

Association of Air Force Missileers AAFM Newsletter

"Victors in the Cold War"

Volume 14, Number 2

June 2006

Cheyenne and F. E Warren - our Destination in September



*Minuteman I,
Minuteman III and
Peacekeeper at the
Warren Gate*



*Colonel Michael
Carey, Commander,
90th Space Wing*

AAFM - our Seventh National Meeting

- by Col (Ret) Charlie Simpson, AAFM Executive Director

Between two and three hundred members of your association gather every two years for a National Meeting. We have traditionally met near an Air Force base involved with the US Air Force missile and space missions - and 2006 is no exception. For the first time in the thirteen year history of our organization, we will meet at an operational ICBM base, Francis E. Warren AFB in Wyoming.

Our previous meetings have been conducted in Colorado Springs, home of Air Force Space Command, Santa Maria, California, near Vandenberg AFB, Cocoa Beach, Florida, near Patrick AFB and Cape Canaveral, and Omaha, Nebraska, home of US Strategic Command. Each time, we have been privileged to visit the units at the base, had exceptional briefings on the missions of the commands and units at each and toured many facilities at each base. The people involved with each base have been superb hosts to our association, and the members who have attended our gatherings have come away with better understandings of many aspects of the Air Force space

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Welcome to the 90th Space Wing

- By Col. Michael J. Carey, 90th Space Wing commander

On behalf of the entire Mighty Ninety team, I want to welcome the Association of Air Force Missileers to F.E. Warren Air Force Base, Home of the Missileer! It's an honor to serve here in Cheyenne, where there is a rich tradition of excellence. I truly believe this is the best base in the Department of Defense, and I'm proud to host your organization here.

We are the oldest continuously active installation in the Air Force. The base and the city of Cheyenne share a collaborative history dates back to 4 July 1867 when then Fort D.A. Russell and Cheyenne were founded together to help ensure the progress of the transcontinental railroad.

During the early years of the post, more than 220 red brick buildings were constructed. These buildings included houses, dormitories and stables. The houses continue to be lived in today and many of the old stables are now office buildings. We treasure our roots in the old west and continue to remain good stewards of these facilities, which are on the National Register of Historic Places. The entire central core of the installation is

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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
- Encouraging Meetings and Reunions
- Keeping Missileers Informed
- Providing a Central Point of Contact for Missileers

AAFM National Meeting *(Continued from Page 1)**Little America Resort and Hotel*

and missile missions. Our members have had the opportunity to tour the headquarters at both AF Space Command and Strategic Command, visit Cheyenne Mountain, talk the men and women who control satellites like GPS, see both historic and current missile test and space launch facilities, visit missile training facilities for all types of Air Force missiles and much more. In 1998, we had the opportunity to see the space shuttle shortly before John Glenn's return to space. Many members stayed in the area a few extra days to witness the launch.

We have also had the chance to see local historic sites, visit the Air Force Academy, take wine tours, ride in an airboat in the Florida swamp and much more. Each of our six previous meetings has had unique opportunities for those who have attended. We have had great briefings on a wide variety of topics, heard some exceptional speakers, including two commanders of Air Force Space Command, the commander of Strategic Command and the commander of 20th Air Force. We had a great presentation by former Secretary of the Air Force Tom Reed, and another by the son of U-2 pilot Francis Gary Powers. Every one of our gatherings has been filled with events combined with a lot of time for missileers and their guests to just sit and talk, tell stories and get caught up on old friendships.

Our upcoming gathering in Cheyenne will be no exception. Most of our activities will be in the host hotel, the Little America Resort and Hotel. We start on Wednesday, 27 September, with registration and our welcome party, an informal buffet that offers attendees time to meet and greet fellow missileers. Our hospitality suite will be open any time there is not some other activity, and tends to be a busy place late into every night. The suite offers access to all of the AAFM logo items, displays of historical items and visits by locals to talk about the attractions in the area.

Thursday is traditionally "Air Force Day" - the day we tour the local base and talk to the enthusiastic

men and women involved in operating, maintaining and supporting our missile and space systems. This September, we will spend the full day at Warren. Members of the wing will brief us on the ICBM mission and we will tour operations, maintenance and support facilities and training locations. The day will include a stop at the ICBM Museum at Warren and lunch at the Warren club. That evening, we return to the hotel for an informal dinner with no program - just the chance to socialize with our fellow missileers and their guests.

On Friday, we always end up with a divided group. The golfers head out for a tourney and the majority of the folks get to see the local sights. This year, we will play our tournament at the Warren golf course, while the rest of the folks have a superb historic tour of the city of Cheyenne. Golfers will lunch at the course, while the tourers enjoy lunch at the historic Plains Hotel. That evening, all of us will gather at the Old West Museum for a tour, dinner and entertainment.

Saturday morning is our time for business. We start with a general membership meeting, where the director and officers update the members on association activities, programs and financial status. We will have several presentations during the general meeting, including a short briefing by one of our members who was involved with early missile testing - so early that it involved captured German V-1s. Following the general membership meeting, your board of directors will meet - a session open to all who want to attend.

On Saturday afternoon, many of the attendees will take a bus ride to an old Warren Atlas E site, now operated by Colorado's Weld County (by an AAFM member) as a records storage area and museum. The balance of the afternoon is free time - a limited commodity during our National Meetings.

*90SW members during Frontier Days - USAF Photo**(Continued on Page 3)*

AAF_M National Meeting (Continued from Page 2)



The Historic Plains

Saturday evening is the big event, our National Meeting banquet at the hotel. We normally have a large number of guests from the local area and base. We invite a number of young officers and enlisted members as our guests, to give members an opportunity to interact with those who currently are part of our ICBM force. The commander of Air Force Space Command is scheduled to be our featured speaker for the banquet.

Sunday morning, at the last of four informal breakfasts, attendees have one last chance to say good-bye before heading home. This last event has grown in popularity each time we meet.

A number of you have registered for our meeting, but a lot more of you still need to get your hotel reservations made by 27 August and your form sent to AAF_M. You will find all the details on the back cover of this issue of our newsletter. We have traditionally kept our meetings a “pick and choose” gathering - you only sign up for the specific events you want to attend. We encourage members in the local area to attend all that they can, but understand that some folks may have toured the base or the town enough times already. Whatever you decide to attend, you won't be disappointed. See you in Cheyenne in September.



90SW Crews - USAF Photo

Welcome to the 90th (Continued from Page 1)



Convoy - USAF Photo

designated a National Historic Landmark. Because new facilities are built to blend with the original architecture, Warren today looks remarkably similar to its original years as Fort D.A. Russell.

F.E. Warren was destined for superiority and has been the site of many significant events in US history. Three of the four congressionally designated regiments of black soldiers, called Buffalo Soldiers by the Native Americans, served here, and Capt John “Black Jack” Pershing married the daughter of Senator Francis E. Warren, a Medal of Honor recipient who later became the first territorial governor and first state governor of Wyoming. Pershing led US troops in World War I and was promoted to General of the Armies, a position shared by only one other man, George Washington.

The ICBM presence here has been full of firsts since the 1957 designation as the first ICBM base in the Department of Defense - hence the title “Home of the Missileer” - to the 1982 announcement that Warren would be the first and later only base with Peacekeeper missiles. We are the site of the first fully operational ICBM squadron and we became the first fully operational missile wing in Strategic Air Command. While you're here, I hope you'll visit the ICBM Heritage Museum to get a closer look at our proud ICBM history here.

The Airmen that serve here are truly America's best and brightest sons and daughters. At any given time, we have about 420 missileers training and on alert at 15 missile alert facilities monitoring 150 Minuteman III launch facilities in the 12,600-mile complex that includes portions of three states. In addition, we still maintain caretaker status of 5 Peacekeeper missile alert facilities and 50 Peacekeeper launch facilities.

The Operations Group is only 13% of the wing's population, which means our missileers are absolutely the cream of the crop! However, it takes the entire team

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Welcome to the 90th *(Continued from Page 3)*

of over 4,000 assigned military and civilian personnel to maintain an alert rate above 98% every single day. This combined effort is what earned us Strategic Command's 2005 Omaha Trophy.

Modernization programs such as the Propulsion Replacement and Guidance Replacement Programs have extended the life of the Minuteman system out to the year 2020. We have completed about 50 percent of propulsion replacement, and about 75 percent of guidance replacement. With that assurance of sustainable, reliable weapons systems, we are able to focus our efforts and direct funding towards enhancing security of the base and the remote sites as well as improving the quality of life of the team of professionals that deploy every day to provide strategic deterrence for the President of the United States.

Again, I'm excited to host you here in September and I look forward to meeting each one of you during your tour!



Power house and control center domes

The Lair of the Titans - from a 1961 article by Julian Hamilton in "Monitor," then the magazine of Mountain States Company, from a collection provided to AAFM by a member

"Speak softly and carry a big stick", Theodore Roosevelt advised his countrymen way back at the turn of the century. Realizing that this is still good advice in these uncertain times, the Air Force is getting ready with a big stick to make any aggressor think twice before launching an attack on this country. It is the 98-foot, 110 ton Titan I, the free world's most powerful intercontinental ballistic missile. Several of these "big sticks" will soon be standing sentinel in the Denver area, operated by SAC's 703rd Strategic Missile Wing ICBM-Titan. Protected by tons of steel, concrete and earth, this nation's first completely underground Titan ICBM installations are scheduled to become operational during 1961.

For more than two years, hundreds of men and machines have been at work on the Lowry AFB bombing range east of Denver constructing underground fortresses

to house the giant Titans, the amazing facilities needed for firing them, and assembling the highly trained SAC crews to fuel and launch them - when and if. Designed to withstand the shock of any enemy nuclear bomb and still retaliate, each of these complexes house several Titan I missiles which can be launched by the squadrons based in the Denver area. Other Titan I missile bases are under construction at Moses Lake, Washington, Marysville, California, Mountain Home, Idaho and Rapid City, South Dakota, but the Denver base is by far the largest and the first scheduled to be completed.

A visitor to the widely dispersed missile complexes near Denver, when they are completed and operational sometimes this fall, will see nothing of the devastating monsters in their underground lairs. Only the steel and concrete doors of the missile silos and antennas and air intakes and exhausts of the powerhouses will be visible, and they will be flush with the ground. In a matter of minutes, however, the antennas can be raised, the 232-ton doors of the launch silos can yawn open under hydraulic power, and an elevator will bring the massive missiles to the surface ready to carry a nuclear warhead to a target one-half of the way around the globe at speeds up to 18,000 miles an hour with amazing accuracy.

Martin Company Starts Titan Project

The full story of the Titan goes back to 1955 when the Martin Company began work on the world's most complete ballistic missile facility near Denver. Here at one location, the missiles are designed, fabricated, and captive tested. In the ensuing months, the Titan was subjected repeatedly to tests of every conceivable kind, including actual firings at the Atlantic Missile Range on Cape Canaveral, Florida. In recent months, the Titan has successfully impacted on targets more than 6,000 miles away.

Another important chapter in the history of the Titan was written by Bell Laboratories and the Western Electric Company, where the command guidance system which directs the Titan in flight was developed and produced. The system's ground-based radar as well as the guidance equipment carried inside the missile itself, came out of this cooperative effort.

The final chapter is being written in the plains outside of Denver. There the launch sites themselves are rapidly reaching the operational stage - when the two stage, liquid fueled Titans will take their places as powerful 110-ton arguments for peace.

A trip through one of these missile complexes reminds one of a huge four story building dug deeply

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Titan (Continued from Page 4)

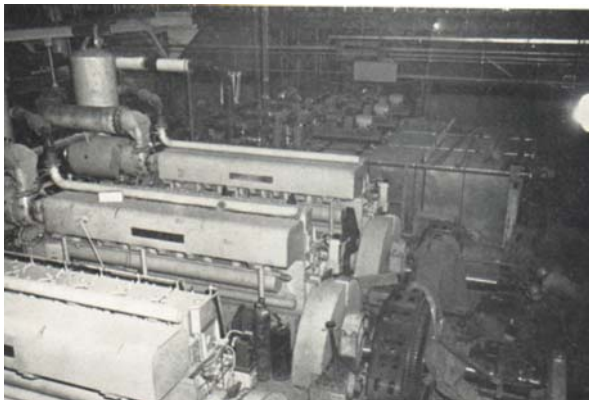
into the ground and then covered with earth. The various areas, all playing an important part in the maintenance and operation of the Titans, are joined together by a maze of utility and walkway tunnels 9 1/2 feet in diameter. There is almost one-half of a mile of steel lined tunnel at each complex. At tunnel junctures and other critical points, massive manually operated blast locks and blast doors have been installed which effectively seal off given launcher areas in case of an exterior enemy blast while a missile is being raised for launching, or an accidental propellant explosion. As we walk through these well lit, yellow painted tunnels an Air Force officer points out overhead light fixtures hung by heavy coiled spring mounts, free of the ceiling and able to withstand the shock or blast of explosion. Other critical facilities, even the lavatory fixtures, are also shock mounted to insure continued operation in case an enemy nuclear weapon strikes nearby.

The cables which carry electrical power from point to point are run through utility pipes high on the sides of the tunnels and these cables, too, are protected from shock at vital points by flexible tubing which replaces the rigid piping.

Telephone Company Installs Cable

Our Mountain States Company, too, played an important role in getting the Titan installations ready - and on time. In our phase of the communications work, more than 100 miles of reinforced cable, specially made for the job by Western Electric Company, was laid underground to link the complexes and the Communications Center at Lowry AFB. Our equipment in all the terminals is also shock mounted.

In these and hundreds of other details, the visitor cannot help but be impressed with the forethought and engineering ingenuity that has gone into the making of the Titans' new underground homes - planning which will



Diesels in the power house

make the missile complex equal to any task.

The entire underground complex is made up of six major areas - the missile silos, the propellant and equipment terminals, the control center, the power house, and the guidance system antennas.

At the extreme end of each complex, the mighty missiles themselves will stand poised in their separate reinforced concrete launch silos. These concrete cylinders are 40 feet in diameter and go down 165 feet in the earth. The missiles themselves will not touch the two foot thick walls or the eight foot thick floors of the silos, but rather by means of a structural frame, will be suspended - shock mounted - in the center. The bases of the missiles rest on massive elevators, and when testing or actual firing takes place, the death dealing Titans will be quickly raised to ground level in launching position.

Adjacent to the missile silos, also buried deep in flue earth, are two more huge cylinders - the propellant terminal and the equipment terminal. In the four story propellant terminal are stored the liquid oxygen, nitrogen and helium used to load propellants and power the missile. To give an idea of the size of these tremendous tanks, one of the fuel tanks has a capacity of 40,000 gallons, while each of the specially insulated liquid oxygen tanks holds 26,500 gallons of Lox at -297 degrees Fahrenheit and weighs 90 tons empty.

The propellant system was assembled at an off-site location in an environment of surgical cleanliness, since the presence of minute particles in liquid oxygen may result in violent explosions and render the missile facility useless. The parts of the system were then sealed to prevent contamination and taken to the missile complex for installation.

Launch Buttons In Control Center

A walk of about 600 feet through the main tunnel brings us to the center of the complex. On one side lies the huge dome shaped control center, and it is here that SAC crews, under direction of the launch control officer, would push the buttons on the control console to fuel the missile and send it soaring into space. Their around the-clock vigils will enable them to keep Titans in a state of constant readiness, and checkout instruments that make constant surveillance possible are also located in this launch control room.

Remote controls for television cameras, located on the ground surface and in each launch silo, are also found in the control center. For security purposes, the cameras allow above ground surveillance of the entire missile complex from the underground vantage point.

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Titan (Continued from Page 5)*Guidance Control Officer Console*

Directly opposite the control center under another dome lies the power house, where four diesel generators produce enough electricity to serve a community of 6,000 people. Here too are found the tons of refrigerating and air conditioning equipment needed to maintain constant temperatures and humidity in the underground. Located beneath the floor of the underground powerhouse are two water wells sunk to a distance of 1,800 feet. Each well is capable of pumping 165 gallons a minute. This supply is in addition to the 60,000 gallons of stored water at each complex used for heating, cooling and fire fighting.

Through a radically new construction design, second stage (or mezzanine floor) of both the powerhouse and control center have been rendered shockproof to withstand near-miss enemy nuclear blasts. This second stage in each of these areas is not connected to the inside walls of the main domed structures in any way. A foot of clearance has been left all the way around, and this "rattle-space," as it is called, will prevent any external shocks from being transmitted to these areas.

Buried deep in the earth at the other end of the complex are the radar antennas for the guidance system. Although there are two antennas, housed in silos 27 feet in diameter and 65 feet high, only one of them will be used in actual operation. The other antenna fully operational and ready to go, will be a standby.

No effort has been spared to make the complex completely self contained and self sufficient. It will be possible for the 11 man missile launch crews to live un-

*Tunnel to missile silos*

derground for up ten days in case of emergency.

Specially trained at Sheppard AFB, Texas, and at Vandenberg AFB in California in maintenance and operation of the Titan, these crews will soon be manning the missile complexes around Denver on a 40 hour on, 56 hour off duty basis. Air Force officers are quick to point out however, that this schedule may be adjusted as they gain more experience in the adaptability of humans to living underground with the Titans.

Air Force missile officers also emphasize their hopes that the Titans will never have to be launched in anger - that they will only serve as a powerful deterrent to those who might be inclined to wage a nuclear war against us.

Missileers and the Internet, and How Things have Changed

A recent AF news release talked about a new program giving crews on alert access to the internet. Several members sent comments about the program. Most are missileers who served in the earlier days, when our communications was a lot more limited than it is today.

For example, in 1965 at Grand Forks, the newest and most modern of the six Minuteman wings, we had a dial phone (with the old round dial), along with VHF, UHF, HF and MF radios and the SACCS data system (a slow teletype system then). No TV, no commercial radio, no VCR or DVD players and certainly no I-Pods. Even the folks upstairs in the LCF (now the MAF) only had a single land line and a TV that got the local channels - we had two channels at most Grand Forks sites in those days, and that only because the area had two of the tallest TV antennas in the world - things have really changed.

Interesting enough, the same week we got the press release on internet access, we got the story below.

TV or not TV - that's the Question

- by Neil Sanders, MbrNo A0355, Mary Esther, FL

Missile crew duty could be stressful at times, but we sometimes experienced humorous events. I was a missile combat crew commander, with the 566SMS at Warren AFB, WY. Our Atlas E missile sites, like others in SAC, were provided with commercial TVs. In our case, the TVs were positioned in the launch control rooms. We came up with ways to switch off the TV whenever we were favored with a SAC Primary Alerting System (PAS) message. These switches were never in the same location but this wasn't much of a problem. Even when

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TV (Continued from Page 5)

we reported for duty at an unfamiliar site, the location of the TV cutoff switch would be fairly easy to locate. We did not have a great deal of time available to watch TV anyway (maybe two or three of our shift's 24 hours, if everything was "in the green", or a football game on a slow Sunday).

Now, for the rest of the story. In 1963 SAC was "encouraging" units to submit more suggestions. In response to this suggestion push, it became our wing's policy that each missile crew would submit at least one suggestion per month. An airman assigned to another crew had a good idea. He suggested the location of TV cutoff switches be standardized at all sites. The suggestion was approved at squadron, wing and division levels. At division, it was also decided to edit the suggestion and correct the airman's grammatical errors. This was done and the suggestion reached the last level of command before Headquarters SAC (I believe we were under 2nd Air Force at the time). That's when "it" hit the fan. The suggestion was not only edited, it was inadvertently altered. When it reached 2AF, we were suggesting the purpose of the switch we wanted standardized was to cutoff the SAC PAS in order to not interfere with the TV.

Well, it seemed that within a few nanoseconds the TVs were removed from each site. It took about two months to clarify the situation before the TVs were returned. I wish I could have observed the 2AF commander's reaction to his initial understanding of the situation. Noise suppression earplugs would probably have been useful. As I recall, the cutoff switch locations were never standardized.

New Poetry from Bob Wyckoff

Most missileers are very familiar with the poetry of fellow missileer Bob Wyckoff. His poem "Missileer", written when Bob was a Captain in the late 1960s, is still displayed in one of its many versions at missile units and offices around the Air Force. AAFM makes all of Bob's poems available to members, printed on photo paper with appropriate graphics. You can order copies using the form on the inside back cover. Bob has two new works, Victors in the Cold War, reflecting AAFM's motto and written for the 50th anniversary of space and missile operations, and Liftoff, written for a Vandenberg Delta launch. Both are presented here and have been added to AAFM's collection.

Victors In the Cold War

We began this trek in '54,
In the fading light of the Korean War.

When men of vision looked to 'near-earth' space,
And perceived the tools of a new arms race.

What began back then as WDD,
Has evolved today as SMC.
It was tough at the time for funds to avail,
When most then thought it a Buck Rogers tale.

Development then was trial and error,
With frequent trial and moments of terror.
It was noted oft' times, perhaps to excess,
We learned more from failures than we did from success.

The Sputnik shock finally opened the door,
First came Atlas and quickly Thor.
These two are the roots of the family trees,
That now are bearing the EELV's.

Next came Titan, both I and II,
And the first silo launch by a sheltered crew.
But the Cuban Crisis set the missile role,
The Minuteman then was our "Ace in the Hole".

Both sides of the standoff considered the worst,
We were eye-to-eye; and they blinked first.
Surprised again by a Russian ASAT,
We were reminded again that we cannot stand pat.

With Deltas and Scout and heavy-lift Titan,
Our prospects in space continued to brighten.
DISCUS, and Milstar descended from SCORE,
We re-wrote the book on fighting a war.

MOL was cancelled, and Dyna Soar,
It was STS then came to the fore.
As technology grew at a rapid pace,
It was to become our sole access to space.

But with Challenger gone it came time to scuttle,
The dreams of so many for a West-Coast Shuttle.
Evicted again from snake-bit SLC-6,
Back to -3 and -4 with an expendable mix.

We raised the ante by fielding MX,
Then Star Wars Projects stacked the decks.
With technical progress that they couldn't follow,
The Soviet threat was revealed to be hollow.

Reconnaissance, surveillance, early-warning, weather;
And Space Command to pull it together.

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Poems (Continued from Page 7)

Reducing data from an enormous yield,
For use by the troops deployed in the field.

Taurus, Pegasus, Athena, Minotaur,
Now Atlas V and Delta IV.
Threats from abroad remain and increase,
Our duty now is to keep space for peace.

We're celebrants here in 2004,
Victors now, in the First Cold War,
We build on all that has gone before.

LIFTOFF

Behind a rocky headland or a windswept, sandy beach,
Loom the lofty launch sites that provide celestial reach.
From here we mount the heights to gain knowledge
'gainst the odds,
By seeing what has ever been reserved for mythic gods.

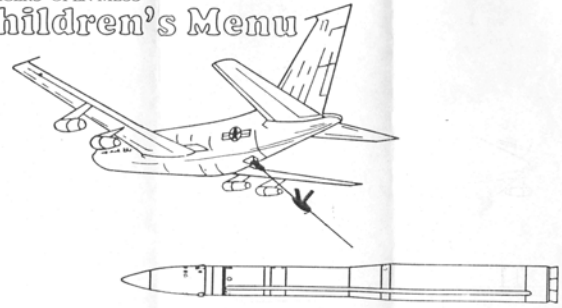
There begins a quiet cadence in muted meeting rooms,
To negotiate the means to the end that will presume.
The tempo quickens with the booster stack and the pay-
load preparations.
The integration's done and all are at their stations.

The clock begins the count and the team begins to weave,
The matrix of the booster, Range and payload whence
orbit they'll achieve.
Through the voice nets and the VDLs, TM and radars
ready.
Safetys green, the boosters go and the payloads holding
steady..
The process hits T-0's mark and breath is in remission,
As the countdown net intones: "one... mark... ignition."
A flash of light, a hint of flame, then a bloom of smoke
and steam.
A delay of thunder and a pounding chest, and the liftoff
of a dream.

An orange gout of flame, the solids' billowing trail,
The hammer of the first stage thrust make daily issues
pale.
Next hold and wait, the MFCOs watching now,
To track the thrusting booster or crack an errant scow.

Now quiet waiting for the distant word of a healthy orbit
made.
The release of long anticipation and internal debts are
paid.
Another step in man's quest to space is confidently laid.

MINOT A.F. BASE
OFFICERS' OPEN MESS

Children's Menu

Hey Kids! Looking for an exciting career in the Strategic Air Command? Look no further than in-flight Minuteman III refueling! See your CBPO Customer Service Center for details today!!

Minuteman Refueling??

Member Bill Sims sent this child's menu from the Minot Officers Club from the early 1970s. It must have been difficult to get the KC-135 up to speed and altitude for this task.

Launches, Discussions and Data Sources

Recently one of our new members was looking for information on two Glory Trip launches that he took part in at Vandenberg. A Google search of the internet turned up an interesting document that lists every launch that has occurred at Vandenberg from 16 December 1958 to date. The information filled 69 printed pages and includes the date of launch, the launch vehicle, the pad or silo number and basic information on the type of launch. You can find the list at www.spacearchive.info/vafblog.htm. For those who don't do computers, AAFM can provide a copy of the log for a donation of \$10 to cover printing and mailing.

Another member told us about a web page that includes a Cape Canaveral Air Station virtual tour, with a very comprehensive overview of some of the old missile launch and control sites. The web address is <http://rangepioneers.org/>.

Member Joe Carmena sent this site for photos of life at Lackland through the years - www.lackland.af.mil/info/photos.asp.

The Mercenary Missileer (Sean Lavigne) has updated addresses for Missile Forums (www.missileforums.com) and Missile News (www.missilenews.com). You can get the latest on Sean's missile models along with other items of interest at www.mercenary-missileer.com.



Former Astronaut takes command of AF Space Command - by

Capt. Karim Ratey, AFSPC/PA

General Kevin P. Chilton assumed command of Air Force Space Command in a ceremony 26 June 26 presided over by Air Force Chief of Staff General T. Michael Moseley.

Current and former national defense leaders, active and retired senior officers, community leaders and active-duty servicemembers gathered at the Peterson AFB parade field to welcome AFSPC's newest commander. He succeeded Gen Lance W. Lord who retired April 1. Gen Chilton is the first astronaut to earn a fourth star, and pinned on the rank of general in a promotion ceremony the morning of his assumption of command.

In his speech, Gen Moseley illustrated Gen Chilton's capabilities to lead the command. "There is no one better prepared to lead AFSPC today than Gen Kevin "Chili" Chilton. Chili, you're a great commander, a great Airman, a great leader, a great astronaut - you know air and space power first hand; you understand the needs, the nuances of command, and you know the challenges ahead of us as an air and space force," he said.

Gen Chilton said he was excited and humbled to lead a "fantastic team" of total force military, civilian and contractors who deliver Air Force space capabilities for the defense of the Nation. "This command really is unique compared to every other major command, in my opinion," said Gen Chilton. "I'm talking about the unique fact that every operational unit of this command is CHOP'd (change of operational control) to our nation's combatant commander for space (US Strategic Command). We are in the fight, 24/7, 365 days a year."

Gen Chilton spoke briefly about upgrading our Minuteman intercontinental ballistic missiles, prompt global strike, responsive space capabilities and bringing improved situational awareness and command-and-control tools to teammates who deliver space capabilities to the fight. He also spoke about AFSPC assets being an "invisible force."

The planet's most powerful strategic deterrent, the ICBM, exists out of sight, below the ground; the bits and bytes that transmit weather, warning, communications and navigation are transmitted through the ether to the end user; and the satellites are out of sight, but not out of mind, said Gen Chilton.

Speaking to the men and women of AFSPC, the general said, "To tell you the truth, I kind of like the idea of being invisible and powerful - and that is exactly what you are. You are the power behind this great force." Gen Chilton said his commitment will be to remain focused on organizing, training and equipping the command to provide the asymmetric advantage our Airmen bring to today's fight.

The general is a 1976 distinguished graduate of the Air Force Academy. He is a command astronaut pilot with more than 5,000 flight hours. He joined the National Aeronautics and Space Administration in 1987. At NASA he flew three space shuttle missions on space shuttles Atlantis and Endeavor and served as the deputy program manager for operations for the International Space Station program. He now leads nearly 40,000 space and missile professionals who provide combat forces and capabilities to USSTRATCOM and North American Aerospace Defense Command. Gen Chilton is responsible for the development, acquisition and operation of the Air Force's space and missile systems.



308th Lives Again - by Roger L. Spencer,

MbrNo A1179, Shalimar, FL

On Monday, 15 May, the Fighting 308th was officially reactivated as the 308th Armament Systems Wing at Eglin AFB. Five previous 308SMW members participated in the ceremony by unveiling the new shield. The new wing has 5 groups and a dozen or so squadrons responsible for development, fielding, and sustainment of various conventional air-to-ground weapons including SDB, JDAM, JASSM, WCMD, SFW, and other special weapons.



GLCM and its Role in the INF Treaty (The Untold Stories) - by Richard Kleckner,

MbrNo SA017, Midwest City, OK

USAF's land-based Ground Launched Cruise Missile (GLCM) and its role in the Intermediate Range Nuclear Forces (INF) Treaty are now just memories. Unlike other weapon systems such as the B-52 "Buff" or the F-4 Phantom, GLCM "Gryphon" missile was in service but for a short eight year period. Its life was literally cut short by INF Treaty between 8 December 1987 and 30 May 2000. GLCM was not scrapped due to obsolescence, it was eliminated by treaty and cut up and sold for scrap metal. GLCM and the INF Treaty are truly significant firsts in the annals of US history. The stories have never been told but should be. Like 7 December 1941, the date of 8 December 1987 becomes just as important a date in history. The date was chosen very carefully for its importance, but not to take away from "*The Day of Infamy*". One date brought us into war and the other may have prevented war; a "No-Win" war.

There was much written and vocal opposition, in both the US and Europe, casting doubt on support for the cruise missile concept. Whatever information the average American got about GLCM came from the evening news; and it told only the smallest part of the story. Many people feared that the deployment of modern North Atlantic Treaty Organization (NATO) missiles would lead to a nuclear war, even though the Union of Soviet Socialist Republic (USSR) had initiated the nuclear forces modernization process. Few people realized, then or now, that GLCM was a deterrent that accomplished its mission simply by being on alert. Eventually, most people got used to the missiles being there and got on with their daily lives. The inevitable nuclear war did not occur and people soon realized that an arms

control agreement was actually possible. By bargaining from a position of strength, the US and its NATO allies forced the Soviets into meaningful arms discussions. The weapons that were thought could provoke a war had helped to prevent one. Thus, from its design to elimination, never was one fired in anger. Had a European war occurred, however, the missile would have performed a vital role by releasing piloted aircraft for other missions.

The Soviets had always proclaimed a "no first use" policy regarding nuclear weapons. However, their air and ground forces had trained extensively in the use of such weapons for years. Short range missiles, rocket launchers, and nuclear artillery rounds had been deployed by the Soviets since the 1950s. The picture changed dramatically by the mid-1970s. A modernization of nuclear forces began, but an overwhelmingly conventional advantage remained. Three new Soviet weapon systems came on line. The TU-26 Backfire bomber, the SU-24 Fencer attack aircraft, and most destabilizing of the three, the multiple warhead SS-20 ballistic missile. The delicate NATO/WARPAC (Warsaw Pact) balance of power was seriously eroded, bringing about a crisis within the NATO alliance.

It was the SS-20 that NATO experts feared the most; a modern replacement to the SS-4/5s intermediate range ballistic missiles (IRBM). The new missile used solid propellant instead of volatile liquid fuels, carried three warheads instead of one, and was very accurate. From launch sites located in western USSR, the SS-20's 4,500km range put every point within Europe at risk. Furthermore, the SS-20 was a mobile system. This made locating and destroying them very difficult. By replacing the SS-4/5 with the SS-20, the Soviets had more than doubled the number of warheads directed at NATO.

In light of the emerging nuclear threat, the NATO alliance was faced with a difficult decision. NATO nuclear forces were primarily air delivered and at grave risk on vulnerable air bases. Clearly a survivable force of mobile missiles was needed to redress the imbalance. Aside from the military threat European governments also realized that the SS-20 posed a grave political threat to the alliance. European fringe political groups could be influenced by Moscow to oppose a rearmament plan. If some leftist groups could gain more influence, the basic structure of the alliance could possibly collapse.

In late 1977, West German Chancellor Helmut Schmidt called the US to respond to the crisis. In January 1979, leaders of Britain, France, and West Germany agreed to US President Jimmy Carter's proposal to de-

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ploy the Army's Pershing II ballistic missiles (1800km) and the GLCM (2500km) in Europe. Another part of the proposal called upon the Soviet Union to begin meaningful discussions with the US aimed at eliminating all intermediate range missiles in Europe. In December 1979, the "two-track" proposal was unanimously approved by the NATO leaders. Politically, the deployment would clearly show US resolve and commitment to NATO. Also, each host country would be seen as sharing the defense burden.

The BGM-109G Gryphon was a modified version of the Navy's Tomahawk built by General Dynamics Convair Division in San Diego, California. The Gryphon missile was different from the Navy's in several ways. It was fitted with the new W84 nuclear warhead and a new inertial navigation system (Digital Scene Matching Area Correlation, or DSMAC) coupled to the Terrain Contour Matching (TERCOM) system. Support equipment, particularly the Transport/Erector/Launcher (TEL) had to be designed and built. European bases had to be located and permanent facilities constructed, taking into account missile and site security, and range requirements. A total of six Main Operating Bases (MOB) were selected; two within the United Kingdom (501st Tactical Missile Wing (TMW) and 303TMW), one each in Sicily (487TMW), Belgium (485TMW), Germany (38TMW), and the Netherlands (486TMW). In addition to the military considerations, there were serious political implications in choosing a base. It was not acceptable to put all missiles in one country, since NATO wanted to show a common front towards the adversary. Five nations agreed to host GLCM, but some only with great reservations and intense national debate.

The United Kingdom agreed to the largest number; with only moderate protests. On the other extreme, the Netherlands delayed the decision and tried hard to get out of accepting any; and severe protests were raised.

The Gryphon missile was prepackaged in an aluminum canister with a frangible (fly-through) seal. The prepackaged unit was called an All Up Round (AUR). The missile was fueled, pre-targeted, and could remain sealed within the canister for months without requiring maintenance. Each TEL carried four AURs, with four TELs and two Launch Control Centers (LCCs) forming a combat flight. Both the TEL and LCC were hardened against nuclear and chemical effects as well as small arms fire. The deployment plan called for 29 flights dispersed among the above mentioned host countries. Under normal operations, Quick action Alert was maintained in

the GLCM Alert and Maintenance Area (GAMA); a hardened facility located at each MOB. At a higher state of readiness, each combat flight was dispersed into the countryside in convoys of 22 vehicles and some 70 personnel. Many of the dispersed personnel comprising the flight were specially trained Security Police. Every member, however, was trained in the use of an M-16 automatic rifle and had a backup security function. The Flight Commander was the senior missile launch officer and had the overall responsibility for the security and combat readiness of the flight. Making extensive use of camouflage and other deceptive measures, the flight would then await the order to launch. Equipped with various communication systems (HF and UHF radios, and AFSATCOM satellite systems), the flight was self-sustaining and prepared for every contingency.

This overriding concern for security was well founded. The Soviets were known to employ special diversionary troops (SPETSNAZ) much like the US Army Special Forces (Green Berets). These highly trained and well disciplined soldiers were responsible for covert infiltration and destruction of high value NATO assets, assassination of political and military leaders, and civilian targets like television or radio stations. In wartime, SPETSNAZ troops would have sought out the combat flight and attempted to destroy it by any means possible. To prevent this, US Army Special Forces units acted as SPETSNAZ forces attempting to locate a dispersed GLCM flight and aggress it. Of the numerous occasions that these units were used to aggress, they were unable to accomplish their mission. Often these units sustained serious "casualties" at the hands of the GLCM security forces and with nominal damage to flight assets; and never to a critical asset (TEL or LCC).

Had a launch order been received, the four missile launch officers (two per LCC) would have decoded



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the message, authenticated it and fired the missiles. With the 2,500km range, GLCM could strike virtually any target within western USSR, including Moscow. Because of its high speed and flight profile, the GLCM, once launched, was extremely difficult to locate and destroy. It was very difficult to locate and destroy the GLCM while in the GAMA, and most especially so once dispersed into the field. It became very clear to the Soviet leadership that they could be safe only through negotiations.

The Soviets agreed to bargain in good faith, eventually giving up three weapon systems (primarily the SS-20) to NATO's one under the Intermediate Range Nuclear Forces (INF) Treaty; an unparalleled accomplishment in the history of US/ Soviet relations.

On 8 December 1987, in Washington, President Ronald Reagan and General Secretary Mikhail Gorbachev signed the INF Treaty into effect between the US and the USSR to bring about the elimination of a complete class of nuclear missiles; intermediate and short range. This accord was a momentous historic event due to its being the first time the US and Soviets agreed to actually reduce their nuclear arms rather than simply placing limits on their growth. Ratification and start of the treaty was 1 June 1987.

The treaty covered US and Soviet land based nuclear missile systems with ranges from about 300 to 3,400 miles (500-5,500km). Immediately the treaty banned any further production or flight-testing of INF designated missiles and their specialized support equipment (TEL, LCC and Training Devices). It called for a three year drawdown of all deployed critical assets (Missiles, TELs, LCCs, and related training devices). This treaty seriously limited the threat posed by the six MOBSS located within the NATO host countries during the three year drawdown period. By the treaty implementing this course of action, production of INF missile systems ceased and the ability to deploy, store, and repair basi-

cally ceased until all Treaty Limited Critical Items had been eliminated. This virtually eliminated the use of production facilities and the GLCM bases for any other use for thirteen years. The treaty's duration was from 1 June 1987 to 30 May 2000; the three year drawdown of missile systems and ten years of future inspections. To me, this revealed the true fear that the Soviets had that NATO have used the recently completed GLCM facilities for some other weapon system at a future date.

After treaty ratification (1 June 1988) US and Soviet INF Treaty Inspection teams began conducting inspections once the comprehensive critical assets database (by serial number and quantity) was developed and base-lined. This database, or baseline, was called the GLCM INF Treaty Tracking System (GITTS). Every step in the elimination of critical assets or treaty limited assets was done under the careful scrutiny of the Soviet Inspectors; and US Inspectors of Soviet same items. At treaty-set scheduled intervals over the three year drawdown, these treaty limited assets were flown out of Europe on Air Force C-5/C-141 transports to the Aircraft Maintenance and Regeneration Center (AMARC) at Davis-Monthan AFB.. Each MOB's GITTS electronically maintained inventory automatically was updated with each departure. The Weapons System Logistics Officer (WSLO) initiated action for the GITTS system to report by asset and serial number those items departing. This system produced an official message for Wing Commander signature and automatically updated the database. Each departure's official message triggered the informational movement through a network to the State Department. MOB departures and AMARC arrivals each had only 48 hours the reach Soviet officials. If exceeded, a treaty infraction would occur that could negate the INF Treaty.

In brief, GLCM was designed, built, and deployed (some would say field tested while deployed for mission) with one primary purpose. It was intended to show the Soviets that the US and NATO were committed to force modernization and also to arms reductions. By committing hundreds of millions in dollars on hardware and base facilities, this alliance made it clear that GLCM was not a short-term fix - that the weapons would be in place for an extended period of time. It can be said that GLCM was a political pawn, a bargaining chip to force the Soviets into arm discussions. Based upon the Carter "two track" proposal of 1979, the viewpoint is an accurate one; but does not entirely tell the story. I believe that two examples of Soviet anxiety can be put

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forth for consideration. One would be that *Soviet leadership had a deep appreciation of GLCM's capabilities and were forced to commit exceedingly more monies for defense that led to their ultimate bankruptcy.* The second would be, that upon Treaty Entry Into Force (1 June 1988) the US and Soviets agreed to destroy their missiles over a period of time (3 yrs.) subject to on-site inspections by the other side. The Soviets sought and received an additional ten years of these on-site inspections by their teams in order to negate any possibility of the US and NATO to use recently completed GLCM facilities to support any future use for any other weapon system. *Can it be said that they feared the bases equal to or more than the hardware?* It should also be noted here, that the Soviets attempted to get the British and French intermediate range missiles included in the INF treaty; even though the treaty was between the Soviets and the US. However, when the treaty was ratified there was no mention of these missiles.

On 1 May 1991 an historic milestone was reached by the INF Treaty. The Air Force destroyed the 445th and final BGM-109G Gryphon. This milestone occurred a full thirty days in advance of treaty requirements, and on the day of the Soviet's May Day Parade. By 31 May 1991, all US and Soviet missiles would be destroyed! On 31 May 2001 a small two paragraph article appeared in the back pages of the Daily Oklahoman stating some insignificant treaty between the US and the no longer Soviet Union had expired. Is this a fitting end to an historic event? I THINK NOT!!!

MIMI Soars to New Heights - a NPS press release

Visitation at Minuteman Missile National Historic Site (MIMI) increased over 200% for the month of May. Memorial Day set a new record for the site with 165 visitors. The park has consistently seen over one hundred visitors per day during early June. Park statistics also showed that 21% of visitors have stayed in the area at least a half day longer to visit Minuteman Missile.

"Although we still have a considerable amount of development and restoration maintenance to complete before Minuteman Missile is officially open, including finalization of the site's General Management Plan, the staff is proud to provide some limited visitor services again this summer season" said site Superintendent Mark Herberger. We are very glad to see such public interest in one of America's newest national park areas."

Summer tours at the site have been so popular that all of the reserved slots for July have been booked.

Potential visitors from around the country and around the world have been calling since 3 April, when reservations for the guided tours began. Tours are conducted twice daily at 0900 and 1300, Monday through Friday, and availability is limited. Of the approximately 500 available slots for the rest of the summer season, over three-quarters are filled including all of the tours in July and half of the slots for August.

Visitors on tour are currently escorted through the topside structure and control capsule 30 feet below at Delta-01, a former launch control facility that housed missile crews from the 44th Missile Wing at Ellsworth AFB. They also travel to Delta-09, a missile silo containing a deactivated Minuteman II missile. Tours are approximately two hours in length and will continue through 4 September 2006 (Labor Day). From Labor Day until Memorial Day 2007 we will return to our winter schedule of one tour daily at 1000 Monday through Friday. Reservations for the remaining summer slots should be made well in advance by calling the Minuteman Missile NHS Project Office at 605-433-5552. The park began taking reservations for the winter schedule 5 June 2006.

Minuteman Missile NHS was established by Congress in 1999 to tell the story of the Minuteman ICBM system, including the development of the system, the personnel who served at the 1,000 sites throughout the upper Great Plains, and the impact of the system on the communities nearby. Following the transfer of the property from the US Air Force in September 2002, the National Park Service began preparing the site for public tours. More information about the site can be found on the internet at www.nps.gov/mimi



A Word from the Association

AAFAM Board of Directors Election - About 1300 of you returned ballots in the recent election, reelecting John Howe, Jay Kelley and Bob Kelchner for six year terms and electing Lance Lord to the board to replace founder Jim Burba. Jim had served on the board since 1993 and decided it was time to make room for some new folks. Shortly after the voting was complete, your board of directors reelected the current officers, so Jay Kelley, Mike Lehnertz, Dayna Castro and Bob Kelchner will stay as our four officers through May 2008. Our next board elections will be in the early spring of 2008, when four more members have terms that end. If you are interested in serving on the board, let us know by sending a short resume to AAFAM.

Missile Models - We are working with Warplanes.com, otherwise known as Pacific Aircraft, on Minuteman III models in the "real" colors. They currently offer MMI, MMII and MMIII in white with SAC graphics, but many of you would like models painted like the missiles in the silos. It appears that the price will be around \$200, possibly a little less if we can order a large number up front. We will keep you posted. I will have the white versions at the Cheyenne meeting.

Lapel Pins - Our missile badge lapel pins are very popular. You can order any or all of the six versions of the small silver pins by using the form on the back page or going to our web site. We will add the new space badge soon, in all three versions.

E-Mail Updates - We send out a monthly update to about 1400 of you - if you don't get the update, send your current address to me at aafm@afmissileers.org, and keep us current with your address. I also use e-mails to remind members of dues expiration - we only mail out one notice by USPS, so watch the mails and help us keep expenses down. You can also help by sending us address changes as soon as they are effective. We spend about \$150 on each newsletter for address corrections, and we lose a member or two every cycle because we can't get a forwarding address.

Letters to the Association

Address your letters to AAFAM, Box 5693, Breckenridge, CO 80424, or send by e-mail to aafm@afmissileers.org. Letters may be edited to fit - content/meaning will not be changed.

Malmstrom Maintenance - Wow. What a great article by Airman Dwight "Skip" Spencer, "A Maintainer in the First Minuteman Wing". The lives of the airmen at Plattsburgh's 556SMS ran parallel to those at the 341SMW, including weather, chow, barracks life and the Cuban Missile Crisis. We were there 1962 through 1965 and had the same experiences. Except of course for the "bordellos!!" *Bruce Raleigh, MbrNo A0180, Grosse Ile, MI*

Same Blizzard, Different Base - Bill West's story of "Another South Dakota Blizzard" in the March issue reminded me that weather doesn't respect state boundaries - we were clobbered at Grand Forks with that one, too. In my case, I was at home in the Baseview Trailer Park in Emerado, just a mile or so from the main gate of the base. Somehow, I hadn't been paying attention to the weather outside until sometime in the evening when I was surprised by a knock on my door. It was my bundled-up next-door neighbor, a young missile maintenance man. His furnace had just gone out; his wife, caring for their baby, was nearly freaking out! The first task was to get them over to my place. Glancing up and down the one street in our trailer park, we realized that we were the only ones too stupid to have evacuated earlier in the day! We set up a continuous watch on my own furnace to keep it going despite the ferocious wind, but it soon became obvious that we were fighting a losing battle. Our cars, of course, were useless at this point. What would any crew guy do? Call the Command Post. They were snowed in, too, just like the rest of the base and the sites. The only thing running was one Security Police snowcat (a blue metal box with tracks under it that could get through just about anything). It was running onbase shift changes and emergency duties - thankfully, we qualified as the latter. By the time my neighbors and I had called onbase friends for lodging and put a few things together, we saw the

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AAFAM is a non-profit, tax-exempt organization under section 501c(3) of the IRS Code. The Newsletter is published quarterly, printed by Allegra Print and Imaging, 1419 Santa Fe Ave, Long Beach, CA 90813, 562-432-2931.

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Association of Air Force Missileers, PO Box 5693, Breckenridge, CO 80424

aafm@afmissileers.org

www.afmissileers.org

970-453-0500

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dim approaching lights and heard the clank-clank-clank of our rescue vehicle. The surprise came as we were loading. When the driver turned around to us, a distinctive cigar sticking out from his parka fur identified him as the full Colonel Security Police Commander! Now, THAT's taking care of your troops! *Tom Jewett, MbrNo A1884, Fountain Valley, CA*

SATAF Problem - I thought this incident which took place during the activation of Atlas missile at Fairchild might be of interest. As a young captain I was working for Gen Tom Gerrity in the Site Activation Headquarters in Englewood in 1958. A problem was reported by the SATAF Commander at Fairchild. They were attempting to Lox clean the 12 inch globe valves that went into the Lox line between the storage tank and the missile. These valves were very large and very expensive stainless steel castings. As most of missileers are aware, Lox cleaning is a long and painstaking process. All hydrocarbons (oils, etc.) must be removed as they react explosively with Lox. The items are washed with special detergent and demineralized water, rinsed with trichlorethylene and then inspected with a black light. Any hydrocarbons left after the process will glow yellow under the black light. As a final test, liquid nitrogen (LN) is flowed through the cleaned items and they are inspected again. In the case of the big valves in question after they were exposed to the LN they lighted up like Ice Follies costumes. The valves were cleaned again and after the LN went through they had the same result. The SATAF Commander admitted himself to be nonplussed. It happened that an executive of the company that made the valves and I were acquainted. I told him of the problem and he got hold of the plant which manufactured the valve castings and the problem was explained. The company had not been informed that the castings were to be used for liquid oxygen and in making the molds the company used their normal practice in casting such items, which used sand held together with an oil binder. In the casting process as the metal cooled it soaked up the oil from the sand like a sponge. When the LN was flowed through the valves they contracted and squeezed some of the oil into the stream. No matter how well the valves were cleaned they could never be used for Lox! All the valves had to be scrapped! There is a lesson here but I am not quite sure what it is. *Calvin Hurd, MbrNo L146, Florence, OR*

Looking Back - I got my new member package today and looked back at some of the older newsletters, including one about alerts in the Sept 2005 issue. We didn't

have TV or radios at Minot in 1969 but we could read, which I did, a lot. MMI was interesting. You said one crew member could "rest" but one crew member was asleep for 90% of the time down there. I was a DMCCC in MMI but was either asleep or at the MCCC's console while he sleep. I only used the DMCCC chair to eat as I remember. About the only time we had a chance to talk to the other crew member was during meals. I am not sure if having to mutually confirm a SCN test solved it but when I started in 1969 there was a thing called Busy Group scheduling. You could only pull alerts in one flight per squadron. There was a concern that a "Hawk" could dissipate all the inhibit codes in a squadron or a "Dove" could do the same for the launch codes. If you did go to 2nd flight, the Launch Control Panel had to be changed after your alert. *Bill Blakeney, MbrNo A2484, Houston, TX*

Lost Missileer - Would like to find Capt Les Haas, a missileer at McConnell AFB from 1963-1965 I believe he retired from the AF from McConnell Michael C. Steiner, e-mail msteiner8@cox.net

Missileer Friends - I am looking for folks that may have worked with my dad, the late LtCol (Ret.) J.W. Planinac, who served at El Centro Space Positioning Range in the 50s, Titan I SATAF at Larson AFB, WA, Minuteman Weapon Division at the Cape in the 60s, The Boeing Apollo Program at the Cape in the 60s, The AeroSpacelines Guppy Program in Calif in the 60s/70s and the Shuttle Program at VAFB/KSC in the 70s/80s. Tony Planinac, 1450 Division Street, Nipomo, California 93444, 805-929-4909, e-mail tplaninac1@charter.net

Greg Ogletree's Patches

We have a new patch gallery on-line that will eventually be the complete collection of Greg Ogletree's "Air Force Missile Patches." We began posting color graphics early this year, and continue to add to the albums on our web page. Go to ww.afmissileers.org and you will find the link to the Missile Patch Gallery. Greg plans to add every significant variation of each patch in his collection, and we will include historical information about each patch as we refine the site over coming months.

Note that the albums are divided by system and sometimes even more by location. Also note that most of the albums are several pages - don't forget to use the navigation buttons to see all the patches.

This collection is made up of scans of actual patches in Greg's collection - if you don't see a patch that you know exists, it means Greg doesn't have it. If you would like to donate a patch to Greg, let AAFM know.

Twelve Outstanding Airmen

AAFM continues to provide support each year to the AF Space Command's Outstanding Airmen of the Year program, one of the steps to the AF's selection for the Air Force Association sponsored Twelve Outstanding Airmen. AAFM Life Member Jerry Strong was the driving force behind our involvement, when he made a substantial donation several years ago in memory of his wife. Each year, we provide \$1,500 to AFSPC as a sponsor and your president, executive director and board members take part in the annual banquet at Peterson AFB. This year, one of the AFSPC OAY winners, SMSgt Michael T. Lemke, F.E. Warren AFB, went on to become one of the AF's Twelve Outstanding Airmen.

SAC Memorial

AAFM has provided a grant of \$1,000 for the Strategic Air Command memorial at the National Museum. The memorial will be dedicated in 2008 as part of the SAC 2008 reunion. You can donate with a check to AAFM, or use our web page and a credit card. Donations will be sent to the project by AAFM

The Fire That NASA Never Had

AAFM member Col (Ret) B. Dean Smith has authored a book about a fire during Gemini testing that the author and another pilot experienced. The author compares the fire to the Apollo I fire that cost the lives of three astronauts. Available in bookstores or on line at www.coloneldeansmith.com.

Taps for Missileers

LtCol (Ret) Gordon Adams, an AAFM member, served in Matador, Thor, Titan I, Titan II and Space and lived in Cupertino, CA.

LtCol (Ret) John Darr, an AAFM member, served as SATAF commander at Grand Forks, and squadron commander in the 321SMW, and a SAMSO, and lived in Cheyenne, WY.

Maj (Ret) Autrey Gardner, an AAFM member, served in Minuteman in the 90SMW, 91SMW and 351SMW and the 3901SMES and lived in Florence, AL

Col (Ret) Olin F. Koch, served in Minuteman maintenance in the 341SMW and BMO, and lived in Redlands, CA

LtCol Thomas R. Swanson, Jr, an AAFM member, lived in Clearwater, FL

Col (Ret.) Robert C. "Tommy" Thompson, oversaw development and testing of Atlas and Minuteman in the ABRES program and lived in Lompoc, CA

Atlas E in Washington

Wally Lee Parker has just completed a 47 page history of Atlas E site 567-1, one of Fairchild's sites near Deer Park, WA. A number of AAFM members participated in Wally's research. The document tracks the history of the site from concept to deactivation and includes a number of first person accounts from missileers who worked at the site during the four years it was an operational Atlas E site. AAFM will add the document to our collection on our Historical CDs. We are also adding the Atlas E dash one technical order

Reunions

Association of Air Force Missileers - 27 Sept - 1 Oct 2006 - plan now to attend our seventh National Meeting at the Little America Hotel in Cheyenne, with great tours at Warren AFB. Registration form is part of the September 2005 newsletter and later and on our web page.

556SMS (Plattsburgh Atlas) will be there, contact Mel Driskill at e-mail dgser@earthlink.net or Bruce Raleigh at braleigh@wideopenwest.com

548SMS (Forbes Atlas) will also join us, contact Don Peoples at njpeeps@att.net.

567SMS (Fairchild Atlas) will also join us. Contact Dick Mellor at elm1929@aol.com or 509-327-2879

390SMW - Williamsburg, VA, 4-8 October 2006, contact John Lasher at elainelasher@aol.com

1, 11 and 69PBS/TMS, Matador (1953-1958), 5-9 October 2006, Albuquerque, NM, contact Joe Traina at RMTJVT@comcast.net for details.

454AMMS, 454 Bomb Wing, Columbus AFB, 21-23 September 2006, Master Host Inn, Columbus, MI, contact Brynn D. Morgan, 101 Tamarack Trail, Greenville, SC 29609.

The "real" 20th Anniversary of 308SMW Deactivation, 12-16 September 2007, Little Rock, AR, contact William Leslie, 937-255-2783, info at www.308smw.com or e-mail william.leslie2@wpafb.af.mil

44SMW and 44MIMS, 12-16 September 2006, Rapid City, SD, contact Roy Gordon, 602-944-7826, e-mail smithleeroy@yahoo.com

SAC 2008 - 30 April - 4 May 2008, Dayton, OH, reunion and dedication of the SAC Memorial

TAC Missileers, 2-4 May 2007, Tucson, AZ, contact Joe Perkins, perkster@fcol.com

Chanute AFB, 29-30 September 2006, Rantoul, contact Don Weckhorst at 217-379-3253

Reunion Notices should be to AAFM as early as possible for the newsletter, web page and e-mail updates.