



The ICBM Force in the Early 1960s



Atlas F Construction

ICBM Milestones

- 1 April 1958 - 576SMS Activated at Vandenberg
- 1 July 1958 - 564SMS (redesignated 549), Atlas D, Warren Activated
- 22 June 1959 - Thor Operational in the UK
- 31 October 1959 - Atlas D on alert, 576SMS, Vandenberg
- 2 September 1960 - 564SMS at Warren Operational
- 1 February 1960 - 848SMS (redesignated 724), Titan I at Lowry Activated
- 1 April 1960 - 567SMS, Atlas E, Fairchild Activated
- 1 April 1961 - 550SMS, Schilling and 551SMS, Lincoln, Atlas F, Activated
- 1 January 1962 - 570SMS, Titan II at Davis-Monthan Activated
- 1 December 1961 - 10SMS, Minuteman I at Malmstrom, Activated

The Start of Five Decades of ICBMs

AAFAM members have been involved with intercontinental ballistic missiles for more than forty years - the first Atlas D was on alert at Vandenberg on 31 October 1959. By that time, missileers had already been operating Matador, Mace, Snark, Thor and Jupiter. The years 1961 and 1962 were especially busy years for missileers as the ICBM force quickly grew to six Titan I squadrons and twelve Atlas squadrons, in addition to the Vandenberg units. The same period also marked the beginning of activity in both Titan II and Minuteman I - our ICBM force was expanding rapidly, and we were in the middle of the Cold War, Throughout the next year, the *AAFAM Newsletter* will feature several articles about the missile force in the early 1960s. The September issue and the October *AAFAM* National Meeting in Santa Maria will focus on an especially historic time - the 1962 Cuban Missile Crisis. The ICBM force came of age in that crisis - many of us were as close to war as we ever were throughout our years as missileers. Our new Atlas and Titan I missiles were all in the highest state of readiness that we had short of loading lox and launching, and the first Minuteman I missiles were rushed to alert status during the October crisis. The articles beginning on page five are the first in this special series about the early days of the ICBM force. Others will follow throughout this year - you are encouraged to send your stories and personal experiences to us to become part of this series.

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The Mission of the Association of Air Force Missileers -

- Preserving the Heritage of USAF 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

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A Word from the Association

National Meeting - the first registrations have come in for our 2002 meeting in Santa Maria - check the back page for the form and get yours in now.

In Memory? - the Strategic Air and Space Museum in Omaha listed your executive director in the "Memory/Honor" section of their Fall issue of Wings - they corrected the mistake in the Winter issue and listed the deceased members we honored with our 2000 grant

Donations - we recently received a grant to the Missile Heritage Fund for \$1,000 from the Pritzker Cousins Foundation in Chicago. Member Ken Dziewulski helped arrange the grant. Member Gary Hoselton contributed to our Enlisted Recognition Program, started last year by member Jerry Strong in memory of his wife.

35th Annual Competition - The 2002 Guardian Challenge Space and Missile Competition marks the 35th anniversary of Curtain Raiser, the first SAC comp. Our March newsletter will feature several stories from the past - get your story in now.

Our Ninth Year - since we began in 1993, AAFMM has continued to grow, both in membership and in the number of programs we support. At the end of 2001, more than 2,400 people have joined AAFMM.

AAFMM is a non-profit, tax-exempt organization under section 501 (c) 3 of the IRS Code. The Newsletter is published four times a year.

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AMMS Alumni - It was started for Hound Dog and Quail veterans, and has members with experience in other air-launched systems. The 2002 AMMS Reunion is at Fort Walton Beach, Florida, 25-28 April 2002. You can contact Pete Starkis by email at petestarkis@home.com or Jerri Lewis, email MIMINOL@AOL.COM, mail AMMS Missileers Reunion, 205 Biltmore Terr, Warner Robins GA 31088

Letters to the Association

Address your letters to *AAFMM*, 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.

Newsletter Flag - I really appreciated the full-color United States flag in the latest newsletter - it really looked sharp, and of course was very timely. I realize doing such things raises the printing expense, so I just wanted to let you know that I thought it was great. *Tim Tyler, mbrno SA033, Detroit, Michigan*

Note: You can thank printer and AAFMMboard member Bob Kelchner for the flag - we had lots of comments about it.

Mace Knife - Remember when the USAF issued TAC Missileers Camillus Survival Knives in the 60's? That was to give us a "warm and fuzzy" for the concept that once we launched our Mace B's to the East in Europe, we grabbed our M1 Carbines and linked up with the nearest Army unit. I just put together a chrome replica museum display of that knife. Knife's not original, but the beat-up sheath is. Anyway, its one of the few items I'll proudly display on my mantle once I finally take the dogtags off for the final time. *Arnie Hauswald, who served on the AF and is now in the US Army, Mbrno A1535, Augusta, GA*

564MS Heritage Dinner - Phyllis and I attended, and Bill Wuest flew in from New Hampshire. Thus we were able to crew up again after 30 plus years. We couldn't convince Tom Mulligan to come. Tom Kuenning and Col (Ret) Paul Berger, from Washington, DC, both attended. Tom says you need to take a trip to the Ukraine and link up with the crew members out there. I'm sure you know he is overseeing the destruction of the sites in the Ukraine. The wing treated us 1st class - we went to the predeparture and to Papa-0 for a tour. Bill and I spoke to about 200. We also addressed Jim Wilson's concerns from his AAFMM letter. I wrote him from Malmstrom telling him what we did. *Walt Skrainy, Mbrno A0076, Makoti, ND*

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Letters (Cont) - GLCM Tail Fin - I have a GLCM tail fin from my missileer days mounted on a wood backing. It was obtained from the GLCM destruction program after the INF treaty was enacted. I am an avid collector of missile models and replicas, and would be glad to trade the fin for some other piece of missile memorabilia. *Scott Mattson, Mbrno L217, phone 307-635-4952, or e-mail kid_apollos@yahoo.com. Scott lives in Cheyenne, WY.*

Hound Dog - Hi, fellow patriots. and thanks for running my story on the AGM 28 in the Sept issue of your newsletter. (You Ain't Nothing but a Hound Dog), page 10-11. Although I'm not a true Missileer, I did work with them during my career, so I feel we're kindred spirits. Would you please send me a copy of this newsletter for my files? (*We did*). I would greatly appreciate it. Thanks much and continue to be proud. *Frank Potter 1210 S. Highland Dr, Spokane WA. 99212*

Circuit Card - I spoke with Robert Lyons who called me, identified, and filled me in on the circuit card that you described in your newsletter. It was a very interesting and valuable discussion, so many thanks. *Gene Yee (see the article on page 12 of the Sept Newsletter)*

Hound Dog Too! - I read with great interest in the September issue; "You Ain't Nothing but a Hound Dog." Among the plethora of sophisticated Missiles I feared that the OLE Hound Dog had been forgotten. I had the dubious pleasure of serving in a Hound Dog wing for over three years. I was assigned to a B-52H strat wing at K.I.Sawyer AFB 1963-1966 in the Munitions Maintenance Squadron (MMS). We worked closely with the Missile Maintenance people. In jest, we called them Missile Wieners; I can't repeat what they called us. After they hung the GAM-77/AGM-28 under the wings of the flying mobile home, the B-52H, we would come along and insert (The AF likes to call it Load) the nuclear warhead into the warhead bay. Pull all sorts of stray voltages checks along with other test, plug the cable into the wing then lock it up. We worked under high security and were the last maintenance types around when the aircrew showed up. We had to 'try' to answer their questions. When they asked questions about the Missile I would explain, "I'm just the warhead guy and I can tell you, it's not armed." Up near Lake Superior the wind-chill-factor was often down to 20-40 below zero. The hawk (wind and

snow) blew across the ramp most of the time. It was not uncommon for us to use two warhead-loading crews so one could relieve the other from the bitter cold. Some times we were only allowed to stay exposed to the inclement weather elements for 5-10 minutes at a time. We would switch/alternate back and forth from the Missile to the Metro Van and thaw out. Frost bites on the face and hands were not uncommon. We also transported the W-28 warheads back and forth to the Munitions Storage area (Bomb Dump) with the help of Security Polices escort. After the Hound Dog I worked on many smaller air-launched missiles but the OLE Hound Dog remains my favorite. I feel this missile alone earned me a Missile badge. We liked to remind the Missile people that without our warhead all they had were small fighter planes with no pilot or landing gear. I believe our wing did launch a couple of Hound dogs with dummy warheads for training purposes. I also remember that they were very successful. No doubt because we Armament types did such a great job installing the warhead. *Ed Burns, Mbrno A2043 (one of our newest members), Bee Branch AR.*

Note: Many of you may have seen recent news articles about a revision to the "Chill Factor Formula". They now tell us it wasn't really as cold as we thought - obviously none of the current "scientists" spent any time outdoors in the winds of Sawyer, Grand Forks, Minot, Malmstrom or the other Northern Tier bases.

Fargo Missile - I had business in Fargo, North Dakota today. I drove by a new glass fronted building at Fargo's Hector Airport that proclaimed itself to be an aviation museum. In front of it stands a Minuteman III ICBM from the 446SMS from Grand Forks AFB. It's nice to see Fargo honor North Dakota's ICBM heritage. *Cal Thorson, Mbrno A1916, Bismarck, ND*

Note: That may be the Minuteman I from Ellsworth rather than a MMIII - see Clint Lowe's letter, page 3 of the December 1999 AAFM Newsletter

Mace/Matador Reunion - The third reunion was a success with 162 Mace and Matador Missileers showing up in Orlando, October 3-6. A Wednesday luau and Thursday banquet were both packed with 272 members, spouses and guests. At the Thursday general member-

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Letters (Cont) - ship meeting we voted on adapting the name, TAC MISSILEERS and chartering the TAC MISSILEERS organization as a nonprofit entity based in Florida. Our charter became effective on November 26, 2001. The members elected the following officers: Executive Director - Joe Perkins, President - Julian Esposito, Membership Director/Treasurer - Max Butler, Secretary - Bob Conrad, Quarterly Tac Missileers newsletter staff members are Publisher - Curtis McKee, Editor - Robert Bolton. Our reunions will be held every two years with the next one scheduled in the Denver - Colorado Springs area in 2003, the exact date and place to be determined at later officers meetings. *Bob Bolton, Mbrno A1199, Lawrenceville, CA*

Aerospace Poser Journal - As one of the new associate editors of the Aerospace Power Journal it seems that there have been just a few articles in recent issues dealing with our missile business. Well, as a missileer, I thought that perhaps there are a few budding writers in the association that might want to do some pieces for the APJ especially on our favorite topic of missiles (historical/policy/strategy) Also for those who are avid readers, they might be interested contacting me for books and writing reviews on the few missile books that seem to be written. By the way have you seen the new book "Russian Strategic Nuclear Forces" edited by Pavel Podvig and published by MIT? *Rhett Ferguson, Mbrno A1901, you can contact him - Donald R. Ferguson, Major, USAF, Associate Editor, Aerospace Power Journal CADRE/ARJ 401 Chennault Circle Maxwell AFB AL 36112-6428, 334-53-6456, DSN 493-6456 FAX 334-6739, DSN 499-6799.*

Reunions

455SMW (Minot) - Courtyard by Marriott in Santa Fe, NM, 24-28 April 2002, contact Ken JuVette, 632 Superstition Dr SE, Rio Rancho, NM 87124, email Dkjvut@webtv.net, phone 505-896-4826

579SMS, Atlas, 11-14 April 2002, Cape Canaveral, FL, Contact Gene Lamb, 3313 W Glenn Have, Midwest City, OK 73110-3709, phone 405-737-2471, email dlamb@mmcable.com

567SMS, Atlas, 28 Aug - 1 Sep 2002, Spokane WA. Contact Dick Mellor, 6331 N Elmhurst, Spokane, WA 99208, phone 509-327-2978, email elm1929@aol.com

SAC 2002, 16-18 May 2002, The Mighty Eighth Air Force Heritage Museum, Pooler, Georgia (outside of Savannah). AAFM has more details

Nike - The Fort Hancock Nike missile battery (NY-56) has just obtained a Nike Ajax missile along with two control vans and radar from the 1954-1963 era. Plans are to restore the Nike site which is on Sandy Hook, NJ. This restoration is being managed by a Don Bender at bender@alpha.fdu.edu or he may be contacted thru the Sandy Hook National Recreation Area. Another web site is alpha.fdu.edu/~bender/nike.html. Sandy Hook is across from NYC harbor. This Nike site is one of many once active in the NJ/NY/PA areas, and were upgraded to the Nike Hercules in 1958-1974 when they were deactivated. This Ft. Hancock site was home to both missile systems. The missile was obtained from a military surplus store in Chambersburg, PA and the radar was donated by Letterkenny Arsenal in PA. I have e-mailed him about AAFM. You may hear from him about this project. *John Stibravy, Mbrno A1954, Denville NJ:*

Russian LCC Museum - (*From Aviation Week and Space Technology, 29 Oct 2001*) The last SS-24 ICBM silo in Ukraine will be blown up 30 Oct in Pervomaysk by Bechtel National of San Francisco. Bechtel cleared 130 SS-19 silos in Ukraine and began on 46 SS-24 silos in 1998. The Russians pulled the missiles, removed their nuclear warheads and chopped them up. One LCC of the five originals will remain, preserved as a historic site.

Taps for Missileers

LtCol(Ret)Jean Audette, an AAFM member, served in the 549SMS (Atlas) and lived in Daytona Beach, FL
Bradley Calahan, an AAFM member, served in 548SMS (Atlas) and lived in Butler, PA

Col (Ret) Henry (Vince) Chace, an AAFM Member, served in Minuteman in the 90SMW, 91SMW and 351SMW and Titan II in the 381SMW, in both operations and maintenance, and lived in Papillion, NE

Maj (Ret) Michael Little, an AAFM member, was in the 341SMW and lived in El Paso, TX

CMSgt (Ret) Conrad A. Paquette, an AAFM founding board member, served in Atlas at Warren, Minuteman at Grand Forks, 1STRAD and 394SMS, and worked for Martin Marietta. He lived in Littleton, CO

LtCol (Ret) Harry Staubs, an AAFM Member, served in the Ballistic Missile Division, Ballistic Missile Office and SAMSO and lived in Torrance, CA

LtCol (Ret) Tom Snide, an AAFM Member, served in the 321SMW, 351SMW and SAC Hq in operations and maintenance, and lived in Papillion, NE



Sheppard Training

Getting Started in Titan I - 1961 - by

Col (ret) Charlie Simpson, AAFM Executive Director

Forty years ago, many of us were beginning our careers - or our one-time experience - in missiles. We were being trained as intercontinental ballistic missile operators or maintainers, or were becoming involved in some other aspect of the rapidly developing ICBM force. We weren't the first - we had been preceded by missileers in Matador, Mace, BOMARC Snark, Navaho and the early air-launched missiles, along with those involved early in the life of the AF in designing, testing and developing other systems. We weren't even the first troops to be involved with ballistic missiles - Jupiter was in Italy and Turkey, the Thor was deployed in England and the Atlas D and E units had been activated and manned beginning with the first units in 1958. But starting in 1960 with the Titan I wing at Lowry and followed shortly by the other Titan I and the six Atlas F units, we were in the middle of a gigantic buildup of the US nuclear deterrent missile force.

A lot of us trained at Sheppard AFB, Texas, with some classes being taught twenty-four hours a day. We were training in every specialty required to maintain, support and operate these new systems, and we were learning a whole lot about a lot of related subjects. Many of us had already completed training and were in our new units, busy with the process of setting up shops and offices, or taking part in the acceptance process as contractors turned the new missile sites over to the Air Force. Some of us were busy, but others were just waiting. We had new jobs but we had no system to practice what we had just learned at Sheppard.

I began training at Sheppard in early October, 1961.

I had entered the AF a little less than two years before as an aircraft maintenance officer, and had volunteered for the new Atlas and Titan missile systems when the AF began asking for volunteers late in 1960. My class at Sheppard (the Launch Control Officer Course or the basic missile course) included about 25 officers, mostly lieutenants and captains, with a few majors and lieutenant colonels, who were heading for one of the new Atlas F or Titan I units. A large number of members of my class was headed a short way up the road to Altus AFB, Oklahoma, to the 577SMS, which had been activated three months before. My class also had two students that were destined to an even newer weapon system - they were some of the very first selected for Minuteman I duty at Vandenberg. Most of the class were heading for duty as missile crew members, but a few of us, me included, were heading for missile maintenance, and one or two would end up in other missile-related jobs.

The basic missile course was in a state of change - we were supposed to be in the class until after Christmas - but early in our training, some changes in the curriculum shortened our course so that it ended right before Christmas. I was in the morning class - 0600-1200 - and there were at least three classes in progress - even four during part of my stay at Sheppard. The 0001-0600 class had to be a real joy (I learned it was four years later in Minuteman II training at Vandenberg, when, as the junior member of my class, I

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Titan I Construction



Titan I (Cont) - got to spend three weeks in the trainer portion on that schedule- I never did figure when the best time to sleep was). We studied USAF organization and policy, AF regulations, mathematics, physics and electronics. The electronics phase was the longest - almost four weeks, which included a lot of lab time building bread-board circuits and learning about computers. We ended the basic course with a detailed study of the Thor system - we learned all about the missile airframe, propulsion, guidance, launch site facilities (even the sewage and water systems) and everything else about Thor. We were told that this phase of training would prepare us for all the basics so we would have a better understanding of the specifics of Atlas F or Titan I - or whatever other system we ended up in.

The Atlas folks in my class only had a short break before they started the Atlas F course, but I was told that the next Titan course wouldn't start until after Christmas, so I had a long "vacation" in Wichita Falls. We weren't allowed to leave the area unless we signed out on leave - I had such a small leave balance, I had to stay in the area.

The Titan I course was more intense and more specific. My class was mostly officers heading for Mountain Home (569SMS) with me, and most were headed for crew duty. A couple of us would become missile maintenance officers in the squadron - I suppose my vast experience in aircraft maintenance made me well qualified to continue as a maintainer. We spent a lot of time with colored pencils, tracing electrical circuits, liquid oxygen flow, the missile elevator hydraulic system and the power house systems. We learned all about the radio guidance

Mountain Home Titan Is during acceptance test



system, hand-off, backup antennae and every other aspect of the complex Titan I system. We spent the last few days sitting at either cardboard mockup consoles or one of the rudimentary training consoles - not quite as exotic as current missile procedures trainers.

I reported for duty in the 569SMS in mid-February, and met my new boss, LtCol Loyd Jensen, who had come from a B-47 maintenance job in Texas, and the DCM, LtCol G. B. Jannot (those who were allowed to address him by his first name called him "Jan" or just "Jannot" - I learned very early never to use his full first name in a signature block on a letter or message.) He had come to Mountain Home when the base first reopened with B-29s, and had spent several years in B-47 maintenance before moving to the new Titan I squadron. I was told that I was the new Job Control Officer, and Col Jensen took me into the new job control center - a large empty room next door to the DCM's office. When I say empty, I mean empty - no chairs, no desks, no phones - but we did have a bunch of boxes that said they contained the "standard 15AF Job Control Console."

I also met my new troops - most had come from Matador or Mace in Germany or Okinawa. My NCOIC was TSgt Robbie Robinson - someone that a new first lieutenant learned a lot from in the coming months, and still a good friend - now a retired SMSgt living in Idaho. The rest of the initial Job Control staff consisted of a couple of TSgts, some SSgts, like LeRoy Hudson, and a couple of Airmen First Class - back when an A1C had three stripes and there were no "Sergeants." Next door to us was the Plans and Scheduling office, with NCOs Bob Nelson, Herbie Vice and Roy Hogstrom also hard at work trying to figure out what to do with their empty room. Between our first gathering in February and mid-June, we built our office complex.

For Job Control, it meant constructing a number of large status boards to keep track of missile status, to record exercise results and to display equipment location and status. We decided that we weren't particularly fond of the "standard 15AF Job Control Console", which looked like it was made from excess high school gym lockers, so we only used the bottom half of it, and stored the top sections, which were designed to be the "status boards." Col Jensen turned us all into woodworkers, to fulfill his idea of a wood-paneled Job Control room - it looked superb when we finished. Next door, the P&S folks were busy designing planning boards and work order file sys-

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Titan I (Cont) - tems - we all worked together on all of it, since we had no other duties.

A bunch of us found a good way to keep in shape - and injure each other. We started playing water polo - but not the Olympic variety. Since some of the players were better waders than swimmers, we played our version in the shallow half of the indoor base pool. We called it water polo, but it was basically tackle football in shoulder deep water. We stayed in shape - but we had a few bloody noses, black eyes and sprained muscles. This sport came to an end when the pace of work rapidly accelerated as the first missile came near to being ours.

During this same time, the ops crew members (there were four in Titan I - the missile launch officer, the guidance officer, the ballistic missile analyst technician and the missile maintenance technician) headed for Vandenberg for operational readiness training. Those of us in maintenance also went to Vandenberg, but our "training" was anything but a structured class. As a new missile maintenance officer, I spent a week (shortened by one day because President Kennedy came to visit and they wanted us TDY folks out of the way) with the 395SMS Titan I Job Control people. Most of the four days were spent sitting, watching how they did things, and one day was spent touring the Vandenberg Titan I site. The Vandenberg site was somewhat like ours at Mountain Home - except for the ground level, concrete block control centers (two of them), the spiral stairway in the silos and the lack of a power house.

On return to Mountain Home, after a stop in Seattle for the opening of the 1962 World's Fair, the pace picked up. I spent many days on site involved in site acceptance tasks - following a contractor around with a checklist to see if everything that was supposed to be there really was. We then watched the acceptance dual propellant loading of all three missiles - first at C site - the only time all three missiles on a site were loaded with both RP-1 and Lox and raised topside at the same time. Following that test, the first missile belonged to the AF and the men (and very few women) in the 569SMS.

We started twenty four hour operation in Job Control shortly before the first missile was ours, and the hours got long for some of us. Most of my folks worked twelve hour shifts, seven days a week, until we had more manning, but Robbie and I worked a single shift each day - and it was usually about nineteen or twenty hours long. If you read the article in the September 2001 issue called

"The First V1", you will get some idea what a call to the SAC or 15AF command post was like - and we called every time a missile changed alert status - which, by their definition, happened several times a day. Every time we lowered a work platform or performed any kind of routine inspection or liquid/gas servicing, we had to call the missile off alert by telephone and hard copy message. It was not unusual to have three or four people running message forms to the command post at once, because the 9th Bomb Wing command post decided they couldn't take a V-1 report by telephone. That problem ended when, on the first visit by the SAC IG, I was asked why there was so much traffic in and out of job control through the electrically controlled door - the colonel who was team chief picked up the direct phone to the command post, asked for the senior controller and told him that effective immediately, V-1 reports would be done by phone. Hooray for the SAC IG on that one.

Unfortunately, some wise leader at 15AF decided we should have a separate alert tracking system for them - we had to submit an alert summary message at midnight local seven days a week. Since the message had to be released by at least the Maintenance Control Officer or the DCM, it meant that every night at midnight, the Job Control Officer (me) was in Col Jannot's office at about 2345 getting his final approval on the message form. Col Jannot had a unique reading technique - he would use a pen to guide his eyes along each line of the message - and of course the pen would leave an underline under each

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Standard 15AF Job Control Console



Titan I (Cont) - word. Naturally, the comm center would not accept a message form with pen underlines - so each night, after the first reading, we got to retype the message and assure Jannot that what he was about to sign was exactly the same as the copy he had just 'underlined.' This wonderful "Midnight Duty" lasted for several months, until the IG convinced 15AF that a single alert status report (the V-1) would do the job by itself.

The people at 15AF decided early that we needed a team to go to each Titan I unit and make sure we each did things the best - that means the same - way. The team was made up of officers and NCOs from all the units - my boss, who was then Major Oscar Hermann, was one of the Mountain Home team members. That bode well for us in most areas - but we were in real trouble in one. The team chief (some of you may remember Col Curly Milner from Larson) couldn't understand why our "Standard 15AF Job Control Console" had no top half - and we couldn't convince him that our idea of big boards on the wall was better. It seems that all the other units had used the whole console - so we did, too.

So now, we were up and running, we were standardized, and we were very, very busy. All of us in the 569SMS quickly learned that keeping nine missiles - or any number less than that - on alert was a full time, twenty four hour a day job - we all put in countless hours operating, checking, inspecting, exercising and maintaining a very complex missile system. Exercises were the biggest single part of the job, and of course, we exercised at least every six months during a SAC ORI - trying to pass like all the other Atlas and Titan I units. This pace continued throughout the short life of the wet missiles - the quietest time may have been the weeks we spent on the edge of nuclear war during the Cuban Missile Crisis in October and into November of 1962 - but that is another story.

The Cuban Missile Crisis of 1962 - My Contribution - by Col (Ret)

Larry Hillebrand, Mbrno A1045, Williamsville, NY

The Place: Sheppard Air Force Base, Texas - The Air Training Command location of the Ballistic Missile School, in the barren, flat, treeless lands of north Texas. As all the many Missile school graduates will well remember; a place which is well away from any major population center and a long, long way from Cuba. The Missile School offered courses in the operations and maintenance of Atlas, Titan and Thor systems. I was a 2Lt, an instructor

in the Titan I Branch, Radio Guidance Course. There were over 15,000 Tech School students attending the many officer and enlisted courses. Training occurred on a three shift, twenty four hour training day. The typical student was an 18 year old first term, who had just graduated from the rigors of Lackland - and he was just beginning to express himself. We also had a resident SAC squadron. To aid in managing the enlisted students, all junior grade permanent party officers were assigned, as an additional duty, to one of the Student Squadrons. We were to counsel the airman and whatever other tasks were assigned by the overworked Squadron Commander.

And then there was the Cuban missile crisis; clearly a nationally important event. We were military, we should be doing something!! Even if it was not obvious just how a Tech School, located many miles from the scene of action could contribute. At meetings to which the lowly were not invited to participate, the powers to be decided that what the School would do would be to organize and deploy a Base Defense Force. This force, apparently - as I was not fully read into the objectives of the concept - would defend the base in case of an attack by Cubans or their sympathizers.

Now the base defense force would be entirely separate from the Security Police. They would remain clearly focused on base police matters, traffic management, and patrolling the SAC area and the fuel depot. The Base Defense Force would consist of students squads, led by an officer from the Student Squadron - one of which was me.

Sheppard is a very large base, covering many hundreds of acres, and as there were no vehicles assigned to the Base Defense Force, it became immediately clear that the Force could not defend the perimeter of the base. The concept was that a trained squad of students would deploy - when needed, on one of the roads entering the base; a road which was not too far from where the students were barracked.

The plan was - when alerted by siren signal, all the students squads would deploy from their barracks, double time to the rally place and form a cordon across the road to be defended. Some time later, a truck would arrive from the armory and the needed weapons, vests and helmets, would be issued - No ammunition was ever issued. We would then man our duty station until relieved.

We rehearsed and drilled until we got it right - in

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Cuba and Sheppard (*Cont*) - the manner of military forces from time immemorial. As I was the Officer In Charge of the detail, I would be advised in advance of the time for the drill and would be at the rally point first, waiting for my men to form the cordon, watching for the armory truck, overseeing the careful unloading of the weapons and gear, take station, and then when the alert was over seeing that the supplies were put back onto the truck and dismiss the squad.

I was very proud of my men. They were doing an excellent job in spite of Sheppard - I may have forgotten to mention that Sheppard most of the time is windy, hot and dusty - so hot that the asphalt gets soft. The rest of the time it is windy and cold.

Things were going very well for the Base Defense Force. First stage was well along and so a more realistic exercise was thought up. To test the training, an idea emerged to do the whole deployment exercise but this time the officers assigned to the squads would not be able to interact with their men. The men should be able to conduct the task without their Lt being around. I was able to be present, but was not to speak to, or signal, the men. There would be a NCO from Headquarters, standing by with a clip board, making notes on the success of the exercise.

The day came, the siren sounded, the men fell out of their barracks and double timed to the road - so far, so good. They formed a nice cordon line across the road, standing At Ease, facing the entry gate.

Then, right on schedule, came the truck from the Armory; parked behind the line of men. The Armory Sergeant opened the tail gate and first he unloaded the weapons. The procedure was, one man at a time would leave the cordon, come up to the back of the truck, be issued a rifle and then return to his station on the cordon. Following the weapons the vests were issued, following a similar procedure, one man at a time. And then the helmets were to be issued. Now - someone at the Armory had got word that this exercise would be witnessed by a watcher from HQ (the Sgt with a clip board) and so someone had decided that some spiffing up would be warranted. A good hearted soul decided to paint the helmets - and they were stacked before the paint had completely dried. There in the back of the truck is standing the Armory Sergeant. He picks up a stack of helmets, he tries to take off the top one and give it the man standing in the road - No Luck. He tries again, this time with vigor - No Luck. The

man on the ground gets into the truck in order to help. Now there are two men working on the helmet stack - No Luck. The other men, noticing that the activity around the truck is detrimentally delaying the whole process decide to assist. One man leaves the cordon in order to be of assistance, leaving his rifle laying on the ground. Several more men decide to assist. In no time, all the men are at the back of the truck, their weapons are not with them.

After much tooting and froing and throwing of the stacked helmets from the truck onto the ground, several of the helmets are broken free and a few of the men obtain the necessary head gear, they return to the cordon. Unfortunately for the squad, the watcher concluded the exercise and said we had failed. The crisis passed, the men were not admonished - at least not by me; I was able to overcome this blemish and go on to a great career in the Air Force.

Cuba and Minot - by *Thomas J. Parson, Mbrno A1009, Rapid City, SD*

I was assigned to the 455SMW (later the 91SMW) at Minot AFB during the Cuban Missile crisis. Quite a few of us were waiting orders to go to Chanute AFB for Minuteman training. We didn't have any missiles yet or too much to do but we were put on alert. Some of the people wound up performing flight line guard duty for the 5th Bomb Wing, others of us kind of guarded the missile wing building. I tried to get back to an aircraft unit as an Airborne Radio Mechanic but the AF said "NO". I figured `if we were going to war I might as well be doing something besides sitting around filing tech orders, etc. We did finally get orders to go to Chanute for training starting in November 1962.

Personal Memories of the Cuban Missile Crisis - by (then A1C) *David H. Burcham.*

David was an airman in the 51MMS at Vandenberg in 1962 - he now lives in Muscle Shoals, Alabama

A friend and I went to Los Angeles for the Labor Day weekend in 1962. On that Saturday night we were breezing west on Santa Monica Blvd. in my little 1955 Triumph TR-2. As I passed through an intersection on a green light I observed an LAPD patrol car do a U-turn behind me and turn on his red lights (not blue back then). I pulled over and he wrote me up for three violations I had never heard of. In the process of giving him my driver's license he noticed my active military I.D. card.

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Personal Memories (Cont) - He went into this long dissertation about how little we "kids" were paid. What I gathered from his talk was that he was just giving me a warning ticket, so I meekly folded it and placed it in my billfold.

On 1 October I left Vandenberg for 30 days leave, my first leave since joining the AF on 31 October 1960. I gave a buddy my mailbox combination to check my mail periodically while I was gone and if he saw anything that looked important to let me know. After I had been home in the hills of northwest Alabama about a week and a half I received a business sized envelope from Al with a note that read, "This looked important, so I thought I'd better forward it to you". Inside was another large envelope with a return address that read, "MUNICIPAL COURT, CITY & COUNTY of LOS ANGELES". In it was a warrant for my arrest for "Failure to Appear in Traffic Court"! I immediately searched my billfold and retrieved the citation I had received in L.A. and discovered to my dismay that it was not a "warning ticket". I was supposed to appear in court on a day in the third week of September. I immediately drove to a friend who lived closer to town and had the luxury of a telephone to call the number listed on the warrant. I explained that I was home on 30 days leave in Alabama and requested a court date toward the end of October. They gave me a continuance of my case with a court date around the 25th or 26th (it's been 39 years, so I don't remember exactly). Therefore, I made my plans to leave home on the 23rd to make my court appearance in L.A. on time.

While I was home I rediscovered a sweet little girl I had known in high school (who is now my wife of 35 plus years) and we had several dates while I was home. The last of these was on Monday evening, the 22nd of October. I intentionally cut it short and headed home early to pack up my car (a '55 Chevrolet, 2-door, 265 c.i. V-8 bored out to approx. 273) that I had traded for while home. I had only caught little bits and pieces in the news about Cuba. When you are 19 years old some things just don't catch your attention. Of course FM radios in cars was a rarity in '62 and the local AM stations were pretty weak. On the way home that evening, an announcement was made that President Kennedy would make a very important speech concerning the Cuban Missile Crisis. The further out in the country I went going home, the more interference my radio had. I was straining to hear what the president was saying because I was sure it would

have some effect on me as a member of the active military. As I passed under one of TVA's (The Tennessee Valley Authority) 460kv transmission lines, my radio suddenly came in very clear. I stopped and backed up under it to listen to the remainder of his speech. When he had finished, I knew that things were about to get really interesting for us nuclear weapons guys. But, I had already planned to head back west very early the next morning so I didn't give it too much thought.

I left home with what I calculated as just enough money for gas and food to get me back to Vandenberg plus an amount I hoped would cover the fine I was sure to have to pay. I drove nonstop back to California. I had a gut feeling that if I went back to the 51st Orderly room and signed in I would not be allowed to go back to L.A. for my court appearance. My intentions were to sneak back into the barracks, get a good night's sleep and drive back to L.A. the next day. However, these plans were thwarted at the main gate. I had gotten liability insurance on the '55 Chevy at Alabama's minimum of 5-10-5. The A.P. at vehicle registration informed me that California required 10-20-5 and I could not bring my car on base. I called a Tech Sgt friend who lived in the Air Force housing across the highway from the main gate and was able to spend the night with him. I made my run to L.A. and back without incident.

I returned to the Squadron area, signed back in off leave and jumped right in to the frenzied activity that was ongoing. At that time in history Vandenberg was sort of a showplace for SAC and a worldwide missile training site. Plus we were the west coast equivalent of Cape Canaveral in Florida. Therefore, our missile squadrons did not maintain their site with warheads installed. So, when the "stuff" hit the fan we had to rush to get a live nuclear weapon mated to each flyable missile. I think some of the guys were a bit upset with me because I was not available to help with the majority of what had taken place. But, I was able to participate in the mating of the last MK III RV which gave us a full compliment of combat ready ICBM's. That trip to the missile pad was also an adventure. It was quite different to the many training trips we had made in the past. We had more than twice as many armed A.P.'s escorting us and also a helicopter giving us aerial overwatch. If my memory serves me correctly, every flight-ready missile in each missile squadron's inventory had a live nuclear weapon on it.

Combat - A Book Review - by Col (Ret)

Charlie Simpson, AAFM Executive Director

Hearst Books has recently released a new book by Jim Wilson, the Popular Mechanics book *Combat - The Great American Warplanes*. This 192 page book features descriptions, black and white and color photographs and drawings of 41 bombers, fighters, attack aircraft, reconnaissance and electronic warfare aircraft, transports and tankers, helicopters and "Wings of the Navy."

Many AAFM members have been involved with some of the aircraft in the book, including the B-52, the F-16, the F-15 and the A-10. The book includes a good general description of each aircraft, and includes some data on weapons and armament. Members will find some useful information in the book, but it isn't deep technically, something many of you ask for in publications about the aircraft and missiles you have been involved with. If you are looking for great detail on specific models and series (for example, the difference between an F-16A and F-16C) you won't find it here, nor will you find detailed descriptions of the various rockets, missiles, bombs and other munitions carried by each. You may find that you have some other "Great Airplanes" in mind that weren't included, too. (Where is the UH-1F that many of us Minuteman troops spent many hours in?)

Having said that, it is still a good, up-to-date reference book, especially for those who aren't quite so technically oriented. I think it is an especially good book for someone looking for some basic information or someone you are trying to introduce to the AF and its aircraft. For example, my grandson will have gotten a copy of the book for Christmas by the time you read this. The book retails for \$30 and is available at bookstores nationwide.

2001 Missile Heritage Grants

AAFM provided another \$10,000 at the end of December, bringing our total grants to \$78,017.25. Since 1995, grants have been provided to museums in memory of AAFM members who have passed away during the year the grants were presented. We have honored fifty four missileers to date. The 2001 grants were the Octave Chanute Aerospace Museum Foundation, Rantoul, IL, \$500 to Relocate and Restore Minuteman I, the National Atomic Museum at Kirtland AFB, NM, \$1,300 to renovate a Thor, the South Dakota Air and Space Museum, \$1,500 to renovate a transporter erector, the Warren ICBM and Heritage Museum, Warren AFB, WY, \$1,700 to install fiber optic lights in the

missile control consoles and the Peterson Air and Space Museum, Peterson AFB, CO, \$5,000 to display a BOMARC. Members who passed away in the last year who were honored are LtCol (Ret) Jean M. R. (John) Audette, Bradley Calahan, Col (Ret) Henry V. Chace, Col (Ret) Raymond H. Cleveland, Maj (Ret) Michael O. Little, CMSgt (Ret) Conrad A. Paquette, Col (Ret) Joseph Schaffers, LtCol (Ret) Thomas W. Snide and LtCol (Ret) Harry L. Staubs

Snark Highlights

From "SAC Missile Chronology", by Office of the Historian, Hqs SAC, 1 May 1990:

18 Mar 60. First Snark went on alert.

28 Feb 61. Headquarters SAC declared the 702nd Strategic Missile Wing (ICM-Snark) at Presque Isle AFB, Maine, to be operational.

28 Mar 61. President Kennedy directed that the Snark missile be phased out as it was 'obsolete and or marginal military value.

25 June 61. The Snark missile and the 702nd SMW was inactivated at Presque Isle AB, Maine.

From "From Snark to Peacekeeper: A Pictorial History of SAC Missiles", Office of the Historian, Hqs SAC, 1 May 1990.

On 1 Jan 59, SAC activated the 702nd SMW (ICM-Snark) at Presque Isle AFB, Maine, and assigned it to the Eighth Air Force, this making it the first SAC missile wing to be assigned to a numbered air force. The 556th SMS at Patrick AFB was assigned to the 702nd SMW on 1 April 1959 and was scheduled to move to Presque Isle in July, but SAC inactivated the squadron on 15 July 1959 before the move could be consummated. As a result of this action and the subsequent cancellation of the programmed activation of the 702nd Missile Maintenance Squadron, the 702nd SMW was put in the unique position of having no assigned subordinate units. All operation and maintenance functions associated with the Snark ICM were handled by the 702nd SMW's deputy commander for missiles. The 702nd placed the first Snark on alert on 18 March 1960 and by the end of FY1960, a total of four Snark missiles were on strategic alert. Yet, it was not until 28 Feb 61 that SAC was able to declare the 702nd SMW operational...on 25 Jun 61, SAC inactivated the 702nd SMW at Presque Isle AFB less than four months after it had been declared operational.

Atlas Diary - by Col (Ret) Jerry Bullock, Mbrno A0186, San Marcos, TX

Excerpts from the Daily Record of Captain Jerry Bullock, who was an Atlas E missile combat crew commander in the 567SMS at Fairchild AFB, WA, 1963-1965.

15 July 1964 - Alert, Site 5. Off to a real good start. On site at 0910. Joe Stone gave fine, thorough briefing and showed me his problem areas from last shift. He had been on his feet for about 30 hours. We got all ready for document changeover and just as he twirled the safe combination dial - buzzers sounded, lights blinked, whistles blew and we lost AC power. For practically all of us, it was the first time. It was really interesting to see the system come back to life as the checklist was run.

465L maintenance was the only thing we had except the fix on the F/D door. Here is a recap of that situation: During the course of the site's 7 day -6, the flame door closed but the up indicator would remain lit and the pumps continued to run. Joe had left the Hyd Pump switch off at the MCC. Sgt Birdsey and Amn Wines continued to troubleshoot the system and discovered that the keeper spring had come off of one set of contacts in the down relay. This had prevented these contacts from closing. When specialist got on site only had to replace one screw.

27 July 1964 - Alert, Site 4. Relieved Capt Barry's crew. John Burdan was on site and had maint well in hand with all tasks to be accomplished, including 7 day -6. We had one of the smoothest heavy maintenance days I can remember.

Guidance failed in -6 and required specialist maintenance. Missile HPU was run up to leak check the sustainer engine. Problems were encountered in closing the bypass valve 13. Gave us some experience in troubleshooting. Still haven't met Lt Titus. (He will become Bullock's deputy)

22 Sept 1964 - Alert, Site 3. First tour with the threat of 3901st. No visit to Site 3. Had two C/D with malfunctions and study on EMMCC logic. Alerted for Team Play PLX Monday the 28th at Site 9. Not really the most pleasant project with 3901st on board.

13 Oct 1964 - at MAB - Crew change effective 30 Oct. I will assume command of crew S-48, a senior crew.

Recap for October 1964 - Alerts on Oct 2, 6, 9, 12, 16, 19, 22, 27 and 30. Six hours of EWO training. Ten hours of admin work, three hours of extra duty. Total for October - 289 hours of duty.

Missile Badge Pins -

We have found a new source for missile badge pins They make any and all of the insignia used by the Air Force in all the standard sizes plus a few special sizes. In general, the prices in 14 karat gold and sterling silver are as follows: Full size Air Force insignia, \$120 in sterling, \$728 in 14 k white gold shirt size Air Force insignia, \$95 in sterling, \$350 in 14 k white gold, lapel size (1") insignia, \$25 in sterling, \$75 in 14 k gold (white or yellow), Tie tack size (3/4") insignia \$25 in sterling, \$60 in 14 k gold (white or yellow) They also roll the insignia into rings or make them up as bracelets, neclaces, stick pins, etc. They specialize in custom work, offer a money back guarantee, and can make up insignia that can be mounted on awards, retirement plaques, etc. Crisalli, PO Box 7277 Northridge, CA 91327, phone 818-368-6230, fax 818-368-3692, www.crisalli.com, e-mail crisallijewelry@aol.com.

Early Holloman Highlights - from

the Chronological History of Holloman AFB, NM, by TSgt Gregory S. Henneman, Office of History, 49FW, April 2000

23 July 1947 - First missile firing at Alamogordo Army Airfield, a ground-to-air pilotless aircraft (GAPA). Known as the MX-606 program, 72 of the experimental, high-velocity test vehicles were launched from 1947-1950. Boeing designed the GAPA to "...investigate the engineering problems involved in the development of a ground-to-air pilotless aircraft." Although the GAPA never reached operational status, the program helped gather scientific and engineering data used in future missile development.

16 November 1947 - First tests on Snark missiles conducted at Alamogordo AAF. The tests involved dummy missile drops that helped determine the most effective missile nose configuration.

21 May 1948 - First JB-2 launch at Holloman. The technology leading to the JB-2 resulted from a confiscated German V-1 rocket. Eleven launches took place at Holloman, ending in October 1948.

19 January 1949 - First Matador cruise missile launched at Holloman. Eventually, the Matador became the first missile to enter Air Force service, the first to deploy overseas, and the first to carry nuclear warheads. The subsonic, pilotless tactical bomber continued tests at Holloman until 31 December 1961