1960s and various components have undergone life extension programs over the ensuing decades. The system remains combat ready but is difficult to sustain, has long ago passed the end of its design life, and is rapidly approaching the inevitable end of its service life. In overall system terms we have already delayed or deferred ICBM modernization for decades. For example, no major upgrades have occurred to the ICBM command and control and ground support systems since the 1980s while new threats like cyber weapons and improved enemy missile defenses have emerged and must be addressed.

The U.S. can afford to modernize its ICBM force. Excessive cost is frequently cited as a reason to delay or reject ICBM modernization. Triad and nuclear C3 modernization costs money, but the programs are clearly affordable given the high priority of nuclear deterrence and the consequences of its failure. As General Mark Milley, then-Chief of Staff of the Army, has said: “The only thing more expensive than deterrence is actually fighting a war, and the only thing more expensive than fighting a war is fighting one and losing one.” Recapitalizing the triad should not be a competition for resources among its legs (nor a competition with conventional force needs); rather it should be a recognition of the synergistic contribution of all three legs (and nuclear C3), the top national priority of nuclear deterrence, and an appreciation that investment in nuclear modernization represents a small fraction of defense spending (between 6-7% of the DOD budget at its height according to a variety of open sources). There is room in the annual defense budget for ICBM modernization; if not, Congress should fund the triad and nuclear C3 modernization separately as a national program outside the regular defense budget.

The U.S. faces far more diverse security problems and uncertainty than it did during the Cold War and the threats are growing, including nuclear. Russia and China seek to change the international order and have aggressively modernized their nuclear arsenals as part of strategies designed to diminish U.S. power and prestige, coerce our allies, and reduce our global influence. North Korea has acquired nuclear weapons and others have expressed interest in pursuing nuclear weapons programs.

The great paradox of the nuclear age remains with us; in order to prevent the use of nuclear weapons our deterrence threats must be credible. Along with the rest of the triad, ICBMs continue to provide credible deterrence that ensures our national security as well as the security of our allies and partners. New technologies and approaches are available to keep ICBMs viable and affordable well into the future. Further delay is unacceptable—it’s time to move out on a new ICBM.

Visit the new AAFM Web Page at afmissileers.org
GLCM – A New World for Missileers – by Col (Ret) Charlie Simpson, AAFM Executive Director Emeritus

In the early 1980s, the Air Force began fielding a new deterrent weapon, one that had a major impact on the life and career of many Missileers. This new weapon system offered some interesting new opportunities to Air Force Missileers, who had been limited, since the mid-1960s, to a career at one of nine intercontinental ballistic missile (ICBM) bases or the training, testing or development bases involved with ICBMs. The only Missileers with other options were those that worked on airlaunched systems, which meant mostly maintainers – but the largest part of the missile force, the ICBM Missileers, were either in Titan II or Minuteman.

This new idea was the Ground Launched Cruise Missile (GLCM), to be deployed at six locations in Europe to counter new Soviet Intermediate Range Nuclear Forces (INF) in the western part of the Soviet Union, creating a great threat to our European allies. GLCM would give Air Force Missileers the opportunity to serve outside the United States and to experience a totally different lifestyle at work – no more sitting 65 feet below ground in a hardened launch control facility or driving a maintenance van 100 miles to a remote launch facility to return a missile to alert. Now Missileers, both operators and maintainers, along with security and other personnel, would head to the woods with their mobile missiles, control centers and other equipment, dig in and hide under camouflage, ready to go to war.

This series will cover several aspects of the GLCM story, from concept to destruction. Destruction because that was the final result of the treaty that was finally agreed to by all parties. You will get the viewpoints of one who was the first person, and first base commander, at the second GLCM base, from the director of the GLCM office at Headquarters, United States Air Forces in Europe (USAFE), a GLCM command and control officer and an officer who was part of the last GLCM alert tour. We welcome your personal stories about your GLCM experience for future issues.

AAFM has members, officers, noncommissioned officers (NCO) and civilians, who served in every aspect of the
GLCM world, from Missileers in operations, maintenance, communications, support and security, to tech reps for the major contractors to treaty inspectors, so we know you have some good stories.

The INF Decision

During the late 1970s, the Soviet Union began deploying medium range missiles, designated SS-20s, in the western Soviet Union that threatened basically all of Europe. President Jimmy Carter and our North American Treaty Organization (NATO) allies worked hard to come to agreement with the Soviets to limit or stop these deployments, fully aware of the possibility of slowing or stopping the fielding of the new systems was somewhere between remote and impossible. The March 2019 issue of the AAFM Quarterly Newsletter had an articles about the “dual-track” approach that Carter and his NATO counterparts decided on, to deploy 464 GLCM and 108 US Army Pershing II Intermediate Range Ballistic Missiles (IRBM), while continuing to work toward an agreement with the Soviets.

The Concept

The new Air Force system would be capable of operating in extreme environments, away from the main base, in periods of increased international tension. GLCM would be deployed in mobile launchers, able to travel off road, along with the equipment necessary to maintain and launch them. The final design deployed the missiles in flights of 16, with four missiles per launch vehicle, two launch control vehicles and the necessary maintenance, support and security equipment and vehicles. Under normal day to day conditions, flights would be sheltered in large concrete, earth and steel shelters called the GLCM Alert and Maintenance Area (GAMA), with each wing have one shelter per assigned flight. These shelters would be the major construction projects for the six bases. When world conditions dictated, the flights could be dispersed to pre-selected areas, where flight commanders would position the flight ready to launch, hidden by camouflage netting, dug in for security and guarded by flight security forces and security monitoring equipment.

The Missile

The BGM-109G Gryphon GLCM was developed by General Dynamics as a variant of the Tomahawk Land Attack Missile (TLAM) in use by the US Navy (along with an undeveloped air-launched version, the Medium Range Air to Surface Missile (MRASM)). Unlike other variants of the Tomahawk, the GLCM carried only a W84 thermonuclear warhead; with no conventional capability. The W84 warhead was a 150 kiloton variable-yield weapon. GLCM had a range of 1,600 miles, and flew at subsonic speeds at low level, using a combination of inertial and terrain contour matching (TERCOM) guidance. Accuracy was about 90 feet. The missile was powered by a Williams International F107-WR-400 turbofan engine after a rocket booster ejected it from the launcher. The fins extended at four seconds, the air inlet and wings deployed at 10 seconds and the jet engine started at the end of the boost phase. The missiles cost about 1.3 million each.

The Transporter Erector Launcher

The launch vehicle for GLCM was the transporter erector launcher (TEL), an armored trailer that was towed by an all-wheel drive MAN V10 diesel tractor. The MAN tractor gave the TEL a highway or off road capability for dispersed operations. There were four TELs per flight and each provided the physical protection and was the launch platform for four missiles and had its own internal power generation system. The TEL provided a direct interface, via fiber optic cables, between launch control centers (LCC) and the missiles. For launch, the TELs armored launcher was raised to an angle of 45 degrees.

The Launch Control Center

The LCC was and armored box that housed all the Command, Control and Communications. Weapons Control System and interfaces required for authorized launch of the 16 missiles in a flight. The two launch officers in the LCC were environmentally protected from chemical, biological, and radiological attacks. The LCC was mounted on a transporter, which was towed by an all-wheel drive MAN tractor. The LCC could travel over the highway or off road
as necessary for dispersed operations. Each LCC interfaced directly with each TEL via fiber optic cables and has its own internal power generation system. Two LCCs were deployed with each flight to ensure survivability in an armed conflict. One LCC was designated as primary and the other backup during operations.

The GLCM Flight

A flight consisted of four TELs, each with four missiles ready for launch, two LCCs, each with two launch officers, connected to the TELs and interconnected for launch once in place and 16 support vehicles for the flight commander, normally a captain, 19 maintenance technicians, a medical technician and 44 security personnel. The security forces were a mix of US Air Force and host nation forces. Normal basing was in shelters at the main base, with the missiles and vehicles secured in the hardened storage, the GAMA.

As stated in the concept earlier, in periods of increased tension, flights would disperse. The members of the flight would dig in, erect camouflage netting to hide the vehicles, and prepare for launch. Flight commanders were tasked to survey and select possible deployment sites, with all details closely held, and the commander selected the location preferred when the flight deployed from the base. When deployed, the flight was self-sustaining, and secured with special intrusion detection radar. Flights practiced dispersal often at training areas near the bases.

Training and Flight Testing

Personnel were trained at Davis-Monthan AFB, AZ, by the 868th Tactical Missile Training Squadron starting in 1 July 1981. On 1 October 1985, the squadron became part of the 868th Tactical Missile Training Group. An area near Fort Huachuca, AZ, was used for field training for GLCM flights. The group and squadron were inactivated on 31 May 1990. GLCM testing was conducted at the Dugway Proving Ground, UT, with many of the people involved in the testing going to operational wings as they were activated.

GLCM Basing

Our NATO partners selected six locations to be home for the new GLCM units, two in the United Kingdom, and one each in Italy, Germany, Belgium and the Netherlands. Each base would require a massive amount of new construction, and while some had some existing facilities that could be used for some support and other activities, a lot had to be built from the ground up. Each base had experienced an American military presence for at least a short time during World War II, and one had even been home to our first generation tactical cruise missile, the Matador. One estimate of the cost of fielding this new tactical missile system was $3.5 billion, with an equal amount spent per year to operate, maintain and support this important deterrent system, including manpower costs, and about $1 billion in hardware acquisition costs. Most of us know it was money well spent, when we look at the results in Eastern Europe beginning in the late 1980s, including the demise of the Soviet Union.

Royal Air Force (RAF) Station Greenham Common, or RAF Greenham Common, is in Berkshire, England. Greenham Common was a piece of common land used for troop movements during the English Civil War and in the nineteenth century. The airfield is located to the south-east of Newbury, Berkshire, about 50 miles west of London. Opened in 1942, it was used by both the RAF and United States Army Air Forces (USAAF) during World War II (WW II), both as a fighter and troop carrier base. During the Cold War, until 1964, B-47s and KC-97s operated out of the base. Between 1964 and the activation of the GLCM wing, there were some smaller US Air Force operations on the base, but no major units.

The wing was designated as the 501st Tactical Missile Wing (TMW) on 11 January 1982, and activated on 1 July 1982. The honors and history of the earlier 501st Bombardment Group (BG) and the 701st TMW, a Matador Mace unit, were consolidated into the reactivated 501 TMW. The 501 TMW received its weapons in November 1983, flown to the base by C-5s. The six flights of missiles, for a total of 96 missiles, were operated by members of the 11th Tactical Missile Squadron (TMS), which was active from 1 October 1982 until 31 May 1991, and maintained by members of the 501st Tactical Missile Maintenance Squadron (TMMS), active from 1 July 1982 to 31 May 1991.

The 501 TMW was inactivated on 31 May 1991 after ratification of the INF Treaty resulted in decommissioning of the BGM-109G. The Air Forces’s first GLCM wing when it stood up, it was also the last GLCM wing to be inactivated. The 501st Combat Support Wing continues the legacy of the 501 BG/TMW, and is headquartered at RAF Alconbury, United Kingdom. After the GLCM wing closed, the base was closed in 1993. The airfield was also known for the Greenham Common Women’s Peace Camp held outside its gates in the 1980s. In 1997 Greenham Common was designated as public parkland.

Comiso Air Station (AS), Sicily, is about eight miles north of the coast where Patton landed in the invasion of Sicily in July 1943. The airfield at Comiso was constructed during the late 1930s and was opened in 1939. It was named in honor...
of Vincenzo Magliocco, an Italian Air Corps general, who was killed in 1936 while leading a ground reconnaissance mission during Italy's occupation of Libya. During WW II, Italian fighters and fighter bombers, and later, German Stuka dive bombers, were stationed at the base. The Italians built a number of large brick, concrete and steel buildings that were quarters, offices and shelters, and even included a large water storage tank. During construction, artists began drawing murals and graphics inside the buildings, and this practice continued after the Germans occupied the base.

On the night of 9-10 July 1943, an allied armada launched one of the largest combined operations of WW II as 500,000 allied soldiers, sailors, and airmen, led by British Gen Montgomery and US Gen Patton invaded the island of Sicily. Comiso fell quickly, and over the next few months, a troop carrier unit and an RAF fighter unit used the base, but after that, the only uses were a short attempt to fly flowers and produce out of the area to the mainland, and an Italian Air Force Long Range Navigation station that operated until shortly before GLCM came to the base.

The 487 TMW was activated on 30 June 1983, with the lineage of the 487 BG and the 587 TMW, a Matador/Mace unit. The 487th Combat Support Group had been activated earlier on 1 May 1983 when the first permanent party arrived at the base. Comiso was unique among the six GLCM bases in that, due to the large number of temporary facilities, two Air Force programs were used to manage personnel input. Palace Trip was a program that sent in a large number of support personnel for three to six months of temporary duty in the early days for the base, and Ready Merlin was a program where the entire first flight, at least all of the US personnel, spent several months at Davis-Monthan AFB, AZ, training together preparing to be combat ready. The flight deployed all together in several C-5 aircraft directly from Arizona to Sicily in January 1984, setting up the flight in a temporary GAMA at Comiso on the day of arrival and becoming operational immediately. The seven flights of missiles, for a total of 112 missiles, were operated by members of the 302 TMS, which was active from 1 July 1983 until 27 May 1991, and maintained by members of the 487 TMMS, active from 1 August 1984 to 30 April 1989. The wing closed on 27 May 1991, the next to last GLCM wing to close.

After GLCM left Comiso, the base was used for a couple of times as temporary refugee camps during Bosnia and Middle East events, and opened as a new commercial airport in 2014. Much of the American and Italian areas remain unused and vacant.

Florennes Air Base is a Belgian Air Component military airfield located near Florennes, Belgium. During WW II, German Luftwaffe fighter units operated from here, including Ju 88 and Bf 110 night fighters, and Focke-Wulf Fw 190 day fighters. It was captured in September 1944, after which Allied units operating from here included the USAAF's 430th Fighter Squadron, flying Lockheed P-38 Lightnings in the ground attack role, and the 422nd Night Fighter Squadron, flying Northrop P-61s. It is now home to the 2nd Tactical Wing, operating F-16 Fighting Falcons.

The 485 TMW was activated on 1 August 1984, with the lineage of the 485 BG and the 585 TMW, a Matador/Mace unit. The five flights of missiles, for a total of 80 missiles, were operated by members of the 71 TMS, which was active from 1 August 1984 until 30 April 1989, and maintained by members of the 485 TMMS, active from 1 August 1984 to 30 April 1989.

Wünschheim AS was home of the original 38 TMW, equipped with the Matador and later Mace missiles, operated at Hahn AB and at Wünschheim AS in Germany in the late 1950s and 1960s. Wünschheim had also been home to a US Army Nike unit, and some other organizations over the years. It was selected as the fourth GLCM base, with some support activities at Hahn.

The 38 TMW was activated on 1 August 1984, with the lineage of the 38 BG and the 38 TMW Matador/Mace unit. The five flights of missiles, for a total of 80 missiles, were operated by members of the 89 TMS, which was active from 1 August 1984 until 30 April 1989, and maintained by members of the 38 TMMS, active from 1 August 1984 to 30 April 1989. The wing was inactivated on 22 August 1990.

RAF Molesworth, is near Molesworth, Cambridgeshire, England with a history dating back to 1917. The Royal Flying Corps selected a site for an airfield near the village of Old Weston in Cambridgeshire during WW I. The first flying unit to arrive at the base was 75 Squadron. It remained at this airfield until September 1917. After the war, the airfield was abandoned. Some of the buildings were taken over by the surrounding farms with many of them still in use today. At the start of the WW II, the Air Ministry selected the area as the site for what would become RAF Molesworth. The base was built in 1940 and 1941. The first unit, Royal Australian Air Force 460 Squadron, was formed at the base on 15 November 1941 with Vickers Wellington IV bombers.. 460 Squadron departed the airfield on 4 January 1942. RAF Bomber Command 159 squadron moved in shortly afterwards, however this unit did not remain long, moving to the Middle East on 12 January. One of the USAAF units at Molesworth dring WW II was the 303 BG, the namesake of the GLCM unit that would be at the base much later. There
USAFE Plans for GLCM
– by Col (Ret) Charlie Simpson, AAFM Executive Director Emeritus.

In early January 1983, I got a call from Maj Terry Schwallier in the Colonels Group at the Air Force Personnel Center, telling me that, since my “dream sheet” had GLCM listed as an assignment choice, would I like to be the first base commander at Comiso? I asked, “Where is Comiso?” and he told me “It is in Sicily.” I would be one of the first people on a new base that had to be built from the ground up, and that my job would be to get it ready for the new GLCM wing that would activate a few weeks later. Then he said, “There is one downside – the Italian government is not allowing families to come yet, so it will be a one year, remote tour.” I was the base commander at Ellsworth AFB, SD, at the time, so I dropped by the 44th Strategic Missile Wing commander’s office to see what the thought about the idea. We both knew that I was not going to be a missile wing commander, since I had no below the zone promotions, one of the requirements during that period. Col Joe Stone, my boss, said, “It’s got to be your decision – and Carol’s.” The next stop was the house, where Carol and I discussed the offer and decided it was a great idea – an opportunity few Missileers got. I called Schwallier back that afternoon and was told my name would be submitted, and I should have a confirmation soon.

A few days later, I was sent to FE Warren AFB, WY, to sit on an officer discharge board, so I called the wing commander at Warren, Col Pat Henry, a longtime friend, and asked him if we could get together for dinner the day following the hearing. I mentioned the possible assignment to Sicily, and he told me that on the day after the hearing, the mayor of Comiso and two of his staff were visiting Warren,
and were joining some of the local civilians and the wing staff for dinner at Little America, and that Carol and I were invited to join them. I reminded him that the assignment was not final, but he saw no problem with that and encouraged us to join them for dinner. We drove to Cheyenne early of the morning of the hearing – these boards were usually one day events that took four to six hours. When I walked into the base legal office, the staff told me that they had tried to call me (no cell phones in those days) and advised me that the hearing had been cancelled. Carol and I were heading to Colorado to ski for a couple of days after the dinner the next day, so we just settled in to the distinguished visitors quarters and prepared to meet the mayor of my potential new home. The next evening, I found myself seated between a US Information Agency interpreter and Dr Silvano Catalano, the “sindaco” or mayor or the “Commune di Comiso.” I learned a lot about the politics of Sicily and Italy, including the fact that Dr. Catalano might not be the mayor when I arrived in Sicily (if I got confirmed) since he was facing an election. I also learned to eat marinated octopus and squid that night.

A few days later, my new assignment was confirmed and I spent a week at Davis-Monthan in a senior officer course on the new GLCM system, returned home and began preparing for my first trip to Europe. I relinquished command of the Combat Support Group at the end of March, we moved from base housing into a leased house in Chapel Valley in Rapid City, and on 24 April 1983, Carol dropped me at the military charter terminal in St Louis, MO, where I joined a Boeing 747 load of newly trained US Army recruits, heading from Fort Leonard Wood to their first assignments in Germany. Early Monday morning, we landed at Rhein Main AB, Germany, and I was met by a couple of members of the GLCM staff at USAFE Headquarters. Since I was in uniform (we travelled that way in those days) we drove straight to the Headquarters at Ramstein and I was taken to the Deputy Chief of Staff (DCS) for Plans Directorate for GLCM (XPG), where I met the chief, Col Richard Stachurski and his key players. I then met Maj Gen David Nichols, the DCS for Plans. Gen Nichols was so involved with the GLCM program that he moved the GLCM Directorate under the USAFE Chief of Staff when he took that position shortly after my visit to Ramstein. The XPG folks then spent most of the rest of that day briefing me on every aspect of the GLCM program for Comiso, introducing me to key members of the Comiso Activation Team (CAT) along the way. There was a similar team for each of the new GLCM bases, with representatives from all of the USAFE agencies. I met with the Belgium team a few months later to give them feedback after our Comison experience. I was told that, for Comiso, there were three Majors on site that had been there for several months, all assigned to Naval Air Station (NAS) Sigonella, about 60 miles north of the new base. One was a political-military affairs officer fluent in Italian and current on the Italian political scene. The second was a logistics officer tasked with overseeing the arrival of equipment and supplies at the aerial and sea ports in Sicily, as well as monitoring the construction of the new Porta-Cabin complex that would be our quarters, work areas, dining hall and power plant for the next couple of years. The third was a service officer, responsible for leasing apartments and hotel rooms for temporary duty and permanent party officers and enlisted members, as well as getting the lodging and dining set up in the Porta-Cabin complex. At the end of my first day at USAFE, it was obvious the command had done an exceptional job of planning the deployment of this new weapons system. That evening, some of the staff took me out for my first German dinner to a place I returned to many times over the years, and prepared me for the next two and a half days of meeting with each of the involved staff agencies one at a time. I was assigned an escort officer, a Major, who be with me for my entire stay at Ramstein, and accompanied me to Comiso that weekend.

On Tuesday, Wednesday and part of Thursday, I spent time with the CAT members and leaders in Accounting and Finance, Civil Engineering, Security Police, Services, Morale Welfare and Recreation, Logistics, Operations, Maintenance, Administration, Contracting, Communications, Judge Advocate, Chaplain, Surgeon and Personnel, all of the staff agencies in the headquarters. It quickly became clear that the command had done an exceptional job of preparing for this new mission. Every agency had carefully planned all of the activities required to build and open an entirely new Air Force base, had prepositioned most of the necessary equipment and supplies, and had been involved in the selection of the people needed to get the job done.

Each of the six bases was different, but each required massive construction programs. As you read in the adjacent article about the bases, some had existing buildings that could be used for some purposes. Comiso was the definite exception. The Italian/German fighter/bomber base had been destroyed by allied bombings during the invasion of Sicily in 1943, and had never been rebuilt. The short runway had been used for commercial cargo flights for a very short time many years ago, and a small Italian Air Force unit operated...
a Long Range Navigation Station on the base until GLCM construction started (the Italian Air Force Warrant Officer who was commander was still there), but the base was mostly bombed out shells of pre-WW II buildings. Only two were being rebuilt for use. Both the US and the Italian Air Forces would build base areas, with offices, shops, warehouses, garages, dormitories, family housing, recreation, medical, and support facilities, along with everything else found on a base, for both countries. Both the Americans and the Italians would also start with temporary Porta-Cabin areas, portable buildings that would provide places to work and live for the first people at the new base.

Some of the most important aspects of my visit to USAFE were learning who the key contacts if we ran into problems, clearly defined rules on dealing with the press (the job of the State Department representatives in Sicily), what we could expect in funding (generous) and what the in-flow of permanent party and temporary duty personnel would be. When I met with the Staff Judge Advocate, Col Dick Lee, I asked him when I could expect Capt Jim Kinsella, the first attorney assigned to Comiso, to arrive. He asked when I wanted him there, and I said as soon as possible. He said, “Justa second,” and asked his secretary to call Capt Kinsella into his office – I didn’t realize that he worked at the headquarters. Jim walked in, and the Colonel asked him how soon he could be at Comiso. Jim said he could leave the following Monday – he got to the base three days after I arrived. I then spent about an hour with the State Department representative to USAFE, receiving a very good briefing on the political situation in Italy, Sicily and the Comiso region. He reinforced the earlier guidance about contact with the press – I was to let the Consul General and his staff in Palermo take care of that task. Finally, before departing to Rome with my escort officer, I spent a short time with the Commander in Chief, USAFE (CinCUSAFE), Gen Billy Minter. He asked me how my week with the USAFE staff had gone, and I told him that they had done an exceptional job preparing me for the task ahead. The general said, “Remember, they are staff, but you are the commander on the scene. Your job is to get the base ready for the mission the best way you think it should be done. If our staff gets in your way, you call me day or night – they are here to support you, not get in your way.” He handed me business card with his private phone numbers and told me to call him if I needed to. That is pretty good support from the top for a new commander.

That afternoon, my escort officer and I flew to Rome to meet with some of the American embassy staff, including the people in the Office of Defense Cooperation on Friday afternoon, and the Chief of the Mission Saturday morning. The Chief of Mission apologized that the ambassador was away so could not meet with me, and once again I got a good briefing on local and national politics and press interaction. Late that morning, we flew to Sicily. You can find my story of experiences at the base in several earlier issues of our newsletter - USAFE did a superb job of planning the beddown of a new system, and the officers, enlisted members and civilians at Comiso did an absolutely exceptional job carrying out that plan.

Thoughts on GLCM Beddown – circa 1985-1987 - General (Ret) Lance W. Lord,, President, AAFM Board of Directors

Soviet aggressive deployment of SS-20 missiles in the 1970s seriously threatened NATO and raised the serious potential for decoupling the US nuclear “umbrella” from NATO – nuclear strategists, both US and NATO, were worried that the SS-20s could hold NATO targets at risk in the European theater and destabilize NATO and weaken the US nuclear commitment to NATO – “would the US trade New York City for London” for example.

In response in 1979, US and NATO established a “dual-track” Intermediate Range Nuclear Forces (INF) strategy to deal with the problem: 1) engage in arms reduction discussions with the Soviets and 2) deployment of 464 GLCM missiles and 108 Pershing IIs, not to match the Soviets “missile for missile” but to show the “depth of US commitment to NATO and European security and strengthen coalition solidarity.”

An aggressive GLCM deployment schedule was adopted and beddown began in the early 1980s.
I was selected early in 1985 as a new colonel select to move to Ramstein AB, Germany, and Headquarters USAFE and assume the leadership of the GLCM program office in USAFE/XPG. I arrived in country in June 1985, shortly after attending initial GLCM training at Davis-Monthan AFB AZ.

I inherited a team of 25+ GLCM professionals organized into two divisions: 1) Hardware, Systems and Resources; and 2) Host Country Basing teams.

By mid-1985, three GLCM units had been activated according to the INF deployment schedule; Greenham Common, United Kingdom, Comiso, Italy and Florennes, Belgium, with Wüsheim, Germany, to follow closely.

There was absolutely no flexibility on the deployment dates – NATO solidarity was essential! On the US side, Department of Defense (DOD) Policy kept Secretary of Defense (SECDEF) informed and when necessary, SECDEF would break any logjam. Fortunately, we did not have to get him personally involved, his guidance was direct and simple…”get it done!”

Our task in XPG was to make sure the hardware, people and systems were in place in the deployment locations to meet the required mission capability dates.

USAF did not designate an integrating contractor for the weapon system, so we in XPG, with support of the senior USAFE leadership, assumed the integration role and worked with DOD, the NATO deploying political leaders, Supreme Allied Commander, Europe (SACEUR) and US European Command leadership, Headquarters, USAFE, and across the USAFE staff to meet all deployment dates on time.

We conducted quarterly beddown updates in Washington, DC, Mons, Belgium, Stuttgart, Germany, and within the US embassies of the deploying countries. I personally spent a lot of time in CINCUAFE’s office along with my boss, discussing beddown status and the tremendous successes the people at each base were making happen.

While many may have thought the GLCM deployment would not make a difference, to me the dedication of the professionals who came to Europe made sure NATO could not be intimidated!

The legacy of those Missileers who left a more comfortable and predictable life in Strategic Air Command (SAC) and journeyed to Europe as part of the GLCM program are part of one of the greatest chapters in the missile business – BGM 109, as they say, “rocked Moscow!”

I am proud to say I played some small part.

**GLCM: Before There Were Bases**

*by Colonel (Ret.) Jim Slagle, AAFM Mbr No L601, Tucson, AZ.*

In the summer of 1981, Tactical Air Command (TAC) moved ahead with the mission of deploying the GLCM to Europe. The development of GLCM, coupled with the existing USAFE nuclear capable aircraft strike force, and the existing Pershing II (PII) missiles would be a formidable force. This was a force to counter the Soviet buildup of SS-21 missiles and Backfire bombers in Eastern Europe. To employ the missile, the Air Force tasked SAC for its expertise in employing nuclear missiles, Europe needed the experience of Missileers who could provide command and control (C2), communications, logistics, and operational security and safety for a mobile nuclear missile system. It needed experienced people liaise with our European allies, both civilian and military, and to help decide the basing, manning, and deployment of the new system. In other words, where would the GLCM bases be located?

England and Prime Minister Margaret Thatcher were solid supporters and defenders of the deployment of GLCM in England. She was quick to defend President Reagan’s deployment of a nuclear system in Europe and offered two basing sites. RAF Greenham Common would be the first base to receive GLCM. But the second base, RAF Molesworth, would not be started until other NATO bases were named to accept GLCM. Italy's Prime Minister was quick to offer the second basing site in Sicily. Strategically and economically, this was a choice Italy made to avoid an additional base on the mainland and would couple the GLCM base to an already existing NAS Sigonella. Sicily was only seven air minutes from Libya and Italy, and rightfully believed Sicily would become more strategically important. The Italians offered us three different locations from which to choose. Comiso with its central island location and existing runway used for temporary construction, was the best by far. NAS Sigonella proved to be a valuable partner with its existing nuclear weapons storage facility, Carabinieri command, and communications. Three other basing countries, each with their own positive and negative factors were to follow.

A cadre of SAC missile officers was selected to report to Ramstein AB, Germany. Our mission was to develop C2, communications, logistics, and operational procedures that would blend into the existing US/NATO nuclear delivery aircraft and missile systems (PII and other such field artillery systems). I was assigned as Chief, GLCM Procedures and Requirements. I was very fortunate to have two very talented officers and three USAFE senior NCOs assigned to help me create C2 for GLCM with the primary mission of creating a GLCM C2 that would be indiscernible...
Within two weeks after reporting to Ramstein, I was back in San Diego attending the first GLCM Launch Officer Course at General Dynamics (GD). The contractor was in need of information on which we had just begun to work. Thus began the hidden "dual-track" in GLCM history. The Air Force and the contractors working side by side to make the missile system viable and bring it to Initial Operating Capability. The Joint Cruise Missile Project Office (JCMPO), located at TAC Headquarters, Langley AFB, VA, was invaluable in coordinating and, in some cases, developing many of the integrated requirements coming from Europe so they would mesh with GD.

In Europe, communications, logistics, operations and a very intricate nuclear C2 systems were being developed to ensure a mobile missile system capable of a fast stealth dispersal could take place. The messages to GLCM units, like messages to all other NATO/US units (Army, Navy and Air Force) had to go unnoticed by the enemy. GLCM was the most sophisticated weapon system requiring the integration of flex targeting and the "dial-a-yield" warhead. As the communications requirements were developed, the LCC requirements were reviewed by JCMPO and GD and then installed in the LCC. Emergency Action Messages, Checklists, and crew procedures using new technology (i.e., touch screens) were now being written for an entirely new concept, field combat. Even power sources were studied for communications and critical equipment operation when a GLCM flight was in an ultra quiet stealth mode. For our C2 group, we had to ensure that the crew had full message reception capability even when in their silent mode.

The USAFE GLCM Team was small, but our advantage was working with office mates with years of NATO nuclear C2 experience. Every member provided extremely valuable insight into what we needed to do. I was asked to help the British Ministry of Defense (MOD) in the design of GLCM unique buildings. The British MOD engineers had been tasked with the lead role in designing the GLCM hardened facilities. They were very familiar with hardened aircraft bunkers, but of course, had no idea of the GLCM concepts and procedures. The operators had built their dispersal requirements for GLCM. There was always the chance that a base might have to ride out a surprise first strike. A secondary hardened base command post was designed within the hardened TEL/LCC facility. Of course, each base had their own separate Wing Command Post (WCP). The WCP was to be the first and most important facility to bring on line. Each base would require world wide communication as quickly as possible to ensure; delivery schedules, time line updates, Command Guidance, logistics schedules etc. (in the case of Greenham Commons and Comiso, active protesters).

The six GLCM WCPs had a budget of over $20 million. Training WCP personnel, both inexperienced and experienced SAC and USAFE personnel, had many benefits. During year two, we created a three week command post training course to be given at every GLCM base to ensure that the C2 personnel would learn both USAFE/NATO and local procedures. We would receive immediate feedback on our products and were able to make immediate changes. During the design phase, we realized there was no Electro Magnetic Pulse (EMP) protection planned. We did not have time for committee meetings or decision papers. The USAFE staff made calls and I briefed the problem and solution to the Supreme Headquarters Allied Powers Europe (SHAPE) senior leaders in Brussels. The EMP cost was an additional $12.6 million. GLCM introduced the Permissive Action Link PAL to the theater. Once the importance of PAL was explained, the new warhead capabilities, and the importance of GLCM to the aircraft mission was explained, SHAPE was quick to agree on the EMP issue.

Bringing a command and control system for a mobile missile, to a command that was proud of its tactical aircraft nuclear system was difficult on its own. Pilots learned the GLCM missions were to take the place of the many "one way" missions they were currently tasked to fly. Pilots would no longer be responsible to execute these missions. Things did not get an easier. In year three, we had to defend against a Congressional funding cut of $1.8 million. By this time, the C2 office had plenty of reasons to successfully stop the cut. Yes, SAC Missleers accomplished a great deal in order for GLCM basing to take place.
alert. The BGM-109 Gryphon was just referred to by most of us as GLCM, pronounced glick-em. GLCM and the US Army’s Pershing II missile systems were brought on by the Reagan Administration as a counter to the mobile SS-20 missile systems fielded by the Soviet Union in the 1980s. The 1980s was the height of the Cold War. Many of us who were serving in the military or training for entry to the Air Force felt that we would have the final confrontation with the Soviet Union and it would be imminent. One of the largest fears among the US population was there would be a nuclear confrontation between the NATO alliance and the Warsaw Pact.

GLCM was a ground based version of the Navy’s successful Tomahawk cruise missile. It was developed as a low flying missile with a high degree of accuracy. Whereas the Pershing missile was a medium range ballistic missile with a flight time of 10 - 15 minutes, the GLCM was a low flying cruise missile that flew at low levels that took 2 - 2 ½ hours to fly to its target. The missile was hard to detect as it flew at treetop levels and was highly accurate due to its use of terrain following radar. Essentially, it was a drone aircraft that would fly to its target with pinpoint accuracy.

The Air Force had six missile wings in Europe and one training group at Davis-Monthan AFB in Arizona, as detailed earlier in this issue.

Within each GLCM wing, there would be an operations squadron consisting of the missile launch officers, a security police squadron, and a maintenance squadron. The personnel would be assigned to those squadrons on base for administrative and training purposes. However, when GLCM went out into the field, they were organized into tactical flight. Each wing would deploy between 4 - 8 flights at the height of its deployment to Europe. Each flight consisted of a flight commander, security police officer in charge of the security element for the flight in the field, a maintenance senior NCO to supervise the maintenance and technical support for the missiles in the field, four launch control officers, about 20 maintenance personnel, and 40 security police personnel. Of the 40 security police personnel, a third would consist of host nation military personnel. In the case of Sicily, these personnel were provided by the Italian Carabinieri. A GLCM flight would have six primary vehicles. They would consist of two LCC vehicles and four TEL vehicles with four missile each for a total of 16 missiles per flight. In addition to the six primary vehicles, there were assorted trucks, Hummvees and other vehicles to provide transportation and support for the flight out in the field.

For GLCM, there were essentially four phases for a flight. The first phase would be preparing for deployment out to the field for a training. This would be followed by 2 – 4 weeks with the flight actually out in dispersal for training purposes. When the flight was out in the field, it essentially performed as a ground based tactical unit. Much of the training overlapped with what was provided for the Army. This was an unique experience for many of the launch officers, as the ones who transitioned from ICBMs were used to fixed alert facilities and not carrying a M-16 rifle around. The third phase for a flight was when it stood down from the field. During this period, personnel would clean the vehicles, do any additional maintenance and take personal leave time. The last phase would be standing alert at the GAMA. The GAMA was where the live weapons were stored in huge blast bunkers. One of the bunkers was configured for an alert crew with living quarters built into the bunker. Interestingly enough, the GAMA at RAF Greenham Common was used as a set for X-Wing Fighters in the film The Force Awakens.

For GLCM, there were two modes for the missiles. The GAMA would always have one flight of missiles ready for launch within a short period of time. During periods of increased tensions, the rest of the GLCM flights would be activated and dispersed out to the field. This is what alarmed the Soviets as the missiles were hard to detect once dispersed and if launched, were almost impossible to detect in flight.

At the height of the GLCM program, the alerts would be held at the GAMA by missile crews on a 72 hour rotating basis. However, in 1987, the Soviets blinked and signed the INF Treaty. The treaty was unique in that for the first time in history, a whole entire class of nuclear weapons were eliminated. The US would destroy its GLCM and Pershing units and the Soviets would destroy their equivalent weapons. Consequently, the GLCM units were drawn down over a five year period. This is where I come in. In 1989, I was commissioned as a new second lieutenant in the Air Force. Although GLCM was drawing down, they were still pulling limited alerts. I was in the second to last class, entering training in August 1989 and finishing at Davis-Monthan AFB in December 1989. I reported to Comiso AS a few days later. By this time, there were only three tactical missile wings in operation, Greenham Common, Wüscheidt, and Comiso. Wüscheidt closed in 1990 and Greenham Common at about the same time as Comiso, but
Comiso had missiles longer. In addition, the Pershings were also decommissioned.

It was interesting to be assigned to a missile wing as it was closing. We would still train for dispersals, but we knew that the wing would be closed by the end of 1990. It was a challenge in leadership to maintain a level of proficiency with the knowledge that the wing’s mission would be gone shortly. When I first arrived in Comiso, the GAMA alerts were still being run for the first two months. Afterwords, alerts consisted of the alert flight’s leadership and launch control officers carrying a radio for a 24 hour period. The alert day would consist of a morning briefing detailing the current intelligence situation and any maintenance that would be required. The alert crew would support the maintenance of the missiles if it was required. Otherwise, the alert was relatively quiet with only a daily communications (comm) check with the flight leadership and the alert crews. There was one funny incidence when there was a comm check being done. Everyone, except for the person initiating the comm check, were at a poker game. So, for the comm check, we just passed the single radio among ourselves.

By the time of the last alert, it was in the first week of September 1990. As mentioned earlier, alert by this time consisted of carrying the radio. I was scheduled for the last alerts simply because it was my turn on the duty roster. At the time, we did not realize it was the last alert. We had assumed there would be another schedule published for the next week’s crew alert. As all of the other GLCM and Pershing units were no longer pulling alerts, our alert was the last one. While GLCM started out with a bang with high profile deployments and protests, the last alert was anti-climactic. It ended with a “Roger that, positive comm check.” From one point of view, the way GLCM ended meant that our mission was successful. We had successfully caused the Soviets to blink and there would be no nuclear war. It is with that knowledge that I remember my last alert with pride.
communities in West Central Illinois for 1 year in 2014. It was extremely rewarding serving our community as well as providing oversight to over 50 communities that provide service to their communities. Leading volunteers is quite a bit different than leading airmen.

As far as civic duty: In 2003, I decided to run and was elected as Alderman in Ward 2 of Mason City, providing leadership within the community and having a voice from my small area of the community. Two years later, I ran for Mayor for the City of Mason City and was elected, serving from 2005-2009, during our community’s sesquicentennial year (150th anniversary). During my term, I introduced a new and improved approach to budgeting and long-term planning for the community. There were virtually no planning efforts in place at the time, and we established new ground-breaking efforts in that area. In concert with the City Council and the State of Illinois, our city planned and worked on funding for a $2.5 million water filtration plant, driven by an unfunded mandate from the State of Illinois (Illinois Environmental Protection Agency). I also pursued additional funding from the Federal Government through the hard-working efforts of then Congressman Ray LaHood (D-18th Congressional District – Illinois). The plant is running smoothly even today after 12 years of operations … an addition to the community I am particularly proud of.

Within the community as a non-politician, I provided leadership and oversight of our community Fall Festival Event for 8 years from 2001–2008 as Festival Chairman. My first year as chairman was in 2001, and my first festival occurred less than a week after 9/11, an incredibly stressful time. Even with many in the community demanding cancellation of the festival, I decided to move forward and hold the festival, as it was something the people and community needed to begin healing. In retrospect, I received positive feedback from almost all of the community for holding the festival.

Also, within the community, I have supported my church. I have been the organist for Christ Lutheran Church for many years, as well as serving as Congregational President and now as Treasurer. Another one of my efforts to support veterans and our community has been my membership and leadership within our local American Legion Post. I served as Post Commander for 7 years and have established a building and contingency fund for our Post, which has been extremely beneficial to keeping our facility operating in very lean budgetary times. I really owe that to my great working relationship with the community members, who are incredibly supportive of veterans in general. One of our biggest projects within the community is our display of over 500 full-sized flags in the park and in our local cemetery, along with display of over 800 small grave side flags. About 10 years ago, during my first year as Post Commander, we had a huge microburst storm go through the area, destroying many of our flags and many of our flag poles. In conjunction with our Legion membership, I reached out to our community, and we fully funded replacement of the flags and poles. I am so blessed to be in a community that is so pro-veteran.

I am also a Life Member of the Military Officers Association of America (MOAA), and have served as the Lincoln Land (Springfield, IL) Chapter President for 5 years. I am currently the chapter webmaster and 2nd Vice President, supporting our group in the state and in DC.

So, from Missileer to community leader, I am grateful for the background which I received from my training and experiences in the Air Force … and mostly from the great leaders and coworkers I served with in the Air Force and in the missile career field.

Help Wanted for AAFM:

All volunteer organization, including AAFM need volunteers to succeed. We recently secured the services of a tech editor for the newsletter, a webmaster, and a social editor. But we aren’t stopping there. Here are a few more positions if you would like to help us grow:

Newsletter Editor: Charlie Simpson has been doing this task since 1997. He is deserving of a break! He has agreed to train his replacement if we have any volunteers. Contact director@afmissileers.org for more information.

Assistant Webmaster(s)/Designer(s): Members to assist with maintenance and updates of AFMissileers.org website. Site is built on a drag-and-drop building tool. If you have Wordpress or similar skills that will help. HTML skills a plus, but not required. Fast track promotion to Webmaster quite possible. Contact admin@afmissileers.org if interested.

News hounds: Find and post news article relevant to missileers on the AFMissileers.org website forum. Moderate comments. If interested, contact webmaster@afmissileers.org.

Trivia Quiz

Missileers, time to put your thinking caps on! We are beginning a missile quiz in our newsletter. Your participation will determine its success! The first member with the correct answer will get a prize from our store inventory. Send your answer/guess to imagi@rocketmail.com with the title “AAFM Quiz Answer”.

QUESTION OF THE QUARTER - Which states have had operational ICBMs on Strategic Alert?

Answer along with the name of the winner will be in next AAFM newsletter.
Patch Gallery Makeover

If you have visited the AAFM Webpage recently, you have noticed a new look, increased functionality and compatibility with mobile devices. In conjunction with the makeover, we decided to renovate the Patch Gallery and make some changes that we will please AAFM members and other users of the Gallery.

The biggest change is that Greg Ogletree, whose patches have populated the Gallery exclusively since its inception many years ago, has agreed to welcome the inclusion of images of patches that are not in his collection. Although his collection is extensive, he will be the first to admit he is still missing quite a few patches, some of which may be in your shadow box, scrapbook, or a shoebox on the closet shelf. You now have the opportunity to scan the patch or patches you have that are not yet illustrated in the Gallery and forward the scans to AAFM so that we can add them for all to see and enjoy! A “Contributed by” line of text will give credit for your patch image(s) scanned in a resolution so all can appreciate even the most subtle of details. Furthermore, we will provide accompanying information for each patch, such as who designed it, the date approved, when it was worn, and design significance. This last bit of information is especially important for unofficial patches, such as training class/morale/unofficial patches, whose meaning is often known only to those who proudly (or defiantly) wore and displayed them (an inside joke, a pop culture reference from the time, etc.). We think you’ll agree all this information will help ensure the important legacy of our “embroidered history” is preserved and the human element of the weapons systems we operated, maintained and secured is represented not only in the weaves of cloth, but the stories woven behind them as well.

We are considering adding a forum where members can exchange information about unit emblems, and even discuss design ideas for that next “Friday Patch” that might raise the eyebrow of the commander, but certainly garner the praise of those around the Club or Squadron Heritage Room at the missile wings! For the time being, please consider the Patch Gallery “under construction” as we work through the tasks of improving the images, web presentation and adding the historical details to each of these historical gems. As soon as all this is finalized and the updated Gallery is opened for business, we will get the word out so that you can explore of the Gallery’s contents, see what is missing that you might have. We hope you will be sparked into action to search for that shoebox and share your patches with world. Help us make the Gallery a living and ever-expanding, virtual promenade for all to walk through enjoying the art, history, unit/weapon system pride and humor sewn into the fabric that ties those who have served and those who continue to serve in the nuclear deterrence mission.

AFMissileers.org, A New System for AAFM Members

In April, the Association of Air Force Missleers rolled out a new system that integrates membership management, our website, event management, and provides many new opportunities for us to engage with other members.

Our member directory is now online in a special members-only section. You can search for friends by name or use the advanced search function to find other members near you or from your old units. This section also has a members-only forum and a “Taps” page for our departed brothers and sisters.

The Connections page has a listing of social media sites for both AAFM and individual units. Now, you can be even more connected to friends through AAFM.

Members can now update their profiles and add a biography and profile picture. John Parker uploaded a picture showing him “then and now.” Another used a unit patch. You can also update personal information such as your address, email, or changes in experience.

If you’re planning a reunion for a missileer organization, we can add your event to our Meetings and Reunions page. Information and registration for our 2021 annual meeting will be on our new website.

We’re also rolling out upgrades to the store, patch gallery, and the AAFM online museum as part of the new platform. New member applications, renewals, and other administrative functions have now been automated to make life easier for both members and administrators.

Special Contest - To introduce our new system, we are having a Scavenger Contest with a number of prizes including computer bags and Starbucks cards. To enter, go to www.afmissileers.org/contest. The contest will end July 30 and winners will be announced shortly afterwards.

Logging On - To access the full features of our new system go to www.afmissileers.org and select the LOG IN button in the upper right of the page. If you have problems getting access email admin@afmissileers.org and we will get you set up.
From Maj Gen Stoss to AAFM

After the honor and privilege of being the 20th Air Force (20 AF) Commander for the past two and a half years, it’s time to pass the flag to an outstanding leader, Maj Gen Mike Lutton. More on Mike in a bit.

First, let me thank all of the members of the Association of Air Force Missileers. Whether you worked with small missiles, big missiles or are a member for a number of other reasons, thanks for sharing and spreading the stories of our valued heritage and for keeping this community together. For the many that served our Nation, from our beginnings to the present, thank you!

Next, let me say that I couldn’t be more proud of America’s ICBM (Intercontinental Ballistic Missile) force…the only ICBM force in the free world and clearly the most professional, disciplined, lethal and feared ICBM force in the world!

Day-to-day, our ICBMs provide the bulk of US “alert” nuclear weapons and a significant portion if full generation of the triad would be required. An attack on the ICBM force would be clear and unambiguous; the threshold to strike us is immense. Since our facilities are hardened and dispersed, it forces an adversary targeting us to use many more weapons than they are attempting to strike. This drives a cost-imposing dilemma upon an adversary, as we are configured with a single warhead, and they would need to use several per aim point to assure Minuteman’s destruction. This aspect makes the ICBM force the most stabilizing leg of the nuclear triad. Making their challenge even greater, is that the ICBM force is the most responsive leg. In extreme circumstances, with tactical warning that an adversary is targeting Minuteman, POTUS could decide to launch the ICBM force before adversary warheads would arrive over our missiles fields. Thus, they would expend a significant portion of their warheads to little result and would still absorb the powerful strike from Minuteman. It doesn’t end there. We provide the most cost-effective nuclear force to the Nation as well. We also are the quickest leg to retarget emerging threats. And we are resilient—we provide a second strike capability in most scenarios and we have the most robust nuclear command, control and communication capabilities. Our nuclear surety attributes are the gold standard.

The ICBM force - past, present and future - ensures there will not be a nuclear attack on our Nation, allies and partners. A nuclear version of 7 Dec 1941 or 11 Sep 2001 would be world-changing and must be deterred. We are ready today, we were ready yesterday, and we will be ready tomorrow. During the Cold War, some units had a sign on the wall that said “not today comrade.” Well, that hasn’t changed. Today is not the day to attack us…and tomorrow won’t be as well. The outcome is certain if they would—and the adversary knows this - hence, they won’t.

Please take a moment to read Lt Col Petren’s article on our efforts. As you would expect, the ICBM force rose to the occasion with the COVID-19 pandemic. The ICBM force is ready for any condition or contingency and our readiness and lethality actually increased. Our ICBM alert force of missileers, security forces, maintainers, facility managers and chefs is extraordinary! Our 377th Air Base Wing at Kirtland AFB, NM, also set the standard, ensuring critical cross-Combatant Command operations stayed on track, despite COVID-19. Well done Tigers!

In the last two years, we celebrated quite a few firsts as a command. We increased interoperability across the missile wings by including maintainers and security forces in the annual OLYMPIC FLAG operations exercises. We also welcomed a new helicopter to serve the command, the MH-139 Grey Wolf; and while we are talking helicopters, our 582nd Helicopter Group continues to enhance nuclear security across missile wings and squeeze all that they can from the iconic UH-1N. Additionally, we propelled total force integration with the first reservist missile operators being certified and pulling alert at each of the three missile wings. Our 576th Flight Test Squadron is busy as ever with operational testing, ranging from our new Transporter Erector to our powerful Glory Trips. Perhaps the most rewarding part of this job is getting a chance to meet so many professional and awesome Airmen, who proudly accomplish the mission every day.

As we look toward the future, the replacement to Minuteman, the Ground Based Strategic Deterrent (GBSD), is on-track for fielding in the late 2020s and completing in the mid-2030s. GBSD will ensure we retain the lethality edge many decades into the future.

It has been a great pleasure to serve as the commander of this incredible organization. Our amazing Sentinel Warriors have continued to innovate and improve our mission, and I trust you enjoy reading about their
accomplishments and are rooting them on. These past two and half years have been nothing short of absolutely awesome!

Back to Maj Gen Mike Lutton. On 8 July 2020, I will turn over the reins of 20 AF to Mike. We have known each other for decades, dating back to his Peacekeeper years at FE Warren AFB. His super wife Brenda, the better half, was a Minuteman III launch officer as well. They are a great command team and I’m excited to see Gen Lutton lead 20 AF to new heights!

Thank you for supporting us… I am so proud to be a part of this incredible team of ICBM Airmen, past and present!

Your Wingman. Very Respectfully, Fred Stoss

Maj Gen Stoss is AAFM Life Member L224

The ICBM Force and the Challenge of COVID-19 - By Lt Col Nicholas Petren, 20th Air Force

On 13 March 2020, the President declared a national emergency due to the COVID-19 pandemic. At that time there were 1,645 diagnosed cases of COVID-19 in the US. A month later the number of known cases had risen to 578,563, the governors of 42 states had issued stay at home orders, and international travel was severely limited around the globe.

Commanders within 20th Air Force (20 AF), along with supporting planners and medical experts, were tracking COVID-19 closely. There was much uncertainty about this pandemic. Experts debated the various characteristics if the disease: how deadly is it? How contagious is it? How easily does it spread in various environments? How do age and other risk factors impact risk? One thing was certain - 20 AF would continue to perform its critical mission regardless of how the pandemic developed.

Nuclear deterrence is the foundation of the US tailored deterrence strategy, which enables our national leaders to communicate and negotiate from a position of strength. The USAF’s land-based ICBM force is the most ready, reliable, and responsive element of the nuclear triad. The commanders within 20 AF took decisive action to ensure the strategic warfighting capability provided by 20 AF would remain rock solid 24/7/365.

20 AF established a risk management framework to understand the operational environment. Various risk assessment measures were established to detect early warning signs of COVID-19 among the force, or in local communities. These measures were aligned with comprehensive risk management actions that supported installation Health Protection Condition measures. To ensure a healthy mission force, missile crew, security forces, facility managers and missile chefs were placed in a restricted movement status when off duty referred to as disciplined self-isolation that minimized their close contact with others. Deployments to Missile Alert Facilities were extended, and those deployed were isolated from interaction with others. These risk management actions were a resounding success. 20 AF struck the right balance of COVID-19 risk mitigation and risk to morale or family impact in a time a significant uncertainty.

As time passed and experts learned more about COVID-19, this risk management framework was further refined and is now nested in the Department of Defense and Air Force guidance on the topic. Commanders continue to make data-driven decisions to protect our Airmen and families while assuring mission success.

Though the focus was, is, and will remain on mission assurance for 20 AF’s strategic warfighting capability, some 20 AF units were also prepared for, or involved in Defense Support to Civil Authorities, as the Department of Defense used its unique logistical and operational flexibility to proactively address predicted potential shortfalls within the civilian health care, food supply, or other systems. These actions were aligned with Secretary of Defense Esper’s
priorities of “Protecting the Defense Department’s people, maintaining military readiness and supporting the whole-of-government interagency response.”

The Sentinel Warriors of 20 AF geared up or armed up and moved out, whether on base or to the missile complex, with great discipline, courage, good spirits, and an intrepid dedication to perform their duties in the face of an invisible threat.

To those currently serving – your perseverance is inspiring. To those who have passed on the sword to the current generation of warriors – you can rest assured that your legacy is in good hands.

Thank you for your gracious and generous donation to the Jacksonville Museum of Military History. It is donations from the public, business, and associations that allow us to not only keep the doors open and the lights on but also allow us to expand and improve our exhibits. You can be assured we will be good stewards of your contribution.

Richard F Lorenz, President, AAFM Mbr Nbr L390.

What’s in My Newsletter

For over 27 years, the AAFM Quarterly Newsletter has documented the history of Air Force missiles and the people involved with them. Most of the history came from you, the Missleers who sent in your personal stories and experiences, from your earliest times on Matador, Hound Dog and Atlas to today’s life in Minuteman.

We need you to keep doing that - tell us what you want to see in your newsletter, and then send in your own personal stories. We have had some great series about alert tours, maintenance dispatches, food, transportation, uniforms, how we got into missiles, what we did after missiles and much more. Your stories are the real history of the Air Force and the missile force.

Give us some ideas for future series, and get your stories to us, along with photos, by email to director@afmissileers.org or by mail to AAFM, PO Box 652, Johnstown, CO 80534.
We continue to welcome new members to our association, as well as those long time members who have decided to convert from annual memberships to lifetime memberships. New members can learn more about member benefits by visiting the AAFM Web Page at afmissileers.org or by reviewing our Newsletter Archives that are part of the web page.


New Life Members - Bridges, Robert, Burchfield, Rich, Gibson, Steve, Haywood, Kaylin, Jeffries, Jennifer, McKinney, Rich, Mulcahy, Joe, Murphy, Bill, Nelson, Mark, Nemish, Kristen, Polanosky, James, Pratt, Alexis, Trip, Frank, Veselka, Keith, Yaege, Glen

Taps for Missleers

Lt Gen (Ret) Al Casey, an AAFM Member, served in Mace at Lowry and Orlando, at BSD, and was the BMO Commander responsible for Peacekeeper and many Minuteman modifications, and lived in Redlands, CA.

William Lee Cox, an AAFM Member, served in Matador system at the 1 TMS and in Hound Dog at Fairchild during the Cuban Missile Crisis, and lived in Seattle, WA.

Col Thomas Falzarano served in the 341 MW, AFSPC, commanded 21SW, and lived at Peterson AFB, CO.

Gen (Ret) John A. Gordon, an AAFM Member, served in Minuteman, in the 44 SMW and the 90 SMW, including as a Commander, and lived in Columbia, MO.

Col (Ret) Robert Hamilton, an AAFM Member, served in Minuteman and Peacekeeper in the 341 SMW, at SAC and 15 AF, and lived in Riverside, CA.

SMSgt (Ret) William “Bill” H. Hehr served in maintenance in the 44 SMW and 90 SMW, and lived in Cheyenne, WY.

CMSgt (Ret) Richard Hocheiser, an AAFM Member, served in Mace at the 498 TMG and Minuteman in the 90 SMW, and lived in Clearfield, UT.

Maj (Ret) Carl King, an AAFM Member, served in Minuteman in the 44 SMW, 321 SMW, 4315 CCTS and SAC, and lived in Bel Aire, KS.

Maj (Ret) Vincent O. Maes, an AAFM Member, served in BOMARC, Titan II in the 308 SMW and 390 SMW, in Minuteman and Peacekeeper in the 90 SMW, at SAC and AU, and was instrumental in developing the Titan II missile displays at the Jacksonville Military Museum. He lived in Jacksonville, AR.

Gen (Ret) Thomas S. Moorman, Jr was Vice Commander of Air Force Space Command when the ICBM force became part of the command.

Julie Moulthrop, an AAFM Life Member and widow of former AAFM Board member Col (Ret) Roscoe Moulthrop, who was the last wing commander of the 44 SMW, lived in Lake St Louis, MO.

Maj (Ret) Don E. Mullins, an AAFM Member, served in Minuteman in the 91 SMW and the 4315 CCTS, and lived in Sherman, TX.

Col (Ret) Edgar A. Northrup, Jr, an AAFM Life Member and former AAFM Board Members, served in Titan II in the 390 SMW, including as wing commander, and in Minuteman and Peacekeeper in 1 STRAD, 394 SMS, SAC and Air Staff, and lived in San Diego, CA.

Maj (Ret) James Rosskopp, an AAFM Life Member, served in Atlas F at the 556 SMS and lived in Bulverde, TX.

Lt Col (Ret) Gene Sisk, an AAFM Life Member, served in Minuteman in the 90 SMW, at SAC, AFSPC ACC, Ogden, 1STRAD and the 394 SMS and lived in Fair Oaks Ranch, TX.

Capt (Ret) Gerald “Greg” Young, an AAFM Member, served in Minuteman in the 341 SMW and lived in Brighton, CO.
**Minuteman Models** - Shipping of models from our current source is getting difficult and time consuming. As a result we will be placing one last order with our supplier this summer with an estimated delivery of NLT mid-November. If you would like to order a MM I, II, or III model in white or deployment colors please send a check for $240 (includes shipping) to AAFM, P O Box 652, Johnstown, CO 80534. All orders must be received by 15 Aug 2020. Please specify model type (MM I, II, or II) and color (deployment colors or white with SAC stripe).

The Donations/Store Pages are being revised after a full inventory. You can go the to the web page at afmissileers.org and access the store there or wait until the next issue of the AAFM Newsletter. You can also donate directly to AAFM programs online or by mail to AAFM, PO Box 652, Johnstown, CO 80534.

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**Association of Air Force Missileers** - Membership Application

Complete and mail to AAFM    PO Box 652 Johnstown, CO 80534 or log on to afmissileers.org

**Membership Categories - Free for Active Duty Enlisted**

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**Address**

**City**

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**Zip**

**Phone**

**Email**

**Rank/Grade**

**Signature**

Active Duty  ____ Retired  ____ Discharged/Separated  ____

Guard/Reserve  ____ Civilian  ____

**Awarded Missile Badge -** Yes ____ No ____

**Can AAFM release this information - only to members and missile organizations?**  Yes ____ No ____

**List your Missile Experience including Systems and Units** - e.g. - Minuteman, 90 MW, Atlas 556 SMS, Hound-Dog 319 BW, etc. Include all higher headquarters, training, test, evaluationn or other special assignments.

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Specialties - Operations  ____ Maintenance  ____ Munitions  ____ Comm  ____ Facility Mgr  ____ Safety  ____ Civil Eng  ____ Support  ____

Research/Devel/Test  ____ Instrumentation  ____ Security  ____ Contractor  ____ ( )  Other  ____________________
Reunions and Meetings

390th SMW Memorial Association RESCHEDULED - 22-26 September 2021 in Tucson, AZ. For more information: Contact: John Lasher, 520-886-3430; Dick Kampa, 520-747-7592; Joe Brown, 520-886-2379 or redsnooty@comcast.net.

Association of Air Force Missileers 2021 National Meeting - 6-10 October 2021 at the RL Hotel in the Salt Lake City, UT. Hotel and event registration information on the AAFM Web Page at afmissileers.org and the AFMissileers Facebook page.

Plan your unit reunion in conjunction with our National Meetings and let AAFM take care of all the details. Get your reunion notices in early so we can help spread the word. Keep in mind that a significant number of our members do not use Facebook or email, so include a telephone contact number in your announcement.

Keep your mailing address, email address and dues current with AAFM. Email us at aafm@afmissileers.org, call 719-351-3962, or mail to AAFM, PO Box 652, Johnstown, CO 80534

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