



# MISSILE BROTHERHOOD

**"SERVING THE TACTICAL MISSILE CREWS AND SUPPORT PERSONNEL WHO FOUGHT AND WON THE COLD WAR"**

Volume 2, Issue 4  
Oct-Nov-Dec 2000

## HAPPY HOLIDAYS!...& THINK ORLANDO

It seems like only yesterday that we were busy planning our Grapevine, TX get together, and here we are at the end of another year and cranking up for our reunion in Orlando.

If early comments and commitments are anywhere near accurate, this is going to be a BIG, BIG show! I've received several e-mails from folks who regretted missing Texas, but they definitely will not miss Orlando.

As Joe mentions in his column, he needs to know approximately how many members will be attending so he can make hotel reservations very soon. Large hotels book events many months in

advance, and if we don't get on their list soon, we'll be meeting someplace in the tule-bushes, and those of us who spent time at Hahn know all about the tule-bushes!

On page 4, you will find a form to make known your reunion intentions. It's very important that you return this to him immediately, so please don't put it off. If you don't want to cut up your newsletter, simply send Joe a note, e-mail, or give him a call at 904-282-9064.

We know you can't always plan your life 10 months in advance, but please give us your best shot.

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## WE'RE GROWING LIKE TOPSY

The last time we visited, we were in the midst of drastically tweaking and cleaning up our membership rolls. We had mailed postcards to over 200 people on our original list who had not responded to previous correspondence. To remain as active members, all they had to do was return the postcard indicating their interest. We originally estimated that perhaps 10% would respond, and even that proved optimistic as those 200-plus names produced only 16 responses.

While the loss of that many names greatly reduces our postage expenses and labor, it's unfortunate there are former missileers who have no desire to be affiliated with us, despite the informal, frugal nature of our fraternity...or perhaps that's why!

On the positive side, we have the satisfaction of knowing that ours is now an

all-volunteer organization.

Even as inactive names are removed, we continue to recruit members. I'm pleased to report we are entering the new year with nearly 450 hard-core tactical missileers, and virtually every day I receive a note from Joe with another name or two to add to the roster.

A surprising number of folks discovered us by visiting the Missileers website. Considering the average age of our group, we have an abundance of active net surfers. Who says old dogs can't learn new tricks...with a little

### Memories Are Made Of This

This Christmas season evokes memories of many lonely nights on alert duty...prepared for WWII...but praying it would never happen.

One Christmas Eve the Hunsruck hills were treated to a heavy snowfall. Because of the holiday, there was no scheduled maintenance, the head shed was quiet and there was little to do but listen to Christmas carols on AFN and long for Christmases past.

The huge, fluffy snowflakes were beautiful to those of us inside the warm blockhouse, but I vividly remember peering out the window at the site security guards walking their posts in the dark and snow. They wore bunny pants and boots in addition to the usual parka and mittens. Add the required gas mask, web belt with ammo, M1 carbine and other accoutrements of the trade, and the guards resembled a walking stack of equipment.

It's about 40 years too late, but I'd like to wish a special Merry Christmas to those Air Policemen who protected our birds and crews around the clock and in all kinds of weather. Thanks guys...job well done.

# COMMANDER'S CORNER



JOE PERKINS, CHAIRMAN  
perkster@fccl.com  
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The reunion for next year is on my mind. We want this event to be a success, so we are going to begin organizing it immediately. Included in the newsletter you will find a form to initially notify us of your intent to attend. Please return the form ASAP so I can determine lodging requirements, prepare name tags, etc. This info is vital for me to accommodate everyone without any problems.

I will have to start soon finding a hotel with enough rooms and space for our group. I'm counting on you to get me the information early so we can have a more enjoyable gathering.

This reunion is very important to everyone because we will have to determine the future course of the

organization at this time. The more people who attend, the more input to our future.

I would also like to know if there is any interest in touring Cape Canaveral as a group. If it's something you want to do, please note it on your form, and we will try to arrange it.

\*\*\*\*\*

I would like to see every member send me a small I.D. picture. It can be copied from driver license or military ID card, or any other source. We have started a picture gallery on our web page and would like to include everyone. I would like the picture to have your name at the bottom, but if not, I can insert the name on the picture.

*Joe*

GARY SAND, EDITOR  
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Ph. 940-464-0490

## EDITORIAL: WHAT TO DO ABOUT A ROSTER

I'm in a quandary. Last year, we sent out a questionnaire that asked who wanted their contact information included on a membership roster sent to the members who requested one. We asked what personal information each of you wanted published in the print version and also on our internet website.

We knew that people often want and deserve privacy from unsolicited mail, phone calls or visits. Our initial suspicions were confirmed when many of you did indeed request that phone numbers, addresses, or even cities be withheld from publication.

This year we are sending a roster to everyone on our mailing list, so the situation gets slightly more complicated. Trying to control and manipulate information is extremely difficult. Even a computer can not recognize what you want it to do until you specify what to look at and what to display.

Since all information you furnished us is on file in our master list, each entry on the published roster had to be checked and hand manipulated to make certain we were not violating individual wishes. Now we face the dilemma again and customizing the information has become a huge task due to the increase in membership. As a compromise, here's what I propose to do.

Since the internet now gives everyone the capability of finding nearly anyone, anywhere, anytime, I propose we publish all information which is readily

available from that source. That would include name, street address, town, state, zip and e-mail addresses for those who have them.

No phone numbers would be published, but if a member wanted to contact an old friend, they would at least have an address for a starting point. Phone numbers could then be obtained from the phone company, if listed, or withheld if not. It would get yours truly out of the business of trying to control individual preferences.

We would release only information readily available from public records. Legally, I think we would be on solid ground, but I would still like to hear your opinions. If you are strongly opposed to having even that much personal information disclosed, please let me know, and I will print only your name on the roster, and nothing else. We can no longer print just part of the address, so it's all or nothing.

Last year the roster was mailed early in January and I hope to follow that schedule again, so please make your opinions known quickly.

Last, but definitely not least, let me take this opportunity to wish you all a Merry Christmas and a happy and prosperous new year.

*Gary*

.....Since the internet now gives everyone the capability of finding nearly anyone, anywhere, anytime, I propose we publish all information which is readily available from that source.

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Yes, It's that time again, and we hope to prevail on your generosity before the Infernal Revenue Service picks your pockets.

We have a double mailing this time of year with the newsletter and upcoming membership roster, so the slush fund takes a pretty good hit. If those who have not yet contributed can spare a \$5 or \$10 donation, we will be in great shape for the next year again. If the retirement check is stretching a bit thin, don't worry about it, your camaraderie is more important to us than the bucks

By the way....several members have been sending donation checks to the newsletter editor, and while we greatly appreciate your generosity, our accounting system functions much better if you send all checks directly to Joe. I manage to beat out a few words on the computer, but when it comes to book-keeping, I make a good ditch digger! Joe is the designated financial wizard and official check writer for this team, so I depend on him to keep us solvent. You can help keep me un-confused by sending all donations to him, and only newsletter items to me.

Make all checks payable to Joe and send to:

Joe Perkins  
2019 Cornell Rd  
Middleburg, FL 32068

**Show Your Colors**

Professionally made, cloth, *Mace/ Matador Missileer* patches are now available in two sizes. There is a 4" patch which is suitable for your jacket, golf bag or display case. We are requesting a donation of \$5 for each 4" patch to offset manufacturing and mailing costs.

We also just received a batch of 3", cap-sized patches which are of the same material and quality as the large patches. We would appreciate a \$4 donation for these.

Send requests for patches, and a stamped, self addressed envelope, along with your contribution to Joe. One patch of either size requires .33 postage, while two or three patches are .54.



*Merry Christmas and Happy  
New Year to all our Tactical  
Missileers and their families.*

**MAIL CALL!**



Victor Haas dropped a letter in my mailbox recently. Health problems kept him from the Texas event, but he assures us he will be in Orlando. He also promised an article on the Target Data Section. I'm looking forward to it.

Dave Summarell didn't stop with a letter, he sent a whole book! His "memories" book from Kadena is filled with photos and info. I'm in the process of scanning many of them, and will include some in the newsletter while others will be posted on the website. Don't worry Dave, I'll send your book back when I'm done...or maybe I should just hold it for ransom to be sure you make it to Orlando!

My e-mail box has been full again. Sharon Chapin, Charley Martin, Mel Jefferis, Chico Ruiz, Dick Boverie, Wayne Parkurst, James Harrison, Ron Daniels, Jack Stewart, Harry Bosch and Jerome Davis are just a

few of the folks who have written.

One Matador pioneer, Gene Slegel, sent his recollections of an incident that occurred soon after their move to Patrick from Holloman. He was part of the program when the Matador was still known as the MX771. His contribution is included elsewhere in this issue.

We love to receive first-person stories about anything and everything associated with our birds and support systems. Please feel free to submit your story or articles for the newsletter or our reference library.

We are not devoid of bad news either. Barbara Sharkey wrote to inform us that Bill Sharkey passed away 25 Aug 2000. We were also informed that William Kidd passed away, but don't have a date to give you.

I'd like to welcome Greg Ogletree to our group. Though he is not a Mace or Matador guy, he is a published author and the premier expert on missile-unit heraldry. It's great to have him interested in our missiles and our organization.

# I Remember.....

The following article was submitted by Eugene W. Slegel, Major, USAF, Ret. Gene's first assignment in the Matador program was Holloman, AFB. He was transferred to Patrick AFB in 1951. He was later assigned to the 4504th at Orlando AFB until his retirement in 1960. He then went to work for the Martin Company where he remained until his retirement.

Look out for the new, improved version!

The Matador Test Squadron had recently moved to Patrick AFB, FL from Holloman AFB, NM and received the new, *improved* missile and launcher. We were doing a demonstration for some Pentagon brass.

The missile was erected to the firing elevation, started the engine. When it reached 100% power the missile lurched forward and fell nose first off the launcher (a revolting development). After investigation by Air Force and Martin personnel, we determined the new centering cones on the launcher frame were causing the erector to spring forward just slightly, but enough to distort the hold-back bolt, allowing it to break at 100% power.

For those not familiar with the device, the bolt did as its name implied, it held the missile when 100% power was applied, but sheared when the JATO bottle was fired allowing the missile to take off.

Corrective action: Grind off the cones...problem solved.

Over 20 years later, history repeats. A new, *improved* launcher for the Army's Pershing missile was being tested, however there was not brass present.

The Pershing is transported horizontally and launched vertically.

There was a device called the azimuth clamp which held the missile to the launch pad during transport and erection. It was removed manually just prior to launch. The improvement was to remove most of the clamp prior to erection, then have a spring hold the last part to the missile till the fire command was given. It sounded good, but the spring deflected during erection, causing the missile to become jammed between the erector and the launch pad. What a mess!

With the help of two cranes, the missile was recovered. Back to the drawing board. The spring now removes the clamp section which is held in place by a retractable stud that is retracted when the firing mast is ejected. Oh well, the Pershing and the Matador are both retired, like most of the rest of us.

## ORLANDO 2001 REUNION PLANS

NAME \_\_\_\_\_ SPOUSE/GUEST NAME(S) \_\_\_\_\_

I'LL BE THERE! \_\_\_\_\_ SORRY, I CAN'T MAKE IT \_\_\_\_\_ UNSURE AT THIS TIME \_\_\_\_\_

I'M INTERESTED IN TOURING THE CAPE YES \_\_\_\_\_ NO \_\_\_\_\_

The 2001 reunion in Orlando is scheduled to take place between 3 and 6 October. We need to know how many people will attend so hotel rooms can be blocked for that date. We do not need money at this time, but we do ask for your commitment.

Mail to: Joe Perkins  
2019 Cornell Rd  
Middleburg, FL 32068

...Or send info by e-mail to: [perkster@aol.com](mailto:perkster@aol.com)  
...Or call 904-282-9064

## Change of Address

Name \_\_\_\_\_ Telephone \_\_\_\_\_

New address \_\_\_\_\_

New e-mail \_\_\_\_\_

Send to: Gary Sand or e-mail: [gsand@quik.com](mailto:gsand@quik.com)  
1486 Rolling Acres Dr  
Argyle, TX 76226

# History of the Tactical Missile...Part 2

*This is the second in a series of articles condensed from a two-part feature in the Spring and Summer issues of International Plastic Modelers Society/United States Branch, Quarterly. The authors were our own Fred Horky and a Dr. Griffin T. Murphey. Each author had submitted his own manuscripts, but the magazine editor combined them. Fred wants us to know that he does not agree some statements in the combined story, but he is sharing them "as is".*

Both the Matador and Mace were basically swept-wing jet aircraft of conventional construction, except for the extensive use of metal honeycomb which was relatively new at the time. Aerodynamic features unusual at the time were early applications of the T-tail and "finger fan" spoilers located on the wing upper surfaces. These spoilers controlled movement in both yaw and roll, there being no movable rudder surface. Propulsion was provided by the unspectacular (but supremely reliable) Allison J-33 A-37 centrifugal compressor turbojet, better remembered as the push behind the Lockheed F-80 and T-33 aircraft. In the Mace, a special "expendable" J-33-A-41 short-life version was used, with an increased thrust rating of 5,200 lbs.

Structurally, the Mace was quite similar to the Matador. The center and aft fuselage sections were virtually identical, featuring a ventral, flush "NACA" intake feeding air to the engine. Small auxiliary "suck-in" air doors were located above the engine on either side, much as on the T-33 and F-80, to provide additional airflow at low airspeeds. However, instead of being held closed by springs, they drooped in slightly when at rest, as depicted on the Renwal/Revell model. They were held closed in flight by aerodynamic forces. Since these doors drooped open, red plastic intake plugs were always installed in them except when the engine was to be started. Similar molded plastic plugs were provided for both the ventral intake and for the exhaust nozzle.

The two missiles also had similar wings with the two halves bolted together at the centerline before that assembly was secured to the fuselage with four large, vertical bolts. The Mace's wingspan was "clipped" to 22'-11" from the Matador's 27'-10", reflecting the later type's low-altitude flight regime. For transportation and storage, the wings folded in and were stored by detachable hinge mechanisms bolted under the wing cutout. Additional support equipment, in the form of cradles attached alongside the engine, supported the tip end of the wing.

The wing attachment bay was a flat cutout all the way across, very similar to the same area on the Navy's tilt-wing F-8 Crusader. When the missile's wings were folded back alongside the fuselage, this open cutout would still be visible though partially covered by the sheet metal fairing which formed the upper mold line of the missile fuselage above the wing. This fairing was put back on the cutout when the wings were folded, for lack of a better place to store it.

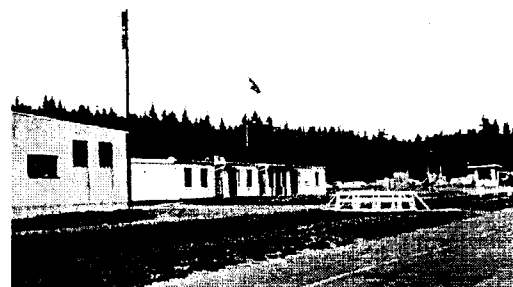
The forward fuselage of the Mace was the area most changed from the Matador. First, the fuselage "plug" was

added forward of the center section, incorporating an additional fuel tank bladder, necessary for the increased fuel consumption of low-altitude flying. Forward of this plug was a constant cross-section warhead section, like the plug attached building-block style with four large bolts, and with quick disconnects for wiring and plumbing. These bolts were externally accessible in small recesses on the outside of the missile, represented by the dimples on the kit's fuselage. At the nose of the missile was the similarly attached guidance section, containing the ATRAN radar, autopilot, avionics cooling equipment, radar altimeter, and other equipment.

The fact that the missile was on a missile launcher may make you think that it was fully mobile, but such was not the case. The TM-76 Mace missile was a map matcher and had to be moved to a specific launch site to follow its programmed course. The new, self-contained guidance was provided by Goodyear Aircraft's "ATRAN" system (Automatic Terrain Recognition And Navigation). Essentially, the missile's airborne radar dish, behind the Mace's distinctive new 44-inch radome, searched the terrain ahead of the missile, compared the resulting radar "map" to an on-board miniature map on 35mm film strip, and made corrections to maintain course. The film strip-actually a succession of little map images which overlapped at 2 nautical mile intervals-was automatically fed through the "map-matcher" much as a pilot would unfold his map on visual cross-country flights. At T+19 sec. The guidance film strip also contained punch-coded turn information to assist the autopilot in making programmed turns, as well as commanded altitude changes and the necessary warhead arm and detonated information. After launch the missile was completely independent from ground contact and could not be recalled.

Before leaving the discussion of the Mace anatomy, we should mention the similar Mace B (TM-76B, later designated CGM-13C) which was basically identical except that it was equipped with an early inertial guidance system manufactured by A.C. Spark Plug Division of General Motors. Intended for over-water missions (on which the ATRAN system would be useless) the Mace B was deployed to Okinawan bases in the Pacific.

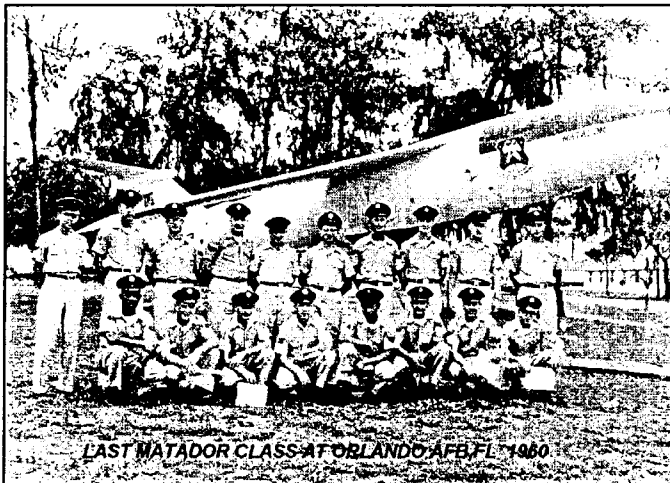
Externally the TM-76B was distinguishable by the solid aluminum-colored nose which replaced the distinctive black radome of the A model. Operationally, the Mace B was noteworthy in that it was housed in hardened launch sites while the A remained "soft" above ground.



Hahn AB-  
Site IV's famous  
"Bridge on the river  
Kwai"

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**Postmaster Please Forward  
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Sender**



**Don't forget...we're on the net!**

<http://tacmissileers.homestead.com/MISSILEER.html>

## EXIT SMILING

Apparently, a couple of years back, the dazed crew of a Japanese Trawler were recovered off the Sea of Japan clinging to the wreckage of their ship. Their rescue, however, was followed by immediate imprisonment once authorities questioned the sailors on their ship's loss. They claimed that a cow, falling out of the clear blue sky, had struck the trawler amidships, shattering its hull and sinking the vessel within minutes.

They remained in prison for several weeks, until the Russian Air Force reluctantly informed Japanese authorities that the crew of one of its cargo planes had apparently stolen a cow wandering at the edge of a Siberian airfield.

They forced the cow into the plane's hold and hastily departed for home. Unprepared for live cargo, the Russian crew was ill-equipped to manage a rampaging cow within its hold. To save the aircraft and themselves, they shoved the animal out of the cargo hold as they crossed the Sea of Japan at an altitude of 30,000 feet.