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TAC MISSILEERS

NEWSLETTER

“Serving the mace and matador missile crews and all support personnel who fought and won the cold war”



Winter / Spring 2012

Keep in touch with the Organization and stay on top of the latest goings-on by visiting your web site often at www.TacMissileers.org.

For those of our members who have not had the opportunity to see it or perhaps have not even heard about it, I will start with this edition of your Tac Missileers Newsletter a serialization of the article, *Only 15 Minutes to Atomic Strike* by two Germany military history buffs, Stefan Büttner and Klaus Stark. The article appeared in the Germany Aviation magazine *Flieger Revue Extra* edition 32. The article by Büttner and Stark covers, in depth, the cruise missiles deployed by both sides during the cold war in Germany. Much of the content about the Mace and Matador in West Germany was derived from the book *U.S. Air Force Tactical Missiles 1949—1969 The Pioneers* by Tac Missileers George Mindling and Robert Bolton. However, Büttner and Stark populated and expanded the extensive article with data and graphics which they uncovered in files of the former East Germany archives. They describe the missiles and other weapons that were facing West during the Cold War period. It is with the authors permission and approval that I present, starting on page 4, the article, translated and localized into English. Any translation mistakes are solely mine. Because of the length of the original article and the large amount of graphics involved it should take about the next six editions of the newsletter to completely print the article. *Bob Bolton*

Starting on page 2 is Jim Gale’s article on the Roots of the Matador at Sembach June 1956 through June 1959. Jim provide us with an interesting account of when he served with the 11th TMS as a nuclear weapons technician on the Matador in and around the Sembach’s A, B and C pads, the weap-

ons depot and on deployment to Wheelus AB.

On page 3 is the complete history of The **USNS General Harry Taylor**, the not so luxurious ship that transported the First Tactical Missile Group to Germany in 1954. She later went to serve in other supporting roles with the US Navy, USAF and NASA in missile tracking and reentry data gathering roles around the world. She would later become a movie prop and finally one of the largest artificial reefs in the world.

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Sembach's Matador Roots By Jim Gale

June 1956 through June 1959

I went to Sembach with the 11th TMS after tech school at Lowry AFB for Nuclear Weapons 46350. I was in the armament section of the 587th support squadron. If you will permit me I'll just touch on a few things from my era since they constituted the foundation of what you (i.e., Mace folk) experienced. We of course shipped over to Sembach as a complete unit, dependents and all, as the 11th TMS, detached from the 9th AF. We got to Sembach, landing on the flight line in Super Connies, after a flight through Gander, Shannon and Sembach. Many of our facilities were already built. A, B & C pads were functional and the armament complex was just being finished. While the armament complex was being finished we occupied the bottom floor of the barracks just at the top of the hill, above the Group headquarters. I remember standing watch on the dummy training nuke we had stored there in the hallway.

After about a month we moved into our complex and I was a member of the unloading team that unloaded our nukes (of course which we were not supposed to have) off of C124s which had flown direct from Warner Robbins AFB. Shortly thereafter we were accorded alert status which rotated among the three pads. One week on, two weeks off for the rest of our tour. During the Hungarian crisis we went of firing alert fully expecting to receive firing orders at any time. All pads were on alert and eventually C pad was dispersed to Hahn AB for several weeks. I remember standing guard with my carbine and one 15 round clip, in a blizzard to defend against the Russians. I guess they heard who was on guard as they decided not to come.

We had two rotations to Tripoli during my time. I was on the pad when we dumped a bird due to the improper installation of the JATO igniter and watched as a crew dog roped the fizzling bottle down. They were just starting to train for the transition to the MACE when I rotated to a ICBM post with the 51ADS at Vandenburg AFB CA.

We weathered the pandemic of Asiatic flu, where so many were sick they had to stay in their dorms, as the hospital and service club were full.

I wish I could remember the name of the restaurant

on the left on the way to Kaiserslautern. It had the best schnitzel. Ah, I remember the Barbarossahof.

I remember the monthly morale flights to Paris, London, Lisbon and Rome. While there. I set up the football program for dependents. I'm really sorry you don't have more mention of the real pioneers at Sembach.

(Yes, the Barbarossahof is still there. Confirmed by Russ and Bridget Reston during their 2007 to the Sembach area. Russ stated that the schnitzel is still delicious.)

I suspect my peers are aging out. I'm 74 and was one of the youngest. There were some unique things about us. We proofed the concepts of the use of the Matador. Our pilots flew the target routes and established the guidance networks. I'm not sure but I don't think you guys Mace went to Wheelus. We did twice. I remember maneuvers with the Army in concert with their Atomic Cannon which they couldn't get through most towns .

One thing I am sure of we had in common were the endless double deck pinochle games while on alert. Our launch officers would send out for a case or two of snap caps. I remember painting the side of our barracks after partaking of too much of a concoction, mixed up in a laundry tub in the barracks, and I had CQ in 6 hours. I remember sinking a M108 into the roadside ditch leading up to C pad in two feet of snow. It took us 6 hours and 4 winch equipped trucks to get enough traction to pull me out. Caution when in deep snow DO NOT engage low range 4WD and gun the motor you go sideways).

Our pads were bare concrete slabs. No infrastructure except the launch booth. Armament had it great. Our vans were M109s with heaters and electrical outlets and plugs for the 60KW. We had coffee makers, a small hotplate and refrigerator. There were three of us in the crew so we were comfy. On maneuvers we had no spare power for the hot plate so we punched holes in the side of a C ration can, filled it with dirt and soaked it in gas where it made a very efficient stove.

Coming back from the armament complex the road had a sudden right then left turn to go around a giant tree. This tree bore countless scars from various contacts with errant cars. I figured out how to down shift and up shift to fly through that curve. It was such fun.

History Of The USNS General Harry Taylor

The ship we know of for transporting our Tactical Missile Pioneers, the 1st PBS Group to Germany in 1954, had served in prior relief work before going on to have a later role in missile tracking work, movie making and finally serving as an artificial reef.

Operational history



The unnamed transport was laid down under a contract as Hull No. 702 on 22 February 1943 at Richmond, California, named in honor of U.S. Army Chief of Engineers **Harry Taylor**, (AP-145) on 2 October 1943; launched on 10 October 1943 and commissioned on 8 May 1944 at Portland, Oregon with Captain James L. Wyatt in command.

She sailed from San Francisco on 23 June 1944 with troop reinforcements for Milne Bay, New Guinea. After returning to San Francisco on 3 August with veterans of the Guadalcanal campaign embarked, she continued transport voyages between San Francisco and island bases in the western Pacific. During the next 10 months, she steamed to New Guinea, the Solomons, New Caledonia, the Marianas, the New Hebrides, the Palau, and the Philippines, carrying troops and supplies, until 29 June 1945 when she departed San Francisco for duty in the Atlantic.

With the European war over, General Harry Taylor made two "Magic Carpet" voyages to Marseilles and back, carrying returning veterans of the fighting in that theater. Next, she sailed twice to Karachi, India, via the Suez Canal. Returning to New York on 3 January 1946, the transport then began the first of four voyages to Bremerhaven, Germany, and Le Havre, France. She reached New York again on 21 May 1946 and decommissioned on 13 June at Baltimore. She was stricken from the Navy Register on 3 July 1946.

Later the Harry Taylor served for a time with the U.S. Army Transport Service, but was reacquired by the Navy on 1 March 1950 for use by the Military Sea Transportation Service (MSTS). She was reinstated to the Navy List on 28 April 1950. Her early duties consisted mainly of carrying troops, dependents, and large numbers of European refugees.

USNS General Harry Taylor (T-AP-145) operated in a typical year to the Caribbean, Mediterranean, and in northern European waters. **It was during this time, March 1954 that she carried the Pioneering 1st Pilotless Bomber Group on their deployment to Germany.** In 1957, she took part in the Hungarian Relief program, transporting several thousand refugees of the short-lived Hungarian Revolution to Australia. She was placed in ready reserve on 19 September 1957; stricken from the Naval Register on 10 July 1958 and transferred back to the Maritime Administration the same day. She was placed in the National Defense Reserve Fleet at Beaumont, Texas.

Missile Range Instrumentation Ship



General Harry Taylor was then transferred to the U.S. Air Force on 15 July 1961 and was renamed **USAFS General Hoyt S. Vandenberg** on 11 June 1963.

On 1 July 1964, the General Hoyt S. Vandenberg was reacquired by the Navy and designated T-AGM-10, as a Missile Range Instrumentation Ship, one of ten such ships transferred from the Commander, Air Force Eastern Test Range, to MSTS. In 1974, the ship commanded by Captain Anderson deployed to Dakar, Senegal, to participate in the Global Atmospheric Research Experiment. "Equipped with extremely accurate and discriminating radar and telemetry equipment," she tracked and analyzed "re-entry bodies in the terminal phase of ballistic missile test flights," carrying out those missile and spacecraft tracking duties in both Atlantic and Pacific waters until her retirement in 1983. She was ultimately stricken from the Naval Vessel Register on 29 April 1993.

In 1998, some scenes of the horror Sci-Fi film *Virus* were filmed aboard the ex-General Hoyt S. Vandenberg. The ship substituted for a Russian vessel known as the Akademik Vladislav Volkov.

Again transferred to the Maritime Administration in May 1999 and planned for use as an artificial reef, approval for that project was received on 13 February 2007. She remained moored at the East Quay Pier in Key West until towed and finally sunk 6 miles off the Florida Keys in the Florida Keys National Marine Sanctuary. The sinking took place on Wednesday, May 27, 2009. She thus became second-largest artificial reef in the world, after the aircraft carrier USS Oriskany.

The following work, **Nur 15 Minuten Bis Zum Atomschlag, Amerikanische und Sowjetsche Marschflugkörper in Deutschland** (Only 15 Minutes to Atomic Strike - American and Soviet Cruise Missiles In Germany) was written by German military history buffs and researchers Stefan Büttner and Klaus Stark. The original article was published last year in the German aviation magazine **FLIEGER REVUE Extra** edition 32. Now, with their permission, the in-depth article about the Matador, Mace and our adversaries in East Germany during the Cold War will be serialized and presented over the next many editions of your TAC Missileers Newsletter, as space permits.

In translating the work for the Newsletter, I endeavored to keep the choice of words true to the original intent and order while localizing the text to produce a clear and logical read for you. ***Text found within quotation marks was from footnoted source documents and material which I have omitted for brevity.*** Our astute readers will notice mistakes about the Matador and Mace in the work, please don't contact the TAC Missileers about them, the errors are kept in as found. Some of the other information the authors wrote about the USAF Matador and Mace in the original German article was extracted directly from the book **U. S. Air Force Tactical Missiles 1949 - 1969 The Pioneers** by George Mindling and Robert Bolton. However, Büttner and Stark also researched the many German achieves now available from the defunct DDR and its VolksPolice and military, discovering records of our Soviet counterparts, their plans, site locations and missile equipment. Büttner and Stark tell of the story of both sides deploying tactical missiles in Germany in the 1950s and 1960s and it makes for some very interesting and thought provoking reading. Bob Bolton

Only 15 Minutes to Atomic Strike

By Stefan Büttner and Klaus Stark

They were called Pilotless Bombers. In March 1954 the first American cruise missiles arrived in Germany. For one and one half decades, they laid in wait in the low mountains west of the Rhine and could carry nuclear warheads to Moscow. But the Soviet armed forces also brought Cold War cruise missiles equipped with nuclear weapons to East Germany. For the first time the almost forgotten story of these weapons with a view of both sides presented in detail.

The tension was thick enough to cut. On 17 October 1962 the U. S. Air Force Europe had increased the alert level to the DEFCON 3. On 22 October President John F. Kennedy in his famous television address announced the quarantine of Cuba. The world was on the edge of a nuclear abyss - and with it the men of the 38th Tactical Missile Wing - in the Eifel, the Hunsrück and the Palatinate Forest. In these places in West Germany, nuclear armed Mace cruise missiles were stationed, which would be launched first in the event of war with the East. Accordingly, the mood was tense. "We knew that our launch teams were seen as the spearhead," recalls Robert Bolton, then a member of a

launch crew in Sembach, "and that we actually had our finger on the trigger." A large portion of the unmanned missiles were already on alert (Victor Alert), they were aimed at fixed targets and prepared to launch in no time. He further stated, "We were always 15 minutes away from launch, 24 hours a day, seven days a week, 52 weeks a year." However, during the Cuban missile crisis the threat of a nuclear exchange was especially great. In Bitburg the maintenance teams were issued magazines for their M-1 Carbines. At the peak of the crisis anxiety rose even further at one of Sembach's launch sites. Mehlingen has just been remodeled and the contractor had mistakenly pulled a cable and caused an electrical short circuit, eight missiles were suddenly without power and would have been unable to launch if a launch command were given. And at first, nobody knew whether or not it was an act of sabotage by the other side.

Never had the world been so close to nuclear war as during the Cuban missile crisis. But, Soviet leader Nikita Khrushchev backed down at the last moment. After 13 days of extreme tension, the danger was over. Life could go on - even in the launch positions around the American Air Bases of Bitburg, Sembach and Hahn. Kennedy had secretly agreed to withdraw the Jupiter medium-range missiles from Turkey and Italy and to later disarm the Thor missiles in Britain. The Mace was not involved in the negotiations and remained operational until 1969. The Mace B, with a range of 2,200 kilometers, one of the most powerful nuclear weapons ever stationed in West German soil had been overlooked in the missile chess game.

The destiny of being overlooked happened time and again to the early cruise missiles. Thus, it was virtually unknown to the West German public that from 1954 until 1969 early generations of American cruise missiles had been stationed in force and were seen by the other side as extremely dangerous weapons. As the respected Stockholm International Peace Research Institute (SIPRI) said in 1978 on tactical nuclear weapons in the European theater, of the Mace B, it is puzzling: "It is not really clear when the deployment of the Mace B ended in Germany". The West German peace movement, a short time later moved on to focus on the so-called NATO Pershing II and the upgraded new generation of cruise missiles, and their knowledge was not much better. They said what they had discovered close to the Nike-Hercules anti-aircraft position south of Kastellaun, sheet metal shelters that were designed for trucks. Indeed, they had discovered the old corrugated iron Mace A shelters - no one knew more at that time. But, the other side, the Intelligence Directorate of the Ministry of National Defense of East Germany in East Berlin, had always kept its eyes and ears open and missed nothing. In an alarming preliminary report issued in the summer of 1957 it stated, "The tactical guided missiles of the type TM-61A Matador was already in 1954 stationed in West Germany. The remote-controlled bombers and nuclear warhead carrier of this type are very mobile and can be launched from port-

able launchers on any relatively firm and flat ground (concrete airfields, runways, highways, roads, etc.)." The spies watching from the East were quite right.

SEA SICK ON ARRIVAL

The first Americans had arrived in March 1954, giving up the sunny, warm weather in the U.S. State of Florida in exchange for the harsh, snowy winters in the Eifel Mountains. The 50 officers and 500 men of the 1st Pilotless Bomber Squadron sailed from Charleston, South Carolina, on 9 March 1954 aboard the USNS General Harry Taylor and docked on 20 March 1954 in Bremerhaven, Germany. During seven of the 11 days of the voyage across the Atlantic storms prevailed. For three days, the deck could not be accessed because of heavy breakers surging over the ship. When the Americans arrived in Bremerhaven, many of them were seasick and green in the face.

Six months later, the 69th Pilotless Bomber Squadrons had made its move from the U.S. to Hahn Air Base, and the last of three units, the 11th Tactical Missile Squadron appeared on July 1, 1956 at Sembach Air Base. The changing of the names from the earlier Pilotless Bomber Squadron to Tactical Missile Squadron showed the uncertainty in the Americans themselves at that time, with what they were doing. Originally the missiles had been classified as pilotless airplanes, or Pilotless Bomber, then after a short time, designated Tactical Missiles and much later, the present name Cruise Missiles became established.

In September 1956, higher-echelon units were organized, directing the original three squadrons; these were the 585th Tactical Missile Group at Bitburg, the 586th Tactical Missile Group at Hahn and the 587th Tactical Missile Group at Sembach.

Also part of the Missile Groups were Support or Maintenance squadrons as well as the Guidance and Control squadrons. In summary, by September 1956 the three Tactical Missile groups were eventually under the umbrella of the 701st Tactical Missile Wing, which was itself succeed on 18 June 1958 by the 38th Tactical Missile Wing. In August 1959 the 38th TMW Headquarters and Administrative staff moved from Hahn Air Base to Sembach Air Base.

Each of the original Matador Squadrons were made up of three flights, which were designated by the letters A, B and C. Each flight consisted of two launch pads with four missiles. The A-, B- and C- pads were located on so-called off-base locations in areas away from their host Air Base. These off-base sites were equipped with two launch pads, there were also buildings for assembly of missiles, space for the ready missiles, transformer stations, antenna farms and at its own disposal an engine test stand. Bitburg Air Base had its A-Pad at Steinborn, twelve kilometers north of Bitburg on highway B257 in the direction Daun. B-Pad was located near the town of Rittersdorf, C-pad was to the south of Bitburg in a forest tract in Idenheim. In the vicinity of the Hahn Air Base the positions of the individual flights

were at Wüschheim, Hecken and Tellig-Moritzheim, and near Sembach Air Base were Mehlingen, Hochspeyer and Enkenbach. The Communications and Guidance Squadrons, which belonged to each Tactical Missile Group, spread their units over the whole territory of the Federal Republic of Germany, scattered from Bremerhaven in the north to Landsberg in the south, from the left of bank of the Rhine to the East German Border. This dispersion had to do with the guidance and control of the Matador and this would turn out to be one of the weaknesses of weapons system.

In The Footsteps of the V-1

During World War II German technicians had laid the foundation for two important developments: The V-2, the beginning of the ballistic missile which would be further developed and shaped in the early 1960s into nuclear intercontinental deterrence. The other the V1 was the first pilotless aircraft and the precursor for all subsequent cruise missiles. The continuing development during the mid 1950s to the mid 1960s led to their first high point, simply for the reason, they were initially technically easier and quicker to improve. Later they were compared unfavorably to the strategic missiles that had greater range and - once launched - could not be countered. But, since the 1980s the cruise missile, mainly due to their now much improved guidance and control system have enjoyed a renaissance with two superpowers.

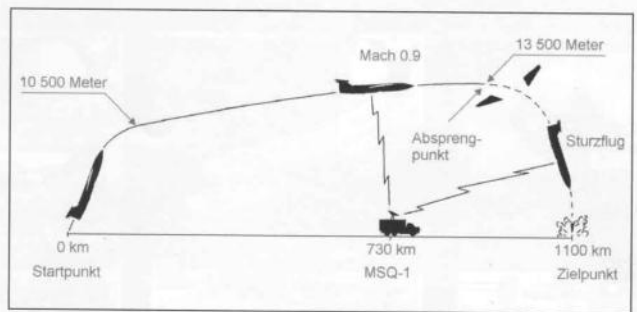
The Matador, the first successfully deployed and capable cruise missile of the U.S. armed forces, can trace its roots back to the German V1. The German Flying Bomb attacks on London, "within a short time had killed more than 6,000 British civilians and injured nearly 18,000 more. In Antwerp, Belgium and in the area of Liege, there were far more than 10,000 victims" this forced some to think twice about the use of the V-1.

As early as July 1944, the American had a recovered, unexploded V1 in the USA and quickly copied the German achievement and created the American version under the name of JB-2 Loon.

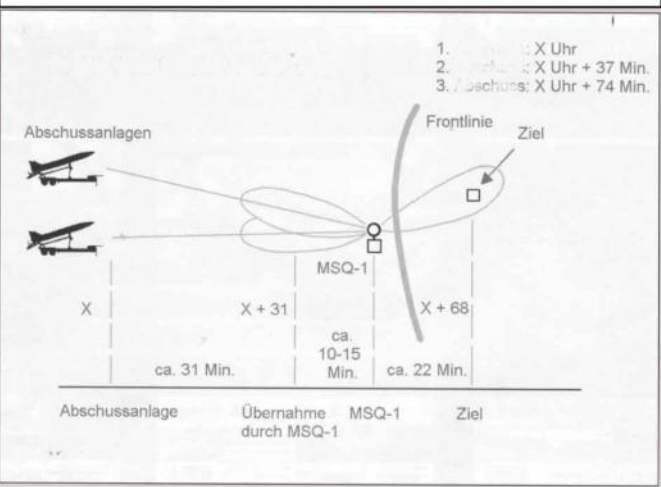
Following the war, there were more serious attempts in terms of cruise missile development. As usual in the U.S., the service branches of the Air Force (until 1947: Army Air Force), Navy and Army competed on related projects and contracted several private companies to assist. The Army focused on air defense and ballistic missiles such as the Nike Hercules, Redstone, Honest John and Corporal. The Air Force stuck with the supersonic Navaho of North American Aviation, the Matador of Glenn L. Martin, the long-range model of the Northrop Snark and the Rascal by Bell Aircraft - four variants in the race - of the four the Navaho and Rascal never went operational. The Navy developed the Regulus for shipboard launch and almost managed to outdo the Matador with it. The first Matador was launched on 20 January 1949 at the White Sands Missile Range. That same year, the program was almost canceled, but then it benefited from the outbreak of the Korean War and

received top priority. By the end of 1953 the first Matador squadron was operational. The Matador should not be compared with the initial V1. For example, it required no long launching ramp, but rather took flight from a mobile launch trailer, called a Zero-Length Launcher, propelled into flight by a solid propellant, Thiokol booster, a so-called RATO. The major innovation was mainly in the guidance control system. While the V1 used a self-contained gyro compass and a small propeller to control the azimuth and range to guide to the target, the Matador operated via a radio command procedure: The missile was controlled, using as an aid, its built-in AN/APW-11 receiver and transmitter, radio linked and guided by a ground crew, through the network of dispersed AN/MSQ-1 radar stations in the countryside. This was the first of four the guidance systems the Matador and Mace utilized.

The MSQ control process was a major advance over the V-1, but it had a serious drawback: It restricted the theoretically possible maximum range of some 1,100 kilometers (683 miles) to a distance of just 370 kilometers (230 miles) beyond of the last radar control station. It was assumed that the sensitive Guidance and Control sites should not be in-places or stationed closer than 50 kilometers (31 miles) of the border, which led to a maximum penetration depth of only 320 kilometers (199 miles). The guidance system was also susceptible to enemy radio interference or jamming. The Matador units even feared that the missile might be guided back into NATO territory by the enemy, it is not known if a foreign controller could have caused the missile to explode in that case. In East Berlin, this was very well known: "The remote command method can be influenced by radio technology, "bragged one there." Another disadvantage is that the missile must rise to a very high altitude to maintain guidance and remains at is high altitude until it reaches the target." **To Be Continued....**



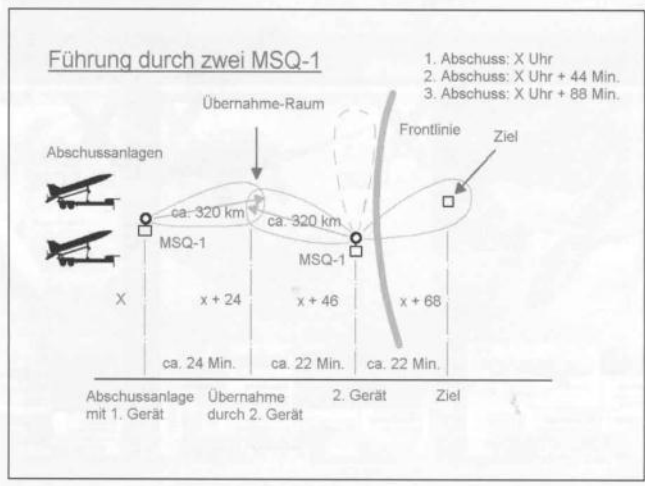
Range of the Matador was determined by the location of the last MSQ-1 radar control station. The target was a maximum of 230 miles beyond it. Graphic by Büttner



One MSQ-1 could control multiple missile launches but only one at a time to the target. Graphic from German Federal Archives / Büttner

Grünstadt Missileers Rhine River Cruise and Mini-Reunion In September

Hank and Donna Barlow, Mike and Bette Brashear, Bob and Ingrid Bolton are taking an 8 day Rhine River Cruise from Amsterdam to Basel in September. Also visiting the Grünstadt, Germany area at the same time will be Ken and Gertrude Roberts, Ed and Rita Johnson and Rita's sister Christel from Heidelberg. Ski Wiatriwski will also be there. All of these former Grünstadt boys and girls are working to coordinate their trip plans to meet on the afternoon and evening of the 21st September at the Haus Sonnenburg <http://www.nippgen.net/> just below the former Site III compound. They are looking forward to some authentic German food and a few drinks together and then going up to the old launch site for a visit of the remains. Several of the couples have been back over to Germany a number of times since 1966. But, none of them have been there together. It should be a great Hoorah for the Grünstadt Gang next September.



Launch and missile guidance employing two MSQ-1 to target extended range but still only one missile at a time. Graphic from German Federal Archives

Continued From Page 2

wonder I wasn't killed.

I installed wing destruct packages in Tripoli so I carried Dets in my pocket and Prima cord coiled up around my neck. We would go to eat at the ultra-secret radio intercept site just down the road from the site, loaded up with all that explosive. Wouldn't get away with that today would I?

I loved Germany, Kaiserslautern and especially Baden-Baden, where I had a girlfriend. Of course Garmisch and Bavaria were beautiful (AND CHEAP). When I went over I was an A/2C. I made 97 dollars a month every month, once a month, whether I needed it or not. A friend went to Wolfsburg and bought a brand new Beetle for a little over 1000 dollars. Grundig reel to reel tape players were dirt cheap as well as the huge consoles. Our exchange rate was 4.19 to one. We had representatives of Hong Kong tailors come and take orders for suits and slacks for really no money and of course the embroidered Sembach Missile jackets. US auto dealers came and took orders for the car of your dreams to be delivered on your rotation. You made monthly payments and picked up your paid for car on rotation in NJ. Remember cars then were 3-4 thousand dollars for top of the line.

A comment on Matador photo above. It shows the JATO bottle being installed by the armament crew. Our duties included the maintenance of the warhead and physics packages in the depot. This included the mechanical, as well as the fusing and firing systems; the transportation and or storage of the warheads and physics packages; the installation and testing of the warhead components before and after installation; the installation of the physics package into the IFI tube when on alert and the removal of the green safeing plugs with the red firing plugs when a firing was ordered. We installed and tested the wing destruct mechanism and installed the JATO bottle and its igniter and checked continuity. When going off alert these procedures were reversed.

The JATO bottle weighted about 1,800 pounds and was basically a steel tube with a 42 degree nozzle welded on it filled with I think 8 cylinders or grains of Picric Nitrate. It was ignited by a bowl of black powder screwed into the back of the bottle that was ignited by an electric squib. We lost a bird in Tripoli because of an igniter was I think cross-threaded and it blew out the back end when pressures got up in the bottle. The

bird just rotated on the front support and never left the launcher, while the bottle rolled around on the ground spewing smoke and fire everywhere. One of the launch guys got a rope and somehow restrained the bottle (which was not completely ignited).



A couple of quick paragraphs about Tripoli. We flew over from Sembach in C119 flying boxcars, full of cargo. We sat where we could. I had made a nest and went to

sleep. I awoke with a bustle of activity around me. Everybody was getting their chutes on. It turned out we had an oil leak in one engine which fortunately was controlled but it was exciting.

We landed at Wheelus which was the largest AB outside the US in the late afternoon. We got settled in and decided to rent bikes and pedal to Tripoli. Problem was we didn't know where it was or how far. It got dark and we chickened out and beat a hasty retreat back to base.

We shortly started launches and spent a great deal of time at the pads. When on base, we spent time assembling the missiles which were shipped in wooden crates. The nose cones came cradled in a crate about 10ft. long and maybe 7ft. square. We just dropped the front end and slid the cone out. When there was a tractor trailer load of crates and scrap lumber, they were loaded up for the trip to the dump outside the base to which they never made it.

If you've never been there, there is no wood to speak of. The only green area is about a mile wide next to the beach. Therefore wood was an unusual and valuable commodity. Consequently the road to the dump exited the base gate and had to make a hard right turn on to the highway. We were met there by a mob of Libyans clamoring for the wood. Our NCOIC was obviously a gypsy trader. After he went to talk to the leaders of the mob blocking us, the elders took of their skull caps under which folded Pounds started to appear. It was handed over and we backed off. That wood and crates disappeared off of the truck like ants carrying leaves. We made about 10 dollars apiece. Later in the week driving along that road we saw neat rows of nosecone crates lined up on a hill with families ensconced within.

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Take a close look at this photo. Did you notice the usual juxtaposition of the different launch types and facilities the Mace A is situated on/in? We can't really call the photo an oxymoron or a mixed metaphor or a contradiction in terms. But, with the Mace A ensconced on a

Translauncher which is then in turn sitting on the front porch of Cape Canaveral launch complex 21-2, the picture is a photographic equivalent of those terms. George Mindling and others have studied the photo closely and believe it is an Orlando AFB school or show bird placed in the unusual setting for, perhaps, an open house at the Cape. The text on the back of the picture does say it was taken during a "Cape tour" and the photo is date September 1961. Notice that the bird is not equipped with a Booster bottle, nor is any cabling evident.

If you have background information about this unusual picture, please contact either Web Meister Russ Reston or Editor Bob Bolton and let them know about it.