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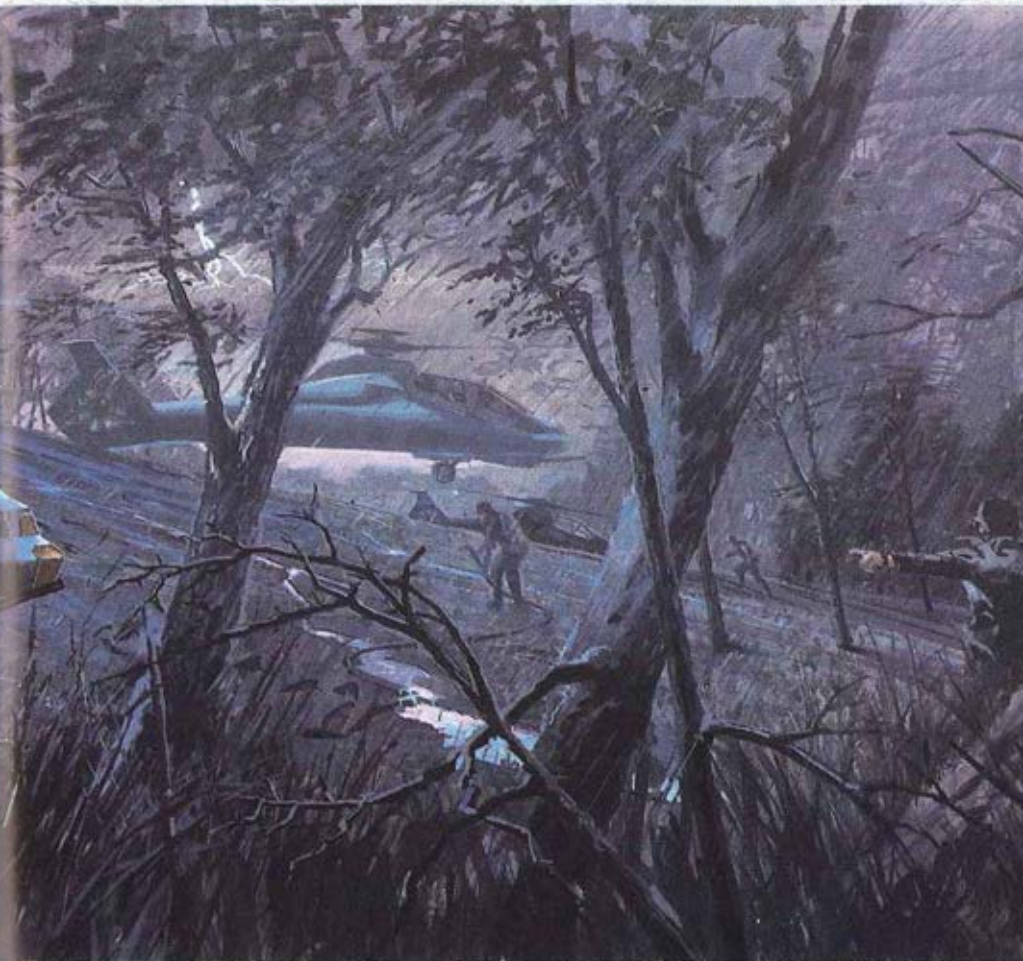
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Weapon System Management

By General William G. T. Tuttle, Jr.

I welcome this opportunity to tell you about one of the Army Materiel Command's major readiness initiatives and to thank members of the aviation community who have proven that it can work well.

For over 200 years, the Army has been challenged to

support its weapons efficiently and effectively so that they are fully mission capable. Because we acquired highly lethal and far more technically complex systems in the 1970s and 1980s, to include aviation systems, it has become more critical to devise a process that will give us quick system readiness indicators throughout the Army, the ability to anticipate and make rapid fixes, and a way to track how well the systems respond to those fixes. That process is weapon system management. Its fundamental assumption is that no matter how well engineered and tested a system

may be when fielded, there will be failures; engineering predictions are not always infallible.

First, let's consider

exactly what a weapons system entails. Our definition is broad, integrating all components that enable the prime item to perform its intended combat mission. The prime item could be a helicopter, tank, or missile system; but that prime item is of little use unless it's backed up by the tools, test equipment, and associated software required for repairs, technical manuals, the major items used with the prime item (communications, trucks, etc.), ammunition, and repair parts. We also include the people who operate, maintain, and sustain a weapon system—from factory to foxhole. As we prepare budgets and make decisions on weapon system supportability, deployment options, war reserve requirements, and mobilization contingencies, we need to consider all of the elements within this broad definition.

The beginning of the process of weapon system management is very simple in



GEN Tuttle is Commanding General, U.S. Army Materiel Command, Alexandria, Virginia.

HUNTER or PREY?

A large military helicopter, possibly a Black Hawk, is shown in a steep climb or maneuver against a clear blue sky with some light clouds. The helicopter is dark green and has various armaments and sensors mounted on its exterior. The perspective is from below, looking up at the aircraft.

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concept: to assess materiel readiness in terms of major systems, not isolated items or components. This will allow us to focus on the availability of those systems to combat organizations, home in on the causes of specific and systemic failures, and work with the field to achieve the Army's readiness standards.

Readiness Standards

Our primary objectives are to maintain a major system availability rate of 90 percent (75 percent for aviation) in priority of battlefield effectiveness and to maintain readiness to fight at intense combat tempos for at least fifteen days (ammunition, repair parts, lubricants, component repair and return, and end-item replacement). At the same time, we have to reduce the cost of sustaining the system, principally by improving reliability and maintainability.

The best way to do this is to have everyone with a direct interest involved in the process. We've chosen to do that by forming weapon system teams whose influence will reach from the contractor to the combat unit level. Many teams are already in place, as are elements of others.

The teams are located within AMC's major subordinate commands (MSCs) and can be tailored to meet the demands of the specific system and the nature of the problems we encounter. They will always include members of both materiel management and engineering centers in recognition of our experience, which tells us that engineering fixes are usually necessary for serious system failures. These fixes must be worked in the same integrated way that the system was developed originally. Teams may very well consist of both government and contractor personnel and include several MSCs as well as other experts. One MSC will always take the lead, even when a problem spans several activities.

No team will ever succeed without the active participation of the field. For example, a sharp aviation mechanic tells his maintenance officer about a problem (e.g., "no spare" after trying to locate a needed part or a weapon that doesn't work

right after trying everything). The maintenance officer talks to the supply officer. The battalion commander, the AMC aviation Logistic Assistance Representative, and the division materiel management center get involved. All of these folks are really the first team in managing critical systems in order to determine the causes and effects of "unreadiness." Their conversations and efforts may start a chain that will reach all the way back to a contractor. They will not only identify problem areas but most likely also have good ideas for solutions that will then flow on to the program managers and to AMC.

This process sounds easy but is actually difficult with outdated, outmoded, and cumbersome automation. We're doing something about those obstacles by developing the AMC Standard System, a group of sixteen automation initiatives that will revolutionize the way we do logistics, give us a worldwide readiness snapshot, focus our attention on weapon systems as a whole, and give us total asset visibility. Also among these initiatives: usage-based provisioning, direct vendor delivery, and a component repair and distribution support system that is more responsive to the readiness requirements of our high-technology weapons.

Weapon system management works! The aviation community has proven that with the AH-64 Apache and the OH-58D and its Mast-Mounted Sight (MMS). The Apache, as many of us will recall, had some significant problems that were identified at the March 1989 Post-Fielding Review. These problems included reliability, manpower, personnel, support equipment, TMDE, and other systemic problems, all wrapped together to produce a dismal readiness picture.

The aviation community quickly and effectively put the weapon system management team concept into action. The Apache Action Team (AAT) was made up of representatives from a wide cross-section of the aviation logistics community and the prime contractor. The AAT reported to a general officer steering group of senior military and civilian logisticians and aviators.

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Hundreds of others were involved, all of them working for a common cause: Apache readiness. They identified problems, proposed solutions, and made things happen. Then came the storms of May 1989, causing nightmares for the Apache at several locations. Although the second set of problems was quite different, the result was the same: Apache readiness had suffered another serious blow. Again the team went to work. Today, almost all of the damaged aircraft are flying again as a result of that team effort.

The OH-58D MMS is another outstanding example of successful aviation weapon system management. Faced with unacceptably low readiness rates driven by reliability of the MMS, an Aviation Systems Command/Missile Command/McDonnell Douglas weapon system management team was formed. A myriad of problems faced the group. Prominent among them were the onboard system processor and one of its critical components, the A5 card, which was failing at a rate seven times higher than predicted. Through some timely redesign by McDonnell Douglas and drastic action on the part of the Missile Command to accelerate production and get unserviceable items from units, we're turning the corner.

These problems are responding well to the application of weapon systems management. However, they were existing problems waiting for solutions. We must get weapon system management instituted

early on so that we are ready to tackle problems. In some cases that means we'll be able to stop them before they even occur. In other cases, we'll be able to solve them immediately. That's the sort of teamwork and farsightedness we need to build into all aviation systems, particularly LH.

AMC's current organization evolved from the traditional approach of developing and sustaining weapon systems by commodity. However, in today's environment-dedicated commodity focus is giving way to an integrated, systems focus. As weapon system management becomes the norm, AMC is reorganizing to best support this process.

We envision an integrated material management organization that will be the center of excellence and expertise for logistics support for all Army materiel, both major and non-major. This organization will team with a world-class engineering center to provide dedicated weapon system support to combat units for fielded systems and to the Army's program managers for systems in development. Such organizations could anticipate and spot difficulties in our systems, provide integrated engineering and materiel management, and support a network of weapon system management teams—all with a readiness focus.

As we restructure AMC, we welcome your comments and suggestions on weapon system management as a whole and how we can best support the soldier in the field. ■■■■



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Contingency Warfare: Our Strong Suit

By Major General Rudolph Ostovich, III

Operations DESERT SHIELD, JUST CAUSE, GOLDEN PHEASANT, and URGENT FURY evidence the base case for warfare in the 90s.

Each of these operations share a common thread—they are all rapid response, contingency conflicts. Over the

years, we paid considerable attention to the possibility that future conflicts would be come-as-you-are affairs. The facts are clear—the future is here. The international world order has changed as will our doctrine and our Army.

Our Army will become a smaller force. Current thinking anticipates a reduction in forces from our present five corps and 28 divisions to four corps with 22 divisions. There will be fewer forward deployed forces. These forces stationed in CONUS will provide both reinforcing combat power for the forward deployed forces as well as a contingency capability to respond quickly and decisively in support of



MG Ostovich is Chief, Aviation Branch, Commanding General and Commandant, U.S. Army Aviation Center, CG Ft. Rucker, AL and Commandant, U.S. Army Aviation Logistics School.

our national security interests. Our contingency forces will include heavy, light, and special operations units and there will be a premium on deployable weapons systems that are both versatile and lethal. Army Aviation stands at the forefront of these initiatives. Pound for pound, we are the most deployable, versatile, and lethal of today's Army Forces.

In response to the challenges in our future, CG, TRADOC initiated studies and General Officer Workshops to redefine our doctrine and identify alternative balanced force structure. Through these concept development vehicles, we examined an emerging doctrine tagged AirLand Battle-Future. The concept is founded on a precept that future battlefields will be nonlinear. By this, we mean that no longer will we have the forces to line up hub to hub or rotor to rotor and stretch from coast to coast. We accept the fact that there may

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be large gaps between formations. We will no longer concentrate our efforts to seize and hold terrain. Rather, we will focus our destructive power on the enemy force. We will employ state-of-the-art intelligence gathering sensors and air cavalry to find and fix the enemy. Attack helicopters, Close Air Support/Battlefield Air Interdiction, and long-range artillery fires will shape the battlefield for decisive destruction of the enemy through high speed and dynamic maneuver. Depth and rapid concentration of overwhelming destructive power are the essence of aviation's contribution to our future warfighting doctrine.

Aerial Dimension

We can overcome the challenges imposed by the nonlinear battlefield by exploiting the aerial dimension of maneuver. Doctrine and organizations which are based on the advantages of aerial maneuver provide the force commander the battlefield mobility and agility necessary to negate the terrain restrictions which confront ground maneuver forces. Force commanders can exploit the "third tier of mobility" to seize and retain the initiative. Employment of Army Aviation forces will emphasize the principles of MASS and OFFENSIVE to exploit our mobility and firepower.

Computer gaming of test formations has emphasized the effectiveness of massed attack helicopters. Large attack helicopter formations, brigade and larger assigned at corps level, achieve decisive results at operational depths. The French and German Armies have already recognized the benefit that accrues to such forces and have committed to development of organizations founded on air mobility and

"air mechanization." The French 4th Airmobile Division (DAM), for example, is already trained and equipped to exercise combat operations based upon three attack helicopter regiments at speeds and ranges independent of ground forces.

The United States Army stands at a crossroad. New doctrine and force structure will determine which turn we take. A force designed to execute regional contingency missions is the vehicle to travel the selected course supporting our national objectives. Army Aviation is ready to assume a larger role in our Army's force structure as the predominant force for the future.

IIII

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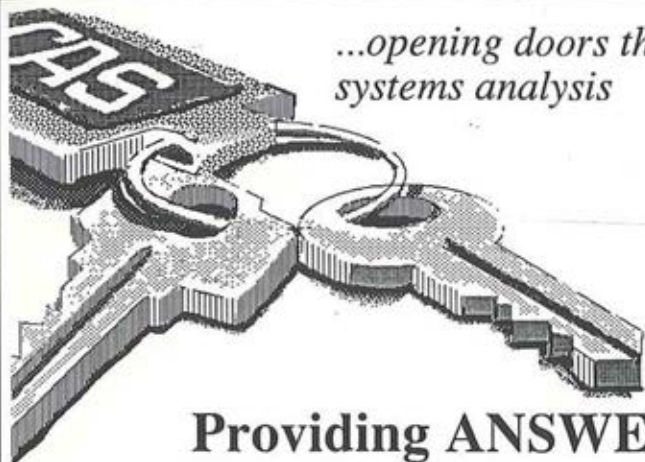
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Today's Changing Threat Environment

By Colonel Thomas E. Reinkober

Recent world events have had a dramatic effect on the perception of the threat of conflict in the world today. The euphoric belief that major conflicts were a thing of the past was shattered in the few short hours that it took Iraqi forces to overrun Kuwait. Even

though the events of the past year in Eastern Europe and the Soviet Union make it less likely that there will be a major Superpower conflict, the events of the past few months in the Middle East make it clear that the threat of conflict in the world is no less severe. This is not a big surprise to most of us. The proliferation of sophisticated military hardware throughout the world has created the potential for an unprecedented threat to U.S. Forces in even the smallest conflict situation. The price and availability of sophisticated man-portable surface-to-air weapons has placed

them within easy reach of terrorist groups and other non-political special interest groups. This means that sophisticated

countermeasures equipment is necessary for the success of actions which once may have been considered nonmilitary in nature such as drug interdiction missions. The Iraqi invasion of Kuwait has demonstrated the ease with which a political/military leader, willing to mortgage his country to obtain even more sophisticated military weaponry, can bring the world to the brink of all-out war involving most of the world's nations just to further his own political and economic ambitions.

The impact of this changing threat environment on the requirements for Aviation Electronic Combat capability in Army aircraft platforms cuts across all aspects of the Aircraft Survivability Program. Two important aspects I would like to highlight are training and responsiveness to the threat.

Today, we have the means to counter the majority of Soviet-manufactured threat



COL Reinkober is PM, Aircraft Survivability Equipment, St. Louis, MO.

systems in the region of conflict. Many of the countermeasures have just recently been fielded. All of the countermeasures are designed to work together as a suite of equipment against the complex threat environment. This suite currently requires the pilot to coordinate many of the countermeasures onboard the aircraft to obtain maximum capability. This means that realistic pilot training is essential to obtaining the maximum benefit from the ASE. The Aircraft Survivability Equipment Trainer II (ASET II) will provide essential desktop-style training and will be available at the unit level. We have purchased sufficient quantities of the Electronic Information Delivery System (EIDS) which ASET II runs on to provide this capability at a ratio of one for every 32 aviators. Additionally, the ASET IV system now being developed will provide realistic field training against simulated threat air defense systems.

The addition of integration to many aircraft platforms, including the integration of controls and displays as well as higher level integration that ties together ASE sensors and countermeasures as well as aircraft avionics and possibly weapons, provides for greater flexibility of response to the threat as well as the ability to train on the aircraft. With an onboard central processor essential to all integration, there is an opportunity to embed training programs in the aircraft, allowing realistic training in flight without the need for simulators on the ground. With such a system it would even be possible to take the mission planning information on the threat and actually train for a mission ahead of time. Additionally, integration offers the opportunity to reduce the coordination of various countermeasures now required from the pilot to obtain maximum benefit from his ASE. The resulting reduction in pilot work load from this integration will also contribute to his capability to perform his mission.

Responsiveness to the threat has always been critical. During these times when we have to consider that we may have to fight the next conflict anywhere in the world

against any adversary, it becomes even more critical. We no longer have the luxury of concentrating our efforts on the traditional Soviet threat systems. We have an increasing need to be able to respond to all those other threat systems out there in the marketplace.

Gray Areas

In a traditional European scenario, we could be reasonably confident that weapons systems fall into friendly and non-friendly categories. There have always been some "gray" areas, but nothing like what we are facing now. If we take the Gulf situation, it's clear that the distinction between those traditional "blue", "gray", and "red" threat categories must be redefined. It will likely have to be redefined for every conflict situation. The old cartoon caption "Don't worry, it's one of ours" defines the situation pretty well, but it's certainly not an acceptable response.

It's obvious we are going to have to worry about all these threats in the future. This aspect too can benefit from integration and training. The range of threat systems and capabilities is too great to cover on every aircraft all the time, and we cannot train aviators on all these threats at one time and expect them to retain this information. The flexibility offered by integration of systems and the added capability offered by programmable systems can provide a means to train aviators on a large range of threats on a periodic basis and to respond to the specific situation at hand with up to the minute training on threat capabilities and appropriate countermeasures response.

There are many things to think about in this changing threat environment and it is complicated by the fact that we are also facing significant budget reductions. The Iraqi invasion of Kuwait makes it clear that the threat is still there. We must look for smart ways to address this changing threat with the reduced dollars we are going to have. With proper planning and utilization of the technologies available we can formulate the response necessary to counter this changing threat.

IIII

Center for EW/RSTA Technical Support

by Mr. Lawrence DeCosimo and Mr. Robert Aumueller

The Center for Electronic Warfare/Reconnaissance Surveillance and Target Acquisition (EW/RSTA) is incorporated within the U.S. Army Materiel Command (AMC) as part of the U.S. Army Communications-Electronics Command's (CECOM)

Research, Development, and Engineering Center.

The Center EW/RSTA's interests lie in the entire electromagnetic spectrum—from acoustics to radar frequencies through visible light to beyond the ultraviolet range. Its technologies include sensors, direction-finding and emitter location devices, standoff and self-protection jamming, sensor data integration, high speed complex signal processing, complex algorithm development, target acquisition and designation, non-cooperative and cooperative identification equipment

(Identification, Friend or Foe), radiological survey and nuclear radiation detection and measurement equipment.

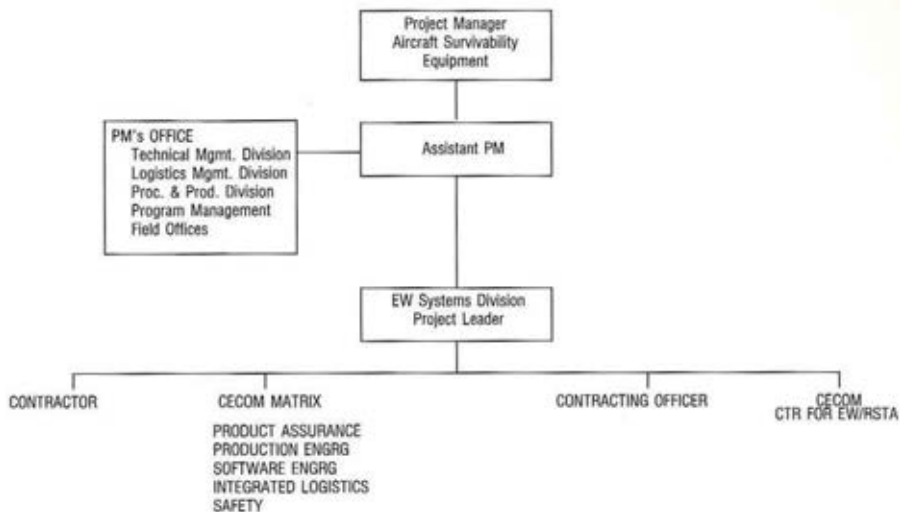


Mr. DeCosimo is Branch Chief for EW Systems Development Branch, CECOM.

The EW/RSTA Center is organized as seven divisions. Two of these divisions, Advanced Concepts and EW Systems, support PM ASE directly and the others are utilized as needed. The Advanced Concepts Division is responsible for planning, managing, and executing R&D programs from basic research through the technology demonstration phase in the areas of Radar Countermeasures and Warning, and Infrared Countermeasures. The Advanced Concepts Division plans and conducts theoretical studies, composite simulations, and laboratory field requirements to evaluate new technology associated with providing Army aircraft with Electronic Warfare systems. The EW



Mr. Aumueller is Chief of EW Systems Division, U.S. Army CECOM.



Division is responsible for planning, managing, and executing the development of systems from the 6.3b stage of development through production. The EW Systems Division is currently working for PM ASE on systems which will be installed in a variety of Army aircraft. These systems include radar and laser warning systems, radar and infrared jammers, missile detection systems and electro-optical countermeasures systems.

Over the years, the Center and the PM ASE have worked out a management arrangement that effectively responds to the PM's needs with a minimum amount of formal paperwork. This structure is shown in Figure 1 above. The primary interface on the individual project level is between the Assistant Project Manager (APM) ASE and the Project Leader (PL) at the Center. Normally, the APM's area of responsibility is the programmatic aspects such as overall schedule, funding, TIWG, IPRs, developing the Acquisition Plan and Acquisition Strategy. The PL's responsibilities include developing system specifications, technical monitor on the contract and single point of contact at CECOM for the APM. By having the

APM's/PL's as the single point of contact between the PM's office and the EW/RSTA Center there is almost daily contact, whether it be face to face or by telephone, between these two individuals. This daily communication is one of the key reasons for the success of the individual programs.

Since the PLs are responsible for the entire program within CECOM, they are required to function as more than just the system technical expert. They are expected to insure that all elements of the program are being executed properly within the command as well as overseeing all of the ancillary functions that must be accomplished to successfully complete their project. The value of this management technique was recently demonstrated during a recent spares procurement for a PM ASE system. One of the matrix elements initiated the procurement process by sending the procurement request through the PL. The buy contained parts which were obsolete within the current configuration of the system and other parts which should not have been required because of low equipment densities. During his review, the PL noticed these deficiencies and brought them to the

originators' attention. The procurement was then modified to reduce or eliminate those items that were questioned. Had the PL not been in the review cycle, the government would have spent \$400,000 for parts which were not required.

One of the reasons the PLs enjoy supporting the PM's office is because of their aggressive attitude toward updating the systems to keep them current with the threat as well as with the new technologies that become available. Due to the time that elapses between when the system hardware components are designed and production actually begins, there is usually a new technology available that could benefit the system. Working with the PM's Technical Management and Logistics Management divisions, as well as the APMs, we've been able to minimize the technical obsolescence of many of the systems and modify fielded systems to keep them current to the threat. The AN/ALQ-136(V)1/5, while being upgraded to the Quiet Camp version, now has Gate Array Logic (GAL) instead of Thick Film Hybrids. Gate Arrays are the very latest in Integrated Circuit technology and allow you to put many more functions within a single IC device. This has allowed added capabilities to be incorporated into the hardware as well as increasing overall system reliability.

Immediately after the production contract was awarded for the AN/ALQ-136(V)2, it was modified to incorporate a major Value Engineering Change Proposal (VECP). This VECP replaced the majority of the Thick Film Hybrids in the system with GALs. This change not only reduced the weight and increased the reliability, it also saved the government \$6 million. This same system is a candidate to have Monolithic Microwave Integrated Circuits incorporated into it. These are truly state of the art devices and are only now coming into use in very limited circumstances. The AN/ALQ-144 is being upgraded via a conversion program to increase its effectiveness against the newest generation of IR missiles. The AN/AVR-2, prior to being placed into production, had a circuit card redesigned to improve its

producibility as well as to accept a Band IV detector, should the need arise. Implementing these changes is not easy, but the PM's office is always willing to listen to new ideas and will adopt them if they improve system performance.

Regardless of management structures and technology advances, the figure that must be used to gauge an organization's effectiveness is whether they are accomplishing their mission. Since the PM ASE's mission is improved aircraft survivability and the CECOM Center for EW/RSTA's mission is to provide EW systems to the PM, we believe our effectiveness must be judged by the systems that are made available to the fielded aircraft fleet. Based on the following, it appears the synergistic relationship between the two organizations is very effective.

● **Fielded Systems:**

4,000 AN/APR-39(V)1
1,038 AN/ALQ-136(V)1/5
300 AN/APR-39(V)2
700 AN/ALQ-156(V)1/2/3
50 AN/ALQ-147
200 AN/APR-44
300 AN/APR-44 (Navy Use)
2,500 AN/ALQ-144

● **In Production/Soon To Be Fielded**

1,900 AN/APR39A(V)1
200 AN/ALQ-136(V)2
780 AN/AVR-2
200 AN/ALQ-162(V)2
600 AN/ALQ-144A (Plus retrofit kits)

● **In Development**

AN/APR-39A(XE-2)
AN-AVR-2+
AN/AAR-46 (Engineering Development model of the AN/AAR-47 Missile Detector)
Advanced Threat Radar Jammer
Advanced Threat Infrared Countermeasures System
Advanced Optical Countermeasures System
Integrated ASE

This list doesn't include the flat plate canopies and suppressor systems the PM's office developed themselves or the M-130 flare/chaff dispenser and flares developed by the Armaments Research and Development Command at Dover, NJ. ■■■

Joint Program Perspective

By Lieutenant Colonel Peter R. McGrew, USMC

Aircraft Survivability Equipment (ASE) is considered imperative to the survival of all our services' aircraft. With the planned reductions in present and future procurement of aircraft, this equipment has become our true "force multiplier." The development

of ASE has and must be a multi-service effort for many salient reasons; to share and maximize improvements in technology, to utilize test ranges and organizations, to reduce procurement and maintenance costs, and to enhance commonality of support for joint exercises/operations.

A working historical document that lends credence to the above reasons is the Tri-Service Memorandum of Agreement (MOA) on ASE for use on helicopters and low-slow fixed wing aircraft endorsed in January of 1978. The document effectively lays out for the different services the areas of

responsibility for development and procurement. The U.S. Army is established as the lead for:



LTC McGrew is Assistant PM, Radar Warning Receivers, ASE PM Office, St. Louis, MO.

- Infrared jammers for small helicopters and low-slow fixed wing aircraft. Currently, these jammers are the venerable AN/ALQ-144, ALQ-144A, and ALQ-147.

- Lightweight, low cost Radar Warning Receivers (RWRs) for similar platforms. Current assets are the AN/APR-39(V)1, APR-39(V)2, APR-39A(V)1, APR-39A(XE-2), and APR-44.

- Radar jammers for application to attack aircraft, e.g. AN/ALQ-136.

- RF missile detection system: AN/ALQ-156.

- Laser warning for application to helicopters: AN/AVR-2.

The U.S. Navy is the lead for:

- Infrared jammers for larger helicopters, e.g. AN/ALQ-157.

- Radar jammers to counter CW-aided weapons, e.g. AN/ALQ-162.

- Missile detection systems that use a passive spectral mode for detection, e.g.

AN/AAR-47.

The U.S. Air Force is the lead for a missile detection system that uses an IR sensor for detection.

Cooperation within DoD and the services is alive and well. From the aspect of the U.S. Army and Navy, a special relationship has matured. In 1986, a joint liaison billet was established for a Marine EW Aviator to be assigned to the PM-ASE office in St. Louis. His tasks were to function as an Assistant Project Manager for joint service programs and to consolidate and monitor transactions between the services on ASE. In addition, this officer was to be a part of the development of some of the future programs where there would be mutual benefits for both services.

The results have been highly positive for both services even though there have been trying times in overcoming the parochial "We Do It Better Than You" approach. Service rivalry is great, but not at the expense of costly duplication, development, production, testing, and long term support. There is strong commonality in the Electronic Warfare arena between the Army and Navy/Marine Corps helicopters and low-slow fixed wing platforms. "We" are both susceptible to the many exported variants of infrared missiles and the sophisticated RF and laser-guided weapons. Some of our missions are alike; some are not. The bottom line is both our aircraft need the best protective equipment at the most affordable price to enhance survivability and combat effectiveness.

With the similarities of protection and coverage required, the USN/USMC has joined with the Army in extensively fielding the AN/ALQ-144, AN/APR-39(V)1, and the AN/APR-44. The USN has also used the AN/ALQ-156 to protect specific platforms and has a variant of this missile detector as part of the Integrated Defensive Avionics Package (IDAP) for some of its "fast mover" aircraft.

More recently, the joint testing of the AN/AVR-2 and the AN/APR-39(XE-2) has cemented the U.S. Army/USN/USMC special relationship. Joint purchases of the AN/AVR-2 and its support equipment in

FY90 and the planned purchases through 1994 will ensure significant benefits in cost and interoperability to both services. The newest lightweight advanced RWR, the AN/APR-39A(XE-2), has been thoroughly "jointized" in funding, testing (on Army OV-1D and Navy/USMC AH-1W/KC-130 aircraft), and in the planning for production and provisioning. In this particular program, neither service can go it alone into Milestone III without the concerted efforts and dedicated commitment of the other.

In the AN/APR-39A(XE-2) program, detailed attention was applied to assigning which service, which organization, and which person could best perform specific actions and functions at the most economical and timely pace. A separate MOA was drawn up to reflect this and has been strictly adhered to—albeit with some moans and groans. The joint Army/Navy development testing is complete and the operational evaluation has commenced with a joint production planned for June 1991.

From the other side of the EW fence, the Army has purchased the AN/ALQ-162 and the AN/AAR-47 Missile Warning systems with the U.S. Navy acting as lead service. The Navy has established reciprocal arrangements to ensure that effective cost breaks and support are available for the long haul of each of these programs.

Having been trained as a Marine EW Aviator and having had the "pleasure" of working the ASE issues from both sides, I see areas of potential learning by each service enhancing the survivability of both services' aircraft. They are:

- The USN/USMC should revisit the capabilities of the AN/ALQ-136/ALQ-162 for selective platforms. Each of these has a unique capability that has been demonstrated successfully for specific Army missions and scenarios.
 - The USN/USMC should revisit the Aircraft Infrared Signature Suppression signature of its aircraft. The Army evidences a more disciplined and integrated approach in assessing aircraft and IR signature suppression earlier on in the development.
 - The U.S. Army should review the
- (Perspective — continued on page 27)**

Integrated Aircraft Survivability Equipment

By Mr. Michael P. McMiller

In ensuring that Army aircraft are equipped to survive against the increasingly lethal threats on the modern battlefield is the responsibility of the Aircraft Survivability Equipment (ASE) Project Manager's (PM) Office. This is becoming more of a challenge as the threat

becomes increasingly sophisticated and incorporates multimode operation in order to defeat aircraft countermeasures. To react to these changes the ASE PM is pursuing a number of developments to include integrated ASE. This article will focus in on integrated ASE and answer the questions: what exactly is integrated ASE, and how is it being pursued?

An integrated system is a suite made up of individual subsystems which are combined to create a sum greater than the sum of the individual parts. An analogy may be useful to illustrate our point.

Consider a team of individuals that gathers to play football. Even if each person is designated a position, it still requires

that there be some communication, and a leader who calls plays so that these individuals can function as a *team*. An ASE system functions the same way. Traditionally, individual black boxes have been designed to perform their designated functions independently, but as the threats get more sophisticated and develop multiple modes of operation, the countermeasures can no longer operate autonomously. Shared information between different types of sensors and coordination of multiple countermeasures are required in order to effectively defeat the threat. This is the function of integration, to bring the ASE "team" together to multiply the effectiveness of the countermeasures.

Level I & Level II

In any discussion of integration, it is useful to break integration into levels. These levels were first presented in an article in



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ARMY AVIATION MAGAZINE, October 1988, page 31. Level I is the traditional independent black boxes and sensors designed to perform segregated mission functions. There was no opportunity to combine information (sensor fusion) or to coordinate their operation to multiply their effectiveness. These systems have individual control panels and require significant levels of operator interface in order to control operation. The display of information is generally limited to a separate display for each subsystem, requiring the operator(s) to scan a number of displays to obtain a total picture concerning survivability.

Level II integration combines the discrete ASE through a remote terminal across a MIL-STD-1533 data bus to a central controller processor and a central cockpit display. Continuing our previous analogy the controller is the "leader" who calls the plays that allows the ASE to function as a team. The data bus allows for rapid transmission of digital data between various onboard subsystems.

Integrated Systems

Today, the Army has fielded (or is in the process of fielding) a number of aircraft which include Level II integration. One of the first aircraft to include this level of integration was the AHIP helicopter, followed closely by the fixed-wing OV-1. Both of these aircraft incorporated very similar integrated processors which control data transmission over a MIL-STD-1533B bus. These systems allow the operator to control the operation of the individual subsystems through bezel switches located on a multifunction display (MFD). The display allows not only a single point for controlling and displaying ASE status but also allows for display of the threat information from the Radar Warning Receivers (RWRs), radar jammers (in the case of the OV-1), and status of expendables. This was all in addition to the capability of the MFD to present other non-ASE avionic information. A nearly identical integrated system, with certain refinements, is now being incorporated into the RC-12K

and the EH-60.

An added benefit from this design is the ability for this system to act as an embedded trainer (see also January 1990 ARMY AVIATION MAGAZINE, page 56). In this capacity, an instructor pilot can program the integrated system to bring up threat warnings during a flight just as if these threats were actually targeting the aircraft. From the student's point of view the training mode presents the same type of information as the normal active mode so that the simulation allows the student to practice the evasive maneuvers appropriate for each displayed threat. It also allows the instructor pilot to evaluate the student's performance in relation to the threat displayed.

An integrated system is also being applied on the MH-47E and MH-60K helicopters. Prototypes of these aircraft with their integrated processors are beginning their flight test program. The integrated systems on these aircraft perform the control functions for all installed ASE as well as the avionics and weapon systems. In addition, the dual MFDs display digital map data, images from FLIR and Terrain Following/Terrain Avoidance radar, as well as the avionics. This centralized display is a significant improvement to these aircraft which are designed to operate well behind enemy lines.

Another aircraft designed to run deep and fight behind enemy lines is the Longbow Apache. Currently in engineering development, this system also incorporates an integrated system for control and displays. As in special operations aircraft, this integrated system will have two MFDs each for the pilot and co-pilot/gunner. These displays include integrated sensor information from the Longbow fire control radar as well as from the ASE and avionics. This system will be optimized for targeting and survivability in addition to displaying flight attitude and control information.

Level III

Though the Level II data bus presents many opportunities to integrate, for many functions the MIL-STD-1533B bus is far too

slow to allow for advanced integration. This requires a bus that will be at least 50 times faster. This leads to the next level of integration, Level III, which is considered an advanced state of the art.

Level III integration requires a very high speed data bus and allows for sophisticated performance improvement features including fusion of electro-optical sensors, RF sensor inputs, aided target recognition, automatic sector search for improved target acquisition, and reconfigurability to avoid loss of mission functions all while minimizing space, weight, and power. This level is currently being developed for the LH.

Level III also goes a step further in requiring a modular set of ASE components. This modularity eliminates redundant components by packaging the functions into modules (or circuit cards housed in modular racks) which are partitioned into their most effective least common denominator. These modules can then support the operation of multiple sensors and transmitters. This capability greatly reduces the demands for space, weight, and power.

Tailoring the ASE/weapon system design to meet the very demanding requirements of the LH is a real challenge. Passive signature reduction, as well as active countermeasures, are being carefully analyzed to develop optimum tradeoffs to insure survivability while meeting the total system weight, RAM, and cost constraints. The result will be the formula one race car of integrated systems.

Just as no one would expect taking all of the components from a formula one race car and using them on everything from the family car to an eighteen wheel truck, so there is concern that the carefully tailored, high performance Mission Equipment Package for the LH may not meet all the requirements for all other Army aircraft from the Apache to the CH-47. Yet the threat keeps on changing, improving its capability to threaten all Army aircraft, requiring increasingly sophisticated countermeasures.

To counter this advance in threat sophistication and protect all Army aircraft

(excluding LH), the ASE PMO has embarked on the development of new ASE countermeasures. These advanced systems will be designed to counter the increasingly sophisticated RF, EO/IR, and multimode threats. To insure that this development results in a totally integrated ASE system that increases survivability, mission effectiveness, and situational awareness while reducing pilot workload and eliminating redundant hardware is the objective of the ASE PM's Advance Integrated ASE program.

This program will analyze the architecture and modularity requirements of the entire Army fleet and determine what system requirements drive the Advanced ASE suite design. Maximum consideration will be given to using common modules developed for the LH to meet system requirements. Where this is not possible, the program will insure that comprehensive system design requirements are prepared that result in an integrated system that meets the survivability requirements of tomorrow. ■■■■

Perspective (continued from page 24)

capabilities of infrared jammers, like the AN/ALQ-157, for its heavy helicopters. The USN/USMC/USAF has operated this system successfully for nearly three years on CH-46, CH-53, and MH-53 helicopters.

● The U.S. Army should have another look at its total EW systems' reprogrammability program. Recent events have clearly shown that theaterization "Pre-built" libraries and the use of Memory Loader Verifiers (MLVs) could make us theater-specific in hours. Area/Theater/Mission specific reprogramming is common in the USN/USMC aviation EW Community.

The combat scenarios of today and tomorrow will place heavy demands on ASE to be responsive and effective. The EW threat environment continues on a fast track of increased sophistication; it's incumbent upon tri-services to pool assets, ideas, and manpower to ensure that we stay ahead of the enemy's capabilities. ■■■■

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Aviation Systems Program Review

By Colonel Theodore T. Sendak

The Aviation Branch has had a very successful two weeks recently. The week of 19 July 1990 saw the Longbow Apache system approved for full scale development by the Army Systems Review Council, while the previous week brought the Army's

leadership together to review Aviation issues. It is on the latter event that I would like to report to you.

In February 1990 the Chief of Staff of the Army directed an ASPR take place to understand where Aviation stood since he had signed the Aviation Modernization Plan in 1988, how the Army would address Aviation problems between now and 1995, and what the Army needed to transition Army Aviation into the future. . . AirLand Battle-Future. GEN Foss, TRADOC Commander, then tasked the Aviation Center to look at issues in aviation

modernization, force structure, and logistics. MG Ostovich, Commander of Fort Rucker and Branch Chief, focused the ASPR

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efforts by coining our theme: "Aviation—A Relevant Force for the Future."

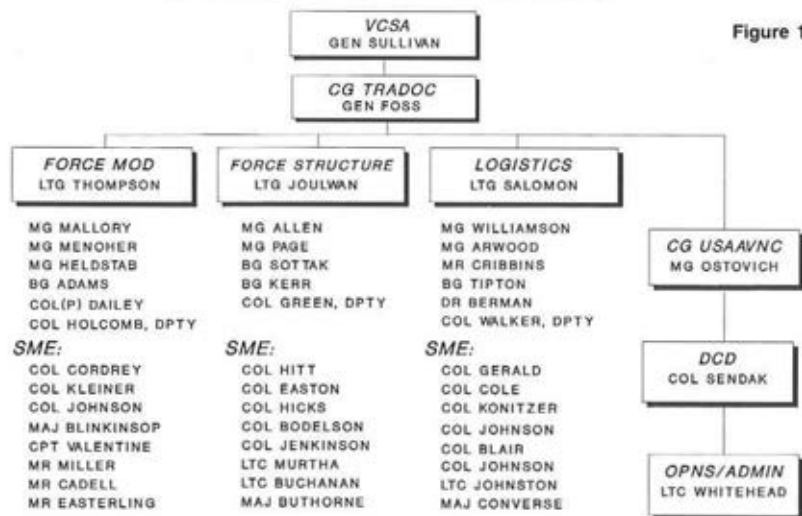
In March the Directorate of Combat Developments convened subject matter experts in these three areas for a one week issue identification session. Each panel had between 10 and 15 experts from TRADOC, Army Materiel Command (AMC), Department of the Army (DA), and Major Commands (MACOM). When the dust settled, they had identified twenty-seven issues, critical to the warfighting success of our aviation force.

We recruited three willing colonels to act as Deputy Panel Chairmen, keep the panels focused on the issues, and support their respective three star Panel Chairmen. These experts, plus the august leadership depicted in Figure 1, truly made the ASPR a significant turning point for our Branch's future.

The ASPR convened on 12 July 1990 at



ASPR ORGANIZATION



Fort Rucker, after the panels had narrowed and focused the issues to six areas:

- AH-64 Battalions;
- Reconnaissance Units;
- Air Assault Units;
- Aviation Brigades;
- Aviation Maintenance;
- Aviation Requirement for the Combat Structure of the Army (ARCSA V).

The Vice Chief of Staff of the Army (VCSA) made the following key decisions:

1. AH-64 Battalions

a. Approved in concept the augmentation of the AH-64 battalions with Army Reserve, 128-person companies, which in peacetime train on the active battalion's equipment and fill out the structure in combat.

b. Agreed to evaluate the Operational Need Statement for a command and control aircraft with forward looking infrared pilotage and a console, and to review funding for additional procurement of consoles.

c. Agreed to elevate and protect the priority for Forward Arming and Refueling Point equipment, and to evaluate doctrinal

employment of this equipment.

2. Reconnaissance Units.

Accepted in concept two pilots for the Kiowa Warrior.

3. Air Assault Units.

a. Directed the utility aircraft modernization shortfall be addressed in the revised Aviation Modernization Plan, due in September 1990. Options range from minimum avionics upgrades for the UH-1 to nondevelopmental helicopter procurement.

b. Concurred with the recommendation to pursue the requirement for command and control consoles for maneuver commanders.

c. Approved in concept the need to match system capabilities with mission requirements, e.g. deployment kits and most capable aircraft distributed to units with contingency missions. The cost to transfer fielded systems between units/MACOMs/components must be analyzed prior to the decision to execute.

d. Approved in concept to resource the XVIII Airborne Corps with door gunners in their air assault units. The long term issue

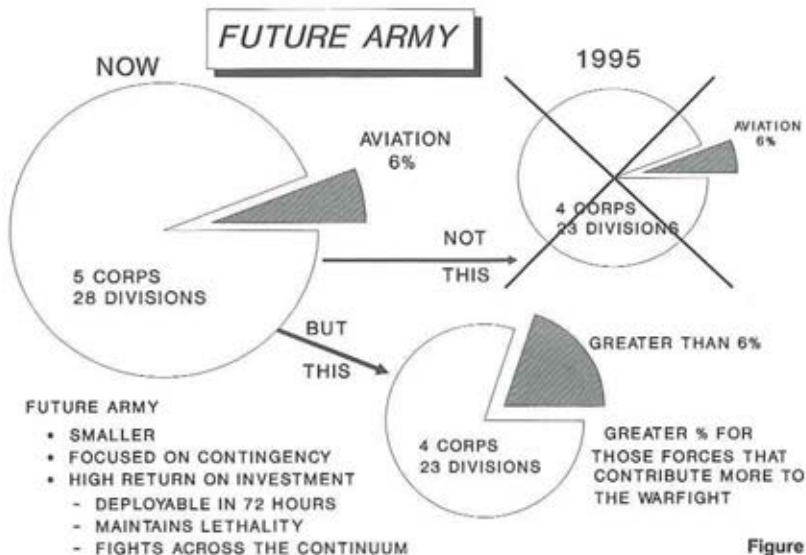


Figure 2

for the rest of the force will be addressed in the ARCSA V study.

4. Aviation Brigade.

a. Approved the concept of restructuring the brigade staff to attain a better capability for sustained operations. Spaces outside of MACOM internal trade offs must compete in the Total Army Analysis (TAA) for resourcing. ARCSA V will also review the restructuring.

b. Approved the concept of a command aviation battalion with the option given to MACOMs to resource until the TAA review.

c. Heavy division Forward Support Battalion was approved in concept. The Logistics Center is to evaluate the concept for light divisions and ARCSA V will study as a topic.

d. AMC and TRADOC are to review Test Measurement and Diagnostic Equipment and Aviation Ground Support Equipment with the VCSA at a separate laydown. The Army is to protect the core program in the interim.

5. Aviation Maintenance.

a. The Army Staff will work a correlation between Army Regulations 220-1 and 700-138. The Logistics Center will work

funding for automation.

b. In aviation maintenance the Army requires a cultural change. Examples include apprentice/master mechanics on the flight line versus in the offices, measurable standards for phase inspections, and reduction of competing priorities.

6. ARCSA V. Probably the key decision from the VCSA was that the Army must conduct an ARCSA V study within a year. The VCSA and many others recognized that the Army must rebalance future force structure and resources to reflect the varying contributions of each branch to the versatile, lethal and deployable force of the future (Figure 2).

As a parting note, I would like to personally thank and congratulate the host of soldiers and civilians who made this usual eight month effort possible in only four short months. The panels and leaders in Figure 1 are only a small number of the experts and administrative support personnel who made 12 July 1990 a significant day in Army Aviation history. All who played their part should be justly proud.



Crecy 1996: Year of the Longbow

by

Captain Michael P. Courts and Captain George M. Bilafer

July 1346: In an effort to help his allies in Flanders and Brittany, and relieve pressure in Gascony; Edward, King of England sailed from Portsmouth for northern France. With a force of some 20,000 men, Edward marched to battle the French near the village of

Crecy-en-Ponthieu. On the 25th of August, Edward arrived at the field of battle, and prepared to meet the French. With a force of 60,000, including 29,000 cavalry and 6,000 crossbowman, King Philip of France and his army made contact with the first English skirmishers around 1800 hrs on the 25th. As Philip maneuvered to bring his crossbowmen to the front, a series of heavy thunderstorms drenched the battlefield, making footing impossible. While the French tried to form for an assault, the English unleashed their longbows upon the

French. The French were totally unfamiliar with the English Longbow, and had not studied the fierce war fought by the English against the Welsh and



CPT Courts is S3 for 3-6 Cav, Ft. Hood, TX, and is AH-1S and AH-64A rated.

Scots. The effects were devastating. At the end of the day the French had suffered between 10,000 and 20,000 killed, while the English casualties were around 200. The battle of Crecy ended a millennium of dominance by cavalry, and ushered in the age of infantry. Just as one longbow changed warfare on a rain swept day in Europe, another longbow may bring to an end the dominance of armor on another bleak battlefield in Europe.

15 Nov 1995. After a period of unprecedented peace and goodwill throughout the European continent, a reunited Germany seems poised to lead an economically revitalized Europe to the forefront of the world

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stage. The German Chancellor has made secret overtures to the Polish president to allow ethnic Germans in Polish occupied regions east of the Oder river to reunite with their prospering German cousins. The Polish President, fearing the realization of his worst nightmares about a united Germany, sends a secret envoy to Moscow to seek guarantees for Poland's territorial sovereignty.

17 Nov 1995, Moscow. An emergency meeting of the newly formed Soviet Parliament unanimously voted to begin preparation for Operation ROLLBACK, the 5 year old OPLAN dealing with the remilitarization of Germany.

23:21:15 LOCAL, Jan 1996. Location: Observation Post 17, 15 km north of the border town of Gorlitz, Germany. 1LT Rolf Kleinhardt was inspecting his platoon's position. It was a typical cold, wet German winter, and as always, there was nothing of any excitement along the border. Unlike years past, this could hardly be considered an armed or prepared border, so LT Kleinhardt and his men were more concerned with the soccer game on the radio than with any threats from neighboring Poland.

The Polish government, claiming a near total destruction of its agricultural reserves brought on by a new virus and fueled by the unusually wet and cold winter, sought emergency aid to prevent widespread starvation among its people. To the applause of the rest of the world, the Soviet Union—in an unprecedented humanitarian gesture—had been conducting massive rail shipments of 'agricultural supplies' to the Polish people for the past five weeks. Unbeknownst to the rest of the world, the Soviet boxcars did not contain tons of agricultural equipment and wheat, but rather thousands of T-90 advanced main battle tanks, BMP 3 Infantry Fighting Vehicles and other implements of the restructured Soviet Land Forces.

23:21:37 LOCAL, Jan 1996. OP 17: with 2 minutes left in the game, LT Kleinhardt's home team had just been awarded a penalty kick with the score tied. Franz Baumann, the team's All National league

All-Star, approached the ball with the lower left corner of the net on his mind. LT Kleinhardt and his men remained glued to the radio; as Baumann set up his shot, static suddenly crackled across the speaker. Frantically, the men checked the antenna, the speaker, but could tune in nothing—only static. LT Kleinhardt picked up his field phone and called OP 21, where his friend LT Tesmer was listening to the same game. LT Tesmer was having the same unexplainable reception problem. LT Kleinhardt slammed down the phone and cursed, wondering what else could possibly go wrong. He didn't have long to find out.

The past 5 years had been fruitful ones for the Soviet military industrial complex. With the massive reduction in total Soviet forces, the normalization of relations with China, and the lifting of all trade restrictions with the west, several key changes had occurred. The Soviet Army was now a much smaller (75 Divisions), more professional, all volunteer Army, equipped with much more sophisticated, quality equipment than ever before.

23:21:45 LOCAL, Jan 1996. OP 17: LT Kleinhardt stepped from the OP into the freezing rain, wondering how his team had fared. Suddenly, the night was shattered by barrages of incoming artillery that descended across a 50 km stretch of the Polish border. LT Kleinhardt's last thoughts as the ground erupted around him were the questions: How could this have happened? Who is it? Aren't we at peace?

23:18:00 EST, CNN Headline News, Bobbie Battista reporting: *"Reports are just in, and are as yet unconfirmed, but initial indications are of a Polish invasion of Germany. Several towns just west of the Polish border have been hit by artillery barrages and air attacks. Fast moving armor forces are crossing the border at several locations, despite the German resistance. The President and his cabinet are meeting at the White House as we speak. It's too early for us to speculate as to the ramifications of these actions; equally unclear is why Poland would invade a much stronger Germany. We will continue to follow this story as it develops. . ."*

23:18:30 EST, The White House.

Newly-inaugurated President Byron Johnson was seated in the Oval Office with his Cabinet and the Joint Chiefs of Staff.

"Mr. President," began GEN Robinson, Chairman of the Joint Chiefs, "we're not exactly sure what's happening between Germany and Poland, right now. Since the last of our troops were withdrawn last year, our real time on the ground intelligence capability has drastically decreased. We have reason to believe, however, that those are *not* Polish forces."

President Johnson asked, "Then whose forces are they, General?"

"Sir, the recent humanitarian gesture the Soviets made to the Poles was a cover—"

Johnson was thunderstruck. "Are you telling me those are *Soviet* forces?"

"We have good reason to believe that's the case, and that they're staging from Poland at the invitation of the Polish government."

Johnson shook his head, almost overwhelmed. "I can't believe that—"

"Sir, prior to your inauguration we received some good intelligence of requests from the German government to the Poles for reunification of the Danzig corridor and East Prussia with Germany," Robinson explained quickly. "It would follow that the Poles, knowing the fear the Soviets have of the German territorial claims, requested Soviet assistance to prevent German acts of aggression."

"What aggression? But why didn't the Soviets wait until the Germans *did* something before launching an invasion? They've committed political suicide!"

"Mr. President, the last two times the Soviets waited for the Germans to make the first move, they committed more than political suicide—they damn near lost their country! I don't believe they intended to wait for Round Three."

25:04:00 CST, Ft. Hood, TX. HQ, III Corps: LTC Lance Manion briefed the Corps planning staff. "Gentlemen, the President has made our position clear—we can't tolerate the Soviet invasion of Germany. With no U.S. land forces in Europe, we're his only heavy deployable

Corps available to reinforce the Germans."

MG Robert Case, Deputy Corps Commander, asked, "Sir, what about reports that this was a preemptive invasion to stop Germany from going into Poland?"

"Bob, you've been listening to CNN too much. We're not being asked to debate the 'Who-Shot-J.R.' stuff. The German government's requested our immediate *conventional* reinforcement, and we're it. Fortunately, we still have sizeable POMCUS stocks over there which'll cut down our movement requirements, but the first folks I want out of here are the 6th Cav. We need their Longbow capability on the ground yesterday. G3, please begin the brief. . ."

28:19:30 LOCAL, Jan 1996. 25 km west of Magdeburg, Germany, 6th Cav Bde(AC) Tactical Operations Center. COL Michael Warren, Commanding, briefed his own troops. "Gentlemen, we have the opportunity to break the enemy's back in one well executed operation. If the 32nd GTD is unable to reinforce, the advance will be halted, wherein we can go on the offensive. The Germans've been giving the Sovs hell, but the enemy's new equipment is very good, and the Germans were caught flat footed. Basically, they're just outnumbered and need our help."

"The Corps Commander's intent is to conduct a Cross-FLOT mission in about 30 hrs with 3 squadrons. We'll have full support of J-SEAD and JSTARS to back us up. The weather forecast is perfect—100 and 1/2 with light rain and fog. S2, you've got it. . ."

29:23:30 LOCAL, Jan 1996. 3-6 Cav TOC: LTC Philip Carpenter was conducting a similar mission brief: "OK gentlemen, it's time to earn our pay. S2, any last minute intel update?"

"Sir, we expect to have the 32nd Guards Tank Division about 50 km west of Dessau in march formation; they're probably counting on the lousy weather to protect 'em while they move in to reinforce the 8th CAA."

"S3, anything new from Brigade?"

"Sir, the FARPs are in place and up, 1-6 and 4-6 will be on the routes as briefed, and we have about 2 hours to pull pitch for

A Troop."

"All right, good. Troop Commanders, any last-minute questions?"

CPT Nick Schade, Cdr, A/3-6, said, "Sir, we've done the route planning for 100 knots and 25 feet; do we have any indication of unplotted wires?"

"No, the Brigade S2 has linked up with Corps G5 and the route's good," Carpenter answered. "OK—anything else? No? All right, then. Jim, I'll be with you in B Troop."

30:02:00 LOCAL, Jan 1996. Route Red, vic Passage Point (PP) 1. CPT Nick Schade, Commander A/3-6 and flight lead for A Troop and 3-6, was with his backseater CW3 J.J. Johnson. CPT Schade turned his Apache from the last ACP on his side of the FLOT toward the PP that would allow his unit to cross through the enemy's air defense crust. Schade and the rest of the troop commanders had configured their units to optimize Longbow's capabilities. As flight lead, Chalk 1—Schade's aircraft—was utilizing the system's terrain profiling mode, which provided the capability to fly lower to better utilize the terrain for masking. Terrain profile graphics were superimposed onto the FLIR picture. Chalk 2 used the ground search mode to bound ahead of the flight, just as scouts and guns have been doing visually for years, only this time it's active radar that clears the flight's path for several kms to its front. Chalks 3 and 4, forming the trail team, alternately provided air security for the flight. They did so by utilizing Longbow's air search mode. This would provide early warning for possible air threats. Only one aircraft at a time is required to perform this mission; additionally, Chalk 4 carried the recently fielded escort jammer to provide the flight with its own internal EW capability.

30:02:30 LOCAL, Jan 1996. Through a combination of careful route analysis, adverse weather, exploitation of the Longbow system, and good luck, the Squadron safely arrived in its Battle Positions with no losses.

30:02:30 LOCAL, Jan 1996. "Heavy Cav 6, this is Checkmate 6. SET, SET," CPT Schade said into his helmet's boom-microphone, notifying his Squadron

Commander that his unit had achieved its Battle Position and had targets.

30:02:30 LOCAL, Jan 1996. Racing west to exploit the retreating German forces, the 18th Motorized Rifle Regiment of the Soviet 32nd Tank Division was under blackout conditions on an autobahn just east of Dessau. The greatest fear of COL Viktor Popov, Regimental Commander, was of accidents on the road as his unit made all possible haste under the cover of the rainy weather.

30:02:32 LOCAL, Jan 1996. CPT Schade utilized the combination of Longbow's target acquisition capabilities and AHS' data burst transmission to sector the Kill Zone, detect, recognize, classify, and prioritize targets. With the push of a button, the Longbow's information is computed into a ballistic fire solution and transmitted to the Hellfire missiles. Within the span of one minute, 12 AH-64 Longbow Apaches launched 192 Hellfire missiles.

30:02:33 LOCAL, Jan 1996. COL Popov saw an explosion at the front of his unit. His last thought was that his unit would be slowed by the traffic accident he had feared.

30:02:34 LOCAL, Jan 1996. The 18th MRR ceased to exist as a fighting unit as Hellfire missiles found their targets, flaying open armored machines in violent explosions that sent fragmented metal whirling through the air.

30:02:35 LOCAL, Jan 1996. 3-6 Cav immediately broke station on Route Blue, heading for PP2 and the FARP.

30:02:37 LOCAL, Jan 1996. Flight lead for A/3-6 picked up the unmistakable sound of an SA-8B in track mode on the Apache's APR-39V1. Knowing the red dot of missile activity was only seconds away, Schade loosed one of his two Sidem anti-radiation missiles. Eight seconds later, the tracking sound ceased, leaving the Soviets less one SA-8B.

30:02:45 LOCAL, Jan 1996. Soviet ground controllers vectored a flight of six MI-28 Havocs toward the predicted flight path of whatever just destroyed the 18th MRR.

30:02:55 LOCAL, Jan 1996. CPT

Schade received a call from Chalk 3. "Red 1, this is White 1. Bogies 2 o'clock, breaking right." The trail team's Longbow, in the air search mode, picked up the approaching MI-28s. The trail team maneuvered, closing within Stinger range. Once the targets were acquired on radar, the Longbow prioritized the air threats and allowed the pilot to send targeting information to the Stinger missiles.

30:02:56 LOCAL, Jan 1996. Front seater Chalk 3 (White 1) announced to his back seater, "Good tone—missile launch."

"White 1, this is White 2. Missile launch."

In less than a minute, 8 Stinger missiles found 4 MI-28s. "White 2, this is White 1, we have 2 targets running. Follow me, break right. . ." As Longbow fed information to the 30mm cannon through the FCC, the Apaches swung after the fleeing Havocs.

White 1 continued: "Radar lock, in range, engaging. . . targets down. Return to flight."

"Red 1, White 1. Targets destroyed. We are rejoining the flight."

"White 1, Red 1. We are 8 minutes to PP2, call joined."

The Heavy Cav continued on its mission, and crossed back into friendly airspace, through the FARP back to the Squadron FAA.

30:04:00 LOCAL, Jan 1996. 3-6 CAV TOC: LTC Carpenter congratulated his men. "Gentlemen, you've had a helluva first day. I need your video tapes ASAP, to take to Brigade, along with your aircraft and crew status."

The 6th Cavalry Brigade (AC), in its first day of combat, successfully launched a three Squadron deep attack against a moving enemy. The Brigade destroyed over 350 enemy vehicles in less than an hour. The 32nd TD was eliminated, and the NATO forces were able to go on the offensive. The Brigade lost one AH-64 Longbow to a wirestrike, and one to small arms fire in the Battle Position (the crew was safely recovered by the SAR UH-60). The Brigade suffered the expected aircraft availability problems, but was able to put 12-14 aircraft per Squadron into the fight,

and safely recover all but two.

The authors do not suggest that the above scenario is likely to take place; however, it serves as a vehicle to highlight the capabilities of the Longbow Apache. There are different philosophies about how best to field the Longbow Apache into the Army. It is important to understand some of Longbow's limitations when discussing force structure. The current AH-64A Apache is incompatible with the Longbow; this stems from the requirement for target handover accuracies that exceed the current navigational capabilities of the AH-64A. When taking the Longbow system independently, one must understand that the system does not identify targets, although it does classify by type. Use of the Longbow system in the close battle, where forces are harder to separate, raises the problem of fratricide.

These factors lead to the natural assignment of Longbow-pure organizations to the Corps Aviation Brigades, with their focus on the deep battle. In addition to its internal capabilities, the Longbow enhances the Corps Commander's ability to launch a deep attack. Deep operations require accurate intelligence, that may not be available. With its inherent real time intelligence, Longbow will allow aircrews to make route deviations, and more accurately find and fix the enemy. The adverse weather capability of the Longbow, will give the Army the 24 hrs, adverse weather capability that it has sought for years. The true fire and forget capability of the Longbow Hellfire will reduce engagement timelines, and greatly enhance aircrew survivability, while increasing effect on target. For the aircrew, the Longbow will allow crew to make full use of the visionics, and weapons systems. The Longbow will significantly increase the warfighting effectiveness of the AH-64 Apache by; allowing the crews to more safely move around the battlefield, and place more accurate fires on the target quicker, and from concealed positions. Just like its predecessor in the Battle of Crecy in 1346, the Longbow Apache, the next Bowman, is destined to revolutionize warfare. ■■■■

Air-To-Air Stinger Update: DESERT SHIELD Support

By Lieutenant Colonel (P) James O. Emerson

The on-going effort to support Operation DESERT SHIELD has lead to increased emphasis for the Air-To-Air Stinger (ATAS) program. Of particular interest is the status of fielding and support for ATAS for the OH-58C aircraft. Other areas of interest are the ATAS

development programs for the AH-64 and AH-1 aircraft.

OH-58C ATAS Fielding

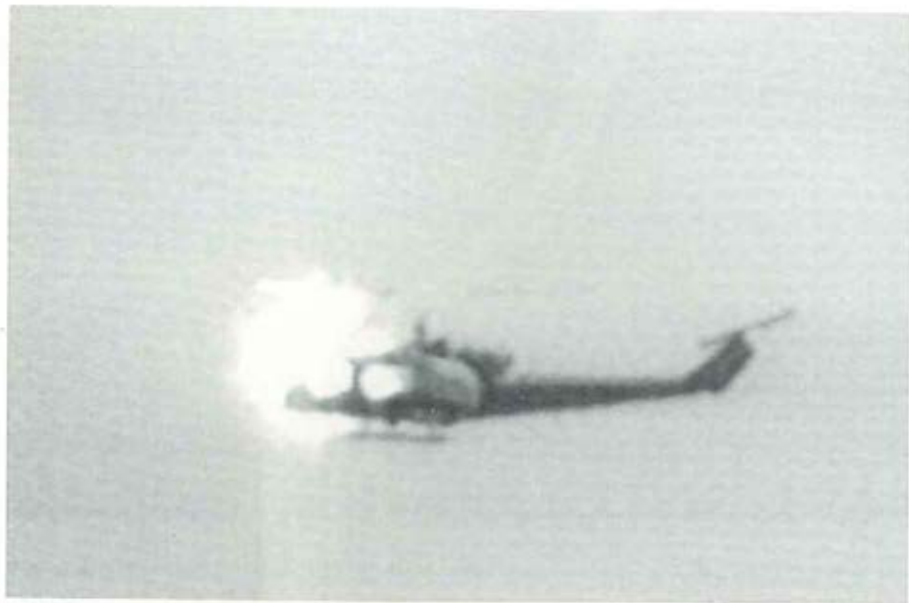
As fielding of Air-To-Air Stinger (ATAS) for the OH-58C helicopter nears the halfway point, new and interesting challenges surface on a daily basis. Most of these challenges can be expected as a routine part of the program management business. However, support for Operation DESERT SHIELD has lead to dramatic changes in the OH-58C ATAS program and the planned fielding schedule. Much effort has

been expended to meet expedited fielding schedules to ensure AH-64 Attack Helicopter Battalions are equipped



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with OH-58C ATAS and trained to use them prior to departure for the Middle East. Some innovative measures are employed since three Product/Project Managers (ATAS, Light Observation Helicopter, and Stinger), two contractors (Bell Helicopter Textron and General Dynamics), two Major Subordinate Commands (Aviation Systems Command and Missile Command), three Training and Doctrine Command (TRADOC) schools (Ft. Rucker, Ft. Eustis, and Ft. Belvoir), and two depots (Red River and Anniston) all participate in OH-58C ATAS fielding. While the OH-58C aircraft for the 101st Air Assault Division, Ft. Campbell, had been modified for ATAS by 4th Quarter FY90, the New Equipment Training (NET) and Fielding Teams were scheduled to be on-site in 2nd Quarter FY91. Because of DESERT SHIELD, hand-off of OH-58C ATAS equipment and NET was accomplished at Ft. Campbell in August 1990. Likewise,



hand-off and NET for the 1st Cavalry, 2nd Armored Division and the 6th Cavalry Brigade (Air Combat) at Ft. Hood was accelerated. A maximum quantity of operator and maintenance personnel were trained at both locations in a minimum amount of time. The accelerated fielding was achieved through the dedication of the ATAS NET Team and Fielding personnel. In addition, TRADOC provided two Ft. Rucker ATAS-equipped OH-58C aircraft to supplement training at Ft. Campbell and Ft. Hood. To date, OH-58C ATAS has been fielded to TRADOC at Ft. Rucker and Ft. Eustis; to FORSCOM units at Ft. Rucker, Ft. Bragg, Ft. Stewart, Ft. Campbell, and Ft. Hood; and to three units in U.S. Army Europe. Ongoing discussions with the Office of the Deputy Chief of Staff for Operations and Plans will result in further revisions to the fielding schedule to support DESERT SHIELD operations.

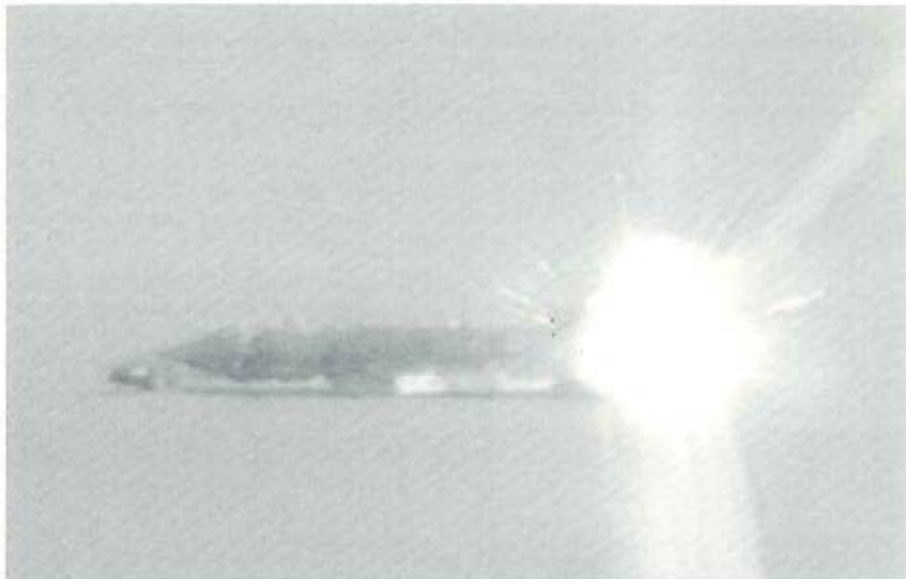
OH-58C ATAS Reliability

Reliability of the OH-58C ATAS system has proven to be beyond expectations. To

date, with over 70 systems fielded worldwide, no operational failure has been recorded; however, a component was damaged when it was dropped. The user community has expressed great satisfaction with the performance of the system.

OH-58C Live Fire Testing

Initial live fire testing of the OH-58C ATAS system was done with the Basic Stinger missile as the newer version, the Reprogrammable Micro-Processor (RMP), was not yet developed. Tests with the Basic missile in 1986 were highly successful. In support of DESERT SHIELD, live fire testing of the RMP missile from an OH-58C aircraft was conducted at White Sands Missile Range, NM. On 10 September 90, CW4 Mike Kather, ATAS NET Instructor Pilot (IP), tracked, locked on, and shot down a QF-100 flying at over 450 knots. On 11 September 1990, CW2 Bill Osmond, also an ATAS NET IP, tracked, locked on, and shot down a QUH-1 employing preemptive countermeasures. Needless to say, the mission objective of tracking, locking on,



and killing the fixed wing and rotary wing targets with the RMP missile was highly successful. These were the first full scale fixed and rotary wing aircraft tracked and killed with RMP missiles fired from an ATAS platform.

OH-58D

Contractor qualification testing of the armed version of the OH-58D is now underway. Government technical testing is scheduled for 1st and 2nd Quarter FY91. Deliveries of the production configuration of the OH-58D with provisions for armament will be in 3rd Quarter FY91.

AH-1 and AH-64

The effort to develop and qualify an ATAS system for the AH-1F and C-NITE aircraft is proceeding on schedule. Training for government personnel who will participate in the Technical Test/User Test (TT/UT) was completed in September 1990. The TT/UT for Cobra will be conducted during October and November 1990. With the delivery of final reports in February 1991, all contract

actions will be completed. Currently, there are no plans to field AH-1 aircraft with ATAS.

The McDonnell Douglas Helicopter Company integration contract to develop and qualify the Missile Control Set (MCS) is scheduled to be completed in April 1991. An AH-64 has been modified for ATAS and the MCS has been installed. Current efforts are centered around preparation for contractor ground and flight tests. Training of government tests personnel will be conducted in December 1990 with government tests scheduled for February 1991. Final test reports are scheduled for completion in April 1991.

Conclusion

In conclusion, the ATAS programs are on schedule. The accelerated OH-58C fieldings for DESERT SHIELD were accomplished in minimal time through outstanding teamwork. Today, the OH-58C ATAS, coupled with good tactics, can eliminate any DESERT SHIELD Air-to-Air threat. ■■■

HARDWARE:

MILES/AGES UPDATE

BY MW4 CHRISTOPHER R. VERMILLION

FORT RUCKER, AL — It is an accepted position that armies will fight as they train. Research at the National Training Center (NTC) reflects that units which routinely conduct quality force-on-force combined arms team training have a 15-to-1 greater chance of attacking and defeating a unit that has a poor training program. A prerequisite for a quality tactical engagement exercise is a means of realistically simulating weapons systems. This is possible through the use of MILES/AGES.

Basic MILES to support armor, mechanized, and light infantry were fielded in 1980 with great success. AGES and air defense (AD), as a follow-on to the basic MILES, allows rotary wing aviation and air defense to train as full members of the combined arms team. The program provided systems for the AH-1, OH-58A/C, and the UH-1H helicopters, as well as for the Vulcan, Chaparral, and Stinger air defense weapons. Systems unique to the NTC have also been developed to support the A-10, Hind D Surrogate (UH-1H), ZSU 23-4, and the SA-14.

Since the fielding of MILES/AGES-AD, there has been constant activity to improve the realism and provide additional capabilities. Significant efforts are ongoing to develop

MILES Air-to-Air Stinger (ATAS). Initial operating capability for the MILES ATAS is scheduled for April 1991.

Development of the AGES II is proceeding, albeit slowly. The AGES II will provide systems for the AH-64, OH-58D, UH-60, CH-47D, and Hellfire Ground Support System (HGSS). The HGSS will perform the same functions as the Ground Laser Locator Designator (GLLD). AGES II will have several improvements over the original MILES/AGES-AD. The AGES II transmitter will transmit a discreet player identification code along with standard MILES messages. Each system will also have event recording to provide post mission briefing data. The probability of a hit will be adjusted to reflect ASE employment.

An urgent need for AGES to support Black Hawk and Apache training was surfaced by the user community. To satisfy this requirement, 172 interim Black Hawk AGES systems were fielded in 3d Quarter, FY88.

With MILES/AGES-AD, soldiers will be able to experience the combat environment during peacetime without the associated dangers. Commanders can conduct force-on-force collective

MW4 Vermillion is MILES/AGES Training System Manager, Ft. Rucker, AL.

training exercises and observe how the unit would respond under the stress of combat.

Recently, the 1-227th 1CD deployed to the NTC. The TF was credited over 90 OPFOR kills while only suffering two combat losses. As never before, MILES/AGES II allowed an aviation unit to show its stuff and, more importantly, just what the Apache can do. BG Clark, the NTC Commander, stated "Today was the first day that any aviation unit played a decisive role in defeating an OPFOR regimental attack."

This is not to imply that technical problems don't exist. Although TF 1-227 had a successful rotation, several issues still require resolution and there is still a need for closer replication of the AH-64's weapon capability. While the current system is still far from perfect, it does allow four important things to occur:

- AH-64 units to participate in collective training, force-on-force exercises at the NTC.
- Highlights training shortcomings.
- Makes aircrews aware that they can be engaged and defeated.
- Validates tactics.

Future efforts by the contractor include looking into increasing the shot-to-kill ratio, improving the standoff Hellfire ranges, and improvement in boresighting procedures. Until industry solves the system shortcomings, we will retain the current prototypes for training. Without MILES/AGES II, AH-64 units will not be allowed to participate in force-on-force battles at the NTC, and this is clearly unacceptable. ■■■■

SAFETY:

TROOP SAFETY IN THE J-SERIES TOE

BY CW2 THOMAS A. BALDWIN, JR.

FORT HOOD, TX — Most people around Army Aviation, and particularly the J-Series Table of Organization and Equipment (TOE), are well aware of the personnel shortages associated with it. However, what I would like to discuss is one of the real benefits the J-Series has created, that being a more personalized and effective safety program.

A Personal Approach

The J-Series Attack Troop is comprised of 33 soldiers (meaning pilots) for six Apaches and four scout helicopters. Carrying out maintenance on ten technologically advanced aircraft and three ground vehicles, plus carrying out various other tasks (ranging from running a Squadron M-16 range to airfield gate guard detail), creates a very demanding pace. Combine that high pace with the high-risk mission of an aviator, who has a 1 in 500 chance of being killed in any given year versus a 1 in 3000 chance for a soldier in any other branch of the Army, and you would think that safety would suffer. But that is not the case!

In a small unit, the safety officer can get to know all of the soldiers within the unit. This enhances accident prevention. The safety of-

ficer is in a better position to gather information on morale, attitudes, skill levels, and other factors that can create a situation conducive to an accident. With more information available on these possible danger points, the safety officer is in a better position to make a correct analysis of the situation and take the proper corrective action.

Safety Management

In managing the Commander's Safety Program, it is critical that safety officers gather as much information on the hazards to the unit as possible. Without enough quality information, the safety officer will be unable to identify the systemic defects that allow unsafe acts and/or conditions to exist. Under the H-Series TOE where there was one safety officer for approximately 200 soldiers, the gathering of information was much more difficult.

The only way one can correctly determine a systemic defect is with adequate information. Simply stopping unsafe acts and/or conditions when you see them does not cure the root cause of

CW2 Baldwin is the Aviation Safety Officer, 3/6 Cav, 6th Cavalry Bde (Air Combat), Ft. Hood, TX.

potential accidents. In the J-Series, with one safety officer for every 33 soldiers, this personalized approach of getting to know all of the soldiers, and working with them day to day, affords the safety officer the quality information necessary to head off accidents.

Paper Work

Smaller J-Series units initially created hindrances to the Commander's Safety Program. The major problem that was encountered was the decrease in administrative support (i.e., no equipment or personnel authorized by the TOE to produce the high volume of paperwork required by Army regulations). This problem has been overcome through the centralization of required paperwork.

It has become acceptable, with the Army Safety Center's blessing, to consolidate items such as SOPs, Accident Prevention Plans, documentation for surveys, and many other files required by Army regulations, at the squadron/battalion level. This results in less paperwork at the troop level, and more time to spend with the soldiers observing the day-to-day business of a J-Series attack troop.

In summary, while there are problems with any system of organizing people and equipment, the decreased manning of the J-Series TOE has created an atmosphere conducive to a personalized approach to safety. This can compensate for the dangers of personnel shortages, thereby allowing effective safety management programs to continue in this type of Army Aviation unit.

IIII

RESERVE COMPONENTS

ROSTER CODE

* Indicates USAR

Last Name, First Name, MI (Rank)
(First Year AAAA Membership)
(Nickname)

Address

Duty Phone Number

Residence Phone Number

Name of Spouse

AA - Army Aviator

SAA - Senior Army Aviator

MAA - Master Army Aviator

IFE - Instrument Flt Examiner

IP - Test Pilot

TP - Test Pilot

PROFESSIONAL DATA:

Primary Assignment - Location

Rating

Maintenance Courses

Qualification

Flight Time

DFCs/Air Medals

AAAA Honors and Offices

1990 ARNG/USAR "High Timers"

COL Robert L. Mason, Sr.....	23,000	MAJ Robert A. Bean, Jr.....	8,000	LTC Thomas E. Lasser.....	6,060
CW4 Robert L. Baird.....	16,500	CW4 David L. Bonfield.....	8,000	LTC Charles E. Martin.....	6,020
CW4 George L. Senne.....	16,135	CW4 Douglas W. Cunzeman.....	8,000	CW4 John Steele Clayton.....	6,000
CW3 David W. Sullivan.....	16,100	COL Joseph G. Labrie.....	8,000	CW4 Thomas J. Davis.....	6,000
CW4 Garvin Scott Bergay.....	16,000	COL Michael P. O'Connor.....	8,000	LTC Steve L. Millard.....	6,000
CW4 Gene E. Allen.....	15,000	LTC Ronald W. Allendorfer.....	7,800	CPT F. David Sheppard.....	6,000
CW4 Richard E. Loynachan.....	15,000	LTC Bruce R. Bodin.....	7,600	CW4 Charles A. Spillner.....	6,000
BG Dana D. Baley.....	14,400	COL Robert J. Brandt.....	7,600	CW3 Joe Bevier, Jr.....	5,900
LTC William G. Radovich.....	13,500	LTC Ray L. Thompson.....	7,500	CW4 Richard R. Bell, Jr.....	5,900
CW4 Jerry L. Brantley.....	13,100	COL Paul D. Alford, Jr.....	7,315	CPT Eddie D. Mayenschein.....	5,900
CW4 John V. Fowler.....	12,862	CW3 Charles J. O'Connor.....	7,200	CW4 James L. McKinley.....	5,900
CW4 Clarence R. Clarkson, Jr.....	11,080	CW4 Aaron N. Senne.....	7,017	LTC Royal V. Harp, III.....	5,870
COL Leroy A. Wall.....	11,000	LTC Andrew A. Alston.....	7,005	CW3 Arthur J. Finnerty.....	5,825
MAJ Ivan T. Beach.....	10,000	MAJ Gregory N. Beaman.....	7,000	LTC Michael A. Smith.....	5,800
LTC Jose F. Campos.....	10,000	COL George F. Francioni.....	7,000	COL Roger H. Greenwood.....	5,700
CW2 Artemas K. Darby, III.....	10,000	COL James D. Holden.....	7,000	COL Thomas R. Jacoby.....	5,700
LTC Donald J. Lord.....	10,000	CW4 Darrell Eugene Lewis.....	7,000	LTC John H. Sydw.....	5,700
LTC Kenneth E. Shuman.....	10,000	CW4 Ed Rountree, Jr.....	7,000	LTC Gary T. Armatrudo.....	5,600
CW4 Angelo Spellos.....	9,500	COL James E. Siegman.....	7,000	CW4 Charles T. Robbins.....	5,600
CW4 Steven P. Rhule.....	9,250	CW4 John M. Harris.....	6,800	COL(P) Philip W. Becker.....	5,500
COL Donald L. Adkison.....	9,000	LTC Stephen R. Jackson.....	6,800	LTC Robert D. Frazier.....	5,500
COL Charles S. Finch, Jr.....	9,000	CW3 Frederick E. Ferguson.....	6,600	CW4 Philip T. Paulson.....	5,300
LTC Ronald R. Tamaccio.....	9,000	MAJ Bruce N. Eckerson.....	6,500	MAJ Eddie L. Newman.....	5,200
CW4 Corey J. Ferguson.....	8,800	CW2 Douglas Johnson.....	6,500	CW4 Kenneth W. Bording.....	5,000
CW4 Felix Olmos.....	8,750	MAJ Robert E. Payne.....	6,500	CW3 Raymond N. Degolia.....	5,000
LTC Gary E. DeKay.....	8,500	COL Claude P. Riddle.....	6,400	MAJ Kenneth J. Grogan.....	5,000
LTC James Marlin Sikes.....	8,300	CW3 William C. Ross, Jr.....	6,400	CW3 Jack K. Hyde.....	5,000
MAJ Ronald H. Stern.....	8,253	LTC Thomas J. Shaflor.....	6,300	COL Timothy E. Neel.....	5,000
LTC Robert Poland.....	8,122	COL Ronald B. Stewart.....	6,200	MAJ Richard D. Murphy.....	4,990

Abram, Kal, (SPC) (M89) 158 Main Street, Glen Carbon, IL 62034. Dy: (314) 275-6666. Res: (618) 288-5153. Dy: C Co, 159th Avn Maint, Scott AFB.

Acosta, Albert, (SPC) (M90) (Big Al) 1930 Keck Street, San Antonio, TX 78207. Dy: (512) 661-2111. Res: (512) 223-6995. S: Jose Pina. Dy: San Antonio 1/149th Avn Bn, D Co, SEWE Plt. TXARNG, Martindale AAF.

Adams, Barry P., (1LT) (M89) (Sausage) 1100 North Osage, Independence, MO 64550. Dy: (816) 461-7331. Res: (816) 461-7331. Dy: Aik Pt Ldr, A-1135th Avn MDRNG. Rtg: AA. Qual: AH-1S. Time: 320 Hrs.

Adea, Steven L., (CW4) (M84) P.O. Box 430, Fayetteville, AR 72702-0430. Dy: (501) 442-0676. S: Prillia. Dy: Indiv Ready Reserve (IRR). Rtg: AA. Saf Crs: Mil Civ. Time: 2,830 Hrs./Cbt 1,728 AM/49.

Adkison, Donald L., (COL) (M86) (Don) 11245 Floride Drive, Jacksonville, FL 32225. Dy: (904) 641-6003. Res: (904) 641-7350. S: Irrigard. Dy: 419th Avn Gp (As). Rtg: MAA S/P. Time: 9,000 Hrs.

Akers, James E., (MAJ) (M90) (Jim) 8795 Como Lake Drive, Jacksonville, FL 32256. Dy: (904) 366-2367. Res: (904) 642-9315. Dy: VP Marketing and Development, Jax Faculty Practice Assoc.. Rtg: AA TP. Qual: UH-1. Time: 2,800 Hrs.

Alford, Paul D., (COL) (M89) State Army Avn. Officer, Bldg 101 Lockport AFB, New Orleans, LA 70128-1491. Dy: (504) 243-8500. Res: (504) 279-8900. S: Brenda. Dy: HQs STARC LAARNG. Rtg: MAA IP TP. Saf Crs: Usc. Time: 7,315 Hrs./Cbt 1,140 DFC/1, AM/55.

Allen, Gene E., (CW4) (M90) (Easy) 9723 Kings Circle, Manvel, TX 77578. Dy: (713) 431-0531. Res: (713) 331-9099. S: Patricia. Dy: President/CEO Heltrons Co., Inc.. Rtg: AA IFE S/P. Time: 15,000 Hrs.

Allen, William C., (CPT) (M86) (Charlie) 8314 Cabill Drive, Austin, TX 78729-7227. Dy: (512) 456-5015. Res: (512) 258-8861. S: Isabel. Dy: Det 1, STARC, Camp Mabry. Rtg: AA. Time: 1,500 Hrs.

Allendorfer, Ronald W., (LTC) (M89) P.O. Box 4572, APO New York 09057. S: Carolyn. Dy: S-3, 166th Avn Regt, Wiesbaden, W. Germany. Rtg: AA IFE S/P. Maint Crs: UH-1. Saf Crs: Mil Civ. Time: 7,800 Hrs./Cbt 400 AM/15. Past Vp, Greater Chicago Area Chap.

Alston, Andrew A., (LTC) (M82) (Andy) 8744 SW 51st Street, Cooper City, FL 33328. Dy: (305) 536-9055. S: Ann. Dy: IMA, DMR Eastin & NE FAA Region, NY. Rtg: MAA IFE S/P. Maint Crs: UH-1, PW. Saf Crs: Civ. Time: 7,005 Hrs./Cbt 925 DFC/1, AM/21.

Amatrudo, Gary T., (CW4) (M89) 3 Gravatt Circle, Clarkburg, NJ 08510. Dy: (201) 544-2019. Res: (201) 492-2922. S: Louise. Dy: Test Pilot, DAC AVPRADA, Ft. Monmouth. Rtg: MAA S/P. TP. Maint Crs: UH-1, OH-6, AH-1P, UH-60P. Saf Crs: Mil. Qual: AH-1S, UH-60A. Time: 5,600 Hrs.

Amiano, Timothy A., (1LT) (M87) RD 2, Box 522A, Glen Gardner, NJ 08826. Dy: (609) 530-4258. Res: (201) 537-7558. Dy: NJARNG Aerosocut Plt Ldr, 1-150 Avn, Avn OK Drug Enforcement Spt Opn. Rtg: AA. Qual: OH-6A. Time: 940 Hrs.

Anderson, Bruce W., (CW4) (M86) (Andy) 4125 S Spring Creek Trail, Laporte, IN 46350. Dy: (314) 263-7564. Res: (219) 362-3241. S:

A Aviation Reserve Components

Jane. Dy: Avn Personnel Mgmt Office, APERPCEN, St. Louis. Rtg: MAA IP TP. Cbt Crs: UH-1. Saf Crs: Mil. Time: 3,500 Hrs./Cbt 1,140 AM/34.

Andrew, William J., (CW4) (M89) 40330 Spitz Drive, Starling Hts, MI 48313. Dy: (517) 627-6680. S: Maria. Dy: E Co, 238th Avn, MIPRANG, Grand Ledge, MI. Rtg: AA. Maint Crs: UH-1. Time: 2,000 Hrs./Cbt 300 Life Member.

Anger, Allan W., (BG) (M64) (Al) 985 Deweller Drive, York, PA 17404. Res: (717) 764-1011. S: Bernice. Dy: HQ NYARNG, Albany, NY. Rtg: MAA. Time: 4,420 Hrs.

Archer, Harry R., (MAJ) (M79) 1000 Mary Jane Circle, Killeen, TX 76541-7661. Dy: (817) 634-5553. Dy: IMA, Yuma Proving Ground, Rtg: SAA IP. Maint Crs: UH-1. Qual: AH-1S. Time: 1,700 Hrs.

Arnold, Kerry K., (Mr.) (M90) (Doc) 2716 Lakewood, Rowlett, TX 75088. Dy: (214) 956-5037. Res: (214) 475-2531. Dy: Turbine Mech-AVALL, 7/6th Cav. Rtg: AA TP. Maint Crs: AH-1 OH-58. Saf Crs: Mil. Qual: AH-1S, AH-64A. Time: 2,008 Hrs.

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Badgley, J. D., (CW4) (M85) (Jd) Greater Chicago Chap Pres, P.O. Box 3016, NAS Glenview, IL 60026-5510. Dy: (708) 657-2118. Res: (219) 763-3566. S: Tana. Dy: P.A., 3-158 Avn Regt, NAS Glenview. Rtg: MAA IFE S/P. Maint Crs: UH-1, OH-58. Saf Crs: Mil. NEB, Pres, Greater Chicago Area Chap.

Baird, Robert L., (CW4) (M78) (Hawk) 24429 Walt Road, Ramona, CA 92065. Dy: (619) 789-0162. S: Marlene. Dy: Capt, 8747, Federal Express. Rtg: MAA. Maint Crs: UH-1. Time: 16,500 Hrs./Cbt 452 AM/15.

Baillinger, Roy H., (CW2) (M72) (Roy) 5625 Sutherland Court, Burke, VA 22015-1848. Dy: (703) 664-2221. Res: (703) 425-7243. S: Pamela Ann. Dy: Pilot, UH-1, C/1-131 Avn, DCARNG, Fort Belvoir. Rtg: SAA. Qual: CH-47. Time: 1,500 Hrs. Past Sec, Mississippi Valley.

Barfield, Walter F., (MSG) (M89) (Walt) America's 1st Coast Renew, 1930 Bridlewood Place, Middleburg, FL 32068. Dy: (904) 377-2353. Res: (904) 282-7254. S: Joann. Dy: S-3 SGT, 4/9 Avn Gp (As), Jacksonville. Vp, America's First Coast Chap.

Barlett, James P., (CW4) (M82) (Jim) 1250 W. Lodesstone Place, Tucson, AZ 85737. Dy: (602) 267-2700. Res: (602) 742-0209. S: Linda. Dy: Ft Weapons Simulator S/P, WAATS, Marana, AZ. Rtg: SAA IP. Qual: AH-1S. Time: 3,000 Hrs.

Bartles, Alan J., (CPT) (M79) 14510 Circlewood Way, Houston, TX 77062. Dy: (713) 483-4424. Res: (712) 480-6221. S: Marianne. Dy: Engr, Rockwell Space Opns Co. Rtg: AA. Qual: UH-60A.

Batey, Dana D., (BG) (M73) (Bonnie) 807 Willow Creek Circle, P.O. Box 1313, Purcell, OK 73080. Dy: (405) 425-8211. Res: (405) 527-5036. S: Lois. Dy: Asst Adjutant General-Oklahoma City. Rtg: MAA IFE S/P. Maint Crs: UH-1, CH-47, F.

Qual: OH-13, OH-23, OH-58, UH-1, UH-19, CH-34. Time: 14,000 Hrs.

Batten, Andrew W., (1LT) (M90) (Drew) 319 South Bettine Blvd., Apt. 1-0, Columbia, SC 29205. Dy: (803) 799-7550. Res: (803) 787-3545. Dy: Asst Exec/Lobbyist, Fowler Communications, Inc. Rtg: AA. Time: 300 Hrs.

Bayless, Kevin S., (2LT) (M89) 63 Queens Drive, Florissant, MO 63034. Dy: (314) 837-0693. Res: (314) 837-0693. Dy: Avn Ft School, Ft. Rucker, AL.

Beach, Ivan T., (MAJ) (M89) 10914 Carmel Crossing Rd., Charlotte, NC 28226. Dy: (704) 359-3737. Res: (704) 542-9251. Dy: 1st Off/Boeing 737-USAR, S-3, 449th Avn Gp (ATK), NCARNG. Rtg: AA. Qual: AH-1G. Time: 10,000 Hrs.

Beal, Wesley A., (COL) (M89) (Wes) 214 Greenwath Street, Belvidere, NJ 07823. Dy: (901) 677-5105. Res: (201) 475-8223. S: Linda. Dy: Cdr, 31st Combat Avn Regt, USAR, Ft. Meade. Rtg: MAA. Maint Crs: FW. Time: 2,500 Hrs./Cbt 900 DFC/1, AM/16.

Beaman, Gregory N., (MAJ) (M87) (Greg) 600 Melbourne Drive, Enterprise, AL 36330. Dy: (205) 255-6179. Res: (205) 347-5896. S: Lorraine. Dy: S-3, HHC, 6/159th Avn Regt, Ft. Benning, GA. Rtg: MAA IP. Qual: UH-60. Time: 7,000 Hrs./Cbt 840 AM/30.

Bean, Robt. A. Jr., (MAJ) (M70) (Bob) 26026 Tierra Drive, Valencia, CA 91355. Dy: (213) 254-6706. Res: (805) 254-6706. S: Jennifer. Dy: S-3, 1-214th Avn Regt, AFRC, Los Alamitos. Rtg: MAA IP IFE. Saf Crs: Mil. 8,000 Hrs.

Beatty, Donald E., (CW4) (M83) (Duck) Indian-town Gap Chap Secy, 61 Crestview Drive, Lebanon, PA 17042. Dy: (717) 865-8888. Res: (717) 272-2451. S: Margaret. Dy: IP, Eastern AA Trng Site, Ft. Indiantown Gap. Rtg: MAA IP. Saf Crs: Mil. Qual: AH-1S. Time: 3,800 Hrs./Cbt 934 AM/24. Sec, Indiantown Gap Chapter. Past Pres, Chesapeake Bay Chapter.

Beaver, Joe, Jr., (CW3) (M87) Armadillo Chapter VP Memb, P.O. Box 3202, Conroe, TX 77305. Dy: (409) 539-4311. Res: (409) 582-6707. Dy: 7-6th Cav Sgdn, C Trp. Rtg: SAA IP. Qual: AH-1S. Time: 5,900 Hrs. AM/13. Life Member, Vp, Armadillo Chapter.

Becker, Phillip M., (COL/P1) (M82) (Phil) 2224 Cloverfield Lane, Springfield, IL 62703. Dy: (217) 785-3570. Res: (217) 546-6063. S: Jean Ann. Dy: Cdr, 33rd Inf Bde (SEP), Chicago. Rtg: MAA. Time: 5,500 Hrs.

Bednarz, Andrew J., (WO1) (M89) (Andy) 69 Thome Street, Fort Rucker, AL 36362. Dy: (205) 255-2888. Res: (205) 599-1553. S: Donna J. Dy: D/1-13th Avn, Pilot, CH-47D. Time: 1,530 Hrs.

Bell, Richard R., (CW4) (M88) (Dick) 2694-A Beauregard Place, West Point, NY 10964. Dy: (914) 446-3041. Res: (914) 446-3041. S: Martha. Dy: Pilot/NBC Defence Off. D Co, 142nd Avn Bde, NYARNG. Rtg: AA IP. Saf Crs: Civ. Time: 5,900 Hrs./Cbt 1,800 AM/36.

Benda, Raymond L., (CW3) (M84) (Ray-Jay) 405 Tes Court, Arnold, MD 21012. Dy: (301) 765-1526. Res: (301) 974-1591. S: Phyllis. Dy: 224th AHB, MDRANG, APG. Rtg: SAA. Qual: AH-1S. Time: 2,500 Hrs.

Benjamin, George J., (COL) (M84) (Jake) Southern Calif Chap Sr VP, 25361 Cadillac Drive, Laguna Hills, CA 92653. Dy: (213) 642-5230. Res: (714) 380-9304. S: Marrie. Dy: Mgr Ft Propulsion, AH-64 (T700) Apache (FHC) GE. Rtg:

SAA IP. Qual: UH-60A. Time: 3,200 Hrs./Cbt 800 AM/5. Srvp. Southern California Chapter. Vp Reserve Affairs.

Benson, Terry W., (MAJ) (M85) 4301 Amberwood Road, Haw River, NC 27258. Dy: (919) 840-3460. Res: (919) 376-8140. S: Toni H. Dy: Bn XO, HQ 1/130th Avn Bn NCARNG, Morrisville. Rtg: SAA. Qual: UH-60A. Time: 1,500 Hrs. Vp Prog, Tarheel Chapter.

Benton, Donald L., (MAJ) (M88) (Don) 1521 North Beach Street, Ormond Beach, FL 32174. Dy: (904) 673-2482. Res: (904) 239-6466. Dy: Asst Prof Mil Science, Army ROTC, Embury-Riddle Aeronautical Univ. Rtg: SAA. Qual: AH-1S. Time: 1,100 Hrs. Past Treas, Armadillo Chapter.

Bentz, James P.A., (CW2) (M84) (Alan) 6631 Wakefield Drive, Apt. 913-B, Alexandria, VA 22307. Dy: (703) 941-8152. Res: (703) 765-5178. Dy: AH-1F Helicopter Pilot, A Co, 224th Avn, 29ID, MDARNG. Rtg: AA. Qual: AH-1S. Time: 1,300 Hrs.

Bergey, Garvin S., (CW4) (M88) (Scott) 16800 Red Pony Lane, Riverside, CA 92504. Res: (714) 780-7371. S: Pamela. Dy: USAR IRR, Pilot American. Rtg: AA. Time: 16,000 Hrs.

Bernhardt, Paul G., (LTC) (M87) (Bernie) 1715 King Arthur Circle, Mattland, FL 32751. Dy: (407) 658-0904. Res: (407) 647-8355. S: Stacy. Dy: Daedalean, Inc., Program Mgr, Orlando. Rtg: AA. Qual: AH-1, OH-58, UH-1, U-21. Time: 2,300 Hrs./Cbt 700. Treas, Central Florida.

Bernhard, William N., (COL) (M80) (Doc) 228 East Church Street, Baltimore, MD 21230. Dy: (301) 328-2628. Res: (301) 727-3592. Dy: 1/158 Cav, 29th Avn Bde. Time: 400 Hrs.

Berry, Gene D., (WO1) (M88) Quarters 2433-A, Fort Lewis, WA 98433. Dy: (206) 967-2702. Res: (206) 964-1820. S: Lori Ann. Dy: D Trp, 1-9 Cav. Rtg: AA. Qual: AH-1S. Time: 400 Hrs.

Bertram, William K., (CW2) (M85) P.O. Box 331, Angier, NC 27501-0331. Dy: (919) 733-2555. Res: (919) 639-2181. S: Cynthia M. Dy: OH58 SP, Army Avn Support Facility 1, Morrisville, NC. Rtg: AA SIP. Qual: UH-60A. Time: 1,900 Hrs. Life Member.

Billingham, Thomas J., (PFC) (M90) 3451 North Oleander Ave., Chicago, IL 60634-3245. Dy: (708) 582-1000. Res: (312) 637-3727. Dy: Fire Tech, Dominicks Finer Foods.

Biscomb, David A., (COL) (M86) 4009 Chart Drive, Round Rock, TX 78681. Dy: (512) 465-5049. S: Lucretia. Dy: Chief of Staff, 49th Armnd Div, TXARNG. Rtg: SAA. Maint Crs: UH-1, OH-58. Time: 1,125 Hrs.

Blachura, Michael J., (CPT) (M87) 6886 North Winery Avenue, Fresno, CA 93710. Dy: (209) 445-6132. Res: (209) 298-3836. S: Eva. Dy: HQs 40th Avn Bde, HHC Cdr. Rtg: AA. Time: 800 Hrs. Life Member.

Black, James C. Jr., (LTC) (M89) (Jim) 14703 W. Admiral, San Antonio, TX 78248. Dy: (214) 263-0570. Res: (512) 492-0027. S: Sue. Dy: Battalion Cdr, 1-158th Avn. Regt. Rtg: SAA. Time: 1,800 Hrs.

Blount, Richard I., (CW4) (M87) (Rich) 1620 West Camino, De Maximilian, Tucson, AZ 85704. Dy: (602) 267-2540. Res: (602) 744-6377. S: Rebecca. Dy: Nat'l Guard Trng Off, Marana. Rtg: AA IP. Qual: AH-1S. Time:

B Aviation Reserve Components

4,500 Hrs./Cbt 680 AM/12.

Blunk, James B., (MAJ) (M87) (Jim) 336 Salem, Mascoutah, IL 62258. Dy: (618) 256-2966. Res: (618) 566-8329. S: Lannis. Dy: XO, 7th Bn, 158th Avn Regt. Rtg: AA. Qual: UH-60. Time: 1,000 Hrs.

Bodin, Bruce R., (LTC) (M86) 11626 N. 110th Place, Scottsdale, AZ 85259. Dy: (602) 267-2864. Res: (602) 860-0856. S: Gail. Dy: State Avn Off, Phoenix. Rtg: MAA IFE SIP. Maint Crs: UH-1. S: Ft Crs. Mil. Time: 7,800 Hrs./Cbt 900 DFC/1, AM/28.

Boen, Gilbert E., (LTC) (M86) 1230 Fernview Drive, St. Louis, MO 63146. Dy: (314) 263-1130. Res: (314) 434-8308. Dy: Aircrew Systems Engr, AVSCOM. Rtg: AA IFE. Time: 3,000 Hrs./Cbt 800

Boggan, Robert B., (CPT) (M90) (Bob) Vickers, Inc., 5353 Highland Dr., Jackson, MS 39206. Dy: (601) 987-3277. Res: (601) 981-8690. S: Gail. Dy: HHC Commander/Applications Engr, 1st Bn, 185 Avn Grp. Rtg: AA. Qual: UH-1H. Time: 800 Hrs.

Bogle, Charles S., (COL) (M88) 3608 Winifred Drive, Fort Worth, TX 76133. Dy: (817) 935-4734. Res: (817) 292-6734. S: Dorothy. Dy: Cdr, 28th Avn Gp(Combat). Rtg: MAA. Saf Crs: Usc. Time: 2,300 Hrs./Cbt 845 DFC/1, AM/31. Vp Mil Affairs, North Texas Chapter.

Bonawitz, George E., (CW3) (M89) 99 Thistlewood Drive, Hummelstown, PA 17036-9512. Dy: (717) 865-9322. Res: (717) 566-8431. S: Kim. Dy: Maint Test Pilot, PAARNG. Rtg: AA. Maint Crs: UH-1H, AH-1. Qual: AH-1S. Time: 2,500 Hrs.

Bond, Craig A., (MAJ) (M84) (Craig) 111 Plum Point Loop, Aberdeen Proving Grd., MD 21005. Dy: (301) 671-1858. Res: (301) 273-0479. S: Pat. Dy: Aviation Safety Officer, NGB-AVN-S. Rtg: MAA. IP. Qual: AH-1S. Time: 4,100 Hrs./Cbt 600 AM/18. Vp, Chesapeake Bay Chapter.

Bonifield, David L., (CW4) (M84) 10126 Westport Court, Wichita, KS 67212. Dy: (316) 946-7087. Res: (316) 722-3750. S: Gwynne. Dy: Pil Ldr, IP, OH-58 Co D, 135th Avn, 35th Id, KSARNG. Rtg: AA IP. Time: 8,000 Hrs./Cbt 1,800 AM/1.

Bording, Kenneth, (CW4) (M86) (Ken) 4338 Springmoor Drive E, Jacksonville, FL 32225. Dy: (904) 641-5377. Res: (904) 642-2195. S: Colleen. Dy: HSC, 1 Bn, 111 Avn, FLARNG. Rtg: MAA IFE. Maint Crs: UH-1, CH-47, UH-60. Qual: UH-60A. Time: 5,000 Hrs./Cbt 2,121 AM/32. Sec, America's First Coast Chap.

Bordner, Thomas, (LTC) (M87) Grotton New London Airport, 139 Tower Ave, Groton, CT 06340-1409. Dy: (203) 441-2900. Res: (203) 464-9985. S: June. Dy: AVCRAD-CT. Rtg: AA TP. Maint Crs: UH-1. Time: 3,000 Hrs./Cbt 1,008 AM/16.

Bosco, Thomas L., (CPT) (M87) 56 Spring St. No. 2, Staten Island, NY 10304. Dy: (212) 466-4970. Res: (718) 981-6121. Dy: Sr Airport Engr, The Port Authority of NY/NJ. Rtg: AA. Qual: UH-60A. Time: 1,400 Hrs.

Botz, Ronald I., (LTC) (M83) (Ribs) AASF 2, 5400 W. 63rd St., Chicago, IL 60638-5690. Dy: (312) 735-0070. Res: (708) 759-0895. S: Lynne. Dy: AASF Commander, Chicago, IL. Rtg: MAA TP. Maint Crs: UH-1 FW, Saf Crs: Civ Mil. Time: 4,700 Hrs./Cbt 700 AM/18. Srvp, Greater Chicago Area Chap., Past Vp, Greater Chicago Area Chap.

Bowers, Frame J.III, (LTC) (M89) (John) 106 Fieldstone Drive, Terrace Park, OH 45174. Dy: (513) 552-2722. Res: (513) 831-8652. S: Judy. Dy: Manager, CFM56 Navy Prog, GE-AEG, Cincinnati. Rtg: SAA. Time: 1,540 Hrs./Cbt 670 AM/23.

Bradley, Byron K., (LTC) (M88) (Flash) Route 1, Box 30-C, Marion, AL 36758. Dy: (205) 934-4206. Res: (205) 683-8040. S: Jane. Dy: Registered Nurse(FR), University of AL, Birmingham.

Bradley, Michael P., (SGT) (M86) 2304 Rebel Road, Austin, TX 78704. Res: (512) 326-8908. S: Mary. Dy: USAR IRR.

Bradsher, Larry F., (CW3) (M81) Route 3, Box 39, Rougemont, NC 27572-9406. Dy: (919) 228-4272. Res: (919) 477-2746. S: Betty. Dy: E Co, 130th Avn, Salisbury. Rtg: AA TP. Maint Crs: UH-1. Qual: AH-1S. Time: 715 Hrs. AM/3.

Brandt, Robert J., (COL) (M72) (Bob) Director of Army Aviation, Building 4850, Mather Air Force Base, CA 95655-5000. Dy: (916) 973-3456. Res: (916) 985-7045. S: Dorothy. Dy: CAARNG. Rtg: MAA SIP. Maint Crs: UH-1. Time: 7,600 Hrs./Cbt 212 AM/4. Past Vp, Southern California Chapter.

Branter, Jerry L., (CW4) (M87) 3005 Sandy Lane, Rocky Mount, NC 27803. Dy: (919) 733-2555. Res: (919) 446-2761. S: Margie. Dy: NCARNG, C12 IP, Raleigh. Rtg: MAA IFE SIP TP. Time: 13,100 Hrs./Cbt 2,037 AM/37.

Braun, John M., (MAJ) (M89) 4701 Eck Lane, Austin, TX 78734. Dy: (512) 837-2882. Res: (512) 266-2774. Dy: HO 1/149th Avn. Rtg: AA. Qual: AH-1S/AH-64A. Time: 3,200 Hrs. Vp Prog, San Jacinto Chapter.

Breithaupt, Michael P., (LTC) (M74) (Mike) 14630 Estate Drive, Woodbridge, VA 22193-3224. Dy: (703) 355-3285. Res: (703) 670-3319. S: Theresa. Dy: Bn Cdr, 1st Bn, 132nd Avn, Davison AAF, Ft Belvoir, DCAARNG. Rtg: MAA. Qual: AH-1S, CH-47C. Time: 2,300.

Brendsel, Marlin D., (MAJ) (M73) 1751 Laver Ln, Land O'Lakes, FL 34639-4523. Dy: (813) 972-7557. Res: 996-6322. S: Sherry. Dy: 202nd Med Grp, Jacksonville. Rtg: MAA. Time: 2,100 Hrs.

Briganti, Frank, (COL) (M90) P.O. Box 746, Avon, CT 06001. Dy: (203) 677-8222. S: Ginnie. Dy: State Aviation Officer, CTARNG. Rtg: MAA IP. Saf Crs: Mil. Civ. Time: 3,600 Hrs./Cbt 1,200 DFC/2, AM/23.

Brightman, Brad C., (LTC) (M90) (Brad) 2109 Dorchester Drive, Mobile, AL 36609. Dy: (205) 874-8728. Res: (205) 661-3506. S: Ann. Dy: Logistics Operations Officer, 122nd Sp Hq, Selma, AL. Rtg: MAA IP. Maint Crs: UH-1. Time: 4,800 Hrs./Cbt 1,500 AM/18.

Brisbols, Frederick, (CW4) (M88) (Frisbee) 223 Flat Meadow Road, Guilford, CT 06437. Dy: (203) 445-4433. S: Susan. Dy: OH-60 Safety Mgr, Sikorsky Act, Stratford. Rtg: AA. Time: 2,800 Hrs./Cbt 800.

***Brooks, Rodney C.**, (CW4) (M89) 24005 Spring Gum Street, Spring, TX 77373. Dy: (713) 236-1888. Res: (713) 288-6370. S: Nickle. Dty: Kerrville Bus Co., Bus Driver. Rtg: AA. Qual: AH-1S. Time: 1,770 Hrs.

Brown, Charles T., (2LT) (M89) (Cooter) 2255 Winter Springs Way, Jacksonville, FL 32225. Dy: (201) 277-6307. Res: (904) 221-1124. S: Carolyn. Dty: 1/111 Atk Bn. Rtg: AA. Qual: UH-1, OH-58. Time: 162 Hrs.

Brown, Dennis T., (CPT) (M90) 8337 Highland Drive, Hiram, GA 30141. Dy: (404) 421-5633. Res: (404) 489-4889. Dty: Trng Officer, GAARNG. Rtg: AA. Maint Crs: FW. Time: 500 Hrs.

***Brown, Matthew D.**, (1LT) (M89) (Matt) P.O. Box 5792, College Station, TX 77844. Dy: (409) 845-5087. Res: (409) 696-4320. Dty: C Trp, 7/6th Cav, Conroe. Rtg: AA. Maint Crs: AH-1. Qual: AH-1S. Time: 300 Hrs.

Bryant, Michael N., (MAJ) (M86) (Mike) P.O. Box 354, 1050 Marine St., Clearwater, FL 34615. Dy: (813) 443-0070. Res: (813) 446-5575. S: Kamdi. Dty: S-2 Int 164th ADA Bde, Orlando. Rtg: AA. Maint Crs: UH-1. Time: 1,172 Hrs.

***Buchheiser, James J.**, (LTC) (M74) (Jim) 601 Watkins Park Drive, Upper Marlboro, MD 20772. Dy: (302) 267-2003. Res: (301) 249-7722. Dty: ARPERCEN. Rtg: AA. Time: 1,450 Hrs./Cbt 400 AM/1. Past Vp, Fort Monroe.

Bunnell, Karl G., (CSM) (M88) 7563 So. 4470 West, Army Avn Support Facility, West Jarrat, UT 84084-6215. Dy: (801) 524-3934. Res: (801) 254-0808. S: Connie. Dty: 211 Av Gp.

***Burbules, George A.**, (CPT) (M89) 2401 W. Spring Creek Pkwy, Apt. 3005, Plano, TX 75023-4133. Dy: (214) 480-1752. Res: (214) 618-1037. S: Kimberly. Dty: HHC, 28th Avn Gp (Cbt), Arlington, TX. Rtg: AA. Time: 480 Hrs.

***Buric, Julie N.**, (WO1) (M88) (Julies) 716 Brighton Drive, Wheaton, IL 60187. Res: (708) 462-0042. Dty: C Co, 3-158th Avn, Bldg. 122, Glenview NAS, IL. Rtg: AA. Time: 350 Hrs.

Burke, Joseph J., (1LT) (M88) 526 Overhill Drive, Edgewater, MD 21037. Rtg: AA. Maint Crs: AH-1. Qual: AH-1S. Time: 600 Hrs.

Burns, James H. Jr., (CPT) (M89) P.O. Box 1458, Madison, MS 39130. Dy: (601) 938-8501. Res: (601) 856-8410. S: Debbie. Dty: Actl Maintenance Officer/Test Pilot, 114th ASG. Rtg: AA TP. Maint Crs: UH-1.

Burns, Michael J., (1LT) (M89) 5601 Girard Avenue, S. Minneapolis, MN 55419. Dy: (612) 291-7182. Res: (612) 861-7094. Dty: Fit Ops Off, 2/123rd Avn Regt, St. Paul Downtown Airport. Rtg: AA. Qual: AH-1S. Time: 250 Hrs.

Buschow, Jeanne A., (CPT) (M87) P.O. Box 1964, Round Rock, TX 78680-1964. Dy: (512) 485-5030. Res: (512) 388-2620. S: Monte. Dty: Asst S-4, Avn Bde, 49th AD, Austin. Rtg: AA. Time: 600 Hrs.

Buschow, Monte C., (CPT) (M87) (Python) P.O. Box 1964, Round Rock, TX 78680-1964. Dy: (512) 480-4415. Res: (512) 388-2620. S: Jeanne. Dty: Cdr, Det 1, F Co (AVIM), 149 Avn, Martindale AFB, San Antonio. Rtg: AA. Time: 1,000 Hrs.

Buoner, Robert W., (LTC) (M90) (Bob) 250 Pine Hollow Lane, Houston, TX 77056. Dy: (713) 797-1903. Res: (713) 626-3332. S: Carol. Dty: Birmingham, Al Corp Surgeon, HQ 20th Spec Forces Gp.

C Aviation Reserve Components

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Campos, Jose F., (LTC) (M87) Army Avn Support Facility, P.O. Box 3786, San Juan, PR 00904-3786. Dy: (809) 722-2120. Res: (809) 789-6554. S: Elba. Dty: SAAO, San Juan, PR. Rtg: AA IFE. Maint Crs: UH-1 FW. Saf Crs: Mil. Time: 10,000 Hrs.

***Carlberg, Douglas F.**, (CW4) (M87) (Doug) P.O. Box 141338, Austin, TX 78714-1338. Dy: (512) 929-2159. Res: (512) 244-0290. Dty: VP Manuf, Tractor/Maint Off, C/4-158TH REGT, Fort Eustis, VA. Rtg: AA.

Carstens, Brian D., (CW2) (M88) 204 Kettering Court, Fort Walton Beach, FL 32548. Dy: (205) 690-6292. Res: (904) 862-5670. S: Ann. Dty: Army Aviator, Co. A, 1/131 Avn, ALARNG. Rtg: AA. Time: 500 Hrs.

Cawley, Peter H., (SGT) (M88) (Teddy) 170 Washington Street, Apt. C, Norwich, CT 06360. Dy: (203) 441-2935. Res: (203) 887-7869. Dty: Actl Repairman/College Student, CT AV-CRAD/Eastern CT St U.

Chappell, Thomas D., (WO1) (M88) (Chappy) Route 2, 276-2451, Newberry, SC 29108. Res: (803) 276-2454. Dty: Helicopter Pilot, 1259th Med Evac. Rtg: AA. Qual: UH-1H, OH-58A/C. Time: 500 Hrs.

Childs, Theodore, (CW3) (M81) 300 W. Rosedale Avenue, West Chester, PA 19382. Dy: (814) 342-2967. Res: (215) 696-7242. S: Susan. Dty: Co G, 104th Avn (Cbt) CH47, Phillipsburg, PA. Rtg: MAA IP. Qual: CH-47. Time: 4,300 Hrs.

Christensen, John H., (MAJ) (M85) (Jack) P.O. Box 8942, So. Lake Tahoe, CA 95731. Dy: (209) 982-3881. Res: (916) 541-6195. S: Merrie. Dty: CA AVCRAD PC Ofc, Fresno CAARNG. Rtg: AA IP. Maint Crs: CH-47. Time: 3,500 Hrs./Cbt 525 AM/11. Life Member.

***Chung, Russell**, (LTC) (M81) 10480 Sunland Bl. No. 10, Sunland, CA 91040-1987. Dy: (213) 345-9222. Res: (818) 957-4925. Dty: S3, 168th Avn Gp, Cypress. Rtg: SAA TP. Maint Crs: UH-1. Time: 2,000 Hrs./Cbt 558 AM/4.

***Cianfrani, Keith M.**, (CPT) (M90) 119 Blackhawk Drive, Daleville, AL 36322. Dy: (205) 255-4009. Res: (205) 598-5061. S: Susan. Dty: USAR/AGR UH1 IP, UH1 Refresher Course. Rtg: SAA IP. Time: 2,200 Hrs.

Clarkson, Clarence R., (CW4) (M71) (Clay) 1512 Cambridge Drive, Norman, OK 73069. Dy: (405) 527-5601. Res: (405) 364-6005. S: Beverly. Dty: MTP/OKARNG, Army Avn Spt Fd, Lexington. Rtg: MAA SIP IP TP. Maint Crs: AMOC. Saf Crs: Usc. Time: 11,060 Hrs. Life Member. Past Pres. Sooner.

***Clarkson, Joseph R.**, (MSG) (M90) 10224 Burdau Lane, Overland, MO 63114. Dy: (813) 830-3141. Res: (314) 427-6011. S: Mary. Dty: SAC Operations Cmd, SOJ8, McDIll AFB.

***Clayton, John Steele**, (CW4) (M88) (Steele) 1148 104th Drive S.E., Lake Stevens, WA 98258. Dy: (206) 743-9766. Res: (206) 334-7067. S: Leann. Dty: Bn. Safety Officer,

HHC, 6th Bn, 158th Regt, Everett, (AGR). Rtg: MAA IFE IP MTP. Maint Crs: CH-47. Saf Crs: Mil. Qual: CH-47C. Time: 6,000 Hrs./Cbt 1,400 AM/26.

Cobb, Bernard A., (LTC) (M84) (Benny) 1225 E. Camino Diestro, Tucson, AZ 85737. Dy: (602) 267-2700, #3351. Res: (602) 297-2482. S: Pat. Dty: FWS Br Chf, Western ARNG Avn Trng Site. Rtg: MAA IP. Qual: AH-1S. Time: 4,000 Hrs/Cbt 1,000. AM/3. Pres., Old Tucson Chapter.

Conger, Robert J., (SGT) (M90) (Bob) 407 W. Jefferson Street, P.O. Box 397, Osceola, IA 50213. Dy: (800) 443-5339. Res: (515) 342-6289. S: Linda. Dty: Aircraft Mechanic/Inspector Lockheed Support Systems, Inc..

Conrad, Eugene B. Jr., (MAJ) (M84) (Blair) 7795 Wildcreek Trail, Huntsville, AL 35802. Dy: (205) 772-9395. Res: (205) 880-3730. S: Nancy. Dty: HOS Trg Cdr, Decatur, GA. Rtg: MAA SIP. Saf Crs: Mil. Qual: OV-10. Time: 3,800 Hrs./Cbt 602 AM/13.

Cook, David J., (LTC) (M86) 415 N. Roscoe Boulevard, Ponte Vedra Beach, FL 32082. Dy: (813) 272-2472. Res: (904) 265-0579. Dty: Bde Avn Off, 53rd Inf Bde, Tampa, FL. Rtg: MAA. Time: 3,500 Hrs./Cbt 938 DFC/1, AM/46.

***Cooley, Keith T.**, (LTC) (M85) (Buck) 844 South Union Avenue, Ozark, AL 36360. Dy: (205) 255-2331. S: Tina. Dty: WO, 33rd Avn Gp. Rtg: AA IP. Time: 1,900 Hrs./Cbt 500 AM/10.

Cooper, William R., (CW4) (M70) (Ron) 424 N. 25th Street, Camp Hill, PA 17011. Dy: (717) 737-2748. Res: (717) 737-2748. S: Marybeth. Dty: 100d Heavy Hcpr Pilot, Co H, 104th Avn, HBG. Rtg: SAA. Maint Crs: UH-1H/CH-54 OH-58 CH-47. Time: 2,687 Hrs./Cbt 988

Copes, Brian R., (CPT) (M88) (Hawkeye) 1579 Edgell Road, Shelbyville, IN 46176-9456. Dy: (317) 392-8251. Res: (317) 398-3815. S: Donna J. Dty: S3 Ops Off, TP, Br 38, 38AB, IN-ARNG, Shelbyville, IN. Rtg: AA. Time: 900 Hrs.

Corbett, Dennis K., (SGT) (M90) P.O. Box 1833, Keystone Heights, FL 32656. Dy: (904) 641-8377. Res: (904) 473-1021. S: Pamela. Dty: Active Guard Training NCO/Aerial Observer, Co B, 1-111 Avn (Atk Hel).

Coy, Chris A., (MAJ) (M84) 3733 Rockford Bridge Dr., Columbus, OH 43221. Dy: (614) 889-7127. Res: (614) 876-2732. S: Susan. Dty: S3, 2nd Bn, 137th Avn (Corps). Rtg: SAA. Qual: AH-1S. Time: 2,000 Hrs.

***Crawford, Gregory E.**, (2LT) (M90) (Craw) 238 West Ohio Street, Apt. 1, Marquette, MI 49855. Dy: (906) 227-2238. Res: (906) 228-9337. S: Dawn. Dty: College Student, HHC 3/158 Avn Regt, NAS Glenview.

Crech, John B., (1LT) (M86) P.O. Box 3157, Tupelo, MS 38803-3157. Dy: (601) 842-1378. Dty: Pr Ltr, D Co, 1-185th Avn. Rtg: AA. Time: 850 Hrs.

Croker, Byron P., (LTC) (M90) (Byron) 15 S.W. 41st Street, Gainesville, FL 32607-2759. Dy: (904) 642-3790. Res: (904) 373-0607. S: Cindy. Dty: Flight Surgeon, 419th Avn Gp.

Culp, Jeffrey R., (CSM) (M83) (Jeff) Indian-town Gap Chap Tra, 178 Norway Lane, Lebanon, PA 17042. Dy: (717) 865-8795. Res: (717) 274-1904. S: Bonnie. Dty: Etrn ARNG Avn Trng Site, Ft. Indiantown Gap, Tra, Indiantown Gap Chapter.

***Cunzeman, Douglas W.**, (CW4) (M84) (Doug) 1670 Greenleaf, Des Plaines, IL 60018. Dy: (708) 298-6340. S: Darlene. Dy: Produc. Control, A Co, 2nd Bn, 502nd Avn Regt, NAS Glenview. Rtg: MAA IP TP. Maint Crs: UH-1. Saf Crs: Civ. Mil. Time: 8,000 Hrs./Cbt 1,100 DFC1, AM/26.

Curless, Tim A., (CW2) (M88) 14171 North State Road, No. 53, DeMotte, IN 46030. Dy: (219) 696-9777. Res: (219) 987-3052. S: Janet. Dy: Pilot, ILARNG-Chicago. Time: 2,260 Hrs.

Cutshall, Daniel A., (CPT) (M88) (Dan) 1160 W. Lone Star Mine Pl, Tucson, AZ 85737. Dy: (602) 629-9189. Res: (602) 797-1134. S: Jayne. Dy: Section LDRIP/NAATS. Rtg: AA IP. Qual: AH-1S. Time: 700 Hrs.

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Darby, Artemas K., (CW2) (M90) (K0) 201 Smokehouse Trace, Peachtree City, GA 30269. Dy: (404) 487-0494. Res: (404) 487-9134. Dy: Airline Pilot, United Al. Rtg: AA IFE SIP. Qual: OV-1, U-21, U-8, UH-1, OH-58. Time: 10,000 Hrs.

Davies, William J., (LTC) (M86) (Bill) 19741 Segovia Lane, Yorba Linda, CA 92686. Dy: (213) 493-8561. Res: (714) 970-8855. S: Dolores. Dy: Cdr Los Alamitos Army Airfield, AFRC Los Alamitos, CA. Rtg: MAA. Time: 2,500 Hrs.

***Davis, James A.**, (SSG) (M89) (Jim) P.O. Box 11468, Yuma, AZ 85366-9468. Dy: (602) 343-9216. Res: (602) 343-9216. S: Jeanette. Dy: Opns Mgr, Avn Svcs & Systems Support, Inc.

Davis, Robert L. Jr., (CPT) (M87) (Bob) 200 Evans Road, Willow Grove, PA 19090. Res: (215) 657-6836. S: Kate. Dy: Opns Mgr, Federal Express Corp, Allentown. Rtg: AA. Qual: UH-60A. Time: 950 Hrs.

Davis, Susan K., (2LT) (M89) (Peaches) Greater Atlanta Vp Merm, 4151 Oakwood Way, Duluth, GA 30338. Dy: (404) 656-6620. Res: (404) 621-356. Dy: GAARNG, UH-1 Pilot, Atlanta. Rtg: AA. Time: 250 Hrs. Vp, Greater-Atlanta Chapter.

Davis, Thomas J., (CW4) (M84) Monmouth Chap VP NG & Res, 2141 Parkwood Drive, Wall, NJ 07719. Dy: (201) 544-2850. Res: (201) 681-3203. Dy: AVRADA-SAVAA-F, Flight Test Pilot. Rtg: AA IP TP. Maint Crs: UH-60. Time: 6,000 Hrs./Cbt 1,451 AM/51. Vp, Monmouth Chapter.

Dawson, James R., (CPT) (M83) (J.R.) P.O. Box 730, Middleton, IL 83644-0730. Dy: (208) 389-5004. Res: (208) 585-2168. S: Lucia. Dy: S-2, 1/163rd Aik Hel Bn (AH-64). Rtg: SAA. Saf Crs: Mil. Time: 1,250 Hrs.

Deer, Joseph E., (1LT) (M90) Route 3, Lot 38, Hillview Trailer Court, Enterprise, AL 36330. Res: (205) 393-6331. S: Amy. Dy: 920th Med Det, Cheyenne, WY. Rtg: AA. Maint Crs: UH-1.

DeGolia, Raymond N., (CW3) (M84) (Ray) 13132 Charloma Drive, Tustin, CA 92680-3808. Dy: (213) 493-8012. Res: (714) 731-7247. S: Kathleen. Dy: IP/ASO, Los Alamitos AASF, CAARNG, AFRG. Rtg: MAA SIP. Time: 5,000 Hrs./Cbt 1,289 AM/23.

DeKay, Gary E., (LTC) (M83) 134 Lake Shore Drive, Daphne, AL 36526. Dy: (205) 433-3320. Res: (205) 626-3506. S: Karen. Dy: Chief, Avn Div 167th MMC, ALARNG, Homewood, AL. Rtg: MAA IFE SIP. Saf Crs: Usc. Qual: AH-1S. Time: 8,500 Hrs./Cbt 1,850 AM/24.

***Devor, Charles L.**, (CW2) (M86) 367 Center

D Aviation Reserve Components

Street, Chambersburg, PA 17201. Dy: (717) 597-7103. Res: (717) 263-5875. Dy: C Co, 8/158th Avn Regt. Time: 500 Hrs.

Dickerson, Robert A., (MAJ) (M88) (Bob) 7812 Heartstone Way, Indianapolis, IN 46227-8160. Dy: (317) 835-2537. Res: (317) 881-6142. S: Lynn. Dy: S-3, 38th Avn Bde (AGR), Shelbyville, IN. Rtg: AA. Time: 930 Hrs.

***Dobrzynski, Robert N.**, (CPT) (M85) 108 Nancy Drive, Enterprise, AL 36330-2259.

***Dobson, Ronald W.**, (LTC) (M72) (Ron) 4 Derbyshire, Derby, CT 06418. Dy: (203) 386-5071. Res: (203) 732-2563. S: Linda. Dy: Senior Analytical Engr, Sikorsky Act, IMA 2 YPG, Yuma, AZ. Rtg: SAA IP. Saf Crs: Mil. Qual: AH-1S. Time: 2,460 Hrs./Cbt 3,380 DFC1, AM/21.

Doherty, Gilbert S., (CW3) (M88) 2003 Dennis Avenue, Silver Spring, MD 20902. Dy: (301) 671-3536. Dy: Flight Instructor, MDARNG, B-1/158 Cav, Edgewood, MD. Rtg: SAA SIP. Qual: AH-1S. Time: 4,500 Hrs.

***Douglas, Michael E.**, (CPT) (M80) 11401 9th Street N, Apt. 315, St. Petersburg, FL 33716. Dy: (813) 522-3111. Res: (813) 577-6211. Dy: 1/86 USA Trans Term, Tampa, FL. Rtg: AA TP. Maint Crs: AH-1. Qual: AH-1S. Time: 800 Hrs.

Douglas, William H., (MAJ) (M80) (Bill) 398 Old Quarry Road, St. Augustine, FL 32084. Dy: (904) 823-0437. Res: (904) 824-9151. S: Linda. Dy: 419th Avn Co (ATK). Rtg: MAA. Maint Crs: AH-1S. Saf Crs: Mil. Qual: AH-1S. Time: 3,000 Hrs.

Dray, Dennis B., (MAJ) (M90) 475 Crisfield Drive, Abingdon, MD 21009. Dy: (301) 671-1751. Res: (301) 676-7693. S: Jeanette. Dy: Avn Trng Dtl, NGB. Rtg: SAA. Saf Crs: Mil. Time: 1,300 Hrs.

Dubois, Adam, Jr., (1SG) (M89) 7747 Lake Park Drive, Jacksonville, FL 32208-3022. Dy: (904) 641-8144. Res: (904) 765-3368. S: Yvonne. Dy: HQ, 1-111th Avn.

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Eaker, Christopher. (CPT) (M88) 108 Forrester Street, Columbia, SC 29223. Dy: (803) 748-4303. Res: (803) 788-7126. S: Kimberly. Dy: Cdr, CG, 1/151 Avn Bn (AAH), SCARNG. Rtg: AA. Qual: AH-64A. Time: 575 Hrs.

Eckerson, Bruce N., (MAJ) (M84) 3810 Brynton Lane, Harrisburg, PA 17110. Dy: (717) 865-8692. S: Virginia. Dy: EAATS, FTIG. Rtg: MAA IFE, IP. Time: 6,500 Hrs./Cbt 1,150

***Eddy, James D.**, (WO1) (M88) 118 Lana Drive, Lafayette, LA 70503. Dy: (318) 234-3650. Res: (318) 984-6091. S: Nancy. Dy: USAR Pilot. Rtg: AA. Qual: UH-1. Time: 400 Hrs.

Elliot, Gary L., (LTC) (M88) Route 1, Box 129A, Mustang, OK 73064. Dy: (918) 835-1202. Res: (405) 376-3043. S: Janice. Dy: Cdr, 1st Bn, 245 Avn (S.O.A), Rtg: AA. Time: 4,000 Hrs./Cbt 700 DFC1, AM/14.

Ellis, Bradford N., (CPT) (M85) (Brad) 2840 Mary Marvin Trail, Fuquay-Varina, NC 27526. Dy:

(919) 664-6116. Res: (919) 639-0381. S: Nancy. Dy: AVUM PR Ldr, HSC 1/130th Avn, Morrisville, Rtg: AA TP. Maint Crs: UA-60. Qual: UH-60A. Time: 550 Hrs.

***Enault, James E.**, (LTC) (M85) (Jim) 3137 Readsborough Court, Fairfax, VA 22031. Dy: (703) 553-1269. Res: (703) 280-1220. S: Nancy. Dy: Chief, Logistics Readiness, 310th TACOM, Ft. Belvoir, VA. Rtg: SAA.

Ericksen, Ernest T., (MAJ) (M90) (Tage) 11 Brush Hill Road, Clinton, CT 06413. Dy: (203) 386-6360. Res: (203) 669-3577. S: Lois. Dy: Chief Test Pilot, MH-60C (SOA) Prog, Sikorsky Act, Rtg: MAA TP. Maint Crs: CH-54, UH-60. Qual: UH-60A. Time: 4,600 Hrs.

Espenschied, Dean W., (CPT) (M89) 1155 West Ash, Decatur, IL 62526. Dy: (217) 422-3687. Res: (217) 875-4529. S: Tana. Dy: IP/Opns Officer, ILARNG. Rtg: AA IP. Time: 1,300 Hrs.

Everett, Leslie T., (COL) (M85) (Les) Tarheel Chapter President, 1200 Keith Drive, Cary, NC 27511. Dy: (919) 664-6149. Res: (919) 467-0644. S: Sylvia. Dy: State Avn Off, NCARNG, Raleigh, NC. Rtg: MAA SIP. Maint Crs: C-12, OH-58, UH-1. Time: 4,500 Hrs. Pres, Tarheel Chapter. Past Vp, Tarheel Chapter.

Ewing, Earl P., (LTC) (M83) 6 Christopher Court West, Hummelstown, PA 17036. Dy: (717) 865-8878. Res: (717) 566-6182. S: Trudy. Dy: XO, Eastern Avn Avn Trng Bn, Ft. Indiantown Gap, Rtg: MAA IP TP. Maint Crs: UH-1, AH-1, CH-54, FW. Time: 3,900/Cbt 244

Exley, Cliff D., (1LT) (M88) (Axel) 519 Scott Street, Boise, ID 83705. Dy: (208) 389-5064. Res: (208) 345-9871. S: Joanne. Dy: D Co Cdr, 1-183rd Aik Hcpr Bn. Rtg: AA TP. Time: 850.

Fachko, Michael J., (1LT) (M87) (Mav) 10931 Warner Road, Darien Center, NY 14040-9749. Dy: (716) 674-2266. Res: (716) 547-9499. S: Fackling. Dy: E Co, 142 Avn Regt, Niagara Falls, NY. Rtg: AA. Maint Crs: UH-1. Time: 600.

***Fast, Peter.** (CPT) (M86) (Pete) 2440 Woodfield Circle, Lexington, KY 40515. Dy: (502) 624-5971. Res: (606) 273-2519. S: Cynthia. Dy: D Co (AVUM), 82/29th Avn Regt (Attack), Ft. Knox. Rtg: AA. Qual: AH-1F. Time: 600 Hrs.

Fay, Richard J., (CPT) (M89) 441 Haslett Road, Joppa, MD 21085. Dy: (301) 671-6811. Res: (301) 539-7388. S: Gayla. Dy: Sr. Architect, National Guard Bureau.

***Feagin, Clinton J.**, (CW3) (M86) (Clint) 611 Ash Street, Copperas Cove, TX 76522. Dy: (817) 267-9101. Res: (817) 542-6953. S: Rita Kay. Dy: Act Armament Tech, AH-64.

Felderman, Robert J., (CPT) (M88) (Bob) 1280 Mt. Loretta, Dubuque, IA 52001. Dy: (319) 557-1465. Res: (319) 582-4548. S: Nancy. Dy: MOO, 1st Bn, 109th Avn, Boone, IA. Rtg: SAA. Maint Crs: UH-1, H.O.H58A. Saf Crs: C. Time: 1,700 Hrs.

Ferguson, Corey J., (CW4) (M73) 28382 Ronea, Mission Viejo, CA 92692-2234. Dy: (213) 646-4111. Res: (714) 768-5484. S: Barbara. Dy: OV-1 Instrument Flt Examiner, A Co, 641st MI Bn, Salem, OR. Rtg: MAA IFE SIP. Time: 8,800 Hrs. Life Member.

Ferguson, Frederick E. (CW3) (M84) (Fred) Arizona Chap VP Membr/Publ. 106 South Stellar Pkwy., Chandler, AZ 85226-3725. Dy: (602) 267-2797. Res: (602) 961-9634. S: Ann. Dy: SIP, Co C, 1 Bn, 108 Avn, Parago AAF, Phoenix. Rtg: MAA SIP. Maint Crs: UH-1. Time: 6,600 Hrs./Cbt 1,009 OFC, AM19, 39 CMH, VP, Arizona Chapter. AAAAA Hall Of Fame.

***Ferrando, Arnold A.** (MAJ) (M90) (Arnold) 2302 La Rue Court, Tallahassee, FL 32303-4349. Dy: (904) 222-6463. Dy: Doctoral Student at FSU, HQ 81st ARCOM, Avn Safety Off, East Point. Rtg: SAA IP. Time: 1,900 Hrs.

Ferreira, Joseph L. (COL) (M87) (Joe) 1348 Angelo Drive, Castleton, NY 12033. Dy: (518) 786-4399. S: Kathy. Dy: NYARNG. Rtg: MAA IFE SIP TP. Maint Crs: UH-1. Time: 4,000 Hrs./Cbt 560 AM/4.

***Finch, Charles S.** (COL) (M86) Greater Atlanta VP USAR, 2349 Rugby Avenue, College Park, GA 30337. Dy: (404) 362-7369. Res: (404) 765-0466. S: Nancy. Dy: Army Reserve, Second U.S. Army, Fort Gillem. Rtg: AA IP. Time: 9,000 Hrs./Cbt 1,428 DFC/1, AM/38, VP, Greater-Atlanta Chapter.

Finnerty, Arthur J. (CW3) (M90) (Art) P.O. Box 985524, Riverside, GA 30296. Res: (404) 766-4542. Dy: Pilot, DME Helicopter, Atlanta. Rtg: MAA. Saf Crs: Mil. Time: 5,825 Hrs./Cbt 375 AM/12.

Flagg, Paul J. (COL) (M88) (Pat) 24 Silkey Road, North Granby, CT 06060. Dy: (203) 441-2900. Res: (203) 653-3797. S: Sandra. Dy: Act Pilot Supervisor, CTA/VSAR. Rtg: MAA IP TP. Maint Crs: UH-1, FV. Saf Crs: Mil. Time: 2,400 Hrs./Cbt 682 AM/24. Past VP, Connecticut Chapter.

Flanders, Stephen A. (MAJ) (M81) 229 Midland Avenue, Montclair, NJ 07042. Dy: (609) 530-4269. Res: (201) 746-4879. Dy: S-3, 50th Ad, NJARNG. Rtg: SAA. Past Sec, Coastal Empire Chapter.

Fielschacker, Ronald R. (CW2) (M85) 411 E. 45th, No. 4, Anchorage, AK 99503. Dy: (907) 561-4976. Dy: 1536, Ft. Rich. Rtg: AA. Maint Crs: UH-1. Time: 1,100 Hrs.

***Fleming, Patricia A.** (CPT) (M78) (Pat) 408 Antier Drive, Enterprise, AL 36330. Dy: (205) 255-4626. Res: (205) 393-2452. S: Al. Dy: Asst. S-4, 33rd Avn Gp. Rtg: AA. Maint Crs: UH-1.

Fleming, Robert L. (CW4) (M89) ARNG Operating Activ. Ctr. NGB-ARI-D Bldg E6810, Aberdeen Proving Gd, MD 21010. Dy: (301) 671-1838. Res: (301) 676-3950. S: Wanda. Dy: Architect, NGB Construction Div. Rtg: AA IP. Qual: CH-54. Time: 2,899 Hrs./Cbt 1,051 AM/29.

***Flores, Herman M.** (MAJ) (M81) 3230 Commodore Drive, Colorado Springs, CO 80920. Dy: (719) 593-3945. Res: (719) 590-1781. S: Maxine. Dy: Contracts Supv, Texas Instr Inc. Rtg: SAA IP. Maint Crs: UH-1. Time: 2,950 Hrs.

***Floyd, Charles M.** (CPT) (M89) 33 Larkspur Drive, Belleville, IL 62221. Dy: (618) 256-2986. Res: (618) 236-1683. S: Brenda. Dy: 7th Bn 158th Avn Regt., Asst. S-3. Rtg: AA. Time: 650 Hrs.

Flynn, Timothy M. (LTC) (M65) (Tim) P.O. Box 111, Ono, PA 17077-0111. Dy: (717) 865-8452. S: Jean. Dy: Chief, Fl Trng Div, Eastern Avn Trng Site, Ft. Detrick. Dy: Rtg: MAA IP. Maint Crs: AMOC. Saf Crs: Mil. Qual: CH-47, OH-58, OH-6, UH-1, U-8, U-21.

G Aviation Reserve Components

Time: 3,800 Hrs./Cbt 1,271 DFC/1, AM/18. Past VP, Mount Rainier Chapter.

***Fogel, Phillip J.** (LTC) (M75) 720 Lynn Lane, Gulf Mills, PA 19406. Dy: (215) 354-0288. Res: (215) 687-4090. S: Michaelene. Dy: Cdr, 4th Bn, 158th Avn Regt, 97th ARCOM. Rtg: MAA. Maint Crs: UH-1. Time: 2,750 Hrs./Cbt 850 AM/OLC/16.

Fonner, Thomas C. (SFC) (M89) (Tom) 730 Segovia Road, St. Augustine, FL 32086. Dy: (904) 824-9924. Res: (904) 797-2556. S: Frances. Dy: Recruiter, Army Natl Guard, STARC, FLARNG.

Fort, Allan E. (SFC) (M89) 3709 West Dunellen Road, Dunellen, FL 32630. Dy: (904) 489-9895. Res: (904) 489-5813. Dy: Salesman, Allen's Auto Parts B-1-131st Avn.

Foster, Edward A. (MAJ) (M72) 362 Mohawk Road, Santa Barbara, CA 93109. Dy: (805) 564-7725. Res: (805) 564-4208. S: Alexis. Dy: HQ 1st Bn, 144th FA, CAARNG. Rtg: SAA. Time: 1,800 Hrs./Cbt 950 AM/22.

Fowler, John V. (CW4) (M83) 11837 Shropshire Blvd., Austin, TX 78753-6823. Dy: (512) 465-5635. Res: (512) 835-6765. Dy: C-12 Pilot, HQ STARC TXARNG, Austin, TX. Rtg: MAA SIP. Maint Crs: UH-1. Time: 12,862 Hrs./Cbt 626 AM/TV, 300LC. Past Pres, Lone Star Chapter.

***Francioni, George F.** (COL) (M87) 2001 Midshipman Drive, Stafford, VA 22654. Dy: (202) 697-1784. Res: (703) 699-7216. S: Bonnie. Dy: Office Chf Army Reserve, Chf Prog, Mgmt Office, Pentagon. Rtg: MAA IFE SIP. Maint Crs: UH-1. Saf Crs: Mil. Time: 7,000 Hrs./Cbt 1,600 DFC/1, AM/22.

Franklin, Timothy (CW2) (M83) Franklin Baking Co., P.O. Drawer 228, Goldsboro, NC 27530-0228. Dy: (919) 735-0371. S: Cathy H. Dy: NG, UH-60A IP/UH60L. Rtg: AA IP IFE. Qual: UH-60A/L. Time: 2,200 Hrs.

***Frazier, Robert D.** (LTC) (M75) (Bob) 1716 Ashbury Court, Bedford, TX 76021. Dy: (817) 280-3601. Res: (817) 571-2653. S: Carolyn. Dy: IRR, St. Louis, MO. Rtg: MAA IP. Maint Crs: UH-1. Time: 5,500 Hrs./Cbt 1,200 DFC/2, AM/28.

Freburger, Douglas C. (MSG) (M86) (Doug) 700 Farrow Court, Bel Air, MD 21014. Dy: (301) 671-3395. Res: (301) 893-2956. S: Eleanor. Dy: Operation Sergeant, Mobilization AVRCR Control Element.

Frederick, Allen R. (CPT) (M82) (Al) 9351 Hickory Hill Road, Lexington, KY 40515. Dy: (502) 564-8673. Res: (606) 271-0889. S: Renee. Dy: Asst S2, Avn Bde, 35th Inf(M), KYARNG, Frankfurt, KY. Rtg: AA. Time: 500 Hrs.

Free, Martin K. (CW2) (M86) 107 Downes Court, New Castle, DE 19720. Res: (302) 322-4622. S: Margaret. Dy: Delaware Army National Guard, Greater Wilm Airport. Rtg: AA. Maint Crs: UH-1. Saf Crs: Civ. Time: 2,500 Hrs.

Friske, Mark H. (CW3) (M82) 9368 N. Hampshire, Tucson, AZ 85741. Dy: (602) 624-9189. Res: (602) 742-5589. S: Karen. Dy: Fl Trng

Branch OH58 SIP, Western AATS, Marana, AZ. Rtg: SAA SIP. Time: 4,200 Hrs. Life Member.

Fulbright, Larry D. (MSG) (M88) 2485 S. Lukes Church Rd., Salisbury, NC 28146-8036. Dy: (704) 637-0471. Res: (704) 637-1520. S: Judie. Dy: Act Mech, Tech Inspector, E Co, 130th Avn.

Fulkerson, Lewis (CSM) (M86) P.O. Box 30475, Stockton, CA 95213-0475. Dy: (209) 982-2065. Res: (209) 772-2436. S: Joanne. Dy: 3/140th Avn Regt Bn.

Fuller, Josiah W. (COL) (M90) (Butch) 318 Regal Drive, Abingdon, MD 21009-1515. Dy: (301) 576-6810. Res: (301) 879-9880. Dy: Dir of Logistics, MDARNG, 5th Regt Army, Baltimore.

Fultz, Richard T. (2LT) (M89) (Rich) R.D. 2, Box 2311, Lewistown, PA 17044. Res: (717) 248-1668. Dy: PA State Police Trooper Cadet.

GGGGGGGGGG

***Gabriel, Robert R.** (E8) (M89) (Gabe) 735 Lee Boulevard, Hillside, IL 60112-1130. Dy: (708) 867-2355. Res: (708) 544-3539. S: Veronica. Dy: Opns NCO, 3/158th Avn Regt, NAS Glenview.

Gale, Joanna E. (2LT) (M90) CMR 2, Box 13726, Fort Rucker, AL 36362. Dy: (205) 255-3311. Res: (205) 598-9426. Dy: E7-145th. Rtg: AA. Time: 530 Hrs.

Gaughan, Wm. G. Jr. (CW4) (M71) (Bill) 60 Gouenock Point Road, Oceanport, NJ 07757. Dy: (201) 724-4580. Res: (201) 222-0148. S: Janna. Dy: IP, Trp C, 5/117th Cav, NJARNG, WESTFIELD. Rtg: MAA SIP TP IFE IP. Maint Crs: UH-1. Qual: AH-1S. Time: 4,250 Hrs./Cbt 365

Gerstenkorn, Edward F. (SSG) (M87) (Frank) 1087 Davis Street, Vacaville, CA 95967-5431. Dy: (209) 982-0948. Res: (707) 446-1199. S: Ruth. Dy: OH 58 Aerosocul Pit Sgt, Stockton, CA.

***Gilmore, William C.** (CW4) (M87) (Bill) 7117 Birkshire Drive, Amarillo, TX 79109-8499. Dy: (214) 263-0941. Res: (806) 354-2720. S: Mary. Dy: B Co, 1/158th Avn Regt, USAR, Grand Prairie. Rtg: AA IP. Time: 4,500 Hrs./Cbt 1,300

Gipson, J. David (CPT) (M76) (Dave) 645 W. Orange Grove Road, Tucson, AZ 85704. Dy: (602) 624-9189. Res: (602) 797-1283. Dy: Atk Hcpr Sec Ldr/IP, Western Army Group, Fort Site, Marana, AZ. Rtg: AA IP. Saf Crs: Civ. Qual: AH-1S UH-60A EH-60A. Time: 3,350 Hrs.

***Glasgow, Frank L.** (LTC) (M71) (Frank) 636 Fort George Meade, MD 20755. Dy: (301) 677-5105. Res: (301) 674-4673. Dy: AGR Executive Officer, 31st Combat Avn Group. Rtg: MAA IP TP. Maint Crs: UH-1, CH-47, UH-60, FW. Qual: UH-60A. Time: 2,600 Hrs.

***Glasz, David L.** (1SG) (M90) 51 Watson Avenue, North Haven, CT 06473. Dy: (203) 385-3894. Res: (203) 234-0027. Dy: Mktg Mgr, Textron Lycopmg.

Gohmert, George T. (CW2) (M90) 2801 West Bay Area Blvd., Apt. 1214, Webster, TX 77598. Dy: (318) 775-7157. Res: (713) 996-6702. S: Deborah. Dy: Commercial Pilot, Petroleum Hcprts Inc.. Rtg: AA TP. Maint Crs: UH-1 OH-58. Qual: AH-64A. Time: 2,900 Hrs.

Goodale, John A., (CPT) (M81) 1171 Lafayette Court, Boise, ID 83706-5633. Dy: (208) 389-5216. S: Elisabeth. Dy: Bn Asst 5-3. Gowen Field. Rtg: SAA. Time: 1,760 Hrs.

Goodrich, Roger L., (COL) (M79) P.O. Box 216233, Sacramento, CA 95821-9233. Dy: (916) 973-3304. Res: (916) 786-2581. S: Roberta. Dy: Cdr, 40th Avn Bde, 40th ID Mil, Fresno. Rtg: SAA. Time: 1,400 Hrs. Past Vp, Greater-Atlanta Chapter.

Goodwin, Andrew W., (CPT) (M85) (Drew) Tarheel Chapter Vp Memb, 5005 Elkwood Court, Raleigh, NC 27613. Dy: (919) 733-5069. S: Sue. Dy: Maint Off, NCAARNG, Durham, NC. Rtg: AA TP. Saf Crs: Mil. Qual: AH-1S AH-64UH-60L. Time: 2,000 Hrs. Life Member, Vp, Tarheel Chapter. Past Vp, Tarheel Chapter.

***Gottlieb, Norman**, (LTC) (M73) (Norm) 3332 Elm Terrace, Falls Church, VA 22042. Dy: (202) 695-6956. Res: (703) 560-8380. S: Joan. Dy: USAR Cmdr Mgr, HQ DA ODCSPD, Pentagon, Washington, DC. Rtg: AA IP. Maint Crs: MIL. Time: 1,575 Hrs./Cbt 760

***Grable, Harry W.**, (CW2) (M85) 13088 Sunmiree Place, Chino, CA 91710. Dy: B Co, 1-214 Avn Regt, AFRC, Los Alamitos. Rtg: AA. Maint Crs: UH-1.

***Gracia, Paul J.**, (SP4) (M89) 335 Pershing Drive, San Leandro, CA 94577. Res: (415) 635-3975. Dy: Clerk, American Food Equipment Co., Hayward, CA.

Gray, David L., (CPT) (M86) 4501 Oak Creek Drive, Austin, TX 78727. Dy: (512) 465-5013. Res: (512) 255-0746. S: Carl Lyn. Dy: Weapons Plt Ldr, F Co, 149th Avn Bde, TXARNG. Rtg: AA TP. Maint Crs: AH-1. Qual: AH-1S. Time: 1,020 Hrs.

***Gray, Ronald W.**, (CW2) (M89) 218 West Virginia Avenue, Temple, TX 76701. Dy: (817) 770-5691. Res: (817) 773-7743. Dy: Fire Control & Rescue Off, Temple Fire Dept. Rtg: AA. Time: 1,500 Hrs.

***Greeling, Ronnie G.**, (CSM) (M86) P.O. Box 583, Brighton, IL 62012. Dy: (618) 256-2966. Res: (618) 372-3935. S: Verdine. Dy: 7158th Avn Regt, Scott Air Force Base, Belleville.

Greene, Joseph S., (2LT) (M89) 38 Somerset Parkway, Daleville, AL 36322. Dy: (205) 255-3311. Res: (205) 598-8077. S: Connie. Dy: E/1-145th. Rtg: AA. Qual: UH-1H. Time: 185 Hrs.

***Greenlee, George T.**, (MAJ) (M81) 1204 Glenwood Rd, Vestal, NY 13850-3243. Dy: (607) 721-5451. Res: (607) 757-0970. S: Encarnita. Dy: Engrg Coordinator, CAE-Link Corp.. Rtg: SAA IP. Time: 1,600 Hrs.

Greenwood, Roger H., (COL) (M72) (Roger) N2696 Richard Street, Lodi, WI 53555. Dy: (608) 241-6313. Res: (608) 592-3483. S: Heidi. Dy: WSARNG Chief of Staff, Madison. Rtg: MAA IP. Saf Crs: Mil. Time: 5,700 Hrs./Cbt 1,072 DFC/1, AM/31.

Grimsley, Alan W., (1LT) (M90) 1723 Mary Beth Court, Middleburg, FL 32068. Dy: (904) 641-8378. Res: (904) 276-5616. S: Melissa. Dy: B Co, 1-131 Avn, Jacksonville. Rtg: AA. Qual: AH-1S. Time: 750 Hrs.

***Grogan, Kenneth J.**, (MAJ) (M79) 8554 Schoolgate Drive, Huber Heights, OH 45424-1102. Res: (513) 867-5846. S: Ruth. Rtg: SAA. Maint Crs: FW. Qual: AH-1G C-12 U-21. Time: 5,000 Hrs.



Aviation Reserve Components

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Hackney, Malcolm L., (CW4) (M90) (Max) 1720 Coventry Place, Decatur, GA 30030-1005. Dy: (404) 421-5289. Res: (404) 373-7547. S: Liz. Dy: B Co, 1-244th Avn Regt, Windsor, GA. Rtg: MAA TP. Maint Crs: UH-1. Saf Crs: Mil. Time: 4,000 Hrs./Cbt 760 DFC/CL3, AM/32.

Halcoy, Jonathan P., (LTC) (M84) RD 2, Box 469, Annville, PA 17003-9602. Dy: (717) 865-8855. Res: (717) 865-6199. S: Mary Ann. Dy: Chief, Avn Med Div, Eastern Army Avn Tng Site, Ft. Detrick, VA. Rtg: AA. Maint Crs: FW. Time: 750 Hrs.

Haley, William R., (CW4) (M90) (Bill) 13064 Tall Tree Drive, S., Jacksonville, FL 32218. Dy: (904) 390-1422. Res: (904) 221-7617. S: Madeline. Dy: EMS Helicopter Pilot, Rocky Mtn Hcprts, Inc, Baptist Life Flt. Rtg: AA. Saf Crs: Mil. Qual: OH-58A OH-6A UH-1. Time: 4,300 Hrs./Cbt 720 AM/26, 2 Bronze Stars/V Device, Pres, America's First Coast Chp.

Hall, David W., (2LT) (M90) P.O. Box 620643, Fort Rucker, AL 36362. Dy: (205) 255-3311. Res: (205) 598-1009. Dy: E/1-145th. Rtg: AA. Time: 200 Hrs.

Ham, Derek R., (2LT) (M89) P.O. Box 373, Lake Jackson, TX 77566. Dy: (713) 484-6183. Res: (409) 297-7784. Dy: 1st Bn, 149th Avn Regt, Houston.

***Ham, Lance H.**, (CW4) (M90) Bar L H Cattle Co., 1506 Joe McIntosh Road, Plant City, FL 33565. Dy: (813) 644-8965. Res: (813) 754-1731. S: Norma G. Dy: FL Game/Fresh Water Fish Comm, Pilot/UL T Law Enforcement, 138th Avn. Rtg: AA IP. Qual: OH-58 UH-1 U-21. Time: 13,000 Hrs. Cbt 500 DFC/2, AM/17V.

***Hambrecht, Stephen E.**, (CPT) (M89) (Hamm) 104-D Harris Road, Ozark, AL 36360. Res: (205) 774-0973. S: Joan Rita. Rtg: AA TP. Maint Crs: UH-1, AH-1, UH-60. Qual: AH-1S, UH-60A. Time: 2,200 Hrs.

Hardy, Randy L., (1LT) (M85) (Randy) 6220 Shallowford Road, Apt. 162, Chattanooga, TN 37421-5430. Dy: (615) 271-3675. Res: (615) 899-4764. S: Gina. Dy: Atk Plt Ldr, /AH-1, TNARNG, S/4-278th AR Cav Regt. Rtg: AA. Qual: AH-1S. Time: 800 Hrs.

***Harp, Royal V III**, (LTC) (M87) (Buddy) 1850 Bobbinray Drive, Florissant, MO 63031. Dy: (314) 263-1231. S: Debbie. Dy: Log Mgmt Off/USARNG Liaison, AVSCOM, St. Louis. Rtg: MAA IFE SIP IP. Maint Crs: UH-1. Saf Crs: Mil. Qual: AH-1S. Time: 5,870 Hrs./Cbt 1,200 DEF/1, AM/35.

Harrison, Bradley D., (SGT) (M88) (Butch) 491 Royal Avn Way, Grand Junction, CO 81504. Res: (303) 434-8868. S: Lovita. Dy: Power Train Repairer, Co C.

Harris, John M., (CW4) (M71) 4592 Larwin Avenue, Cypress, CA 90630. Dy: (213) 493-8444. Res: (714) 229-8447. Dy: UH-1M IP, C Trp, 1/18th Cav, CAARNG, Los Alamitos AAF. Rtg: MAA SIP. Qual: AH-1S. Time: 6,800 Hrs./Cbt 337 AM/6. Past Vp, Southern Cal.

***Harris, Stephen M.**, (LTC) (M77) 105 Nottingham Court, Enterprise, AL 36330. Dy: (205) 255-4770. Res: (205) 347-2090. S: Amalie. Dy: Fit Insto/Staff Spc, for Dir of Stand & Eval, Ft. Rucker. Rtg: MAA IP, IFE. Saf Crs: Civ. Qual: AH-1S. Time: 4,400 Hrs./Cbt 600 AM/14.

Harrison, William T., (COL) (M64) (Bill) 10909 Adare Drive, Fairfax, VA 22031. Dy: (202) 724-9683. Res: (703) 239-9648. S: Carol. Dy: Sr. Army National Guard Advisor, Hq AMC, Alexandria, VA. Rtg: MAA IFE IP TP. Maint Crs: UH-1, FW. Saf Crs: Mil. Time: 4,000 Hrs.

Harsh, Timothy J., (SGT) (M89) (Skip) 34 Dallas Drive, Grantville, PA 17026. Dy: (717) 865-8797. Res: (717) 469-0278. S: Michelle. Dy: Crew Chief/Flight Engineer, Eastern ARNG Avn Trng Site, (AGR).

Hartman, Gary E., (1SG) (M89) 3205 Cristo Lane, Jacksonville, FL 32211. Dy: (904) 641-8141. Res: (904) 744-8143. S: Johnnie. Dy: B/1-131 Avn Bn.

***Hatten, Edward T.**, (LTC) (M68) 890 Centention Lane, Berwyn, PA 19312-1120. Dy: (215) 341-6535. Res: (215) 647-2030. S: Ruth. Dy: ADCSIM, 79th AFRCOM NAS Willow Grove. Rtg: AA. Maint Crs: FW. Time: 1,200 Hrs./Cbt 300 AM/4.

Hayes, Herb, E., Jr., (CW4) (M74) (Eddie) Tar Heel Chapter Treas., 1527 Steel Bridge Road, Sanford, NC 27330-8613. Dy: (919) 776-3211. Res: (919) 776-7441. S: Cindy. Dy: 1/130th Avn Regt, NCARNG. Rtg: SAA TP. Maint Crs: UH-1. Saf Crs: Mil. Qual: AH-1S, AH-64. Time: 1,900 Hrs. Life Member, Treas, Tarheel Chapter. Past Pres, Tarheel Chapter.

Hays, William D., (SSG) (M89) 1401-D South First St., Jacksonville Beach, FL 32250. Dy: (904) 641-8378. Res: (904) 249-7943. Dy: Utilty Hcpr Crewchief, 199th Med Co (Avn Amb), Craig Field.

***Herrick, Frank J.**, (SSG) (M84) 644 North Merrilawn Avenue, St. Louis, MO 63122-4446. Dy: (314) 721-2151. Res: (618) 256-5951. S: Celeste. Dy: HHC, 7th Bn, 158th Avn Regt.

Hess, Gerald L., (CW4) (M82) (Gerry) 2440 East Bayberry Drive, Harrisburg, PA 17112. Dy: (717) 865-8882. Res: (717) 657-3595. S: Sheryl. Dy: EAATS, FTIG, ASO. Rtg: MAA SIP IFE. Maint Crs: UH-1. Saf Crs: Mil. Qual: OH-58 OH-6 UH-1. Time: 4,450 Hrs./Cbt 400 DFC, AM/16.

Hester, Michael H., (CW2) (M89) P.O. Box 1241, Harlingen, TX 78550. Dy: (713) 484-6111. Res: (512) 428-0673. S: Juanita. Dy: C/1-149th Atk Hcpr Regt.

Hetzell, Allen W., (WO1) (M89) (Ice) 2114-E Haven Road, Wilmington, DE 19809. Res: (302) 791-0389. Dy: C Co, 1-106 Avn, Wilmington. Rtg: AA. Time: 750 Hrs.

Hewitt, James C., (CW2) (M88) 1368 Sherman Street, Watertown, NY 13601. Dy: (315) 782-6608. Rtg: AA IP. Time: 3,700 Hrs./Cbt 1,000 DFC, AM/37.

Hicks, Donald W., (CW2) (M90) 3920 Merrifields Blvd., Portsmouth, VA 23703. Dy: (804) 393-8011. Res: (804) 483-8337. S: Colleen. Dy: Police Hcpr Pilot/Supv, Portsmouth Police Dept. Rtg: AA. Saf Crs: Mil. Time: 3,800 Hrs.

Hicks, Joe B., (CPT) (M89) Lot 16, Shady Creek, Noble, OK 73068. Dy: (405) 527-2706. Res: (405) 872-7270. S: Yaffie. Dy: B/1-245 Avn (Sp Opes) Abn.

Hill, Howard D., (COL) (M70) (Doug) 2311 Hadson Place, Bowie, MD 20716. Dy: (202) 697-3391. Res: (301) 464-9209. S: Brenda. Dy: XO, Army Reserve Force Policy Comm, USA The Pentagon, Washington DC. Rtg: MAA. Time: 3,000 Hrs./Cbt 650 AM/100LC. Past Sec, Chesapeake Bay Chapter.

Hillwig, Michael C., (CW3) (M90) (Ski Bum) P.O. Box 422, West Jordan, UT 84084. Dy: (801) 524-3670. Res: (801) 359-5046. S: Rebecca. Dy: 1-211 Bn ASD/AH-64 IP, Utah N.G. Rtg: AA IP. Saf Crs: Mil. Qual: AH-1S, AH-64. Time: 1,900 Hrs.

Hines, Pat A., (SSG) (M85) 203-13 Conner Drive, Chapel Hill, NC 27514. Dy: (919) 840-3470. Dy: Scout Section SGT, 1/130 Aik Avn, Raleigh-Durham Airport.

***Hinton, Allyn J.**, (CW3) (M89) 26 Country Creek Drive, St. Peters, MO 63376. Dy: (314) 394-8350. Res: (314) 441-5623. S: Janet. Dy: High School History Teacher/ Pilot USAF, 7/158TH Avn Regt. Rtg: AA. Saf Crs: Mil. Qual: UH-60. Time: 4,000 Hrs./Cbt 600 AM/46.

Hipps, Gary W., (1LT) (M89) 5534 Zabolio Drive, Apt. 242, Houston, TX 77598. Dy: (713) 477-9700. Res: (713) 486-5851. Dy: Atk Plt Ldr, A Co, 1-149th Avn Regt. Rtg: AA. Time: 594 Hrs.

Holden, James D., (COL) (M65) (Jim) 9203 Avalon Drive, Richmond, VA 23229. Dy: (804) 222-4580. S: Betsy. Dy: State Army Aviation Officer-VA. Rtg: MAA IFE SIP. Qual: UH-60A. Time: 7,000 Hrs./Cbt 1,042 DFC1, AM/43.

Holder, James D., (MSG) (M84) (Jim) San Jacinto Chapter Sr VP, 11007 Kirkwell, Houston, TX 77089. Dy: (713) 929-2768. Dy: Ops Spt HQs 1st Bn, 149th Avn Srvp, San Jacinto Chapter.

Hollinrake, William J., (1LT) (M87) 620 Palmer Place, Des Moines, IA 50315-1174. Dy: (515) 242-4618. Res: (515) 244-2456. Dy: ARNGIA, Scout Plt Ldr, Waterloo, IA. Rtg: AA. Qual: OH-58. Time: 400 Hrs.

***Hopkin, Alvin V.**, (CPT) (M84) (Al) 343 White Pine Drive, St. Charles, MO 63003. Dy: (314) 263-1946. Res: (314) 928-8485. S: Dolye. Dy: Logis Mgt Spec/Apache PM, AVSCOM. Rtg: SAA. Maint Crs: UH-1H. Time: 907 Hrs.

Hopper, James M., (CW2) (M88) (Jim) 160 Clairmont Road, Salisbury, NC 28144. Dy: (704) 637-0471. Res: (704) 633-4789. S: Linda. Dy: Quality Control, NCAIRNG, Rowan County Airport. Time: 1,314 Hrs.

Home-Fielding, Nancy, (CPT) (M80) 16 Regency Road, Salisbury, NC 28144-2119. Dy: (704) 636-9254. Res: (704) 633-5348. S: William. Dy: Pilot, NCAIRNG, D Co, 1/192 Avn Regt. Rtg: AA. Time: 1,500 Hrs.

***Hoskin, Stanley T.**, (MAJ) (M83) (Stan) 4301 Terry Drive, Chesapeake, VA 23321-4547. Dy: (804) 484-9565. S: Jane. Dy: Maint Off, 80th Dv (MTC), Richmond, VA. Rtg: SAA TP. Maint Crs: AH-1. Qual: AH-1S. Time: 1,200 Hrs.

***Hull, Patrick**, (1SG) (M89) Greater Chicago Ent Ahrs, 1502 Marengo Avenue, Forest Park, IL 60130. Dy: (708) 657-2122. S: Kay. Dy: C Co, 3/158th Avn Regt. Vp, Greater Chicago Area Chap.

Husa, Jeffrey A., (WO1) (M89) (Who) 19107/2 South Riverside, Ames, IA 50010. Res: (515) 233-1224. S: Jennifer. Dy: Student, Iowa State University. Rtg: AA. Time: 575 Hrs.

Hyde, Jack K., (CW3) (M89) P.O. Box 62422, San Angelo, TX 76906. Dy: (915) 942-6840. Res:

J Aviation Reserve Components

(915) 944-2130. S: Janice. Dy: US Customs Pilot, San Angelo, TX. Rtg: AA IP. Saf Crs: Mil. Qual: UH-60A. Time: 5,000 Hrs.

Hyland, Robert A., (1LT) (M88) 3145 Charing Cross Drive, Wilmington, DE 19808. Dy: (302) 234-7419. Res: (302) 234-1037. Dy: Section Ldr, E Co, 150th Avn, New Castle. Rtg: AA. Ltr: 350 Hrs.

IIII-JJJJ

Idol, Tony G., (COL) (M80) (Tony) 1401 Acworth Drive, Due West Rd, Kennesaw, GA 30144-3903. Dy: (404) 624-6625. Res: (404) 427-8735. S: Kathlene. Dy: DCS PER GA STARC ATL. Rtg: MAA. Time: 3,500 Hrs./Cbt 750 AM/16.

Jackson, Stephen R., (LTC) (M86) (Stick) 3585 East Bengal Blvd, Salt Lake City, UT 84121. Dy: (801) 524-3708. S: Shauna. Dy: S-3, 211th Avn Gp (Attack Hel), West Jordan. Rtg: MAA SIP IP. Saf Crs: Mil. Qual: AH-1S. Time: 6,800 Hrs./Cbt 1,800 AM/56.

Jacoby, Thomas G., (COL) (M81) (Tom) P.O. Box 812, Valley Rd., Mt. Gretna, PA 17064-0612. Dy: (717) 865-8825. S: Rosemarie. Rtg: St Army Avn Off, PAARNG. Rtg: MAA IFE IP. Saf Crs: Usc. Time: 5,700 Hrs./Cbt 1,069

James, Richard B., (WO1) (M88) (Rick) 1124 Forest Green Drive, Coraopolis, PA 15108. Dy: (412) 472-4303. Res: (412) 262-7931. S: Vicki. Dy: C Co, 1-130th Avn Bn, Morrisville, PA. Rtg: AA. Time: 200 Hrs.

Jimenez, Alberto J., (MAJ) (M83) 1209 Mystic Court, Churchville, MD 21028. Dy: (301) 671-1745. S: Maria T. Dy: 1/224th Avn Regt, MDARNG. Rtg: MAA TP. Maint Crs: OH-58, OH-6, UH-1, AH-1, FW. Saf Crs: Mil. Time: 3,550 Hrs./Cbt 750 AM/1.

Johnson, Douglas, (CW2) (M86) (Doug) 2567 Shadyridge Drive, Bedford, TX 76021. Dy: (713) 484-8137. Res: (817) 540-3431. Dy: First Officer, Airline Pilot, American Airlines. Rtg: SAA. Qual: AH-1S. Time: 6,500 Hrs.

Johnson, James W. Jr., (CW2) (M90) (Jim) 4519 Boulevar Road, Blythe, GA 30805. Dy: (404) 791-7236. Res: (404) 592-2954. S: Wilda. Dy: Rotary Wing Pilot, B Co, 1-244TH Avn Regt. Rtg: AA IP. Maint Crs: UH-1.

Johnson, James A., (CW2) (M86) (Alan) 1919 Fox Creek Drive, Dallas, GA 30132-4566. Dy: (404) 421-5622. Res: (404) 443-2776. S: Kelley. Dy: Training Officer, Co A, 151st Military Intelligence Bn, Dobbins AFB. Rtg: AA. Saf Crs: Mil. Qual: OV-10, U-21. Time: 1,500 Hrs.

Johnson, Thomas A., (MAJ) (M84) (T.J.) 408 Abbey Circle, Abingdon, MD 21009. Dy: (301) 671-2451. Res: (301) 836-8450. S: Susan. Dy: S3, 29th Avn Bde, Edgewood, MD. Rtg: AA. Qual: AH-1S. Time: 2,400 Hrs./Cbt 564 AM/22.

Johnson, Warren L. Jr., (MAJ) (M88) 1034 18th Street, South, Arlington, VA 22202. Dy: (202) 695-6998. Res: (703) 892-8244. Dy: Staff Action Off, NGB-PO, The Pentagon, Wash. DC.

Jonas, Larry M., (LTC) (M70) 3703 Roxbury

Lane, Alexandria, VA 22309. Dy: (703) 339-1707. Res: (703) 799-7452. S: Faye. Dy: PMO-RCAS, Ft Belvoir, Rtg: SAA. Maint Crs: UH-1. Time: 1,700 Hrs./Cbt 322 AM/7.

Joyce, Stephen E., (CPT) (M86) (Julca) 3602 W 43 Avenue, Anchorage, AK 99517. Dy: (907) 865-6190. S: Mary. Dy: Asst S-3, 1-207th Avn Regt. Rtg: AA. Time: 1,100 Hrs.

***Julian, Mark D.**, (CPT) (M81) 157 N. Estelle St, Wichita, KS 67214. Dy: (316) 685-8633. Res: (316) 685-8633. Dy: IRR, APPERCEN, St. Louis, MO. Rtg: AA. Qual: UH-60A. Time: 824 Hrs.

KKKKKKKKKK

Kamimura, Dennis A., (LTC) (M81) 836 16th Avenue, Honolulu, HI 96816. Dy: (808) 624-9300. Res: (808) 732-7547. S: Diane. Dy: HQ 1st Bn 193d Avn Bn Cdr, Wheeler AFB. Rtg: MAA IP. Qual: AH-1S. Time: 4,000 Hrs./Cbt 400 AM/15. Life Member.

***Kammer, Edward F.**, (MAJ) (M83) (Ed) 4317 Mayhew Road, Cincinnati, OH 45238. Dy: (513) 351-6605. S: Katie. Dy: Admin Off, 2075th USAR Force School, Cincinnati. Rtg: SAA. Maint Crs: UH-1. Saf Crs: Mil. Civ. Time: 1,800 Hrs.

***Kane, Roland J.**, (2LT) (M89) (Rollie) 2430 Muscatine Avenue, Apt. 26, Iowa City, IA 52240. Dy: (515) 285-9878. Res: (319) 354-5481. S: Cynde. Dy: 989th Med Detach (AA), Des Moines, IA. Rtg: AA Pl. Qual: UH-1H. Time: 500 Hrs.

Kavanaugh, Lawrence, (SGT) (M88) 26 Kingswood, Pittsburg, CA 94565. Dy: (415) 463-0555. Res: (415) 439-3531. Dy: Stochton Support Facility, HSC 1/40th 40th Inf Div Mech, Stockton.

***Keen, David R.**, (WO1) (M88) P.O. Box 91403, Long Beach, CA 90809-1403. Dy: (213) 493-8232. Res: (213) 599-9901. Dy: A Co, 1/214th Avn, Los Alamitos. Rtg: AA. Qual: UH-60. Time: 410 Hrs.

***Kelin, Kevin P.**, (WO1) (M89) 121 Avenue Dolores, San Clemente, CA 92672. Dy: (714) 744-0400. Res: (714) 361-5357. S: Tara. Dy: Orange County Fire Fighter. Rtg: AA. Qual: UH-60. Time: 350 Hrs.

***Kelly, Kent F.**, (CW2) (M86) 15796 Cromdale, Hesperia, CA 92345-4402.

Kelly, Robert M., (CW2) (M82) (Bob) 3134 E. McKellips, No. 192, Mesa, AZ 85213. Dy: (602) 891-7390. Res: (602) 924-2323. S: Debby. Dy: Aik Hcpt Pilot, C Co, 1/285 Avn, Silverbell AHP, Marana, AZARNG. Rtg: SAA. Qual: AH-1S. Time: 2,000 Hrs.

Kennedy, Joseph C., (CW3) (M90) (Joe) 2231 Hill Court, Bel Air, MD 21014. Dy: (301) 278-8782. Res: (301) 836-5365. S: Joyce. Dy: Logis Mgmt Spec. US Army Sys. Analysis Activity, AFM, MD. Rtg: AA. Time: 4,000 Hrs./Cbt 985 DFC/2, AM/24.

Kerkhoff, Harold E., (MAJ) (M90) (Hal) 1861 Thousand Oaks Lane, Lawrenceville, GA 30043. Dy: (404) 421-5622. Res: (404) 822-1519. S: Beth. Dy: Cdr, A Co, 151st MI Bn, Dobbins AFB, GA. Rtg: AA. Qual: OV-10. Time: 1,500 Hrs.

Kessier, James S., (COL) (M88) Office/Adjutant General, 7700 NW Beaver Drive, Johnston, IA 50131-1902. Dy: (515) 278-9376. Res: (515) 225-7707. Dy: Director of Army Aviation, IAARNG.

Kingsley, Scott H., (1LT) (M90) 13511 Perthshire, Houston, TX 77079. Dy: (713) 484-6111. Res: (713) 461-8959. Dy: B Co, 1-149th Avn, TXARNG, Ellington Field, TX. Rtg: AA. Qual: AH-1S.

Knapp, Kent A., (CW4) (M87) 9111 N. Crane Hawk Place, Tucson, AZ 85741. Dy: (606) 624-9189. Res: (602) 744-1850. S: Diana. Dy: DES SP Attack Hcpr, WAATS, Marana. Rtg: AA SIP. Qual: AH-1S. Time: 3,500 Hrs.

***Knedler, Thomas L., (CW3) (M90)** (Tom) 312 Trees Drive, Cedar Hill, TX 75104. Dy: (214) 263-0941. Res: (214) 291-3911. S: Mariene. Dy: Electronic Tech, L Co, 158th Avn Regt (AVM), AGR.

***Koralik, Richard T., (CSM) (M90)** (Dick) 3246 N. Paris Ave., Chicago, IL 60634. Dy: (708) 867-2749. Res: (312) 625-2699. S: Judy. Dy: 244th Theatre Avn. Gp.

Kraft, David A., (CW3) (M87) (Dave) Old Tucson Chapter Secy, 8180 N Brookshire Ct., Tucson, AZ 85741. Dy: (602) 624-9189. Res: (602) 744-1340. S: Susan. Dy: Flight Weapons Sim. IP, USARNG. Rtg: AA IP. Maint Crs: AH-1. Qual: AH-1S, OH-58. Time: 2,000 Hrs. Sec. Old Tucson.

Kramer, Timothy D., (1LT) (M90) 102 Livingston, Daleville, AL 36322. Dy: (205) 255-3311. Res: (205) 598-5404. Dy: E/1-145th. Time: 60 Hrs.

***Kristrom, John K., (CPT) (M90)** 621 7th Street, No. 26, Hoquiam, WA 98550-3560. Dy: (206) 533-7870. Res: (206) 532-0363. S: Joanne. Dy: Quality Control Tech. Harp Investment Inc. Rtg: AA. Qual: CH-47C. Time: 4,710 Hrs.

Krometis, Jerry A., (CW3) (M84) (Kro) 100 Karen Drive, Ozark, AL 36360. Dy: (205) 255-6008. Res: (205) 774-5226. S: Lynne. Dy: DAC AH-1S Flight Instr. 1/14th Avn Bn, Ft. Rucker. Rtg: IFE SIP IP. Qual: AH-1S. Time: 4,500 Hrs./Cbt 869 AM26.

Kuhlík, Andrew B., (1LT) (M88) 22 West Curtis Street, Linden, NJ 07036. Dy: (609) 530-4258. Dy: Aeroscout Pitt Land, B/1-150 Avn, NJARNG. Rtg: AA. Qual: OH-6A. Time: 780 Hrs.

LLLLLLLLL

Labrie, Joseph G., (COL) (M85) (Joe) 45 Woodland Avenue, Smithfield, NJ 02917. Dy: (401) 267-3003. Res: (401) 231-8487. S: Ann. Dy: FT Facility Super, RIARNG, Kingstown. Rtg: AA IFE, SIP. Time: 8,000 Hrs./Cbt 950 AM/22.

Lancaster, Alan R., (CPT) (M89) (Al) 1 Lawncroft Road, Enfield, CT 06082. Dy: (203) 627-4695. Res: (203) 745-9457. S: Denise. Dy: IP, CTARNG. Rtg: SAA IFE SIP TP. Maint Crs: UH-1. Time: 3,500 Hrs.

Lasser, Thomas E., (LTC) (M67) (Tom) 5313 Grouse Run, Stockton, CA 95207-5336. Dy: (209) 982-3881. Res: (209) 478-2420. S: Laura. Dy: HQs, CAARNG. Rtg: MAA IP. Maint Crs: CH-47. Saf Crs: Mil. Time: 6,060 Hrs./Cbt 1,715 DFC/1, AM/35. Past Vp, Valley Forge MA & JC.

M Aviation Reserve Components

Laumeyer, John P., (CPT) (M90) (J.P.) 5816 Auvers Boulevard, Apt. 205, Orlando, FL 32807. Dy: (407) 660-2550. Res: (407) 671-7762. Dy: Finance Supvr, Travelers/EBS, Inc., Maitland, FL.

***Laverdiere, David A., (CPT) (M77)** (Dave) 2205 Daleford, Troy, MI 48068. Dy: (313) 776-7950. Res: (313) 828-0238. S: Grace. Dy: Detroit Recruiting Bn, Warren, MI. AGR. Rtg: SAA IP. Maint Crs: UH-1H FW. Saf Crs: Mil. Time: 2,000 Hrs.

Lawler, John W., (CW3) (M90) P.O. Box 2510, Peachtree City, GA 30269. Dy: (404) 487-5611. Res: (404) 487-9844. S: Barbara. Dy: Army National Guard, Co. B 244th AHC, Winder, GA. Rtg: AA. Time: 4,900 Hrs./Cbt 1,200 AM/36.

Lawson, Jimmy L., (SFC) (M82) 150 Holly Circle, Baltimore, MD 21221. Dy: (301) 575-6930. Res: (301) 391-4596. S: Sandra. Dy: F Co, 224th Avn Bn, 29 LID, Edgewood, MD.

Lee, James M., (CW2) (M75) (Jim) 30966 Old Baton Rouge Hwy, Hammond, LA 70403. Dy: (504) 388-2736. Res: (504) 567-1120. S: Margaret. Dy: Research Assoc, Coastal Ecology Inst. Ctr for Wetlands Resources LSU. Rtg: MAA. Qual: UH-60A. Time: 2,150 Hrs.

Leul, Victor A., (LTC) (M67) (Vic) 4500 South Four Mile Run, No. 616, Arlington, VA 22204-3537. Dy: (202) 433-5182. Res: (703) 845-9694. S: Deb. Dy: Dir. Facilities Engr, DCARNG. Rtg: MAA TP. Maint Crs: UH-1. Qual: AH-1A. Time: 3,500 Hrs./Cbt 1,846 DFC/1, AM/12.

Lewis, Darrell E., (CW4) (M90) Executive Air Taxi Corp., P.O. Box 2273, Bismarck, ND 58502. Dy: (800) 932-8924. Res: (701) 222-4802. S: Peggy R. Dy: Director Helicopter Operations, Bismarck Airport, ND. Rtg: AA. Maint Crs: UH-1. Time: 7,000 Hrs./Cbt 1,400 DFC/1, AM/4.

Libby, Gregory K., (CW4) (M88) (Greg) 8004 Lifford, Fort Worth, TX 76116. Dy: (817) 568-0085. Res: (817) 244-5070. S: Carolyn. Dy: Co G, 149th Avn Bn, TXARNG, Grand Prairie, TX. Rtg: MAA IP TP. Maint Crs: CH-47, OH-58. Saf Crs: Mil. Qual: CH-47D. Time: 4,596 Hrs./Cbt 986 AM/5. Life Member.

Lindsay, Russell C., (SSG) (M90) (Rusty) 1912 Harwood Road, Edgewood, MD 21040. Dy: (301) 671-2891. Res: (301) 678-4683. Dy: Helicopter Mechanic, Co F, 224th Avn Bde.

Little, Michael E., (CW4) (M89) (Mike) 5933 East Fox Circle, Mesa, AZ 85205. Dy: (602) 891-8264. Res: (602) 981-3582. S: Kristin. Dy: Engr, MDHC. Rtg: AA IP. Qual: UH-60A. Time: 3,500 Hrs.

Long, Meade G., (MAJ) (M87) (Bud) 2110 North McAllister Ave, Tempe, AZ 85281-1320. Dy: (602) 267-2639. Res: (602) 949-1289. Dy: S1, 385 Avn Group, AZARNG, Phoenix. Rtg: SAA. Maint Crs: UH-1. Time: 1,900 Hrs.

Lord, Dennis J., (LTC) (M87) (Denny) 208 Airport Road, St. Paul Downtown Airt, St. Paul, MN 55107-1090. Dy: (612) 296-4585. S: Karon. Dy: MN Army NG, St. Avn Off-Facility Cdr. Rtg: AA IFE, SIP. Maint Crs: UH-1. Saf Crs: Mil. Time: 10,000 Hrs./Cbt 1,100 DFC/1.

***Losey, Michael W., (SFC) (M89)** 3615 Suttonford Drive, Houston, TX 77066. Dy: (713) 233-1617. Res: (713) 893-2634. S: Judith. Dy: Customer Support Rep, Boeing Commercial Airplanes, Houston.

***Lovell, William E., (WO1) (M89)** (Will) 778 Jimmy Ann Drive, Apt. 915, Daytona Beach, FL 32114. Res: (904) 839-8640. Dy: Fort Benning. Rtg: AA. Qual: UH-60A. Time: 509 Hrs.

Loynach, Richard E., (CW4) (M78) (Studs) 2505 Redpath Drive, Marinette, WI 54143. Dy: (906) 863-9971. Res: (715) 732-1117. S: Georgiann. Dy: VP Sales/Service, The Enstrom Hcpr Corp., Rtg: MAA. Maint Crs: UH-1. Time: 15,000 Hrs./Cbt 1,100 AM/11.

***Lutz, Eric W., (CPT) (M89)** 3048 Eaglet Loop, Orlando, FL 32821. Dy: (407) 356-7373. Dy: XO, 138th Avn Co.

Lykens, Robert W., (MSG) (M81) (Bob) P.O. Box 159, Ono, PA 17077-0159. Dy: (717) 865-8929. Res: (717) 533-8743. Dy: EAATS, Operations SGT, Ft. Indiantown Gap.

MMMMMMMMMM

MacGregor, Matthew D., (CPT) (M89) (Gor) 9758 Winterwood Drive, Sandy, UT 84092-2912. Dy: (801) 561-0056. Res: (801) 571-3085. S: Alona. Dy: Pres, Air Products Testing Lab, Co Cdr, A/1-21st Gp (AK), Rtg: AA. Qual: AH-1S, AH-64A. Time: 900 Hrs.

***MacMillan, Richard H., (MG) (M57)** (Dick) 3829 Courtyard Drive, Atlanta, GA 30339. Dy: (404) 842-2206. Res: (404) 434-1903. S: Judy. Dy: USAR, Cdr, 81st USA Reserve Cdr, EAFTPT. Rtg: MAA. Time: 4,000. Chart Mem.

Maly, George B., (MAJ) (M88) (Bruce) 7137 Butterwood Drive, Cincinnati, OH 45241-1033. Dy: (317) 392-8254. Res: (513) 777-0214. S: Teresa. Dy: Cdr, F Co, 238th Avn, Shelbyville, IN. Rtg: AA. Time: 2,000 Hrs.

***Mann, Ronald B., (SSG) (M77)** 5041 Sw 1175 Way, Cooper City, FL 33330. Dy: (305) 685-7080. Res: (305) 434-121. S: Nancy. Dy: Crew Chief, UH-1V, 347th Med Det (H&M), Miami.

***Marshall, Richard N., (CPT) (M85)** (Rick) Route 6, Box 65, Decatur, AL 35603. Dy: (205) 350-7466. Res: (205) 350-7466. S: Linda. Dy: Tech Rep, Rhone-Poulenc Ag Co. Rtg: AA IP. Qual: CH-47C. Time: 1,500 Hrs.

Martin, Charles E., (LTC) (M82) (Chuck) Indiantown Gap Vp Mem, 1331 Mill Pond Way, Palmyra, PA 17078. Dy: (717) 865-8919. Res: (717) 838-1671. S: Maggie. Dy: XO, 28th Avn Bde, Harrisburg, PA. Rtg: MAA SIP. Maint Crs: CH-47, FW. Saf Crs: Mil. Time: 6,020 Hrs. Vp, Indiantown Gap Chapter.

Marty, Wayne D., (COL) (M86) 12730 El Sendero, San Antonio, TX 78233. Dy: (512) 824-1918. Res: (512) 653-2990. S: Jamie. Dy: Cdr Avn Bde, 49th Avn, TXARNG. Rtg: AA IP. Time: 2,600 Hrs./Cbt 508 AM/26.

Mason, Daywayne H., (CPT) (M83) (Skip) 272 Carriage Drive, Nashville, TN 37221. Dy: (615) 377-0450. Res: (615) 646-7732. S: Sandra A. Dy: Co R, 4/278th AC, Smyrna. Rtg: AA. Qual: OH-6A. Time: 650 Hrs.

Mason, Robert L., (COL) (M59) (Bob) 610 Katrina Avenue, Tipp City, OH 45371. Res: (513) 667-7988. Dy: Ret. Capt Eastern Airlines. Rtg: AA IFE SIP IP. Maint Crs: UH-1, AH-1, OH-58. Saf Crs: Mil/Civ. Qual: AH-1S. Time: 23,000 Hrs. Life Member.

Mathias, Ted A., (CSM) (M87) 5735 East McDowell Road, Suite 35, Mesa, AZ 85205. Dy: (602) 267-2604. S: Cherie. Dy: HQ STARC, AZARNG, State CSM.

***Matia, Matthew C.**, (MAJ) (M88) (Matt) 5612 Stillwater Court, Burke, VA 22015. Dy: (703) 848-7880. Res: (703) 425-1532. S: Tricia. Dy: Cdr, B Co, S/159 Avn, Ft. Meade. Rtg: SAA. Maint Crs: UH-1, CH-47. Qual: CH-47D. Time: 2,000 Hrs.

Mayenschein, Eddie D., (CPT) (M87) 1219 Elm Drive, Oakdale, PA 15071-1410. Dy: (412) 223-4575. Res: (412) 787-1672. S: Cynthia. Dy: Company Cdr, HSC 1-104th AHB, Washington, PA. Rtg: AA. Time: 5,900 Hrs.

***Mayrose, David F.**, (LTC) (M81) (Dave) 3709 S. George Mason Dr., Apt. 804-E, Falls Church, VA 22041. Dy: (202) 447-4137. Res: (703) 845-0234. S: Judy. Dy: Avn Staff Off, MA, 1st Army Hdq, Ft Meade. Rtg: SAA IP. Time: 1,900 Hrs.

***McClellan, Celeste A.**, (CPT) (M80) (Killer) 1401 Harold Drive S.E., Cedar Rapids, IA 52403. Dy: (319) 395-5295. Res: (319) 364-4229. Dy: 103rd COSCOM, Actl Readiness Off, Fort Des Moines, Rtg: AA TP. Maint Crs: UH-60. Qual: UH-60A. Time: 900 Hrs.

McCloskey, C. Brock, (MAJ) (M88) 8001 Failing Leaf Court, Raleigh, NC 27615. Dy: (919) 783-2004. Res: (919) 848-8236. S: Charlene. Dy: VP Employee Relations/XO 449th Atk Avn Co, NC ARNG. Rtg: AA TP. Maint Crs: UH-1, AH-1. Qual: AH-1S. Time: 2,600 Hrs./Cbt 700.

McClure, Billy W., (CPT) (M87) 402 Pine Street, Van Buren, AR 72956. Dy: (501) 771-5550. Res: (501) 474-1532. Dy: Co Cdr, Camp Robinson, NLR. Rtg: AA IP. Maint Crs: AH-1S. Qual: AH-1S. Time: 1,450 Hrs.

***McGee, Jerry D.**, (CSM) (M90) Route 2, Box 58, Pooville, TX 76076. Dy: (817) 472-5044. Res: (817) 523-5277. S: Betsy. Dy: 28th Avn Group, Arlington, TX.

McGee, Matthew B., (CPT) (M83) (Matt) 15010 N. 59th Avenue, Apt. 120, Glendale, AZ 85308-3240. Res: (602) 843-2988. S: Lynn. Dy: 385th Avn Group, AZARNG, Phoenix. Rtg: AA. Qual: UH-60A. Time: 1,200 Hrs. AM/1.

McKeever, Robert P., (MAJ) (M89) (Bob) 861 Ocean Boulevard, Atlantic Beach, FL 32233-5429. Dy: (904) 632-2100. Res: (904) 246-9108. Dy: Bn Executive Officer, 1-111th Avn, FLARNG. Rtg: MAA TP. Maint Crs: UH-1. Qual: UH-60A. Time: 3,000 Hrs. Tra, America's First Coast Chap..

McKenzie, Dana C., (MAJ) (M83) (Mac) 250 Holly Street, Vass, NC 28394. Dy: (919) 654-6267. Res: (919) 245-4920. S: Sue. Dy: Deputy Inspector General, NCARNG. Rtg: AA. Time: 600 Hrs. Sec, Tarheel Chapter. Past Sec, Fort Bragg Chapter.

McKinley, James L., (CW4) (M86) (Jim) 128 Hollywood Drive, Langhorne, PA 19047. Dy: (215) 757-9461. Dy: Keystone Hcpr Ctr, Hershey Medical Ctr. Rtg: AA TP. Maint Crs: CH-47. Time: 5,900 Hrs./Cbt 800 AM/15.

McLain, Jim, (1LT) (M90) (Mac) 717 Dunn Road, Coventry, CT 06238. Res: (203) 742-7753. Dy: CTARNG. Rtg: AA TP. Maint Crs: UH-1. Time: 800 Hrs.

McMurtry, Cletus J., (CW4) (M87) 1420 W. Dawn Drive, Tucson, AZ 85704. Dy: (602) 624-9189. S: Marcia. Dy: Instr Pilot, Western Avn Tng Site. Rtg: AA IP. Maint Crs: UH-1. Time: 2,850 Hrs./Cbt 865 AM/26.

N Aviation Reserve Components

Medley, Brent A., (1LT) (M87) (Smedley) Route 4, Box 301, Ozark, AL 36360. Dy: (205) 255-3341. Res: (205) 774-1227. S: Leann. Dy: E Co, 1-13th Avn, Fort Rucker, AL. Rtg: AA. Time: 800 Hrs.

Mesaros, James J., (SGT) (M89) 29 N. Front Street, Box 174, Milton, PA 17847-9998. Dy: (717) 865-8959. Res: (717) 742-2044. Dy: Personnel Ft Equipment Handler/Avn Support Specialist.

***Mieczkowski, Ronald W.**, (MAJ) (M87) P.O. Box 5062, Parris Island, SC 29905. Dy: (803) 525-2924. Dy: Head, Info Systems Branch, Parris, Is., SC. Rtg: AA. Qual: AH-1S.

***Millard, Steve L.**, (LTC) (M89) 928 Deese Street, Ozark, AL 36360. Dy: (205) 255-8201. Res: (205) 774-2285. S: Hellon. Dy: TECOM. Rtg: M55 IFE S/P IP. Qual: AH-1S, AH-64A, OH-58A/C/D, OH-6, UH-60A. Time: 6,000 Hrs./Cbt 214 DFC1, AM/6.

***Miller, Brett S.**, (CPT) (M87) 1506 South Oaks Drive, Nashville, TN 37211. Dy: (615) 333-6750. S: Patty. Dy: Sales Consultant, Walter Lorenz Surgical Instrument.

***Miller, Charles R.**, (CPT) (M90) (Chuck) 5379 Mulwood Place, Powdersprings, GA 30073. Dy: (404) 421-5750. S: Alfreda. Dy: Ft Ops Off, AGR, 412th Med Det, Dobbins AFB, GA. Rtg: AA. Qual: UH-60A. Time: 2,100 Hrs.

Miller, Mark E., (WO1) (M88) 2825 East Burn Road, Milford, MI 48042. Dy: (517) 627-2426. Res: (313) 685-2981. Dy: Miang. Rtg: AA TP. Maint Crs: AH-1. Saf Crs: Mil. Qual: AH-1S. Time: 560 Hrs.

***Minden, Francis J.**, (MAJ) (M90) (Frank) 1001 Westminister, Garland, TX 75040. Dy: (817) 280-4664. Res: (214) 495-4103. S: Vicki. Dy: Metallurgist, Bell Hcpr Textron, Ft Worth. Rtg: AA. AM/15.

Mitchell, Frank J., (1SG) (M89) 112 Northway, Havre de Grace, MD 21078. Dy: (301) 671-2891. Res: (301) 939-9268. S: Linda. Dy: Aircraft Mechanic, AASF MDARNG, B Trp, 1/158 Cav, APG.

Mohawk, Jason F., (WO1) (M89) (Buzard) 112 Sunset Drive, Petal, MS 39465-3736. Dy: (601) 554-7542. Res: (601) 583-2248. Dy: MSARNG, A Co, 1/185 Avn, Hawkins Field, Jackson. Rtg: AA. Time: 700 Hrs.

Mong, James J., (LTC) (M71) (Jim) P.O. Box 589, Burlingame, CA 94011-0589. Dy: (805) 238-8181. Res: (415) 347-4470. Dy: Airfield Cdr, Roberts AAF, Camp Roberts. Rtg: MAA. Maint Crs: OH-58. Time: 4,100 Hrs./Cbt 1,253 AM/25.

Morowczynski, Stephen, (CW4) (M84) 8803 Briarwood Lane, Orland Park, IL 60462. S: Nanci. Dy: ILARNG, Chicago. Rtg: MAA.

Morris, David C., (1LT) (M88) 2304 W. 7th St., Apt. 31, Hattiesburg, MS 39401. Dy: (601) 544-7900. Res: (601) 583-8527. Dy: Pil Ldr, A Co, 1-185th Avn.

Moser, Mark S., (SPC) (M89) (Sean) 8832 Foggy Bottom Drive, Raleigh, NC 27613. Dy: (919) 733-2555. Res: (919) 848-3529. Dy: B Co, 1/130th Bn..

***Motz, Gary A.**, (CW3) (M90) 1266 Van Buren, St. Paul, MN 55104. Dy: (612) 291-0128. Dy: Safety Officer (AGR). Rtg: AA. Saf Crs: Mil. Qual: AH-1S. Time: 2,600 Hrs.

Murphy, Edward J., (WO1) (M80) (E.J.) 309 Vanderbilt Avenue, Brentwood, NY 11717-2519. Dy: (516) 586-2552. Res: (516) 434-1180. S: Jane Ellen. Dy: Pilot, 42nd Avn Bde MacArthur Airport. Rtg: AA SP. Maint Crs: AH-1. Qual: AH-1S. Time: 3,500 Hrs. AM/1.

***Murphy, Edwin V.**, (MAJ) (M90) (Ed) 633 South Hough Street, Barrington, IL 80010. Dy: (708) 657-2750. Res: (708) 382-6154. S: Lori. Dy: Operations Officer, S-3, 244th Theater Avn Co, Glenview NAS. Rtg: AA. Time: 1,800 Hrs./Cbt 375 AM/14.

Murphy, Richard O., (MAJ) (M87) 1642 W. Calle Tiburon, Tucson, AZ 85704. Dy: (602) 624-9189. S: Judith Ann. Dy: Western Avn Avn Tng Site WAATS. Rtg: MAA IP. Qual: AH-1S. Time: 4,990 Hrs./Cbt 600.

Murray, Rodney E., (1SG) (M89) (Rod) 9952 Lighter Lane, Jacksonville, FL 32257. Dy: (904) 641-8144. Res: (904) 262-4089. S: Linda. Dy: ACPI Insp Army Avn Maint Shop, HHC, 419th Avn Gp.

***Musser, John R.**, (WO1) (M89) 313 Hatten Road, Fort Ord, CA 93941. Dy: (408) 242-4460. S: Susan. Dy: B Trp, 2/9 Cav Sgdn., Rtg: AA. Qual: AH-1.

Muzio, David S., (CW2) (M86) 1050 Minnewaska, Apt. 107, Clovis, CA 93612. Dy: (209) 454-5340. Res: (209) 299-2830. S: Connie. Dy: C, 1/140. Rtg: AA. Time: 1,450 Hrs.

NNNNN-0000

Neel, Timothy E., (CDL) (M87) (Tim) 12325 Hollywood Ct, Woodbridge, VA 22192. Dy: (703) 756-8994. Res: (703) 491-8899. S: Margaret. Dy: State Avn Off, Dearing. Rtg: MAA. Saf Crs: Mil. Qual: AH-1S. Time: 5,000 Hrs./Cbt 1,050 DFC1, AM/33.

Newman, Eddie L., (MAJ) (M72) 219 W. Oak, Eldridge, IA 52748. Dy: (319) 391-3635. Res: (319) 285-4577. S: Karen A. Dy: XO 1/109 Avn, Boone, IA. Rtg: AA IP TP. Maint Crs: UH-1 CH-47. Time: 5,200 Hrs. Past Vp, Mississippi Valley.

Ney, Stephen J., (PSG) (M89) (Steve) P.O. Box 367, Millersburg, PA 17061-0367. Dy: (717) 865-8963. Res: (717) 692-2791. S: Carol. Dy: Ft Ops Specialist.

Northcutt, Jeffrey S., (WO1) (M89) 2908 North Cheri Lynn Ct., Chandler, AZ 85224. Dy: (602) 267-2796. Res: (602) 983-6039. Dy: Hcpr Pilot, C Co, 1/108th Avn, Phoenix. Rtg: AA. Time: 380 Hrs.

***Nykanen, Kevin S.**, (CPT) (M86) 5836 Red Cedar Lane, Tampa, FL 33625. Res: (813) 960-2997. Dy: Police Officer. Rtg: AA. Time: 320 Hrs.

***Oakley, David L.**, (CW2) (M86) 198 Gentilly T/C, Auburn, AL 36830. Dy: (404) 545-3952. Res: (205) 828-8205. S: Wendy. Dy: C/6 A/159, Ft Benning. Rtg: AA. Time: 600 Hrs.

***Oates, Carroll R.**, (LTC) (M90) 950 West River Street, Milford, CT 06460. Dy: (203) 385-3863. Res: (203) 878-9797. Dy: Dir, Mktg, Textron Licensing.

O'Brien, Kevin M., (1LT) (M81) (08) 105-B Anderson Avenue, Havre de Grace, MD 21078. Dy: (301) 671-3244. Res: (301) 931-9155. S: Sherry. Dy: HQ 29th Avn Bde, Asst S-3 (Air), APG, MD. Rtg: AA TP. Maint Crs: UH-1. Saf Crs: Mil & Civ. Time: 400 Hrs.

Oburn, Robert P., (CW3) (M82) RD 2, Box 646, Apt. A, Anville, PA 17003. Dy: (717) 865-8922. Res: (717) 867-2022. Dy: H Co, 104th Avn, Harrisburg. Rtg: SAA TP IP. Maint Crs: UH-1 CH-54. Time: 2,900 Hrs.

O'Connor, Charles J., (CW3) (M87) (Charlie) 63 Ridge Road, Glenrock, NJ 07452-2321. Dy: (201) 288-8400. Res: (201) 445-9732. S: Kathleen. Dy: S-76 Hoptcr Cpt, Jet Avn Corp, NJARNG, Pictatinny Arsenal, NJ. Rtg: MAA IP TP. Saf Crs: Mil. Time: 7,200 Hrs./Cbt 1,500 DFC1, AM/48.

O'Connor, Michael P., (COL) (M70) (Mike) 104 Murphy Drive, Pennington, NJ 08534. Dy: (609) 590-6945. Res: (609) 737-8092. S: Ronnie. Dy: NJ Army NG - SAAO. Rtg: MAA IFE SIP. Maint Crs: UH-1. Saf Crs: Mil. Time: 8,000 Hrs./Cbt 950 AM/25. Life Member.

O'Donohue, Raymond V., (CPT) (M90) 40-15 219th St., Bayside, NY 11361. Dy: (718) 352-5603. Res: (718) 224-3534. S: Sherril. Dy: ASO, 77th U.S. Army Reserve Cnd, Ft. Totten, NY 11359-1016. Saf Crs: Mil. Time: 2,600 Hrs./Cbt 1,300 AM/33/V Device.

Olmos, Felix, (CW4) (M86) McDonnell Douglas Hoptcr, 1300 N. Gentry Street, Mesa, AZ 85203. Dy: (602) 891-3512. Res: (602) 827-0413. Dy: Aviator, CDC, 1st Bn, 108th Avn, Phoenix. Rtg: MAA IP. Maint Crs: UH-1, CH-47. Saf Crs: Mil. Time: 8,750 Hrs.

O'Neill, Robert J., (SSG) (M89) 962 Cleveland, Kirkwood, MO 63122. Dy: (314) 263-9427. Res: (314) 822-0426. S: Carolyn. Dy: 7/158th USAF.

Osborne, Dennis M., (WO1) (M89) 2601 Remington Drive, Killeen, TX 76543. Dy: (817) 287-3745. Dy: 152FO, A Co, 1-3 Avn, 2AD.

Osborne, Scott M., (1LT) (M88) 5749 Riverwood Drive, Indianapolis, IN 46250. Dy: (317) 392-8260. Res: (317) 576-9104. Dy: Cav Trp Aerosocul Ptl Ldr, C Trp, 1-238 Cav, 38th ID. Rtg: AA. Qual: OH-58A/C. Time: 500 Hrs.

Osborn, Verlon W., (CW4) (M86) (02) 69 Windmill Road, Conowingo, MD 21918. Dy: (301) 671-6840. Res: (301) 378-3524. S: Mary Anna. Dy: Avn Logistics Ofcr, APG, MD. Rtg: AA.

O'Tuel, M. Bryant, (1LT) (M90) (Stick) P.O. Box 503, N. Myrtle Beach, SC 29597-0509. Res: (803) 249-6903. Dy: Pilot, American Airlines. Rtg: AA. Time: 3,000 Hrs.

PPPPPPPPPP

Pack, Donald F., (SPC) (M87) 900 South Peninsula Drive, Apt. 12, Daytona Beach, FL 32118. Res: (904) 257-6239. Dy: Observation/Scout Hoptcr Mech.

Papler, John, (LTC) (M82) (John) 1601 Woodland Drive, Fallston, MD 21047. Dy: (301) 396-2444. Res: (301) 8-73762. S: Joan. Dy: USAF-IRR. Rtg: SAA. Maint Crs: UH-1 FW. Time: 2,100 Hrs. NEB. Pres, Chesapeake Bay Chapter. Past Trea, Chesapeake Bay Chapter.

Park, Yong, (2LT) (M90) 819 East Lee Street, Apt. 3, Enterprise, AL 36330. Res: (205) 347-3763. Dy: IERW Class, Ft. Rucker, AL.

Patterson, Jerry K., (CPT) (M89) 214 Don-

P Aviation Reserve Components

caster Road, Joppa, MD 21085. Dy: (301) 671-1846. Res: (301) 679-8831. S: Christina. Dy: Avn Opns & Trng Project Officer, NGB, APG-EA. Rtg: AA TP. Maint Crs: UH-1. Time: 570.

***Patterson, Robert K.**, (1LT) (M89) (Bob) 522 Renee Lane, DeSoto, TX 75115-5128. Dy: (214) 670-3552. Res: (214) 223-4678. S: Brenda. Dy: Fireman, Dallas Fire Dept. Rtg: AA. Maint Crs: UH-1. Time: 385 Hrs.

Paul, Sally L., (2LT) (M90) Cnr 2, Box 13681, Fort Rucker, AL 36382. Dy: (205) 598-5226. Res: (205) 598-2773. Dy: D Co, 1-145th.

Paul, Timothy S., (1LT) (M88) 12001 Holiday Ave, Albuquerque, NM 87111. Dy: (505) 471-7030. Res: (505) 298-8375. Dy: Ptl Ldr, 717 Med Det. Rtg: AA. Qual: UH-60. Time: 650.

Pauloy, Cheryl L., (1LT) (M89) 2107 Carol Drive, Wilmington, DE 19808. Dy: (302) 324-7365. Res: (302) 994-8419. Dy: Registered Nurse, DEARNG, C/1-106TH, UH-1 Pilot, Section Ldr. Time: 560 Hrs.

Paulin, James H., (CW2) (M89) (Buz) 207 Blue Willow Drive, Houston, TX 77042. Res: (713) 952-2400. Dy: Secy-Treas, Federal Devt Co. Rtg: AA SIP IP TP. Maint Crs: UH-1, Qual: AH-1. Time: 2,400 Hrs./Cbt 1,500 DFC/2 AM/22.

Paulson, Phillip T., (CW4) (M81) (Tom) 1102 Harmon Circle, Sun Prairie, WI 53590. Dy: (608) 241-6384. S: Sue. Dy: Fac IP/Safety Off, AASF2, Trux Field, Madison, Rtg: MAA SIP. Qual: AH-1S, C-12. Time: 5,300 Hrs./Cbt 850 AM/22.

Payne, Robert E., (MAJ) (M89) P.O. Box 590501, Houston, TX 77259-0501. Dy: (713) 484-6111. Dy: Cdr, Houston Army Avn Support Fac, TXARNG. Rtg: MAA IFE SIP. Saf Crs: Mil. Time: 6,500 Hrs./Cbt 600 Past Vp, Lone Star Chapter.

Peck, Eric C., (CPT) (M88) RR 1, Box 261A, Fredricksburg, PA 17026. Dy: (717) 865-8929. S: Lillis. Dy: Ft Ops Ofcr Eats, Ft. Indiantown Gap. Rtg: MAA IP. Time: 1,300 Hrs.

Perry, Michael D., (SGT) (M90) (Mike) 2343 Merrienne Drive, Jacksonville, FL 32216. Dy: (904) 642-3790. Res: (904) 724-7710. Dy: Student HHC 419th Avn Gp.

Peterson, Theresa L., (SGT) (M90) (TERRY) 930 Water Street, Lebanon, PA 17042. Dy: (717) 865-8686. Dy: Ft. Indiantown Gap, Estrn ARNG.

***Petrahs, Michael A.**, (CPT) (M88) P.O. Box 3448, Conroe, TX 77305-3448. Dy: (409) 539-4151. S: Virginia. Dy: S-4, 7/8th Cav(Aik Hoptcr) AGR. Rtg: AA. Saf Crs: Ah-1. Qual: AH-1S. Sec, Armadillo Chapter.

Petrick, Thomas G., (MAJ) (M77) (Tom) P0B 113, Gunpowder Bl., Aberdeen Proving Grd., MD 21010. Dy: (301) 671-1667. Res: (301) 382-1157. Rtg: SAA. Time: 3,200 Hrs./Cbt 654 Sec, Chesapeake Bay Chapter.

Pfizer, Karl F., (LTC) (M87) 6806 E. Valley Vista Lane, Scottsdale, AZ 85253. Dy: (602) 231-4233. S: Vickie. Dy: Cdr, 1/285th Avn Bn, Marana, AZARNG. Rtg: AA. Saf Crs: Usc. Time: 4,000 Hrs./Cbt 1,000 DFC/3, AM/24.

Philbin, Michael C., (1LT) (M89) (Galvano) 466-45th Street, Brooklyn, NY 11220. Dy: (516) 737-4849. Res: (718) 853-3179. Dy: Ptl Ldr, C Trp 1/101 Cavalry, NYARNG, MacArthur Airport, LI. Rtg: AA. Qual: OH-58A/C, OH-6, UH-1. Time: 250 Hrs.

***Pierce, James R.**, (MAJ) (M86) (Hawkeye) 159 Mill Point Drive, Hampton, VA 23669-3535. Dy: (804) 722-2535. Res: (804) 722-6446. S: Suki. Dy: Stock Broker/Whol, First Securities, Hampton, VA. Rtg: SAA SIP IP. Maint Crs: UH-1 FW. Time: 2,600 Hrs.

***Pierce, John M.**, (CPT) (M78) (Mike) RD 1, Box 74A, Beaver Dams, NY 14812. Dy: (607) 535-2767. Res: (607) 982-6372. S: Maureen. Rtg: AA TP. Maint Crs: UH-1 UH-60. Qual: UH-60A. Time: 710 Hrs.

Pinner, Frank L., (CW4) (M69) 380 Terrell Drive, Marietta, GA 30064. Dy: (404) 331-0543. Res: (404) 422-7885. Dy: Pilot, GAARNG. Rtg: AA. Time: 2,500 Hrs./Cbt 1,350 DFC/1, AM/1.

Plasky, Alan, (SSG) (M74) (F.A.) 61 Gladiola Street, New Britain, CT 06053. Res: (203) 521-6296. S: Debra. Dy: Co D 169th Avn Regt, Hvt Hel, CTARNG, Camp Hartell, Windsor Locks.

Polindexter, Richard G., (LTC) (M90) 3308 Green Needle Drive, Greensboro, NC 27405. Res: (919) 375-7861. S: Glenda. Dy: Chaplain, 449 Avn. Group, Kinston, NC.

***Poland, Robert**, (LTC) (M79) (Bob) 16215 North Trail Drive, Houston, TX 77073. Dy: (409) 539-4151. Res: (713) 443-1418. S: Vicki. Dy: Cdr Sgdn, 7th Sgdn/6th Cavalry Regt, Conroe, TX. Rtg: MAA IP. Qual: AH-1S. Time: 8,122 Hrs. Cdt 700 DFC/1, AM/25. Life Membr. Pres, Armadillo Chap.

Ponto, Randy A., (SGT) (M90) 7595 Baymeadows Circle W., No. 404, Jacksonville, FL 32256. Dy: (904) 641-8377. Res: (904) 737-4302. Dy: Active Duty Training NCO, FLARNG.

Poppe, Chalmer D., (CW2) (M85) 1523 Homewood Avenue, High Point, NC 27262-3256. Res: (919) 884-4250. S: Kacy. Dy: Co A, 1/130th Avn Bn, Raleigh. Rtg: AA. Qual: AH-64. Time: 950 Hrs.

***Pottle, Edmond G.**, (WO1) (M89) 1081 Rosenberg Rd, #107, Roselle, IL 60172. Dy: (708) 657-2122. Res: (708) 307-1527. Dy: 3/501st Avn Regt., Aircraft Armament Technician, NAS Glenview, IL.

Powers, Chris P., (1LT) (M88) 1536 San Rafael Way, St. Augustine, FL 32084. Dy: (813) 775-0415. Res: (904) 471-7221. S: Joanie. Dy: Pilot, Continental Airlines, AH-64 Pilot, FLARNG. Rtg: AA. Qual: AH-64A.

***Prentiss, Donald L.**, (CW3) (M88) 11442 Aldrich Street, Whittier, CA 90606. Dy: (213) 493-8272. Res: (213) 695-1366. Dy: D Co, 1/214 Avn Regt, AFRC Los Alamitos, CA. Rtg: AA. Maint Crs: AH-1, UH-1, AM/20.

***Priest, John L.**, (MAJ) (M74) P.O. Box 129, White Marsh, VA 23183. Dy: (804) 723-3702. Res: (804) 693-5605. S: Janet. Dy: Teacher, Mathews County School System. Rtg: SAA TP. Maint Crs: CH-47. Time: 1,639 Hrs. Life Member. Past Sec, Mainz Chapter.

***Prost, Timothy J.**, (CW3) (M83) 180 Pine Drive, Belleville, IL 62221. Dy: (314) 263-1941. Res: (618) 213-5799. S: Diane. Dy: Equipment Spec, APACHE PMO. Rtg: AA. Qual: UH-60. Time: 1,400 Hrs./Cbt 550 AM/16.

Protacio, Jeffrey J., (1LT) (M85) 94-1467 Waipio Uka St., No. 1-102, Waipahu, HI 96737. Dy: (808) 624-9300. Res: (808) 623-8713. Dy: 3n S-1, 1st Bn, 193d Avn, HIARNG, Bldg 832, Wheeler AFB, HI. Rtg: AA. Time: 700 Hrs.

Puhke, Joseph B., (MAJ) (M73) 2411 South Fort River Pky, Milwaukee, WI 53227. Dy: (414) 961-9613. Res: (414) 327-3491. Dy: S-3 Air, 2nd Inf Bde/ISEP/VIARNG. Rtg: MAA. Time: 3,200 Hrs.

Pulket, Arthur W., (LTC) (M90) (Bill) 3948 Link Avenue, Baltimore, MD 21236. Dy: (301) 576-6065. Res: (301) 256-5329. S: Judy. Dy: Director of Fac. Engr., Maryland ARNG.

Pultz, Barney, (MAJ) (M89) (Fipper) 32 Brookdale Drive, Greensburg, PA 15601. Dy: (412) 223-4583. Res: (412) 837-8577. S: Karen. Dy: Maint Off, PA National Guard, Washington, PA. Rtg: MAA IFE. Maint Crs: UH-1, AH-1, OH-6. Qual: AH-1S. Time: 4,000 Hrs. AM/V. 12 OCL2 Bronze Stars.

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***Qualls, Michael L.**, (MAJ) (M83) (Mike) 801 S. Rodney Parham Rd., Apt. 19C, Little Rock, AR 72206-4348. Dy: (501) 771-0324. Res: (501) 221-1226. Dy: Dir. of Security, AR Children's Hospital. Rtg: SAA. Saf Crs: Mil. Time: 1,630 Hrs.

***Qulett, Connie J.**, (CPT) (M89) (CJ) 32 Conshohocken State Rd., Apt. B-1, Bala Cynwyd, PA 19004. Dy: (215) 697-5846. Res: (215) 668-8127. Dy: Procurement Co, Don Avn Supply Co. Rtg: AA.

***Raber, Terry L.**, (E6) (M82) 301 Brandy Lane, Mechanicsburg, PA 17055. Dy: (717) 790-1430. Res: (717) 697-4955. S: Beverly. Dy: Opns Sgr, USAR Control Gp Reserve, St. Louis.

Radovich, William G., (CW3) (M83) (Bill) 106 Grant St., Box 331, Stillman Valley, IL 61084. Dy: (815) 964-5203. Res: (815) 645-8449. S: Sus. Dy: Beech Airliner 1900G Captain, Mesa Air Shuttle, Skyway Airlines. Rtg: MAA. Time: 13,500 Hrs./Cdt 350 AM/1.

***Ramer, Albert W.**, (MAJ) (M81) (Bill) RD 2, Box 193B, Newport, PA 17074. Dy: (717) 249-5522. Res: (717) 567-3491. S: Marcia. Dy: FEMA Opns Off, EOC, Cumberland Co. Rtg: AA. Maint Crs: CH-54. Time: 2,000 Hrs.

Rayl, Charles R., (LTC) (M86) Route 1, Strong City, KS 66689. Dy: (316) 273-6333. Res: (316) 273-8630. S: Merry. Dy: Cdr, Frp Cmpl, KSARNG, And Atty at Law. Rtg: MAA. Time: 2,500 Hrs./Cdt 500 Life Member.

Reid, James M., (LTC) (M88) (Mac) 373 E Street, Salt Lake City, UT 84103. Dy: (801) 328-7329. Res: (801) 532-6824. S: Rachae. Dy: Atk Ptl Ldr, 1/211 Avn, UTARNG. Rtg: AA. Time: 300 Hrs.

Redfield, John H., (WO1) (M89) (D Day) 191 H Oakland Street, Manchester, CT 06040. Dy: (203) 627-4849. Res: (203) 645-0893. S: Eva. Dy: E Co, 126th Avn Regt, CTARNG. Time: 400 Hrs.

***Redman, Richard S.**, (1LT) (M88) (Dilliga) 464 North Oakley Drive, Apt. A11-55, Columbus, GA 31906-4801. Dy: (404) 544-2119. Res: (404) 685-0690. Dy: 1st Ptl Delta Co, 2/69 Armor, Ft Benning. Time: 43 Hrs.

Reed, Calvin E., (CW2) (M78) (Cal) 6202 Elmer Avenue, Linglestown, PA 17112. Dy: (717)

S Aviation Reserve Components

561-6247. Res: (717) 545-0250. S: Ada. Dy: UH-1 Pilot, Fort Indiantown Gap. Rtg: SAA. Time: 2,400 Hrs.

Reed, Thomas R., (SFC) (M90) (Tom) 4002 Laurelwood Drive, Jacksonville, FL 32257. Dy: (904) 642-3790. Res: (904) 262-4391. Dy: Training NCO/NBC NCO, HHC, 419TH Avn GP (ATK), FLARNG.

***Rees, David F.**, (MAJ) (M81) (Dave) 4420 Park Boulevard, Louisville, KY 40209. Res: (502) 366-8273. S: Dr Sun. Dy: USAR Control Group, St. Louis. Rtg: SAA IP. Maint Crs: UH-1. Qual: AH-1S. Time: 1,100 Hrs.

***Regalado, Raul L.**, (COL) (M81) 1250 Aviation Avenue, Suite 200-F, San Jose, CA 95110. Dy: (408) 286-7274. Res: (408) 252-3385. S: Christa. Dy: Pres, Raul Regalado & Assoc. Rtg: MAA. Time: 3,400 Hrs./Cdt 1,803 DFC/1, AM/49/V.

Register, Anthony D., (CW2) (M86) 6208 Overlook Road, Norcross, GA 30092. Dy: (404) 921-7567. Res: (404) 662-8290. S: Leana. Dy: UH-1 Pilot, 244th Av Bn, Winder, GA. Rtg: AA. Time: 1,000 Hrs.

Reigle, Hans H., (1LT) (M87) 111 W. Camden-Wyoming Ave, Wyoming, DE 19934. Dy: (302) 324-7419. Res: (302) 697-6214. Dy: Delaware NG. Rtg: AA IP. Time: 1,200 Hrs.

Reilly, Kevin T., (CPT) (M86) (Kevin) 3208 Haywood Avenue, Chattanooga, TN 37415. Res: (615) 875-8471. S: Florence. Rtg: AA. Time: 627 Hrs.

Reisinger, Charles N., (SFC) (M84) (Chuck) 8028 Manada View Drive, Harrisburg, PA 17112. Dy: (717) 865-8797. S: Dorl. Dy: RW Br Utility Section Spt, Eastern AATS, Annaville.

Restucci, Marc S., (SSG) (M84) (Stuch) RD 2, Box 4195, Jonestown, PA 17038. Dy: (717) 865-8325. Res: (717) 865-6464. S: Greta. Dy: RTS-Med, FIG, Annaville, PA.

***Rhaden, Keith V.**, (WO1) (M89) (Studsman) 939 East Golf Road, Apt 2, Arlington Heights, IL 60005. Dy: (815) 838-0500. Res: (808) 806-1308. Dy: Student, Lewis U, Romeoville, IL. Rtg: AA. Maint Crs: UH-1. Saf Crs: Mil. Time: 250 Hrs.

Rhule, Steven P., (CW4) (M83) (Steve) 175, Mount Getra, PA 17064. Res: (717) 964-2149. S: Michele. Dy: CO12F Pilot, HQS STARC, Fort Indiantown Gap. Rtg: SAA SIP. Maint Crs: AH-1 FW. Saf Crs: Mil Cvt. Time: 9,250 Hrs./Cdt 1,009 AM/15.

Riddle, Claude P., (COL) (M87) (CP) P.O. Box 331, French Camp, CA 95231. Dy: (209) 982-3881. Res: (209) 478-8768. S: Joanne. Dy: Cdr, Det 1, STARC, CAARNG. Rtg: MAA IFE. SIP. Saf Crs: Mil/Av. Qual: CH-47D. Time: 6,400 Hrs.

Ries, Arthur W., (COL) (M81) (Art) 201 Old Woodland Way, Abingdon, MD 21009-1508. Dy: (717) 865-8864. Res: (301) 838-0071. S: James. Dy: Cdr, Eastern ARNG Avn Trng Site, Annaville, PA. Rtg: MAA IP. Maint Crs: AMOC. Saf Crs: Mil. Time: 2,350 Hrs./Cdt 800 AM/11.

***Ripandelli, Alphonse**, (MSG) (M90) (Rip) 23 Boston Lane, P.O. Box 353562, Palm Coast, FL 32135. Dy: (904) 829-8571. Res: (904)

446-9930. S: Carol. Dy: Quality Assurance Rep. USAF School Course, 3391st, Jacksonville, FL.

Robbins, Charles T., (CW4) (M87) 2600 West Ina Road, Apt. 286, Tucson, AZ 85714. Dy: (602) 624-9189. Dy: Western Arm Avn Trng Site. Rtg: MAA IP. Qual: AH-1S. Time: 5,600 Hrs./Cdt 907 DEF/1, AM/26.

Robinson, Randal M., (COL) (M84) 16 New Street, Charleston, SC 29401. Dy: (803) 776-1713. Res: (803) 722-8544. Dy: State Avn Officer, 51st Avn Gp, Columbia, SC. Rtg: MAA. Time: 3,500 Hrs./Cdt 750.

Roig, Jose R., (1LT) (M90) 11 Ferguson Lane, Fort Rucker, AL 36362. Dy: (205) 255-3311. Res: (205) 598-1254. S: Sonia. Dy: E Co, 1-145th. Rtg: Student. Maint Crs: UH-1.

Rosenfeld, Michael M., (COL) (M82) (Mike) 2301 Fairview Street, Altamonte, PA 18104-6544. Dy: (215) 437-7733. Res: (215) 432-8952. S: Linda. Dy: Dir, Post Mobilization State Hd, PAARNG, Ft Indiantown Gap. Rtg: AA UH-1. Maint Crs: Civ. Time: 2,000 Hrs.

Ross, Bruce E., (SFC) (M90) 8743 Pinon Drive, Jacksonville, FL 32221. Dy: (904) 642-3790. Res: (904) 783-2751. S: Kristie L. Dy: Psn Co, 419th Avn Group.

Ross, William C., (CW3) (M90) (Bill) 90 West Side Drive, Ballston Lake, NY 12019. Dy: (518) 786-4396. Res: (518) 389-7619. S: Kathy. Dy: AGR C-12 Pilot, NYARNG. Rtg: MAA SIP. Time: 6,400 Hrs.

Rountree, Ed, (CW4) (M85) 6537 West North Lane, Glendale, AZ 85302. Dy: (602) 935-9128. Res: (602) 486-5612. S: Laurel. Rtg: MAA. Qual: AH-1S, OH-58, U-21, UH-1. Time: 7,000 Hrs.

***Ryan, Kevin C.**, (CPT) (M89) (Thumper) 626 Duck Call Cove, Cordova, TN 38018. Res: (901) 753-5703. S: Janice. Dy: 12th SFG (A), NAS Glenwood, IL. Rtg: SAA. Qual: U-8, U-21, UH-1. Time: 1,800 Hrs.

SSSSSSSSSS

Salgado-Mallin, Ramon E., (PFC) (M90) (Quiqui) P.O. Box 8558, Ponce, PR 00732. Dy: (809) 722-3916. Res: (809) 840-1401. Dy: 67N10, Bde Avn Section, HHC, 920 S1B, PRARNG.

***Sansone, James A.**, (MAJ) (M90) (Jim) 3700 Perkins Road, Arlington, TX 76016. Dy: (817) 763-3660. Res: (817) 457-2914. S: Nan. Dy: 28th Avn Gp (USAR). Rtg: SAA. Time: 1,300 Hrs.

Scanlan, Francis G., (LTC) (M83) (Jerry) 8200 S. Kostner, Chicago, IL 60662-2198. Dy: (708) 582-9100. Res: (708) 582-9100. Dy: State Chaplain, ILARNG, Springfield, IL.

***Schalin, J. Gunnar**, (COL) (M72) (Gunner) 4846 Valinda Way, San Diego, CA 92124. Dy: (619) 569-2437. Res: (619) 565-4852. Dy: Cdr, 168th Avn Gp (Cbt), Cypress, CA. Rtg: MAA. Qual: OH-58, AH-1. Time: 2,500 Hrs./Cdt 800 DFC/2, AM/23. Life Member.

Schulze, Edward A., (WO1) (M89) 90 Yale Avenue, Oakdale, NY 11769. Dy: (516) 737-4849. Res: (516) 589-8539. Dy: Aerosocul Pilot, Trng P, 1/101 AF Avn Sq, McArthur Airport. Rtg: AA. Qual: OH-6A. Time: 400 Hrs.

Scott, Dan W., (CW4) (M90) (Dan) 39 Belmont Boulevard, Orange Park, FL 32073. Dy: (904) 272-2684. S: Pat. Dy: B Co, 1-131 Avn Bn, FLARNG. Rtg: AA. Maint Crs: UH-1. Time: 3,000 Hrs./Cbt 1,100. AM/3.

***Selling, William J., (CSM) (M85) (Bill)** 715 York Street, Loud, CA 95240-5206. Dy: (209) 795-2589. Res: (209) 368-3574. S: Darlene. Dy: CSM IRR USAR APERCEN, St. Louis.

***Senne, Aaron N., (CW4) (M86) 200 Lodge Drive, No. 502, Lafayette, LA 70506. Res: (318) 984-7392. Dy: Avn Safety Off, 872nd Med Detach, Lafayette. Rtg: SAA. Saf Crs: Mil. Time: 7,017 Hrs.**

Senne, George L., (CW4) (M75) Flight Det (OKARNG), 2232 Goddard Ave, Norman, OK 73069. Dy: (405) 960-1261. Res: (405) 872-5655. S: Rita. Dy: Det. Supv. SIP. OKARNG, HQ STARC. Rtg: MAA IFE SIP TP. Maint Crs: UH1 AMOC. Saf Crs: USC. Qual: CH-47D, C-12, U-1. Time: 16, 135 Hrs.

Shailor, Thomas J., (LTC) (M89) 202 East Road, Colchester, VT 05446. Dy: (802) 864-1400. Res: (802) 878-2116. S: Judith. Dy: AASF-Cdr VTARNG, Bn Cdr Hq 1/103 Avn Regt. Rtg: MAA IFE. Maint Crs: AMOC UH-1. Saf Crs: Mil. Time: 6,300 Hrs./Cbt 600 AM/1.

Sheppard, F. David, (CPT) (M89) AASF 3, NYARNG, Albany Co, Airport, Latham, NY 12110-2299. Dy: (518) 788-4300. Res: (518) 374-4254. S: Vicki. Dy: AASF Cdr, NYARNG. Rtg: MAA IFE SIP. Qual: AH-1S. Time: 6,000 Hrs./Cbt 841 AM/17.

Sherman, Richard A., (MAJ) (M88) (Rick) 4830 Austin Road, Aberdeen Proving Grd, MD 21010. Dy: (301) 671-1739. Res: (301) 676-2971. S: Marilyn. Dy: NGB Avn Safety Officer, NGB-Avn Div-Safety Br. Rtg: AA. Time: 2,400 Hrs./Cbt 1,025 AM/1.

***Sherman, Stephen E., (WO1) (M89) 35 Champany Street, Apt. 2, Brighton, MA 02135. Res: (617) 254-8226. Dy: ODJ, RIARNG. Rtg: AA. Qual: AH-1S. Time: 200 Hrs.**

Shipflier, Earl D., (SSG) (M89) 308 Quaker, Friendswood, TX 77546. Dy: (409) 938-3976. Res: (713) 482-3234. S: Bonnie. Dy: Service Mgr.

***Shuman, Kenneth E., (LTC) (M67) 5691 Marilyn Drive, Pittsburgh, PA 15236. Dy: (412) 462-5507. S: Diane. Dy: Ch Trng & Eval Div, HQ 88th Arcom, Oakdale. Rtg: MAA SIP. Maint Crs: UH-1, FW. Time: 10,000 Hrs./Cbt 2,450 AM/35.**

***Siegman, James E., (COL) (M85) (Jim)** 3495 Ingram Drive, Haymarket, VA 22069. Dy: (202) 267-3796. Res: (703) 754-2594. S: Mary Lou. Dy: IRR. Rtg: AA SIP TP. Maint Crs: UH-1, AH-1, FW. Time: 7,000 Hrs./Cbt 900 AM/27.

Sikes, James M., (LTC) (M84) (Jim) 4819 Renfrew Drive, Durham, NC 27705. Dy: (919) 664-8181. Res: (919) 383-2479. S: Laura. Dy: 1/130th AAH Bn. Rtg: MAA IFE SIP. Maint Crs: UH-1, AH-1. Saf Crs: Mil. Qual: AH-1S, AH-64A. Time: 8,300 Hrs./Cbt 1,691 AM/38, DFC/1. SRVP, Tarheel Chapter. Past Sec, Tarheel Chapter.

***Sims, David A., (SSG) (M89) 219 South Belvidere, East Alton, IL 62024. Dy: (818) 263-1310. Res: (818) 259-2342. S: Ami Jo. Dy: UH-60 Crew Chief/PT Sgt, B Co, 7/158 Avn. Dy: (202) 697-3848. Res: (703) 590-5124. S: Sandra. Dy: Joint Plans Opns & Mil Spt NGB-MS,**

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Aviation Reserve Components

374-7822. Res: (501) 835-2282. S: Beverly. Dy: Evac Pilot, 374th Med Det, Little Rock. Rgt: AA. Time: 605 Hrs.

***Skeen, Robert S., (MAJ) (M81) (Rob)** 7055 Summit Wood Dr., NW, Kennesaw, GA 30144-3374. Dy: (404) 424-7770. Res: (404) 424-9230. S: Beverly. Rtg: SAA IFE. Qual: AH-1S. Time: 1,625 Hrs.

***Skupien, Stanley J., (SGT) (M89) (Skup) P.O. Box 1127, Conroe, TX 77305. Dy: (409) 539-4311. Res: (409) 756-2318. S: Lisa. Dy: Aik Aircraft Repairer, 7th Bn, 6th Avn Regt.**

***Smith, Craig L., (CW4) (M67) (C.L.)** Greater Chicago VP Memb, 3040 N. Farwell Avenue, Milwaukee, WI 53211. Dy: (708) 657-2355. Res: (414) 332-8768. Dy: C Co, 3/158th Avn Regt, NAS Glenview, IL. Rtg: MAA. Time: 4,000 Hrs./Cbt 1,077 AM/1. Vp, Greater Chicago Area Chap.

Smith, Filmer, (CSM) (M88) (Jeanne) 11440 Americana Lane, Jacksonville, FL 32218. Dy: (904) 642-3790. Res: (904) 757-8368. S: Bud. Dy: FLARNG, 419th Avn Gp (ATK).

***Smith, Mark A., (CPT) (M81) (Smitty)** 1288 Fr Street, Apt. B, Fort Dix, NJ 08640-1707. Dy: (215) 784-1763. S: Barbara. Dy: ASst 3-3, 2/228 Avn Regt, Willow Grove, PA. Rtg: SAA IP TP. Maint Crs: OH-58. Time: 2,500 Hrs.

Smith, Michael A., (LTC) (M89) (M.A.) 1821 S. Hillton Lane, Boise, ID 83705. Dy: (208) 389-5272. Res: (208) 345-2484. S: Stephany. Dy: ST Army Avn Off, Idaho Army National Guard. Rtg: MAA TP. Time: 5,800 Hrs./Cbt 800 AM/31.

***Smith, Robert E., (CSM) (M90) (Bob)** 5155 Summit Lodge Drive, Katy, TX 77449. Dy: (713) 468-0944. Res: (713) 550-3438. S: Faye. Dy: Supvr Staff Admin, DQA, Military Tech, Houston.

Seasa, Bert F., Jr., (CW3) (M87) 2573 King Richard Drive, El Dorado Hills, CA 95630. Dy: (916) 449-5618. Res: (916) 933-1821. S: Joanne. Dy: Police Investigator, City of Sacramento Police Dept. Rtg: MAA. Time: 3,200 Hrs.

Sparks, Richard A., (CW3) (M57) (Dick) 945 West Edmundson Avenue, Morgan Hill, CA 95037. Dy: (209) 982-3880. Res: (408) 779-5821. S: Jeannie. Dy: ASO, 1-140, Aik Bn, Stockton. Rtg: MAA. Time: 3,850 Hrs. Charter Member.

Speese, Andrew J., (CW3) (M81) 1105 Luananeta Street, Kailua, HI 96734-4548. Dy: (808) 624-9300. Res: (808) 261-4236. Dy: Co A, 1st Bn, 1930 Avn, Wheeler AFB. Rtg: SAA. Saf Crs: Mil. Qual: AH-1S.

***Spellos, Angelo, (CW4) (M84) (Ang)** 110 Camelot Drive, Weatherford, TX 76086. Dy: (214) 357-0142. Res: (817) 599-8814. S: Sus. Dy: Co A, 9/150th Avn Regt, NAS, Dallas, SIP. IFE. Rtg: MAA IFE SIP. Time: 9,500 Hrs./Cbt 899 AM/220LC. Pres, North Texas Sub Chapter.

Spence, Philip W., (COL) (M71) (Phil) 13401 Prncedale Drive, Dale City, VA 22193. Dy: (202) 697-3848. Res: (703) 590-5124. S: Sandra. Dy: Joint Plans Opns & Mil Spt NGB-MS,

Pentagon, Washington, DC. Rtg: SAA. Time: 1,500 Hrs./Cbt 500 AM/11.

***Spillner, Charles A., (CW4) (M80) (Charlie)** 110 Camelot Drive, Fayetteville, GA 30214. Dy: (404) 994-5276. Res: (404) 460-9084. S: Debbie. Rtg: AA IFE IP. Maint Crs: UH-1 FW. Time: 6,000 Hrs./Cbt 800 AM/4.

Sprule, Anne M., (WO1) (M88) 2608 Marietta Street, Steilacoom, WA 98388. Dy: (206) 581-8410. Res: (206) 588-7214. Dy: WAARNG, Fort Lewis, 66th Avn Bde, AASF #1. Rtg: AA. Time: 400 Hrs.

Squires, William H., (LTC) (M86) (Bill) 309 Lamp Post Lane, Hershey, PA 17033-1883. Dy: (717) 865-8929. S: Margaret. Dy: Eastern AATS, Fort Indiantown Gap. Rtg: AA. Time: 2,300 Hrs./Cbt 132.

***Stadt, Thomas A., (LTC) (M81) Greater Chicago VP Proq, 2840 Woodland Drive, Northbrook, IL 60062. Dy: (708) 833-3133. Res: (708) 272-7186. S: Katherine. Dy: CDD Officer, 3/501st Avn Maint Bn. Rtg: SAA. Qual: CH-47. Time: 1,500 Hrs./Cbt 300 AM/7. Vp, Greater Chicago Area Chap.**

Stagg, Don E., (LTC) (M90) (Don) 1st Bn, 131st Avn Regt, P.O. Box 3336, Montgomery, AL 36193. Dy: (205) 242-2613. Res: (205) 567-2659. S: Shirley. Dy: Bn Cdr. Rtg: AA. Maint Crs: AMOC, UH-1, CH-54, OH-6. Time: 1,800 Hrs.

***Stahl, Jeffrey A., (SGT) (M89) 6301 Old St. Louis Road, Apt. 2, Belleville, IL 62223. Dy: (314) 778-2600. Res: (618) 235-6767. Dy: Proq. Estimator, Gravois Planning Mill Co.**

Stanlake, Leroy L., (MSG) (M87) (Stan) 2546 Purvis, Clovis, CA 93612. Dy: (209) 445-6133. Res: (209) 323-1121. S: Dinah. Dy: Hqs Avn Bde.

Stark, Michael P., (SFC) (M90) 25833 26th Pl, E-304, Kent, WA 98032. Dy: (206) 967-6729. Res: (206) 941-9295. Dy: Group NBC NCO 540th Avn Group (Attack).

Starkman, S. Michael, (MAJ) (M82) (Mike) 1409 Ashcom Drive, Downingtown, PA 19335. Dy: (717) 865-8859. Res: (215) 873-0536. S: Mary E. Dy: Admin Off, HQ STARC, PAARNG, Ft Indiantown Gap. Rtg: SAA. Maint Crs: UH-1. Time: 1,100 Hrs.

Stearns, Bryan F., (MAJ) (M86) Route 2, Box 527, Mooresville, NC 28115-9216. Dy: (704) 547-2412. Res: (704) 684-1895. S: Ann. Dy: Asst Prof of Military Sci, UNC-Charlotte. Rtg: SAA.

***Stearney, Richard E., (MG) (M89) (Dick)** 6591 North Hathawa, Chicago, IL 60646. Dy: (708) 209-2602. S: Jeannette. Dy: 86th AFRCOM.

Stephens, Duncan M., (COL) (M86) 111 Fairway Road, Jacksonville, NC 28546. Dy: (919) 455-1414. Res: (919) 346-3214. S: Connie. Dy: 449th Avn Gp, NCARNG. Rtg: MAA. Qual: AH-64A. Time: 3,000 Hrs.

Stephens, James L., (CW3) (M88) (Jim) Route 1, Box 524, Advance, NC 27006. Dy: (704) 637-0471. Res: (919) 988-5571. S: Linda. Dy: Supvr/Flt Instr, NCARNG, Salisbury. Rtg: SAA IFE SIP TP. Maint Crs: OH-58. Time: 3,000 Hrs.

Stephens, W. Richmond, (CW4) (M88) 3263 Yellowhammer Drive, Birmingham, AL 35210. Dy: (205) 699-3700. Res: (205) 956-6188. Dy: Atty at Law. Rtg: AA. Time: 4,600 Hrs./Cbt 1,799 AM/1/V. Life Member. Past Pres, Birmingham Area.

Storn, Ronald H., (MAJ) (M87) 394 Arroyo Road, Santa Barbara, CA 93110. Dy: (805) 568-3077. Res: (805) 964-3215. S: Barbara. Dy: 305th Bn (Trng), Van Nuys, CA. Rig: IP. Time: 8,253 Hrs.

***Stewart, Michael P.**, (MAJ) (M89) (Mike) Armadillo Chapter Sr VP, 5916 Shady Lake Drive, Seabrook, TX 77586. Dy: (409) 539-4151. Res: (713) 474-2770. Dy: NASA/Johnson Space Center Engrg Personnel Mgr, 273 Med Det Hcpr Amb, Rtg: AA. IP: Maint Crs: FW. Qual: AH-1S. Time: 1,848 Hrs. Srvp, Armadillo Chapter.

Stewart, Ronald B., (COL) (M86) 33 Corporate Circle, New Castle, DE 19720-2493. Dy: (302) 324-7418. Res: (302) 798-2448. S: Nancy. Dy: State Army Avn Officer, Delaware Army National Guard. Rtg: AA. IP: Maint Crs: 6,200 Hrs./Cbt 450 AM/11.

Stewart, Walter L., (COL) (M82) (Walt) RD 4, Box 155, Bernville, PA 19506. Dy: (215) 376-8361. Res: (215) 488-7741. S: Sheila. Dy: Cdr Avn Bde, 28th Inf Div, 21st & Herr Sts., Harrisburg, Rtg: MAA. Time: 2,300 Hrs./Cbt 900 Life Member.

Stewart, Charles H., (CW4) (M88) 1754 Holland Road, Willow Springs, NC 27592. Dy: (919) 552-3890. Dy: Safety Off R/W Pilot, Co A 1/130 Avn Bn, NCARNG. Rtg: MAA. Qual: AH-1S, AH-64A. Time: 2,700 Hrs./Cbt 1,098 AM/22.

Stoen, John, (MAJ) (M86) (Johnboy) 2331 Tattersall Drive, Charlotte, NC 28210-6771. Dy: (704) 374-1845. Res: (704) 553-9638. S: Cheryl. Dy: NCARNG, Gp Asst S-3, 449th Avn Gp (A/C Hcpr), Kinston, NC. Rtg: SAA. IP: Maint Crs: UH-1, AH-1. Qual: AH-1S. Time: 2,000 Hrs./Cbt 975 DFC/1, AM/39.

Stone, Doyle L., Jr., (CW3) (M80) (Doyle) 4827 Trail Crest Circle, Austin, TX 78735. Dy: (512) 327-6840. Res: (512) 822-2594. S: Debbie. Dy: Co E, 149 Avn, 49th AD, Austin, TX. Rtg: MAA. Time: 3,500 Hrs./Cbt 750 Past Srvp, Lone Star Chapter.

Stone, Richard D., (MAJ) (M78) (Rick) 18526 SE 263rd Street, Kent, WA 98042. Dy: (206) 655-8026. Res: (206) 930-2212. S: Donna. Dy: Bde S-4, 66th Avn Bde I Corps, Ft Lewis, WAARNG. Rtg: MAA. IP: Maint Crs: UH-1 AH-1. Qual: AH-1S. Time: 2,400 Hrs./Cbt 1,000 AM/22.

***Stone, Shepard B.**, (CW3) (M87) 712 Robert Frost Drive, Brantford, CT 06405. Dy: (203) 785-2802. Res: (203) 481-7009. S: Marlene. Dy: Aeromedical Physician Asst, 340th General Hospital, New Haven, Time: 150 Hrs. Life Member.

Strange, James A., (CW3) (M74) (Jim) 4696 Olde Village Court, Dunwoody, GA 30338. Dy: (404) 953-1959. Res: (404) 392-9285. S: Laura. Dy: Mktg Mgr, Canada Life Assurance Co, Atlanta. Rtg: AA. IP: Maint Crs: UH-1. Time: 2,900 Hrs.

Streff, Joseph J., (2LT) (M89) P.O. Box 2307/01, Anchorage, AK 99523-0701. Dy: (907) 428-6333. S: Lynn. Dy: B Co, 1/707th Avn Regt, ALARNG, Ft. Richardson. Rtg: AA. Qual: UH-60A. Time: 350 Hrs.

Stull, George C., (SSG) (M86) RD 1, Box 1429, Jonestown, PA 17038. Dy: (817) 865-8780. Res: (717) 865-3001. Dy: Training Support Chief, Eastern ARNG Avn. Tng. Site.

Sullivan, David W., (CW3) (M89) (Dave) 23 Village Lane, Porter, TX 77365. Dy: (713)

T Aviation Reserve Components

484-8137. Res: (713) 354-9074. S: Yolanda. Dy: 1st Off Airline Pilot, Continental Airlines, A1-149TH TXARNG. Rtg: MAA. SIP. Maint Crs: AMOC UH-1 FW. Saf Crs: Civil. Qual: AH-1S, AH-64A. Time: 16,100 Hrs./Cbt 1,134 DFC/1, AM/28.

***Sutter, Anthony K.**, (1LT) (M87) (Tony) 3464 Wynnton Drive, NE, Atlanta, GA 30319. Dy: (404) 421-5840. Res: (404) 256-9028. S: Mary Anne. Dy: 412th Medical Detachment, Dobbins AFB, GA. Rtg: AA. Qual: OH-SBA/C, UH-1. Time: 450 Hrs.

Sweeney, Michael K., (MAJ) (M85) (Mike) 1860 Oldfield Drive, Huntington, MD 20639. Dy: (301) 671-2006. Res: (301) 535-3047. S: Janet. Dy: XO 1/224 Avn Bn (A/C Hcpr), MDARNG, ABG. Rtg: AA. Qual: AH-1F/G. Time: 1,600 Hrs.

***Sweltzer, William P.**, (CW3) (M89) (Paul) 3506 Rainer, Arlington, TX 76016. Res: (817) 870-8507. S: Ronnie. Dy: Pilot, 1/158th Avn Regt, Dallas NAS. Rtg: AA. Time: 1,700 Hrs.

Sydow, John H., (LTC) (M89) 2306 Cross Creek Drive, Powder Springs, GA 30073. Dy: (404) 421-5288. Res: (404) 439-1521. S: Sue Ellen. Dy: Facility Cdr, GAARNG. Rtg: MAA. IFE. SIP. MTFE. Maint Crs: UH-1. Saf Crs: Mil. Time: 5,700 Hrs./Cbt 1,500 DFC/3, AM/32. Vp, Greater-Atlanta Chapter.

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***Tamacio, Ronald R.**, (LTC) (M75) (Ron) 5018 Buckline Crossing, Dunwoody, GA 30338. Res: (404) 396-5420. S: Pat. Dy: IMA, HQ 6th Avn Army, Presidio of San Francisco. Rtg: MAA. IFE. IP. T. Maint Crs: UH-1. Time: 9,000 Hrs./Cbt 900 AM/22. Past Sec, Greater-Atlanta Chapter.

Thaggard, Leo, (1LT) (M88) P.O. Box 1536, University, MS 38677. Res: (601) 236-3222. S: Cheryl. Dy: Plt Ldr, D Co, 1/185th Avn Gp, Tupelo, Rtg: AA. Time: 350 Hrs.

Thomas, Samuel E., (CW2) (M85) (Sam) 613 Red Oak Avenue, Edgewood, MD 21040. Dy: (301) 671-3641. Res: (301) 676-3646. S: Ann Marie. Dy: Scout Pilot, OH-6A, MDARNG. Rtg: AA. Saf Crs: Mil. Time: 1,900 Hrs.

***Thompson, Edward W.**, (CPT) (M86) (Ed) 1562 Copeland Circle, Canton, MI 48187. Dy: (313) 484-8422. Res: (313) 987-6283. S: Cathy. Dy: Foreign Service Administrator, Ford Motor Co, Dearborn, MI. Rtg: AA. Maint Crs: FW. Time: 1,700 Hrs.

Thompson, Ray L., (LTC) (M88) 1122 North 28th Street, Bismarck, ND 58501. Dy: (701) 224-5160. Res: (701) 258-6517. S: Kathy. Dy: State Army Avn Off, HQ STARC, NDNG. Rtg: MAA. IFE. SIF. Saf Crs: Mil. Time: 7,500 Hrs./Cbt 750

Tilyou, Lisa G., (SGT) (M80) P.O. Box 11745, Jacksonville, FL 32239-1745. Dy: (904) 641-8378. Res: (904) 998-6829. Dy: AGR-FLARNG, 199th Med Co, (Air Amb).

Tosl, Peter, (BG) (M90) (Pete) HQs STARC AZARNG, 1665 East Grandview, Mesa, AZ 85203. Dy: (602) 267-2713. Res: (602) 962-9059. S: Jeanne. Dy: Asst Adj Gen, AZ.

Dep Chrmn ARNG Avn Comm.

***Treadway, Charles D.**, (CPT) (M85) (Chuck) 107 Valley View Drive, Enterprise, AL 36530. Dy: (205) 255-4322. Res: (205) 393-3795. S: Ladonna. Dy: Action Off, Dir of Combat Devt, Fort Rucker. Rtg: AA. Qual: AH-1S. Time: 956 Hrs.

Trimble, Margaret E., (MAJ) (M90) (Peggy) 2938 Nova Scotia Road, Bel Air, MD 21014. Dy: (301) 328-3930. Dy: Nurse, State Headquarters, STARC, MDARNG.

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Van Dyke, Anthony J., (CW2) (M82) (Tony) 935 North Lamer, Burbank, CA 91506. Dy: (213) 256-0011. Res: (818) 841-8258. S: Carol. Dy: C Trp 1-18 Cav (Air) AFRC, Los Alamitos, Aerospace Pilot. Rtg: AA. Time: 850 Hrs.

Vanture, Homer S., (MAJ) (M89) (Chip) 2141 Whittier Circle, Orlando, FL 32806. Dy: (407) 356-4119. Res: (407) 648-0726. S: Holly. Dy: Cdr, 199th Med Co, (Air Amb), Trng Supvr, Martin Marietta. Rtg: MAA. Qual: AH-1S, AH-64A. Time: 2,000 Hrs.

Vargas, Edward, (1LT) (M90) 516st DF-7 4th Ext., County Club, Rio Piedras, PR 00824. Dy: (809) 791-3220. Res: (809) 762-3289. S: Gisela. Dy: Crew Schedule Agent, American Eagle, San Juan, PR. Time: 570 Hrs.

Veach, William R., (MAJ) (M89) (Bill) 1839 Pilgrims Point Dr., Friendswood, TX 77546. Dy: (713) 283-1291. Res: (713) 996-0122. S: Sue. Dy: Asst S-3, Avn Bde, 49AD, TXARNG. Rtg: AA. Qual: AH-1S, UH-60A. Time: 1,000 Hrs.

Venzke, Elmer W., (SSG) (M89) 2518 20th Avenue North, Texas City, TX 77590. Dy: (713) 929-2355. Res: (409) 948-8048. S: Linda. Dy: 1/149th Avn Regt, Ellington Field, Houston.

***Vogel, Richard F.**, (CPT) (M89) (Rick) 2100 Buchta Road, Apt. 1016, Anpleton, TX 77515. Dy: (409) 539-4191. Res: (409) 848-0505. Dy: Engr, Hochst Celanese, Bay City, TX.

Voigt, Gustav C., (COL) (M87) 6 Saint Johns Road, Baltimore, MD 21210. Dy: (301) 550-2322. Res: (301) 433-6220. S: Sara. Dy: Sr Flight Surgeon, MDARNG. Rtg: AA. Time: 800 Hrs.

Vostry, Robert A., (E9) (M89) (Bob) 560 East Serena Avenue, Fresno, CA 93720-1518. Dy: (209) 445-6136. Res: (209) 434-0313. S: Yvonne. Dy: Avn Bde Ops Supt, 40th ID(M).

Waelchli, James R., (CW3) (M89) 202 Brewster, Austin, TX 78704. Dy: (512) 465-5088. Res: (512) 447-8723. S: Gloria. Dy: IP, TXARNG. Rtg: AA. IP.

***Wakelief, Mark S.**, (WO1) (M89) 911 Main Street, No. 3 El Segundo, CA 90245. Res: (313) 322-9250. Dy: 10214th Avn Regt, Los Alamitos. Rtg: AA. Time: 170 Hrs.

***Walker, Ronald M.**, (CPT) (M89) 6940 Whitmore Place, New Orleans, LA 70128. Dy: (504) 771-4160. Res: (504) 244-7883. S: Helen. Dy: Instructor, Southern Univ, A&M College. Rtg: AA. IP. Maint Crs: UH-1. Saf Crs: Mil. Time: 3,200 Hrs. AM/30.

Walker, William T., (SGT) (M89) 106 Crest Road, Cary, NC 27511. Dy: (919) 733-5069. Dy: Ordinance Systems Repair, Raleigh/Durham Airport, NC.

Wall, Leroy A., (COL) (M79) Route 1, Box 89, Purcell, OK 73080. Dy: (405) 425-6294. Res: (405) 527-7306. S: Tommie. Dy: State Avn Off,

OKARNG, Norman, OK. Rtg: MAA IFE, SIP. Saf Crs: Mil. Time: 11,000 Hrs. Past Sec. Sooner.

Walsh, William D., (LTC) (M84) (Denny) 4920 Hadaway Road, Kennesaw, GA 30144. Res: (404) 422-6670. Dy: Pilot, Delta Airlines. Rtg: MAA SIP IP TP. Maint Crs: FW. Time: 14,000 Hrs./Cbt 1,025 AM/17.

Wandel, Warren V., (CW4) (M78) 2717 Warren Lane, Fort Worth, TX 76112. Dy: (817) 885-6800. Res: (817) 496-1979. S: Dara. Dy: Air Safety Investigator, Civ Safety Sec, IRR-MIL. Rtg: MAA. Maint Crs: UH-1, AH-1, FW. Saf Crs: Mil. Qual: AH-1S. Time: 3,400 Hrs./Cbt 700 DFC, AM/13.

Ward, Edward G., (SFC) (M89) 2142 First Street, Glenview, IL 60025.

Warren, Russell L., (E8) (M88) (Rusty) 904 Ridgewood Drive, Plainfield, IN 46168. Dy: (317) 392-8271. Res: (317) 839-8666. S: Karen. Dy: Opns NCO, HQ 38 Avn Bde.

Watkins, George R., (CW4) (M89) 512 Montrose Lane, St. Paul, MN 55116. Dy: (612) 334-4360. Res: (612) 698-6864. S: Margo. Dy: Revenue Agent, I.R.S. Rtg: AA. Time: 3,800 Hrs./Cbt 800 DFC, AM/27/IV.

Wellman, William J., (SFC) (M89) (Jim) 10923 Steeding Horse Dr., Jacksonville, FL 32257. Dy: (904) 641-8378. Res: (904) 262-3863. S: Mary Ann. Dy: Training NCO, B71-131st Avn /Cbt/.

Welsh, John F., (MAJ) (M87) 16 Swatara Circle, Jonestown, PA 17038. Dy: (717) 865-8810. Res: (717) 865-0285. S: Janet. Dy: DES Branch Chief, Fort Indiantown Gap. Rtg: SAA IP. Time: 2,000 Hrs. Past Tra, Connecticut Chapter.

Wenrich, Quentin L., (CW3) (M89) RD2, Box 2732-A, Leeport, PA 19533. Dy: (215) 928-6155. S: Sharon. Dy: Co G (CBT) /CH-47/104th Avn.

White, Phillip D., (LTC) (M65) 1630 South 77th Street, Lincoln, NE 68506. Res: (402) 488-4431. S: Ina. Dy: Opns & Trng Offcr.

W Aviation Reserve Components

WEARING, Rtg: MAA. Maint Crs: UH-1. Saf Crs: Mil. Time: 2,000 Hrs. Past Vp, Cornhusker.

Wilensky, Jesse S., (CPT) (M86) (Jess) 67 Spring Street, Plainville, MA 02762-1922. Dy: (508) 968-5907. Res: (508) 699-6763. S: Rachel. Dy: Cdr, HHC, Avn Bde, Otis ANGB, MA. Rtg: AA. Time: 600 Hrs.

Wilhelm, Jay S., (CW4) (M90) 800 P.O. Box 18, NAS Glenview, IL 60026-5000. Dy: (708) 657-2745. S: Margaret. Dy: Aviation Safety Officer, 3-501 Avn Regt. Rtg: MAA IP. Time: 4,900 Hrs./Cbt 1,212 AM/17V, 290CL.

Wilkinson, Gary W., (SFC) (M89) 1380 Meadowbrook Lane, Lebanon, PA 17042. Dy: (717) 865-9929. Res: (717) 865-5705. S: Karen. Dy: Eastern ARNG Avn Trng Stp, Ft Indiantown Gap.

Wilkinson, Robert M., (1LT) (M88) (Bob) 10545 West 74th Street, La Grange, IL 60525. Dy: (708) 657-2389. Res: (708) 354-1575. Dy: AMO & Plt Ldr, A/2-502 Avn Regt (AVIM), UH-60 Maint Test Pilot. Rtg: AA TP. Maint Crs: UH-1, UH-60. Qual: AH-1S, UH-60A. Time: 390 Hrs. Past Vp, Greater Chicago Area Chap.

Willitt, Stephen M., (CW4) (M90) (Steve) 6685 Arrowroot Drive, Jacksonville, FL 32244. Dy: (904) 641-8377. Res: (904) 778-9629. S: Sharon. Dy: UH-60 Pilot, Craig Field. Rtg: MAA IFE. Qual: UH-60A. Time: 4,000 Hrs./Cbt 1,000 DFC/1, AM/22.

Williams, Edward A., (1LT) (M87) (Ed) 1335-B Werner Park, Fort Campbell, KY 42223-5000. Dy: (615) 798-6418. Res: (615) 431-2000. S: Sheila. Dy: Asst S3, HHC, 9-101 Avn Regt. Rtg: AA. Qual: UH-60A. Time: 600 Hrs.

Windham, Daniel O., (LTC) (M73) (Dan) 989 Vestavia Way, Gulf Breeze, FL 32561. Dy: (904) 932-2011. Res: (904) 932-8068. S: Claire. Dy: Safety Officer, HQ STARC, AL ARNG. Rtg: MAA IP. Maint Crs: UH-1. Time: 3,000 Hrs./Cbt 300 AM/9. Past Pres, Birmingham Area.

Wingate, Russell C., (CW4) (M82) (RC) P.O. Box 2124, Fort Devens, MA 01433. S: Deb. Dy: Bn ASO, 4/158 Avn Regt. Rtg: MAA. Safe

Crs: Mil. Qual: UH-60A. Time: 3,500 Hrs./Cbt 536 AM/16.

Wisch, Jeffrey P., (WO1) (M88) (Jeff) 3486 Hermitage Drive, Hopkinsville, KY 42240. Dy: (502) 798-7234. Res: (502) 885-8673. S: Claire. Dy: CH470 Pilot, C/7-101 Avn Regt, Ft Campbell. Rtg: AA. Qual: CH470. Time: 550 Hrs.

Wittich, Wesley E., (CW2) (M90) (Wes) 504 Raven Springs Trail, Stone Mountain, GA 30087. Dy: (404) 922-9000. Res: (404) 469-1104. S: Linda. Dy: CPA/VP-Controller, Lithonia Lighting, Rtg: SAA. Time: 2,680 Hrs./Cbt 1,120 DFC/1, AM/33.

Wojdak, Matthew A., (CW4) (M85) (Wog) RR 1, Box 89, Brighton, IL 62012. Dy: (314) 263-7564. S: Marilyn. Dy: ARPERCEN, PMO DARR-OPC-AV, St. Louis, MO. Rtg: SAA. Maint Crs: UH-1. Time: 2,600 Hrs./Cbt 1,400 AM/25. Past Sec, Greater Chicago Area Chap.

Wooden, Lester F., (MSG) (M86) (Les) 17 Belinda Avenue, Baltimore, MD 21206. Dy: (301) 576-6030. Res: (301) 668-4189. Dy: NCO Trainer, MD STARC, 5th Regt Armory.

Wren, John C., (WO1) (M89) (Birdman) 1511 Rich Road, West Memphis, AR 72301. Dy: (501) 771-5381. Res: (501) 735-8497. S: Carla Jo. Dy: B/1-114 Avn. Rtg: AA. Qual: AH-1S. Time: 500 Hrs.

Wyatt, W. W., (Mr.) (M89) (Wayne) 11547 Sabo, Houston, TX 77089. Dy: (713) 484-6110. Res: (713) 484-0281. S: Judy. Dy: A/1-149th. Rtg: AA. Qual: AH-1S. Time: 2,800 Hrs./Cbt 800 AM/15.

Yood, Richard P., (LTC) (M66) (Rick) 208 Lexington Road, Tallahassee, FL 32312. Dy: (904) 878-7062. Res: (904) 385-9663. S: Penelope. Dy: Spec Asst to Dir, USAATC Activity, Ft. Rucker. Rtg: MAA IP. Saf Crs: Mil. Time: 3,100 Hrs./Cbt 1,500 DFC/1, AM/32. Life Member.

Young, Eugene H.B., (LTC) (M81) 344 Hanamau Street, Honolulu, HI 96825. Dy: (808) 656-2716. S: Elaine. Dy: Hawaii Army Nat'l Guard. Rtg: MAA IP. Maint Crs: FW. Past Sec, Aloha Chapter.

Zimmerman, Royden S., (CW3) (M90) 35 Woodland Drive, Easton, MD 21601. Dy: (301) 820-7836. Res: (301) 822-4075. S: TIPPY. Dy: A Co, 60th Avn Bn, Ft. Meade. Rtg: AA. Qual: AH-1S, CH-47. Time: 4,200 Hrs.



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AAAA Holiday gift ideas on page 60**



Taxis of Conflict: The Helicopter War chronicles the introduction and use of rotary wing aircraft in the Vietnam conflict. Producer Harvey Schuster used recently declassified DoD footage and actual recorded radio transmissions to provide the most indepth coverage possible. Volume One covers the 1st Air Cavalry Division's operations in the Ia Drang Valley, while Volume Two details conflicts the conflict in the Iron Triangle. The 106 minute videos are available for \$59.95. Contact Image Productions, 121 Wing Street, Northville, Michigan, 48167. Phone: (313) 349-7806.

AEL Industries announced that its American Electronic Laboratories, Inc. subsidiary has delivered the 80th TACJAM system, completing the system delivery requirements of the TACJAM II production contract. **Mark Ronald**, President and Chief Operating Officer, AEL Industries, said, "This event is a culmination of the successful efforts of many people associated with the U.S. Army and AEL who have contributed to this vital electronic warfare program." The AN/MLQ-34 TACJAM system combines sophisticated computer control with multiple jamming capabilities and rugged tracked-vehicle mobility to set a new standard for tactical jamming performance. Total program value, to date: \$146,031,834.

Beech Aircraft Corporation was recognized on August 22, 1990 with the U.S. Small Business Administration's (SBA) highest honor, the

"Award of Excellence." The Award cites Beech's success in recruiting small and small disadvantaged businesses to provide subcontracted goods and services for Beech government contracts. The program is designed to ensure that all segments of the economy get a fair share of government business and that small and small disadvantaged businesses have an equal opportunity in the marketplace. The award was presented to Beech President **Max E. Bleck**.

Motorola Government Electronics Group was awarded \$6.6 million by the U.S. Army for Depot and Field Support services on the Army Joint STARS program. The two year service contract will provide engineering maintenance and materiel services for the Army's Joint Surveillance Target Attack Radar System Ground Station Modules (Joint STARS GSMs) that are deployed worldwide. The contract also includes a maintenance trainer located at the Motorola GEG facility in Scottsdale, AZ.

BEI Electronics, Inc. announced on July 2 that it has completed the acquisition of four divisions of the **Systron Donner Corporation** from **Thorn EMI** for approximately \$22 million in cash. In making this announcement, **George Brown**, president and CEO of BEI, said "the four divisions being acquired represent a major expansion of BEI's technology base in advanced motion and position sensing and control and smart sensors." The transaction includes Systron's Inertial Division, Edcliff Division, Duncan Electronics Division, and the Seaton-Wilson Division.

Texas Instruments teamed with **Honeywell** on a DARPA-sponsored program to build a small size, light weight, low power, low cost, high accuracy inertial navigation system suitable for use in future advanced aircraft such as the U.S. Army's **Light Helicopter (LH)**. TI will act as the prime contractor.

Messerschmitt Boelkow Blohm (MBB) GmbH has joined the **Boeing Sikorsky Light Helicopter First Team**. Munich-based MBB is Germany's largest aerospace firm and the world's premier developer of Bearingless

BRIEFINGS

Main Rotor (BMR) technology. MBB's expertise is included in the First Team's proposal for the development and production of the U.S. Army's Light Helicopter (LH).

The 1990 Military History Writing Contest is now open. Submissions must be postmarked by 31 December 90. It is open to all students attending officer advanced courses and the Sergeants Major Academy during calendar year 1990. First prize will be \$500 and publication in *Army History*, second prize is \$300, third \$100, or as the judges direct. Send two copies of the manuscript, along with any accompanying photographs or graphics to: U.S. Army Center of Military History, Attn: Writing Contest, Bldg 159, WNY, Washington D.C. 20374-5008. POC is Mr. Billy Arthur, AV 335-2905 or Cml (202) 475-2905.

The 2nd Annual DMZ to Delta Dance will be held 11 November 90 at the J.W. Marriott Hotel Ballroom, 1331 Pennsylvania Avenue, Washington, D.C. The dance will benefit the **Vietnam Women's Memorial Project** dedicated to the women who served many roles during the Vietnam conflict. Events include a raffle drawing for a trip to Australia and an auction of Vietnam Era memorabilia. Cost will be \$20.00 per person. Contact DMZ to DELTA Dance Committee, P.O. Box 65073, Washington D.C. 20035. Phone: (703) 920-2179/(703) 385-0565.

Lucas Aerospace has been selected by **McDonnell Douglas Helicopter Co.** to supply equipment on the innovative MDX helicopter. A contract to supply main rotor hydraulic units has been awarded to Lucas Air Equipment, the French subsidiary of the company, which has considerable expertise in this area. The MDX program is being built through an international cooperation program.

Beech Aircraft Corporation's wholly owned subsidiary, **Beech Aerospace Services, Inc. (BASI)** has announced the appointment of a new president, **Daniel A. Grafton**. Grafton succeeded Richard D. Walter, BASI president, on Oct. 1. Walter will be a consultant to Beech President and CEO Max E. Bleck on BASI affairs to ensure a smooth customer transition until his retirement December 31. Grafton joined BASI in 1980 as Supervisor-Accounting. He was promoted to positions of increasing responsibility throughout the decade and in July 1989 was named vice president/general manager.

BG Thomas J. Konitzer has been named as the new Assistant Commandant of the U.S. Army Aviation Center, Ft. Rucker, AL. Konitzer's immediate past assignment was as commander of the 6th Cavalry Brigade (Air Combat), Ft. Hood, TX. He replaces **BG Robert S. Frix** who is now Deputy Commanding General/Chief of Staff, Third U.S. Army, Ft. McPherson, GA.

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Fleat, Terrance J. LTC
101 Aquila Turn
Yorktown, VA 23693 23666

Fondren, Kyle R. MSG
12863 Partridge Run
St. Louis, MO 63033

Fredrick, Gilbert H. COL
3289 Birch Avenue
Grapevine, TX 76051

Frost, Gary C. LTC
9 Britannia Drive
Sterling Woods Condos
Danbury, CT 06811

Gesele, Eugene C. LTC
C/O Mrs. Dorothy Gesele
19331 N.W. 39th Court
Opa-Locka, FL 33055

Gonzales, Orlando E. MG
8311 Riverton Lane
Alexandria, VA 22306

Hafars, Ernest R. LTC
SPO
Sewanee, TN 37375

Harnes, Michael H. LTC
425 Sun Lake Circle
Apt. 203
Lake Mary, FL 32746

Hinkle, Philip M. COL
20759 Banbury Drive
Valley Center, CA 92082

Horvath, Leroy L. COL
281 Andes Drive
Glen Carbon, IL 62034

Howard, Alfred N. LTC
Box 8729
Christiansted, VI 00823

Kobes, Eugene H. LTC
10670 Lake Isomonia Drive
Tallahassee, FL 32312

Konkle, Thomas E. LTC
113 Trestop Drive
Huntsville, AL 35801

Loftice, John E. CW4
5531 Pitch Pine Drive
Orlando, FL 32819

McGrew, Peter R. MAJ
602 Cross Creek Drive
Apt. E. Creve Coeur
St. Louis, MO 63141

McNair, Carl H., Jr. MG
VP, Nat'l Executive Board
2000 Edmund Hallway Drive
Reston, VA 22091

Neelson, Huey R. CW4
USMCA, Karlsruhe
Civ Personnel Div, Box 272
APO New York 09184

Newcomer, Samuel K. SFC
1225 Newark Drive
St. Louis, MO 63137

Perry, Calvin W. CSM
5325 East Tropicana
Apt. 2303
Las Vegas, NV 89122

Ray, Lewis D. LTC
100 Fred Wing Drive
Enterprise, AL 36330

Reece, Frank S. COL
1212 Lakeade Way
Newnan, GA 30265

Reed, Joseph O. Jr. LTC
6003 Augusta National Dr.
Apt. 212
Orlando, FL 32809

Rice, Bert L. COL
1217 Hillcrest Road
Odenton, MD 21113

Runnels, W.L., Ret. LTC
93 Summer Place
Hattiesburg, MS 39402

Shields, Roger J. COL
10110 118th Way North
Seminole, FL 34642

Shonard, George D. SENLTC
110 East Matz Avenue
Hartlingen, TX 78550

Slie, Kenneth M. MAJ
P.O. Box 23521
HHD-USMCA, Bamberg
APO New York 09139

Turman, Willard G. CW4
3108 East Lester Street
Tucson, AZ 85716

Wingate, Charles S. COL
8431 Weather Vane Court
Jacksonville, FL 32244

Winslow, Roger D., Jr. MAJ
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Anna, IL 62906

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Solicitation now underway for CY 90 AAAA National Awards: Jan. 15, 1991 suspense date set.

"Award Presentations"

Up to eight AAAA National Awards for accomplishments made during Calendar Year 1990 will be presented at the 1991 AAAA Annual Convention in St. Louis, MO. The individual AAAA National Award presentations will be made on Friday; the unit AAAA National Award presentations will be made on Saturday. Senior members of the U.S. Army will be invited to present the AAAA's top awards on both occasions.



"Outstanding Aviation Unit Award"

Sponsored by the McDonnell Douglas Helicopter Company, this award is presented annually by AAAA "to the Active Army aviation unit that has made an outstanding contribution to or innovation in the employment of Army Aviation over and above the normal mission assigned to the unit during the awards period encompassing the previous calendar year." Any Active Army Aviation unit that has met the foregoing criteria is eligible for consideration.

"ARNG Aviation Unit of the Year Award"

Sponsored by Textron Lycoming, this award is presented annually by the AAAA "to the Army National Guard aviation unit that has made an outstanding contribution to or innovation in the employment of Army Aviation over and above the normal mission assigned to the unit during the awards period encompassing the previous calendar year." Any Army National Guard aviation unit or organization that has met the foregoing criteria is eligible for consideration.

"USAR Aviation Unit of the Year Award"

Sponsored by Textron Lycoming, this award is presented annually by the AAAA "to the U.S. Army Reserve aviation unit that has made an outstanding contribution to or innovation in the employment of Army Aviation over and above the normal mission assigned to the unit during the awards period encompassing the previous calendar year." Any U.S. Army Reserve aviation unit or organization that has met the foregoing criteria is eligible for this award.

"The Robert M. Leich Award"

Sponsored by the Grumman Corporation, this award is named in memory of Brigadier General Robert M. Leich, USAR, the AAAA's first president (1957-1959) and its Awards Committee Chairman for 23 years. It is presented periodically to a unit for sustained contributions to Army Aviation, or to a unit or an individual for a unique, one-time outstanding performance.

"Army Aviator of the Year Award"

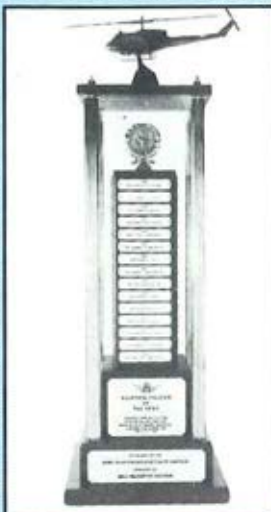
Sponsored by the Sikorsky Division of United Technologies Corporation, this award is presented annually through the AAAA "to the Army Aviator who has made an outstanding individual contribution to Army Aviation during the Awards period encompassing the previous calendar year." Membership in AAAA is not a requirement for consideration. A candidate for this award must be a rated Army Aviator in the Active U.S. Army or Reserve Components, and must have made an outstanding individual achievement.

"Aviation Soldier of the Year Award"

Sponsored by Bell Helicopter Textron, this award is presented annually by AAAA "to the enlisted man serving in an Army Aviation assignment who has made an outstanding individual contribution to Army Aviation during the awards period encompassing the previous calendar year." Membership in AAAA is not a requirement. A candidate for this award must be serving in an Army Aviation assignment in the Active U.S. Army or the Reserve Components, and must have made an outstanding individual achievement.

"James H. McClellan Aviation Safety Award"

Sponsored by General Electric Aircraft Engines in memory of James H. McClellan, a former Army Aviator who was killed in a civil aviation accident in 1958, this award is presented annually to an individual who has made an outstanding individual contribution to Army Aviation safety in the previous calendar year." The award is NOT intended to be given for the accumulation of operational hours without accidents by any aviation unit.



"Outstanding DAC of the Year Award"

Sponsored by Boeing Helicopters, this award is presented annually by AAAA "to the DAC who has made an outstanding individual contribution to Army Aviation in the awards period encompassing the previous CY." Membership in AAAA is not a requirement. A candidate for this award must be a current Department of the Army Civilian.

Administrative Details

ACCOMPANYING DATA FOR INDIVIDUAL AWARDS: A standardized "Nomination Form for Submission of All AAAA National Awards" is the sole form utilized by the Awards Committee in its selection of annual AAAA National Awards Winners. Copies may be obtained directly from any Chapter Secretary or by writing to AAAA, 49 Richmondville Avenue, Westport, CT 06880-2000.

The form should be accompanied by a recent photo and biographical sketch of the nominee. Photos of the commander and the senior NCO must accompany each unit nomination. The "Nomination Form for Submission of All AAAA National Awards" and the accompanying photo(s) should be mailed ON OR BEFORE the January 15 suspense date. Please use stiffeners to protect the photo(s) being submitted. While "nomination" material cannot be returned, photos may be returned on request. Receipt will be acknowledged by the AAAA National Office.



AWARDS AND HONORS

The following information is provided by the U.S. Army Aviation Center at Ft. Rucker, AL:

Initial Courses:

Class 89-23 UH-1 Track (06/08/90): WO Stuart A. Campbell, Dist. Grad; WOs Steven P. White and Russell R. Markel, Honor Grads.

Class 89-23 OH-58 Track (06/08/90): 2LT Thomas E. Schwartz Dist. Grad.

Class 89-23 OH-58 Track (06/08/90): WO Gerald R. Sherrill, II, Dist. Grad; WOs Jay A. Humphrey and Kenneth J. Doherty, Honor Grads.

Class 89-22 UH-60 Track (06/08/90): WO Robert P. Aussprung, Dist. Grad.

Class 89-21 AH-1 Track (06/08/90): 1LT Madison S. Hughes, Dist. Grad.

Class 89-21 AH-1 Track (06/08/90): WO John T. Morgan, Dist. Grad; WO Rex T. Akins, Honor Grad.

Class 89-24 UH-1 Track (06/22/90): 2LT Roland D. Aut, Dist. Grad; 1LT Russell J. Sweet, Honor Grad.

Class 89-24 UH-1 Track (06/22/90): WO John A. Kaplafka, Dist. Grad.; WO Jeffrey H. Wallis, Honor Grad.

Class 89-21 OH-58 Track (06/22/90): 1LT Donald R. Holland, Jr., Dist. Grad.

Class 89-24 OH-58 Track (06/22/90): WO John C. Lutz,

Dist. Grad.; WOs Victor S. Rosini & James P. Kennedy, Honor Grads.

Class 89-23 UH-60 Track (06/22/90): WO Kathy R. McDaniel, Dist. Grad.

Class 89-22 AH-1 Track (06/22/90): WO Douglas E. Ehrle, Dist. Grad.; WO Christopher J. Schurmp, Honor Grad.

Class 90-1 UH-1 Track (07/06/90): 2LTs Craig A. Strong, James E. Sullivan, III, & Richard L. Bates, Dist. Grads.

Class 90-1 UH-1 Track (07/06/90): WO Michael Bronnenberg, Dist. Grad; WO Laird B. Culver, Honor Grad.

Class 90-1 OH-58 Track (07/06/90): 2LT Paul Epstein, Dist. Grad; 2LTs Bruce Malarky and Treavor K. Emey, Honor Grads.

Class 90-1 OH-58 Track (07/06/90): WO Johnathan H. Henshey, Dist. Grad.

Class 90-24 UH-60 Track (07/06/90): 2LT Kenneth T. Brown, Dist. Grad.

Class 89-24 UH-60 Track (07/06/90): WO William M. Katz, Dist. Grad.

Class 89-23 AH-1 Track (07/06/90): WO Jayson S. Wilson, Dist. Grad; WOs Kurt E. Schultz, Jr., and Rick W. Tidwell, Honor Grads.

CAREER TRACK

Active AAAA members may have a 30-word classified employment ad published in two consecutive issues of ARMY AVIATION free of charge. Write to AAAA, 49 Richmondville Avenue, Westport, CT 06880-2000, or call (203) 226-8184 for Career Track applications. Inquiring organizations, please contact the National Office.

Wanted: Consultant position. Provide 42 years government experience in Army Aviation and Infantry. Six years in Defense Related Industry. Heavy expertise in Army Aviation Combat Development and Research and Development. 08-90-01

Aerodynamic Engineer - NASP, A-12, F-15E Performance. Ten years Army Aviation. UH-60 Company Commander, Operations Officer for ATAC I. MSAE, Univ. of Michigan. BS, USMA. 08-90-02

Aviation logistics/personnel management position. Worked in CH-47D project management, aviation maintenance, and material/services management. Enrolled in MS program - Human Resource Management/Development. Twenty-four years Army. Available January 91. 08-90-03

Top 10 MBA (Finance) residing in Orlando with high tech manufacturing (semiconductors) and distribution (IBM PC's) financial management experience, seeks

opportunity in commercial or defense oriented enterprise in Mid-Florida. 08-90-04

COL Ret., formerly Navy International Program Office, experienced in State and Commercial export licenses, foreign sales, and recoupment charges owed to Uncle Sam. Have prepared 7,000 licenses and sold 11 major programs overseas. Available immediately. Contact Hank Lavery, Phone (703) 836-9088. 10-90-01

Captain, USMA 1984, BS Engineering/International Relations. Experience as Company Commander, Intelligence Officer, and OH-58 Platoon Leader concentrating in low-intensity and NVG operations. Seeking Management/Marketing position with Aviation/Defense Industry. Available immediately. 10-90-02

12 years experience in Marketing Communications/Press Relations with contractor for U.S. Army and other Armies. Emphasis on Helicopter Programs. Excellent press contacts. Reside in Wash. D.C. Area. Outstanding references. Available immediately. 10-90-03

AAAA anticipates offering a minimum of \$90,000 aid in 1991 for college-entry Freshmen

■ ■ BACKGROUND:

The AAAA Scholarship Foundation, a separate non-profit, tax-exempt corporation created to render financial assistance to selected members of the Army Aviation Association of America, Inc. (AAAA) and selected spouses, unmarried siblings, and unmarried children of current and deceased AAAA members, expects to make available \$90,000 in assistance funds for the 1991 college-entry year.

■ ■ SCHOLARSHIP GRANTS AND LOANS:

A minimum of thirty scholarships will be presented — One \$12,000 four year grant (\$3,000 a year); two \$10,000 four year grants (\$2,500 a year); other grants ranging from \$1,000 to \$5,000 given out as one, two or four year scholarships; five \$4,000 interest-free loans (\$1,000 a year); a \$2,000 scholarship (\$1,000 a year) to an eligible applicant pursuing a two-year associate degree in an aeronautical-related science; a \$4,000 scholarship (\$1,000 a year) to an eligible applicant pursuing a four-year B.S. degree in an aeronautical-related science; and a \$3,000 scholarship (\$1,500 a year) available to students planning to attend St. Louis University.

■ ■ AWARD PHILOSOPHY:

The AAAA National Scholarships are awarded primarily on the basis of academic merit and personal achievement.

■ ■ APPLICATION PROCEDURE:

To apply, please request a Scholarship Grant/Loan Application and return it to the AAAA Scholarship Foundation, 49 Richmondville Avenue, Westport, CT 06880-2000 on or before May 1, 1991 (postmark will govern). On our receipt of the completed application, you will be mailed further instructions and assigned an AAAA interviewer. All forms, together with other supporting data, must be returned to the Foundation on or before June 15, 1991 for consideration by the AAAA Awards Committee (postmark will govern).

■ ■ ELIGIBILITY CRITERIA:

An applicant must be a citizen of the United States who has been admitted to an accredited college or university for Fall 1991 entry as a freshman. The AAAA member to which the applicant is related must have an effective date of membership on or before March 31, 1990. All eligible applicants shall first be considered for scholarship grants and then, if requested by the applicants, considered for the loan program.

■ ■ SELECTION AND NOTIFICATION:

Selection of winners will be made by the AAAA National Awards Committee during mid-July with each applicant to receive a list of the winners not later than August 1, 1991.

BEAT THE INCREASE

There hasn't been a AAAA membership dues increase since 1980!

Each member's dues fall \$10 short of covering the cost of supplying services to that member — the difference is made up by AAAA Annual Convention exhibit revenues.

To correct for ten years of inflation and just maintain the \$10 per-member subsidy, a new Two-Tier Dues Structure will be implemented **1 January 1991**.

TIER I: Includes all Full-Time Students, all Enlisted, Warrant Officer Candidates, GS-8 DACs and below, and Wage Board 12 DACs and below at a rate of \$14 for one year, \$25 for two years, and \$36 for three years.

TIER II: Includes all other members at a rate of \$21 for one year, \$39 for two years, and \$57 for three years.

AAAA Establishes "Two for One" Membership Program

Starting 1 January 1991, AAAA will offer a "Two Years for One" membership for all first-time members at the one year rate for the individual's respective membership category.



RE-UP NOW AND SAVE

Use the form below.

Renewals and new member applications at the old rate must be postmarked by 1 January 1991.



ARMY AVIATION ASSOCIATION OF AMERICA (AAAA)

49 RICHMONDVILLE AVE., WESTPORT, CT 06880 • PHONE (203) 225-8184 • FAX (203) 222-9863

Please check one: Renewal; Change of Address; New Membership Application

I wish to join/renew my membership in the Army Aviation Association of America (AAAA). My past or current duties affluence are with U.S. Army Aviation and I wish to further the aims and purposes of the AAAA. I understand that my membership includes a subscription to the AAAA-sponsored magazine "Army Aviator", and that my membership will start on the subsequent level of the month. Contributions or gifts to AAAA are not deductible as charitable contributions for federal income tax purposes. Dues payments are deductible by members as ordinary and necessary business expenses.

Rank/OS Grade _____ First Name _____ MI _____ Last Name _____ Sex _____

Mailing Address _____

Mailing Address _____

City _____ State _____ Zip + 4 Code _____

Active Duty or Civilian Job Title and Unit or Firm Name _____

Area Code _____ Office Phone _____ Area Code _____ Residence Phone _____

Nickname _____ Spouse's Name _____

Date of Birth (Mo/Yr) _____ Social Security No. _____

Consent: I do I do not consent to the publication or release of the above information to third parties.

Signature _____ Date _____

AAAA ANNUAL DUES

Applicants other than those listed below:
1 11 yr. \$18; 1 12 yr. \$29; 1 13 yr. \$43
Enlisted, GS-6 & below, Wage Board 12 DAC's and below:
1 11 yr. \$10; 1 12 yr. \$19; 1 13 yr. \$28
Add \$5 per year if you have a foreign, non-APO address.
Add \$15 if your check is drawn on a foreign bank.

Check enclosed payable to "AAAA" or charge to:
 AMEX Diners Club Mastercard Visa
Card No. _____

Am't \$ _____ Exp. Date _____

Signature _____

Date _____

Check (✓) Your Professional Qualification:

- | | |
|---|---|
| <input type="checkbox"/> Army Aviator Duty | <input type="checkbox"/> 10 Defense Industry |
| <input type="checkbox"/> SA/OSD Confab | <input type="checkbox"/> Consultant |
| <input type="checkbox"/> Army Nat'l Guard | <input type="checkbox"/> Publishing/Other Assoc. |
| <input type="checkbox"/> Army Reserve | <input type="checkbox"/> Foreign Military Service |
| <input type="checkbox"/> Army Retired | <input type="checkbox"/> Foreign Defense Industry |
| <input type="checkbox"/> Other US military branch | <input type="checkbox"/> Other _____ |

Are you a former AAAA member? Yes No

If yes, what year did you join? _____

Chapter Affiliation Preferred _____

Print Name of Recipient _____

NEW MEMBERS



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Mr. Richard W. Rudow

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CPT/F Charles D. Gernar
Mr. Michael J. Blanks, Jr.
CW2 Mark B. Stout

ARMY AVN CENTER CHAPTER FORT RUCKER, AL

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WOC Glenn E. Avery, Jr.
SGT Kevin D. Ballard
WOC Scott W. Below
WOC David A. Borden
WOC David N. Bradshaw
COL Robert L. Childress
WOC Danny J. Cowden
WOC Mark R. Haven
2LT David L. Herrman
MAJ Eric Hoffmeyer
2LT Shawn N. Hofmann
2LT William R. Hogans, IV
MAJ Ralph Wade Johnson, Jr.
2LT Ryan S. Jones
LTC G. Eric Jowers
CWA Peter R. Kalogris
WOC Michael S. Kellogg
WOC Ronald J. Koch
WOC Michael R. Leonard
WOC Thomas D. Long
1LT Joane K. Mathews
Mr. Kenneth G. McDonald
2LT Jackie E. Mullinax, II
2LT Matthew D. Palazzolo
WOC Patrick L. Rooney
2LT Walter T. Rugen
CPT David W. Skinner
2LT Roderick J. Smith
WOC Daniel L. Toporek
SGT Robert L. Trobiano

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CDT Terry J. Yun

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CPT Dorothea M. Cypher

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LTC August G. Lageman

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SSG Steven R. Vogt

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Ms. Elsa Hansen
Ms. Yolanda R. Peronis
Mr. James T. Shaw
Mr. Carmen A. Williams

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Mr. Roland J. Ward

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MAJ Mark W. Lee

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Dr. Julius Hein
Ms. Maureen K. McCrary
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Ms. Marilyn L. Uhrich

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SPC John T. Cologna
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CPT David G. Dippold
PFC Mark Allen Erhardt
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Mr. William S. George
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CW3 Jerry W. Sanders
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SPC Robert W. Schneider
CPT Thomas N. Sienessa III
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Mr. James Peter Hughes
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Ms. Verna A. Mentel
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CSM Thomas C. Walter

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CPT Robert A. White

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SGM Raymond D. Dennis
MAJ John R. Fabry
Mr. Robert J. Jeffers
CPT David J. Kitscha
CW3 Walter G. Lear

SSG Sunny T. Lee
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1LT Jeffrey K. Opperman
LTC William W. Powell
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2LT Tracy S. Studer
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WOC Michael K. Scherzberg
SPC Andrew J. Wright

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SGT John R. Barlow, II
SPC Dan C. Dorking
SPC Dexter E. Edmonds
SG Francis S. Greenleaf, Ret.
MSG Ernest L. Harvey
SPC Will Holback, Jr.
PFC Abilio Antonio Jimenez
MAJ Richard M. Johnson
CW4 Fred W. Kirby
SFC Athanasius S. Pavao, Jr.
MSG Robert L. Snider
LTC M. Waller, Ret.

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MAJ Elias C. Chin

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Mr. Charles J. Belair
Mr. Kevin Carry
Mr. Tom W. Drake
1LT Douglas R. Keith
MSG Michael E. Lockaby
MAJ Brady MacNealy
Mr. Jeffrey A. Neal
Mr. Charles Rocco
2LT Thomas H. Todd, III
Mr. Mark Wasserman

DESERT SHIELD NOTEBOOK

The following is a listing of designated mail addresses that have been established for **Operation DESERT SHIELD**. This does not necessarily reflect entire unit deployments. These numbers are the **APO New York Numbers**:

ARCENT G-1	09852
101st ABN DIV (AA)	09309
82nd ABN DIV	09656
24 INF DIV (M)	09315
1st COSCOM, Ft. Bragg	09657
(129th Postal CO/Non DIV)	
18th ABN, AVN BDE	09657
20th Engineers, 46th ENG BN	09657
229th ATK HEL BTN	09309
197th INF BDE	09315
11th ADA BDE	09656
3d ACR	09209

Please use APO ZIP Codes as follows:

Rank/Full Name/SSN
OPERATION DESERT SHIELD
Unit of Assignment/Detachment
APO New York 09XXX

At present, transit time between CONUS Post Offices and Saudi Arabia is 10 days.

CHAMPUS Update: The seriousness of the Middle East crisis means that medical staff members from some military medical facilities will deploy, leaving gaps in the staffs of those hospitals. However, in some metropolitan areas—such as Washington, D.C. and San Antonio, TX—there may be more than one uniformed services medical facility that offers care to local service families.

If you live in such an area and aren't able to get the care you need from one such hospital, try another—regardless of which service branch runs it. Families of reservists who are called to active duty during the current Middle East mobilization may become eligible for CHAMPUS benefits (as well as other military health care benefits) during the sponsor's active-duty service.

Contact your Health Benefits Advisor (HBA) for more information. HBAs are generally found in the patient administration section at the nearest uniformed services medical facility.

MCI Communications Corporation is offering free emergency long-distance telephone service to U.S. military personnel in Saudi Arabia who are being served by the American Red Cross. MCI and the Red Cross will arrange the free usage for Saudi-based U.S. military personnel to reach their relatives in all 50 states, 24 hours a day, seven days a week on an indefinite basis. From the U.S., contact your local Red Cross chapter for assistance in arranging for emergency communications to military personnel in the event of birth, death, or family illness.

Hammond Inc. will donate copies of its **Middle East Crisis** map to the troops and their families through local USO Outreach Centers. It features a detailed political map—including locations of oil fields and pipelines as well as an annotated historical map. For more information, contact Gwen Baker, Promotion Manager, Hammond Inc., (201) 763-6000 or (800) 526-4953.

The National Apartment Association (NAA), is asking the nation's apartment owners and managers to accommodate the special circumstances our deployed soldiers are experiencing by keeping rents stable and accommodating leases during their time of service. NAA President **Jerry Warshaw** said, "President Bush has asked these fine men and women to make the ultimate sacrifice for their country, and it behooves us, whose residents are serving in the Persian Gulf states, to show similar patriotic support for the sacrifices they are making on our behalf." As the nation's largest non-profit trade association of the rental apartment industry, NAA's 45,000 members own and manage over 3.5 million apartments and condominiums. The NAA can be contacted at 1111 14th St. N.W., Suite 900, Washington D.C. 20005. Telephone: (202) 842-4050

USO, the civilian non-profit organization, has announced plans to provide morale support programs and services to American troops being deployed to the Middle East. Since the Gulf crisis has spawned the need for immediate additional funds, checks payable to "World USO" may be sent to USO World HQ, Gulf Crisis Fund, 601 Indiana Ave. N.W., Washington, D.C., 20004.

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For five decades, Schweizer Aircraft has been a quiet but important part of the Army team.

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Telex: 932459

1940's



TG-3A Army/Air Force training glider

1950's



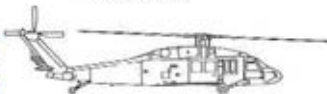
OH-13 Production source for cabin and frame assemblies

1960's



YO 3 A Quiet observation aircraft—operational in Southeast Asia

1970's



UH-60A Production source for gunner windows and other assemblies

1980's



TH-55/TH-300C Product support of R. Rucker fleet/Manufacturer of Model 300C product line



Recipient
1989
Army Aviation
Materiel Readiness
Award

New AAAA Chapter Officers

Arizona

Mr. Michael C. Kilgore (VP, Membership)

Colonial Virginia

Ms. Allie N. Eschenbach (Secretary); CPT Richard K. Eissler (Treasurer)

Corpus Christi

Ms. Nancy Burgess (VP, Membership Renewal)

Greater Chicago

LTC David S. Asher (Secy).

Lindbergh

Mr. Jack W. Calve, Jr. (VP, Publicity)

Mid-America

WO1 Brenda M. Hellerman (Secy); CW3 Stephen L. Woods (VP, Membership)

Morning Calm

LTC Paul R. Wills (VP, Central); LTC Eber F. Brown, Jr., (VP, North); CSM Hans E. Li (VP, Enlisted Affairs)

North Country

1LT(P) Kirby E. Luke (VP, Memb); 1LT William R. Fipps (Corporate Affairs)

Southern California

CPT(P) Patrick G. Forrester (Treasurer)

Aces

The following members have been declared Aces in recognition of their signing up five new members each.

2LT Scott R. Alpeter

CW3 Joe Beaver, Jr.

Ms. Bobbi Campbell

COL Gerald L. Crews

LTC John R. Fischetti

COL Paniel J. Flagg, II

Mr. Frederick Khemchand

CW3 L.C. LeBlanc

Ms. Debra T. Reid

2LT Joe M. Trawinski



The Connecticut Chapter held a Wing Ding Lobster Bake on 11 August 1990 at the home of AAAA Archivist and Past Executive Vice President Art Kesten. In order to insure that everyone worked up a proper appetite, Art revived the Back Yard Olympics competition which involved events ranging from eskimo pie-eating and firefighting to hula-hoop rolling. Two teams competed for the gold: the AAAA National Office vs. the Connecticut Chapter member team. The Olympians included such notables as MG Richard E. Stephenson, Vincent Nitido, Chapter President, BG Rodney D. Wolfe, Ret., Chapter Sr. VP, and Terry M. Coakley, AAAA Executive Director. Pictured above are the members of both teams, families, and friends after the Connecticut Chapter had edged out the National Office for the 1990 BYO Laurels.

The Corpus Christi Chapter's third quarter general membership meeting was called to order by President LTC Darrell M. Chancellor at the Corpus Christi Bay Club Sun Room. VP for Benefits, Ed Douglas, presented the merit scholarship to Michelle Reyna, daughter of Maria G. Reyna, who is a Directorate of Supply employee. Michelle then drew two names for the two remaining scholarships which were decided by lottery drawing. The two scholarships were awarded to Fritz McDonald, Jr. and Brian Trube.

The Old Ironsides Chapter's Executive Council Meeting was held on 25 August 1990 at the Von Steuben Officer's Club. The council agreed to solicit nominations for chapter officers at the 21 September meeting and to hold chapter elections at the following meeting, tentatively scheduled for October. All agreed on the importance of aggressively seeking warrant officer and enlisted nominees. The council also discussed several options for use of the welfare fund and elected to donate \$1,500 to sponsor the "St. Nicholas Tea Christmas Gift Giving" project and donate another \$1,000 to the Red Cross.



THE ARMY WENT TO GREAT LENGTHS TO FIELD-TEST OUR OFF-THE-SHELF HF.

Throughout Operation Just Cause in Panama, the U.S. Army used a recently fielded off-the-shelf HF radio to meet its long-distance and NOE communications needs.

The Bendix/King ARC-199.

In fact, our ARC-199 was the HF used for several aircraft types actively involved in the recent Panama operation, from the front-line Chinooks and Black Hawks, to the CINC Hawk airborne command centers.



The enhanced capabilities of the improved ARC-199 can be retrofitted into existing versions with no changes in wiring or interfaces.

And its enhancement continues. Ready for implementation is a new single-button-operation control display unit with easy-to-use menu-driven software. The improved ARC-199 minimizes head-down input—essential in combat situations. In addition, the ARC-199 has demonstrated Automatic Link Establishment (ALE), digital burst modem and frequency-hopping ECCM capability, which brings an unprecedented level of performance to battlefield communications.

Engineered to operate through the standard 1553 military avionics bus and designed to interface with Army modems and communications equipment, the ARC-199 is easy to install and easy to use. Available at a fraction of the cost of other units, the ARC-199 is an established interservice standard for off-the-shelf airborne HF.

Currently, over 500 ARC-199s have been delivered to all branches of the U.S. military. These systems have been installed in both rotary and fixed-wing aircraft types, including EA-6Bs and VIP VH-3s, with recent selection for the USMC OV-10 and follow-on vertical lift requirements. And a variant of the ARC-199, the ARC-200, is flying in the USAF F-16 ADF and in export versions of the F/A-18.

If you're looking for an advanced-capability off-the-shelf HF radio, choose the one that's been proven under fire.

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Sustaining Members**
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Corpus Christi, TX

**AAAA Establishes
"Two for One"
Membership Program**

Starting January 1, 1991, AAAA will offer a "Two Years for One" membership for all first-time members at the one year rate for the individual's respective membership category.

Remember—new dues take effect January 1, 1991. See the "Beat the Increase" ad on page 70.



**See You
In
St. Louis!**

**AAAA
Annual
Convention
10-14 April
1991**

Think Convention

by GPT Noel T. Cowart

AAAA definitely had all their ducks in a row at the Annual Convention this year.

Thousands upon thousands from the community of Army Aviation, as well as our extended family members, converged on Orlando and immediately proceeded to get down to the business of Army Aviation.

In no other arena are friends as steadfast as those in Army Aviation. Every year, the young and old, from near and far, converge to receive another healthy dose of everything from the camaraderie found on the golf course during an unexpected—and, thankfully, short lived—rain shower to outstanding professional sessions and exhibit hall displays. Receiving much special (and deserved) attention this year were members of the U.S. Precision Helicopter Team and the Helicopter Club of America. It was nice to see friends from far away and laugh about your trials, tribulations, and victories in another country.

Of course, no convention would be complete without the assemblage of friends for a trek to try the local cuisine and watering holes. This year was no exception.

At Saturday night's Awards Banquet, I was seated with some delightful people. The youngest was perhaps 12, the daughter of a Lieutenant Colonel in from Korea just for the convention. The oldest was nearing fifty. Experience ranged from a two-tour Vietnam veteran to a young soldier from the 160th who earned the right to wear his combat patch in Panama.

One thing you will always notice at a AAAA convention is smiles. Everywhere you looked, no matter the time of day or night, people were smiling. It was great!

I am surprised at the number of Army Aviation personnel who do not attend the Annual Convention. There are legitimate excuses, of course, but in view of the fact that once and only once a year do the best of the best gather to share professional knowledge, smiles, and renew friendships, I find it hard to understand why more of us aren't in attendance.

If you were there, tell your friends how much you enjoyed it. If you weren't able to make it to Orlando, why not start planning to be in St. Louis next 10-14 April? In addition to having a great time, who knows, you might have the opportunity to meet some of the real legends of Army Aviation's storied past.

If you haven't been to an Annual Convention yet, you really can't appreciate what AAAA is all about. ■■■



Built to carry the Army into the 21st century

The light tactical Panther 800

The new Panther 800 will be a low-risk, cost-effective light tactical helicopter with exceptional multirole capabilities.

An enhanced off-the-shelf helicopter, the Panther 800 is being built to respond to the U.S. Army's rapidly changing requirements for versatility, self-deployability and affordability. It's a team effort, with LTV Aircraft Products Group combining the proven capa-




The Panther team is currently integrating the T800 engine into a U.S. Coast Guard HH65, a derivative of the Dauphin helicopter.

bilities of the Aerospatiale Panther Helicopter with the U.S. Army's next-generation power plant—the T800 from LHTEC—along with IBM's integration of existing avionics systems.

By adding the latest engine technology to a proven airframe, the Panther 800 will provide a low-risk, cost-effective answer for the Army's many light lift needs well into the 21st century.

 Aircraft Products Group

 aerospatiale





L T V : L O O K I N G A H E A D

AAAA CALENDAR

A listing of recent AAAA Chapter Events and upcoming National dates.

October, 1990

✓ **Oct. 12** General Membership meeting of the Aloha Chapter at 1600 hrs at the Schofield Barracks. Program: Election of New Officers, Discussion of Chapter's Future. Members Only.

✓ **Oct. 15.** AAAA Nat'l Executive Board Meeting, Sheraton Washington Hotel, Washington, D.C.

✓ **Oct. 16.** AAAA Scholarship Board of Governors Meeting, Econo Lodge, Arlington, VA.

✓ **Oct. 30-31.** Eighth AAAA Aircraft Survivability Equipment Symposium. Hosted by American Electronics Laboratories (AEL), Lansdale, PA.

✓ **Oct. 30** AAAA ASE Award Presentation, Holiday Inn, Fort Washington, PA.

November, 1990

✓ **Nov. 29 - Dec. 6.** Second Annual Apache Top Gun Competition, USAAVNC, Ft. Rucker, AL.

December, 1990

✓ **Dec. 6.** AAAA Aviation Trainer of the Year Award; Howze Gunnery Award; & Top ROTC Cadet Award Presentations, Fort Rucker, AL.

✓ **Dec. 7.** AAAA NEB Meeting, Fort Rucker, AL.

February, 1991

✓ **Feb. 2.** AAAA Nat'l Awards

Committee Meeting to select CY90 Nat'l Award Winners.

✓ **Feb. 6-7.** 17th Annual Joseph P. Cribbins Product Support Symposium sponsored by the AAAA Lindbergh Chapter. Stouffer Concourse Hotel, St. Louis, MO.

✓ **Feb. 6.** AAAA Outstanding Aviation Logistics Support Unit of the Year Award Presentation and AAAA Industry Award Presentations, Stouffer Concourse Hotel, St. Louis, MO.

April, 1991

✓ **April 10-14.** AAAA Annual Convention, Cervantes Convention Center, St. Louis, MO.

✓ **April 10.** AAAA NEB Meeting, St. Louis, MO.



Do rotor track and balance in as few as two flights!

Track and Balance

"Smart Charts" are computer programs which are entered into the 8500 via its 3 1/2" disk drive. They consider the complex interaction of track and balance to calculate changes to weight, sweep, pitch link and tab - all at once!

One flight, and the 8500/Smart Chart acquires measurements from a pair of vibration pickups and presents all changes to be made to sweeten the rotor.

Changes are made in response to vibration measurements (after all, the object is to reduce vibration). Therefore, there is no need for optical trackers or cameras. Simple to use, a crewman can use it with a few minutes' training.

Spectral Analysis

The 8500 is also an FFT Spectrum Analyzer. Spectral data is stored to a magnetic disk, and our **VibraLog**, a powerful post-processing program for IBM PC or compatible, is a complete diagnostic system.

Tail Rotors, Turbo Fans and Propellers

Tail Rotors, propellers, turbo-fans, shafts and blowers and other components, are quickly balanced with the 8500 and programs entered from disk. Many programs provide for acquisition of balance readings and spectra from a single push of the START button.



Service and Support

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