



Fist of the Fleet Association

a non profit 501 (c) (19) military organization

NEWSLETTER

January 2016

Preserving the Past Providing for Today

Promoting the Future

WINTER EDITION

By: Jerry "Ricochet" Fritze

Like a lot of people Winter after Christmas is not really my favorite time of year. It's not the snow that gets to you, it's the biting cold. February is probably the worst though as there is really nothing to do. Luckily I get an annual break for a week as I travel to Tempe, AZ for my company's annual Rally. Some of you might ask me why we chose to live in Wisconsin? I spent 10 years in Tempe and I can tell you that Winter here is better than Summer there, where the temps hit 115 more often than we liked. And don't give me that crap about "It's a dry heat". For those of you who made the '76 WESTPAC remember the pleasant time we had in the Indian Ocean when the Flight Deck was nothing more than a 1100 foot long frying pan? That's nothing compared to the burning hell-hole that's Arizona in the Summer. You can bet the men and women deployed to the Persian Gulf this Winter are a lot more comfortable on TRUMAN that we were on RANGER. And while we just idled around during the Ugandan Crisis they at least have enough to do each day to keep their minds and bodies busy.

Deployments are never easy. The '76 cruise was the first peace-time cruise after the end of the Vietnam War. For a lot of the men and women of the Fist of the Fleet this will be their first combat cruise. For many it will not be their last. As long as young men and women choose to serve, whatever the reason, and as long as we as a Nation choose to pursue our enemies, wherever they hide, ships, crews and aircrews will steam and fly into Harms' Way.

A lot of people, too many in my mind, like to stand up and scream "War is not the Answer!" However, for our enemies war has become their way of life. Coupled with tyranny, brutality and a total disregard for life Daesh represents the single greatest threat to the existence of the minority tribes that live in the Middle East. Not since the "Ethnic Cleansing" of the Bosnian War have we seen a people so completely terrorized. Then, NATO stepped in and military action brought a political solution. There is no solution at this time to Daesh other than force: unrelenting and unstoppable. And the more they spread themselves out in the Middle East and North Africa, the more force we are going to have to bring to bear. We can't rely on the Armed Forces of those countries for the simple reason that they can't get it done by themselves. Only First World Powers have the reach AND resolve to engage and destroy. It's not about weapons, strategies and tactics. It's about people. Governments may choose to stand or fight, and either requires the very best intentions. But if you choose to fight then the very best in leadership is required. Nothing less than total commitment brings victory. Anything else is a disservice to the people you send in to a theater of operations. People win wars, but only governments can lose them. So as Winter pushes on the aviators of the Truman push ever deeper in to the desert, seeking the enemy where they gather or hide. And for Daesh the ancient proverb will ring ever truer this Spring: Those who live by the sword shall die by the sword. So go ahead, stand and fight, or run and hide. We really don't care. Every day and every night the skies over your heads will shriek with the sounds of our planes, and the desert will light up time and again with weapons delivered on target. We will pursue you to the doorsteps of hell and beyond if required; from Kabul to Damascus to Baghdad; from Beirut to the Peninsula and on to Tripoli we will dog you every step of the way. As long as we maintain our resolve there is no place on this Earth you can hide. A bitter Spring awaits you in repayment for the misery you have caused.

~Ricochet~



www.fistoffthefleet.org

Mission Statement

Perpetuate the history of Naval Aviation Squadrons VT-17, VA-6B, VA-65, VA-25 and VFA-25,
Remember deceased veterans and comfort their survivors,
Conduct charitable and educational programs,
Foster and participate in activities of patriotic nature,
Assist current active squadron members, and
Provide assistance to family members in times of emergency.

PAGE 1

President's Message

Heading into the new-year we find our Association is in excellent shape. Chuck Webster's financial article presents the details regarding this so please give it a close read. Chuck has also updated our financial software and converted all our historical records leading us into the future on very solid ground. If you are an annual member of FOFA, now is the time to forward your 2016 dues via PayPal on our website or by personal check to Chuck at the address listed in the Officers block.

As noted in my last article we have added a new grant from the Association to the annual Sailor of the Year (SOY) selected from VFA-25. The Fist website has been modified on the Grants page with the addition of a donation button near the bottom of the page for SOY where you can donate to this worthy cause. On that note I would like to sincerely thank those members who have generously donated funds to our grant programs that support and encourage our active duty shipmates. These programs depend entirely on donations from the membership. Please consider participating at any level you are comfortable with.

2016 will be a year of transition among our leadership, as three of our six officers' terms will expire. The offices of President, Secretary and Member at Large will be open for nominations and eventual election this Fall. Please seriously consider stepping forward to serve this great and unique organization and lead it into the future. We have developed a special relationship with our active duty shipmates, which I know they value as well as the camaraderie among members and their families. Don't hesitate to contact any of the officers with questions regarding their duties.

As you all are aware the squadron is deployed aboard USS Harry S. Truman, CVN-75 in and around the Arabian/Persian Gulf. These are very dangerous waters and I know we all pray for their safety as they engage the ISIS enemy and keep a watchful eye on Iran and the surrounding area. Enjoy the articles and photos in this newsletter from those young men and women who are literally at the tip of spear protecting us here at home. I mailed materials to the squadron last month and they still have not arrived as of this writing. Evidently the military mail service has gotten worse instead of better since many of us served. In any case keep them in your thoughts.

In closing I would like to highly recommend you take the time to go see the movie "13 Hours" regarding the Benghazi debacle. It is very powerful and I must admit very upsetting. Personally I think it is exceptionally well done. As a side note at dinner after the movie I mentioned to the young college female waitress what I had just seen. She had no idea what or where it was. Thought I was on Watter's World.

Stay safe and vigilant.

Gary Kerans

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Blue Angles Tour Dates

- Mar 12 NAF El Centro Annual Air Show CA
- 19/20 LA County Air Show Antelope Valley CA
- Apr 2/3 Southernmost Air Spectacular NAS Key West FL
- 9/10 Wings Over South Texas Air NAS Kingsville TX
- 16/17 Show Smoky Mountain Air Show Knoxville TN
- 23/24 NAS Fort Worth JRB Air Power Expo TX
- 30 MCAS Cherry Point Air Show NC

SKIPPER'S CORNER

Happy New Year and greetings from USS Harry S. Truman (CVN 75) on station in the Arabian Gulf. Our work-ups, focus of effort, and team building all contributed to a successful year and has set us up nicely for where we find ourselves today. There are a lot of firsts for VFA-25 in 2015 - first deployment in 3.5 years; first deployment in Super Hornets; first deployment for 75% of our crew; and first round of combat operations in this part of the world versus a previously unknown threat. The nights are long and the days are short as the "night carrier" and I can speak for everyone involved that this is the most exciting time this squadron has seen in many years.

I assert that organizations who manage their routine programs and processes well will naturally be high performing and share a rich reputation for excellence. VFA-25 subscribes to this philosophy from my newest check-ins arriving from Bahrain last week to my most senior air wing strike lead. 2015 finished strong across all departments by sweeping the air wing in nominations for Battle "E", Phoenix Maintenance Award for Excellence; Retention Excellence Award; and Medical Blue "M".

Whether releasing ordnance or taking care of our Sailors, this squadron continues to raise the bar. At the end of the day, we want every embarked squadron to be good...with the *Fist of the Fleet* being just a little bit better. As the data suggests, we are continuing to grow and mature as professionals and willingly look for opportunities to showcase our talents in the shop, on the roof, and in the cockpit.

I'll close by saying that I couldn't be more proud of everyone's dedication to the mission - fuzed ordnance, on target, on time. Although the weapon of choice is a little different, this mission hasn't changed since VT-17 was flying strikes on Iwo Jima back in 1945. The special bond that existed between the maintainer and pilot over 70 years ago holds true today. We are taking the fight over the skies of Syria and Iraq and flying the American flag with pride, humility, and a strong warrior ethos.

Proud to be a Fist,

Skipper

FROM THE COCKPIT By: LT Chad Duncan

As we transit throughout the 5th and 6th Fleet, operations are steadily ramping up. The pilots have used no-fly days to their advantage by attending a robust lecture series on current threats, tactics, and lessons learned from CVW-1 (the carrier air wing recently checking off station). Pulling into Split, Croatia, for our first port call was an unforgettable experience and a first for nearly everyone onboard. Real world flight ops are just around the corner and the pilots are looking forward to answering the nation's call to defend freedom and democracy and help those of our coalition partners struggling to get their arms around the current Middle Eastern dynamic.

Since the last newsletter, the squadron has transited across the Atlantic Ocean and into Mediterranean waters where many have never sailed before. As the United States strengthens its military ties with other nations, it is important to participate in opportunities to showcase our cooperation with one another. As distinguished visitors embarked in USS Harry S. Truman (CVN 75), our squadron was called upon to put together an Air Power Demonstration. Led by our Skipper, CDR Chad "Decaf" Gerber and narrated by LCDR John "Johnny Kittens" Hiltz, the entire air wing put on a one hour air power demonstration for both the distinguished visitors and our Sailors who had an opportunity to view the show from the flight deck. Flying in the Mediterranean Sea was a special experience for our pilots and the weather was simply fantastic each and every day.

As every carrier aviator knows, the mission is not complete until you are safely aboard. Every approach and carrier landing is graded and displayed in the ready room for everyone to see. As we compete to be the best within our squadron, we also compete against the other squadrons in the air wing to earn the coveted Top Hook award. We are proud to announce that two of our pilots, LT Charles "Wingnut" Wickware and LCDR Chad "Macho" Bartkus, made it into the "Top 10" of Carrier Air Wing 7. "Wingnut" achieved a 3.79 overall GPA with a 95% boarding rate while "Macho" was right behind him with a 3.69 overall GPA and 100% boarding rate. Collectively, VFA-25 earned 2nd place in the air wing with a grade of 3.451 and 94% boarding rate. For now, we will "allow" our sister squadron a few frames aft of our ready room to hold onto the coveted plaque – our next opportunity to take the prize is just a couple months away.

Camaraderie and our fighting spirit continue to evolve in VFA-25. The feeling is much like a football team getting ready for the first game; everyone is all in and as our nation calls upon us to accomplish our mission. To that end, our training is complete and by the time you read this newsletter, we will have been operating feet dry for a couple of weeks. The aircraft were groomed, the pilots are trained, and the tasking at hand is successfully being executed; and we are going to execute them with confidence. It's **GO TIME!**



Have you paid your 2016 Dues?

Annual Dues: \$25/YR

Life Time Dues \$200

Mail dues to Financial Officer:

Chuck Webster 39224 132nd St. Bath SD 57427

Only Voting Members receive a copy of the Directory

Become a Voting Member!

Visit the Membership Page

www.fistofthefleet.org

PAGE 3

FROM THE HANGAR DECK

Greetings Fist of the Fleet Family,

This edition comes to you from the warm waters of the Gulf of Oman, or GOO as it is affectionately known around these parts. We are nearly two months into deployment and the deckplates are still going strong. Fresh out of our first port visit to Split, Croatia and with the unforgettable memories of that amazing city still on our minds, we venture on to create even more memorable moments for many of our first-time deployers, and even some of our old salty Sailors

There are only two ways to get from the Mediterranean Sea to the Gulf of Oman, exit the eastern part of the Mediterranean through the Suez Canal, or head south around the African continent and back up the other side. We took the short cut through the Suez and, let me tell you, what a sight it was to see an aircraft carrier traveling through the tight twists and turns of the canal leading into the Red Sea. The concept might sound simple enough, but this trip is anything but simple. There are shallow waters, restricted maneuvering, a width of approximately 300 meters, and hundreds of other ships making navigation of the canal a real nightmare. We took on the 121 mile trek, a roughly 18 hour adventure, and added a little bit of a fun challenge for the crew to go along with it. The "Run the Ditch" competition was race the length of the canal where teams have to use treadmills, elliptical machines, stationary bikes and rowing machines to complete the 120 mile race. The goal of the competition was to promote fitness and team building skills. It's not just an exciting event for the participants, but the spectators enjoyed the opportunity to go down to the hangar bay and cheer on their fellow shipmates. The Run the Ditch competition is serious as it gets out here. The first place team and its department secure the bragging rights for the next four to five months until we head back through the canal on the way home. The Run the Ditch competition isn't the only struggle encountered when going through the Suez Canal, does anyone remember the fact that the potable water has to be shut off for the majority of the time the ship is passing through the canal? Due to the shallow depth, the ship cannot make potable water while transiting the canal, so the water must be shut off to conserve as much as possible. Along with no showers, waste water cannot be processed either, so flushing must be kept to a minimum so as to not overflow the collection and holding tanks. Once we exited the other side of the canal and were into the Red Sea, the water is turned back on. Perhaps the 'real' Run the Ditch competition was the race to grab a much needed shower after the nearly 18 hour transit!

After having been on deployment for a while now, the crew has certainly gotten into a nice flow. Maintaining aircraft here in VFA-25 is something we have always done - and we do it well. For nearly 60 days, our maintenance professionals make the difficult seem routine. All of the shops are working together to ensure we have the most capable jets available when called upon to serve our country. Aside from doing the jobs they are expected to do every day, our Sailors are taking on other tasking as well. Many have fitness goals they are working towards daily, while others have educational goals being met through the Navy's Program for Afloat College Education (NCPACE), which are college courses taught onboard by college professors embarked in TRUMAN. One of the biggest things I see our Sailors taking advantage of are the warfare qualification programs onboard. With three different programs onboard, Sailors can keep themselves busy working towards any one of the warfare specialist designations (pins) offered onboard. In fact, several have committed themselves to getting two qualifications while on this deployment alone! Whether it is Enlisted Aviation Warfare Specialist (EAWS), Enlisted Surface Warfare Specialist (ESWS), or the newest of the programs, the Enlisted Information Dominance Warfare Specialist (EIDWS) qualification, many of our Sailors are diligently working to complete all the requirements so they can have their newest warfare pin affixed to their uniforms. I expect we will have an entire squadron of warfare warriors upon our return to Lemoore at the end of this deployment. We've already had a pleasant surprise in the way of two new First Class Petty Officers from the Fall Navy-wide advancement exam. When the results of the Navy wide advancement exam came out, VFA-25 was aware of 15 Sailors selected for promotion. Once the profile sheets from the exams were released, however, two of our Second Class Petty Officers noticed some information was missing from their profile sheet. After going through their records and providing the proper documentation, their exams were rescored and the result was those two Second Class Petty Officers being advanced to First Class Petty Officers bringing our total number of frockees to 17; this was the most in Carrier Air Wing Seven and we are far from being the largest squadron in the wing! Congratulations to our newest frockees, YN1 Wilson and AME1 Jackson for a job well done.

To the Fist of the Fleet Association: Our planes are flying high, our combat sorties are achieving their objectives, and our Sailors are thriving as we continue to lead from the front on the tip of the spear. As always, we will continue to make you all proud by upholding our reputation for excellence here in Strike Fighter Squadron 25 as one of the best squadrons in the Navy - and definitely the best on the West Coast.

With the Utmost Respect,
CMDM Claude "Hendu" Henderson



FIST 401 leads CVW-7 into Operation INHERENT RESOLVE against ISIS



FIST 400 launches off the waist catapult on mission.



CVW-7 division flyby. Team 25 is represented on right wing and slot.

DID YOU KNOW: NAVY, MILITARY AND OTHER INFORMATION



Squadron photo taken from Ready Room 7 onboard TRUMAN.



Merry FISTmas! Santa traps onboard TRUMAN on Christmas Day.



Merry FISTmas! Nice work by our Corrosion and Airframes work centers.



FIST 405 going into tension prior to a catapult shot.



Ordnancemen Bressi and McIntyre load FIST 401's 20mm cannon for another combat sortie.



Photos from our All Hands "Ice Cream Social" on the mess decks.



"Wingnut" and "Macho" with the other top 10 awardees



YN1 Wilson is frocked after an error was discovered in her Navy-wide Advancement Exam score. She has achieved something very, very few have ever done by making First Class in just four years.



AME1 Jackson is frocked after an error was discovered in his Navy-wide Advancement Exam score.

Departure Notification



AVCM Robert (Bob) Beasley, USN Ret. passed from Lymphoma cancer, was cremated, and buried at sea. Bob was the Maintenance Chief in VA-25 from 1974 till 1977, when he replaced AVCM Ben Houk. Bob was an annual member of the Association

\$\$\$\$\$\$\$ FINANCIAL NEWS \$\$\$\$\$\$\$

I want to report that the financial status of the Association is still on solid ground. As of 31 December 2015, the Association has a balance of \$25,347.65 in savings and \$2,644.67 in checking with the Navy Federal Credit Union. This gives us a total of \$27,992.32 going into 2016.

A good indicator of the Association's financial health and stability is the continued growth of its dues paying and new life members. This number increased during the first six months of 2015 with eight new life members and fourteen annual members as listed in the last newsletter. During the second half of 2015, three more new Life Members: Mike McClure, Derek Ellington, and Daniel Gabriel. A new annual member during the same period: Daniel Kendall.

With the excellent attendance of members and guests at Fist '15 our convention expenses and transportation cost for the tours were all covered by the cost of the registration fees. The registration fees were used to pay for the banquets, the Ready Room, the social meal, and of course the Cowboy Stadium tour and all tour transportation. Members paid for their own lodging and travel transportation cost.

In the last newsletter I stated that the Ltjg Harry Jones Award would be presented at Fist '15 and at that date we had not received any additional funds for that award. I'm happy to say that we received two donations for a total of \$1500 toward the Ltjg Harry Jones Award. At the convention it was voted to establish the VFA-25 Sailor of the Year Award. With that award there will be a \$500 check presented to the SOY. We received our first donation of \$600 to start the SOY Award. We received a \$450 refund from the IRS after we sent them a check for \$850 to cover the cost to reinstate our tax free status. During 2015 the educational fund has had contributions of \$304 in donations and the Association had no request for an Educational Grant from the squadron.

As we move into 2016 we will need members to continue to support the Educational Grants, the SOY Award and the Ltjg Harry Jones Award with their donations. To date we have been able to award those grants without taking funds from our general operating funds. All those sending donations will receive a tax letter to cover their donation as we had our tax free status reinstated.

Chuck "Pooh" Webster



FIST 400 flies by TRUMAN on station in the Arabian Gulf



Holiday smiles form the Fist of the Fleet



FIST 400 and 406 flyby TRUMAN on Christmas Day.

THE EVOLUTION OF WARFARE: RAPID ADVANCES AND THE GULF WAR

The AGM-65 Maverick was the first general purpose fire-and-forget tactical air-to-ground missile. It was produced in very large numbers, and its later versions will remain in the U.S. inventory for some time in the future. Development of the Maverick began in 1965, triggered by the bad performance of the AGM-12 Bullpup in South-East Asia. The AGM-65A is a relatively small missile using an electro-optical guidance system. The picture from a TV in the nose is displayed on a screen in the cockpit. The pilot selects a target and the image is "locked" in the missile's seeker logic and the Maverick is fired. After launch it homes in on the target by constantly matching the TV camera image to the locked target image. The 125 lb. shaped-charge warhead is detonated by an impact fuse. One drawback of the AGM-65A was the relatively small TV image requiring an unnecessarily close approach. The AGM-65B was developed which used scene- magnifying optics



doubling the image resolution. This allowed the engagement of smaller or more distant targets. Development of the "Scene-Magnification Maverick" began in 1975, and the missiles were delivered during the late 1970's. Production ended in 1978 after more than 35,000 missiles had been built.

The AGM-65D "IIR Maverick" replaces the TV guidance section with a WGU-10/B imaging infrared (IIR) seeker with almost twice the lock-on range of the AGM-65A, and allows effective use of the missile at night or in bad weather. The AGM-65D was also the first variant to be produced with a new reduced-smoke motor in the propulsion section. The AGM-65G is an improved "IIR Maverick" for the USAF. Based on the AGM-65D it uses the heavy warhead and fuze of the AGM-65E/F because it is especially designed for use against hardened tactical targets. It also has a new digital autopilot and improved tracking and target selection options. The new autopilot allows the operator to select a lower trajectory to prevent break of lock in clouds.

The Maverick was extensively used by the USAF in Operation Desert Storm. More than 5,000 missiles of the AGM-65B/D/G variants were launched, mainly by A-10A aircraft. The hit rate was reported as between 80% and 90%. The USMC also fired a few AGM-65Es with a reported hit rate of about 60%. The IIR seeker of the AGM-65D had some problems during Operation Desert Storm because of thermal clutter in the excessive heat of the desert. Therefore, the USAF decided to field a Maverick with a modern TV-guidance section using a new CCD seeker. Raytheon developed a CCD seeker to replace the TV or IIR seekers of some existing AGM-65 missiles. The new CCD seeker will give remanufactured missiles higher reliability, higher lock-on range and better low-light performance however it is not suitable for night-time use. Production of new-built AGM-65 missiles ended around 1999 after more than 75,000 missiles (including production for foreign customers) had been built. The main U.S. platforms for the AGM-65 are currently the A-10, F-16 and F/A-18 aircraft. The Maverick is fired either from single-rail LAU-117/A or triple-rail LAU-88/A launchers.

Development of the Phoenix began in late 1960, after the U.S. Navy's projected F6D Missileer and the associated AAM-N-10 Eagle long-range interception missile had been canceled. The new missile used technology previously tested by the AIM-47 Falcon. In June 1963, the AAM-N-11 was re-designated as AIM-54A. While the Phoenix test program continued the AIM-54 and AN/AWG-9 were incorporated into the new F-14 Tomcat.

An F-14 could carry up to 6 Phoenix missiles, on LAU-93/A (F-14A/B) or LAU-132/A (F-14D) launchers, respectively. The AN/AWG-9 FCS uses a Track While Scan pulse-Doppler radar, and can track up to 24 targets simultaneously at ranges of up to 130 nm. Therefore, an F-14 can effectively attack 6 targets simultaneously. When an AIM-54A is launched, its Rocketdyne MK 47 or Aerojet MK 60 solid-fueled rocket motor propels it to a speed of Mach 4+. For mid-course guidance, the missile's AN/DSQ-26 guidance section employs an autopilot, which gets regular target position updates by semi-active radar tracking. The FCS radar periodically illuminates every target to which a missile has been dispatched. For maximum range, the missile flies an optimized high-altitude trajectory for reduced drag, and the AIM-54A can engage head-on targets at a distance of up to 72.5 nm. For the final 20,000 yd. of the interception the Phoenix switches to active radar homing for high terminal accuracy. Minimum engagement range is about 2 nm, in which case active homing is used from the beginning. The 132 lb. MK 82 blast-fragmentation warhead is detonated by a fusing system consisting of a MK 334 radar proximity, an IR proximity, and an impact fuse. The AIM-54C features completely new digital WGU-11/B guidance and WCU-7/B control sections. The missile incorporates a programmable digital signal processor, and the autopilot now uses a strap-down inertial navigation system. One very important feature of the AIM-54C is its vastly improved ECCM capability. Improvements in the rocket motor increase speed and range, and the new DSU-28/B target detection device improves fusing accuracy in high-clutter environments and for small and low-altitude targets. When production ceased in the early 1990s, more than 5,000 AIM-54 missiles of all versions had been built, about half of these being AIM-54Cs.



By the early 2000s, all operational Phoenix missiles were of the AIM-54C variant, the remaining AIM-54As having been placed in storage. Because the Phoenix was used only by the F-14 Tomcat, it was planned to remain in service as long as this aircraft, and the Navy officially retired the AIM-54 from fleet service already in September 2004. The AIM-54 was primarily designed for long-range fleet defense against incoming bomber streams, a threat which has diminished nowadays. Although it can theoretically also be used against low-flying high-speed anti-ship missiles, there are more effective weapons for this role. Currently, there are no plans to field any other missile with Phoenix-like performance characteristics. The fleet defense role after the retirement of the F-14/AIM-54 combination will be taken by the F/A-18E/F Hornet armed with AIM-120C/D AMRAAM missiles.

Gulf of Sidra incidents

In 1973 Libya had claimed much of the Gulf of Sidra as its territorial waters and subsequently declared a "line of death", the crossing of which would invite a military response. As part of its ongoing freedom of navigation activities in support of 12 mile territorial waters practices the US Navy aircraft carrier *USS Nimitz (CVN-68)* was operating near that line in 1981.

On the morning of the Aug 19th two VF-41 *Black Aces* F-14As were flying CAP to cover aircraft engaged in a missile exercise. An E-2A Hawkeye gained radar contact with two Sukoi SU-22 Fitters which had left Wheelus air base near Tripoli. The Fitters were heading towards the Tomcats and the lead Fitter fired an AA-2 Atoll short range heat-seeking missile at them. The Tomcats evaded and were cleared to return fire. The lead Fitter was successfully engaged with an AIM-9 Sidewinder and when the wingman turned clear of the sun a second Sidewinder fired, hitting his tailpipe. One Libyan pilot was seen to eject and was subsequently recovered from the sea. Sources differ on the fate of the other. These were the first combat kills by the F-14 aircraft.

The second incident, on Jan 4th, 1989, was when F-14 Tomcats from the *USS John F. Kennedy (CV-67)* shot down two MiG-23 Flogger Es which appeared to be attempting to engage them. On that morning VF-32 aircraft were flying CAP about 70 miles from the Libyan coast. Two MiG-23 Floggers which had taken off from Al Bumbaw airfield were detected flying towards them. At the time the Floggers were 72 nautical miles away at 10,000ft and heading directly towards the Tomcats and carrier.

As the F-14s turned away from the head on approach to indicate that they didn't want to fight the Floggers jinked to return to head on approach at a closing speed of about 1,000mph. The F-14s dove to 3,000ft to give a clear radar picture against the sky and leave the Floggers with sea clutter to contend with. The Tomcats tried three more maneuvers to end the approach. Each time observers in an E-2C Hawkeye heard the Libyan ground controller instruct the Floggers to maneuver into a head on course.

The trailing Tomcat locked on to the Floggers with its radar when the lead Tomcat pilot said that "Bogeys have jinked back at me again for the fifth time. They're on my nose now, inside of 20 miles", followed shortly by "Master arm on" as he armed his weapons. At a range of 14 miles he fired a Sparrow radar homing missile and reported "Fox 1. Fox 1." At ten miles range he fired another Sparrow. Both missed. The Floggers accelerated and continued to approach. At six miles range the Tomcats split and the Floggers followed the wingman while the lead Tomcat circled to get a tail angle on the Floggers for a Sidewinder missile shot. The wingman successfully engaged with a Sparrow and one of the US pilots broadcast "Good kill! Good kill!" The lead Tomcat closed on the final Flogger and at 1.5 miles the RIO fired a Sidewinder, which exploded in the tailpipe of the target. One crewman broadcast "Good kill!" and "Let's get out of here". The Libyan pilots were seen to successfully eject and parachuted into the sea. The Tomcats proceeded north to return to the carrier. Subsequent examination of still photography from the Tomcats indicated that the Floggers were armed with AA-7 Apex missiles. Depending on the model, this can be either SARH or IR homing.

Operation Desert Storm

Carrier squadrons brought devastating firepower to bear against the enemy's war-making establishment in Baghdad and throughout Iraq. The air campaign severely damaged Saddam's national command, control, communications, power-generation, and integrated air defense systems; oil refining installations; airfields and aircraft shelters; and naval facilities. And also leveled those Iraqi facilities that intelligence had identified as involved in the production of weapons of mass destruction.

The Navy made a special contribution to the air campaign by helping defeat Iraq's integrated air defense network in the early stages. Before the war the Navy's U.S.-based SPEAR intelligence group had suggested that the key to success would be neutralization of Iraq's radar-directed, surface-to-air missile system. This analysis was correct. Following up on this appreciation the Navy used tactical air launched decoys to fool the enemy into thinking they were combat aircraft. The Iraqis wasted scores of precious surface-to-air missiles on false targets. In addition, the Navy's HARM air-to-surface missiles destroyed many of those radars that dared to activate (unfortunately some hit a few coalition radars). And, the Navy's carrier-based EA-6B Prowler electronic countermeasures aircraft proved to be one of the real superstars of the war, helping protect coalition strike aircraft by jamming Iraqi radar signals.

Other naval aircraft helped reduce the Iraqi army in Kuwait. As the carriers moved ever closer to the target areas, attacks on the enemy's field forces grew in intensity. F/A-18 Hornets used Mavericks, and Navy A-6 Intruders used their FLIRs and 500-pound laser-guided bombs in "tank-plinking" strikes that by G-Day had severely mauled the enemy's armored forces. The naval services could have done greater damage to the enemy if they had had more precision-guided munitions in the theater.

Not all missions, however, required this relatively expensive ordnance. General-purpose bombs were the optimum weapons for reducing the battle worthiness of the enemy's field army. Even though "ancient," the Korean War and Vietnam War vintage Mark 80 series of general-purpose bombs, 5-inch Zuni and 2.75-inch rockets, fuel air explosives, and Walleyes proved almost as good as the Rockeyes for this mission.

The A-7 and A-6 aircraft, despite their age, performed various missions with marked effectiveness. The Navy's last two A-7 Corsair squadrons, whose deactivation was postponed for Desert Storm, did not lose a plane to enemy action, and they employed with skill most of the weapons in the aerial arsenal, including precision-guided munitions, general-purpose bombs, and 20-millimeter guns.

The venerable A-6 Intruder was clearly the naval services' workhorse for strike warfare during Desert Storm. A-6s carried 10,000 pounds of ordnance, operated in smoke-filled skies, bad weather, and at night, and flew long distances without aerial refueling. Their FLIR equipment was especially effective at nighttime spotting of stationary Iraqi vehicles. A-6Es were also vital because their laser designators helped other naval aircraft drop laser-guided bombs accurately. The F/A-18 Hornet, even though its bomb-carrying capacity and range were inadequate for deep-strike missions, performed well in battlefield interdiction operations.

NEXT TIME IN THE EVOLUTION OF WARFARE: MODERN INVENTORIES