



A Glossary for Missileers

What Did He Say?? - A Guide to Nicknames, Acronyms and Terms

- by Colonel (Ret) Charlie Simpson, AAFM Executive Director, with help from several AAFM members, including Joe Andrew, Mike Veres, Jim Tegart and Jack Roberts

This collection of missile terms, abbreviations, acronyms, nicknames and phrases is far from complete, but it is a good basic guide to "missile talk." You will find terms from many systems and many eras, and from many special areas. We are missileers, but we have been called cone heads, ops or maintenance weenies, crew dogs and by many other nicknames and titles. We have had many official and many unofficial names for the places we work, the tools we use, the procedures we follow and the clothes we wear. This article is probably just part one - I am sure we will get a lot of feedback from members with the "ones we missed." There were a lot that I could recall but not put a full name on, like MPCU and DSAP - you will see these and others in future articles. Let us know where we are wrong and what we can add.

104 - Form used to document a missile crew evaluation, especially before automation. Spaces for listing each task evaluated, degree of deficiency and description of error
1STRAD - 1st Strategic Aerospace Division, the host unit at Vandenberg for many years. Initially the 1st Missile Division - when the "Aerospace" term was first used in the early 1960s, the abbreviation was 1SADSAC - until someone realized what it said.

220 deck - A stack of punch cards used in the MAPCHE unit. This particular deck would run the most comprehensive checkout of all. There were several other decks that were used to check specific systems individually.

3901st - The 3901st Strategic Missile Evaluation Squadron, also called "the Oh First" by some and "Smeez" by later members. A Vandenberg unit reporting directly to

SAC, with team members who evaluated operations, maintenance, communications, munitions and civil engineering in visits to the missile wings. Most functions are now part of 20th Air Force at Warren.

4315th - The 4315th Combat Crew Training Squadron, at Vandenberg and responsible for training all SAC missile crew members - called Operational Readiness Training, Combat Ready Training or Mission Ready Training at various times. Now a function of the 381st Training Group at Vandenberg.

89 cable - control cable linking the TSV (target selection van) with the Matador missile during countdown. Main source of malfunctions.

A-Plug or A-circuit - the locking plug for the personnel access hatch on the surface of the Minuteman LF, the first barrier to entry to the LF

ABS Alternate Battle Staff. Consists of the ADCO, ADCM, Security; an EWO planner and a maintenance NCO deployed to the ACP

Access Road - the short road connecting a missile site to a main road

ACP - Alternate Command Post - the SCP that becomes the wing command post if it is disabled - crews are trained and evaluated as ACP qualified - see ABS

Action Complete - competitors in early missile competition exercises had to let evaluators know that they had completed all actions on a specific task or problem

ADO/ADCO - Assistant Deputy Commander for Ops.

AGE - aerospace ground equipment - support equipment essential to system operation that doesn't fly with the missile or aircraft.

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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

A Word from the Association

2000 Results - During 2000, AAFM continued to grow - we picked up over 150 new members during the year. Our financial status continues strong - Income total was \$35,219, including dues of \$21,035, Donations \$7,834, Interest \$177 and Investments \$6,173. Expenses were \$29,138, including Awards of \$2,964, Printing \$8,517, Postage \$3,978, Grants \$11,618, Meetings \$150, Admin and operations \$7,463. Assets include Investments \$45,970, Savings \$3,531, Checking \$4,691, Paypal Account \$102 for a total of \$54,295.59. Liabilities include Reserve Dues of \$47,336 and reserve grant funds of \$3,000.

Grand Forks Project - One of our members, Cal Thorson of Bismarck, ND is working with the North Dakota State Historical Society to help save one launch facility and one launch control facility from the 321SMW, which was the only Minuteman wing with all three squadrons in the Sylvania, or Deuce, configuration. The 321SMW/MW was operational from 1965 to 1998. Cal is working with the society, the state's congressional representatives and others to aid the society in their efforts. Contact AAFM if you would like to be involved.

Enlisted Recognition - President Jay Kelley and member Jerry Strong will attend two events at Peterson AFB in April as part of our participation in the Space Command Enlisted Recognition Program. Jerry initiated

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20905 Western Ave, Torrance, CA 90501 800-701-7727

Association of Air Force Missileers

Phone/fax

PO Box 5693, Breckenridge, CO 80424

970-453-0500

AAFMM@afmissileers.org

www.afmissileers.org

our involvement in this annual program by donating funds in memory of his wife - we will provide about \$1200-\$1500 per year to assist the command in recognizing outstanding young enlisted people.

2001 Member Directory - The new directory has been provided by e-mail to over 1100 members, and others will receive a printed copy soon - If you do not get a copy by mid-May, let AAFM know - if you prefer the electronic version, send us an e-mail.

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.

Cuban Crisis - Barnes & Noble recently published my novel: Red Eagle, ISBN 0-595-13159-X. It is a Cuban Crisis B-52G bomber spoof, an interesting 524 page "faction" story (many facts woven into a fictional tale). Available from Barnes & Noble as well as Amazon.com *Chris Adams, mbr no A0090, Liberty Hills, TX*

Snark - I recently joined AAFM and bought the Turner Publishing book, Air Force Missileers. I was very disappointed when I could find only 3 biographies of personnel from the 702SMW, the Snark unit at Presque Isle, Maine. I was assigned to the organization as M-1 on Launch Crew R-30. I have contacted the LO, G-1, and F-1 of my old crew. The MC is deceased. We launched the last Snark that was ever launched. That was, I believe, on Monday, 6 Dec 60. I have not been able to find a website pertaining to the 702nd or the Snark so I am going to create one similar to the AMMS website. Any help or advice would be greatly appreciated. *Delbert Holstein, A1914, St Albans, WV*

We have recently updated our web page museum at www.afmissileers.org to include Snark along with other missiles.

Troops to Teachers - I just joined AAFM and am an assistant principal for Gulf Shores High school in Gulf Shores, AL. I am going to move up to principal in summer. I went through a program called "Troops to Teaching." I would like to send you a copy to print in your newsletter. I am looking for teachers and JROTC instructors - anyone who would like to talk to me can call the number below Also, I know the next association topic is Cuba Missile Crisis. As an educator, I went to Cuba last year with the Dept Of Education with a U.S. Delegation. I have a presentation with an education theme; A missileer in Cuba, a principal, past special education teacher. I will

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Letters (Cont) - send you a copy of the presentation. *Ernie Rosado, mbr no A1925, Orange Beach, AL, phone 334-981-5227*

Bitburg Monument - We have updated our Bitburg page with a narrative from Gen Vetter about the Missile Monument (http://home.quixnet.net/~ilsem/bab_1.htm), and a great color photo on the attaching link from another one of the AAFM members, Larry Emerson. *George Mindling, mbr no A1761, Port Charlotte, FL*

We featured a photo of the missile monument in our second newsletter in 1993 - the monument is missing in action - our efforts a few years ago, which included letters and discussions with the commander and staff at US Air Force in Europe and US Army, Europe failed to find it. The photo George mentioned is below



Locating a Missileer - I am looking for Charles P. MacAndrews, who was the EWO Trainer at McConnell AFB in the 381SMW. *Henry Browning. Let AAFM know if you know where Charlie is, either by e-mail, mail or phone.*

Grand Forks MPT - AAFM sends newsletters to USSTRATCOM/J63 and J66. After a recent reorganization, J66 became part of J63. We can always find a place for the additional issue, but you might want to remove J66 from your address list. Thank you for the great issues. They commonly spur conversations between the services and help keep our fellow missileers in the loop. Let me also take this opportunity to personally thank AAFM for its recent financial assistance to the SAC museum to get

the MPT from Grand Forks to the museum. Your very generous 1-year extension of my membership and the AAFM hat were totally unexpected but very appreciated. I haven't written to you sooner because I want to pass on good news from the museum. But, I haven't had any since we brought the MPT down. It seems the trainer is larger than they had anticipated (even though Major Cantu and I went out there personally to measure it out for them) and they're not sure where they are going to set it up yet. We'll keep you posted. Also, they want to include additional exhibit items, such as videos, pictures, stories, etc... If you hear of any you think might add to the exhibit, please let us know and we'll be happy to help make it happen. *Gary Hawthorne, mbr no A1687, Omaha, NE*

Gary was one of three members who made sure we got the 321st MPT from Grand Forks to the SAC Museum.

Forbes Launch - I read with great pleasure the article about the Forbes crew launching the Atlas in the 60's. I was also pleased to see that SSgt. John Kershaw was recognized as one of the maintenance crew leaders in that effort. When I arrived at Forbes in 1962 as a green, scared, A2C 3 level MMT, I was assigned to Sgt Kershaw for training. He expertly lead me through my upgrade to 5 level. I was eventually assigned to a mobile maintenance (MOCAM) crew which, later, did return to Vandenberg for another Forbes launch. This time, we pulled one of our birds out of a site, put it on a C-133, and took it to California for launch. I was fortunate to be assigned to ride in the aircraft with the missile. (Had to to monitor the pressure control pannel.) Will never forget that! We set up the bird and our launch crews waited for orders. We were out there a long time and took turns rotating back to Forbes. The bird was eventually launched and the report we got from downrange was that it was successful. Again, thanks to Sgt. Kershaw for providing me with the training that enabled me to do my part on the second Forbes launch effort. *Jack Roberts, Ph.D, mbr no A0513, Campbell, TX.*

Ellsworth Sites - The National Park Service is developing a mailing list of persons interested in initial planning and fund-raising projects for the Minuteman Missile National Historic Site. The site, which is not yet open to the public, includes the deactivated Minuteman II Delta One Launch Control Facility and Delta Nine Launch Facility near Wall, SD. They are the only remaining Minuteman
(Continued on page 4)

Letters (Cont) - sites that were part of the 44MW at Ellsworth. Park Service officials are working with Air Force personnel to maintain the facilities in their original condition. A transfer of the property from the Air Force to the Park Service is expected later this year. Persons wanting to be added to the list should send name and mailing address to Minuteman Missile National Historic Site, P.O. Box 6, Interior, SD 57750 or via e-mail to mimi_information@nps.gov. *Lewis McCool, mbr no A1880, Durango, CO*

Lewis has been selected as a volunteer to help with the initial planning phase of the Minuteman Missile National Historic Site, which was a component of Ellsworth, where he was stationed 1968-71. He has taken a leave of absence as director of online services at the Durango Herald to participate in this exciting project. He is serving as a volunteer for Minuteman Missile NHS, under the supervision of Badlands National Park and its staff. Duties will include conducting research on the Internet, in park files and library, and at Ellsworth into the Minuteman II Missile system, as well as events related to the Cold War era in U.S. history. He will create video and photo records of Delta One and Delta Nine (park resources) for documentary purposes, develop press releases and associated media materials, prepare bibliographies, and inventory NPS, Air Force, and other organization materials for the purpose of planning for a newly designated unit of the National Park Service that is not yet open to the public. Work will be done at Badlands National Park with access to the MIMI sites and Ellsworth provided as convenient to the USAF, from February 12 through May 12

CAMP - Ron Plante and I, along with some others, are meeting at the Council On America's Military Past (CAMP) conference in Rapid City in May, and it looks like we'll be able to get on top of two of the three 850th SMS Titan I sites. Will send notes/photos after we're finished (we're calling this "A Gathering of Turkeys," with an obvious nod to a famous B-52/Titan I movie of about 30 years ago). I might also be heading to Fort Leavenworth in April for a week's duty with the Guard, should be able to knock off all the Forbes Atlas Es. *Mark Morgan, mbr no A1018, North Bend, WA*

Correction - I want to thank you for including my article "Missileers turn keys to test America's Defenses" on page 9 of your newsletter. Can you please tell me your circulation numbers for future reference? Also, on page 5 of the newsletter the article titled "90th Space Wing and South Dakota missile sites" has an incorrect byline. The author of the article name is CMSgt Dave Clark, not Cook as listed. *SSgt Melissa Phillips, Warren AFB, Wyoming*

For all members' information, we mailed over 2,050 issues at the bulk mailing and usually mail another 100 over the following months.

Taps for Missileers

Leo "SARGE" Wilkinson, USAF (Ret) died at Sumter, SC on 13 February 2001. He was not a member of AAFM but was the friend of many Missileers who are. He was the essence of what we think of as a caring and involved member of the Air Force family. For many years he operated a small cafe and bakery in Rosebud, Arkansas which was convenient to many of the 308SMW Titan II sites. The troops often stopped there for meals and TLC from a man and his family who cared deeply for them, were always willing to provide counsel and advice and great food often at little or no cost to the young folks of the wing. He eagerly participated in all 308th activities and was the Wing's most appreciated and Special VIP. WELL DONE SARGE and GOD BLESS YOU. Signed-The Men and Women of the 308SMW

Reunions

390th SMW - reunion at the Holiday Inn-Dayton Mall in Dayton, OH, 25-29 April 2001. For info packet call 520-886-3430; fax 520-886-7157; e-mail suelasher@juno.com or mail to 390th SMWMA, P.O. Box 17916, Tucson, AZ 85731. Info and registration is also available on-line at 390smw.org

485T MW (GLCM) - 2001 reunion in San Antonio, TX, 29 June -1 July. Contact Chaplain Mavis Baldwin, 830-981-8682, msbrb@aol.com.

Matador-Mace - Reunion 3-6 October 2001 at the Delta Orlando Resort, Orlando, Florida. Contact Joe Perkin at perkster@aol.com, 904-282-9064 or at 2019 Cornell Rd, Middleburg, FL 32068 or visit <http://tacmissileers.homestead.com/missileer.html>.

AAFM 2002 National Meeting - 23-27 October 2002, Santa Maria CA - watch for details in June

Glossary (Cont) - ALCC - Airborne Launch Control Center, EC-135 aircraft with a Missile Combat Crew, specialized communications gear, and the codes needed to configure and launch the Minuteman force

ALCM - airlaunched cruise missile

ALCS - Airborne Launch Control System, the aircraft and crews who provide the airborne launch capability for missiles.

Align - a task involved with aligning the missile to its target or a known reference. In the early days, it required a long site visit by a combat targeting team that used theodolites to align the missile using fixed, pre-surveyed monuments outside the site and star sightings.

ALS - Azimuth Laying Set, an alignment tool for various missile systems

AMCCC - Alternate Missile Crew Commander, who, during the late 1960s in Minuteman, was qualified to perform both as a commander and a deputy. During that period, crew members could not "rest" underground, so one of the three (MCCC, DMCCC and AMCCC) was in rest status above ground. One of the joys of being an AMCCC was that each evaluation was really two, with a full eval in both the commander and deputy positions.

AMLO - Annual Missile Launch Operation, a Matador exercise where missiles were taken to Libya and test launched

B-Plug or B circuit - the large plug in the personnel access shaft at the Minuteman LF, the second barrier to LF entry

Back to back - one alert immediately following another, with only the CCRR period in between.

Backup - the crew selected to be available to replace sick or decertified crew members on alert

Bird - the missile or aircraft

BFRC - big f***** red cloud, what you did not want to see coming from a Titan II missile

Blue Bag - the one piece blue missile uniform

Crew Blues - the two piece crew uniform used from the late 1960s to the late 1980s

BMAT - Ballistic Missile Analysis Technician, an enlisted crew member in Atlas and Titan, as well as a maintenance technician

BME - Ballistic Missile Evaluation, a small SAC agency responsible for developing the SIOP planning factors

BOMARC - the ground launched interceptor missile IM-99, BO - Boeing and MARC - University of Michigan Aeronautical Research Center.

Bunny Boots - Big, white rubber boots issued to crew mem-

bers and maintainers in cold country, sometimes called Little Abner boots, required wear when dispatching to alert or maintenance on a helicopter and by road.

Burn barrel - a red barrel outside the LCF building where we burned code pages and other classified, an exciting task during cold, windy winter days

Bust or Busted - what you got when QC gave you an "unqualified" rating in an evaluation or a failed crew evaluation - not a desired outcome

C Squared - Combat Crew Rest and Relaxation, equal to half the alert time, when crewmembers were supposedly untouchable for any training or other duty.

Camper Team - a two man security team dispatched to guard a launch facility that could not be monitored electronically by the crew. The team has a pickup camper that was positioned on the LF - one of the two must always be awake and alert. Especially enjoyable duty in February in North Dakota

Can - the missile guidance set. A can change involves positioning a G & C van or Payload Transporter over the silo, opening the door, removing the reentry system and removing and replacing the "can."

Capsule - in Minuteman, the LCC, or orb where the missile crew performs alert. In early space flight, the space vehicle where the astronaut made his space flight.

CC - the commander, as in 68SMS/CC

CCRR - see C Squared

CEP - Circular Error Probable - if a system has a CEP of 1000 feet, 50% of the warheads can be expected to land within a 1000 foot radius of the target.

Cert - the briefing a missile crew gave the wing commander, DO or other senior staff or commander, to show that they fully understood all aspects of the Emergency War Order procedures. An MPT ride was part of the "cert" process in some wings for a time

Chef - the site cook who prepares meals for the missile crew, security teams, maintainers and others at the MAF

Chemox - the self-contained breathing apparatus, adapted from mining use, that required one to don the unit, insert a canister into its holder, put on the face mask, and pull a cord to ignite the "candle" that activated the canister so that it could generate oxygen
CINCSAC - Commander in Chief, Strategic Air Command.

C/L - Checklist, a sequence of actions to do a technical task contained in a technical order

COB - the Chief, Ops Branch, the senior Operations

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Glossary (Cont) -Officer in early Minuteman squadrons. In earliest days the commander was a full colonel and the COB a lieutenant colonel. The OBOs worked for him

Code Change - a process changing the codes for an entire Minuteman squadron, a massive task in earlier days

Code page - a page used to authenticate between the security team members and the security controller, the oncoming missile crew and the duty crew or maintenance teams and the duty crew. The one time use pages had to be destroyed by burning after use. It was not a good idea to find some in your parka pocket when you got home from alert

Coffin - the home for the Atlas D and E missile, a large missile bay containing the missile, the erector and support equipment

Combat Ready - having passed the standboard or eval and certified to the commander, ready and qualified to perform alert

Comp - the Missile Competition or the newer Space and Missile Competition

Complex - the missile site, especially for the earlier Titan and Atlas systems. They were just too big to be called a site

Cookies - the top secret documents maintained in the red safe, containing authentication information for execution of the missiles and related tasks. In the early days, they were worn on a chain around the crew member's neck, along with the launch key. Like the code page, it was not good if one found they were still there around the neck when he arrived home after alert

Crew Rest - see CRR

Crit - an error by a missile crew member that meant a bust, or failure or an evaluation. A key turn at the wrong time or a failure to inhibit are two examples

Critique Item - an small error that isn't written up, just briefed to the crew being evaluated

Changeover - the process when the oncoming crew replaces the outgoing crew in the LCC

CTT - Combat Targeting Team, in Minuteman a three man team of one officer and two enlisted members who aligned and targeted the missiles

Cone Head - a nickname for missileers that was, on occasion, an attempt to be humorous or derogatory by non-missileers

Convoy - a group of vehicles transporting a missile, reentry vehicle or other asset to a site

Curtain Raiser - the first Missile comp in 1967

CV - the vice wing commander, second in command of the wing

Dash One - the crew's operational manual

Dash Six - the tech order specifying recurring maintenance

DCR - the Deputy Command for Resources, a colonel in a wing responsible for all the logistics support not related directly to maintenance, including supply, transportation, finance and fuels

Deaver Mule - maintenance unit that was used to pull the Minuteman launcher closure door open

Decertified - no longer combat ready, either because of PRP or other reason

Deuce - the Minuteman II with the Sylvania ground system, which was all three squadrons at Grand Forks and the 564MS at Malmstrom

DM or DCM - the Deputy Command for Maintenance, the senior maintenance officer in a wing or the early self-sufficient missile squadrons

DMCCC - Deputy Missile Combat Crew Commander.

DNIA -Duty Not Involving Alert, usually because of a physical condition

DO/DCO - Deputy Commander for Operations. A full colonel, this officer is in charge of the missile squadrons, DOE/D09, DOF/DO24, DOT, and DOV.

DOE or D09 - The office responsible for managing and controlling the launch, inhibit, and enable codes for the LF's and LCC's.

DOF or DO24 - the branch responsible for the Minuteman facility managers

DOT The MCC training branch ("instructor shop"). Responsible for training all MCC's.

DOV The MCC Standardization/Evaluation Branch ("standboard shop") responsible for conducting periodic and no-notice evaluations of all launch crews.

DOX - Operations Plans, including the EWO training shop

DPL - dual propellant loading, a term for Atlas and Titan I. Normally involved loading LOX and RP-1 in a simulated launch. Normally, the reentry vehicle had to be removed for nuclear safety before a DPL. After several accidents at Walker AFB, nitrogen was used in some Atlas F exercises. The only Titan I DPLs were at acceptance.

Downstage - lower part of the Minuteman missile below the G&C section (motor stages)

Dump - what the Matador missile did when it was at the end of its flight. The "dump point" was the location at

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Glossary (Cont) - which the missile was commanded into a zero-lift trajectory onto the target.

Duress - a situation where the individual alarms others by a code word or procedure because he is in a threatened security situation. During Titan I days, it was not unusual for a site visitor to use the duress word instead of the entry word in error when asked by the crew to authenticate, resulting in a chance to demonstrate the spread-eagle position on the ground outside the fence

El Forko Grande - Grand Forks Air Force Base, North Dakota, formerly home of the 321st Strategic Missile Wing
EPPT - Electric Power Production Technician, responsible for providing power in Atlas and Titan I. Sometimes considered part of the combat crew, sometimes part of maintenance

ERCS - Emergency Rocket Communications System, consisting of a number specially equipped Minuteman missiles that were based at Whiteman AFB, Missouri, carrying powerful UHF transmitters.

Equipment Terminal - The four story building in Titan I that housed AGE and RPIE, the support equipment for the missile and elevator system

Eval - a standboard, check or evaluation of the combat crew, sometimes notice, sometimes no notice. An Upgrade check came first, then came annual checks (usually a lot more often). Sometimes included three phases, the written exam, the on-site check and the trainer ride
EWO - Emergency War Order, as in EWO training, monthly requirements for crewmembers, or EWO tests, given during monthly training. Basically all the procedures, rules and documents used to launch the missiles. All SAC crewmembers had to brief the Wing Commander or DO periodically to certify that they were competent to carry out their portion of the EWO.

EWO-1 - A hardened telephone system similar to HVC, but it runs only from the SCP to the WCP.

EWO-2 - A hardened telephone system similar to EWO-1, but it runs between each of the SCP's in the Minuteman wing.

Flush and Gush - an Atlas service of the engines after a DPL. Used a F&G cart (A mobile engine service cart capable of flushing residual fuel from the engines, blowing hot nitrogen through them, and refilling the lube oil tanks.)

FM - Facility Manager, a middle grade NCO who is in charge of running the LCF and performing minor maintenance.

FMMS - Field Missile Maintenance Squadron, one of the two maintenance squadrons in a missile wing, usually involved with heavier maintenance activities - see OMMS
FOTE - Follow On Test and Evaluation, a program where an operational missile is randomly selected to be test launched.

Four-fours (44s, short for 443X0) - Minuteman missile mechanics

FSC - Flight Security Controller, a junior or middle grade NCO in charge of security for the entire flight, including the LCF.

FSO - Flight Security Officer, a junior officer supervising all security forces in a given section of the Wing

FSS - Flight Security Superintendent, a middle grade NCO who assists, advises, and exercises security personnel as needed.

Fuel - one of two propellants for a rocket motor, combined with the oxidizer at ignition

G & C - Guidance and Control unit, the guidance system for the missile - see "can"

GAMA - GLCM Alert and Maintenance Area, a shelter where TELs and LCCs are parked prior to dispersal, part of the WSA

Giant Sword - Annual SAC competition for aircraft weapons loaders, primarily conducted at Fairchild and then Ellsworth

GIANT TALK - a network of HF radio stations used for world wide communications with all SAC assets.

GLCM - Ground Launched Cruise Missile, deployed in Europe in the 1980s, pronounced "glickem"

Glory Trip - name for a Minuteman operational test launch, as in Glory Trip 130M, or GT130M

Green Bag - the Nomex flight suit, now worn by all USAF operators, including missileers and space operators

Guardian Challenge - the annual Space and Missile Competition

Hang fire - what you did not want to hear at Vandenberg, a launch attempt with no liftoff or full ignition.

HF - High Frequency, range of radio frequencies that includes the "Ham" band, used for communications between SAC command posts, aircraft, and missile LCC's.

HHQ - Higher Headquarters

HRP - Human Reliability Program, a strict, carefully controlled program designed to monitor the physical health and mental stability of personnel assigned to critical positions involving the operation, maintenance, and security of nuclear weapon systems. Changed to PRP

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Glossary (Cont) -HQ - Headquarters or Highly Qualified

HQ Pin - a small pin worn on the uniform scarf designating the number of consecutive highly qualified evaluations the individual has achieved

Humvee or Hummer - the utility vehicle that replaced the jeep and used especially by the security force in missiles

HVC - Hardened Voice Channel, a buried cable telephone system connecting the 5 LCC's in a Minuteman squadron. It is not secure.

ICCM - intercontinental cruise missile, like the Snark

IG - Inspector General, that branch of any government agency responsible for ensuring that the agency operates in accordance with proper directives and procedures. The primary focus of the SAC IG was to determine whether the missile crews could execute their EWO, but they also made sure that the "mops and brooms were not comingled".

IMU - Inertial Measurement Unit. This is the heart of a missile's guidance system, consisting of a set of accelerometers and gyroscopes

Inhibit - a command to stop an unauthorized launch, an action required immediately if launch indications occur without an authenticated order

Intel - the wing intelligence shop - or information from the intelligence people

IRBM - intermediate range ballistic missile, like the Thor or Jupiter

IZ - Inner Zone security, the system that indicates an attempt to open LF access

Job - Job Control, the maintenance control center that tracks daily dispatches, missile status and coordinates with the crew on all maintenance activity, and the office that the crew calls when a maintenance problem is identified
 Jose's Cutoff - A sharp bend in the road towards Papa-Zero LCF about a mile east of Conrad, Montana in the 564th SMS complex. It was named in honor of a long forgotten crew dog who back in the mid-1970s, missed the turn and put his Suburban into the ditch. No one was hurt, but the poor guy became famous. So did the place.
 JOTS - Job Oriented Training Standard, for missile maintenance training

Keys - the launch keys kept in the red safe and inserted into the launch switches when authorized. Worn around the neck of crewmembers in the early missile days

Kluge - a workaround to fix a problem, usually to continue launch - not always an "accepted and authorized"

procedure, but effective. For example, in the Titan I days, the sword valve, a hydraulic valve in the launcher elevator system would sometimes stick, resulting in a launch about because the elevator would not leave the "creep" mode. A kluge that was sometimes employed involved using piano wire (very hard to see in a dark silo) to pull the valve out as the elevator started up

LCC - Launch Control Center, the area where the missile combat crew performs alert, In Minuteman, a large steel lined, reinforced concrete building buried some 50 feet underground, containing the launch crew and all command and monitoring equipment necessary to operate the missiles. It will withstand all but a direct hit by a nuclear weapon.

LCEB - Launch Control Equipment Building, a hardened, underground building housing backup power, environmental systems and other LCC support equipment buried adjacent to the LCC.

LCF - Launch Control Facility, the entire above and below ground complex for Minuteman and Peacekeeper, now called the Missile Alert Facility or MAF

LCSB - Launch Control Support Building. The so-called "ranch house" support building has a kitchen and several bedrooms to house and feed assigned and transient personnel

LCT - launch capability test

LEB - Launcher Equipment Building. A hardened underground building at the LF. It contains much the same equipment as the LCEB and performs similar functions for the LF. In the first version of Minuteman, it was called the soft support building because the roof was ground level
 LF - Launch Facility. Covering about one acre of land, this is where the actual Minuteman missiles are located. Each LF contains one missile along with its launch support equipment.

LFA - Last F***** Alert. A much anticipated event where the lucky crew dog gets to celebrate by giving a speech at the Wing Predeparture Briefing, usually by taking a few jabs at the brass.

Line Badge - a photo identification badge required for access to controlled areas

Line Crew - a missile crew whose primary job is the performance of alert

Loggie - a maintenance or logistics officer or NCO

Logistics Group - the major organization below wing level consisting of all the maintenance activities - formerly the DCM, or deputy commander for maintenance

(Continued on page 9)

Glossary (Cont) - LOX - Liquid Oxygen, the oxidizer for earlier missiles and still used in some space launch vehicles

LSS - Logistics Support Squadron, a maintenance unit that is made up of many of the former maintenance staff functions

MAF - see LCF

MAP - Monitor and Alarm Panel. A large gray box above the deputy's console. It's purpose is to provide summary level status of the facility power and environmental control systems. (Minuteman)

MAPCHE - Mobile Automatic Programmed Checkout Equipment, an Atlas system semi-trailer mounted computer that could be hooked up to the site topside and which could simulate launch conditions, exercise the hydraulic and pneumatic systems on the missile and checkout and monitor every system on the site

Major - an error by a missile crew member on an evaluation that does not cause a failure, but is of a serious nature

MCC - Missile Combat Crew

MCCC -Missile Combat Crew Commander

MCCM - Missile Combat Crew Member

MDU - Mobile Dynamic Unit, an Atlas system semi-trailer mounted hydraulic and pneumatic control unit, usually used in conjunction with the MAPCHE unit

MF -Medium Frequency radio, the data transmission system that backs up the cable system for the Deuce system

MFT - Missile Facilities Technician, an enlisted maintenance and combat crew specialty

MGS - Missile Guidance Set

MIMS - Missile Maintenance Squadron

Minor - a mistake on an evaluation that is not serious but required documentation as an error

Mission Ready - ready to perform alert

MM - Minuteman (MMI, MMII, MMIII and MMMod also used)

MMT - Missile Maintenance Technician, an enlisted maintenance or combat crew specialty, a 443X0

MOCAM - Mobile Checkout and Maintenance, an Atlas system mobile crew consisting of 5 to 8 specialists (BMAT, MMT, LFS, electricians, both facility and missile, pneumatic and hydraulic specialist, etc.) capable of doing anything that needed to be done on a site.

Mod - Minuteman Modernized, the original Minuteman system upgraded with LGM-30F missiles

MPT - Missile Procedures Trainer, the simulator for mis-

sile operations

MRCSS - Missile Radio Control Station, one LCC in a wing that had to monitor and respond to HF radio traffic for the wing

M-Van - a maintenance van used to transport tools, equipment and maintainers to an LF, usually a large truck with a six passenger cab and covered cargo area

Mule - the hydraulic unit used with the pipe-pusher to open a Minuteman launcher closure door for maintenance

MX - Missile-X, which became Peacekeeper

NUDET - Nuclear Detonation.

OA - Olympic Arena, the Missile Combat Competition under SAC and ACC, 1969-1993

OBO - Operations Branch Officer, a major or lieutenant colonel in a missile squadron responsible for one or more LCFs and the crews assigned to them

Odd Squad - originally the nickname for the 564th Strategic Missile Squadron, the only Sylvania ground system (the Deuce) at Malmstrom, along with the three Mod squadrons.

Olympic Arena - See OA

OMMS - Organizational Missile Maintenance Squadron, one of the two maintenance squadrons in a missile wing - see FMMS

Operations Group - the major organization below wing level consisting of all the operations activities - formerly the DCO or DO, or deputy commander for operations

Ops Officer - A major or lieutenant colonel who worked for the missile squadron commander

Ops - Operations

Oral Question - during an evaluation, a question asked by the evaluator

ORI - Operational Readiness Inspection, conducted on an approximately annual, no-notice basis by the Majcom IG. The main purpose of the SAC IG was to ensure that the operational wings were competent to perform their EWO mission.

OSS - Operations Support Squadron, an operations unit that is made up of many of the former operations staff functions

OT Launch - Operational test launch at Vandenberg. In Minuteman, missiles are randomly selected, removed from the silo, transported to Vandenberg, prepared for launch and tested

Oxidizer - Along with the fuel, one of the propellants for a rocket motor

OZ - Outer Zone security, an indication that someone or

(Continued on page 10)

Glossary (Cont) - something has entered the above ground security area of the missile site

P&S - Plans and Scheduling, the maintenance office that develops the maintenance schedule

Pad Chief - an MMT in charge of a single missile silo

PAH - Minuteman LF personnel access hatch

Par Bar - a bar near the Perimeter Acquisition Radar north of Grand Forks - it was said that the whole metal building would light up when the PAR was turned on

Parka Pants - heavy, insulated pants worn with the AF parka in extremely cold weather

PARPs - Post Attack Readiness Procedures, a set of Titan II crew procedures to continue to operate after the execution has been initiated

PAS - Primary Alerting System, the famous SAC Red Phone It is a special telephone system coming from the SAC underground command post and from Looking Glass to all other SAC command posts and missile LCCs

Penetrate - entering an unmanned Minuteman site, involving both the A and B circuit access to provide access to the silo

Pit - The "hole" where the A-plug is located at the Launch Facility

PK - Peacekeeper

PLC-A - Primary Launch Command A, a command that selected targets and launch timing for a squadron of missiles. Once selected using mylar IBM punch cards inserted into the card reader by the combat crew

PLC-B - Primary Launch Command B, a command that selected the target and launch timing for a single missile

PLX - Propellant Loading Exercise, a launch simulation for Atlas, Titan I and other "wet" systems where LOX or LOX and RP-1 was loaded and the missile readied for launch. During the ORI for these systems, about two thirds of the force had to successfully accomplish the exercise

P-Plug - a small component that was part of the coded launch and inhibit system, that, in the early days of Minuteman, had to be carried to an LF by two armed officers and installed during a can change

Pocket Rocket - the Air Force Missile Badge

Pointy End Up - which way we tell the "uninformed" that the missile should be positioned

Pre-D - Predeparture briefing, for all combat crews before leaving for alert, preceded by the squadron's Pre-Pre-D

Propellant - either the oxidizer or the fuel for a rocket

motor

Propellant Terminal - an underground storage facility in Titan I which included a 25,000 liquid oxygen tank (a big thermos bottle), along with nitrogen, helium and gaseous oxygen tanks

PRP - Personnel Reliability Program, see HRP

PSAT - the Primary Security Alert Team at the LCF, a two man response team

PSRE - The rocket engine that powers the bus in Minuteman III, the "fourth stage" that puts the reentry vehicles in their proper trajectory for the target

Pucky - sealant used on Minuteman missile joints, especially used to seal components for test launches so the silo can be cleaned and reused in a shorter time

Pyros and hypos - the powder cans, igniters, and hypergolic cartridges used to start the engines.

QRM - Quick Reaction Maintenance - what you pulled if you were an EMT (Electro-Mechanical Team) member

RASP - Reliability and Aging Surveillance Program, an extensive program run primarily by Ogden Air Logistics Center to assess the performance of a missile system as it ages

REACT - originally a depot team sent in to fix a significant system problem at a Minuteman wing, now the acronym for the new computer system and console in the LCC

Red Safe - the small safe locked by the two crew members, containing launch keys and execution documents

Red Heat - a major modification performed on operational Atlas ICBMs shortly after they were fielded

Ripple - an early launch sequence, where Minuteman missiles were launched a few at a time to minimize the possibility of loss due to incoming weapons or by fratricide

Roll Transfer Building - the building where Minuteman missiles are transferred from the shipping container to the transporter erector

RP1 - rocket propellant one, a kerosene based fuel used in Atlas, Titan I, Thor and Jupiter missiles

RRU - the Remington Rand Univac guidance computer for Titan I. Hence, the troops who maintained it were affectionately addressed as "roo-roo's"

RS - Reentry system, the reentry vehicles, the bus, the shroud and other parts above the third stage in Minuteman III

RSAT - the Reserve Security Alert Team at the LCF

RV - reentry vehicle, the warhead and the aerospace ve-

(Continued on page 11)

hicle that is designed to protect it and survive reentry

Glossary (Cont) - SACCS - SAC Command and Control System. This is a teletype system connecting all SAC command posts and missile LCC's. It's purposes are to communicate the status of SAC forces and transmit EAM's, also called 465L

Salvo - a launch of all missiles in the flight or squadron at a single time

SAT - Security Alert Team, consisting of two Air Force Security Policemen. They respond to Security Alert Messages from the FSC or other sources, usually by driving several miles out to the affected LF in a pickup truck or Humvee. They are typically armed with M-16 rifles and a large supply of ammunition.

SCC - Security Control Center, the room in the LCF or MAF where the security controller oversees flight and LCF/MAF security

SCOBEA - self contained oxygen breathing apparatus, oxygen tanks and mask for survival and escape in early missile silos

Scott Air Pack - another small, self contained oxygen breathing apparatus

SCP - Squadron Command Post, an LCC with extra SACCS and HF communications gear. It is in operational field command of the Squadron.

SELM - Simulated Electronic Launch, Minuteman, a ground test of the flight or squadron launch capability. Replace the M with a P and it is the Peacekeeper version

Silo - the vertical hole where the missile is stored for launch - the press always calls the place the crew stays the silo - almost true when in Atlas and Titan when the LCC was adjacent

SIOP - the Single Integrated Operational Plan, the overall war plans for all nuclear weapons

Site Commander - a major or lieutenant colonel in command of a Titan I site

Site Chief - the senior maintenance NCO at a Titan I site

Site - the above or below ground facility where a single or multiple missiles are (three in Titan I and Atlas D)

Six-pack - the six passenger pickup truck used to transport maintenance troops or security, often a four wheel drive vehicle

SLFCS - Survivable Low Frequency Communications System, a slow radio system (very low frequency) originally using two large antennae in California and Nebraska that provided a backup method to transmit EWO messages to the combat crews, the 487L system

SKYBIRD - A collective radio call sign for certain SAC forces.

SKYKING - A collective radio call sign for all SAC assets.

SMS/W - Strategic Missile Squadron/Wing.

SNES - Strategic Nuclear Exchange Simulation, a sort of global wargame briefing devised in the late 1970's by the EWO instructors and planners at the 341SMW as a tool to fulfill EWO training requirements for missile crews. This was a truly excellent learning tool and briefing. The SNES briefing received wide dissemination throughout SAC and elsewhere.

Snorkel Parka - the heavy coat with the zipup hood covered with wolf hair (later fake) issued to crews and maintainers in the cold country. In the early days at some bases, AF members were required to have the parka in their car whenever they left the base

SRAM - Short Range Attack Missile

SSCBM - shipping and storage container, ballistic missile, called the sis-ca-boom

Standboard - the standardization evaluation crews, responsible for conducting crew evaluations

Summer opening - pulling the RV van over the launcher closure on a Minuteman site and opening the closure under it without letting down the environmental covers on the sides of the van. Definitely not authorized if QC was in the area.

TAC Eval - the NATO equivalent of an ORI, a comprehensive evaluation of a wing's warfighting capability. The evaluation team consisted of personnel from the NATO headquarters from all involved countries. Usually involved a lot of time in Chem gear

Tape Test - a tape with preparation and execution messages played at Pre-D and EWO training, that required a 100 percent score to pass - and one must pass before going on alert, or visit the office of the wing commander

Target Bar - was built a few miles east of Conrad, Montana in the 564th SMS complex by an enterprising businessman when construction was begun on the Anti-Ballistic Missile system. The bar was built right across the road from the ABM site. Although much work was done, the site was never completed due to the ABM Treaty being signed. The Target Bar itself was completed, but when the ABM program was canceled, the owner moved the building back into town where it became the local Moose Hall. All that remains of the bar at it's original location is a weed-infested parking lot, a

(Continued on page 11)

concrete slab, and the sign. The sign, naturally enough, **Glossary (Cont)** - consisted of an archery style target on a white background, with a black arrow piercing the center of the red bullseye.

TCCP - Tactical Countdown Continuation Procedures, Titan II missile crew workarounds to continue an aborted launch sequence - legal kluges

TE - the Transporter Erector, the tractor and trailer used to transport and emplace a Minuteman

TEAD/TEAB/TEAT - technical engineering and analysis department (or branch or team), an office with officer engineers and enlisted specialists who worked and solved system problems not covered by the tech orders

TED - technical engineering division (see TEAD)

TEL - transporter/erector/launcher, the tractor and trailer used to transport, deploy and launch four GLCM missiles

Three-one-twos (312's, short for 312X0) - Missile electronic maintenance specialists

TMS/W - Tactical Missile Squadron/Wing

TO - Technical Order. The crew dog's bible, it describes how the weapon system works and contains operating instructions and fault procedures.

Top Hand - the program that selects crew members to perform as test conductors at Vandenberg for the operational test launches

Training LF - a launch facility used for training - each Minuteman base has one on base, and sometimes designates an active LF as another

Tunnel Junction - one of the intersections of tunnels - in Titan I, there were several where two or more tunnels joined

Two Man (Person) Policy - the policy that requires at least two qualified and trained people be present and in visual contact with each other while working on any aspect of a nuclear system

Two Officer Policy - the policy requiring two trained and certified officers present for certain nuclear control tasks

UHF - Ultra High Frequency radio, which provided contact with post attack command and control aircraft, the airborne launch control system aircraft, helicopters and received execution messages transmitted by the ECRS

VCN - Visitor Control Number, a number agreed upon by the MCC and FSC, used to discreetly tell the MCC whether conditions topside are secure.

VHF - Very High Frequency radio, primarily used to talk to maintenance and security teams

VIHS - Vertical Integrated Horizontal Stabilizer on the Matador missile

VLF - Very Low Frequency radio, used by the SFLCS.

Wave Block - a launch time for a specific number of missiles in a squadron - under the early Wave Block Commit sequence, crews were required to calculate five or more launch times and ensure that only the missiles that were specified to launch at each time were committed

WCP - Wing Command Post, the on-base control facility that was the primary point of contact for the missile crew

Whites - the one piece "painter's coverall" worn by early crewmembers and many maintenance folks

Writtens - during an evaluation, one phase that consisted of a long open-book test on the dash-one tech order

WSA - weapons storage area, the on base secure facility where nuclear and non-nuclear warheads, bombs and related items are stored

WSC - Weapon System Controller, the computer that runs the command and control equipment in each LGM-30G WS-133B (CDB) LCC.

WSR - Weapon System Reliability, the probability that a missile in the alert force would reach its target if executed. A combination of the alert rate, launch reliability, boost or in-flight reliability, reentry and warhead reliability. Combined with the CEP when laying the SIOP to determine target coverage

WSSR - weapon system safety rules, the nuclear safety rules pertaining to a specific nuclear system, covering all aspects of the system's operation and maintenance

Send us your own names, acronyms terms and nicknames for Part II

Circuit Breaker Panel Likely

Cause of Minot Fire - a AF Space

Command News Release

Investigators determined a circuit breaker panel was the most probable origin of the fire which destroyed a Minot AFB missile alert facility Nov 30. Investigators cited a circuit breaker panel, located in the generator room, as the most likely ignition source for the fire that gutted the 8,000-square-foot facility. The fire broke out in the early morning at the Golf-01 MAF located near Plaza, ND. All 13 occupants of the facility were evacuated safely. Plans are under way to rebuild the facility, which provides housing, security and support to the launch control operations people and equipment.