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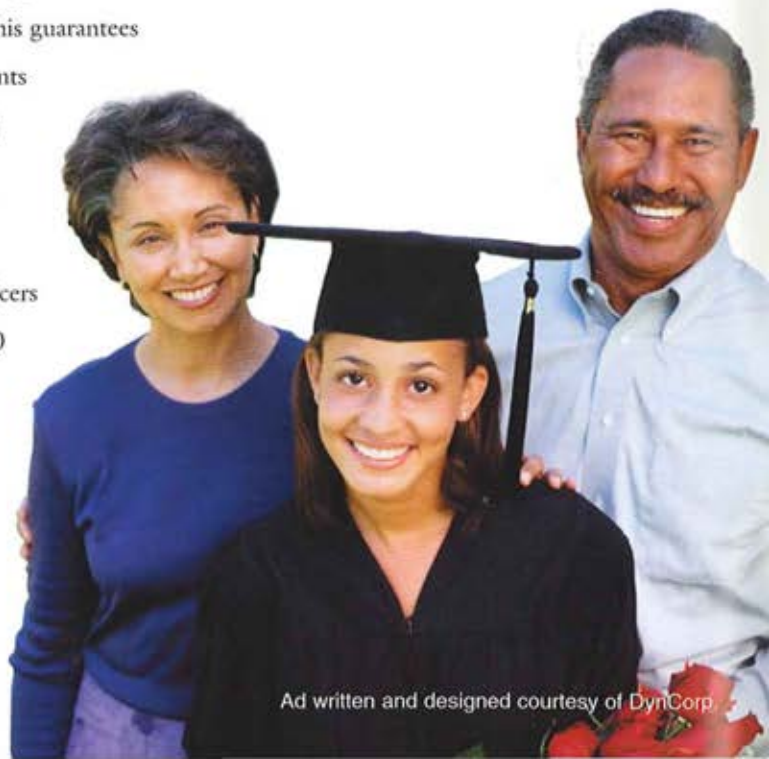

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briefings

It is with the greatest sadness that we report that **Mr. Joseph P. Cribbins**, one of the most influential figures in the history of Army aviation, died on the Army birthday, June 14, 2002, in Bethesda, Md.

Widely referred to as "Mr. Army Aviation Logistics," Mr. Cribbins served the Army in and out of uniform for more than 50 years. A steeple-chase jockey, horse cavalry officer, member of GEN Douglas MacArthur's staff in the Philippines during World War II, a AAAA National Executive Board member, Scholarship Foundation governor and member of the Army Aviation Hall of Fame, his outstanding accomplishments will be noted in the next issue of Army Aviation magazine.

Cribbins will be interred at Arlington National Cemetery on July 10. He was quite insistent that he did not want any flowers, but instead wished to have contributions made to his Joseph P. Cribbins AAAA Scholarship Fund. Contributions should be sent to:

Army Aviation Association of America, ATTN: Bill Harris, Executive Director
755 Main Street, Suite 4D, Monroe, CT 06468-2830

LTC Steve Kihara, a master Army aviator with more than 3,500 flight hours in some 50 types of aircraft, has been tapped to become the first Army officer to command the U.S. Naval Test Pilot School at Naval Air Station Patuxent River, Md. Kihara will report to the school in the spring of 2003 for a three-year tour, the first 18 months of which he will spend as the unit's executive officer.

President George W. Bush awarded the Medal of Honor posthumously May 1 to two soldiers, one a World War II Army dentist and an Army pilot who died marking enemy targets to save friendly soldiers during the Vietnam War. **Dr. (Capt.) Benjamin L. Salomon** received the award for heroism on the Pacific island of Saipan on July 7, 1944. **Capt. Jon E. Swanson** received the award for his bravery on Feb. 26, 1971, in the skies over Cambodia. See page 32 for more details.

The Army System Acquisition Review Council has approved the Army's proposed restructuring of the RAH-66 Comanche program, and directed the proposed restructure be forwarded to the Defense Acquisition Board. Army leaders believe the decision for a production level of 72 aircraft per year versus 96 per year can be postponed until fiscal years 2006-2011. In response to language in the FY 2002 Defense Authorization Act, the Army will forward a report to Congress detailing the Comanche's funding requirements and schedule.

President George W. Bush meets with the crew of the space shuttle *Columbia* in the Oval Office on April 17. The crew members shared photographs and stories about their March mission to service the Hubble Space Telescope. AAAA National Executive Board member **LTC Nancy Currie** (*right*), an Army astronaut and mission specialist, helped to capture and retrieve the orbiting telescope with the shuttle's deployable remote arm.

The Army Reserve's **1st Brigade, 91st Division**, is currently recruiting company- and field-grade aviation officers to help fill its restructured organization in Colorado and California. The unit conducts Battle Command Staff Training for reserve component brigade and battalion commands in the Fifth Army area of operations. Interested aviators should contact LTC Lynn Bowler (full-time) at 303-222-5501, ext. 294, or LTC George Gorishek (USAR) at 303-766-3642.

COL John A. MacDonald has been nominated for appointment to the rank of brigadier general. Macdonald is currently serving as Chief of Staff, 2d Infantry Division, Eighth United States Army, Republic of Korea. **COL Stephen D. Mundt** has been nominated for appointment to the rank of brigadier general. Mundt is currently serving as Chief, Force Development Division, Office of the Deputy Chief of Staff, G-8, United States Army, Washington, D.C. **COL Joseph A. Smith** has been nominated for appointment to the rank of brigadier general. Smith is currently serving as the chief of staff, 10th Mountain Division (Light), Fort Drum, NY.

CAE has won an Army contract to serve as prime contractor for the Army Special Operations Forces Aviation Training and Rehearsal System (ASTARS). The first delivery order, valued at approximately $50 million, calls for CAE to design the world's first AH/MH-6 Light Assault/Attack Reconfigurable combat mission simulator.

ITT Industries' Night Vision Division has won a major share of the largest Army contract ever awarded for third-generation night-vision devices. The total potential value of the five-year Omnibus VI award, including all options, is $450 million. Contract deliveries are slated to begin later this year and will include AN/AVS-6(V)3, AN/PVS-7D and AN/PVS-14 systems, as well as image-intensifier tubes for each system.

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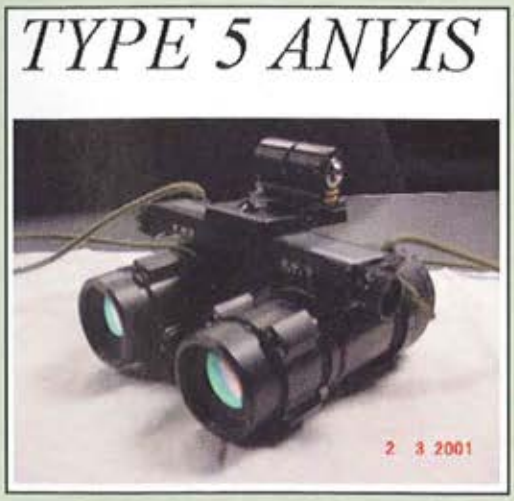
Taking Back the Night

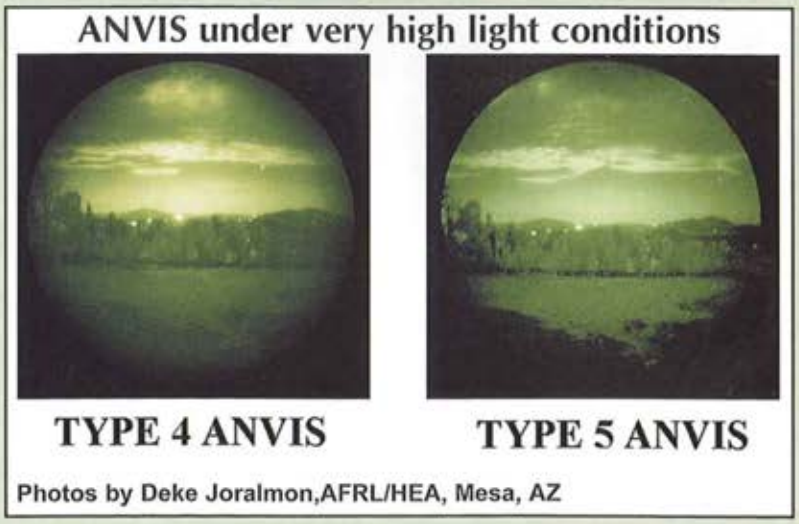
By MG John M. Curran

Imagine for a moment that you are the pilot in command of the UH-60 Black Hawk in the following vignette:

"The objective, a pocket of al-Qaida near the border of Pakistan, is less than 8 kilometers ahead. The mission is to insert troops near the objective via our flight of five Black Hawks. We're inbound on chalk three and should be landing in a few moments.

"It's time. We've begun our approach to the LZ. We're in a staggered-right formation with our flight stacked down so that our trail aircraft will touch down first."





"At zero illumination it couldn't be better for masking our flight but it also couldn't be worse for getting the 'pucker-factor' way up. The landing zone (LZ) is supposed to be a craggy, dusty bit of low ground just below a ridgeline and out of sight of the objective. All of our aircrews are wearing Type 1 and Type 2 Aviator Night Vision Imaging Systems (ANVIS). Except for the artillery flashes in the distance lighting up my Night Vision Goggles (NVGs) all I see are the ghostly silhouettes and exhaust plumes of the two aircraft ahead of mine. There's plenty of 'video noise' in my NVGs, much like you see on a TV that's lost its signal. That makes it very difficult to pick out ground references but we're all used to that on dark nights like this.

"It's time. We've begun our approach to the LZ. We're in a staggered-right formation with our flight stacked down so that our trail aircraft will touch down first. That will lessen the chance that the lead aircraft will brownout the LZ and make it impossible for others to land behind him.

"Chalk four has just announced a go-around due to brownout! This could be ugly. He should be passing high and to my right but I'm way too busy to watch out for him. I'm concentrating on my approach. My crew chief is calling the dust cloud. 'Dust cloud at the tail! MY door! YOUR DOOR!' I feel our tailwheel hit the ground just as we're totally engulfed in a vicious dust cloud.

"The ground was a few feet from my nose when I lost sight of it so I elect to continue. My main wheels hit the ground hard. I stand on the brakes and we grind to a halt. At that instant I see a flash of light from my right

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front that shuts down my goggles for a moment. It seems like chaos as our troops exit left and right and fall to the ground with their weapons extended in front of them. As the dust cloud begins to dissipate I see the underbelly of chalk two to my right. There's a flicker of fire from one of their engines. It looks like they've rolled over in a crevasse. I sure hope they're okay."

The episode you've just read is fiction, but adrenaline-pumping moments like these are familiar to anyone flying these types of missions. Requiring split-second decisions, formation dust landings under NVGs are some of the most hazardous missions our aircrews perform. It's critical that airspeeds and approach angles are closely monitored and that crew coordination is well exercised. Get slow too early and you'll quickly brownout and lose contact with most, if not all, of your references. Land with too much forward speed and you risk colliding with unseen obstacles or other aircraft.

Interestingly enough, about 65 percent of our aircrews perform this tremendously difficult task with the oldest ANVIS in our inventory, the Types 1 and 2 (type categories of ANVIS are fully defined in the latest ASAM, GEN-02-ASAM-02, available at **www-rucker.army.mil/ATB/NVD/NVDB.htm**).

Type 1 ANVIS are equipped with 15mm eyepieces and a single Interpupillary Distance Pivot and Adjustment Shelf (IPD PAS), or have incorporated either improved 25mm eyepieces or dual IPD PAS. Type 2 ANVIS incorporate both improvements in the 25mm eyepieces and a dual IPD PAS to give the wearer the ability to fully adjust the NVGs for best vision.

All Type 1 and 2 ANVIS use the earliest intensifier tubes and provide just 20/40 vision during high-light conditions while providing only 20/120 vision during low-light conditions. While this equipment is still "good" and heads above the earlier ground NVGs flown in the late 1970s and early 80s, it's far from the best equipment produced.

Type 3 ANVIS, used by about 20 percent of our aircrews, are essentially Type 2 ANVIS with improved intensifier tubes. They give the wearer 20/33 and 20/105 vision during high- and low-light conditions, respectively. Type 1 through 3 ANVIS fall under the classification of AN/AVS-6(V)1 and have a typical "halo," a bright haze around light sources, of about 1.5 mm.

Type 4 ANVIS are the best currently fielded. They fall under the nomenclature of AN/AVS-6(V)1A, or are an earlier AN/AVS-6(V)1 that has been upgraded with the latest intensifier tubes. The 160th Special Operations Aviation Regiment (SOAR) and select other aviation units have been using the Type 4 ANVIS for years.

Type 4 ANVIS are nearly twice as good as Type 1 and 2 ANVIS with high- and low-light visual acuities of 20/28 and 20/70, respectively. First delivered in the mid 90s, these NVGs use more of an amber colored phosphor screen instead of the dark green phosphor screens that so many of us are used to. In addition, more emphasis was put on halo reduction in the Type 4s, which resulted in halos of no greater than 1.25 mm.

The Type 5 is the newest member of the ANVIS family and uses the nomenclature of AN/ AVS-6(V)3. The Type 5 will first be fielded to the 160th SOAR and other high-priority units, beginning the third quarter of fiscal year 2002. I won't go into detail, but suffice it to say that the technological improvements in Type 5 ANVIS are above that of Type 4. Units fielded with Type 5 ANVIS will have improved Military Operations in Urban Terrain (MOUT) capabilities. This is primarily due to the Type 5's ability to maintain crisp, clear images during overly high ambient light that would otherwise shut down other NVGs or provide only washed-out images.

As the first units are fielded Type 5 ANVIS, the rest of our aviators will then benefit from a cascade plan that sends Type 4 ANVIS to the next-highest-priority units. As that plan progresses, more and more aviators will see tremendous gains in their ability to function at night. They'll enjoy higher resolutions, less halo and less video noise during low-light conditions. The cascade plan will continue until all the newer ANVIS are fielded and the older Type 1 and 2 ANVIS are purged from the inventory.

Another bright spot in the area of Night Vision Device (NVD) improvement is with the improvements in the AN/AVS-7, Heads-Up-Display (HUD) and the fielding of the Advanced AN/AVS-7 Heads-Up-Display (AHUD). AHUD incorporates, among other improvements, an upgraded computer processor that gives aviators "real-time" information as to their flight profiles. The fielding of AHUD was completed during the third quarter of FY 2001, and is installed in all CH-47 aircraft and approximately half of the UH-60 fleet. The remainder of the UH-60 fleet received a software upgrade to its basic HUD that dramatically improved its speed (there is a plan in place to equip all UH-60s with an AHUD or better system in the near future).

Commanders need to take advantage of the advances in HUD. Incorporating more of HUD in their unit ATP and having their crews use it during missions will enhance performance and reduce risk.

Consider again our fictional but realistic troop-insertion mission. Perhaps our crews could have benefited from the use of Type 4 ANVIS and/or HUD. Though not the only considerations for a dust approach, better references for gauging aircraft speeds, angles of approach and rates of descent could certainly aid in successfully landing an aircraft before it is enveloped in brownout conditions. Perhaps the crew of chalk two might have been able to adjust their flight profile to avoid that disastrous crevasse if they had a clearer view of their landing point.

Although we are always attempting to mitigate risks associated with "taking care of business," our missions are routinely fraught with danger. NVG flights are intrinsically riskier than other modes of flight, but it's good to know that we are delivering better NVD equipment to our aircrews to more safely take the fight wherever it calls us.

That's what I call taking back the night!

❖❖

MG John M. Curran is the commander of the U.S. Army Aviation Center and chief of the aviation branch.

Night Stalkers... Agents of Change

By MAJ Joseph Hicks

"Change" is not a word most soldiers like to hear. The dictionary has many definitions for the word, but for the sake of simplicity the one that is most befitting of the 160th Special Operations Aviation Regiment (SOAR) is "to make radically different" or "transform."

The 160th SOAR has led change now for Army aviation for more than 20 years. Look anywhere in Army aviation and you will see it. The standards set by the 160th many years ago have become the standard for most aviation units today - 50 percent of a unit's flying hour program flown under night-vision goggles (NVGs), +/- 30 seconds Time on Target, and crew member progression and integration.

Ask any soldier in the 160th SOAR if he thinks he is better than any other soldier in the Army and you will get an emphatic "of course not!" What every soldier in the 160th SOAR does believe is that they have been given a unique opportunity to make a difference. To be a member of this team, though, you need to be able to thrive on change - or at a minimum, tolerate it. Every "Night Stalker" knows that the only constant in the 160th SOAR is change.

With that said, the 160th routinely finds itself "testing" new equipment and programs, or being asked to provide input on an Army initiative. Some of the highlights over the last year include Joint Shipboard Helicopter Integration Process (JSHIPS), UH-60M and CH-47F development, the Air Warrior Program, and command and control (C2) platform development. The 160th has in one way, shape or form touched on each of these programs.

This is not a one-way street by any means, and the teamwork required by all of those involved - contractors, program managers, engineers, aviators and soldiers - certainly affects the success of the product being developed, whether it be Armywide or specific to the special-operations community. This "cross talk" keeps us relevant and is one reason for the success of the 160th SOAR.

We can take this one step further and say the 160th is a leader of change. We have to be leaders of change if we want to "stay in business." The potential threat, the environment and our customers' needs all play an important part in our continual transformation. We are fortunate in that we have all the right ingredients and resources available to take an idea and implement it from cradle to grave.

Resources

Leaders in the 160th SOAR, past and present, have always fostered a climate that challenges soldiers to be innovative. Innovation is the lifeblood of change, and without it a unit will certainly become stagnant.

What is even more incredible about our leaders in regard to new ideas is that they allow failure, a word that is probably feared more than "change." Sir Winston S. Churchill once said something very applicable to this type of command philosophy: "Success is going from failure to failure without losing enthusiasm."

Leaders in the 160th SOAR clearly understand that enthusiasm is the spark of innovation. Along with enthusiasm, leaders additionally define an endstate and provide the vision, focus and goals needed to reach that end. This roadmap is nested with the ground force commander's mission and their requirements to be successful on the battlefield.

What makes the 160th's organization unique is its Systems Integration and Management Office (SIMO). This is the place where ideas are dropped off at the door and are subsequently tested, validated and resourced, and a product is delivered back to the customer. It is a streamlined process and with the assistance of U.S. Army Aviation and Missile Command and its engineers, soldiers will actually see their ideas come to fruition.

One recent example is 701C Blank Off Plugs - an innovative idea which was the culmination of efforts from the maintenance test pilot to the machinists - which assist in the troubleshooting of a low-powered 701C engine by isolating customer bleed air and verifying whether or not an engine needs to be repaired.

SIMO was there to assist with the concept, drawing and

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airworthiness release (AWR) approval. This idea, which costs around $75 to manufacture at unit level, has saved the unit more than $985,660 in unneeded repair and replacement costs. Coincidentally, the idea is now being considered for use Armywide. If approved, the cost savings would be astronomical.

Along with SIMO the 160th SOAR depends on 30 separate onsite Department of Defense contractors to assist in the testing and maintenance of all unit aircraft and the training of its soldiers. They are the unsung heroes of the regiment, and their contributions to this organization are immeasurable.

We also owe additional thanks to the soldiers of the Iowa National Guard's Company D, 109th Avn. Brigade. These citizen-soldiers from the heart of our country are a combat multiplier and have truly made a difference over the past six months. Their enthusiasm, technical competence and outstanding attitude are most welcome, and allowed us to quickly integrate them into the 160th SOAR.

Simplify, Simplify, Simplify!

Transforming is not always synonymous with spending more money and leveraging the newest technology. Some ideas are simple and require little, if any, resourcing (as mentioned earlier). Other ideas can be leveraged from existing Army equipment.

One of the common misconceptions about the 160th SOAR is that we overpower our problems and issues with money. It's more that if the 160th finds something that works, we stick with it.

One example of this is our AH-6 and MH-6 aircraft. This airframe was developed by Hughes Helicopters and first flown Feb. 27, 1963. The aircraft set 23 world records for speed, distance and altitude, and its technology has remained relatively unchanged over the past 39 years. It is perfect for the 160th SOAR and its mission. The MH-6M, which is due to be fielded this summer, is an example of the 160th's commitment to staying with a product that works.

A second example is our MH-60 blade-folding teams. Over the past year the regiment worked with JSHIPS on techniques, tactics and procedures for aircraft operations aboard Navy ships. During our validation phase soldiers actually found they could fold aircraft rotor blades just as fast as the Navy SH-60 Sea Hawks could using their automatic blade-folding system. The 160th SOAR utilizes blade-folding teams to save money (parts costs), time and weight, and it works 100 percent of the time. It's a simple system proven time and time again.

Agents of Change and Success

Night Stalkers past and present are responsible for the regiment's successes over the last year. Those in the past embraced change and continually sought and validated new technology and tactics. Night Stalkers in the unit today capitalized on the efforts of those who came before them and continued to demonstrate the unit's capabilities and lethality.

Over the past year the 160th SOAR was stretched to its very limits - physically, logistically and even technologically. During Operation Enduring Freedom the regiment found all three battalions supporting combat operations in multiple locations across the U.S. Central Command and U.S. Pacific Command areas of operations.

Yet the 160th took Army aviation to a new level, conducting the longest air assault raid in Army history - not once, but multiple times. The use of terrain-avoidance/ terrain-following (TF/TA) radar in zero-zero conditions became routine even when operating at elevations above 12,000 MSL.

These accomplishments are no less remarkable when you consider that with only 1,500 soldiers the 160th SOAR deployed more than 300 times last year, maintaining an 83 percent operational readiness rate* for 135 aircraft (which include five different mission design series) flying 33,857 hours in support of training and combat operations around the world.

To achieve this level of readiness change is not an option, but a tool. Embracing change with a can-do winning attitude is the key to the unit's success. Competent, confident leadership at every level and a commitment to excellence allows the unit to rapidly adapt to challenges - tactical, technical or logistical.

The Night Stalkers are trained and ready to respond to the call wherever they are needed to fight and win.
Night Stalkers Don't Quit!

* 7 percent of the 17% downtime is for depot modifications and repairs.

❖❖

MAJ Joseph Hicks is commander of Company F, 1st Battalion, 160th Special Operations Aviation Regiment, Ft. Campbell, Ky.

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ANVIS (V)3 - Pushing the *PERFORMANCE ENVELOPE*

By Tim Acord

My heart goes out to veteran Army aviators who once flew with the night-vision device widely referred to as "the Full-Face 5."

As its unofficial name implies, the leather-cushioned mask covered the aviator's face from the nose up, and was uncomfortable to say the least. Veteran aviators still recall the facial "hot spots," and remember that they couldn't even see their instruments without doing some fancy refocusing! The cutaways that followed weren't much better.

The aviators who used those early, uncomfortable devices now talk about how much easier their missions are with the advent of the Aviator's Night Vision Imaging System (ANVIS). Obviously, there were a lot of thrilled aviators when the "Full-Face 5" became a thing of the past.

The ANVIS introduction caused fundamental changes in the ways goggle missions were flown. The changes were certainly for the better, but they did cause a need for retraining aviators to accommodate new techniques.
ANVIS, for the first time, allowed aviators to see the instrument panel directly under the goggles, but aircrews needed instruction on how to properly position the goggles to take advantage of the new capability while maintaining the optimum view of the imagery through the goggles themselves. Now, the Product Manager for Soldier Sensors is preparing to introduce the latest ANVIS that includes a number of significant improvements.

Fortunately, this time there will be no substantial procedural changes in goggle use, making retraining unnecessary. The new ANVIS will simply work better over a wider range of light conditions. These enhanced goggles will provide smoother imagery at the lowest-light levels and automatically reduced sensitivity at higher-light levels.

In this article, we will look at a little ANVIS history, talk about some of the features of the new ANVIS, and discuss why there have been production and fielding delays. On the brink of the initial (V)3 fieldings, we will also let you know what your unit should expect and what it should do to prepare.

ANVIS History

The original ANVIS, the AN/AVS-6(V)1, was first fielded nearly 20 years ago. While the performance was periodically upgraded over the years, the improved (V)1 versions all carried the same National Stock Number (NSN) as the original. To reduce confusion, we developed a Type Classification Chart to provide information about each Army goggle variant. The chart has been incorporated into the 2002 Aviation Safety Action Message (visit **http://www-rucker.army.mil/atb/nvd/ASAM%2002.htm** to see the complete chart as shown in the ASAM).

The variants of the (V)1 goggle still compose the lion's share of the Army's operational ANVIS inventory. The (V)1 greatly extended the operational envelope associated with the earlier AN/PVS-5, which needed full-moon illumination for optimal acuity. The (V)1 equaled or exceeded the PVS-5's optimal acuity for scene illumination extending below quarter-moon light levels. Some people wonder why the new goggles are not called the (V)2. Aviators who flew the Cobra helicopter know that there was already an ANVIS variant, called the (V)2, designed especially for that airframe. The (V)2 had the same operational characteristics as the (V)1, but used an offset mount.

The ability to see at night improved substantially about five years ago when the special-operations community was issued roughly 1,000 AN/AVS-6(V)1A goggles. The (V)1A pushed the operational envelope of the goggles even further by equaling or exceeding the PVS-5's optimal acuity for scene illumination extending below starlight.

Fielding Issues

A couple of years ago the Army aviation community heard that the fielding of a newer, better-performing goggle, the AN/AVS-6(V)3, was imminent, but then no fielding occurred. What happened?

Unfortunately, the new type of image intensification (I2) tube used in the (V)3 goggles turned out to have an electromagnetic interference (EMI) profile somewhat different from that exhibited by previous ANVIS versions. This revelation created the requirement for unanticipated testing prior to fielding. Further, due to the timing of the new production, the goggles were tested against the latest military aviation specifications. This additional testing has added more than a year's delay to the original fielding dates from the initial fielding schedule.

Capabilities

Now let's talk about the capabilities of the new goggles themselves. The (V)3 pushes the operational envelope even further than the (V)1As. The (V)3 ANVIS extends the low-end operational light level slightly beyond that of the (V)1A, but the big advantage is that low-illumination imagery will be noticeably less noisy. More importantly, the new goggles also support operations at higher light levels than ever before - in places such as airfields and urban areas. The (V)3 has a noticeably smaller average "halo" size than previous goggles - making operations easier in dark areas interspersed with bright lights.

In addition, the (V)3 includes a new low-profile battery pack that will eventually displace all currently-fielded ANVIS battery packs. The (V)3 also incorporates an improved fine-focus objective lens assembly whose four-lobed focus ring rotates nearly a full turn (compared to about a third of a turn for older goggles) to adjust the new low-backlash rotational focus mechanism. This design has already gained the confidence of many aviators because of its use in the AN/AVS-9 goggles used by the Navy and Air Force.

We can incorporate these upgrades

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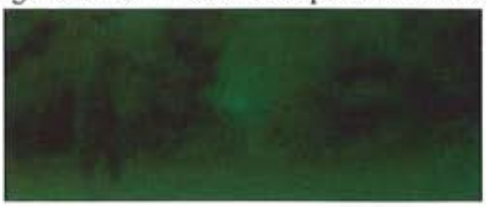

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into the older goggles over time because ANVIS was designed with modularity and interchangeability in mind. This design allows simple modernization through spares, as tubes and objective lens assemblies need routine replacement. Examples of previous upgrades include features like dual interpupillary adjustments and the anti-wobble mechanism that were introduced on earlier goggle versions and will continue to be employed in the (V)3.

Goggle mounts will be handled differently during the fielding of the V(3) system. Previously, mounts were packaged with each system and had to accompany each system when turned in. This meant that a new mount was installed on an aviator's helmet whenever that aviator changed units, and the mount was removed when the aviator left that unit. Now, mounts will be issued at the U.S. Army Aviation Center at Fort Rucker, Ala., for permanent installation on the aviator's helmet. The mount will be replaced only when damaged. This new policy saves wear and tear on the helmet, and reduces the number of mounts needed throughout the Army.

The (V)3 will continue to be in production under a new production contract that will have been awarded by the time this article is in print. Higher performance measures (such as even smaller halo size) will be part of the new contract. In a subsequent article, we will discuss the details of this follow-on production of the (V)3.

Out to the Units

Over the past year, the PM and the logistics-support center developed a comprehensive Fielding and Cascading Plan. This plan covers the fielding of the (V)3 ANVIS, as well as a redistribution of the best of the already-fielded goggles. The ultimate goal of this effort is to put a better goggle into the hands of every Army aviator. Further, the PM wants to eliminate all Type 1 and Type 2 goggles from the Army's operational inventory.

It is thus very important to determine where all the Type 1 and Type 2 goggles are. Over the last couple of years, many units have gone to the AnvisSurvey.com website and have entered the information on all their goggles; however, it seems that there are a few units which have never gotten the word.

Now, updating the latest configuration information into the database has taken on a heightened significance. The release of the 2002 edition of the Aviation Safety Action Message (ASAM) now makes it mandatory to "red-X" all ANVIS goggles whose current status is not reported. To make this process easier than ever before, the ANVIS Survey website will soon become more interactive and will allow units to have on-line access to their own goggle information.

The Fielding and Cascading Plan established a sequence to field the new goggles, as well as a sequence of cascading the best of the existing goggles. This plan was directed by the Aviation System Integrator in conjunction with the Aviation Director of Combat Developments and PM Soldier Systems. However, the established sequences may be altered occasionally due to world events and the press of other factors.

What can you expect to happen as the Fielding and Cascading plan is executed? Your unit will be contacted about six months ahead of the time scheduled for the delivery of your goggles. PM Soldier Systems and your unit will execute a Memorandum of Agreement (MOA) that establishes the actions that will ensure a smooth fielding. In general, PM Soldier Systems will free-issue an appropriate number of new or replacement goggles and will take some or all of your existing goggles as pre-arranged by the MOA.

All units receiving goggles will need to present each of their required turn-in goggles in a condition that meets "10-20" standards. However, the Type 1 and Type 2 category goggles, which will leave service, are exempted from the "10-20" requirement. The Materiel Fielding Plan contains a few other exceptions to the "10-20" standards requirement. The PM Soldier Fielding/Cascading Team will inspect each goggle being issued to ensure that it has not incurred damage in shipment. The fielding team will return any new goggles found not operating properly. The manufacturer will repair or replace these goggles under the 3-year warranty repair/replace provisions provided for in this contract. The Team will also inspect all goggles being turned in to make sure that all Type 3 and higher goggles meet the applicable "10-20" standards. Finally, the fielding team will verify that each unit turns in the correct number of goggles.

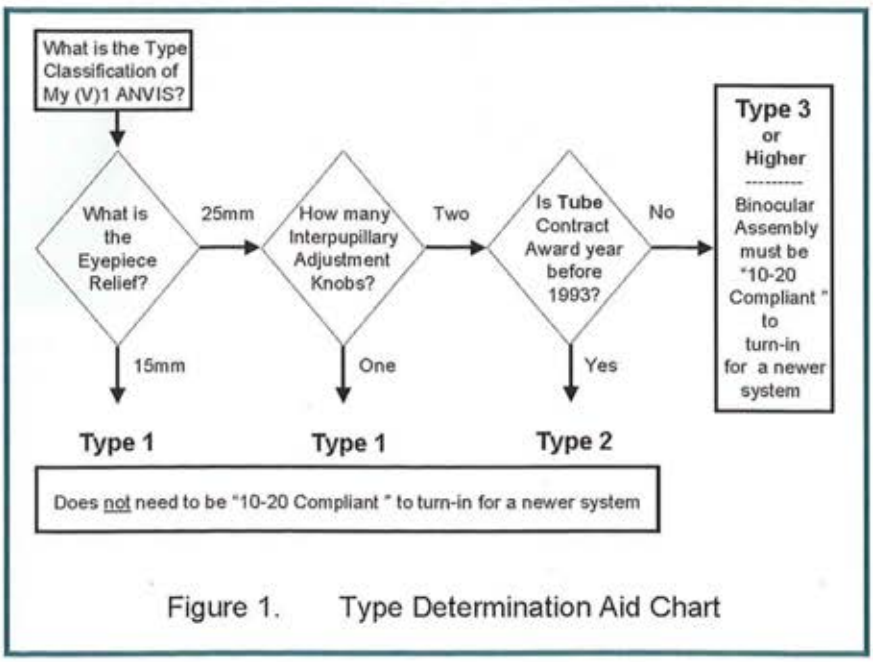

Figure 1. Type Determination Aid Chart

Which Type?

To prepare for the turn-in of your existing goggles, how can you identify whether the goggles fall into the Type 1 or Type 2 categories? You can use the information in the "Typing Chart" available in the 2002 ASAM.

ANVIS (V)3 cont'd on page 25

Then: Pioneering electronic warfare systems

We've come a long way together

Our name is just a few years old, but the companies that came together to form BAE SYSTEMS have been helping to protect Americans everywhere for a long, long time.

Back in the 1950's, innovative electronic and countermeasures systems technologies developed by BAE SYSTEMS' heritage companies began protecting our aircrews in the U.S. military – and have continued to do so through Operation Desert Storm, in Kosovo and in Afghanistan. We're currently developing electronic systems using the latest Reconnaissance and Surveillance technologies – while maintaining leadership in both Data Links and High Capacity Radios, and in integrating C4I systems into Tactical Systems and Sensors.

Now: Developing electronic countermeasures systems for JSF

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THROUGH THE DARKNESS:
A History of Aviation
NIGHT-VISION DEVICES

By Gary W. Helmer

Flying, in itself inherently risky, presents special problems when attempted at night - the darkness is ripe with "unknowns." Man has long attempted to conquer the night, but has not been able to fully overcome the human lack of physical accommodation and inherently limited technological capabilities.

Visionaries clearly saw that if night is to be captured, humans will have to fly their machines with mechanical aids to overcome the physiological limitations. Technology would have to meet the challenge by providing the necessary advantages needed to peer into the unknown. Early pioneers evaluated a number of possibilities to accomplish such a daunting task and finally settled upon "image-intensification" as the most promising.

This article will review the history and development of image-intensification, attempt to explain how it found its way into aviation, provide an overview of where it is today and look at what its future might be. It is by no means meant to replace the vast amount of technical data and information surrounding this subject, nor should it be considered all encompassing in its content.

AN OVERVIEW

The AN/PVS-5 night-vision goggles (NVGs) were among the first passive night-vision devices used by military aviators attempting to tame the night. Developed in the 1960s and 1970s, large-scale use began in the early 1980s when aviators recognized the potential and set about learning to use the equipment.

Earlier uses of the AN/PVS-5 NVG were in the civilian sector, where the U.S. Forest Service purchased and used them as an aid to helicopter firefighting operations in the mid 1970s. Persons afflicted with the disease retinitis pigmentosa (night blindness) found hope in the usefulness of the technology adapted into "Night Vision Pocketscopes." All manner of possibilities were envisioned, studied, attempted and observed, including military applications.

Having led the charge, the Army developed the technology over several decades and produced equipment very useful to soldiers - increasing the Army's operational capabilities immensely. The Army stood poised to rule the night and clearly recognized that aviation needed to be included.

Helicopters are an intrinsic part of the battlefield and have proven to be invaluable to ground commanders. If the night was there for the taking, helicopters would have to be part of the equation and night vision goggle flight operations were essential to the solution.

TECHNOLOGY

Electron imaging first appeared in the 1920s and evolved into a new field known as electro-optics. In February 1934 the journal Physica described "An apparatus for the Transformation of Light of Long Wavelength Into Light of Short Wavelength," which had been granted a patent by several European countries as early as 1928. The authors explained that the photocathode in their device was "especially sensitive to red and infrared light." Similar in nature to the more recent AN/PVS-5, light impinged a photocathode producing an electrical current that reacted with closely placed fluorescent phosphor and generated a visible image.

American scientists first considered using such devices as an aid to military security through surveillance and to observe experiments. Their early efforts were with magnetically focused electron optical systems, and they explored the possibilities of electrostatic lenses. Infrared telescopes producing excellent images were demonstrated in 1935, but vast improvements were still needed in their amount of image intensification. An increase in brightness by at least 1000 times was sought by engineers and scientists to make such devices useful for drivers of tanks and trucks.

Infrared technology was explored extensively by the Germans during the World War II period as they attempted to close the gap between radar guidance and visual acquisition of a target at night. They had limited success with a device called the "Spanner-analogue optical infrared seeker," which was designed to sense the differences in heat generated by a target bomber and the ambient air. This system, however, also employed a black light to illuminate the target out to about 650 feet.

War forced engineers and scientists on both sides to keep some projects and to discard others. They had to consider what they thought would be truly feasible, usable and easily manufactured in a relatively short period of time to provide some value to the war effort. After an extensive investigation, they chose as their standard image tube the 1P25 - mainly because of its simple construction. The 1P25 was sensitive to the infrared region between 800 and 1,000 nanometers.

The capabilities of the 1P25 defined the performance limits of the electron telescopes that served the military in a variety of applications during WW II. Most, however, were plagued by meager resolution caused by the poor phosphor and awkward focusing techniques. The clearest images were in the direct center of the device because resolution decreased dramatically away from the center. All the devices had minimal ranges and the spotlights requiring infrared filters were especially frustrating.

"Snooperscopes" and "sniperscopes" allowed the military to operate in a limited capacity at night but were encumbered by heavy battery-driven power packs of short duration, weak infrared spotlights, and a complex array of wires and connections, all of which limited combat effectiveness.

One key piece of equipment that ultimately led to the AN/PVS-5 was a binocular electron telescope called a "protectorscope." This device was fitted into the viewing hatch

of a tank and allowed drivers to operate in an infrared environment during full darkness.

Other devices were developed and tested during this period of time but all required the use of additional infrared lighting to be effective. Improvements in infrared illumination were needed to achieve an acceptable, combat-usable piece of equipment.

Eye movement relative to the devices (primarily present at higher speeds over rough roads) led to the development of the "Type Z" helmet-mounted electron telescope as a binocular night-vision device. Weighing about three pounds (with a battery array weighing two-and-a-half pounds) the device mounted to the front of the helmet with the battery at the rear. This device became quite popular and first appeared in number in 1944 - twelve for driving and eight for flying.

Early versions were more suited to drivers than aviators, primarily because of the difficulty in mounting the airborne version in a way that would allow pilots to keep their hands free for flying. Significant modifications to the helmet-mounted infrared binocular telescope eased the aircraft-control and harness-mounting problems for pilots. The new harness, in some ways a precursor of the goggle configuration of the 1970s, was rearranged so that the telescopes could be removed or replaced more easily with the harness on the head. The telescopes could be pulled down over the eyes or tilted back out of the way (a novel concept). They could also be worn over standard flying goggles and the user could see under them to view instruments more easily. The total weight of the harness and the binoculars was 3 pounds and was not too uncomfortable to wear.

Civilians and military pilots tested the Type Z goggles, doing a multitude of landings in both civilian and military aircraft. Landings could be accomplished on a "blacked-out" landing deck (lined with infrared lights) and all agreed that the device provided a "fairly satisfactory means of night landing."

Blacked-out simply meant the absence of visible light sources, and a number of infrared spotlights and searchlights were developed and tested for use in this mode. Most of these lights were designed to cut out light at wavelengths shorter than 700 nanometers. Wattages varied from 30 to 600 watts, and 50,000 to 500,000 in candlepower with ranges from 75 feet to 700 feet. General Electric developed a twenty million candlepower light providing infrared vision as far out as 4,500 feet.

Through all the development and testing of equipment, engineers and scientists clearly recognized the need to further develop an image intensification device much more sensitive than the eye for night vision. Other methods of increasing brightness were tapped for further exploration, such as phosphors, photocathode cascading, secondary emission multiplication and others. It was a formidable task at best.

After World War II, the emphasis on night operations waned and units gradually spent less actual time flying at night. Consequently, the urgency to develop a usable night-vision aid also dissipated. The 1950s brought a different group of people together at Fort Belvoir, Va., and the quest for a viable night image intensification device was reborn. Researchers quickly picked up where they had left off and began taking another look at the Type Z goggles.

Supporters of infrared searchlights still existed, as did the supporters of near-infrared and advocates of far-infrared technologies - all biting a chunk out of a sparse budget. Resource battles continued into the 1960s but ultimately died a natural death as a result of the work compiled by the Research and Photometric Section of the Night Vision Equipment Branch (formed at Fort Belvoir in 1954). This group of engineers, scientists and researchers sustained the core of development in image-intensification technology for use on the battlefield. Their main concerns were the soldiers in the field and they expended every effort to provide usable products to them.

Not new research, the "born-again" attempt hurried the development of new phosphors, better photo cathodes and image amplifiers designed to increase the brightness of the displays. The researchers concentrated their efforts on improving the S-1 photocathode, the development of greater gain, and the replacement of heavy, awkward batteries and artificial illuminators.

In the mid 1950s scientists developed a new multi-alkali S-20 photocathode that was sensitive through the entire range of visual spectrum, as well as near-infrared. Based on its initial success and vast improvement over the S-1, plans were made to abandon the search for better near-infrared systems in favor of exploiting image intensification as more suitable for the troops.

Under the new name "Warfare Vision Branch" the group at Fort Belvoir directed its efforts toward the creation of "Night Vision Remote Viewing Systems for both ground and airborne applications." In 1958 one of the researchers discovered that fiber optics held the key to pulling the program together. The development of fiber optics plates ultimately made the cascade image tube useful to the military.

However, problematic development continued as budgets were strained and reluctant military decision-makers were made to change their minds as developers improved the image-intensification effort and product. Amplification from 20,000 to 100,000 times was possible, but developers settled on an image brightness of 40,000 times ambient conditions. Devices still experienced problems such as "blooming" when exposed to bright lights and "streaking" when the light source moved or the device was moved. Also, researchers added a protection circuit that momentarily shut the goggles off if the light source became too bright.

The earliest helicopter flights involving night-vision devices can be traced to the late 1950s and early 1960s, when the Fort Belvoir group conducted night flights with a "remote-view scotoscope." Even as early as the mid 1950s helicopters were flown by pilots using the T-6A Near-Infrared Helmet-Mounted Binocular -a device that closely resembled the AN/PVS-5. The T-6A was limited in field of view and in the beam spread provided by the accompanying infrared searchlight. The concept was clear however - helicopters could and would be flown with the aid of night-vision-enhancing devices.

In the 1960s developers concentrated their efforts on producing a device to replace the T-6A that would allow a "26-degree field of view, weigh two pounds, and be capable of viewing life-sized images of objects anywhere between a distance of ten inches to one-hundred meters." The AN/PVS-5 was born.

THE AN/PVS-5 NVGS

The AN/PVS-5 NVGs intensify electrical images creat-

ed by a multi-alkali photocathode designated the S-20. During the manufacturing process chemicals are vaporized and then deposited onto one face of transparent glass that is then sealed inside a vacuum. When photons of electromagnetic radiations of about 350 to 920 nanometers strike the transparent glass wall, they pass through the transparency, react with the multi-alkali substance and induce a negative electrical impulse. The surface of the photocathode then emits electrons proportional to the amount of light striking it within its field of view. The electrical image then rapidly makes its way through the image tube, maintaining its focus because of the microscopic proximity of the photocathode and the microchannel plate. The emitted electrons strike the microchannel plate and become accelerated due to the combined effects of electrical fields and the secondary surface emission.

The microchannel plate is a one-half millimeter thick wafer of tiny glass tubes. Each channel can be envisioned as the normally empty space enclosed in a glass tube, separated from the adjacent channels by a finite, yet constant distance of approximately five ten-thousandths of an inch. Spaced evenly throughout the intensifier tube's circular eyepiece, these millions of glass tubes amplify and channel the electrons emitted from the photocathode to a phosphor screen.

A 2.7-volt battery used to accelerate the electrons along the channels provides power. Voltage jumps to approximately 200 volts in the microscopic space between the photocathode and the input side of the microchannel plate. The cascading electrons gain energy (somewhere between 700 to 950 volts), and by the time the acceleration process is completed the phosphor screen may be hit by as many as 7,000 volts.

The energy is gained primarily because the microchannels are specially positioned in the path of the incoming electrons and manufactured with processes that enhance secondary surface emission. The tiny channels of the AN/PVS-5 have approximately a five-degree tilt that ensures the photoelectrons strike the channel walls in order to begin the gain process on their way to the phosphor-viewing screen.

A secondary emission effect results when one electron, liberated by the encounter of the photocathode with a photon of light, strikes the wall belonging to one of the tubes of the microchannel plate and subsequently liberates several low-energy electrons out of the conductive glass which lines the wall. These secondary electrons accelerate to the other side of the circular wall of the microchannel, where they produce a multiplying effect again and again - exponentially.

Visible light emerges from the phosphor screen in a manner proportional to the energy level of the electrons striking it from each point in its field of view. The phosphor screen lies only a microscopic distance from the output side of the microchannel plate thereby minimizing loss of focus as the electrons cascade from their channels. The fluorescent nature of the phosphor converts the amplified energy of the cascading electrons back into visible light. Contrasts between the high-energy electrons and the low-energy electrons depict the differences between the subtly varying spectral reflectivity of each of the objects held in the goggle's field of view. In this way, through the NVG's eyepieces, the wearer views an intensified image.

The signal-to-noise ratio inherent to the goggles reduces the gain achieved with the goggles inner workings, thereby determining the extent to which the ideal image clarity is compromised. This ratio varies with environmental factors such as ambient light levels, spectral reflectance of the scene viewed, temperature, and the presence of such foreign matter as dust or sand in the air. The internal qualities of the NVGs themselves also lead to reduced image clarity, with each individual set of goggles being limited by such optical qualities as clarity of the objective lenses and eyepieces.

Electrical qualities, such as the responsiveness of the photocathode and the efficiency with which the microchannel plate transmits a pure electrical signal from the photocathode to the phosphor-coated eyepieces, further reduce the signal strength needed to transform the electrical signals back into visible light. The quality of glass used in the eyepieces and other optical and electrical factors contribute to these reductions. The amount of gain displayed to the wearer appears at a luminance level needed for the use of mesopic and low-photopic vision.

The best resolution of the AN/PVS-5 falls significantly short of the normal 20/20 visual acuity required of pilots. However, the 20/50 visual acuity provided by the goggles (under ideal conditions) far exceeds the capabilities of the unaided eye - providing (at best) 20/200 under scotopic light conditions.

Specific requirements for exploiting the use of night vision goggles in military aviation were delayed until 1975 when the U.S. Army Training and Doctrine Command (TRADOC) published "Department of the Army Approved Required Operational Capability for Night Vision Systems for Army Aircraft." The AN/PVS-5 was considered to have some potential for aviation application, but those in decision making positions determined that infrared "seemed the most promising."

Even after the numerous uses of equipment such as Starlight Scopes and the SU-50 by aircrews in Vietnam, the military was slow in embracing a total commitment to the use of passive night-vision systems. Tests in the early 1970s with the AN/PVS-5 were conducted in Virginia by Army aviators. Significant other tests and evaluations also took place. These included the Combat Air Vehicle Navigation and Vision Study (CAVNAVS), and the Modern Army Selected Systems Test Evaluation and Review (MASSTER). The Air Force had also conducted tests with the use of night-vision devices during this same period. These tests, among others, concluded, "...the Night Vision Goggle AN/PVS-5 has potential as an aid for nap-of-the-earth, flight formation, and search and rescue operations."

It was nearly 10 years, however, before the AN/PVS-5 NVG gained full (albeit cautious) acceptance by aviators and aviation decision makers. Wide-scale use began in the early 1980s as the production of the AN/PVS-5 increased and requirements were being somewhat sustained. Today, night-vision devices are a common part of flight operations by the military and are gaining more acceptance as an aid to operations at night by the civilian community.

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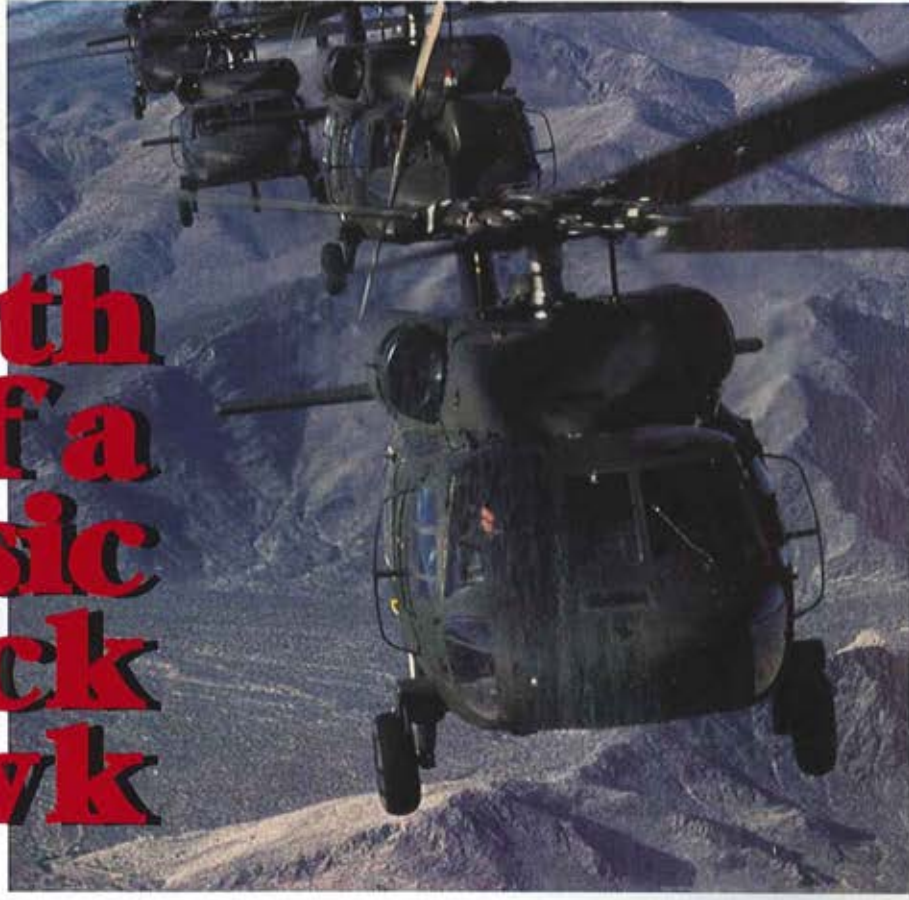
Gary W. Helmer is a retired Army aviator and a former standardization instructor pilot. He is currently a safety and occupational health director.

Rebirth of a Classic Black Hawk



By Bill Tuttle

If military helicopters had dog tags, this one's might read: "U.S. ARMY, UH-60A, 77-22716."

Call it 716 for short.

Aircraft 716 is the third production Black Hawk helicopter. The aircraft's footnote in helicopter history came to Sikorsky's attention during the machine's induction in the UH-60M Black Hawk recapitalization program.

A far-sighted Army and Sikorsky many years ago ordered a metal placard riveted to 716, bearing the message:

"THIRD PRODUCTION MODEL OF THIS SERIES — CONTACT DIRECTOR, U.S. ARMY AVIATION MUSEUM, FT. RUCKER, ALA., PRIOR TO ITS DISPOSAL."

Destiny, in its own way, singled out 716 to lead a mostly bookish but sometimes bumpy life, one not in keeping with the combat-assault role for which it was designed and built.

According to its logbook, 716 was assigned to the U.S. Army Aviation Engineering Flight Activity at Edwards Air Force Base, Calif., on Mar. 13, 1979. For the duration of its assignment it was a test aircraft and was redesignated a JUH-60A, the "J" denoting "Special Test" status.

As destiny would have it, one pilot who knew 716 early on is Randy Oliver — a retired Army colonel, a graduate of the U.S. Naval Test Pilot School and now Sikorsky's UH-60L project manager.

Oliver remembers flying 716 at Edwards as a captain. He conducted validation flights on 716 for the Rotorcraft Systems Integration Simulator (RSIS). The purpose of the test was to define the control and response characteristics of the UH-60A series.

"This required a much more extensive and precise instrumentation package than for a normal handling qualities program," Oliver said. "The flights required very precise inputs with one of the aircraft controls to isolate the aircraft response to a pure input."

"Most of the inputs were done with the Stability Augmentation System (SAS) off. We had an onboard oscillograph to monitor how precisely we made the control inputs. The flights were very interesting and resulted in some unusual aircraft responses," he said.

Destiny, in its own way, singled out 716 to lead a mostly bookish but sometimes bumpy life, one not in keeping with the combat-assault role for which it was designed and built.

As a major, Oliver ferried 716 from California to Sikorsky's Bridgeport, Conn., facility in March of 1984. The aircraft was placed in intermediate storage until Sept. 10, 1984, when it was inducted into the Water Integrity Modification program.

The Black Hawk was transferred to the Navy's Test Pilot School at Naval Air Station Patuxent River, Md., on Oct. 3, 1984, with 720.5 flight hours. The NTPS used Army

A tail number worth noting by aircraft historians.

A metal plate on the aircraft underscores the machine's historical value.

The third production UH-60A Black Hawk as received at Troy; its main landing gear struts are deflated for trailer transport.

Material Command-supplied UH-60As to support the rotary wing engineering test pilot program. The aircraft were used to teach engineering and experimental flight test techniques to students attending the 11-month course.

Aircraft 716 continued its cerebral career. It was utilized as a test aircraft outfitted with various types of instrumentation to acquire data. Students and staff flew the 716 and its sisters in a three-part curriculum covering performance, handling qualities and systems integration.

UH-60As also supported the fixed-wing and systems-engineering curriculum as a night-vision goggle and cockpit display aircraft. This means that virtually every student graduating from the NTPS has flown in a Black Hawk.

The records show that 716 endured a hard landing during a 1991 practice approach. The incident resulted in a sheared tail yoke assembly and shock strut damage. The aircraft was repaired and returned to service. A second hard landing inspection was recorded in 1995, with no findings recorded in the historical log.

The Black Hawk was transferred to Corpus Christi Army Depot, Texas, on Oct. 17, 2000, for overhaul with 5,187.7 flight hours. In Oct. 2001 the aircraft was trucked to Troy, Ala., for the UH-60M Induction/Qualification Program.

Under the Army's comprehensive Black Hawk recapitalization program Sikorsky will eventually overhaul some 1,200 aircraft over 25 years.

The rebuilt aircraft will have improved payload, new digital cockpit displays, strengthened fuselages, new composite spar wide-chord blades and more powerful engines. The recapitalized UH-60 aircraft will have an additional 20 years of service life with lower maintenance costs than the current fleet.

Two UH-60As, including 716, and one UH-60L aircraft are undergoing teardown and evaluation as the vanguard for the modernization plan for at least 1,200 aircraft. The initial work is being done at Sikorsky Support Services Inc. (SSSI) in Troy.

In addition, the UH-60M will replace the UH-60L as the standard configuration for all new U.S. Army Black Hawk production aircraft, beginning in 2007.

The first and second production UH-60A helicopters are off the Army flight roster. When Aircraft 716 goes aloft again as a UH-60M medevac, it will be the oldest Black Hawk in the skies — as well as one of the newest.

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Bill Tuttle is a public relations representative for Sikorsky Aircraft Corp. in Stratford, Conn.

Speeding Benefits to Veterans

On Mar. 15 Secretary of Veterans Affairs Anthony J. Principi spoke at length on "The State of VA." Below are excerpts that we feel will be of interest to our readers.

I have now been back with VA as your secretary for just over a year and I believe that, working together, we have made a difference for the veterans we serve.

From Alaska to Florida, from California to the Virgin Islands, I have spent a good deal of my time visiting veterans and VA employees throughout America.

Let me give you an example of what I've learned: We have more than 700,000 pending veterans' benefits claims. It takes, on an average, more than 225 days to decide those claims. Our veterans and their families are entitled to better service.

A Tiger Team, headquartered in Cleveland, has made more than 18,000 decisions for veterans over the age of 70 who have been waiting more than a year for us to act. Some 18,000 elderly veterans no longer need to wait to find out whether they are eligible for VA benefits.

And in both January and February of 2002 workers in our regional offices decided record numbers of claims - while maintaining high levels of accuracy. In both months, we more than doubled the number of claims we decided in the same month in 2001.

Even as we face our challenges, we should not lose sight of the many benefits Veterans Benefits Administration employees provide to veterans.

Today and every working day, VA will guarantee more than 700 home loans for veterans entering the ranks of America's homeowners, and will administer the fourth-largest life insurance program in the United States. The 2.2 million policies in force have a face value of $22 billion.

This month and every month, more than 2.7 million disabled veterans will receive a disability compensation check from VA.

And this year, almost 400,000 veterans will attend school on the GI bill, and nearly 64,000 disabled veterans will receive vocational rehabilitation training to prepare them for successful civilian lives.

Nowhere do VA workers touch lives more directly than we do for the veterans who turn to us for their healthcare.

Today, 6.2 million American veterans look to us as their primary health-care provider. Irrefutable evidence that veterans are learning what we already know - VA's health care is second to none.

Our challenge will be to avoid becoming victims of our own success. Since 1995, the number of veterans enrolled for VA care has increased by three million, and the number is expected to increase dramatically.

We have made enormous strides in providing more cost-effective care while protecting our hard-earned quality. But the increasing numbers of veterans turning to us for help, combined with rising costs of healthcare everywhere, present us with ever more difficult challenges.

Simply put, we provide an expanding population of veterans with an increasing array of services on a fixed budget.

- We are responding by improving our procurement practices;
- By reshaping our legacy infrastructure to meet the needs of the 21st century;
- By increasing cooperation with the military health care system;
- By improving our business practices;
- And by continuing to look for ways to make our medical practices more cost-effective without sacrificing quality.

Our fiscal year 2003 budget request is the largest in our history. The president requested $58 billion for veterans' benefits and services - $6.1 billion more than 2002. At a time when increases in discretionary spending for federal agencies average about two percent, the president asked for a seven percent increase for VA's discretionary spending, most of which is for health care. I am proud of this budget, and grateful to the president for his support.

Today and every day, approximately 1,800 veterans will go to their final reward. But we are meeting the challenge of honoring their service and their lives. In a recent Customer Satisfaction Survey conducted by the University of Michigan Business School, our National Cemetery Administration received a score of 93 out of a possible 100 - 25 points above the average for both government agencies and private sector businesses.

Tonight, nearly a quarter of a million American veterans may be homeless, and we are responding to that challenge with the largest integrated network of homeless assistance programs in the country. Some 57 percent of all homeless veterans have used VA's health care services at one time. Our efforts make a real difference in the lives of thousands of homeless veterans-and we will not rest until every veteran has a place of his or her own to call home.

Today, VA is strong in nearly every area. The flame of service burns brightly from Manila to Maine. But we face great challenges in the years ahead.

We have established a roadmap to improve claims timeliness, but we have not yet actually reduced our backlog.

While we are increasingly recognized for the quality of our care, we must care for millions of new enrollees within our tight budget constraints.

We also face the long overdue need to realign our facilities to match veterans' needs and locations and the practice of 21st century medicine.

As more of our older veterans pass on, we must continue to serve them and their families at our national cemeteries.

With our nation at war, we face the challenge of supporting the Department of Defense - and of being prepared for any disaster our nation may face in the future. No one can know whether, or how, we will be called upon - but I know VA will make America proud.

Our compassion for the veterans we serve is not measured in the number of dollars we spend. It is measured in the outcomes we achieve. Taxpayers' lives are changed for the poorer when they must write checks to the IRS, and we have an obligation to ensure that our stewardship of those dollars produces a reciprocal change for the better in the lives of the veterans we serve.

Every one of us must be held accountable for our actions in the exercise of that stewardship.

Let me conclude with the words of one of my distinguished predecessors, GEN Omar Bradley: "We are dealing with veterans, not procedures. With their problems, not ours."

Out With Old Apaches, In With New

By Franklin Fisher

The Army in South Korea recently took another step toward arming itself with its newest attack helicopter, the Apache Longbow. In late May several dozen older helicopters were loaded onto a ship bound for the United States, where National Guard units will use them.

The blue-hulled cargo ship MV *Green Dale* left Pusan bound for Houston loaded with 27 AH-64As and 12 UH-60 Black Hawks drawn from various Army units in South Korea. Seventeen Apaches will go to the Texas Army Guard and 10 to Missouri. Indiana and Ohio will each get five Black Hawks, two will go to Iowa, and three EH-60 electronic warfare variants will go to the Aviation Center at Fort Rucker, Ala.

The three Army attack helicopter units in South Korea are clearing their inventories of the older AH-64A Apache to make way for the AH-64D Longbow.

"Compared to the Alpha model, they bring more to the battlefield," said Barry Thomas, aviation division chief at the 19th Theater Support Command in Taegu.

Last year, the 2nd Infantry Division's 1st Battalion, 2nd Aviation Regiment, at Camp Page trained on the Longbow at Fort Hood. The unit received its new aircraft in October 2001 amid intense, post-Sept. 11 security.

Next year, a third Apache unit, the 1st Squadron, 6th Cavalry Brigade at Camp Eagle, will get its Longbows after training in the States.

The shipping of the aircraft in May involved more than 200 soldiers from various units in a two-week effort. The troops learned how to get helicopters ready for sealift, an important military skill, said Army MAJ Sean Patten, support operations officer with the 194th Maintenance Battalion.

"This is something they have to be prepared to do, especially as volatile as the world is now," Patten said. "These soldiers ... have these experiences of doing the outload."

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Franklin Fisher is Taegu, Korea, bureau chief for Pacific Stars and Stripes, from which this article was adapted.

Black Hawks Grounded

Hundreds of Black Hawk helicopters were grounded except for mission-essential flights May 1 after a potential transmission problem was discovered in one.

Approximately 960 Black Hawks in both the active Army and National Guard have been restricted, officials said, as the Army conducts an assessment to see if the problem is isolated or if other Black Hawks have a similar problem. Under the restriction, only such mission-essential flights as medical evacuation and combat are allowed.

The restriction involves the UH-60A utility helicopter, EH-60A electronic warfare version and the UH-60Q medevac variant. The UH-60L helicopters were not affected because they have a different transmission.

The transmission problem was detected when an Army aviation unit, the 57th Medical Company, at Fort Bragg, N.C., experienced persistent low oil pressure problems with the transmission of one of its UH-60A Black Hawks.

The transmission was sent to Corpus Christi Army Depot, Texas, for repair. The part was disassembled and a cracked planetary carrier was determined as the reason for the low oil pressure. The planetary carrier, manufactured by RAF Industries, is a large plate-shaped component within the transmission that has no finite replacement life.

The U.S. Army Aviation and Missile Command, Corpus Christi Army Depot and Sikorsky, the designer of the aircraft, are investigating the possible causes of the cracked carrier, officials said.

"The Black Hawk has a great performance record, and this is the first cracked planetary carrier found in 3.5 million flight hours," said Bob Hunt, an Army Aviation and Missile Command spokesman. "The Army Aviation and Missile Command, Corpus Christi Army Depot and Sikorsky are working vigorously to solve this issue. A lot of people are putting in a lot of hours to get to the bottom of this."

If a planetary carrier is cracked, stress is placed on the transmission gears and could cause internal shim damage, officials said. If pieces of the shim fall into the transmission oil sump, the transmission filter could become blocked and cause low oil pressure.

When the part doesn't function, it can't transfer engine power to the main rotor system. The rotor system could continue to operate without power allowing an autorotation landing, or the failed carrier could cause a jam causing the rotor system not to work.

But Hunt said the restriction shouldn't affect Army readiness. More than 500 L-series Black Hawk helicopters will be used until the Army can resolve the problem. The restrictions will also not stop Black Hawks in Afghanistan from flying combat missions, Hunt said.

There have been no Black Hawk accidents in the past due to a planetary carrier crack or failure, Hunt said. There also haven't been any major problems with the Black Hawks in years, he said. The last major maintenance problem occurred in the late 1980s when there was a problem with the aircraft's stabilator.

Hunt said updates concerning the restriction will be issued as more information becomes available. — *Tonya Johnson, Army News Service*

ANVIS (V)3 cont'd from page 16

However, typing is done by establishing the goggles have three things. Two items are easily determined via an external examination of the goggles. If the goggles have either or both of the following: 1) Single interpupillary adjustment knob, and 2) 15-mm eyepieces, then the goggles fall into the Type 1 category. [Please refer to Figure 1 on page 16 for an illustration.] If, instead, the goggles have both dual interpupillary adjustment knobs and 25-mm eyepieces, then the goggles are at least a Type 2 unit.

Now, this is where the third item comes into play - if the contract number marked on the tubes indicates 1993 or higher, the goggle is a Type 3 unit or higher. Otherwise, the goggle is a Type 2. The only way to determine the tube contract number is examination of records, such as the AnvisSurvey database, or by disassembly of the goggles by appropriate maintenance personnel. However, if the goggle's tubes have a contract number of "DAAB07-89-C-F107", where the "89" indicates the tube is from a 1989 contract, then the goggle would be classified as a Type 2 system.

Once you have received your new goggles, you will need to make sure you update your information in the ANVIS Survey Database - remember the goggles are "red-X'd" until you do so. We will be supplying you with the serial numbers of the tubes in each of the systems you receive, so your unit will not have to disassemble the goggles to retrieve this information. (V)3 goggles come with a three-year manufacturers' warranty that expires on the date shown on a label on each system. The warranty covers original manufacturing defects and workmanship but not any subsequent damage due to use.

It's been a long time coming, but initial fieldings of the (V)3 goggles are about to begin. We know you will find the increased performance of these new systems worth the wait.

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Tim Acord is the product leader for the Aviation Night Vision Imaging System in the Office of the Product Manager for Soldier Sensors at Fort Belvoir, Va.

2002 ACTD List Announced

Edward C. Aldridge, undersecretary of defense for acquisition, technology and logistics, announced in March the selection of new Advanced Concept Technology Demonstration (ACTD) projects for fiscal year 2002. The ACTD program aids in rapidly transitioning advanced technology into the hands of the armed forces' unified commanders. Of the funded ACTDs for FY 2002, 11 will directly support the war on terrorism.

Marrying new operational concepts with new technologies, ACTDs reduce the time required to field new systems and increase end-user involvement in system refinement and integration.

Initiated in 1995, the ACTD program focuses on rapidly placing maturing technologies in the hands of warfighters. In partnership with operational commanders, the services and the Joint Staff, the program delivers prototypes as tailored solutions for validated mission needs. Products demonstrate the military utility of new technologies while giving warfighters hands-on experience to develop concepts for operational employment.

ACTD projects span a broad spectrum of operational requirements with an emphasis on joint capabilities. In many cases, ACTDs yield transformational changes. Products such as unmanned aerial vehicles (UAVs) and unattended ground sensors (UGS) change the paradigms for military operations. Approximately 30 ACTD products support our nation's counter-terrorism efforts in Operation Enduring Freedom and Operation Noble Eagle.

Those ACTDs with an aviation aspect selected for initiation in fiscal year 2002 include:

- Active Denial System: A system mounted on stationary and mobile platforms to provide long-range, anti-personnel, non-lethal force options to commanders.
- Coalition Information Assurance Common Operational Picture: Provides a detailed information assurance and situational awareness picture of the information system security status of all mission critical systems on a near-or-real-time basis in support of CINC and coalition missions.
- Expendable UAV and Air-Launched Extended Range Transporter: Air vehicles providing covert delivery of off-board sensors, tactical surveillance, battle damage assessment and weapons of mass destruction monitoring at low cost.
- Joint Explosive Ordnance Disposal-Knowledge and Technology Operational Demonstration: A system providing a new integrated capability for joint and coalition explosive ordnance disposal forces.
- Micro Air Vehicle: A fully autonomous 6-9 inch micro aerial vehicle providing small ground combat units with situational awareness of enemy activity using a low-cost, disposable air vehicle.
- Pathfinder: An integration of unattended ground vehicles, unmanned air vehicles and smart sensors in a mobile, self-forming network providing enhanced situational awareness, command, control and communications to commanders and assault forces for urban reconnaissance.
- Thermobaric: A penetrator payload to defeat enemy tunnel facilities and weapons.

For additional information on ACTDs, visit **www.acq.osd.mil/actd/descript.htm**.

Earlier O-3 Promotions

The Army will promote officers earlier to the grade of captain, beginning in October.

The accelerated pin-on of bars should help alleviate a shortage of 1,900 captains, according to Army personnel officials. They said many lieutenants are now filling captain jobs. The Army also has 2,200 more lieutenants than it is authorized and the early promotions will help level that out, officials said.

Officers promoted to captain in November will have 40 months of service, instead of the current 42 months. Those promoted in December will have 39 months. A new captain's board is scheduled to meet in November. Those promoted in the spring will have 39 to 40 months of service, and by June the new policy should be fully implemented with all promotions at 38 months.

Before 2000, captains were not promoted until they had 48 months of service, except in wartime, officials said. The congressional authorization for early promotions to captain has a sunset clause and expires Oct. 1, 2005. - *Army News Service*

CBM IMPROVES the FORCE

By CW4 Stephen W. Peckham (Ret.)

Army Transformation is well underway and aviation should be the cornerstone of the new smaller, lighter and more lethal Army. Objective Force aircraft have been identified and recapitalization will ensure that the aircraft are ready to support the Objective Force. Yet some Army leaders feel the cost of maintaining aviation systems is too high and aviation systems readiness is too low.

Army Chief of Staff GEN Eric K. Shinseki issued the following guidance on Sept. 5, 2001:

"Examine the Feasibility of Achieving a 90 percent Mission Capable (MC) Rate by fiscal year 2004. Include cost analysis with an eye on how to re-engineer the processes and structure to accomplish the 90 percent MC goal".

The U.S. Army Material Command (AMC) and the U.S. Army Aviation and Missile Command (AMCOM) formed a working group to review and analyze the readiness issues. Preliminary review by the group identified a range of issues requiring further investigation, one of which was the development of prognostics and embedded diagnostics. In this article I'd like to focus on that same area, and discuss how to use expert systems to enable changes to maintenance policy.

The System

Maintenance on Army aviation systems is accomplished using the Time Based Maintenance (TBM) philosophy, which requires maintenance to be performed at predefined time intervals - flight hours, cycles, calendar days or when conditions reach predefined limits or thresholds (On-Condition Maintenance). Current TBM policies and procedures are predicated on the analysis of a worst-case aircraft operating condition.

TBM analysis is normally performed by the Original Equipment Manufacturer (OEM) and aircraft operators, and the services typically adopt the OEM's maintenance recommendations. Worst-case operating conditions are used to ensure that all aircraft in the fleet operate without failure. For the vast majority of aviation systems TBM results in the removal of components and parts before the end of their useful lives. TBM methods are also not sufficient to cover the few aircraft that are operating outside the anticipated worst-case boundaries or are subject to inadequate maintenance.

Condition Based Maintenance (CBM) methods rely on an assessment of the operating state (condition) of the aircraft and/or component. The assessment of aircraft health or condition is monitored using such on-board equipment as the Integrated Mechanical Diagnostics Health and Usage Management System (IMD HUMS). By using on-board equipment, monitoring the health of each aircraft in the fleet down to the component level with appropriate fidelity can now be accomplished. Maintenance can be performed, if required, based on actual aircraft condition/health and usage.

The purpose of CBM philosophy and Reliability Centered Maintenance (RCM) strategy is to perform maintenance only when there is objective evidence of the need to do so. The fundamental goal of CBM is to optimize readiness while reducing maintenance requirements. RCM is the method, which identifies applicable effective maintenance tasks, needed to maintain the inherent

reliability of systems at minimum cost. RCM provides rules for determining appropriate evidence of need; the new maintenance processes and procedures.

Maintenance managers understand the premise of On-Condition Maintenance (OCM) which requires maintenance to be performed when the system degrades in performance or when a test proves minimum standards are not met. CBM, on the other hand, allows maintenance managers to monitor and assess the status or health of the component or system, and plan the appropriate time to repair, adjust or replace. This new method turns an unscheduled event under OCM philosophy to a predictable and scheduled event under CBM. Current maintenance policies and processes would need to change to allow use of CBM methods.

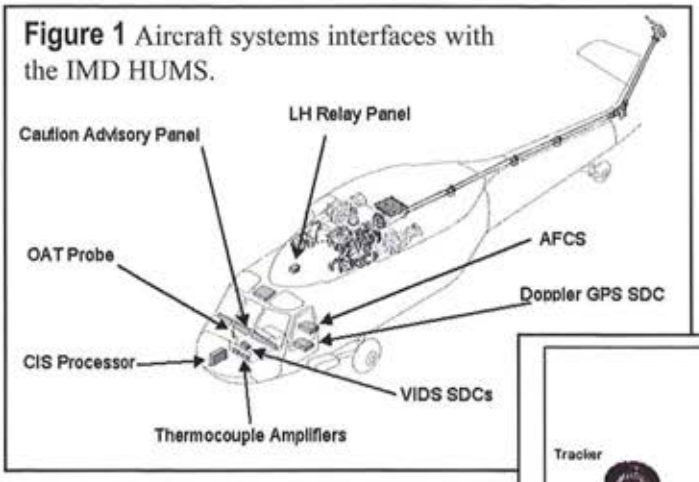

Figure 1 Aircraft systems interfaces with the IMD HUMS.

Initiating Change

To address the readiness challenges and to ensure aviation plays a vital role in the new Army, maintenance methods will need to improve greatly, and changes to maintenance policy and procedures are required. To transition from current maintenance practices (TBM) to new innovative maintenance such as CBM requires a fundamental change in how we think about and perform maintenance.

New, smart on-board health and usage monitoring systems can enable the change to improve readiness. There are many on-board maintenance data-collection and vibration-monitoring approaches available with differing levels of capability, functionality, system-detection fidelity and system maturity. A holistic on-board and ground-based system that enables CBM using RCM methods is needed to facilitate the change for Army aviation.

An Integrated Health Diagnostics Maintenance Information System (IHDMIS) can provide relevant, accurate and timely information that will allow commanders and maintenance managers to make informed maintenance decisions. IMD HUMS, combined with a sophisticated Configuration Management/ Maintenance Management (CM/MM) system, will automate the maintenance process and enable the diagnostic and prognostics capability.

IMD HUMS consists of an Onboard System (OBS) and a Ground Station (GS), both implemented with the maximum practical open-systems architecture. The architecture enables efficient data- and information-exchange between the OBS and GS systems and among other logistics and maintenance-management systems.

The OBS acquires and processes data related to five specific areas; Limit Exceedance Detection, Operational Usage, Rotor Trim and Balance, Mechanical Diagnostics and Engine Power Assurance. The data used by the system is obtained primarily from the installed state sensors that are part of the basic aircraft (including busses), and dedicated accelerometers and shaft position sensors.

In the case where necessary aircraft information is not available via aircraft avionics busses, a Remote Data Concentrator (RDC) can be used to collect and digitize the data. Information of immediate benefit to the flight crew is automatically (and can be selectively) displayed in the cockpit. However, the majority of the processed information and data is exported to the ground station after landing via PCMCIA (Flash Memory Card). The ground station is used to conduct diagnostics, prognostics, trending and maintenance work order generation. The GS will also act as the automated logbook, will allow logbook entries, and will allow print-

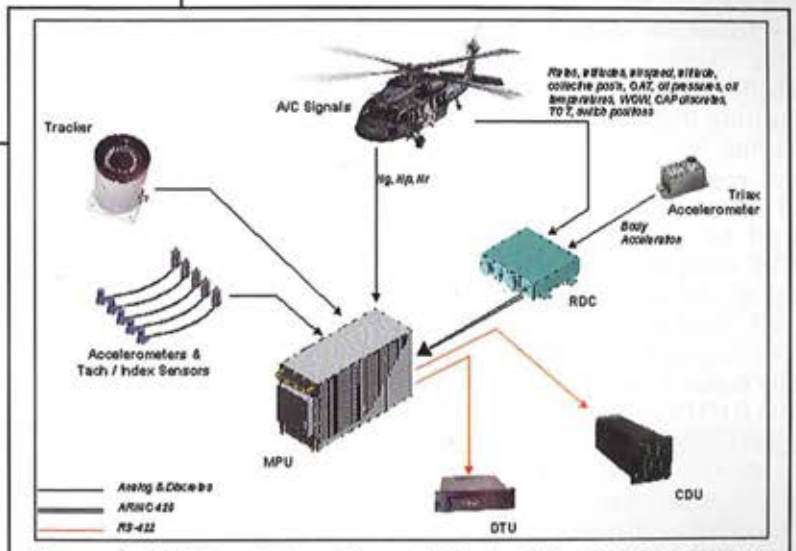

Figure 2 High Level Data Flow within the UH-60A IMD HUMS.

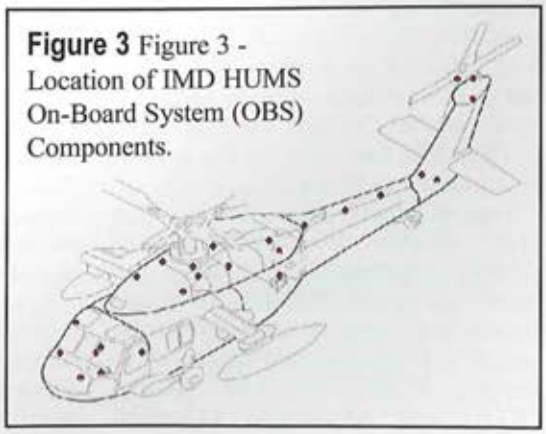

Figure 3 Figure 3 - Location of IMD HUMS On-Board System (OBS) Components.

ed forms and records until processes can be updated to allow automated functionality at the aircraft.

The GS is the primary user interface for the IMD HUMS and the integrated work aid for the maintainer. The IMD HUMS GS is a standalone PC-based laptop computer with an integrated suite of IMD HUMS and CM/MM software with a single user interface. The system is networked to synchronize maintenance tasks and information, and to forward required data to other users. The GS performs post-flight debrief, usage calculations, time history plotting, parameter trending, and rotor and powertrain diagnostics. The GS is responsible for logging and maintaining all IMD HUMS collected flight, usage and maintenance data, and for generating aircraft maintenance-due lists and engineering and management reports.

Commanders, maintenance managers and maintainers need processed data at the aircraft that produces actionable maintenance information. Automating scheduled and unscheduled maintenance processes, automating logbook functions at the flight line, transmitting relevant data to the engineering community and retail and wholesale supply functions will all have a positive impact on AVUM maintenance, readiness and safety of aircraft systems. Knowing aircraft health and maintenance actions required at post flight will greatly enhance current capabilities.

IMD HUMS collects engine, drivetrain, main rotor, tail rotor and aircraft-state information. This data is available from multiple sources on the aircraft [see Figure 1]. The Main Processor Unit (MPU) collects vibration-related data from various accelerometer and index/speed sensors. The aircraft signals and vibration information is processed in the MPU and used to provide information to the Cockpit Display Unit (CDU). The data flow for the system is presented in Figure 2.

Figure 3 details the location of the IMD HUMS On-Board System (OBS) components. Among the items in a typical IMD HUMS installation are several accelerometers, which are permanently installed to support Rotor Trim and Balance (RTB) and powertrain vibration acquisitions. An additional (floating) accelerometer does not have a permanent installation. Rather, it can be installed as required to collect data for traditional vibration-analysis activities at aircraft locations as determined by the specific test event or maintenance action. Interconnects for the floating accelerometer are prewired to allow easy use of the kit.

The Black Hawk IMD HUMS installation monitors 59 specific exceedance conditions defined in the Black Hawk operator's and maintenance manuals. These include rotor, engine, APU, drivetrain and operational/structural exceedances. The exceedance information is used to debrief the pilot/maintainer and provides recommendations on the IMD HUMS GS as to specific Black Hawk maintenance actions per the technical manuals.

Commanders, maintenance managers and maintainers need processed data at the aircraft that produces actionable maintenance information.

Each of the exceedances above is triggered by the same parameters called out in the flight manual, but monitored automatically by the IMD HUMS. During GS debrief the crew is presented with the Debrief Screen. The debrief informs the crew of all exceedances logged during that flight, and is configured to require acknowledgement of those exceedances and allows comments to be entered as required.

For those exceedances which require maintenance, the IMD GS references the appropriate maintenance action and supports the generation of maintenance work order action forms. Having precise exceedance information available at landing allows targeted maintenance actions to return aircraft to service sooner. Additionally, the accurate logging of exceedance information allows exact confirmation a maintenance action is not required.

IMD HUMS provides a semi-automated procedure for performing a range of engine HIT checks designed to be equivalent with those in the Black Hawk engine maintenance manual. Automating the checks will eliminate the requirement for the manual HIT log and allows engine-performance plotting and trending on the GS giving the maintenance managers another prognostics tool.

The IMD HUMS performs a variety of operational usage measurements using a combination of onboard event detection and ground-based processing. The GS is able to calculate life to serialized parts tracked by the IMD HUMS and associate requisite inspection cycles as part life usage is accumulated. More than 240 serialized parts can be tracked by IMD HUMS.

The IMD HUMS provides automated structural usage data acquisition and processing. With this capability, parts life determination can be based on the actual helicopter usage. The usage monitoring function determines the percentage of flight time the helicopter has spent in each flight mode (regime) as well as the specific regime sequence. Factors used to prorate structural usage, such as gross weight, are also recorded.

The regime data is then used to calculate the rate that various structural components are being used and when they need to be removed from service to maintain the required reliability rate. Regime recognition and usage monitoring will allow CBM methods to be used. Once the engineering and maintenance community has confidence in the onboard system and data through a validation period, changes to current maintenance policy can occur, which will allow full use of expert information from this integrated approach.

One of the on-board system capabilities that will potentially reduce the maintenance workload and reduce maintenance flying hours

is the automated rotor track-and-balance function of IMD HUMS. IMD HUMS provides both prompted and automated acquisition of rotor track and balance (RTB) data. This data is collected for trackerless or tracker-based RTB solutions. The RTB acquisition data is recorded without pilot intervention and vibration information and solutions can be displayed in the cockpit on the CDU after landing or downloaded and processed on the GS. RTB adjustment recommendations are presented on the GS to the maintenance crew after each flight. The RTB recommendations can be applied at that time or held until another scheduled maintenance event. With this new capability, unscheduled maintenance events for rotor track and balance should almost be eliminated.

Another important function of the IMD HUMS is the automatic acquisition of RTB data. The system is constantly monitoring flight parameters. When it has detected that the aircraft is within an RTB regime, the IMD HUMS automatically collects the data. This data is then checked against vibration limits to determine if maintenance is required. Regardless of whether maintenance is required at that time, the data is then available for later use in calculating a balance solution. It will greatly reduce, and possibly eliminate, the need for dedicated maintenance test flights.

The IMD HUMS also provides fulltime drivetrain vibration monitoring and analysis, as well as advanced mechanical diagnostics of the drivetrain. The analyses include engine output shaft and oil cooler vibration monitoring, engine output shaft balancing, tail rotor vibrations analysis and adjustment recommendations, and a procedure for isolating irregular and unusual vibrations equivalent to those in the existing vibration analysis techniques. Full time vibration monitoring of the tail rotor, both engine high-speed shafts and the oil cooler will eliminate dedicated 100-hour inspection requirements on these items when policies change.

Advanced techniques based on determination of assembly health computed from select condition indicators are also provided in the IMD HUMS. This allows automatic, continuous monitoring of drivetrain faults with the ability to provide more accurate fault isolation and early detection. The health indicators (HIs) are derived from primary condition indicators (CIs). The CIs are calculated for each bearing, gear and shaft within the drivetrain. The HIs distill the relevant aspects of the various CIs into a single numeric value, which represents the health of a particular component or assembly. The IMD HUMS automatically computes CIs and HIs and records the data to the DTU for later analysis and processing. Having the ability to view aircraft and fleet health down to the lowest levels will allow commanders and maintainers to issue the best (most healthy) aircraft for the mission.

Flight Operations Quality Assurance (FOQA) data (not crash data) can be downloaded via the PCMCIA Flash Memory Card as a separate file that will facilitate a post-flight playback capability for training functions. Third party readily available Commercial-Off-The-Shelf (COTS) software will enable a comprehensive flight playback capability to support flight-training requirements.

In Summary

Automating aviation maintenance and equipping aircraft with expert systems will dramatically and systematically improve readiness, enhance safety and provide the information for the logistics community to make better forecasting and acquisition decisions. Expert use of this new technology will reduce, eliminate or extend many visual/manual-scheduled inspections and or convert the inspections into fulltime electronic monitored inspections.

Once again, new recommended procedures will need to be validated after a fleet of aircraft is equipped with IMD HUMS. We need to employ creative concepts and use expert advanced technology to improve aviation readiness to meet the challenges of the Objective Force and CSA's guidance.

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arrivals/departures

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Aviation Direct Fire Planning at the NTC

By CPT Jim Ward

The purpose of this article is to describe some of the tasks that company-sized units struggle to complete in order to execute aviation hasty and deliberate attacks in support of the combined-arms fight at the National Training Center (NTC) at Fort Irwin, Calif.

There are many critical tasks involved in integrating attack and scout aircraft into the close fight to ensure that they have the desired effect to support the ground maneuver commander's intent.

This article will discuss an overview of the principles of direct-fire planning, fire control, fire-distribution techniques, clearance of fires and some techniques for improving attack and cavalry aircraft employment in support of ground combat units. In addition, each topic will address NTC trends for failure to complete these tasks, and some techniques to improve direct-fire plan execution on the objective.

Massing Fires

The principles of direct fire are described in FM 1-112, "Attack Helicopter Operations."

The first principle of direct-fire planning is mass. Mass is the concentration of the fires of multiple weapon systems or units to create efficient destruction of the enemy. In some cases, units will fail to achieve mass because of poor assignment of responsibility and an inability to adjust the plan if the enemy is not arrayed in the engagement area (EA) as expected. Typically this is because subordinate leaders do not have a full understanding of the entire plan.

It is the commander's responsibility to prepare all crews to adjust the plan in the event of an unexpected enemy situation. It is important to point out that massing fires requires thorough planning, fire discipline by all participating aircrews and leader control.

Leaders Control Fires

The second principle is that leaders must control fires. Typically, leaders can control fires by using graphic control measures. These include sectors, target reference points and phase lines to delineate responsibility and establish assignment of enemy entering the EA.

In addition, leaders must establish triggers, which generally consist of either radio fire commands or enemy-action-based triggers, such as crossing a phase line or recognizable terrain feature.

Controlling fires is one of the most difficult tasks for leaders to accomplish. Often, the aviation company commander will have a solid plan, but may not be in the target area when the enemy arrives in the EA. In the absence of the commander, subordinate leaders (platoon leaders, team leaders) must have a full understanding of the direct-fire plan in order to effectively destroy the enemy.

Failure to establish fire-control measures can result in target overkill, uncovered enemy targets in the EA or targets not covered throughout the depth of the area of operations.

Focusing Fires

The third principle of direct-fire planning is focus of fires. The implied task for focusing fires is that fires must be massed at the critical point in the EA to ensure destruction of the enemy. The critical point is typically a key geographical point or position important to the success of the mission, both for friendly and enemy forces. In addition, it can be defined as a crisis or turning point in an operation.

Battalion staff members should determine the critical point during the MDMP process, during the development of the EA. Inability to focus fires on the critical point may allow the enemy to gain control of the battle.

Fire Distribution

The fourth principle of direct-fire planning is fire distribution. Leaders can construct fire-distribution plans using a combination of graphic control measures and fire commands, and can often have a detailed plan well before execution of the attack.

FM 1-112 describes four methods of dividing an EA and distributing fire. Any of these techniques can be used, and often a terrain and enemy analysis will help define which method is best. Regardless of which method is used, it is critical for crews, platoons and companies to conduct rehearsals and battle drills well before the mission. Rehearsals and battle drills will ensure that all mission participants have an understanding of their roles and employment.

Arrival at the EA, possibly within the weapon-system ranges of the enemy, is not the time for leaders to assign initial responsibilities to aircrews. Four methods of fire distribution commonly used are the quadrant, sector, target reference point (TRP) and target array.

Quadrant

The quadrant method simply divides the engagement area into four equal quarters, with the troop commander assigning a quadrant to each aircraft or team, based on Attack-by-Fire (ABF) or Support-by-Fire (SBF) position.

An advantage of the quadrant method is that both near and far targets have assignment, and can simplify the weapon load-planning process for the commander, because he can base weapon loads on ranges to target area.

A disadvantage of the quadrant method is that it can be difficult to visualize while observing the EA if there are not easily identified cues to divide the EA, and the "invisible quadrant" requires multiple points of reference to define the centerlines.

Sector

The sector method divides the EA into sectors. Leaders can determine the size of each sector based on terrain, EA observation and avenues of approach. The number of sectors is generally constrained by the combat power available.

The sector method usually requires some identifiable terrain feature or landmark easily identifiable in both day and night. The sector method allows for overlapping coverage of the same EA, which may be highly desirable for covering dead space in a high-speed avenue of approach.

TRP

The "nearest TRP" method utilizes target reference points as benchmarks for crews to visualize triggers for them to engage targets. Again, this method requires a visual reference that is easily identifiable by the crew from every ABF employed in the EA in both day and night conditions.

An advantage of the nearest TRP

method is that it gives crews a single reference point from which they can begin their scan and acquisition. A disadvantage of the method is that it may be very difficult to shift fires, and the commander must be able to visually acquire every TRP in the EA in order to effectively manage fire-control procedures for all the other aircraft.

Target Array

This method is based on dividing the enemy formation into logical sections based on their formation. If the enemy unit enters the EA in march formation, then it is possible to assign portions of the formation to ABF/SBF positions based on observation lanes and expected avenues of approach.

The advantage of this enemy-oriented system is that it is typically easy to assign responsibility initially, and provides flexibility based on how the enemy is presented in the EA. However, once the enemy has been fired upon, he will deploy to cover, and another technique of fire distribution will likely be necessary.

Shifting Fires

The fifth principle of direct fire planning is the ability to shift fires.

Planning for a shift in fires is typically part of the fire-distribution plan as described above, and may use the same graphic control methods (sectors, TRPs) to adjust a unit not in contact in order to assist or augment a unit which is in contact.

Typically, rotational units will have a plan for shifting effort and assignment, but sometimes struggle with execution because their original battle positions (BP) do not support their adjacent unit's sectors of fire or observation. A successful technique is to plan alternate BPs which complement adjacent elements, and preplan a "subordinate fire distribution plan" to deconflict two elements firing into the same area.

In the example below, the enemy enters only Alpha Pass in the north. The fire-distribution plan (Quadrant Method) can shift the effort north by reassigning the two southern aircraft to Quadrants 1 and 2, respectively. In addition, planning alternate BPs or ABFs north and south of the original position may produce better fields of observation and prevent firing conflicts.

As shown in the examples above, FM 1-112 has several detailed techniques of fire distribution. Each technique has its advantages and disadvantages. Insertion of these doctrinal solutions into the unit tactical standard operation procedure (TACSOP) can greatly enhance crew-level awareness, and integrating them into crew and platoon battle drills during home-station training can lead to increased success on the attack objective.

However, briefing one of these four techniques alone does not constitute a rehearsal.

fire plan. The air mission commander (AMC) must also discuss how fires will be focused and massed, and what methods will be used for shifting fires, prioritizing targets, controlling firing volume, and establishing commands or triggers for fire control.

Using one of these systems can help crews visualize the EA and their areas of responsibility. It is very important, however, to brief and rehearse all of the topics to avoid target overkill, prevent fratricide, and maintain command and control of all aircraft to maximize efficiency and target destruction.

Rehearsals

The final and most important principle of direct-fire planning is conduct of the rehearsal.

The rehearsal is essential because discussing the plan can reveal gaps in coverage or time, disposition of leaders at critical times in the battle, or omissions to the plan. In addition, rehearsals are a great tool for commanders to ensure that subordinate leaders and crew members know the plan, have the proper graphical control measures posted on their maps, and will be able to execute the plan in his absence and still meet the commander's intent.

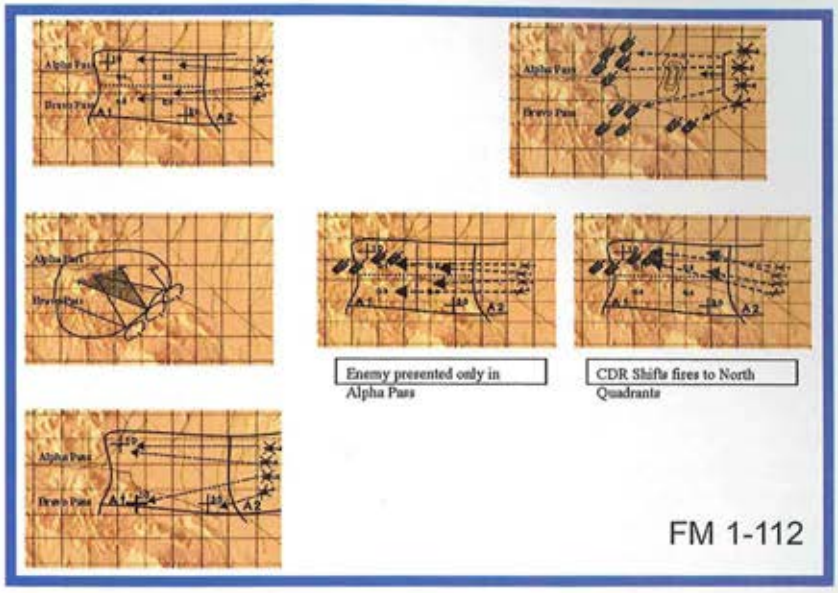
Rehearsals enable the unit to discuss possible branches and sequels to the mission, such as shifting fires or moving to alternate BPs prior to execution. Failure to discuss contingencies will lead to confusion and slow execution when fighting the enemy.

NTC rotational tempo is usually very demanding, and many rotational units fail to conduct a proper rehearsal because they fail to manage time properly. Use of a backward-planning model and the troop-leading procedures upon receipt of the mission will help units focus their direct fire planning process to ensure that a rehearsal can be conducted to standard.

Clearance of Fires

Clearance of fires for an aviation unit working in close quarters with friendly ground elements is essential to success. Typically, an OPCON or attached aviation unit, such as an attack helicopter company (ATKHC) or an air cavalry troop (ACT), will remain under brigade combat team (BCT) control. Normally these aircraft report their actions to the brigade tactical operations center (TOC) or TAC on brigade frequencies. Unfortunately, this can lead to poor information flow between smaller-level ground maneuver forces and the aviation unit.

FM 17-98, "Scout Platoon," describes the importance of aircraft communicating on the ground platoon radio net when operating in conjunction with scout platoons, and recommends that aircraft operate on the ground platoon radio net. When possible, aviation assets can and should hand over targets to adjacent ground forces for destruction.



This level of coordination cannot and should not be done on the brigade O/I frequency, but some ground commanders will insist that aviation units communicate only on the brigade frequencies. In addition, many aircrews lack complete situational awareness of friendly force disposition, which may prevent them from engaging at all.

It is imperative that aviation crews have the latest observer locations posted on their maps, to ensure that aircraft weapon system surface danger zones (SDZs) do not conflict with forward ground observers. Examples of forward friendly elements are the Ground Surveillance Radar (GSR), Combat Observation and Lasing Team (COLT), Brigade Reconnaissance Troop (BRT) and Task Force Scout locations.

While aircrews should be briefed on the general friendly situation before departing for a mission, aviation leaders should make contact with leaders of ground forces in the objective area to confirm the details of friendly force disposition.

Conclusion

In summary, there are many elements to a successful direct-fire plan. Full knowledge of the fundamentals of direct-fire planning, fire-distribution techniques and the proper conduct of rehearsals can increase the effectiveness and lethality of aviation in combined-arms operations.

Detailed unit SOPs, thorough planning and rehearsals conducted to standard are key elements to achieving success on the objective. Units can maximize home-station training opportunities, such as advanced aerial gunnery tables and combined arms live-fire exercises (CALFEX), by integrating thorough direct-fire planning. In addition, simulations such as the Aviation Combined Arms Tactical Trainer (AVCATT) can be used to develop, execute and refine company direct-fire planning procedures to maximize destruction on the battlefield.

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CPT Jim Ward is a cavalry company trainer at the National Training Center, Fort Irwin, Calif.

Vietnam Aviator Receives MOH

Proving heroism has no deadline, President George W. Bush awarded the Medal of Honor posthumously May 1 to two soldiers, one a World War II Army dentist who died while single-handedly fighting off a horde of enemy troops and an Army pilot who died marking enemy targets to save friendly soldiers during the Vietnam War.

Bush awarded the medals at a White House Rose Garden ceremony. Dr. (Capt.) Benjamin L. Salomon received the award for heroism on the Pacific island of Saipan on July 7, 1944. Capt. Jon E. Swanson received the award for his bravery on Feb. 26, 1971, in the skies over Cambodia.

Swanson, whose family received the award from the president, was an Army OH-6 helicopter pilot providing close air support for South Vietnamese troops in Cambodia.

"Flying at tree-top level, he found and engaged the enemy, exposing himself to intense fire from the ground," Bush said. "He ran out of heavy ordnance, yet continued to drop smoke grenades to mark other targets for nearby gunships.

"Captain Swanson made it back to safety, his ammunition nearly gone, and his scout helicopter heavily damaged," Bush continued. "Had he stayed on the ground, no one would have faulted him. But he had seen that more targets needed marking to eliminate the danger to the troops on the ground. He volunteered to do the job himself, flying directly into enemy fire until his helicopter exploded in flight."

Swanson received the Distinguished Service Cross for his actions even though he had been recommended for the Medal of Honor. A review of his actions upgraded the award.

"The two events we recognize today took place a generation apart, but they represent the same tradition," Bush said. "That tradition of military valor and sacrifice has preserved our country, and continues to this day. Captain Salomon and Captain Swanson never lived to wear this medal, but they will be honored forever in the memory of our country." — *Jim Garamone, American Forces Press Service*

DA Honors AAHF

By Sean Brady

The Department of the Army has nominated the Army Aviation Heritage Foundation (AAHF) for the prestigious Zachary and Elizabeth Fisher Distinguished Civilian Humanitarian Award for 2001.

The Fisher Humanitarian Award is presented annually by the Department of Defense to recognize and thank a patriotic individual or private organization whose selfless contributions of time, talent and resources significantly enhance the quality of life and public support for military members and their families.

In announcing the Army's final nominee, Secretary of the Army Thomas White said in a letter to the AAHF membership:

"The Foundation's dedication, patriotism and numerous contributions have left a lasting imprint on the quality of life for the service members and their families. Your total commitment in bringing the American soldier to the public through the story of Army aviation exemplifies Zachary and Elizabeth Fisher's personal qualities of patriotism and generosity."

The AAHF was founded in 1997 as a combined effort by military veterans, their families and civilian supporters to take the story of America's military legacy and heritage of service to the American public, and to connect the American soldier to the American family as an active, accepted and admired member of society.

The AAHF accomplishes its mission through the use of "living history" programs that combine historic, flyable Army aircraft with veteran air crews to tell the story of our military heritage, through the story of Army aviation, at such major public events as air shows.

The Department of the Army has honored the AAHF by singling the Foundation out as its Fisher Award nominee, over and above the significant contributions of the other 11 Army Command award nominees, in appreciation for and recognition of the AAHF's selfless contributions to America's veterans and their families.

During the 2000 year of award evaluation alone, the AAHF dedicated more than 122,600 volunteer hours and $4.4 million in donated aircraft, cash, and equipment from among its many members and supporters to reach over 2.4 million people with the story of Army aviation and our country's larger military heritage at no cost to the federal government. Since its 1997 inception AAHF has taken our soldiers' story to a total audience of more than 5.1 million people. During the upcoming 2002 Season and beyond, the AAHF expects its impact on the lives of our country's soldiers to continue to grow.

For more information on the AAHF or to learn how you can help further the accomplishment of its mission to improve the public's recognition and value of our soldiers, please visit the website at **www. ArmyAv.org**.

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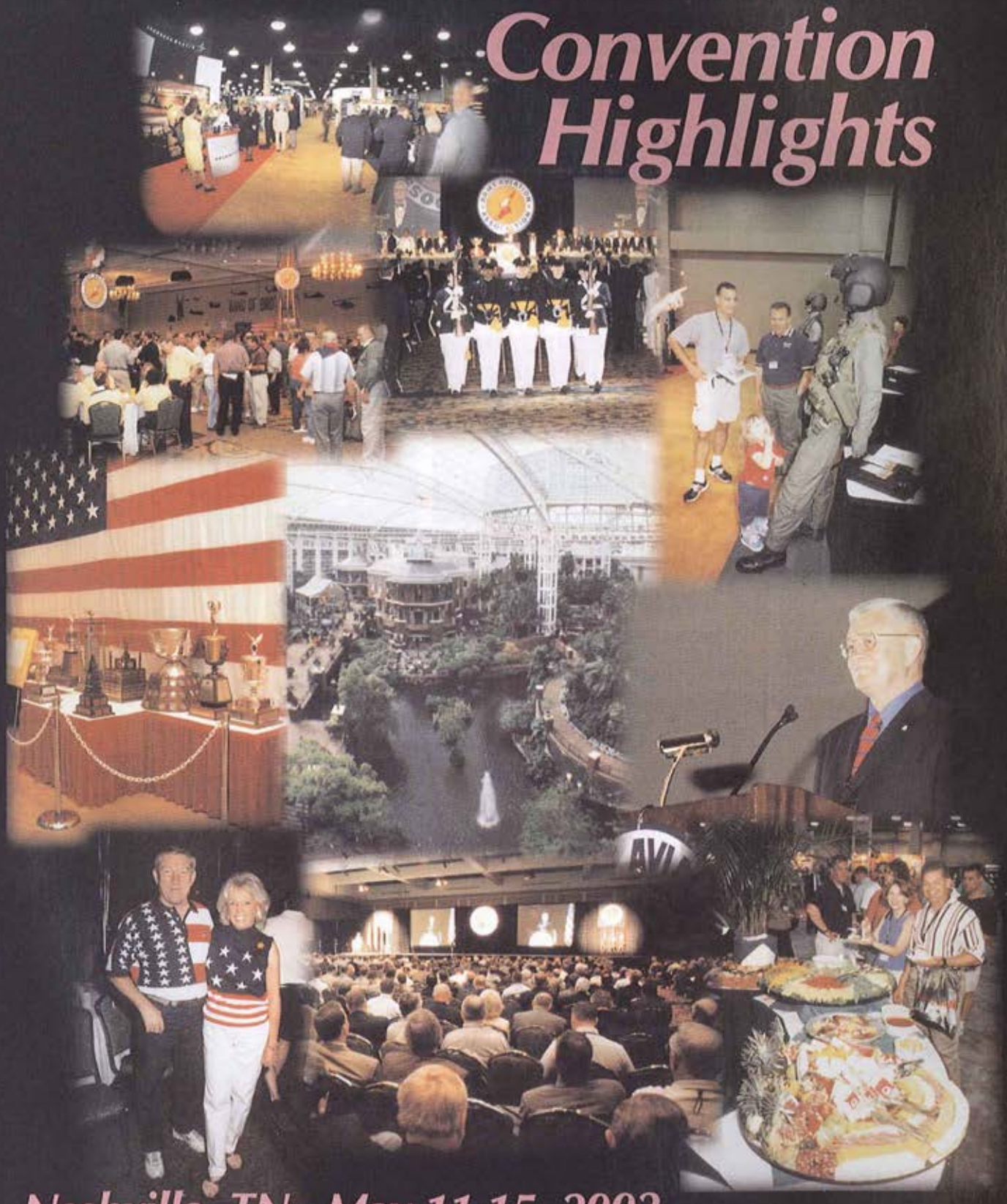
Sean M. Brady, son of founding AAHF member MG Morris J. Brady (Ret.), works with the foundation at its headquarters in Hampton, Ga.

2002 AAAA Annual Convention Highlights



Nashville, TN - May 11-15, 2002

2002 AAAA Annual Convention

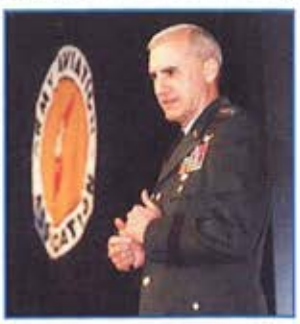
The 2002 AAAA Annual Convention really set the standard for future years with record attendance of almost 6,000 registered and 200 exhibiting organizations. The Early Birds reception in the exhibit hall on Sunday night May 12, opened the event, but the show really got down to business the following morning when AAAA President, LTG Ellis D. Parker, (Ret.) *(upper left)* introduced Aviation Branch Chief MG John M. Curran *(right)* who kicked off the professional sessions focusing on the convention theme, "Training Army Aviation's Soldiers & Leaders to Meet the New Challenges". Following MG Curran, MG Richard A. Cody, *(left)* commanding general, 101st Airborne Division (Air Assault), delivered the Host Command Welcome.

Following the opening session, various breakout sessions took place. Among the briefers were: BG James E. Simmons *(right)*, Commander, USA Safety Center on Aviation Safety; CSM Edward P. Iannone *(second below right)*, Aviation Branch CSM, COL Richard L. Polczynski *(below left)*, 160th Special Operations Aviation Regiment (Airborne), and Brigadier R.P.D. Folkes OBE *(center below)*, ADC Director, Army Aviation.

Following the professional program the exhibit hall opened Monday morning and featured program manager briefings on the floor near the static display aircraft. Among the presenters was COL William T. Crosby *(left)*, PM Cargo.

Monday's Membership Lunch was highlighted by the presentation of the Gold Order of Saint Michael to former AAAA President, MG Carl McNair, Ret. *(near right)*.

Tuesday began with LTG John M. Riggs, *(right)* Director, Objective Force Task Force, who delivered an outstandingly thorough, clear and consise presentation on Transformation.



Tuesday's luncheon speaker was LTG Daniel J. Petrosky *(right)*, Chief of Staff, US European Command who gave a presentation on ongoing operations in USAREUR.

Heading up the afternoon session on "Training Leaders in the Objective Force" were Mr. Robert Seger *(second from right)* Assistant Deputy Chief of Staff for Training, COL Robert D. Carter *(right)*, Director, Training, Doctrine & Simulation, USAAVNC, COL Neal C. Petree III *(left)*, Commander 1st Aviation Brigade, and MG John M. Curran *(second from left)*.

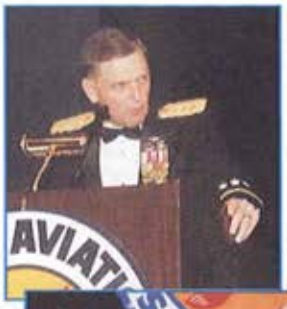
Tuesday wound up with a panel chaired by MG Richard A. Cody *(third from left)*, CG, 101st Airborne Division, (Air Assault), on "Maximizing TADSS for Aviation Training". The panel included BG Stephen M. Seay *(third from right)*, CG, USA Simulation Training & Instrumentation Command, COL Robert D. Carter *(2nd from right)*, Director, Training, Doctrine & Simulation, USA Aviation Center, COL Michael A Zonfrelli *(far right)*, Commander, Aviation Training Brigade, Dr. Dennis C. Wightman *(far left)*, Chief, Army Research Institute, Fort Rucker, Ala., and COL Neal C. Petree III *(second from left)*, Commander, 1st Aviation Brigade.

Wednesday started with the traditional First Light Breakfast and featured Mr. Claude M. Bolton, Assistant Secretary of the Army for Acquisition, Logistics & Technology.

Wednesday's Professional Program began with the Hardware/ Acquisition Panel chaired by Mr. Bolton *(2nd from left)*. The panelist included LTG Charles S. Mahan, Jr. *(third from left)*, Deputy Chief of Staff for Logistics, MG Joseph L. Bertantz *(left)*, PEO Aviation, MG Larry J. Dodgen *(second from right)*, Commanding General, USA Aviation & Missile Command and COL Ellis W. Golson *(far right)*, Director, Combat Developments, USA Aviation Center.

Wednesday's luncheon featured guest speaker LTG Kevin P. Byrnes *(left)*, Director of the Army Staff.

On Wednesday afternoon a professional panel was held on Training to Meet the New Challenges, chaired by LTG William S. Wallace *(third from left)*, CG V US Corps. Included on the panel were BG William C. David *(second from left)*, Assistant Division Commander (Operations), 101st Airborne Division (Air Assault), and COL Robert D. Carter *(far left)*, Director, Training, Doctrine & Simulation, USA Aviation Center. Also present, but not shown in photo, was BG James E. Simmons, Commander, USA Safety Center.



The culminating event of the convention was the AAAA Awards Banquet featuring a address by LTG Bryan D. (Doug) Brown who introduced a specially prepared video address for AAAA attendees from the scheduled speaker GEN Tommy R. Franks, Commander in Chief, US Central Command who was unable to attend.

The presentation of AAAA National Unit and Individual Awards began with the Outstanding Aviation Unit (USAR) of the Year, presented to M Company, 158th Aviation Regiment, Fort Hood, Texas. Accepting the award were MAJ Troy Douglas Kok *(right)*, Commander and 1SG Jay Perry Huseman *(second from right)*, Sr. NCO. Also shown are LTG Brown and William R. Harris, Jr., AAAA Executive Director.

The next award of the event was for the Outstanding Aviation Unit (ARNG) of the Year, presented to 1st Battalion, 207th Aviation Regiment, Fort Richardson, AK. Accepting the award are LTC Jerry Kidrick *(second from right)*, Unit Commander and CSM Dennis Roggenkamp *(right)*, Sr. NCO. Joining awardees in photo are LTG Brown *(left)*, MG Curran (second from left) and COL George J. Gluski, *(center)*, Chief, Aviation and Safety National Guard Bureau.

The Outstanding Aviation Unit (ARMY) of the Year, prsented to 160th Special Operations Aviation Regiment (Airborne). Accepting the award are COL Richard L. Polczynski, Commander *(second from right)*, and CSM Donnie D. Calvery *(second from left)*. Pictured with the awardees are MG Curran (left), LTG Brown *(third from left)*, and LTG Parker *(right)*.

The next presentation was for the Robert M. Leich Award. The winner was Mr. Charles J. Reading *(right)*, who accepted his award from MG Curran *(center)* and LTG Brown *(left)*.

The next presentation was for the Joseph P. Cribbins Department of the Army Civilian of the Year Award. The winner was Mr. Timothy W. Gilchriest *(center)*. Pictured here are LTG Brown *(left)* and MG Curran *(right)*.

The next presentation was for the James H. McClellan Aviation Safety Award presented to CW4 Steven A. Morris, A Company (AVIM), 127th Avaition Support Battalion APO AE. Pictured with CW4 Morris are LTG Brown *(left)*, MG Curran *(second from left)* and BG James E. Simmons *(right)*.

The Army Aviation Soldier of the Year award went to SPC Andrew S. Kirfman *(center)*, F Co., 1st Battalion, 160th Special Operations Aviation Regiment (Abn), Fort Campbell, Ky. Pictured with Kirfman are MG Curran *(right)* and Branch CSM Iannone *(left)*.

The Army Aviation Non-Commissioned Officer of the Year award was presented to 1SG Allen R. Haynes *(center)*, 50th Medical Co. (Air Ambulance), 101st Airborne Div. (Air Assault), Fort Campbell, Ky. Also pictured are MG Cody *(right)*, CG, 101st Airborne Division (Air Assault) and CSM Iannone *(left)*.

The last presentation was the Army Aviator of the Year presented to CW3 John F. Nailor *(center)*, A Company, 2nd Battalion, 160th Special Operations Aviation Regiment (Airborne), Fort Campbell, KY. Pictured with Nailor are LTG Brown *(left)* and MG Curran *(right)*.

"Fire Hawks" for the Guard By Senior Airman Stephen Hudson

When Florida's next wildfire season begins, the Florida National Guard will be armed with a new tool to combat wildfires throughout the state.

In fiscal year 2003 the Florida and Oregon National Guards will receive UH-60L Fire Hawk helicopters.

"Only the Oregon National Guard has one, Florida and California will receive one concurrently," said MAJ Dave Gereski, of the Florida National Guard Bureau's aviation office.

The aircraft is scheduled to arrive in Florida sometime after October of this year, just in time for the busy wildfire season that normally runs from December to June.

The Fire Hawk is a modified version of the Sikorsky UH-60 Black Hawk, currently used by the Florida National Guard. The new addition will not replace the eight other Black Hawks used by the Florida Guard in fire fighting.

According to LTC James F. Mulvehill, the Florida Guard's state Army aviation officer, the Fire Hawk will add to the Guard's firefighting capabilities, but will not require new personnel. Existing crews will be used.

"Additional training will be provided by Sikorsky," Mulvehill said. "The crews will have to be trained on the specifics of the Fire Hawk. We will have a core team of three or four crews trained."

According to Florida Division of Forestry statistics, wildfires peak during the months of May and June in Florida. Lighting strikes usually cause the majority of those fires during this period.

"Last year the Black Hawk pilots in Florida flew 1,600 hours fighting fires, double their normal flying hours of 800," Mulvehill said.

The Fire Hawk retrieves water through a snorkel and can hold 1,000 gallons in its external tank. Foam can be mixed with the water to make it more effective in fire-suppression operations. In addition, the Fire Hawk can hold 220 more gallons than Black Hawks equipped with buckets, and Fire Hawks can extract water from water supplies that bucket-equipped helicopters normally cannot use.

"We've been using the standard 'Bambi' bucket since 1998," said Florida Guard Black Hawk pilot CW3 David Smith. "This is not going to make the 'Bambi' bucket obsolete; there's still a place for it to be used."

According to Mulvehill, the firefighting additions can be removed and the aircraft can become a "go-to-war" helicopter.

"I think this new addition will be a benefit to not only the Guard's federal mission, but to state disaster-relief operations," Mulvehill said.

Maintenance crews are also scheduled to receive additional training. The Florida Guard's Fire Hawk will be housed at the Army Aviation Support Facility in Brooksville, Fla.

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Air Guard Senior Airman Stephen Hudson is assigned to the Florida National Guard Bureau Public Affairs Office.

2002 AVIATION SOLDIERS

The Backbone of Army Aviation

Directory Sample

Last Name, First Name, M.I. (Rank) (Initial Membership Year) (Nickname) Mailing Address. Dy: Duty Phone. Res: Residence Phone. S: Spouse's Name. Dy: Duty Assignment. MOS. AAAA Offices Held.

**A professional-personal roster of Enlisted AAAA members. Data sheets were sent to all AAAA enlisted members, requesting information for the following directory. Only those members who responded by 10 May 2002 are listed.*

AAAAAAAAAAAAAAAAA

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Andrews, Ronald D., (SGM) (M01) 617 Green Drive, Enterprise, AL 36330. Dy: (334) 255-1941. EM: ronald.andrews@rucker.army.mil. S: Monzora. Dy: TSM-Longbow. MOS: 67Z.

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Pope, Grover M., (SGT) (M01) (Marty) 533 Jennings Farm Road, Fayetteville, NC 28314. EM: thepopegang@hotmail.com. S: Kathy. Dy: C Co, 159th Aviation Regiment, Fort Bragg, NC. MOS: 67U.

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Rhue, Bobby D., (SSG) (M01) 317 Sawyer Road, Cameron, NC 28326. Dy: C Co, 159th Avn Regt, Fort Bragg, NC.

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Rinde, Craig H., (CSM) (M02) 4984 Harrison Street D#, Fort Campbell, KY 42223-1787. EM: Rindec@earthlink.com. S: Maureen. MOS: 67Z.

Robers, Benjamin, (PV2) (M02) (Nuckles) B Co 2-52 Avn Bn, Unit 15467, APO AP 96271. S: Alma. Dy: Task Force/160th Avn, HHC, 160 Avn Regt, Fort Campbell, KY. MOS: 67U10.

Rojas, Edward D., (SGM) (M01) 5559-2 Lockridge Loop, Fort Hood, TX 76544. Dy:

(254) 288-2322. Res: (254) 539-2253. EM: edward.rojas@hood.army.mil. S: Barbara. Dy: 21st Cav Bde (AC), Fort Hood. MOS: 93P. Bronze Osm.

Rowlett, Donald G., (1SG) (M00) (Don) CMR 408, Box 1324, APO AE 09182. EM: donald.rowlett@12avnbde.army.mil. Dy: HHC 3-158th Avn Regt. MOS: 93P.

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Worthen, David B., (SFC) (M89) 1212 E Ave H, Nolanville, TX 76559. Dy: (254) 287-7935. Res: (254) 289-8496. EM: dworthensfc@yahoo.com. Dy: B Co, 2nd Bn, 4th Avn Regt, Fort Hood, TX. MOS: 67T40. Life Member.

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Yates, Terrance M., (SSG) (M02) (Mike) 139D Secluded Place, Newport News, VA 23608. Dy: (757) 878-1643. Res: (757) 888-8675. EM: country_wolf@yahoo. com. Dy: Instructor, 3rd S & F. MOS: 67R.

Yocum II, Chalmer C., (SSG) (M99) 594 Hollins Court, Apt. 210, Newport News, VA 23608. Dy: (757) 878-2937. Res: (757) 833-6259. EM: chalmeryocum@cox.net. S: Tonia. Dy: UH-1H/UH-60 Crewchief, 1st Staff & Faculty, Fort Eustis, VA. MOS: 67T.

Paratroopers from Company A, 1st Battalion, 508th Infantry, 173rd Airborne Brigade, pull security on a landing zone after being inserted by UH-60 Black Hawk helicopters from 12th Aviation Bde. during a combined-arms live-fire exercise at Grafenwöhr Training Area, Germany, on April 10.

(photos by SGT Thorin Sprandel)

people on the move

Editor's Note: Army Aviation is seeking good-news announcements of aviation-related professionals who are on the move. If you or your organization have an upcoming change of leadership (at the battalion or squadron level, or higher for MTOE and TDA units), please forward the information to Barbara Ross, care of the AAAA National Office.

Army Announces FY 2001 Active-Duty CW5 Promotion Board Results

Listed below are the fiscal year 2001 promotion board results for active component warrant officers selected for advancement to chief warrant officer five. Congratulations to the following 36 aviation and aviation technical branch warrant officers selected for promotion.

AVIATION Seq#	Name
7	Barker, William L.
25	Breeden, Kenneth M.
11	● Bugg, Larry C.
10	Condon, Wendall A.
16	Davis, Alan R.
29	● Edmonds, Byron C.
30	Erthal, James
3	Giesler, Rolf J.
4	Guy, Richard J.
* 34	Hacker, David L.
20	● Heck, Jerry A.
31	Lapp, Terrance L.
18	Locks, Joel D.
1	● Mandulak, John P.
27	Marston, Phillip A.
9	Miller, Randall R.
5	Morris, Charles H.
22	● Mulcahy, Steven R.
19	Nelson, David C.
26	Olson, Randy A.
23	Pena, Alfred
28	● Roderick, Timothy I.
6	Rodriguez, Felix A.
* 35	● Rogers, Gregory A.
12	Schimmer, Erik A.
15	● Schneider, Gregory
17	Schwerke, Mark S.
8	Scott, Lonnie B.
33	Steinke, William A.
32	Stinson, Gregory E.
21	● Trigger, Michael E.
24	● Underhill, Ronald L.
2	Vancuyk, Christian
14	Wade, William H.
13	Wiedemann, David E.

AVIATION TECHNICAL Seq#	Name
1	● Tygart, Joseph M.

* Below the Zone
● = AAAA Member
+ = Life Member

Army Announces FY 2001 Active-Duty CW4 Promotion Board Results

Listed below are the fiscal year 2001 promotion board results for active component warrant officers selected for advancement to chief warrant officer four. Congratulations to the following 213 aviation and aviation technical branch warrant officers selected for promotion.

AVIATION Seq#	Name
134	● Adams, Richard E.
101	Alsup, Harold T.
40	Aquino, Joaquin R.
154	Armstrong, Mark W.
121	Arthurs, George M.
47	Balke, Michael L.
118	Bandfield, Rhett A.
151	Barker, Keith
187	Bass, Edward A.
159	Beck, Nolan G.
6	Bennett, Eric L.
29	● Bledsoe, Charles R.
69	Blood, Todd A.
125	Bogedain, Kenneth A.
170	Borre, Charles T.
145	Bostic, Tracie E.
65	Bradshaw, Jeffrey W.
94	Brandes, Timothy P.
85	Brashear, Clay A.
115	Brennan, Joseph P.
131	Bromwell, Reginald
111	Brookins, Michael L.
57	Brouillard, Alcide
119	Camelin, Timothy J.
38	Campbell, Jeffrey R.
27	Cardwell, Britt
183	● Carmichael, Matthew
22	Carson, Anthony B.
25	Carter, James R.
80	Childs, Ross A.
113	Chotkowski, Joseph
41	Clark, David P.
188	+Clark, Paul D.
55	+Close, Bert W.
33	● Collins, Raymond A.
18	Couch, Jerry R.
67	Crawford, Duane G.
84	● Cronrath, Michael R.
2	Crowley, John H.
166	Cummings, Shawn
74	Cunningham, Charles
180	Daniels, John M.
120	Davis, Anthony J.
116	Davis, Bruce D.
81	Davis, John P.
88	Dean, Gary L.
*192	Deppen, James A.
150	Dingwell, Gale L.
77	Elig, Marc V.
182	Ertsgard, James M.
162	● Eskridge, John L.
92	Fewins, Gary A.
43	Fisher, William A.
158	Fitzgerald, Jeffrey
93	Fitzmaurice, Michael
157	● Freitas, Alexander
16	Fridelle, Anthony
39	Fuller, Brian R.
168	Gallo, Jeffrey W.
139	Gambino, Roy G.
*193	Gant, Randall G.
79	+Genter, Keith D.
149	● Gilpin, Sean F.
52	Gladden, Charles T.
143	● Glover, Robert G.
49	Glowacki, Leonard F.
176	Goggin, Sean D.
102	Goggin, Thomas F.
109	● Goodman, George C.
95	Graham, Gary A.
133	Gray, Ronald D.
44	Grunow, Randy J.
73	Guidry, John S.
82	Gulker, Kelly D.
140	Hahn, Douglas C.
63	Hanberg, Richard W.
106	Hedges, John S.
189	Heinecke, John K.
83	● Hennies, David L.
90	Higgins, Sean M.
86	Hines, Tony A.
1	Hoban, Shawn J.
12	Holland, Donald E.
129	Hosey, James W.
128	Houser, Michael R.
136	Howard, Andrew S.
132	Hudson, Gregory A.
54	Inman, Gregory E.
53	Jenkins, Timothy E.
99	Johnston, William S.
70	● Keiffer, Robert P.
8	Kellersberger, Scott
108	Keshel, David J.
64	King, James M.
163	Knies, Bart
42	Koon, Joel L. Jr
153	Krueger, James F.
35	Kuehn, Melanie A.
164	+Larz, Timothy J.
107	Lasalle, Christopher
14	Lejeune, Walter R.
148	Lenander, Jon F.
58	Licholat, Michael J.
36	Loggins, Kenneth
4	Lutz, Lawrence S.
66	Lydic, Daniel A.
178	MacDonald, Patrick
26	Mallder, Clark D.
30	Malone, Terrell F.
160	Mann, Michael J.
146	Mann, Mitchell C.
144	Marcantel, James A.
19	Martin, Robert J.
75	McCann, Michael J.
68	McCoy, Phillip S.
17	McDougall, Timothy
130	McDunn, Todd R.
67	Meehan, John K.
61	Miller, David L.
98	Mineo, Charles Jr
3	Mittlebeeler, Michael
103	Miville, Phillip M.
76	Moore, Rucie J.
*190	Mordarski, Daniel J.
126	Mueller, Charles J.
13	● Murdock, Ivan S.
135	Murphy, Kevin W.
96	Nault, Forrest F.
112	Nestor, Joseph P.
186	Newsom, Gary H.
165	● Nickles, Ernest J.
59	Niklaus, Jeffrey A.
172	● Nolan, David F.
100	North, John D.
181	Nusbaum, Philip E.
137	● Nysewander, Michael
2	O'Leary, Stephen J.
21	Owens, Robert M.
142	Patterson, Brian C.
10	Payton, Artis C.
20	Pellegrino, Matthew
174	Perantie, Robert C.
51	Perkins, Thomas D.
173	Petrak, William J.
175	Petty, Sammy D.
171	● Phipps, Curtis R.
11	Pratt, John C.
45	Price, Wayne L.
179	+Quinones, Raymond A.
124	Ragland, Johnny R.
114	Rainier, Robert B.
104	● Rassega, Bradley E.
78	Reichard, Jeffrey A.
127	Riccio, Gabriel P.
105	Richardson, Michael
37	Rodrigues, John III
185	Rubio, Terry
*195	● Ryan, James C.
23	Sandberg, Charles J.
*198	Savage, Benjamin D.
169	Schmidt, William D.
155	Schuessler, Peter K.
122	Scott, Ernest A.
138	Sherwood, Phillip M.
97	Shores, Joseph P.
71	Simpson, Bryan K.
5	Slaton, Timothy W.
72	Smith, Clyde D.
9	Smith, Gordon P.
161	● Smith, Michael E.
*191	● Sparks, Kenneth R.
50	Stein, Paul R.
177	Stewmon, William B.
91	Taylor, Michael L.
28	Timmons, Lowell K.
184	● Todd, Richard D.
15	Tomczyk, Ted
141	Travis, Thomas G.
34	Turner, Gerhard P.
89	Turner, Michael E.
110	Twigg, Brian K.
48	● Vandeneng, Bruce
87	Wade, John A.
60	● Wagner, Jeffery L.
56	Waite, Robert A.
7	Ward, Thomas A.
123	Welch, Randolph A.
24	● Wells, Jeffrey M.
31	Wheeler, Craig S.
62	Williams, David
147	Wilson, Allen M.
156	Wilson, Brian L.
*194	Wolf, Gerald L. I
46	Woodyard, John W.
152	● Wortner, David E.
117	Wymann, Eric J.

TECHNICAL AVIATION Seq#	Name
125	● Autrey, Daniel R.
112	Chubboy, Marshall A.
165	Evans, Jimmie H.
74	● George, Harrison Jr.
84	Julien, Erasmus M.
85	Kaufman, Robert L.
7	Lewis, Robert J.
102	Lott, Patrick D.
8	Padilla-Morales, Victor
86	● Perkins, Stephen W.
3	Rosen, Jack S.
143	Scales, Ulysses J.
83	Scott, Thomas E.
62	Stewart, Steven D.
48	Wilson, Michael J.

* Below the Zone
● = AAAA Member
+ = Life Member

FY03 Acquisition Command Selection Lists

On April 4 the U.S. Total Army Personnel Command released the results of the fiscal year 2003 colonel and lieutenant colonel Acquisition Command selection and alternate selection lists. Congratulations to the following aviation basic branch Acquisition Corps officers.

FY 03 Colonel Acquisition Command Selection List

C4A — Acquisition Command
Cantor, Michael E., COL

C4A — Acquisition Command
(Alternate Selection List)
Chase, Deborah J., LTC●
Huff, Donald C., LTC●

FY 03 Lieutenant Colonel Acquisition Command Selection List

7A — Program Management/ Acquisition Command
Cavalier, Michael P., LTC●
Daugherty, Anne R., LTC
Openshaw, Shane T., MAJ+
Packard, Charles J., MAJ●
Potts, Anthony W., MAJ●
Stewart, Gregory E., LTC●
Thurgood, Leon N., MAJ
Tobin, Vincent M., LTC

A — PM/Acquisition Command
(Alternate Selection List)
Bleckley, Dennis R., LTC
Darrow, Keith R., LTC+
Haider, Michael K., LTC●
Jacobsen, Scott A., MAJ
Pelczynski, Anthony S., LTC●
Wills, Michael D., LTC●

The chief of staff of the Army has announced the assignment of the following officers:

MG William L. Bond, director of force development in the Office of the Deputy Chief of Staff, U.S. Army, Washington, D.C., to deputy for systems management and horizontal technology integration in the Office of the Assistant Secretary of the Army (Acquisition, Logistics and Technology), Washington, D.C., with a report date to be determined.

MG Charles H. Swannack, Jr., commander, Multinational Division(North), Stabilization Force-11, Task Force Eagle, Operation Joint Forge, to commanding general, 82nd Airborne Division, Fort Bragg, N.C., with a report date to be determined.

MG Robert Wilson, chief, Office of Military Cooperation, Egypt, Cairo, Egypt, to commanding general, 7th Infantry Division and Fort Carson, Colo., with a report date to be determined.

MG John R. Wood, director of strategy, plans and policy, Office of the Deputy Chief of Staff, G-3, U.S. Army, Washington, D.C., to commanding general, 2nd Inf. Div., Eighth U.S. Army, Korea, with a report date to be determined.

BG John R. Batiste, senior military assistant to the deputy secretary of defense, Washington, D.C., to commanding general, 1st Inf. Div., U.S. Army, Europe, and Seventh Army, Germany, with a report date to be determined.

BG Eric T. Olson, commandant of cadets, U.S. Military Academy, West Point, N.Y., to commanding general, 25th Inf. Div., Schofield Barracks, Hawaii, with a report date to be determined.

BG David H. Petraeus, assistant chief of staff for military operations, Stabilization Force (Sarajevo), Joint Headquarters Centre, Allied Command Europe, to commanding general, 101st Airborne Div., and Fort Campbell, Fort Campbell, Ky., with a report date to be determined.

BG Kenneth J. Quinlan Jr. is to become assistant chief of staff for military operations, Stabilization Force (Sarajevo). Quinlan is currently the V Corps chief of staff, U.S. Army, Europe, and Seventh Army, in Heidelberg, Germany.

BG Velma L. Richardson, deputy commanding general, Army and Air Force Exchange Service, Dallas, Texas, to deputy commanding general, U.S. Army Network Enterprise Technology Command, Alexandria, Va., with a report date to be determined.

COL Charles A. Cartwright, assistant deputy for systems management and horizontal technology integration, Office of the Assistant Secretary of the Army (ALT), Washington, D.C., to deputy chief of staff for research, development and acquisition, U.S. Army Materiel Command, Alexandria, Va., with a report date to be determined.

COL Timothy P. McHale is set to become assistant chief of staff (C-4, J-4 and G-4), United Nations Command, Combined Forces Command and U.S. Forces, Korea, and deputy commanding general for support for Eighth U.S. Army, Korea. McHale is currently executive officer to the director for logistics, J-4, Joint Staff, Washington, D.C.

COL Rosemary Loper, currently the deputy chief of staff for training for the 70th Reserve Support Command at Fort Lawton, Wash., is to be promoted to brigadier general and assigned as the 70th RSC's deputy commanding general.

COL Matthew C. Matia, currently commander of the assigned as the Army Reserve's 244th Theater Aviation Brigade at Fort Sheridan, Ill., will be promoted to brigadier general and assigned as deputy commanding general for mobilization and training for the Combined Arms Support Command and Fort Lee, Va.

LTC William K. Miller, currently an instructor at the Center for Army Leadership at Fort Leavenworth, Kan., is to assume command of the 1st Battalion, 11th Aviation Regiment (Air Traffic Services) from LTC Benjamin Williams on June 26th at Fort Rucker, Ala. Williams, who has commanded the battalion since July 17, 2000, moves on to a joint assignment with the U.S. Air Force's Air Command and Staff College at Maxwell AFB, Ala.

COL Edward J. Sinclair, deputy assistant chief of staff, C-5/J-5, United Nations Command/Combined Forces Command/U.S.Forces Korea, Korea, to assistant division commander, 101st Abn. Div., Fort Campbell, with a report date to be determined.

CY02 MASTER SERGEANT, PROMOTION BOARD RESULTS

On April 25 the U.S. Total Army Personnel Command released the results of the calendar year 2002 active component master sergeant promotion board results. The aviation branch had 138 senior NCOs in 11 MOSs selected for promotion. AAAA congratulates the following aviation soldiers.

NAME	PMOS	RMOS	SEQ#
Adams, Randolph L.●	67R4	67Z5	0018
Brown, Vernon C.	67R4	67Z5	004
Clowser, Micheal H.	67R4	67Z5	0097
Couturier, Andrew S.	67R4	67Z5	0022
Dicicco, David F.	67R4	67Z5	0033
Edsall, Timothy A.	67R4	67Z5	0020
Holt, Carter L.	67R4	67Z5	010
Land, Roy S. I.●	67R4	67Z5	0021
Lemke, Richard B.	67R4	67Z5	0073
Powell, Donald J.	67R4	67Z5	0035
Romero, John F.	67R4	67Z5	0016
Swenson, Carl H.	67R4	67Z5	0101
Ward, Sean P.	67R4	67Z5	0096
Bogus, Charles E.	67S4	67Z5	0054
Garcia, Adam	67S4	67Z5	0039
Gonzalez, Frank W.	67S4	67Z5	0014
Hilderbrand, Scott	67S4	67Z5	0053
Howard, David Jr	67S4	67Z5	0072
Martellcarbo, Osval	67S4	67Z5	0064
Ott, Douglas A.	67S4	67Z5	0041
Perkins, Donavon E.	67S4	67Z5	0061
Pitkus, Eric S.	67S4	67Z5	0114
Ruhser, Brett A.	67S4	67Z5	0078
Singell, Stanley D.	67S4	67Z5	0111
Stidham, Stephen A.	67S4	67Z5	0034
Bautista, Alexander	67T4	67Z5	0095
Carnes, Gary M.	67T4	67Z5	0058
Cox, Gary W.	67T4	67Z5	0010
Dickinson, Martin D.	67T4	67Z5	0029
Friend, Roy E.	67T4	67Z5	0027
Haligowski, Robert	67T4	67Z5	0040
Hughes, Joseph M.	67T4	67Z5	007
McDonald, Ralph L.	67T4	67Z5	0028
Nickel, Roger J.	67T4	67Z5	0066
Nidiffer, Timothy S.	67T4	67Z5	0060
Platt, William L.	67T4	67Z5	0036
Price, Samuel P.	67T4	67Z5	0055
Quarterman, Stacy E.	67T4	67Z5	0067
Ridlehoover, William	67T4	67Z5	0098
Rose, Arthur III	67T4	67Z5	0068
Sellers, James D.	67T4	67Z5	0105
Sheehan, Bryan G.	67T4	67Z5	0063
Smith, Steven D.	67T4	67Z5	0071
Sullivan, Richard I.	67T4	67Z5	0099
Thomas, Timothy P.●	67T4	67Z5	001
Thompson, Miguel H.	67T4	67Z5	0070
Vanvleck, Robert A.	67T4	67Z5	0030
Webb, Philip R.	67T4	67Z5	0057
Whitney, Scott F.	67T4	67Z5	0104
Williamson, Jonathan	67T4	67Z5	0042
Day, Lester R.	67U4	67Z5	0081
Dejesus-Colon, Omar	67U4	67Z5	0079
Lange, Randy J.	67U4	67Z5	0103
Litteral, James R.	67U4	67Z5	0088
Oneal, Terrance W.	67U4	67Z5	0082
Rodarte, Frankie R.	67U4	67Z5	0013
Sepulveda, Samuel	67U4	67Z5	0102
Shontz, Walter C.	67U4	67Z5	0050
Shreder, Damian M.	67U4	67Z5	0052
Sikes, William G.	67U4	67Z5	0094
Solorosado, Estevan	67U4	67Z5	0109
Wagner, David M.	67U4	67Z5	0062
Wilson, Richard Jr	67U4	67Z5	0083
Anderson, Greg A.	68K4	67Z5	0084
Ayer, David P.	68K4	67Z5	0085
Bailey, Scott A.	68K4	67Z5	0026
Bedell, James R.	68K4	67Z5	0089
Berrios, Powell L.	68K4	67Z5	0080
Burnett, Scott D.	68K4	67Z5	0037
Clapp, Brian A.	68K4	67Z5	0044
Clark, Jon T.	68K4	67Z5	006
Davis, Arlie S.	68K4	67Z5	0025
Disotell, James W.	68K4	67Z5	0048
Dowling, Michael G.	68K4	67Z5	0024
Echevarria, Israel●	68K4	67Z5	0051
Escalera, Carlos	68K4	67Z5	0093
Fausz, Wayne A.	68K4	67Z5	0106
Grumbach, Mark W.	68K4	67Z5	0045
Hagins, Bobby R.	68K4	67Z5	0069
Headley, Kenneth O.	68K4	67Z5	0059
Henry, Hepston H.●	68K4	67Z5	002
Jeansonne, Dale M.	68K4	67Z5	0011
Kirby, Joseph W.	68K4	67Z5	0091
Kuhn, Ronald E.	68K4	67Z5	0046
Little, Bobby J.	68K4	67Z5	0090
Mabrey, Robert O.	68K4	67Z5	003
Marshall, Raphael A.	68K4	67Z5	0077
Moen, Todd C.	68K4	67Z5	0108
Morris, Patrick J.	68K4	67Z5	0087
Nall, David C.	68K4	67Z5	0065
Nowlin, Troy E.	68K4	67Z5	0076
Paulson, Jeffrey S.	68K4	67Z5	0110
Peeler, Lance C.	68K4	67Z5	008
Raymond, James K.	68K4	67Z5	009
Sickel, Franklin W.	68K4	67Z5	0107
Smith, Eric D.	68K4	67Z5	0092
Stover, Carl	68K4	67Z5	0023
Tillman, Stephen D.	68K4	67Z5	0113
True, Christopher	68K4	67Z5	0074
Weaver, Ronald V.	68K4	67Z5	0047
Agnew, Jonathan W.	68S4	67Z5	0043
Duncan, Alexander J.	68S4	67Z5	0032
Herron, Edward L.	68S4	67Z5	0056
Robinson, Neil A.	68S4	67Z5	005
Wallace, Frank A.	68S4	67Z5	0038
Gonzalez-Rodriguez	68X4	67Z5	0019
Jindrich, Edward St	68X4	67Z5	0112
Jones, Duwayne D.	68X4	67Z5	0049
Lee, Trefus E.●	68X4	67Z5	0015
Rea, Jose L. Jr	68X4	67Z5	0017
Williams, Johnnie C.	68X4	67Z5	0031
Hagan, Eric D.	68Y4	67Z5	0075
Holder, Al R.	68Y4	67Z5	0012
MacCartney, Kenneth	68Y4	67Z5	0086
Armstrong, Timothy	93C4	93P5	006
Blair, Patrick A.	93C4	93P5	0020
Fox, Bryan L.	93C4	93P5	0011
Gill, Joseph T.	93C4	93P5	004
Griffin, Bobby L.	93C4	93P5	0017
Hampton, Mark J.●	93C4	93P5	009
Henecke, Lori A.	93C4	93P5	007
Lameka, James O.	93C4	93P5	0019
McDuffie, Billy J.	93C4	93P5	0018
Starr, Jay A.	93C4	93P5	0016
Sutton, Flora M.	93C4	93P5	0010
Gonzalez-Pabon, Carl	93F4	13Z5	0069
Cafiero, Edward	93P4	93P5	0012
Elizondo, Carla	93P4	93P5	003
Flores, Augustine	93P4	93P5	0013
Gallagher, James T.	93P4	93P5	001
Henthorne, Harlan R.	93P4	93P5	008
Hickman, William A.	93P4	93P5	0021
Jones, Shawn L.	93P4	93P5	0022
Kozlowski, Kandi L.	93P4	93P5	0014
Osborne, Robert	93P4	93P5	005
Perez, Maria M.●	93P4	93P5	0023
Smith, Thomas J.	93P4	93P5	0015
Terry, David L.	93P4	93P5	002

● = AAAA Member
+ = Life Member

AAAA NEWS

It is with sadness that we note the death on Feb. 2 of **LTC Arthur W. Barr (Ret.)**.

A widely known and highly respected Army aviator, Barr saw combat duty in both World War II and the Korean War. During the latter conflict he was the personal pilot for GEN Douglas MacArthur, GEN Matthew Ridgeway and GEN Charles D. Palmer. After WW II Barr took part in Operation Sandstone, the nuclear weapons tests in the Marshall Islands, and he retired from active duty in 1962. He was a charter member of AAAA, and was inducted into the Army Aviation Hall of Fame in 1980.

Barr is survived by his wife, Grace Barr; his son, Arthur Barr Jr.; his daughter, Joan Johnson; two grandchildren and three great-grandchildren; and by his sister, Helen Metzger.

Inurnment with full military honors was held Feb. 8 at Fort Logan National Cemetery in Denver, Colorado.

New Chapter Officers

Colonial Virginia Chapter:
Mr. John M. Zimmerman, V.P. Programs.

Magnolia Chapter:
LTC Gregory L. Kennedy, President; CPT Walter G. Jordan III, V.P. Programs; CPT James B. Haynie, V.P. Membership.

Morning Calm Chapter:
CPT Jeffrey N. Ruch, Secretary.

Aces

The following members have been recognized as Aces for their signing up five new members each.

CW5 Lemuell E. Grant
COL Cecil B. Hengeveld, Ret.
CSM Jack H. List, Ret.
Ms. Mary M. McCown
MAJ William W. Merrell
Mr. Fernando Pitre
CPT Cory J. Sena
CW3 John B. Sims

New AAAA Industry Members

Air Rover Inc.
Alloy Surface Company
CG 2 Inc.
C&S Antennas
ECS Composites
EDS PLM Solutions
Isodyne Inc.
Martin-Baker America, Inc.
Navigator Development Group

AAAA Soldier of the Month

A Chapter Program to Recognize Outstanding Aviation Soldiers on a Monthly Basis

SGT Ronald M. Steele
April 2002
(Tennessee Valley Chapter)

PFC David M. Tatone
April 2002
(Tennessee Valley Chapter)

PV2 Loniel Greene, Jr.
Mayl 2002
(Tennessee Valley Chapter)

CW2 Douglas Lynn Jones
May 2002
(Oregon Trail Chapter)

E-6 David L. Sherrick
May 2002
(Indiantown Gap Chapter)

SSG John F. Esch
June 2002
(Oregon Trail Chapter)

CPL Robert T. Kells, Jr.
June 2002
(Narragansett Bay Chapter)

New AAAA Life Members

CPT Michael J. Burns
LTC William H. Dawson
Mr. Jeremy D. J. Fox
MG Anthony R. Jones
Mr. Gregg I. Milberg
Mr. Gilbert Perez

New AAAA Order of St. Michael Recipients

MG Carl H. McNair, Jr. (Gold)
Elmer Wilson (Silver)
COL David S. Pate (Silver)
Darrell L. Harrsion (Silver)
COL Rodney F. Dyer (Bronze)
Jerry B. Perkins (Bronze)
CW4 Robert Graber (Bronze)
CW4 Robert L. Huffman (Bronze)
MAJ Gregory W. Golver (Bronze)
CW5 John Marcinowski (Bronze)
CPT Jason R. Kirkpatrick (Bronze)
MSG William E. Gibson (Bronze)
CW5 Michael J. Chandler (Bronze)
CW5 Charles W. Weigandt (Bronze)
LTC Stephen M. Schiller (Bronze)
1SG Warner J. Brandenburg (Bronze)
CW3(P) Gabriel P. Riccio (Bronze)
1SG Terrence P. Skumautz (Bronze)
CW3 Paul E. Kuhr (Bronze)
1SG Darrell E. Wallace (Bronze)
CW4 Kenny Loggins (Bronze)
MAJ Jerold Bastian (Bronze)
CW4 Jeffrey Wagner (Bronze)
CPT Carlos J. Brown (Bronze)
LTC Thomas W. Shea (Bronze)
CW4 Michael E. Weist (Bronze)
MAJ Joseph G. Eckert (Bronze)
MAJ R. Neal David (Bronze)
CW4 Gary S. Wiegand (Bronze)
CW3 James P. Cook (Bronze)
Edward Carnes (Bronze)
Theodore Sendak (Bronze)
Joseph Pisano (Bronze)
Bruce Davis (Bronze)
MSG Michael J. Grant (Bronze)
SSG Douglas W. Schwab (Bronze)
CPT Richard E. Westermeyer (Bronze)
CW2 David P. Sheppard (Bronze)
CW4 William O. Jewell (Bronze)
CW3 Olin Ashworth (Bronze)
CW3 Zachary Q. Noble (Bronze)
CSM Angel L. Camacho-Colon (Bronze)
MAJ M. Ray Alford (Bronze)
CW3 Bradley D. Hakel (Bronze)
Bonnie Hirtle (Bronze)
CW4 Peter C. Oswald (Bronze)
CW4 Gary A. Mills (Bronze)
CW3 Craig Richardson (Bronze)
MAJ Brian P. Shoop (Bronze)
CW5 Kenneth T. Shannon (Bronze)
MAJ James H. Garner (Bronze)
SFC Jayme D. Johnson (Bronze)
MAJ Forrest L. Carpenter (Bronze)
CPT John F. Buergler, Jr. (Bronze)
CPT Anthony A. Meador (Bronze)
MAJ Daniel A. Wilson (Bronze)
MAJ Edward D. Jennings (Bronze)
CPT John M. Hinck (Bronze)
CPT James D. Rouse (Bronze)
COL William O. Odom (Bronze)
SFC Steven Harris (Bronze)
CW3 Paul P. Letson (Bronze)
CW4 Retsae Miller (Bronze)
CW4 Paul F. Williams (Bronze)
CW4 Terrell Malone (Bronze)
CW3(P) Johnny R. Ragland (Bronze)
CW3 Jeffrey A. Damrow (Bronze)
MAJ Manfred L. Little (Bronze)
CW5 Dale Miller (Bronze)
1SG Gregory Miller (Bronze)
CW5 Richard Fry (Bronze)
CW3 Mark Patton (Bronze)
CW4 Bradley Rassega (Bronze)
CW2 Christopher Chance
SGM James Grimsley (Bronze)
SFC Chris Johnson (Bronze)
SFC Jimmy Martin (Bronze)
CW3 Darryn Dela Vega (Bronze)
1SG Billy Jarrell (Bronze)
CW3 Michael LaGrave (Bronze)
1LT Eric T. Trocinski (Bronze)
1LT Stuart A. Campbell (Bronze)
MAJ Lissa V. Young (Bronze)
CPT Dwayne T. Stanton (Bronze)
LTC Charles F. Fields (Bronze)
LTC James Richardson (Bronze)
LTC Richard Stockhausen (Bronze)
LTC Michael N. Clawson (Bronze)
LTC Samuel Torrey (Bronze)
CSM William Allen (Bronze)
MAJ Donald N. Galli (Bronze)
CSM Charles L. Douglas (Bronze)
CW5 Nick J. Garcia (Bronze)
CW4 Ryan B. Newman (Bronze)
CW4 David E. Walls (Bronze)
CW4 Mark E. Shaugnessy (Bronze)
1SG Mark A. Kolesar (Bronze)
1SG Timothy Bridges (Bronze)
1SG Bobby Reynolds, Jr. (Bronze)

Lost Members

Help us find our Lost Members. We'll give you an additional month on your AAAA membership free for each member you help us locate. Simply write, call or E-mail us with the Lost Member's current address. AAAA, 755 Main Street, Suite 4D, Monroe, CT 06468-2830. Tele: (203) 268-2450; FAX:(203) 268-5870; E-Mail: aaaa@quad-a.org.

Barlow, Matt P., 1LT
Barr, Jackie, Mr.
Bean, James C., 2LT
Benedict, Timothy G., WO1
Cody, Clinton R., 2LT
Danelson, Steven M., 2LT
Ferguson, Daryl A., 2LT
Fluegeman, Dave, Mr.
Heins, Todd A., CPT
Hester, Jason L., CPT
Hollingsworth, Kevin E., SFC
Jenkins, Jason H., WO1
Johnson, Ronald W., LTC, Ret.
McEnulty, Tim E., Mr.
O'Neil, Christian, CW3
Ramirez, Jesus G., LTC
Schneider, Peter L., 2LT
Weaver, Ryan B., WO1

Attention AAAA Members!!!

Send us your name and E-mail Address

AAAA National Office
755 Main St., Ste. 4D
Monroe, CT 06468
Tel: 203-268-2450

LEGISLATIVE REPORT

COL Sylvester C. Berdux Jr., (Ret.)
AAAA Representative to The Military Coalition (TMC)

House OKs Authorization Act

The full House of Representatives voted 359 to 58 to approve its version of the FY 2003 Defense Authorization Act (H.R. 4546).

The basic bill incorporates several important initiatives, including:

- A pay raise of 4.1 percent to 6.5 percent for active, Guard and Reserve forces, depending on the member's grade and years of service, and a requirement for the Department of Defense (DOD) to report to Congress on how it plans to restore pay comparability with private-sector workers;
- A phase-out of the disability offset to military retired pay for retirees with 20 or more years of service and disability ratings of 60 percent or higher; and
- A requirement for the DOD to report to Congress on needed changes to Guard and Reserve personnel and compensation programs (including retirement) to better reflect the increased reserve component role in today's national defense mission.

During floor action on the Defense Authorization Act, the House approved an amendment offered by Veterans Affairs Committee Chairman Chris Smith (R-NJ) that would, among other things:

- Create a permanent joint DOD/VA committee to provide oversight and strategic leadership to sharing of health-care resources between the two agencies;
- Set up an incentive program to encourage and fund creative ideas to share health resources between DOD and the VA;
- Establish a five-site demonstration project to test coordination and sharing of management systems and facilities; and
- Authorize a two-site pilot project permitting DOD and VA beneficiaries to use each others' pharmacy facilities to obtain medications.

The Military Coalition (TMC) and The Retired Officers Association (TROA) support coordination (not integration) of health services between the two agencies, as stated in our testimony before the House Armed Services Personnel Subcommittee and the House Veterans Affairs Committee. We endorse the plan to develop joint strategic plans and vision.

However, TMC and TROA continue to be concerned about access for beneficiaries of both agencies. Many VA facilities already experience unacceptably long waiting times for beneficiary appointments. This chronic problem must be fixed, and DOD's much stricter access standards must be followed in any plan to have VA facilities provide care to DOD beneficiaries. Finally, any use of VA facilities must be voluntary, not required, for DOD beneficiaries.

Senate Committee Panel Approves Defense Bill

The Senate Armed Services Committee completed action on its own version of the FY 2003 Defense Authorization Act (S. 2225). In a separate measure, it set the stage for the full Senate to adopt legislation authorizing full concurrent receipt of military retired pay and VA disability compensation.

As approved by the Committee, S. 2225 contains provisions similar to those in the House bill concerning the military pay raise and study of Guard/Reserve personnel and compensation programs.

On concurrent receipt, the Committee approved two separate actions. Its language in S. 2225 adheres to the funding guidance approved earlier by the Senate Budget Committee. Like the House-approved legislation, it provides for a five-year phase-out of the disability offset to uniformed services retired pay for members otherwise eligible for nondisability retirement and who have disability ratings of 60 percent or higher.

As envisioned by the Budget Committee, S. 2225 proposes a Jan. 1, 2003, start date (vs. the Oct. 1, 2002, date approved by the House). It also envisions somewhat different phase-out rules for 2003 to 2006, but like the House bill would eliminate any offset for these qualifying severely disabled retirees as of FY 2007.

But the Senate Committee took an additional step — approving a "full concurrent receipt" Committee amendment that will be offered once the bill reaches the Senate floor. This amendment would completely eliminate any disability offset to retired pay for all disabled retirees who were eligible for nondisability retirement, regardless of disability rating, effective Oct. 1, 2002.

We're gratified by this very important show of support. With 82 percent of senators on record in support of full concurrent receipt, there is little doubt that the full Senate will endorse the proposed amendment. Then, it will be up to a House/Senate conference committee to decide between the House and Senate proposals.

Administration Still Opposed to Concurrent Receipt

Every administration in the past has opposed legislation to eliminate the VA disability offset to military retired pay, and the current one did so twice last year. So it came as no surprise when a May 9 White House letter to Congress listed "concurrent receipt" as one of about a dozen provisions it objected to in H.R. 4546.

The letter objected that "no one should be able to receive concurrent retirement benefits and disability benefits based upon the same service" and that the provision "would increase mandatory outlays by $18.5 billion from 2003 to 2012." But both Armed Services Committees knew of the White House objections before approving the bill, and there seems little danger of any congressional reversal.

As for fears of a possible veto, the letter mentioned only one issue as likely veto bait — any restriction limiting the president's ability to cancel the Army's Crusader artillery system. There was no such mention in the concurrent-receipt paragraph.

In fact, the last sentence of that paragraph stated, "The Administration also opposes any future expansion of the provision." That's a tacit acknowledgement that there's going to be some action this year.

It's too early to be worrying about any veto possibility. We first need to get the full concurrent-receipt provision passed in the Senate, and then convince the House to agree to it. It's going to be at least a couple of months before any bill gets to the president.

Senate Panel Hears Health Testimony

The assistant secretary of defense for health affairs and the service surgeons general were among key witnesses at a May 8 hearing before the Senate Defense Appropriations Subcommittee. Committee Chairman Daniel Inouye (D-HI) opened the hearing by complimenting the services' response to the Sept. 11 attacks in New York and Washington, and praising their medical support of Operation Enduring Freedom. He went on to express concern whether current bonuses and other incentives were sufficient to attract and retain the necessary military medical staff.

Inouye asked the witnesses if the Bush Administration's FY 2003 budget adequately funded their medical missions. He wanted to know if they would seek supplemental funding later in the year. All witnesses said the projected funding would be adequate and foresaw no need for supplemental funding.

During questioning, Inouye noted that Medicare rates had been reduced by five percent in January due to the Balanced Budget Act of 1997. He asked Dr. Winkenwerder if TRICARE had reduced its payments too and whether TRICARE patients experienced any problems because of the cuts. Winkenwerder acknowledged that TRICARE payments to providers are reduced when Medicare payments are. He said TRICARE still has adequate numbers of providers, but said he would remain vigilant, especially for beneficiaries who reside in rural areas.

Both TMC and TROA believe there is, indeed, a problem with both Medicare and TRICARE reimbursement rates, and that increases are an essential part of any plan to enhance the number of providers willing to participate in TRICARE. TMC believes DOD's TRICARE provider totals don't adequately represent the problem from beneficiaries' perspective. Some locations have virtually no TRICARE-participating providers. In others, current TRICARE providers are refusing to accept new patients. For relocating families and newly retiring ones, this often poses a significant problem.

VA Begins Claims Processing Pilot Test

Last October a claim processing task force reported that VA veteran-services representatives working on claims had to understand and perform more than 10,000 separate tasks. All incoming claims were placed in the queue and worked when their turn came, regardless of their complexity.

In response, the VA is now conducting a pilot test using specialty teams. One team will separate claims that can be processed in a day or two and will route more complex claims to specialized appeals or award-action teams. A public-contact team will provide customer service to veterans who walk in, write or e-mail the office about their claims.

Beneficiary Counseling and Assistance Coordinators

The Beneficiary Counseling and Assistance Coordinator Program (BCAC) is a congressionally mandated initiative, implemented by the TRICARE Management Activity to improve customer service and satisfaction, enhance beneficiary education and help reduce the volume of Congressional inquiries from beneficiaries. The FY 2000 National Defense Authorization Act mandated the establishment of BCAC positions, full time at lead-agent offices and collaterally at military treatment facilities worldwide.

Personnel assigned as BCACs act as a preventive mechanism for troubleshooting (and resolving) issues and concerns pertaining to TRICARE and the military health-care system. An online, continuously updated BCAC directory is available at **www.tricare.osd.mil/tricare/beneficiary/BCACDirectory.htm.**

Alzheimer's Coverage Updated

The Centers for Medicare and Medicaid Services (CMS) has clarified the coverage for Alzheimer's disease to clarify how Medicare processes claims for Alzheimer's patients. On Sept. 1, 2001, Medicare contractors were informed they could no longer automatically deny claims based solely on the Alzheimer's diagnosis.

This did not guarantee that all claims for Alzheimer's patients would be paid. Instead, Medicare contractors are instructed to review these claims based on the beneficiary's overall medical condition. This means that Medicare may pay for speech, occupational and rehabilitation therapies for people with Alzheimer's, including mental-health services.

If you have a question about a claim, contact the Medicare contractor that processed the claim. Their contact number is on your Medicare Summary Notice (MSN), or you can visit the helpful contacts section of the Medicare website, **www.medicare.gov.**

AAAA NEWS

House Panel Clears DIC Remarriage Bill

H.R. 4085, approved by the House Veterans Benefits Subcommittee, would allow the surviving spouses of veterans who died of service-connected causes to keep their VA benefits if they remarry at age 65 or older. These benefits include a VA survivor annuity (Dependency and Indemnity Compensation, or DIC), eligibility for CHAMP VA medical care, education and housing-loan benefits. Those surviving spouses who remarried after age 65 prior to enactment of the bill would have one year from the date of the new law to reapply for benefits.

H.R. 1108, sponsored by perennial DIC champion Rep. Mike Bilirakis (R-FL), would allow DIC continuance if the remarriage occurred after age 55. But subcommittee members could not find the necessary funds and elected to pursue the age-65 initiative as a first step, in hopes of additional future action to cover survivors remarrying after age 55. We believe this is a significant step toward the equity principle that the Gold Star Wives, TMC partners, TROA and other groups have sought for years. In all other federal agencies' survivor-annuity programs, widows remarrying at age 55 or older do not lose their survivor benefit.

The bill, as amended by the Subcommittee, also authorizes a full-inflation cost-of-living adjustment (COLA) for all VA disability compensation and DIC annuitants, effective Dec. 1, 2002; equalizes VA home-loan fees for National Guard and Reserve servicemembers with other VA home loan fees; and increases VA home life insurance coverage, among other benefit improvements.

Frequent Flyer Regulations Become Final

The General Services Administration (GSA) has issued a final rule permitting federal employees to use frequent-flyer miles and other promotional benefits earned while on official travel to be retained for personal use. Previously, frequent-flyer miles that federal employees earned while they were on government travel were considered government property and could not be used by employees for personal travel. The new benefit is intended to help the federal government attract and retain a high-quality workforce.

The final rule is effective April 12, 2002, and applies to travel taken before, on or after Dec. 28, 2001, the date the legislation was signed into law.

Corpus Christi Chapter

Attendees at a recent engine summit included representatives from Naval Air Systems Command at Naval Air Station (NAS) Patuxent River, Md.; the 160th Special Operations Aviation Regiment (SOAR) at Fort Campbell, Ky., and Corpus Christi Army Depot (CCAD) private-industry partnerships.

Rear Adm. Steve Heilman, assistant commander for naval aviation depots, expressed his satisfaction with the exchange of information which occurred during the first day of the summit and said: "If I could, I'd like to take the majority of what I've heard here today and put it in place within the Navy."

Corpus Christi Mayor Lloyd Neal *(second from left)* visited the CCAD exhibit at the CCAD engine summit held last March. Mayor Neal addressed the summit attendees at the invitation of COL Jim Budney *(left, with back to camera)*. Also pictured are Jerry New *(second from right)*, CCAD director of maintenance, and Art Gomez *(right)*, CCAD business development office.

Rear Adm. John Boyington *(left)*, chief of Naval Air Training-NAS Corpus Christi, celebrates his new membership in AAAA with COL Jim Budney *(center)*, commander of CCAD and president Corpus Christi Chapter, and CW4 Jimmy Johnston (Ret.), the chapter's vice president for retired affairs, at the March social held at the Corpus Christi Bay Club.

We sadly note the May 4 death of **COL Samuel P. Kalagian (Ret.)**, a well-known and widely respected aviator, AAAA Life Member, AAAA Cub Club Member, two-time president of The Retired Officers Association and honorary commander of the 25th Aviation Regiment.

Kalagian began his 33-year military career as a World War II fighter pilot, scoring 2 1/2 victories in that conflict. As an infantry and aviation officer he later went on to serve in Korea, Germany, Hawaii, Vietnam, Italy and various Stateside assignments.

A master Army aviator, Kalagian earned the combat nickname "Black Sam the Armenian rug salesman" while commanding the 14th and 25th Aviation battalions in Vietnam, where he was shot down twice and received the Purple Heart.

Kalagian retired in 1976 and began a real estate career in Enterprise, Ala. He is survived by a son and daughter, four grandchildren and two great-grandchildren.

AAAA STATEMENT OF FINANCIAL POSITION AS OF DECEMBER 31, 2001

ASSETS	
Cash	$51,640
Cash Equivalents, Interest Bearing	574,915
Investments	317,237
Inventory of Pins	8,665
Inventory Order of St. Michael Medals	2,700
Prepaid Administrative Fees	227,234
Prepaid Expense and Other Assets	7,974
TOTAL ASSETS	**$1,190,365**
LIABILITIES	
Accrued Expenses and Allocations Payable	$60,239
Due to AAPI	42,614
Due to Foundation	25,000
Deferred Membership Dues	214,272
Deferred Convention Revenues	412,150
TOTAL LIABILITIES	**$754,275**
NET ASSETS	
Undesignated Fund	$4,768
Designated Emergency Fund	351,938
Order of St. Michael Fund	38,799
Washington, D.C. Office Fund	33,085
Audit Escrow Fund	7,500
TOTAL UNRESTRICTED NET ASSETS	**436,090**
TOTAL LIABILITIES AND NET ASSETS	**$1,190,365**

STATEMENT OF ACTIVITIES YEAR ENDED DECEMBER 31, 2001

REVENUES	
Membership Dues, Net	$273,603
Annual Convention	854,329
Order of St. Michael	13,977
Souvenirs	1,781
Investment (Loss) Income, Net	(27,344)
Affinity Card Income and Miscellaneous	2,052
TOTAL REVENUES	**$1,118,398**
EXPENSES	
General and Administrative	359,583
Chapter Programs	50,240
National Programs	62,446
National Board Activities	11,418
Annual Convention	549,908
AEC Symposium	-
AAAA Scholarship Foundation Donation & Expenses	51,864
Order of St. Michael	901
Hall of Fame	21,758
Special Allocations	64,445
Miscellaneous	2,092
TOTAL EXPENSES	**$1,174,655**
Change in Net Assets	**(56,257)**
Net Assets— Beginning	**492,347**
Net Assets — Ending	**$436,090**

The Financial Statements have been audited by Friedberg, Smith & Co. PC Certified Public Accountants

NEW MEMBERS

AIR ASSAULT CHAPTER
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CSM Ralph R. Alcendor
CSM William E. Allen
SSG William E. Anthony
SFC Todd D. Barks
CSM Kenneth R. Barnett
MAJ William E. Bohman
Mr. Raymond Cardinal
SPC Joseph S. Castaldo
SFC Steve R. Center
CW3 Brian K. Charles
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CPT Matthew A. Crouch
CPT Andrew A. Davis
CW3 Christopher M. Delao
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CW4 Frank T. Ferraiuolo
SPC Jonathan N. Fessenden
PFC Travis K. Furst
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Ms. Laura Hadley
Mr. Wade Hadley
Mr. William W. Hadley
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SGT Jason R. Jennings
CW4 Ronnie L. Johnson
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CW2 Jeffrey S. Lamprecht
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SSG Kimberly A. Malacarne
SPC Amy L. Martinez
1SG Dexter I. McMillon
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CSM Michael A. Monahan
CW2 Andrew J. Nelson
PV2 Salena L. Oliver
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Mr. Ronald C. Perry
CPT Terry D. Phillips, Jr.
CW4 Francis T. Pollard
Mr. Robert F. Price, PhD
SSG Roger W. Ramsey
SFC Tina M. Ramsey
LTC Laura J. Richardson
2LT Rizwan A. Shah
MAJ Brian W. Smalley
CPT Kenric M. Smith
Mr. David Staples
Ms. Mary Staples
CW2 Michael J. Vidoloff
CW2 Jeff R. Wellington
CW2 Jennifer M. Wellington

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HONOLULU, HI
CW3 Mark E. Patton

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MESA, AZ
Mr. Michael J. Callahan
Mr. Ejevon R. Lewis
CW3 Martin E. Mattern
Mr. Marvin C. Willis

ARMADILLO CHAPTER
CONROE, TX
1LT Meagan A. Bryant
CW4 Stephen L. Crowell
CPT(P) David A. Edson
SSG Michael A. Rookstool

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2LT Jason E. Anderson
2LT Cody J. Atchison
WO1 Paul J. Averett
WO1 Jay A. Bachman
WO1 Josh C. Bare
WO1 Christian W. Beck
WO1 Christopher G. Bell
CW4 James A. Bell, Ret.
WO1 Robert R. Bergeron
WO1 Wesley R. Berry
CW3 Damon E. Bostick
2LT William D. Brice
Mr. William S. Brookins
WO1 Roberto O. Buelna
WO1 Donald E. Bullock
2LT Pio Raoul N. Castro
2LT Tyon B. Castro
MAJ Jeffery Cheeks
2LT Michael Cirimele
2LT Matthew E. Cole
2LT Charles J. Constantine
WO1 Patrick A. Contreras
CW4 John H. Converse
WO1 Richard L. Crabtree
2LT James D. Crill
2LT Tony Deiss
CW5 Angel S. Delacruz, Ret.
WO1 Jeffry H. Epperson
CW3 Brian E. Erickson
WO1 Steven D. Farabaugh
WO1 Russell A. Ferrell
WO1 Michael S. Gibson
WO1 Jamie L. Gordon
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2LT Matthew J. Halko
LTC Werner K. Hellinger
WO1 Steven W. Helmandollar
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WO1 Vincent A. Hough
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2LT Deirdre J. Ziegenhagen

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CW5 Roger D. Engle
CPT Grant S. Fawcett
CPT Hise O. Gibson
MAJ Robert M. Glenn
MSG Daniel Hernandez
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SFC Timothy T. Lowery
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SGT Annie D. Womack

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CPT Christopher C. Ostby

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FORT SAM HOUSTON, TX
Mr. Bill Harrison

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SGT Ralph C. White, Jr.
SGT Clifton B. Whitted

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CPT Jeffrey N. Ruch

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CDT James B. Reynolds

AAAA NEWS

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CPT Steven S. Swanson

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SSG Rick E. Boyden
CW2 Michael D. Brown
Mr. Brad W. Fennell
Mr. Jerry T. Knight
Mr. John F. McGee III

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OLD TUCSON CHAPTER MARANA, AZ
CSM Kevin K. Herzinger
MAJ John D. Stahl

OREGON TRAIL CHAPTER SALEM, OREGON
SSG John F. Esch

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CSM Dale W. Garrett
Mr. Chester R. Magee III
CSM Donald R. Sanders
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CW2 Todd G. Peterson

RAGIN' CAJUN CHAPTER FORT POLK, LA
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CSM Kenneth R. Wagner

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CPT Whitney B. Gardner

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Mr. Lawrence N. Rogers

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COL Albert E. Bryant, Ret.

TARHEEL CHAPTER RALEIGH, NC
Mr. Dan Claiborne
Ms. Judy Umeck

TAUNUS CHAPTER WIESBADEN, GERMANY
CPT Erik G. Rude

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Mr. Don G. Thompson
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Mr. George B. Williams
Mr. James A. Yeske
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Ms. Nicci Ziyenge

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Mr. Stephen C. Moss
Mr. James R. Rivera
MAJ Wayne S. Simoni
Mr. Chris Snyder
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COL Roderick A. Taylor, Ret.
Mr. Bill Whittington

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WINGED WARRIORS CHAPTER SOTO CANO AB, HONDURAS
SFC Wallace B. Clore IV

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SPC Justin Hood
SGT Cesar Uribe

WRIGHT BROTHERS CHAPTER COLUMBUS, OHIO
Mr. David G. Robinson

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CAPT Akam Alghazal Suwaidi
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Ms. Christy Bachich
Mr. Neil H. Baker
MAJ Dave J. Barrios III
Ms. Claire Barth
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Ms. Elizabeth Holliday
MAJ John W. Hood, Ret.
Mr. Arthur D. James
Mr. James Jamieson
MAJ Andrew D. Jones
CW3 Kenneth S. Jones
CW4 Matthew S. Krutzfeldt
CW3 Reginald L. Lane
Mr. Raymond L. Larkin
Mr. Neil A. Mackay
Mr. Michael Malone
Ms. Marina Martyusheva
Mr. Thomas M. McAfee
Mr. James R. McMillan
CW4 John M. Metcalf
1SG Bruce C. Moore
Mr. George Morgan
Mr. Charles A. Naso
CW2 Charles D. Ott
Mr. Charles Phy
CW4 Michael R. Randall
Mr. Donald M. Reedy
CW4 Gregory A. Rogers
CAPT Rob Sceviour
Ms. Halina Sejdak-Rydel
MAJ John A. Sherman
COL Peter C. Simpson
1LT John J. Slattery, Ret.
Mr. Graham S. Smith
LTC James P. Smith, Ret.
1LT Joseph D. Smith
Ms. Fran Stiles
Mr. Jack Stiles
Ms. Kelly Stiles
Mr. Robert G. Syring
SGT Dom C. Thomas, Ret.
Mr. Mark Van Berkel
CPT Shawn E. Vaughn
LTC Michael F. Wallace
MAJ William R. Welsh, Ret.
Mr. Paul F. Whitten, Sr.

- **Jul. 7.** The Vietnam Helicopter Pilots Assoc (VHPA) 19th Annual National Reunion. Contact Don Joyce 407-870-5367.
- **Jul. 17-21.** Reunion — Association 3rd Armored Division Veterans, Louisville, KY. Contact Carl Erickson (301) 299-7307, Astridcarl@aol.com.
- **Jul. 19.** AAAA Scholarship Executive Committee Meeting, National Guard Readiness Center, Arlington, Va.
- **Jul. 20.** AAAA Scholarship Selection Committee Meeting, National Guard Readiness Center, Arlington, Va.
- **Sep. 6-9.** National Guard Association of the U.S. (NGAUS) 124th Annual Conference and Exhibition, Long Beach, Calif. For information call (202) 789-0031 or visit following websites: **www.goldrush2002.org** or **www.ngaus.org**
- **Oct. 21-23.** AUSA Meeting, Marriott Wardman Park Hotel and the Omni Shoreham Hotel, Washington, D.C.
- **Oct. 21.** AAAA Scholarship Foundation Board of Governors Meeting, Marriott Wardman Park Hotel, Washington, D.C.
- **Oct. 21.** AAAA National Executive Board Meeting, Marriott Wardman Park Hotel, Washington, D.C.
- **Jan. 31-Feb. 1, 2003.** AAAA National Awards Selection Meeting, National Guard Readiness Center, Arlington, VA.
- **Jan. 31.** AAAA Scholarship Executive Committee Meeting, National Guard Readiness Center, Arlington, VA.
- **Apr. 9-12.** AAAA Annual Convention, Fort Worth, TX.
- **Jul. 18.** AAAA Scholarship Executive Committee Meeting, National Guard Readiness Center, Arlington, VA.
- **Jul. 19.** AAAA Scholarship Selection Committee Meeting, Naitonal Guard Readiness Center, Arlington, VA.

Army Aviation Hall of Fame

The Army Aviation Hall of Fame sponsored by the Army Aviation Association of America, Inc., recognizes those individuals who have made an outstanding contribution to Army aviation. The actual Hall of Fame is located in the Army Aviation Museum, Fort Rucker, Ala., where the portraits of the inductees and the citations recording their achievements are retained for posterity. Each month Army Aviation Magazine will highlight a member of the Hall of Fame. The next triennial induction will occur in the spring of 2004. Contact the AAAA National Office for details at (203) 268-2450

MG Richard E. Stephenson
Army Aviation Hall of Fame 2001 Induction

MG Richard E. Stephenson has made major contributions to the Army and Army aviation for more than 40 years as a combat aviator, logistician and retiree. Many of his innovations have had dramatic impact on Army aviation.

With his background in the research, development, test and engineering process, and his knowledge of the Army planning, programming and budgeting systems, he and the aviation branch chief developed the first Army Aviation Modernization Plan. This comprehensive effort led to organizational design improvements and improved working relationships among the many agencies involved in Army aviation. It also led to a 10-year plan of $45 billion, establishing clear priorities and resources for the Big Five aviation systems — Apache, Black Hawk, Chinook, Kiowa Warrior and Comanche. The success of this effort led to each Army branch being required to develop a modernization plan.

Again, while commanding the U.S. Army Aviation Systems Command, he reinvigorated the Army Aviation Safety Program with the branch chief, the Safety Center commander and the Department of Army staff. This led to less than two major aircraft accidents per 100,000 flight hours — the best aviation safety record in the Department of Defense.

Stephenson's outstanding contributions to Army aviation and aviation logistics had a very positive impact on the overwhelming success of Army aviation in one of its finest hours — Operations Desert Shield and Desert Storm.

During both active service and retirement Stephenson has been a leader in AAAA as two-time chapter president, chairman of the Awards Board, president of the Scholarship Foundation, secretary, treasurer, senior vice president and president of the National Executive Board, and as a prodigious fund raiser for the Scholarship Foundation.

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