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#### **Editorial Material**

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## Flight Simulators: Key to Training Realism

by Major General Ellis D. Parker, Chief, Aviation Branch and Commanding General, U.S. Army Aviation Center and Ft. Rucker, AL

S Chief of the Aviation Branch, I am confronted with reduced flying hours, yet I am charged to train realistically and to enhance combat readiness for the Army. I have witnessed at the National Training Center (NTC), that realism is an effective factor in combat unit training and enables our aircrews to gain the tactical execution experience needed during a peacetime environment.

We all know that flight experience is a valuable combat multiplier that becomes a very important factor for surviving on the AirLand Battlefield. Flight simulators can compensate for reduced flying hours, while at the same time, give our aviators realistic training.

#### The "Blue Canoe"

Flight simulators have come a long way since the earlier models which, as you may recall, were known as the "blue cance." These cance shaped shells contained primitive fixed-wing gauges, controls, and rotated on a fixed base. As the complexity of aircraft systems increased and our mission expanded, we were faced with a requirement to qualify all our aviators with an instrument rating.

Accordingly, more realistic flight simulators were needed to augment aircraft flying hours. Thus, the UH-1, five-degree-of-motion, digital computer, flight simulator was built to provide us with a realistic instrument flying environment.

These simulators not only provided our aviators with a realistic instrument training environment, they also helped reduce long-range cost for flight training without curtailing cockpit time. An important benefit to Army Aviation was that the cost of simulator flight time was (and remains) considerably less than comparable flight time for most of our aircraft. Cost, while very important, has certainly not been our only benefit of performing more flight training in simulators. Safety is a major factor and obviously, flight simulator training is immeasurably safer than actual flight. Flight simulators have shown positive task transfer and have improved aviator performance through practice of most emergency procedures that cannot be performed in the actual aircraft.

#### **Playback Capability**

Simulators permit our pilots and/or instructors to review segments of the flight (playback capability), thus allowing the crew to evaluate their performance. This flight review allows the crew to concentrate on specific problem areas. Additionally, while preserving the fleet, simulators allow us to extend the training day as required.

Our simulator capability went beyond the computer driven, limited-motion-base UH-1 model and we produced an AH-1 terrain board flight simulator. This simulator uses a large terrain model board and a probe mounted miniaturized TV camera that scans the board as the pilot flies.

The camera provides the pilot with a view of the terrain on the cockpit window. The camera model board visual system proved the need for visual flight simulators, but is rapidly being replaced by high fidelity, Computer Generated Imagery (CGI). This technology uses a computer to generate out-the-window scenes instead of the TV camera view of the terrain board. The production model UH-60 and AH-64 CGI simulators are already in use here at the Aviation Center. Several CGI simulator systems have already been delivered to some of our Army Aviation locations worldwide.

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**4 ARMY AVIATION** 

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In short, some exciting improvements that will make a true force multiplicr even more effective. And keep up the spirit of the finest fighting force in the world.



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## **Directory Sample**

LAST NAME, First Name, M.I., (Rank) (Initial Membership Year) (Nickname) Residence Address. Dy: Duty Phone. Res: Residence Phone. S: Spouse's Name. B: Date of Birth. Dy: Duty Assignment. MOS. AAAA Offices Held.

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





## Growing and Changing With the Times

by Command Sergeant Major John P. Traylor, Aviation Branch Command Sergeant Major, Ft. Rucker, AL

HE enlisted personnel in the Aviation Branch have changed over the past twenty years and will continue to grow as the Aviation Branch develops over the next decade. Twenty years ago the maintenance personnel belonged to either the Transportation Corps (67 and 68 series) or the Signal Corps (26 and 35 series). The operation and Air Traffic Control (ATC) personnel were in the Transportation Sub Field Office career management field (CMF) 64. Our aviation companies were as large as most infantry battalions and required Signal detachments for electronic support.

#### **Dramatic Changes**

The formation of the Aviation Branch and aircraft modernization prompted us to make dramatic changes in our unit and personnel structures.

During the Vietnam war the importance of the helicopter in battle became evident. After the war, Army Aviation was somewhat disjointed, although flight training was basically centered at Ft. Rucker, AL, control of the doctrine was spread among four different commands.

The Infantry Branch developed the combat policies for the use of the utility helicopters in war operations. The Armor was in charge of the attack helicopters while the Transportation Corps was responsible for the cargo aircraft. The Intelligence Branc<sup>1</sup> handled the Special Equipment Mission Aircraft (SEMA). The officer and enlisted personnel were segmented similarly.

In any attack company formation you might have had a mixture of enlisted soldiers wearing transportation, signal and ordnance brass being inspected by an Armor officer. The formation of the Aviation Branch put an end to the fragmentation of the Army's air assets.

All the proponency and doctrine for Army Aviation was consolidated under the Aviation Branch. All the officers were branch transferred and Ft. Rucker became the home of Army Aviation. One major impact of the Branch is seen in the development of new equipment.

The UH-60 BLACK HAWK, the AH-64 APACHE, OH-58D and CH-47D modernization would have cost millions of additional dollars if three different branches had been involved in their design and development. With one command in charge, standardization was possible. In the avionic equipment and flight controls systems, common hardware was used, saving money and training time.

#### Budget Negotiations

The Department of Defense has just proposed a \$40 billion dollar budget for Army Aviation over the next 10 years. The Aviation Branch representatives were on the leading edge of those negotiations.

When the Army was asked to, "do more with less," a few years ago by Congress, the Army of Excellence (AOE) concept was developed. The idea behind AOE was to streamline Army assets into slim, trim, combat oriented units that could move and shoot quickly and effectively on the battlefield.

The Aviation Branch responded with its plan to realign its large cumbersome companies into battalion size units. The major impact that decision had on the enlisted soldier was it increased the responsibilities demanded of him in the flight companies. The First Sergeant became the Executive Officer and was in charge when the com-

(Growing - cont. on page 50)

8 ARMY AVIATION

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## Noncommissioned Officer Education System

#### SSG Pauline Gibson

FT. RUCKER, AL — During the latter part of 1986, TRADOC directed the implementation of noncommissioned officer academies. The academies were to be aligned with a forthcoming regulation. That was TRADOC Regulation 350-24 (Basic and Advanced NCO Training in TRADOC Noncommissioned Officer Academies (NCOA), published in March 1987.

TRADOC Regulation 350-24 established refinements to the Noncommissioned Officers Education System (NCOES). It required each service school to conduct Basic and Advanced NCO courses in a live-in environment with heavy emphasis on student leadership. The regulation further recommended that the Basic students be housed in an open bay environment and the Advanced students in one to three person rooms. In this type environment it was considered that the NCO would become a more rounded leader and one that would be able to lead, train and supervise subordinates on a daily basis. During the course of both BNCOC and ANCOC, the students are required to give physical training. conduct inspections, participate in a field training exercise and be evaluated in at least two different leadership positions.

For Ft. Rucker this meant a whole new beginning — the CMF 93 had not had a BNCOC course, and the ANCOC course had been considered a gentleman's course. The first task was to appoint a commandant to the United States Army Aviation Center NCO Academy, Ft. Rucker, which was accomplished by appointing the Director of Enlisted Training to wear both hats. His first priorities were to locate barracks and classroom space, and to select tactically and technically qualified instructors.

These selected instructors were tasked to write and develop lesson plans, student handouts

SSG Gibson is BNCOC Small Group Instructor, USA/WNC NCO Academy, Ft. Rucker, AL.

and exams. The material for Common Core (leadership courses) was provided by the Sergeants Major Academy, at Ft. Bliss, TX, and guidance was given to instruct the MOS related material. During the development of the Ft. Rucker Academy, the instructors had to be trained in small group instruction (SGI) and refreshed in drill and ceremonies. They also had to be knowledgeable in uniform regulations, TRADOC Regulations and physical fitness field manuals.

All this had to be accomplished prior to July 1987, TRADOC's deadline for completion. The first U.S. Army Aviation Center NCO Academy Basic and Advanced courses were begun at the end of July. Although the billets were not completed, BNCOC was placed in borrowed billets and ANCOC continued living in the BEQ; still, the academy environment was maintained. Beginning at 0430 hours, the students were up and out for physical training and in class by 0800 hours. Drill and ceremonies were conducted as they marched to the dining facilities and after classes The day's end came only after study time, around 1900 hours.

Another milestone in the NCO Academy was the March 1988 evaluation by TRADOC, which accredited the NCO Academy, to include AN-COC and BNCOC for 93J/H/P MOSs. At present the Army Aviation Center NCO Academy has developed courses for the 93C Air Traffic Controller, the 93P Air Operation Coordinators. and the 93B Aerial Scout Observers. In FY89. development of the 93D and the 35P MOS should be completed. New on line is the shared training exercise which will incorporate a field training exercise (FTX). That will use ANCOC students as planners, BNCOC students as team leaders and Advanced Individual Training (AIT) students as team members. Each student will perform those tasks that would be used in a real unit-sized training mission, thereby providing a more prepared soldier to the field units. IIIII

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## Horizontal and Vertical Training

#### Mr. Donald L. Funkhouser

FT. RUCKER, AL — During the recent TRADOC Horizontal and Vertical (HV) Integration and Training Conference, LTG John S. Crosby, DCG-T, TRADOC, clarified and reinforced TRADOC Commanding General Maxwell R. Thurman's concerns about the implementation of HV training and the Systems Approach to Training (SAT) process.

The concept of progressive and sequential training builds on the previous skills and knowledges learned in the soldier's MOS. Horizontal training expands on the progressive and sequential training as the soldier progresses from basic training through the Sergeants Major Academy. In other words, horizontal training reinforces, expands and builds on prior training without duplicating tasks.

Vertical training expands the horizontal training, with a vertical upward thrust of the noncommissioned officer, into an understanding of the officer's roles. The upward thrust enables the NCO to comprehend the differences and similarities between the NCO and officer roles.

Shared training entails courses or exercises where the AIT, BNCOC and ANCOC students share in their learning experience. An excellent example is the Department of Enlisted Training (DOET) field training exercise (FTX). The AIT student performs the task and is supervised by the BNCOC student who, in turn, receives administrative guidance from the AN-COC student.

The concept of horizontal integrated training is not new to DOET and has been achieved through the SAT process. The front-end analysis (FEA), task and site selection board (TSSB) and subject matter experts (SME) are dedicated to ensure progressive and sequential training

Mr. Funkhouser is Education Specialist, Dept. of Enlisted Training, USAAVNC, Ft. Rucker, AL. takes place. The process also ensures that any duplication of training is by specific design and for a specific purpose.

With the new design and implementation of the NCO Academy, specific guidance has been handed down to all personnel to further implement and enforce the horizontal and vertical training and the SAT process.

The critical purposes of the TSSB is to select the tasks to be trained, skill level at which the task is trained and the site where it will be trained. The director of DOET has repeatedly stressed that tasks selected by the TSSB be developed and trained, using a progressive and sequential training concept without duplication.

The following AIT MOSs are trained at Ft. Rucker: 67N, 67V, 93B, 93C and 93P. Each group of SMEs reviews all tasks and appropriate regulations to eliminate any duplication of training as the students progress through each phase of the individual courses.

After AIT, the 93B, 93C and 93P students are sent to their assignments and later returned for their next phase of training, the BNCOC. The course is taught at the U.S. Army Aviation Center NCO Academy (USAACNCOA). (The 67N and 67V students are trained at Pt. Eustis). This is the next step in the progression of horizontal training. At this level it becomes imperative that training from AIT is not duplicated. The BNCOC course is not designed to teach an individual how to perform the task but rather how to supervise and manage the AIT soldiers who are performing the tasks.

The Sergeants Major Academy at Ft. Bliss, TX, designs the BNCOC common core and leaves the MOS-specific material to be developed and trained by USAACNCOA. Within the training concept, an integrated FTX is (Horizontal — continued on page 56)

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### AVIATION SOLDIERS

## **AVIATION NCOs: Back to Basics**

#### **1SG William C. Hawkins**

FT. CARSON,-CO — How many of our battalions have CSM's from an aviation background? By the same token, how many infantry battalions have a CSM from an aviation background? Is your 1SG from an aviation background? Why are aviation NCO's "labeled" as technicians?

In my opinion, we as the Aviation Branch senior noncommissioned officer corps must get back to the basics of NCO leadership. We have, for too long, lived with the stigma of "technician". I for one do not consider myself as a technician. I am technically proficient in my PMOS, but I am first and foremost a noncommissioned officer.

#### No Magic Wand

When the Aviation Branch was signed into being and designated a combat arm, we as aviation NCOs did not automatically become leaders. There was no magic wand used and no one blessed us and told us "go forth and sin no more". We were simply made a separate arm which allows us to manage our careers and take care of our own.

I have many times, heard NCOs say, "my authority has been taken from me by the officers". Well the next couple of lines are dedicated to the NCO that feels that way and to the uninformed officer. WRONG ANSWER! Our authority as NCOs is derived from the Manual of Courts-Martial and AR 600-20; it is not derived by word of mouth, pro or con, from an officer. If we "lost" any of our authority, we gave it away by not doing our jobs. The key to our authority is how to use it. We must get back to basics, especially as senior noncommissioned officers, E-7 through E-9.

By the very nature of the beast we deal with, aviation, we must be technically oriented, maybe even more so than some of our counterparts elsewhere. But at the senior level, we should stop being "technicians" and start being leaders and mentors for those junior NCOs that work for us.

#### Into the People Business

During the recent AAAA Convention in St. Louis, I had the opportunity to speak with many senior officers and NCOs in the branch. I also spoke with quite a few retired officers and industry representatives. When asked how to improve the Aviation Branch NCO image and competitiveness for higher levels of responsibility, they almost to a person responded, "Get the senior NCOs out of the technician business and back into the people business". I heartily agree!

We've come along way since the days of Vietnam and "shake and bake" platoon sergeants and the top heavy NCO corps that was inundated with "survivors", not soldiers and leaders.

We are technically more proficient and tactically educated than our predecessors. But in the aviation business, we're still considered by many to be "aviators" or "wrench benders". It's time we change that perception. We can do this by getting out of our technical manuals and back into the basic "soldier books": AR600-20, AR 670-1, AR 710-2, FM 22-600-20, STP 21-1 SMCT, Manual for Courts-Martial, etc. These very basic books should become our basic soldier library.

I'm not saying we can lose our technical edge. Absolutely not! We must maintain profi-

Hawkins is 1SG, HHC, 4th Aviation Brigade, Fort Carson, CO

(Basics - continued on page 56)



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#### AVIATION SOLDIERS



FT. RUCKER, AL — The CMF 93 Advanced Noncommissioned Officers Course (ANCOC) has been taught at Ft. Rucker, AL for almost two decades. During this time, period ANCOC has seen many changes, and several dramatic ones occurred in the past four years that reflect training philosophy changes of the Noncommissioned Officer Education System (NCOES).

In October 1983, a tremendous project was undertaken by the Sergeants Major Academy at Ft. Bliss, TX. In an effort to standardize training throughout the Army, a common core packet was developed and forwarded to all service schools conducting ANCOC. At Ft. Rucker, a common core section was formed by the Department of Enlisted Training (DOET) to implement that package. Training with it began in January 1984. This is an important date to those of us associated with ANCOC because two significant milestones were reached. First, a dedicated core of instructors was formed solely to train ANCOC students; second, all training was developed and conducted by NCOs. Prior to this time, several training departments were tasked to train in their subject areas of expertise, but there were no dedicated ANCOC cadre members.

ANCOC for MOSs 93J/H/P maintained a constant path until TRADOC Regulation 350-24, Basic and Advanced NCO Training in TRADOC Noncommissioned Officers Academies (NCOA), was published in March 1987. Once again, Ft. Rucker started gearing up for some changes in CMF 93 ANCOC in two major areas.

First, we had to convert our typical classroom instruction into Small Group Instruction (SGI), which is different in many ways from traditional instruction. The SGI method uses group process methods and techniques to stimulate learning. The SGI method:

Uses war fighting as its basis.

## CMF 93 (ANCOC)

#### MSG Norman W. Maurice

 Increases instructor-student and studentstudent instruction.

Controls group sizes of about eight soldiers.

 Dedicates one or more small group leaders to a specific class or section. These small group leaders provide most of the instruction and serve as role models throughout the course.

 Shifts teaching methodology from "what to think" to "how to think."

Provides close, personal interaction between students and small group leaders.

 Facilitates role modeling, counseling, coaching and team building.

Fosters long-term professional relationships.

 Encourages greater technical and tactical competence of the small group leaders.

 Places the learning responsibility on the student through group participation.

Improves the students' communicative skills.

Second, we had to design a live-in leadership, academy-style environment. The WWII era barracks remodeling was accomplished through Directorate of Engineering and Housing contracting; but the classrooms, offices, the NCOA learning center and the day room were "U-Do-It" projects completed by the then-forming NCO Academy cadre. In January 1988, ANCOC was taught in the remodeled facilities, and students lived and trained in the academy area.

On October 1, 1988, the 35P ANCOC will begin. All the groundwork has been laid, and the course should come on line in a smooth, professional manner. The 93D ANCOC is also scheduled to move from Pt. Gordon in FY89, with training starting January 1989.

The NCO Academy's purpose is to achieve the ANCOC objectives:

 Train NCOs to be trainers and leaders of soldiers who will work and fight under their supervision.

(CMF93 - cont. on page 52)

## AVIATION SOLDIERS

## Aviation Team Effort — A Positive Attitude

#### CSM Harold W. (Butch) Price

FT. Campbell, KY — I cannot complain about the shortage of soldiers to perform the aviation mission. However, I can boast about the outstanding job that our enlisted soldiers do accomplish. We are tremendously short of senior NCOs to supervise and inspect performed maintenance and many other tasks that go along with aviation, such as gold cycles and major deployments that extend from 30 days to six months. During all of these missions, our soldiers can be depended upon to maintain a positive attitude and perform well. I personally congratulate our enlisted soldiers on the fine job that they do.

#### **Giving 100 Percent**

Our aviation non-commissioned officers are often required to wear many "hats" because of personnel shortages. Working as crew chiefs, section sergeants, platoon sergeants, or as maintenance supervisors, often these soldiers may be working in at least two of these positions at any given time. They continue to give 100% and always with a "go to war" attitude. I am confident that the aviation soldier will

CSM Price Is Senior NCO, Aviation Brigade 101st Airborne Div (AA), Ft. Campbell, KY. continue to perform in an exceptional manner even with the shortages that exist. However, there are two points that must not be forgotten:

 The highly advanced technological skills required to maintain our helicopter force, requires highly trained soldiers and enough soldiers to do the ever demanding daily maintenance required.

 We need strong NCOs to fine tune the young soldiers that we receive from Advanced Individual Training.

The 2-17th Cavalry Squadron and the 3-101st Aviation Regiment continue to have an increased work load. The 1-101st Aviation Regiment is currently transitioning to the AH-64 at Ft. Hood, TX. Again, the mechanics and crew chiefs are responding to the challenge superbly. The 7-101st Aviation Regiment is the last of the 101st Aviation Regiment Battalions to transition to the Army of Excellence structure. The 4-101st, 5-101st and 6-101st Battalions of the Regiment are preparing for JTF-B.

In conclusion, the largest Aviation Brigade in the free world is an exciting and challenging climate for the aviation soldier and NCO. Nowhere is it done better than in the 101st Aviation Regiment.



## An Update on Career Management Field 28

MSG William F. Broder

FT. RUCKER, AL — Career Management Field (CMF) 28 has been located at Ft. Gordon, GA for many years as part of the U.S. Army Signal School. As a result of the creation of the Aviation Branch, CMF 28 soldiers left the Signal Corps and were incorporated into the Aviation Branch. A study revealed that it was feasible to relocate CMF 28 to Ft. Rucker where it would be realigned under CMF 67. The move will begin with the Advanced Noncommissioned Officer Course (ANCOC) being trained by the U.S. Army Aviation Center Noncommissioned Officer Academy (USAACNCOA) in October 1988.

#### **Realignment Planned**

Ft. Rucker's Department of Enlisted Training (DOET) is planning to realign the 67N and 67V AIT training in order to provide space for CMF 28 training. This use of existing facilities will result in a substantial initial cost savings to the government. Since the Basic Noncommissioned Officer Course (BNCOC) is equipmentintensive, it will be moved to Ft. Rucker when the military occupational specialty-producing courses are moved in FY92.

Once the entire career management field is relocated and in full swing, Ft. Rucker's student population will be increased by 570 resident students. They will be assigned to the 1st Battalion, 13th Aviation Regiment. The regiment is working in harmony with the USAACNCOA and DOET to ensure our soldiers receive the best training possible.

At present, the major changes in CMF 28 are

MSG Broder is Chief, Operations Branch, Dept. of Enlisted Training, Ft. Rucker, AL. its impending move to Ft. Rucker, the Home of Army Aviation and its absorption by CMF 67 on October 1, 1988.

The 35K (Avionic Mechanic) will be converted to a 68N. These soldiers will, however, still be responsible for unit maintenance on communication secure equipment, communication, navigation and flight control equipment installed in Army aircraft, as well as the interconnecting wiring harness and antennas. The 35K performs operational checks, makes minor adjustments and troubleshoots equipment to localize, diagnose and replace malfunctioning line-replaceable components. Additionally, the 35K performs all Department of the Army approved modification work orders on Army aircraft.

#### Redesignations

The 35L (Avionic Communication Equipment Repairer) will be designated a 68L and perform intermediate and depot maintenance on FM, VHF, HF, UHF, AM, SSB and ICS equipment. They are required to localize, diagnose and repair causes of equipment malfunctions, conduct bench tests of repaired equipment to ensure proper operation, and perform all authorized modification work orders.

The 35M (Avionic Navigation and Flight Control Equipment Repairer) will become a 68D, tasked with intermediate and depot maintenance of marker beacons, automatic direction finders, VOR and glideslope receivers, automatic flight control, stability augmentation, automatic stabilization, aircraft magnetic compass and altitude-heading equipment. The 35M

(CMF 28 — continued on page 56)



## Aviation Soldiers Speak Out!!

**1SG William C. Hawkins** 

FT. CARSON, CO — When I was asked to write an article for this, the first enlisted focus section of ARMY AVIATION, I decided I wanted a subject that all of us in the Aviation Branch could easily identify with. I realized the best approach was to let the people in the Branch write the article for me. What follows is a "man on the street" format and the question of the day is, "What can we do to improve the enlisted force structure of the Aviation Branch".

(E9 - 93P) Change TOE's to reflect all HHC and HSC 1SG positions to 93P with the exception of ATC battalions. This will enhance the leadership ability of the senior 93P.

(E4 - 67V) When flying I share the same aircraft with the pilot and if the aircraft goes down, so do I. But I get much less flight pay than the pilot I think the flight pay should be equal for the same risks taken, especially in combat.

(E6 - 67N) As aviation NCO's, we must motivate the young mechanic to "work from the heart". We are responsible for an aircraft but more importantly the lives of the crew, passengers, and our mission.

(E8 - 67Z) Relook utilization of female soldiers. We need to either change MTOE's (particularly in attack battalions) or do away with the females ability to hold the MOS's all together.

(E5 - 67Y) I have the most unappreciated and "difficult" mechanic or crew chief job in aviation. I have to work the same long hours as my flying counterparts. I must also insure my aircraft is safe and mission ready but I don't get to fly. The pilot lands, tosses me my log book, and says, "your aircraft is a mess, clean it up"! Now, I don't know what can be done about it, but I just wanted everyone to know that we attack "crew chiefs" are out here and working hard!

(E3 - 67U) I don't think I should wait until I'm an E5 before I can become a crew member. All I'm doing now is general mechanic work and details. I think new positions should be competed for and the best qualified selected for the jobs. It's hard to stay motivated when I see people senior to me in grade who I know can't do the job as well as I can. Why should I continue to work as hard?

(E4 - 93P) For junior enlisted in the MOS 93P, I feel there should be a system to the effect where soldiers can rotate between their airfield base ops and a tactical unit. This way instead of being stuck somewhere doing only that part of the MOS for three years, they can get adequate training in the whole MOS. This way the soldier can step into combat or a civilian job better prepared.

(E8 - 93P) First, the 93P from the school needs more training in administrative work typing, files, communications, etc. We also need to change TOE's to reflect all Battalion and Brigade HHC's as 93P 1SG positions.

(E3 - 93P) The problems I see with 93P MOS is that we are placed in a specific job (a part of the MOS). This is what we will do for the duration of our enlistment. There isn't enough training in other aspects. For example: I keep the flight records, but I receive no training in flight plans, interphone procedures, and weather strips. In plain terms, I receive no training in the other half of my MOS.

I would like to suggest a plan that would solve some of the problems. If I as a soldier have to

(Speak Out — continued on page 22)



## Training: Cornerstone of Combat Readiness

#### By SFC Donald G. Winn

FT. RUCKER, AL — On December 14, 1987, the Secretary of the Army and the Army Chief of Staff announced the Army theme for 1988: Training, in doing so, they emphasized that training is our top priority. It's the cornerstone of combat readiness.

At the Army Aviation Center Noncommissioned Officer Academy, Ft. Rucker, a Basic Noncommissioned Officer Course (BNCOC) was formed. BNCOC takes the Army theme and incorporates the latest training concepts and methods to teach the noncommissioned officers to be technically and tactically proficient. These methods and concepts are: small group instruction (SGI), master physical fitness, shared training and the total soldier.

The small group instruction (SGI) method is different in many aspects from the traditional teaching method. SGI places the responsibility of learning on the student through group interaction. This process improves the students' communicative skills, fosters long-term professional relationships, and facilitates role modeling, counseling, coaching and team building. The small group process shifts teaching methodology from "what to think" to "how to think" and emphasizes greater technical and tactical competence for the student.

The master physical fitness concept has fostered a positive student attitude toward physical training. This program incorporates variety, and the hard-day, easy-day training concept. Students are evaluated in physical training and must receive a "go" in all 19 areas of

SFC Winn is BNCOC course Manager, U.S. Army Aviation Center NCO Academy, USAAVNC, Ft. Rucker, AL. the evaluation to graduate from BNCOC. Some of the different types of physical training givenduring the course are aerobic circuits, rifle physical training, foot marches, pushup improvement, situp improvement, grass drills, and group runs. Students graduate with a good understanding of the Master Physical Fitness Concept (FM 21-20), and they are in better shape.

Shared training is the newest concept in the Army. It is designed to intensify student interaction and increase hands-on training. A threeday, 24-hour scenario driven field training exercise (FTX) is employed by the Advanced Noncommissioned Officer Course (ANCOC) students: BNCOC students are used as team leaders with Advanced Individual Training (AIT) students as team members. They are deployed to various training areas and airfields throughout the Aviation Center, BNCOC students are responsible for installing portable towers, beacon emplacements, Jump Tactical Operations Centers, and landing zones. Reverse cycle training (training at night). NBC, airfield security, reconnaissance, camouflage of personnel and equipment, foot marches and recovery operations are also incorporated during this phase of training. For approximately one week, BNCOC students work with senior and subordinate students to successfully conduct an FTX, incorporating the greatest challenge in training; realism.

BNCOC students are not graded solely on academics to determine their proficiency as noncommissioned officers. Grades also given in a wide variety of areas to include: leader-

(Training - continued on page 52)

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#### Speak Out (continued from page 19)

stay at one duty station for my entire enlistment, why can't they rotate me and other 93P's one half the way through our enlistment to Base Operations so we get the full benefit and training that our MOS calls for. In the meantime, we will work in that given job, but receive training on the other part sof the MOS until the change over occurs.

I also see problems with the new flight records. It is too much paperwork! One, it brings too much paperwork to the field. The old 759 and 759-1 was much more efficient and professional. Records were kept accurately. The new leaves too much room for error. My suggestion is that we go back to the old system, we can still make that automated, but in the case of war, we can take the manual system with us with little or no problems.

(E9 - 93P) Go back to old flight records management. The new system is not tactically feasible. With the 759 and 759-1, you can, if necessary, keep the records with a pen.

(E7 - 93H) Remove items from SQT test that are not "MOS related", ie, PMCS and stoves. Put these common subjects in the CTT. SQT should be geared towards MOS specific areas, ie, weather, interphone procedures, admin, etc.

(E9 - 002) We must do all we can to insure that our aviation battalions and brigades have CSM's from an aviation background. We as CSM's should do all in our power to insure that our companies are filled with aviation 1SG's. Change HHC's to 93P 1SG positions. This will make the 93P more competitive for CSM at E-9.

(E4 - 93P) Line company 93P's and/or staff (Bde or Bn) ops personnel need to be rotated through company, battalion, brigade, and airfield whenever possible to facilitate retaining a working knowledge of entire MOS.

(E9 - 67Z) We've got to do something to add incentive to retain the senior 67U's. Once they leave the aircraft (at E7) or when they become TI's, we tell them they are the best at their jobs and then we take their flight pay away from them. That's not what I consider motivation to excel!

(E8 - 93P) Make ALSE an MOS and include ASE in the job. There is not enough emphasis being placed on these critical areas. In most cases the job is being "detailed" out or a 67N is being sent to school and given the job when he/she would rather work on aircraft.

(E6 - 67Y) I'm currently serving as a safety NCO. I've got the A2 ASI but more than anything I'm a "clerk" for the safety officer. Safety is just too important to be paid lip service to. As an NCO, I directly impact on the majority of the Army (EM) and my job should be given credence. I think there should be a safety MOS or at least a slot starting at battalion level for a safety NCO.

(E3 - 67V) The people assigned to airborne get a red beret and rangers get a black one. Why can't we have different types of headgear (in garrison only)? This would lead to increased espirit and pride.

(E7 - 93P) My operations clerks arrive from school and its like they went from basic to the unit. They can't type, file, read weather forecasts, use radios, etc. We need to make the school tough to get into and tougher to graduate from! If operations fail, the entire unit can fail. We need quality control in the field, but it must start at Ft. Rucker. Lengthen the school and get the POI in line with unit needs!

(E8 - 1SG - 67Z) Get TI's and attack crew chiefs on flying status and pay them! There is no incentive for them to be involved. Return to the program where you get your wings when you graduate from school. Put phase team leaders on MTOE and flight status.

(E8 - 1SG - 93P) This is my third assignment as a 1SG, my second in a 67Z5M position (my secondary is 67Z) but I've had to fight for each position. I feel like the 93P should be equally competitive for CSM at E9 and the only way that is going to happen is for us to change MTOE's so that CMF 93 gets its fair share of leadership (1SG) positions.

Well I've had many more responses but I'm not given unlimited space so I'll stop here. If anything said strikes home or gives you reason to disagree, please write and let us know.

Your responses are wanted and all efforts will be made to print them. I hope what we have here will generate some ideas or actions that will make positive changes to our business of Army Aviation. KEEP CHARGING!!

Send responses to: ARMY AVIATION Magazine, ATTN: Bill Harris, Editor, 49 Richmondville Ave., Westport, CT 06880-2000.

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#### AAAAAAAAAAAA

ADAMS, Charles W., (E5) (M87) (Tex) D Co, 3-4 Avn Regt, APO NY 09185. S: Deborah Ann. B: Jul 17. MOS: 6802.

AGRIOPOULOS, Suky O., (E4) (M87) (Suky) A Co, Box 12-e, 104th Mi Bn, Fort Carson, CO 80913, Res: (719) 579-5933, B: Aug 21, MOS: 98G.

ALFREY, Kenneth W., (SGT) (M88) (Alf) A Co, 5th Bn, 159th Awn, Box 193, APO NY 09025, S: Paula, B: Jun 20. Dy: Hopfr Fit Engr, 1st Fit Pit. MOS: 67U.

ARP, Michael A., (SFC) (M87) (Mike) 562A Stryker Village, Fort Campbell, KY 42223. Dy: (515) 798-2931. Res: (615) 431-3112. S: Linda. 8: Feb 2. Dy: C Co 7th/101st Avn Regt. MOS: 67140.

ARQUITT, Frank J., (SFC) (M86) 61st Avn Company, Combat Avn Waypaa, Fort Drum, NY 13602, S: Lila, B: Jul 28. Dy: 61st Avn Co. MOS: 67T40.

#### 

BAE, John H., (MSG) (M83) Hg, 17th Avn Bde, APO SF 96301-0043. Res: (822) 647-4236. S: Joyce. B: Jul 3. Dy: NCOIC H208 Vip Heliport. MOS: 93P. VP, Morning Calm Chapter. Past VP, Morning Calm Chapter.

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BARBOSA, Teddy B., (SSG) (M88) (Teddy) AVUM Trp, 4/2 ACR, APD NY 09092-0216. S: Rosa, B: Sep 14. Dy: AH-1 Section Sgt. MOS: 67V30.

BARRINGTON, Aubrey D., (MSG) (M85) (Bear) COBRA PMR, P.O. Box 179, APO NY 08333. Dy: (000) 380-6962. Res: (062) 172-2620. S: Eloise. B: Mar 26. MOS: 672.

8EAL, Jackle L., (CSM) (M86) (Jack) HSC 503 Alk Hel Bn, APO NY 09165-1539. S: Ruth. B: Jan 30. Dy: 2nd Bn/227th Avn, Hanau. MOS: 00250.

BEARD, William III, (SFC) (M88) (Bill) 260 Terry Lane, Elkton, KY 42220. Dyr. (502) 798-4045. Res: (502) 265-5096. S: Christina. B: Sep 21. Dy: HHC Avn Bde, 101st Ab Div. MOS: 54E4M.

BECK, Doyle J., (E3) (M87) HHT 2 CAS, Box 360, APO NY 09092, B: Oct 30, Dy: 2/4 Acr. MOS: 52D.

BECKO, Jettrey S., (E5) (M87) (The Becks) Hq Cmd Fit Det, APO NY 09055. B: Feb 18. Dy: UH-60 Crew Chief, Saceur Helcptr Fit Det. MOS: 6712FR.

BELL, Wanda L., (E5) (M88) 1851 Woodridge Lane, Apt. 16, Florissant, MO 63033. Dy: (618) 452-4240, Res: (314) 921-3181. B: Aug 1. Dy: Has Co, SLASC, MOS: 76P20.

BENNETT, James T., (SFC) (M86) (Jim) 32 Baker Street, Fort Rucker, AL 36362. Dy: (205) 255-2882. Res: (205) 598-8423. S: Fay. B: Oct 15. Dy: NCOJC Test Div, US Army Avn Bd. MOS: 711.4M.

BENNETT, Lerone M., (E6) (M88) (Cochise) A Co, 3/4 Avn Regt, APO NY 09185. S: Brigitte. B: Oct 3. MOS: 67V30WF.



BERG, Ronald D., (SFC) (M85) (Ron) 705 Binghampton Rd, P.O. Box 723, Rainer, WA 98576. Dy: (206) 967-2580. Res: (206)#46-2881. S: Susan. B: Dec 13. Dy: 15G, A Co, 2/9 Avn Regt. MDS: 67Z.

BERGIN, Shawn, (E6) (M88) 3006 Hammond Heights, Apt D, Fort Campbell, KY 42223. Dy: (502) 798-2017. Res: (502) 439-6100. S: Storm. B: Mar 19. Dy: D Co, 160th Sp Opns Air Grp (Abn). MOS: 6713F.

BODILY, Cecil L., (1SG) (M85) 244th CAC, Box 1756, APO NY 09250. B: Nov 22. Dy: HHC 4th Bde Asst S-3 NCOIC. MOS: 67Z.

BOLDEN, Karen Y., (SP4) (M88) 122 Red Cloud Road, Fort Rucker AL 36362, Dy: (205) 255-5900. Res: (205) 598-3288. S: Hosea. B: Feb 13. Dy: Chaplain Asst, A Co, 1/10 Avn Regt. MOS: 71M10.

BONDI, Anthony V., (SSG) (M88) (Vince) 737 Ringgold Road, Clarksville, TN 37042. Dy: (S02) 796-3225. S: Yongcha. B: Feb 19. Dy: Acit Maint Super, F Co, 160th SOAG. MOS: 67T30.

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BORSACK, Daniel T., (PFC) (M87) 0 Trp, 4/2 ACR, Box 271A, APO NY 09092-0216. B: Dec 2. Dy: OH-58 Crewchief. MOS: 67V.

BRAZIL, Gary W., (CSM) (M88) 4th Sodn, 2 Acr, APO NY 09092. S: Wanda. B: Aug 29. Dy: 4/2 Acr. MOS: 00Z.

BRUCK, Edward W., (E7) (M87) (Ed) 12125 Valencia Ave, Spanish Lake, M0 63138. Dy: (314) 263-3573. Res: (314) 355-7790. S: Deana. B: May 28. Dy: Hig AVSCOM, Avn Life Sup Equip. M0S: 6714F.

BULT, Andrew, (CPL) (M87) (Andy) D Trp, 1/1 Cav, Box G-D, APO NY 09250. B: Oct 19. Dy: Line Chief. MOS: 67Y10.

BUMBAR, Michael P., (SSG) (M84) (Merc) 4858 Hart Drive, San Diego, CA 92116. Dy: (408) 242-4286. Res: (619) 281-1175. S: Vick, B: Aug 25. Dy: Aircraft Tech Inspctr, 45th Trans. MOS: 66J.

BUONICONTI, Frank A. Jr. (SFC) (M86) (Frank) ODCSI USCOB, APO NY 09742. S: Silvia. B: Aug 7. MOS: 96D.

BURNETT, Bobby, (CSM) (M85) HHC, 3rd Bn 6th Avn Bde, Fort Hood, TX 76544. S: Jonnie. 8: Oct 6. MOS: 00Z.

BURTON, Bruce E., (SSG) (M68) D Co, 3-4 Avn Regt, APO NY 09185. S: Rhoda. B: Apr 14. MOS: 66J.

#### CCCCCCCCCCCCCC

CALFEE, Judson T., (E4) (M87) S Trp, 4/11 ACR, APO NY 09146, Res: (404) 353-2130, B: Feb 11, Dy: Crew Chief, MDS: 67N.

CAMPANAS, James P., (SP4) (M87) Box 58, B Co, 8th Bn, 158 Avn Reg, APO NY 09185, B: Mar 15, Dy: 68F10, MOS: 68F10.

CARPER, Michael S., (PFC) (M88) (Carp) AVUM Trp, 4/2 ACR, Box 261a, APO NY 09092-0216. B: Oct 20. Dy: Border Surveillance. MOS: 67Y. CARSON, Anthony G., (PFC) (M87) B Co. 205th Trans Bn, Box 167, APO NY 09165, Dy: 8/158th Avn Regt.

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CASALE, Gary J., (SP4) (M87) N Trp, 4/11 ACR, APO NY 09146, B: Feb 1, Dy: Border Patrol N Trp 4th/11th ACR, MOS: 67V.

CASSIDY, Robert E., (E5) (M88) (Rob) Avum Trp, 2 Cas, APO NY 09092. B: Sep 20. Dy: Powertrain Repairer. M0S: 68D30.

CASTILLO, Fablan M., (E4) (M87) B Co, 6/158th Avn Regt, APO NY 09028. B: Dec 10. Dy: B Co 6/158 Avn Reg. MOS: 68H.

CATANESE, Charles H., (E5) (M87) (Chuck) 128 M.W. Concord Drive, Northwoods Apts, Clarksville, TN 37042. Dy: (615) 798-5524. Res: (615) 552-7132. S: Shari, B: Apr 24. Dy: D Co, 61101 Awn Reg. MOS: 35K.

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CHLAPOWSKI, John A., (CSM) (M86) (Jack) Hg, 1st MI Bn (AE), APO NY 09457. S: Laura. B: May 14. Dy: Csm. MOS: 007. VP, Taunus Chapter.

CHUBBOY, Marshall A., (SGT) (M87) Co A, 1st Bn, 145th Avn Regt., Fort Rucker, AL 36362. S: Sabine. B: Aug 6. Dy: W.O.C..

CIBOTH, Jehann, (CSM) (M87) 4th Bn, 159th Avn, APO NY 09025-5000, S: Linda, B: Aug 49, MOS: 0025.

CISNEROS, Esteban, (PV2) (M87) A/5-159th Avn Regt., APO NY 09025. 8: Dec 1. Dy: Medium Helptr Mech. MOS: 67U1Y.

CLARK, Jon T., (E5) (M86) 46558 Pierce Vilage, Fort Campbell, KY 42223, Dy: (505) 798-5796. Res: (502) 439-4181, S: Cyndie, B: Jan 23, Dy: F Troop 2/17 Cav 101 Airborne (Air Assit), MOS: 66G20.

CLIFFORD, Harold E., (SGT) (M87) (Cliff) I Co, 3rd Avn Regt, Box 23, APO NY 09182, B: May 15. Dy: Acrft Struct Repair. MOS: 68G30.

COCHRAN, William A., (1SG) (M86) 2122 B Irwin Street, Fort Eustis, VA 23604. Dy: (804) 878-3065. Res: (804) 887-3255. S: Sandra. B: Jun 1. Dy: 3rd Staff And Faculty Co., 1SG. MOS: 6725M.

COLBY, Andrew C., (SGT) (M87) (Andy) HHD 3/58th Avn Regt, APO NY 09025. 8: Apr 55. MOS: 35K20.

COLE, Walter, (SGM) (M87) (Walt) 4128 Point Hollow Lane, Fairtax, VA 22033. Dy: (202) 325-8325. S: Sandra. B: Nov 25. Dy: USTADA, Enlisted Avn Assignment Branch. MOS: 67250.

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DAVENPORT, David G., (SSG) (M87) S Trp, 4th Sodin 2 ACR, APO NY 09092-0216. S: Petra. B: Jan 56. MOS: 67T3.

DAY, Shawn K., (E5) (M87) (Shay) 4206 La Pointe, No. F, Fort Campbell, KY 42223-5000. Dy: (502) 798-3848. Res: (502) 439-5869. S: Susanne. B: Mar 9. Dy: E Trp 2/17th Cav. MOS: 667y20.

DEAN, Gordon R., (SSG) (M86) HHT, Cbt, Av Bde, 3AD, APO NY 09165-1537. S: Linda. B: Apr 1, MOS: 75Z40.

DEVILLE, Albert, Jr, (E4) (M87) (Coup) E Co, 123rd Avn Regt., Fort Ord, CA 93941. Dy: (408) 242-5281. S: Bernita. B: Jul 6. Dy: Class II. MOS: 76P10.

DILLAHUNT, Lenwood C., (SP4) (M87) (Dily) 8th Bn, 158th Avn Regt, Box 214, APO NY 09165, B: Nov 15, Dy: Observation Hcptr Repairer, MOS: 67V10.

DOBBERPUHL, Gary W., (1SG) (M87) (Dobby) P.O. Box 852, French Camp, CA 95231-0852, Dy: (209) 982-2692, Res: (209) 474-0492, B: Feb 11, Dy: 1st Sgt, Co G, 140th Avn Reg. MOS: 6725M.

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DUNN, Lawrence F., (SFC) (M86) (Hawkeye) 2310 C Jackson Ave, Fort Eustis, VA 23604, Dy: (804) 877-6870. 8: Feb 6. Dy: 1st Staff Faculty Co, Trng Dev. MOS: 6714H.

#### EEEEEEEEEEEEEE

ECKROAT, John C., (SP4) (M87) Avum Trp 4th Sqdn 11 ACR, APO NY 09146. 8: Jun 25. Dy: Trng NCO/Phase Team Ldr. MOS: 67N20.

EDWARDS, Percy, (SSG) (M87) (Ed) 4313 Snow, St. Louis, MO 63120. Dy: (314) 263-3733. Res: (314) 385-5775. S: Johanna. B: Feb 6. Dy: Acft Maint Qc Mgr, AVSCOM. MOS: 67N30.

EDWARDS, Victor C., (SFC) (M87) P.O. Box 236, Fort Campbell, KY 42223, Dy: (502) 798-4840, B: Nov 27, Dy: USC, 160th SOAG (A). MOS: 93C4H.

ELLIOTT, Michael C., (SGT) (M88) AVUM Trp.

#### Aviation Soldier

4th Sodn, 2 ACR, APO NY 09092-0216.

EVEREST, Eugene M., (SFC) (M87) (Gene) 95172 Hokuula Placo, Millani, H9 96789-1030. Dy: (808) 655-0546. Res: (808) 623-7839. S: Jeanna. B: Jun 10. Dy: Pit Sgt, 184th AHC, Schofield Bis. MOS: 67R4A2.

FAIRBURN, Renald M., (SFC) (M87) 309th AHB, APO SF 96208. Res: (502) 439-7585. S: Karin. B: Jun 2. Dy: 309th Atk Hel Bn 8 Co. MOS: 67Y40.

FARRAR, Edward C., (SSG) (M82) (Ed) G Co, 3rd Avn Regt, APO NY 09182. S: Christa. B: Jul 18. MOS: 66N30.

FERGUSON, Gregory A., (E6) (M87) (Fergie) 61st TAMC, Box 1658, APO NY 09250. S: Sharon, B: Nov 30. Dy: I CO 1st Avn Regt. MOS: 68J30.

FIELD, David M., (SSG) (M88) AVUM Trp, 4/2 ACR, APO NY 09092, S: Anita. B: Sep 30. Dy: 68D30/67G30 Powertrain Mech/Airplane Repairer, MOS: 68D30.

FIFIELD, Renald L., (SSG) (M86) (Ron) I Co, 227th Avn, APO NY 09165. S: Renee, B: Dy: AH-1s Maint Team Chief, MOS: 67Y3F.

FISHER, Larry H., (SSG) (M88) 7358 A Gardner Hills, Fort Campbell, KY 42223. Dy: (502) 798-5650. Res: (615) 431-6729. S: Young S., B: Mar 30. Dy: B C0 7th Bn 101st Avn Reg. MOS: 67U30.

FLOAN, Pamela P., (E4) (M88) (Pam) HHC 4th Bde, 8th ID (M), Box 137, APO NY 09111. B: Oct 29. Dy: 8th I.D., Dame-Avn, HHC 4th Bde. MOS: 93P10.

FLOYD, Clyde L., (SGM) (M85) Rt 4, Box 304, Ozark, AL 36360, Dy: (205) 255-4338, Res: (205) 774-5970, S: Diana, B: Dec 7, Dy: HHC, 1/10th Avn. MOS; 67Z.

FOGARTY, Kevin R., (E6) (M88) (Fog) B Co, 394th Avn Bn, Box 336, APO NY 05061, B: Aug 10. Dy: Airframe Structural Repairman, MOS: 666.

FORD, Johann T.K., (SSG) (M85) 235 Spur Drive, Copperas Cove, TX 76522. Dy: (817) 288-3664. Res: (817) 547-4321. B: Jun 30. Dy: I CO 158th Avn Regt. MOS: 68K40.

FRECHETTE, David J., (E4) (M87) (Frenchy) A Trp, Box 322-A, APO NY 09092-0216, S: Rochelle, B: Mar 28, Dy: 2 CAS, 2 ACR. MOS: 67N1F.

FREEMAN, Gary, (1SG) (M88) 4920-A Hammond Heights, Fort Campbell, KY 42223, S: Evelyn, B: Apr 27. Dy: 11th ACR, APO NY, MOS: 6725M.

GALLAGHER, George D., (E7) (M85) 109 Blackhawk Drive, Daleville, AL 36322. Dy: (205) 255-5994. Res: (205) 598-1321. S: Andrea. 8: Jan 3. Dy: A1-10 Avn Regt USAATCA-AMF. MOS: 93D40.

GANNON, John P., (SGM) (M87) 206 Harrand Creek Drive, Enterprise, AL 36330, Dy: (205) 255-4009, S: Donna, B: Jan 12, Dy: USAR Liaison NCO Reserve Advisor's Office. MOS: 79D50.

GARNER, Nathan R., (E6) (M85) (Nate) Alpha Co, 7/159th Avn Rgt, APO NY 09140, S: June. B: Feb 28. Dy: Aircraft Tech Insp. MOS: 66J30. GETKIN, Jay E., (SGT) (M84) (Pitufo) 2372C Smith Circle, Fort Eustis, VA 23604. Dy: (804) 878-5497. Res: (804) 887-8949. S: Becky. B: Nov 12. Dy: 1st Staff and Faculty. MOS: 67T.

GILLILAND, Nicholas S., (E4) (M87) (Nick) B/7th 101st Avn Regt, Ft Campbell, KY 42223, Dy: (502) 798-7442, Res: (502) 798-7514, B: Feb 23. Dy: Fit Engr, CH-47D Chinook, MDS: 67U10Y1F.

GINAS, James M., Jr., (SGT) (M88) (Jim) HHC, Aviation Training Bde, Fort Rucker, AL 36362, Dy: (205) 255-2188, Res: (205) 598-8974, S: Elizabeth, B: Nov 15, Dy: HHC, ATB, M0S: 93P20,

GOLDBERG, James C., (E6) (M88) G Co 4th Avn Regt, APO NY 09111-2382. B: May 52. Dy: Tech Inspotr. MOS: 66N.

GORDON, Michael, (SP4) (M85) (Opie) 5 Crystal Ave, Lakewood, NY 14750. Dy: (716) 664-2641. Res: (716) 763-6319. 8: Mar 28. Dy: Avn Tech, Chautauqua Airlines, Allegheny Commuter. MOS: 67N.

GRAVES, Thomas G., (CSM) (M84) (TGG) 310 Mulheim Road, Fort Ord, CA 93941. Dy: (408) 242-6628. Res: (408) 394-6894. S: Mae. B: Oct 14. Dy: 1st Bn, 123rd Avn Regt. MOS: 002. GRIGGS, John C., (SSG) (M87) (Red) P.O. Bard 93, Fort Monmouth, NJ 07703. Dy: (201) 532-5143. S: Christine. Dy: Hq, CECOM. MOS: 35930

GUTHRIE, Thomas W., (MSG) (M87) 103 E Silveroak, Enterprise, AL 36330. Dy; (205) 255-5532, Res: (205) 393-1560. Dy; Fit Inspection Technician A Co 1 Bn 1st Avn Bde.

GUZMAN, Francis, (SFC) (M85) (Frank) 1953-B Hagood St, Fort Eustis, VA 23604. Dy: (804) 878-5334. Res: (804) 887-3260. S: Katherine. B: Aug 13. Dy: 1st Staff And Faculty UHD. MOS: 67T.

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HAKEN, Grant M., (E4) (M68) AVUM Trp. 4/2 ACR, APO NY 09092-0216. B: Nov 23. Dy: Aircraft Power Plant Repair. MOS: 68810.

HALL, Charles H., (SSG) (M87) (Chuck) B Co, 3/3 Avn Regt, APO NY 09182, S: Helke, B: Sep 18. Dy: Plt Sgt, Safety NCO, MOS: 67V30.

HALL, Jackie, (SGM) (M78) (Jack) 746 Harvard Drive, Edwardsville, IL 62025. Dy: (314) 263-2212. S: Irene, B: Nov 15. Dy: New Equipment Training Mgr. MOS: 6725K.

HALL, Kerry D., (SFC) (M74) (Snake) C Trp 3/7 Cav, APO NY 09026, B: Aug 9. Dy: 1st Sgt. MOS: 67Y4PA2.

HANCOCK, Alan D., (SFC) (M83) 8322 Mihaukate, Fort Lewis, WA 98433, Dy; (206) 967-7851. Res: (206) 984-1007. S: M.L. B: Aug 19. Dy: C Co, 214th Avn Regt. MOS: 67Z. HARRISON, Bradley D., (E4) (M88) (Butch) 491 Royal Ann Way, Grand Jct, CO 81504, Res: (303) 434-5868. S: Lovita, B; Nov 16, Dy:

Res: (303) 434-5868. S: Lovita. B: Nov 16. Dy: Power Train Repairer, CO C. MOS: 68D10. HARTRICK Flowd C. (1920) (M87) 503 Nausho

HARTRICK, Floyd G., (15G) (M87) 503 Navaho Drive, Enterprise, AL 36330, Dy: (205) 255-2529. Dy: C Co, 226th AHB.

HAWKINS, William C., (1SG) (M81) (Bill) 5731 Trout Creek Pass Dr. Colorado Springs, CO 80917. Dy: (719) 579-3823. Res: (719) 574-2337. S: Margie, B: Sep 11. Dy: HHC 4th Avn Bde. MOS: 93P5M. VP, Pikks Peak Chapter. Past VP, Schwaebisch Hall Chapter. HELLER, Todd M., (E4) (M83) (Tolby) D Co. 2-4 Avn Regt, APO NY 09185, B: Feb 1, Dy: Actt Weapon System Repair. MOS: 68M10. IERNDON, Mark, (SG1) (M85), 4829E Lee Village, Fort Campbell, KY 42223, Dy: (502) 788-3355, Res: (502) 439-48288, S: Teresa, B: Jul 11, Dy: ACD 6/101 Avn Regt, MOS: 67N3F. HERDNEMA, William F., (PFC) (M88) (Hero) Svc Co, 3/227th Avn Regt, APO NY 09165, B: Jan 22, Dy: Atk Hoptr Repairer, MOS: 67Y10. HERRIMAN, James A., (15G) (M83) (Jim) R 5, Box 233, Clarksville, TN 37042, Dy: (502) 798-4022, Res: (615) 647-5880, S; Diana, B: Dec 29, Dy: A Co 4-101st Avn Regt, MOS: 67Z50.

HESS, Brian R., (SP4) (M88) 8 Co, 3/4 Avn Regt, APO NY 09185. 8: May 21. Dy: Cobra Mechanic. MOS: 67Y10.

HINTON, Jimmy S., (E5) (M88) (Stan) B Co, 3-4 Avn, APO NY 09185. S: Marcelle. B: May 27. Dy: B CO 3-4 Avn Regt. MOS: 67V2C. HITE, Laon, Jr., (MSG) (M78) (Boogie) B Co, 6/158 Avn Regt, APO NY 09028. S: Bobrie. B: Feb 6. Dy: 1st Sgt B Co 6/158th Avn Regt. MOS: 67UK.

HOFFER, Timothy R., (E6) (M87) (Depot) I Co, 1st Avn Regt., Box 2233, APO NY 09250, B: Jun 12, Dy: Cobra, Black Hawk, AVIM Maint. MOS: 67Y30.

HOLDER, James D., (MSG) (M84) (Jim) 725 FM 1959, Apt 207, Houston, TX 77034, Dy; (713) 929-2768, Res: (713) 484-6109, B: Aug 18, Dy: Opns Sgt Hqs 1st Bn 149th Avn, MOS: 92P.

HORN, Charles D., (E7) (M86) 17 Hiltop Court, Box 868, Toano, VA 23168. Dy: (804) 878-4963. Res: (804) 566-1908. S: Staron. Dy: 1st S&F Co DOTD/UTD, MOS: 67Y.

HOWDESHELL, Mark A., (SP4) (M86) (Howdy) 1208 Crest Hill Drive, Junction City, KS 66441. Dy: (913) 239-3381. Res: (913) 238-8139. 8: Dec 13. Dy: F Co., 1st Avn Regt., Ft. Riley. MOS: 67N.

HOWELL, Adrian, (SSG) (M86) B Co, 1/10 Avn Bde Regt., Fort Rucker, Al. 36362, Dy: (205) 255-6501; Res: (205) 347-3430, B; Jun 7, Dy: Dept of Combined Arms and Tactics. MOS: 67T3A2.

HOWELL, Douglas P., (E3) (M87) AVUM Trp, 2 CAS 2d ACR, Box 281A, APO NY 09092. B: Mar 25. MOS: 68F10.

HUFF, John A., (E8) (M86) (Huffy) 218 Commerical St, Edwardville, IL 62025. Dy: (314) 263-3239. Res: (618) 656-4380. S: Ginger. 8: Feb 7. Dy: AVSCOM, SEMA-PM. MOS: 67250.

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IVERSON, Steven K., (SFC) (M83) Hq, 4th US Army, Attn CART Team, Fort Sheridan, IL 60037-7000. Dy: (312) 926-6709. Res: (312) 432-2374. S: Ayten. B: Mar 4. MOS: 93P.

JACKSON, Scott, P. (E4) (M88) 0 Trp, 4/11th ACR, APO NY 09146. Dyr, (661) 321-3409. S: Christe JoAnne. Dy: AH-1F Crew Chief. MOS: 67V1C.

JOHNSON, Alvin, (E8) (M88) 973 E. Manor Dr, Chandler, AZ 85225. Dy: (602) 891-7378. Res: (602) 963-3259. Dy: Logis Spt Engr.

JOHNSON, Eric P., (SFC) (M87) (Eric) 416 Hustings Lane, Apt. E, Newport News, VA 23602, Dy: (804) 878-6729, Res: (804) 877-4009, S: Patricia B: Sep 55, Dy; 1st S&F The 1988 Aviation Soldier

Co, Fort Eustis. MOS: 67U4F.

JOHNSON, Michael T., (SP4) (M87) (Cressent) B Co, 7/159th Avn Regt, Box 713, APO NY 09061, S: Jodi, B: Aug 10, Dy: AVIM. MOS: 67N10.

JONES, Holly L., (E4) (M88) G Co., 4th Avn Regt, APO NY 09111-2382, S: Robert, B: Nov 11, Dy: Avionic Mech. MOS: 35K.

JONES, Lacy H., (1SG) (M87) 7 Azalea Drive, Dateville, AL 36322, S: Connie Sue. B: Apr 47, Dy: USA Safety Ctr, FL Rucker. MOS: 6725KA2.

JORDAN, Joseph W., (SGM) (M65) (Joe) 1525 Man O War, Fiorissant, MO 63033. Dy: (314) 263-2212. S: Mary. B: Apr 2. Dy: Aircraft Sr Sgt-New Equip. Training, AVSCOM. MOS: 6725K.

JUARBE, Richard, (E5) (M88) 128 N. Franklin Street, Lancaster, PA 17602. Res: (717) 397-6929. S: Bernice. B: Nov 20. Dy: Ri Opns Coordinator, 1079 USAR Garrison. MOS: 93P20.

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KAURICH, Steven J., (E4) (M87) (Spudmeiver) C Co, 3/3 Avn Bn, APO NY 09182, Res: (887) 554-3305, S: Shelle, B: Dec 29, Dy: C Co, 3/3 Avn Bn Reg. MOS: 67Y20.

KEZELE, Steve B., (SFC) (M85) 826 Old Newton Rd, Daleville, AL 36322-9428. Dy: (205) 255-2542. Res: (205) 598-6043. B: Sep 27. Dy: Attack Pit Sgt B Co 2/101st. MOS: 67R.

KIHARA, Jason S., (SGT) (M87) 55th Cbt Avn Co K-16, APO SF 96301, Dy: (615) 796-3508. Res: (615) 481-3078. S: Kyong. B: Jun 7. Dy: H Co 159th Avn Ft. Campbell. MOS: 67N.

KIRVEN, Joe J., (CSM) (M88) (J.J.) 600 W. Halmark, Apt. 524, Killeen, TX 76541-9998, S: Mary. 8: Sep 7. Dy: HSC, V 227th Avn Regt, 1st Cav Div. MOS: 00250.

KLATT, Mike W., (MSG) (M88) 1259 Mill Lake Circle, Stone Mountain, GA 30088. Dy: (404) 362-7854. Res: (404) 469-5797. S: Mary. B: Jun 15. Dy: Hgs 2d US Army, MOS: 6725X.

KLEIMAN, David A., (E3) (M87) (Hot Rod) HHT 4/4 Cav (Air), Box 65, APO NY 09702. S: Terl. B: Jan 22. Dy: Schweinflurt, Germany. MOS: 67Y10.

KNOTT, James, P.(CSM) (M83) (J.P.) Route 1, Box 240-A, Shannon, NC 28396, Dy: (919) 396-9538, Res: (919) 875-5327, S: Delores, B: Nov 14, Dy: HHC, 82d Avn Bde, Pt. Bragg. MOS: 00Z.

KSAU, Kunio, (1SG) (M85) 225th AHB, Griffiss AFB, NY 13441. Dy: (315) 330-4161. Dy: 225th Atk Hel Bn.

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LAANSOD, Herb, (MSG) (M88) 104 Pheasant Run, O'Fallon, IL 62269. Dy: (618) 256-2925. Res: (618) 632-5425. S: Cindy. B: Sep 20. Dy: 219th Actf Maint Co, Production Control NCO. MOS: 672.

LACEY, Larry F., (MSG) (M85) 5193 Edgemere

Drive, Blackjack, MO 63033. S: Uta. B: Oct 10. Dy: Hqs Us Army Avn Systems Cmd. MOS: 76250.

LANDON, Larry P., (SFC) (M87) Cdr AMC-Europe, Attn AMXEU-AVSCOM-ASE, APO NY 09333, S: Cheryl, B: Oct 3, Dy: ASE-PM, Europe, MOS: 35P4KW6.

LANHAM, Robert F., (E5) (M86) (Jr.) 364 Clem, Ft. Sam Houston, TX 78234. Dy: (512) 221-4422. Res: (512) 829-5865. S: Sonja. B: Jun 13. Dy: 507th Med Det. MOS: 67N.

LANIER, Joel E., (CSM) (M85) HSC 8th AHB, APO NY 09185. Dy: (061) 314-0648. Res: (334) 371-8801. S: Marva. B: Apr 1. Dy: Hq 2d Bn 4th Avn Regt. MOS: 00Z.

LAWRENCE, Gene, (1SG) (M78) (George) 2249 Robin Road, Clarksville, TN 37042, Dy: (615) 796-2951, Res: (615) 431-6978, S: Beverly, B: Apr 28, Dy: 55th AHB, 1/101st Avn Reg HSC, MOS: 67Z.

LEE, Charles O., (SFC) (M88) (Chuck) 298 Northwood Terrace, Clarksville, TN 37042, Dy: (502) 798-4003, Res: (615) 645-6071, S: Susan, B: Jan 2, Dy: UH-60 Flight Simulator NCOIC HHC 4/101 Avn Rgt, MOS: 66T3F.

LINDGREN, Lester J., (SSG) (M83) (Les) 6703 5th Court S.E., Lacey, WA 98503, Dy: (206) 967-3051, Res: (206) 438-0320, S. Edith, B: Mar 21, Dy: 54th Med Det, F. Lewis, MDS: 67N. Past VP, Redcatcher Chapter.

LLOYD, Rufus L., (CSM) (M86) 205 Barbara Drive, Ozark, Al. 36360-8705. Dy: (205) 255-2173. Res: (205) 774-2699. S: Charlotte. B: Apr 4. Dy: 1st Bn 11th Avn Reg ATB. MOS: 00250.

LOZANO, Amaury A., (SSG) (M87) A Co, 7-159th Avn Regt, Box 1048, APO NY 09140. S: Maria. B: Mar 14. Dy: Tech Inspector, AVIM. MOS: 6813F.

LUNN, Gregory, (SFC) (M88) (Greg) USASS8/Wiesbaden Air Base, FRG, APO NY 09457, S: Sheryl, B: Jan 59, MOS: 93P4P.

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MAHOLICK, Robert H., (E8) (M87) 4029-B Hewitt St, Schofield Bks, HJ 96857, Dy; (808) 855-0611, Res: (808) 624-0757, S: Virginia S: Jul 13, Dy: S3rd Avn Bn, MOS: 6725M.

MAJOR, Jerome X., (PFC) (M87) (Goose) A Co, 1-13 Avn RegL, Cmr 3, Box 8026, Fort Rucker, AL 36362, B: Dec 7, Dy: School, MOS: 67V.

MALONE, Raymond J., (SGT) (M87) 253 Fairview Circle, Middle Island, NY 11953, Dy: (516) 293-2011, B: Oct 3, Dy: HHC 46th Eng, FL. Rucker, MOS: 948.

MARCELO, Potronila D. (SSG) (M87) (Pete) AVUM Trp, 4/2d ACR P.O. Box 355, APO NY 09092-0216. S: Teresa, B: Oct 4. MOS: 67N30.

MARIOTTI, Richard, (E5) (M86) (Fury) D Trp, 1-1 Cav, APO NY 09250. S: Monica. B: Jun 18. MOS: 67V.

MARKHAM, Stephen, (E5) (M88) (Rambo) 4626 Apt B, Pierce Village, Fort Campbell, KY 42223. Dy: (502) 798-4688. Res: (502) 439-6252. S: Cathy, B: Aug 27. Dy: A Co 1 Bn 101 Avn Regt. MOS: 67V30.

MARTHONE, Fritz A., (SGT) (M87) (Marty) Svc Co 3-3 Avn, APO NY 09182. B: Oct 18. MOS: 68G.

MARTIN, Glenn R., (1SG) (M76) (Marty) Rt 13,

Box 41, Clarksville, TN 37043. Res: (615) 647-6663. B: Jun 19. Dy: 101st AG Co, Ft. Campbell. MOS: 6725M.

MASARIK, Jerry L., (SFC) (M87) 7204 River Bend Road, Colorado Springs, CO 80911. Dy: (719) 579-526. Res: (719) 330-8547. S. Norma. B: Dee 6. Dy: (131d CSAC. M05: 67140. MASON, Scott W., (PFC) (M87) N Trp 4/2 ACR, Box 348 A, APO NY 09092. B: Jul 14. Dy: Scott Hcptr Repairman, N Trp, 4/2. M05: 67V10.

MASTERSON, Marion D., (CSM) (M88) (Bat) 7550 Silverdale St., Widefield, CO 80911. Dy: (719) 579-4944. Res: (719) 390-5361. S: Sunny. B: Apr 7. Dy: Hq 1st Bn, 4th Avn Regt. MOS: 00255.

MATHEWS, William, H. (E7) (M88) 1589 Armistead Drive, Clarksville, TN 37042. Dy. (502) 798-5885, Res: (615) 647-5245. S: Linda. B: Mar 18. Dy: D Co, Task Force 160th. MOS: 67T4M.

McCANN, Gregory L., (SFC) (M81) 52747-2 Klowa Loop, Fort Hood, TX 76544. Dy: (817) 287-9020. Res: (817) 532-2064. St. Tae Cha. B: Jun 10. Dy: S3 Fit Oper NCO, HST, 4th Sqdn, 6th Cav Regt (AAH) 6th Cav Bde (AC). MOS: 939-

McDONALD, Norman H., (SSG) (M86) (Mac) Avionics Rsch Dev Act, FL. Monmouth, NJ 07703, Dy: (201) 544-4004. S: Helen. B: Sep 17. Dy: Avionics R&D Act, Navigation Div. MDS: 35P.

McKenna-Mestrez, Mary E. (SGT) (M75) 32 Fort Missoula Rd., Missoula, MT 59806. Res: (406) 721-7202. S: Robert. B: Aug 21. MOS: 71P. Past Sr VP, Schwaebisch Hall Chapter.

McKINNEY, William D., (SFC) (M87) (Dave) P.O. Box 366, Rindge, NH 03461. Dy: (603) 796-2882. Res: (603) 899-3044. S: Kathy, B: Jun 25. Dy: NSTO/Avn New Systems (SEMA), J Co 2d Bn 112th MI Bde ISD. MOS: 98J.

McMilLAN, Robert A, (SFC/P) (M88) (Bob) 21 Carey, Fort Rucker, AL 36362. Dy: (205) 255-2524. Res: (205) 598-2693. S: Sok Cha. B: Dec 24. Dy: 226 Alk Hel Bn, Hg Service Support Company, MOS: 67Z50.

MEADOR, Robert R., (SGT) (M87) (Rob) A Trp, 2 CAS 2 ACR, Box 64, APO NY 09092. S: Donna. B: May 21, Dy: Quickfix Strp 4/2 Cav. MOS: 67N2F02.

MERCEDES, Samuel L., (E3) (M88) HHT 4/11th ACR, APO NY 09146. B: Apr 11. Dy: HHT 4/11th ACR. MOS: 77F.

MERCER, John J., (CSM) (M88) (John) 70th Trans Bn (AVIM), APO NY 09028. S: Linda. MOS: 007. VP, Rhine Valley Chapter.

METTAR, Steven C., (SP4) (M87) (Big Daddy) A Co, 2nd Bo, 4th Avn Regt, APO NY 09185. 8: Feb 15. Dy: 8th ID (Mech). MOS: 67V1D.

METZING, Shawnal, (SGT) (M88) B Co. 4/58 Avn Bde, APO SF 96301. B: Jun 64. MOS: 93J20.

MEYERS, John C. (SSG) (M86) (AH) B Co, 8/158 Avn Regt, APO NY 09165. S: Kathy. B: Mar 5, MOS: 67Y.

MICHENER, Mikel M., (1SG) (M87) (Mike) 1712 199th St. Ct. E., Tacoma, WA 98445, Dy: (206) 967-6421, Res: (206) 531-1155, S: Julie, 8: May 6, Dy: 1st, HHC 2/9 Avn Regt, Ft. Lewis, MOS: 6725M.

MIGLIOZZI, Thomas M., (SSG) (M86) (Mig)



C/6/159 Avn Regt, Box 142, APO NY 09025. S: Colette. B: May 28. Dy: Technical Inspector. MOS: 66T30. VP, Schwaebisch Hall Chapter.

MINARD, Derik L., (PFC) (M88) (Drydock) AVUM 4/11th ACR, APD NY 09146. S: Lynette. B: Aug 4. MOS: 68M10.

MOFFETT, Robert F. Jr, (SFC) (M88) (Bob) 2337 Cardinal Ave, Granite City, IL 62040, Dy: (314) 263-3576. Res: (618) 452-5430. S: Gloria. B: Nov 22. Dy: Procurement Sqt, USAAVSCOM. MOS: 76730.

MONTGOMERY, Willie M., (CSM) (M85) (Monty) 5155 E. De Medici Drive +, Sierra Vista, AZ 85638-2365. Dy: (602) 458-7880. Res: (602) 459-1091. B: Dec 10. Dy: 4th ROTC Region. MOS: 00250.

MOORE, Pater M., (E5) (M85) (Pete) 707 Buena Vista Drive, Fayetteville, NC 28311. Dy; (919) 396-4063. Res: (919) 822-8991. S: Sheri. Dy: D CO 82d AMC, FL Bragg. MOS: 67V.

MOORE, Stephen, M. (SSG) 3241-8 Harris Court, Dover, NJ 07801. Dy: (201) 538-6066. Res: (201) 989-2547. S: Marina. Dy: Tech Insp AMCCOM Avn Det (D). MOS: 66N.

MORAN, Mark E., (SSG) (M88) HHD 421st Evac Bn, Box 22, APO NV 09061-3625. S: Susan, B: Apr 59, Dy: UH-60A Technical Inspec. MOS: 6613F.

MORENO, Amador M., (MSG) (M85) (Sgt Mo) Hg 21st SUPCOM-ACSLOG-AVN, APO NY 09325-3730, S: Gertrud, B: Apr 30, Dy: Arcth Maint Sqt, Hg 21st Sup Com, MOS: 67Z.

MORGAN, Thomas W., (E6) (M87) A Co, 2/4 Avn Regt, APO NY 09185.

MUEHLENBECK, Mark E., (SP4) (M87) B Co, 205th Trans Bn, APO NY 09165. B: Dy: Actt Structural Repairman. MOS: 68G.

MULJU, L.J., (SFC) (M86) HHC 299th Spt Bn, APO NY 09137. S: J.R., B: Aug 31, MOS: 67Z

MURPHY, James R., (SGM) (M88) 2640 Sorrel Drive, Florissant, MO 63033. Dy: (314) 263-3821. Res: (314) 837-5296. S: Barbara. B: Dec 31. Dy: Sr. Acft Maint Sgt, AVSCOM. MOS: 6725H.

MYERS, Richard T., (1SG) (M77) (Dick) OPM-SANG, APO NY 09038. S: Cecelia. B: Jun 18. Dy: Office Of The PM, Saudi Arabian NG NCOIC Cbt Med. MOS: 918.

#### NNNNN - 00000

NEWCOMB, Fred A., (SGT) (M84) HHT 4/4 Cav, Box 45, APO NY 09702. S: Debra Lynn, B: Dec 20, Dy: AVUM Pit Actt Maint. MOS: 67Y.

NOSAKA, Herbert F., (SGM) (M87) (Herb) 150A 804) Street, Fort Eustis, VA 23604, Dy: (804) 878-5330. Res: (804) 887-9453. B: Sep 15. Dy: U.S. Army Avn Log Sch. MOS: 87250.

OGLE, Grady C., (SGT) (M88) (Chris) D Co, 3-4 Avn Regt, APO NY 09185. S: Denise. B: Jun 24. Dy: I CO. MOS: 66V20.

OMELIA, Leonard J., (SGT) (M87) (Lenny) N Trp, 4/2 ACR, APO NY 09092. S: Christy. B: Sep 21. MOS: 67V20. ORTIZ CASIANO, Luis G., (SFC) (M85) (Lou) 911 Erwin Court, Ft. Wainwright, AK 99703. Dy: (907) 353-2679. Res: (907) 356-3229. S: Suzan. B: Mar 15. Dy: F Co, 123 Ro Avn Rgmt. MOS: 67T4A2.

OSORIO, Lorenzo R. (MSG) (MS5) (Larry) 1745 Foxglove Dr., St. Charles, MO 63303-4604, Dy. (314) 263-1310. Res: (314) 946-5264. S: Laura. B: Sept 20. Dy: U.S. Army OH-580 Logistics. MOS: 6725M.

OWENS, Lawrence J., (1SG) (M87) (Larry) D Trp, 2 CAS Box 192, APO NY 09092, S: Kathy. B: Aug 25. Dy: N Trp, 4 Sqdn, 2 Acr. MOS: 35P5M.

#### PPPPPPPPPPPP

PACK, Donald F., (SP4) (M87) (Ricky Rat) 817 South Center Road, Saginaw, MI 48603, B: Oct 20. Dy: Avn Fox Troop, 2 CAS, 2 ACR. MOS: 67V.

PAGE, Daniel A., (SP4) (M86) B Co, 8/158 Avn Regt, APO NY 09165. S: Tina. B: Aug 23. Dy: Acft Powerplant Rpmn. MOS: 68810.

PALMER, Richard L., (SP4) (M87) HHT, Cab 3AD, APO NY 09165-1537. S: Jama. B: Jul 20. Dy: 93P10 Flight Opns Coordinator. MOS: 93P10.

PARKE, William R., (E3) (M87) 0 Trp, 4/2 Cav. Box 329-A, APO NY 09092. B: Apr 14. MOS: 67V10.

PASSER, Jakub, (CWO) (M79) P.O. Box 2011, APO NY 09069. B: Oct 26. Dy: USAMSO. MOS: 151A.

PATE, John T., (CSM) (M86) 20-1 SLASC, Granite City, IL 62040. Dy: (314) 263-1018. S: Robbie. B: Sep 21. Dy: AVSCOM.

PEARSON, Robert K., (MSG) (M88) (Bob) 29-2 Kennedy Drive, Granite City, IL 62040, Dy: (314) 263-1631, Res: (618) 452-4727, S: Barbara, B: Jun 19, Dy: AVSCOM, MOS: 54840.

PERKINS, Stephen W., (SFC) (M88) (Perkbo) 11169 Estrada Drive, Apt. 6, St. Louis, MO 63138, Dy: (314) 263-2212, Res: (314) 355-7561. B: Oct 6, Dy: Acft Maint Super, AVSCOM, MOS: 67140.

PETCH, Douglas M., (SGT) (M87) 104 Brandywine, Clarksville, TN 37042. Dy: (502) 798-7514. Res: (615) 552-2354. S: Mary Beth. B: Aug 11. Dy: B CO 7th Bn, 101st Avn Reg. MOS: 6702F.

PETERS, Walter, (SGT) (M87) (Pete) AVUM Trp, 4/11 ACR, Box 373, APD NY 09146, S: Maryann, B: Mar 17, Dy: AVUM Trp 4/11 ACR. MOS: 67/V20.

PEYTON, Thadeus B., (E9) (M88) (TP) SLASC Hgs 24-2, Granite City, IL 62040, Dy: (618) 452-4215, Res: (618) 451-8862; S: Hannelore, B: Aug 21, Dy: Installation Sgt Maj, MOS: 12250.

PIETRAS, David J., (SP4) (M88) B Co, 7/159th Avn Regt, Box 167, APO NY 09061. B: Apr 28, MOS: 35M.

PINKHAM, Wayne A., (E7) (M87) 511th MI Co, Box 75, APO NY 09146, S: Ruth. B: Mar 10, MOS: 986.

POERTER, Dennald L., (SSG) (M87) (Don) 907 E. Park Avenue, Enterprise, Al. 36330. Dy: (206) 255-3706. Res: (206) 393-3105. S: Shirley, B: Mar 14. Dy: Aircraft Maint Sgt D Co 226th ATCHB. MOS: 67R.

PORATH, Robyn, (SSG) (M88) (Bob) 505 Briar-

wood Dr., J-5, Enterprise, AL 36330. Dy: (205) 255-2117. Res: (205) 347-2728. S: Clarissa. Dy: 1/10th Avn Regt, FL. Rucker. MOS: 93J. PORTER, Timothy C., (E3) (M87) (T.C.) N Trp, 4th Sodn, 2 ACR, Box 207A, APO NY 09092-0216. B: Jan 23. Dy: 67V Observation Heptr Repair. MOS: 67V.

PRATT, Paul W., (SSG/P) (M85) 419 Lindenwood Dr, Troy, IL 62294. Dy: (618) 256-2925. Res: (618) 667-9358. S: Vicki. B: Sep 7. Dy: Tactical Trans Repair Inspector, MOS: 667

PRESCOTT, Joe D., (SFC) (M87) (PJ) 14614 Earlham Court, Woodbridge, VA 22193. Dy: (703) 325-8322. S: Ruby, B: Oct 27. Dy: Career Advisor, USATAPA. MOS: 93J42.

PSYCK, Jeffrey S., (E4) (M88) I Co, 4th Avn Regt, APO NY 09185-2380. Dy: Attack Heptr Technician.

QQQQQ - SSSSS

QUINN, Thomas W., (1SG) (M86) (Tom) 6441 37th Street, Ft Hood, TX 76544. Dyr. (817) 287-5819, Res: (817) 532-4243. S: Linda. B: Oct 10. Dyr. 1SG, HHT 1/6th Cav, 6th Cb (AC). MOS: 6725M.

RAMSEY, Edwin T., (SFC) (M88) 403 Dale Terrace, Clarksville, TN 37042. Dy: (502) 798-2961. Res: (615) 552-6190. S: Judy. B: Jan 10. Dy: 160th SOAG. MOS: 67THF.

RATHMAN, Scott M., (SP4) (M88) (Spaceman) S 4/11th ACR, APO NY 09146. S: Shandra. B: Jun 7. Dy: S Trp 4/11 ACR. M0S: 67N10.

READ, Daniel G., (E4) (M87) (Dan) I Co, 1st Avn Regt., Box 2188, APO NY 09250. S: Lisa. B: Oct 8, Dy: Avel Platoon. MOS: 68F.

RENTZ, Thomas, (SFC) (M87) (Tom) 8 Colony North Blvd, Apt 305, Wilmington, DE 19802. Dy: (215) 591-7275. Res: (302) 782-3406. S: Sue. 8: Aug 9. Dy: US Army Plant Rep, Boeing Helptr. MOS: 67140.

RESTUCCI, Marc S., (SGT) (M84) (Stuch) Rd 2, Box 4195, Jonestown, PA 17038. Dy: (717) 865-8827. Res: (717) 865-6464. S: Greta. B: Jan 24. Dy: Estrn Arng Awn Tng Site (Med). MOS: 9181F.

RICHARDSON, Ames L., (MSG) (M85) (Rich) HHC 3d Armored Div, APO NY 09039-5000. 8: Jun 25. MOS: 76Z5K.

RIEDENER, Stephen T., (SP4) (M87) A Co, 8/158th Avn, Box 683, APO NY 09165. B: Apr 10. MOS: 67N.

RODRIGUEZ, Edwin D., (SSG) (M87) (Ed) C Co, 3/3 Regt, APO NY 09182. S: Lizzette. B: Nov 26. Dy: Hept Repair/PR Sgt. MOS: 67V3L. ROGERS, Joe J., (SSG) (M87) (J.R.) SVC 3/3 Avn Regt, Box 133, APO NY 09182. S: Erika. B: Oct 7. Dy: Actt Ctrl Tech Inspec. MOS: 65V30.

ROSE, Jean L., (CSM) (M84) 30 Archview Drive, Belleville, IL 62221. Res: (618) 235-6305. S: Gale. 8: Jun 19. MOS: 00Z. Past VP. Mid-America Chapter.

RUHNKE, Richard, (1SG) (M87) (Richie) 6444 Freeport Rd, Fayetteville, NC 28303, Dy; (919) 396-6678. Res: (919) 867-7436. S: Sandra Kay, B: Aug 17, Dy; 1SG HHT 1/17, Cav, 82, Abn Div Ft, Bragg, NC. MOS: 6725P.

RUNK, Adam E. Jr., (SFC) (M85) 307 Lee's Mil Drive, Newport News, VA 23602. Dy: (804) 878-6252. Res: (804) 887-5662. S; Cynthia. 8: Sep 20. Dy: 1st Staff & Faculty Co. Ft. S The 1988 Aviation Soldier

Eustis. MOS: 68K.

SAMPSELL, Norman E., (1SG) (M85) (Buddy) 7880 Clark Road, Jessup, MD 20794, Dy; (301) 677-3503, Res: (301) 799-1782, B: Mar 18. Dy: USADAC-CAC (C), MOS; 6775M.

SANDERS, Donald R., (SGT) (M85) (Don) 23 Urell Street, Fort Rucker, AL 36362, Dy: (205) 255-5404, Res: (205) 598-9422, S: Lynn, B: Dec 30, Dy: HHC, 1st Bn/ALMO, MOS: 666.

SANDERS, Richard G., (E4) (M87) (Gary) P.O. Box 42114, Savannah, GA 31409. Dy: (912) 352-5292. Res: (912) 352-6227. B: Aug 16. Dy: Crew Chief, COBRA, F Co, Hunter AAF. MOS: 67Y.

SANDIDGE, Thomas C, (SFC) (M68) (TC) 2535 Washington, Dubuque, IA 52001. B: Apr 28. SANTIAGO, Carmelo, (SGT) (M88) (Mello) D Trp, 2 CAS, Box 370, APO NY 09092-0216. S: Maria, B: Dec 20. Dy: Scout Hcptr Repair, MOS: 67V2.

SANTOS, Anthony J., (SFC) (M86) (Tony) 1 Charlemagne Boulevard, Clarksville, TN 37040, Res: (615) 645-1519. S: Linda. B: Jul 1. Dy: 193rd Avn Co. MOS: 67T.

SAUCEDA, Jaime, (E4) (M88) (Sauce) Hq Co., ADTA, Fort Rucker, AL 36362-5276. Dy: (205) 255-8129. Res: (205) 598-9936. B: May 21. Dy: Hq Co ADTA. MOS: 93P.

SCHATTE, Gerry W. (E4) (M87) (Psycho) 2 CAS, Box 161, APO NY 09092. S: Beth. B: Jun 25. Dy: N Trp, 4/2 ACR. MOS: 67Y.

SCUDDER, Jack R., (SFC) (M88) (Jack) R-Box-13, APO NY 09165. S: Maureen. B: Jun 2. Dy: Fit Opns. MOS: 71P.

SELPH, Kelley M., (PFC) (M87) (Kel) 295th Avn Co, APO NY 09028, B: Feb 8, Dy: B Co 6-158 Avn Reg Medium Hel, Repair/Prod. Control Spec. MOS: 67U10.

SHEARON, Joseph W., (MSG) (M88) (Joe) 203 Tucker Drive, Louisburg, NC 27549, Res: (919) 496-3256, S: Nancy, B: Dec 31, Dy: Flight Op Spec, Hq STARC NCARNG, MOS: 93P50.

SHOOK, Terry L., (SSG) (M87) SVC 3/3 Avn Regt, APO NY 09182, S; Cindy, B; Feb 28, Dy; Atk Hoptr Tech Inspec. MOS; 6643F.

SH00PMAN, Denny K., (CSM) (M74) 3108 Cedarwood Village PI, Pensacola, FL 3514-6254, Dy; (205) 255-6575, Res: (205) 383-6228, S: Connia, B: Dec 12, Dy; HHC, 226 Afk Hel Bn. MOS: 002. Past VP, Taunus Chapter.

SHUTTER, Paul W., (SGT) (M87) C Co, 2 CAS, Box 341-A, APO NY 09092, B: Jul 4, Dy: R Troop, 4th Sqdn, 2nd ACR, MOS: 67Y30, VP, Redcatcher Chapter.

SILVA, Johnny, (SGT) (M87) I Co, 3rd Avn Regt, APO NY 09182. S: Belinda. B: May 25. MOS: 67T20.

SIMS, Lenny P., (SFC) (M87) 626 Helton Drive, Clarksville, TN 37042. Dy: (502) 796-7471. Res: (615) 647-8803, S: Anna, B: May 26. Dy: D C0 1-101st Avn Regt. MOS: 68J4MX1.

SIPLES, William E., (MSG) (M85) (Bill) B Co, 7/159 Avn Regt, Box 325, APO NY 09061, Dy: (000) 421-6232, S: Margarete, B: Apr 23, Dy: 7th Bn, 159th Avn Regt, MOS: 672, SMITH, Michael J., (SFC) (M88) (Mike) 3856 Lake Drive, Pontoon Beach, IL 62040, Dy: (314) 263-3747, Res: (618) 797-1365, S: Jeanette, B: Apr 11, Dy: Hqs AVSCOM, MOS: 67T40.

SMYTHE, Nicholas, (SGM) (M83) (Nick) US Army Aviation Board, Fort Rucker, AL 36382, Dy: (205) 255-2179, Res: (206) 393-4372, S: Judith, B: Aug 26, MOS: 67Z,

SORIA, Luis, (SGT) (M87) (Big Lu) SVC Co, 3/3 Avn Regt, APO NY 09182, S: Norma, B: Mar 1, Dy: OH-58 Phase Team Ldr. MOS: 67V20.

SPARKS, Dwayne T., (SGT) (M88) (Dee) 183 Bright Street, San Francisco, CA 94132. S: Deo B: Apr 20, Dy: OH-58 Phase Team Leader, AVUM Trp 4/11 ACR APO NY 09146. . MOS: G7V20.

SPENCER, Rex W., (E5) (M86) (Rawhead) I Co, 1st Av Regt., Box 2272, APO NY 09250. S: Marcella. B: Apr 23. MOS: 68F20W5.

SPRING, Larry L. Jr., (SSG) (M87) (J.R.) AVUM Trp, 4/2 ACR, Box 317, APO NY 09092. S: Manuela, B: Oct 6, MOS: 65Y30.

SPRINGER, Bryant D., (PFC) (M88) (Champ) HHT 2d Cbt Avn Sqdn, APO NY 09092. B: Jul 23. Dy: Radio Operator. MOS: 31C10.

STAMARIS, Daniel J., (SGT) (M87) D Co, 226th AHB, P.O. Box 268, Fort Rucker, AL 36362. Dy: UH-60 Blackhawk Crewchief.

STANLEY, Michael R., (15G) (M87) 104 Chestnut Drive, Enterprise, AL 36330. Dy: (205) 255-3540. Res: (205) 347-0229. S: Regina. B: Feb 49. Dy: D Co, 226th AHB. MOS: 67225M.

STEARNES, Michael G., (SGT) (M87) (Zippy) Avum Trp, 4th Sgdn 2d Acr, APO NY 09092-0216. B: Sep 24. Dy: AH-1 Repair Supv. MOS: 67Y20.

STIVERS, Kelly S., (SGT) (M86) B Co, 7/159th Avn Regt, Box 495, APO NY 09061, B: Jun 28. Dy: UH-60A Crewchief, MOS: 67T20,

STORY, Robert, L. (MSG) (M85) (Bob) 12200 Nutreg Court, Woodbridge, VA 22192. Dy: (202) 325-5078. Res: (703) 491-4194. S: Peggy, B: Apr 19. Dy: USA Soldier Supp Ctr NCR, Alexandria. MOS: 67Z.

SUCHARSKI, Patrick, (1SG) (M85) (Ski) 9 Avalon Drive, Clarksville, TN 37042, Dy: (S02) 798-3188, Res: (615) 552-6162, S; Kimmle, B; Apr 19, Dy: C Co, 158th Av Bn.

SUPIT, Adriaan, M. (SSG) (M88) HHT, 4th Sqdn, Box 125, APO NY 09092-0216. B: Feb 1. Dy: Hcptr Repair. MOS: 67V3LJN.

SUTFIN, Richard R., (E5) (M87) (Rick) 866 Elder Road, Newport News, VA 23602. Dyr. (804) 878-5345. Res: (804) 875-2354. S: Kris. B: Dec 31. Dy: Ft. Eustis, Va, 3rd S&F. MOS: 67Y2H.

SWENDSEN, Karen N., (SSG) (M87) SVC Co, 3/3 Avn Regt, APO NY 09182. B: Mar 3. MOS: 66N30.

SYKES, Dun M., (E5) (M88) F Co., 160th SOAG (Abn), Fort Campbell, KY 42223. Dy: (502) 798-6707. B: Apr 1. Dy: Acrtt Pneudralic Repairman. MOS: 68HP2.

TANNER, Eddle B., (SP4) (M87) (T-Skoe) B Trp, 4/7 Cav, APO SF 96524. S: Kilcha. B: Feb 8. Dy: C CO 309 AHB. MOS: 67V.

TATUM, Sampson, Sr., (E6) (M88) (Sam) HHT 2 CAS, Box 326, APO NY 09092-0216. S:

Theresa, B: Jul 26. Dy: NCOIC Medical Section, Feucht AAF, MOS: 91830.

TAYLOR, Melvin P., (CSM) (M86) (Mel) HHC, 3/58 Avn Regt, APO NY 09025. S: Mercy. B: May 20. Dy: Cmd Sgt Maj. MOS: 00250.

THOMPSON, Barry D., (E2) (M88) HHT 4/11 ACR, APO NY 09146. B: Jan 20. MOS: 63S. THOMPSON, Lawrence B., (E5) (M86) 8 Co.

7/159th Avn Regt., Box 378, APO NY 09061. S: Hilary. B: Sep 7. MOS: 35MZ0. THOMPSON, Lee R., (1SG) (M87) (Tom) A Co, 2/4 Avn, APO NY 09185, S; Esther, B; Apr 22,

MOS: 67ZM THORPE, Aaron P., (SFC) (M88) 11231 Marbella Drive, No. 9, St. Louis, MO 63138.

Dy: (314) 263-1363. Res: (314) 355-7712. B: Jul 4. Dy: Supply NCO, AVSCOM. MOS: 76Y4K

TORRES, Hector Gil, (SSG) (M88) 60 East 106th Street, No. 14H, New York, NY 10029. Res: (212) 876-9648. S: Jennifer. B: Oct 8. Dy: Flight Medic, 336th Medical Det., MOS: 91R30F

TRAYLOR, John P., (CSM) (M86) (John) Route 11, Box 325, Dothan, AL 36301, Dy: (205) 255-4800, Res: (205) 677-3420, S: Sue, B: Dec 24, Dy: Post CSM/Avn Br CSM, NEB, Past VP, Army Avn Center Chapter.

TULLETT, Simon J., (E2) (M87) I Co, 227th Avn, APO NY 09165. MOS: 68D.

TYCKSEN, Harold, (PFC) (M88) (Tyc) C Trp. 1-1 Cav (Air), APO NY 09250. S: Claudia. B: Sep 20. MOS: 67Y10.



VALIGORA, John M., (MSG) (M82) (Val) 1306 Harbor Village Drive, Corpus Christi, TX 78412, Dy: (405) 351-6812, Res: (405) 248-5022, S: Darlene. B: Apr 19. Dy: 47th Cbt Sup Bn, Ft. Sill. MOS: 76Z.



WELLS, Nelson A., (SSG) (M88) R Trp, 4/11 ACR, APO NY 09146, S: Cynthia, B: Apr 7, Dy: Plt Sgt/1SG, MOS: 66Y30,

WHISENHUNT, Russel S., (SGT) (M87) I Co., 1st Avn Regt., APO NY 09250. S: Kristine. B: Nov 5. MOS: 68J.

WILKINS, Roderick B., (SSG) (M87) (Rod) 334A Sternberg Ave, Fort Eustis, VA 23604. Dy: (804) 878-3595. Res: (804) 887-3676. S: Joyce. B: Feb 26. Dy: 3rd Staff/Faculty Com-pany. MOS: 67Y3PA2.

WILLIAMS, James C., (CSM) (M87) 1098 Jecelin St, Schofield Bks, HI 96786. Dy: (808) 655-4675. Res: (808) 624-9418. S: Margaret. B: Dec 14. Dy: Avn Bde, Hq. MOS: 00250. WILSON, David L., (SSG) (M87) B Co, 7/159th Avn Regt, Box 705, APO NY 09061. S: Charlotte. B: Sep 5. MOS: 67T30.

WILSON, Hartwell B., (CSM) (M86) (Willy) USA Aviation NCO Academy, Fort Rucker, AL 36362-5255. Dy: (205) 255-2454. S: Debbie. B: Aug 46. MOS: 00250. VP. Army Avn Center Chapter.

WIRICK, Ernest J, Jr., (SSG) (M87) (Ernie) 1980 Swearinger Drive, Colorado Springs, CO 80906, Dy: (303) 579-2253, S: Christianne, B: Oct 23, Dy: C Trp, 2/7 Cav. MOS: 67Y30.

WIRTH, Michael J., (1SG) (M85) (Mike) C Co, 2-1 Avn Regt., Box 2047, APO NY 09250. S: Jean. B: Jan 1. MOS: 6725M.

WOJCIK, Ray P., (E5) (M86) ERAU Box 7347, Daytona Bch, FL 32014-3891, Res: (904) 788-5692. B: Dec 29. Dy: Irr. MOS: 67N20

WOMMACK, Rick L., (E6) (M88) PSC Box 1485-A, APO NY 09611, S: Tammie, B: May 25. Dy: G-3 Avn Det, Berlin Germany, MOS: 67730

WONG, Ronald L., (E4) (M88) (Desperado) C Co.3/4 Avn Regt, Box 55, APO NY 09185. B: Jul 12. Dy: Attk Hcptr Repair. MOS: 67Y10.

WOOD, Ralph J., (E5) (M87) 1313 Ohio St. Alamogordo, NM 88310, Dy: (915) 568-3595. Res: (505) 437-9778, B: Feb 6, Dy: Avionics Special Equip Repairer, MOS: 09R2

WRIGHT, Gary L., (SGM) (M82) (Lee) 104 Vintage Lane, Enterprise, AL 36330. Dy: (205) 255-5422. Res: (205) 393-3282. S: Melitta. B: Dec 19. Dy: Dpty Cmndt, USA Avn Center NCO Academy. MOS: 93P50.

YOUNG, Carolyn W., (E4) (M87) I Co, 227th Avn, Box 235, APO NY 09165. B: Aug 28. MOS: 75810

YOUNG, Raymond B., (MSG) (M88) 494 Michael Irvin Drive, Newport News, VA 23602, Dy: (804) 878-3624. Res: (804) 887-9149. S: Betty. B: Dec 5. Dy: Chief, Electronics Br, EED, DATT, USAALS FEVA. MOS: 6725H.

ZUEL, Michael N., (SSG) (M86) (Mike) 408 Moffett St, Watertown, NY 13601. Res: (315) 788-0250. S: Suny. B: Jul 24. Dy: 247th TAMC (AVIM). MOS: 66N3F.

AAAA ANNUAL DUES

## MAKE A DIFFERENCE **JOIN AAAA**

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ARMY AUIATION ASSOCIATION

## Operations: One Night In September

by COL Walter H. Yates & MAJ Stewart E. Avants

FT HOOD, TX — REFORGER 87, Exercise Certain Strike, was a very successful operation for the III Mobile Armored (Phantom) Corps. All III Corps units performed their planning, deployment, CPX/FTX, and redeployment missions in the traditional excellence of the Phantom Corps.

REFORGER 87 was particularly challenging for the Corps Aviation Brigade, the 1st Cav Div Combat Aviation Brigade (CAB), and 2nd Armored Div CAB, and the Airspace Management Ele-

COL Yates was Brigade Commander, 6th Cavalry Brigade (Air Combat), FL Hood, TX and MAJ Avants was Corps Ainpace Management Officer for III Corps, Corps Avlation Brigade, FL Hood, TX at the time this article was written. ments of III Corps units. III Corps deployed 127 aircraft and was augmented with an additional 145 aircraft from "in country" units.

#### A2C2

These 272 aircraft under III Corps control (See chart below), and an additional 273 aircraft from other exercise participants (Chart 2) comprised the majority of the aircraft operating within the REFORGER Exercise Box. More than five hundred and forty-five rotary wing aircraft, in addition to 250 fast jet sorties, were flown daily, within an exercise area that averaged 100km wide by 250km in length.

This large volume of air traffic

was controlled through the Army Airspace Command and Control (A2C2) system. The key players in the system included: TWO ALLIED TACTICAL AIR FORCE (TWOATAF) Central Planning Group (CPG), NORTHAG Central Planning Team (CPT) air syndicate, TWOATAF Airspace Subgroups, the Air Deconfliction and Coordination Cell (ADCC) at Exercise Control HQs, and III Corps A2C2 Elements.

#### **One Operation**

The best way to illustrate the complexity and detailed planning that went into REFORGER A2C2 is to relate an operation that occurred "One Night in September".

The operation was conducted by the III Corps Combat Aviation Brigade (the 6th Cav Bde (Air Combat) and involved extensive coordination in order to execute the mission. The mission involved air assaulting the 45th Separate Infantry Brigade (550 personnel and equipment in

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CH-47 and UH-60 aircraft to secure crossing sites on the Aller River in advance of the 1st Cavalry Divisions first light attack, AH-64s (APACHEs) cleared and secured the LZs for the air assault, then one squadron quarded the force until linkup with the 1st Cavalry Division while a second APACHE squadron executed a deep operation. Over ninety aircraft, using night vision systems, accomplished the five hour mission with great success.

#### **Thorough Planning**

This operation was successfully accomplished through thorough planning and coordination in a multinational battlefield environment. The prior planning for this night's operation required: identifying the users of the airspace; identifying other operations ongoing in NOR-THAG; coordinating the use of the airspace; and, controlling the airspace during the operation. To understand the extent of the planning and the A2C2 problem, it is also important to understand the "real world" administrative constraints on REFORGER airspace.

#### **Control Features**

REFORGER airspace had a coordinating altitude of 150' AGL day and 500' AGL night for rotary wing aircraft, and an altitude of 250' AGL day and 1,000' AGL night for fixed-wing traffic. This provided a day buffer of 100' and a night buffer of 500'.

III Corps controlled all airspace inside the REFORGER 87 exercise box. This was accomplished in the following manner:

III Corps published an Aviation Procedures Guide (APG) that instructed all aviators on the requirements to be followed, and provided the current known restrictions to flight. The APG outlined general airspace usage and aviator responsibilities, and established the III Corps point of contact for all airspace users during the exercise.

#### CARS

A key to controlling the large volume of traffic in the exercise area was the use of the Corps Air Route System (CARS), which was designed for rapid movement of all rotary wing exercise aircraft below the coordinating altitude. The six routes, which covered the entire exercise area. had been deconflicted from civil and military operations and all aircraft were required to utilize the CARS or approved ATC routing unless approval for a Special Corridor had been received from the Corps Airspace Element (CAE).

All aircraft flying in the exercise area during the night period

1987 ARMY THEME: THE CONSTITUTION	
REFORGER 87	
AVIATION PARTICIPAN	TS
III CORPS	270
ORANGE FORCE	76
UMPIRE	60
JOINT VISITOR BUREAU	37
1ST (GE) DIVISION	32
504TH MI BRIGADE	29
NORTHAG	16
159TH MED DET & SAR	15
RAF (G)	10
	545
DOES NOT INCLUDE "FAST MOVER	IS"
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Boeing CH-47D

Hughes 500MD

Bell AH-IS

## If you're not using the gyro these people are, you're sacrificing space, weight, and reliability.

These people all wanted a small, lightweight gyro with unsurpassed reliability. That's why they came to J.E.T. Our Model VG-204 is proof you don't have to pay a penalty in excess weight and space to get fieldproven reliability in a gyro.

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compatible with Sperry, Bendix, Collins, and King autopilot systems. That means you can select the one you prefer and customize it with the finest gyro available.

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Model VG-204 Vertical Gyro



A Subsidiary of The **BFGoodrich** Company 5353 52nd Street, S.E., Grand Rapids, MI 49508-0239 (616) 949-6600 Telecopier: (616) 949-9376 TELEX 22-6453 JETELECTEC GDR In United Kingdom: (0)734-775544 were required to have a III Corps mission number obtained through the CAE.

During the day, the REFORGER Exercise Area was a Warning Area; during the night, a restricted area.

#### **Airspace Users**

The users of the airspace during this operation include the following:

 More than 90 helicopters from III Corps, using night vision systems, conducting attacks, combat assaults, combat support and command and control missions. All helicopters were under the control of the Corps Aviation Brigade Commander (6th Cav Bde) and included CH-47s on AN/PVS-5 NVGs, OH-58s-1s/UH-60s on AN/AVS-6 NVGs, and AH-64s using both the night vision system and NVGs (AN/AVS-6).

 Jaguar jet aircrft on a special mission flying 500' AGL using night goggles and terrain avoidance radar.

 British Lynx Helicopters on NVGs conducting mission support of the RAF.

 German UH-1 helicopters on NVGs flying Search and Rescue (SAR) missions in conjunction with Exercise Cold fire 87.

• Joint Visitor Bureau (JVB) and other administrative helicopters flying on the Corps Air Route system, or approved ATC Routing.

 Allied Corps field Artillery Assets supporting the operation.

 Allied Corps Air Defense assets in the III Corps area of operation and the Allied Corps Sector.

 III Corps Field Artillery and Air Defense assets in the III Corps area of operation and those supporting this particular

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operation.

With this background information a short narrative of the tactical scenario will better illustrate the A2C2 coordination effort.

#### **Enemy Forces**

The leading divisions of the Orange Force (Belgians and Dutch) were conducting the main effort from east to west and had pushed towards the Aller River and begun to establish defensive positions on the left flank of the penetration. The two leading elements of the Orange Force Second Echelon (the British) were in Tactical Assembly Areas (TAAs) well to the rear of the Belgians and the Dutch (see above). Bridges across the Aller River in the sector had been destroyed.

#### **Friendly Forces**

In-place Allied forces had the mission to shape the enemy penetration and secure the line of departure of III (US) Corps, additionally, they were to assist by clearing the Tactical Assembly Areas (TAA), provide route maintenance, passage guides, commo, and bridging assets prior to III (US) Corps crossing the LD.

III Corps mission was to attack through an Allied corps to destroy the Orange Force Second Echelon forces in zone and prepare to continue the attack to restore the original border, or establish a hasty defense in the former sector of the Allied Corps.

#### **Commander's Intent**

The purpose of the attack was to destroy the Orange Forces' trail divisions (British) which were advancing in the adjacent Allied Corps' sectors in order to exploit across the Weser River.

The Corps main attack was conducted on the right by the 2AD, with a supporting attack by the 1 CD on the left flank. preceded by an air assault to rapidly concentrate combat power north of the Aller River through the remnants of the enemy Combined Arms Army. The 4th Mech was to follow the 2AD. Emphasis at all levies was needed to focus fire support assets on the deep attack of CS and CSS targets as well as armor formations. In follow on missions the Corps Aviation Brigade was to be used to destroy enemy forces not in con-

tact within the Corps area of operations (AO). Trail regiments of enemy divisions were targeted with consideration of effects on close in operations.

The Corps Aviation Brigade (6th Cav Bde Air Combat) mission: On order, 6th Cav Bde (AC) attacks to destroy enemy uncommitted echelons, conducts rear battle operations, conducts air assault of the 45th Separate Infantry Brigade (SIB) into the LZ across the Forward Line of Own Troops (FLOT) at H-4, and guards the 45 SIB until H-Hour. Conducts deep attacks to clear the zone, in conjunction with 1CD and 2AD attacks to seize objectives in sector, conducts movement to contact to locate and destroy enemy artillery in sector to the north, and prepares to guard the Corps' eastern flank.

#### The Plan

The 6th CB (AC) plan initially called for a movement to contact and hasty attack to clear the LZ area by one AH-64 (APACHE) squadron. The emphasis was on selecting, clearing and securing four air assault LZs. Once the LZs were cleared and secured pathfinders were to be inserted. after which elements of the 45 SIB were to be air assaulted into the LZs by UH-60s and CH-47s. After the insertion one APACHE squadron was to conduct a guard of the ground force until H-Hour. Simultaneously, another APACHE squadron was to conduct a movement to contact north of the 45th SIB positions, in the 1CD sector, with the objective of locating and destroying enemy artillery positions and locating the reserve armor brigade.

The mission began with the I

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APACHE squadron crossing the LD at 152300 September 87, followed by the first lift of air assault to cross the LD at 160100 September 87. The mission was to be completed prior to daybreak, approximately 0600.

#### **Planning Considerations**

As can be seen from the situation and description of the plan, there were numerous planning considerations and areas requiring extensive face to face coordination between III Corps Liaison Officers (LNO's) and the Allied Forces. Some of the key considerations were:

 Tactical Control (TACON) of the sector by III Corps had not yet been effected.

 III Corps would be conducting this operation through an inplace Allied Corps and would require special aviation corridors/routes passing through it as well as through the adjacent Allied Corps sector. These corridors/routes required coordination with and approval by the Allied Corps.

The mission involved multiple aircraft sorties along special corridors requiring extensive air defense coordination and deconfliction with the in-place and adjacent Allied Corps as well as III Corps assets.

 this mission required the support of Allied Corps artillery and extensive coordination to make it happen.

 The mission required "real world" deconfliction of tactical jet aircraft and helicopters involved in the exercise play (previously discussed as users of the airspace) as well as closing segments of the Corps Air Route System (CARS) which conflicted with the tactical operation.  Crossing corps boundaries required III Corps LNOs to coordinate the airspace usage, and facilitate the airspace control request coordination process.

 The agencies at echelons above Corps, TWO ALLIED TACTICAL AIR FORCE/FOUR ALLIED TACTICAL AIR FORCE (TWOATAF/FOURATAF), which were the airspace control authorities for NORTHAG and CENTAG, had request time lines that had to be met in order to assure the requested control measures were approved and published in the appropriate Airspace Control Order (ACO).

#### **Rover Group**

A key Command and Control concept utilized by the Commander NORTHAG (COMNOR-THAG), called the Rover Group, and the use of III Corps Liaison Officers (LNOs). greatly facilitated the planning, coordination, and control of the mission. The Rover Group solved major issues and worked the planning in general, and the LNOs completed the coordination and solved the more specific and critical issues. The Rover Group is the Army Group method for controlling the actions of three or more Corps. Briefly, the way it works: the Army Group Staff plans courses of action and briefs the commander, who selects the best course(s) of action. The staff then prepares a draft OPLAN and distributes it along with the Warning Order to all the Corps and specifies a time and place for the staffs to meet. Upon receipt of the draft OPLAN the Corps Staffs begin their planning to develop their courses of action and support plan for the upcoming operation and prepare for the Rover Group meeting.

The Rover Group involves the meeting of a relatively small number of key staff members from all the Corps to coordinate the aspects of the plan. The Army Group Commander selects the course of action for the Corps and then the members break down to their respective sections to work out the support plans and priorities for the operation.

The Rover Group is very successful because it allows key staff members from all Corps to hear the order in person so confusion is less likely to occur. It involves face to face coordination between the respective staffs and their Allied counterparts, and before the meeting ends, any problems/conflicts are resolved so that when the staffs depart they are confident they have the support they require to execute their portion of the plan. If this is well orchestrated, confusion is avoided and the LNOs tasks are reduced.

This meeting is of particular importance to the Corps Airspace element Liaison Officer (Aviation and Air Defense) because it gives him the opportunity to meet his airspace management counter parts, establish a working relationship, and it provides him insight to the capabilities, organization, etc., of his counterparts prior to any further specific operational coordination.

The Rover Group greatly facilitated the tasks of the LNO, and because of the time lines involved in this mission, and the complex coordination required, the III Corps LNO was a key contributor to the successful planning, coordination, and control of the mission.

#### LNO Dispatched As soon as the 6th Cav Bde's



plan was detailed and the airspace control request received at the CAE, the LNO was dispatched with the III Corps' request for routes/corridors through the two Allied Corps sectors and any required airspace control measures.

At the same time the III Corps Fire Support Element (FSE) was also coordinating with the inplace Allied Corps for field artillery assets to support this operation. This coordination was extremely sensitive and paramount to the accomplishment of the 6th Cav's cross-FLOT mission, because III Corps had few assets in a position to support the operation. Also, since this was a pre H-hour mission, III Corps didn't "own" any fo the ground and had to coordinate with the in-place Allied Corps prior to firing any artillery in support of this operation. The III Corps FSE requested that the in place Allied Corps:

 Support the operation by answering calls for fire, as well as firing clearing fires across the FLOT;

 Establish time-phased fire control measures for our operation;

 Grant a clearance to fire for III Corps assets that could support the operation; and,

 Support the plan developed by the 1st Cav Division for their H-hour attack.

The Allied Corps was willing to help but was still fighting a major defensive battle in its sector, and was being asked to take certain risks. It was a major area of concern and required careful consideration and thorough planning by all concerned.

An agreement was reached on a phasing of operations. In the first phase (the clearing

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phase) an FSCL was established at the FLOT, and III Corps aircraft operating cross-FLOT would call for fire to a III Corps ARTY CP collocated with the in place divisional artillery in sector. For the second phase (insertion phase) an FSCL was established just short of the objective area. Clearance to fire for III Corps Artillery units was obtained and a support plan for the 1st Cav Div was agreed on which would facilitate preparation fires supporting their attack.

The III Corps aviation LNO like the FSE, had no easy task. As discussed previously, the situation and nature of the mission required extensive coordination and airspace deconfliction. The LNO arrived at the Allied Corps HQ airspace element less than 24 hours prior to mission time with the proposed III Corps air routes/ corridors and the Aviation Bde Cdrs concept for the operation. He was the senior airspace management representative for III Corps on Air Defense and Aviation matters and charged with the mission of coordination and deconfliction of airspace for the operation.

#### **Conflicts Apparent**

III Corps requests were presented and the plan for the operation explained. Immediate conflicts were apparent, including planned aviation routes passing through existing air defense weapon free fire areas. The options to solve this problem were:

1. Change the aircraft route.

 Change the ADA contro status which would be easier than the Avn Bde trying to plan a completely new route.

A compromise was agreed to and the aviation route was changed slightly to facilitate the deconfliction of airspace in other areas. Also, the Allies agreed to change the weapons control status to Weapons Tight for rotary wing aircraft (it remained Weapons Free for fixed wing) for a specified time window that would accommodate the 6th Cav mission. Cross-boundary operations with the adjacent Allied Corps, and passage of lines airspace requirements with the in-place corps were coordinated and approved.

#### **Jaguar Mission**

During this process other conflicting missions were coordinated, including the Jaguar mission that crossed several corps boundaries and had to be deconflicted with the tactical play as well as "real world" administrative traffic.

The mission was in conflict with the night coordinating altitude restriction and the entry/exit points into the exercise box. Points where the planned route conflicted with the administrative Corps Air Route system had to also be deconflicted.

Additionally, the German Air Force was conducting night cross-FLOT search and rescue missions that also had to be deconflicted with administrative traffic operating on the CARS, as well as potential conflicts with portions of the routes for the III Corps mission. Specific routes/corridors were developed and coordinated with the respective units and the Flight Coordination Centers (FCCs).

The LNO's were able to

coordinate the missions by adjusting the timing of the SAR missions so aircraft routes would not have to change during the entire SAR mission. The German Air Force LNO was present in the III Corps CAE for further coordination and in case any "glitches" occurred. The Lynx night vision goggle mission was also deconflicted and coordinated with the respective agencies and no further action was required.

#### **ACR Submitted**

Once the coordination and deconfliction was accomplished, a joint Airspace Control Request (ACR) was submitted to TWOATAF by III Corps and the Allied Corps. III Corps CAE also submitted an Airspace Coordination Request (ACR) with all requests for the upcoming operation.

Some important points concerning LNO's need to be mentioned.

 LNO's for this type mission come "out of hide." There are no dedicated TOE/TDA slotted personnel for this mission. Also these individuals are not necessarily experts in the specific field but are generalists.

• Timeliness of the LNO is significant. The need for early liaison between III (US) Corps and the Allied Corps affecting airspace management (aviation and air defense) was clearly demonstrated during REFORGER 1987. Cross boundary operations and passage of lines airspace requirements should be coordinated at least (a minimum of) 24 hours (2-3 days is ideal) in advance to allow for staff coor-

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dination, dissemination of information, and input into the Allied Corps Airspace Control Request. (This operation allowed approximately 24 hours).

 The purpose and function of an LNO is so vital to the coordination effort that careful consideration should be given to their selection. Knowledge of airspace procedures is a given, but also, LNOs should possess the equivalent rank of their counterparts to facilitate this effort.

· It is important that the LNO "touch base" with the G3 elements at both the main and TAC CPs before beginning coordination. This facilitates incorporation of any recent plans into the negotiations. Whenever possible, the LNO should keep the Corps TAC CP advised of possible "stumbling blocks" in the coordination effort. Once the coordination has been completed, the LNO should brief the G3 at the TAC CP (or the element controlling the operation at the time).

#### Control

Coordination and deconfliction for the tactical operation was accomplished in a timely and effective manner. However, there was still the problem of informing the "administrative" traffic on the CARS to ensure there were no conflicts with the ongoing tactical missions.

This was accomplished in several ways. First, messages detailing airspace control measures, (Restricted Operations Zones, closure of sections of the CARS, etc.), were distributed through normal communications channels to exercise participants, and to all "It is important that the LNO "touch base" with the G3 elements at both the main and TAC CPs before beginning coordination . . . Whenever possible, the LNO should keep the Corps TAC CP advised of possible "stumbling blocks" in the coordination effort."

Flight Coordination Centers (FCCs). Aircraft flying at night also required a corps mission number, and as these requests were received by the CAE, the restrictions, control measures, etc., were passed to the unit along with the corps mission number. Additionally, all aircraft flight following with the FCC's were informed of any conflicts with their particular mission.

The actual A2C2 of the operations involved several agencies/elements working together. Approximately one hour prior to the beginning of the first phase of the mission, the CAE (utilizing the FCCs) closed those portions of the CARS that conflicted with this operation. The LNO had already briefed and coordinated with the German AF (conducting the SAR missions) and the British RAF, (conducting administrative support missions) on the control measures/ procedures, and timeline involved in the use of the airspace.

The FCCs were the main implementing and coordinating agency for the administrative aircraft operating in the airspace. They provided information on times that specific segments of air routes were opened and closed, and information on when the Jaguar aircraft would enter and exit the area. One aircraft in each flight was required to monitor FCC while in III Corps airspace, so the flight would always have updated information.

The airspace elements and S3/G3s in III Corps all played key roles in ensuring that their units were properly briefed on the airspace control and utilization procedures before aircraft departed on their missions. Coordination between the division Airspace Elements and the CAE was very successful in implementing procedures and providing updated information.

Though the airspace on this night was saturated with aircraft (fixed-wing and 90+ rotary-wing) on night vision systems, there were no accidents or near-misses associated with the congestion. The Command and Control of the airspace during this operation specifically and throughout REFORGER 87 was very successful and involved the coordinated efforts of all nations involved. With the able assistance of the Allied fire support cells, the aviation and air defense elements, liaison officers, and other key staff the airspace personnel management on REFORGER 87 was a total success. 11111

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APO NY - The "Wings of the counterattack.

helicopter battalions. We enjoyed great success aided by sixteen A-10 sorties that resulted in a devastating JAAT. The enemy forces were destroyed in total.

#### **Key Lessons**

Several key lessons were learned during the exercise. First, the OH-58D is a great combat multiplier for the attack helicopter battalions. The OH-58D provides a timely link to the artillery that often is lacking. In addition, it provides the accuracy that is essential to synchronize a JAAT or any other attack helicopter engagement.

The second lesson concerns the command and control of the Brigade. Since aviation covers the entire division sector, it is imperative that we have timely, accurate information on friendly and enemy locations. Additionally, having soft-skinned vehicles for our TOCs prohibits us from moving well forward into the battle area.

To solve both these problems, we have chosen to locate our brigade TAC with the Division TAC. This allows us access to the most current friendly and enemy situations available within Division. We are able to satellite into the M-577's of the DTAC giving us the required protection we need to fight forward. It also allows me to track the flow of the battle with the ADC-M and advise him early on the employment of the brigade.

Overall, the exercise provided great training for the brigade at every level.

As we now focus on preparation for REFORGER '88 "CERTAIN CHALLENGE", the "Wings of the Marne" Brigade stands ready to lead the way in the most modern division in the Army.IIIII

Marne" Brigade has continued to successfully dominate the skies and influence the battlefield with intense training programs. Since our last article in July 1987, several events have occurred in training which have enhanced the Brigade's capabilities toward becoming a more powerful asset in today's modern Army. Our drive for full integration has truly multiplied the 3d Infantry Division's combat potential.

#### Division Level CFX

The 4th Brigade began 1988 with a division level CFX during which the Brigade conducted an FTX. We were called upon to perform numerous missions, I'd like to highlight three of them.

The Division conducted an attack with two ground brigades abreast. While the main effort experienced great success, the supporting attack on the left flank met heavy resistance. The result was a nine kilometer gap exposing a vulnerable flank of the lead brigade. The enemy's 2d echelon regiment was quickly moving to exploit this gap when 4th Brigade was employed to attack. We conducted a continuous attack with the two attack helicopter battalions protecting the flank while buying time for the ground brigade conducting the supporting attack to link up

COL Tempton is Commander, Aviation Brigade, 3d Infantry Division, APO NY.

JULY 31, 1988

with the lead brigade. We were able to dominate the terrain for the period of time required to allow the successful completion of the Division attack and blunted a potentially costly enemy

#### Second Mission

The second mission I'd like to highlight was a delay in which 4th Brigade was augmented with an Infantry Task Force. While the Division was conducting a retrograde river crossing, 4th Brigade was given a sector that extended approximately 10 kilometers north of the river.

Our mission was to delay the enemy attack long enough to and allow for the ground brigades to complete the river crossing. By effectively employing the Cavalry Squadron and the Infantry Task Force to hold key terrain while rotating the two attack battalions to a decisive preplanned series of engagement areas throughout the sector, we were able to buy enough time for the division to complete the river crossing immune to enemy pressure.

The culminating mission was a counterattack conducted by 4th Brigade. We received an Infantry Task Force OPCON. We also had a 155mm Artillery Battalion placed DS to the Brigade. While the ground brigades held the enemy's main attack, we attacked from his flank and rear with the Task Force and both attack



FT. RUCKER, AL — Since my last update, which appeared in the December 1987 issue, the U.S. Army Aviation Board has been busily involved in conductng a variety of operational tests on such diversified items of equipment as a mine dispensing system, a survival vest, a battle dress uniform (BDU) flight suit, a personnel locator system, aircraft tools, and a towable aircraft generator.

#### VOLCANO

One of the major tests completed since my last update was the initial operational test and evaluation of the Multiple Delivery Mine System (VOL-CANO) air system. This mine dispenser was developed to meet the urgent operational requirement of the light infantry division for a way to transport and dispense mines by means of helicopters.

The ultimate objective, however, is to provide a single, common mine dispenser system for both air and ground application. The air delivery system is designed for use on UH-60 aircraft. The Aviation Board performed the initial operational test and evaluation of the VOLCANO at Ft. Lewis, WA, utilizing personnel from the 9th CAB, 9th Infantry Division.

Initial operational test and

Colonel Fredrick is Commander/President, U.S. Army Aviation Board USAAVNC, Fort Rucker, AL.

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evaluation of the Aircrew Survival Armor Recovery Vest Environmental Packets (SARVIP) was begun in October 1987 and was completed in April 1988. Portions of this test were conducted at Hunter Army Airfield, Ft. Stewart, GA; the Naval Air Station, Jacksonville, FL; and Ft. Rucker, AL.

#### A Three-Part System

The SARVIP is a three-part system developed to provide U.S. Army helicopter crews with essential survival components in temperate, hot, and cold climates, and over water. The SARVIP includes survival signal and communications devices, environmental packets, and an emergency recovery capability.

It also provides increased ballistic protection (12.7mm Kevlar armor insert). It can be worn, with or without armor or life preserver unit, over flight clothing.

This test was conducted to provide data for evaluating the compatibility of the SARVIP with aircrew members and with the cockpit environment in the OH-58 (including D model), AH-1, CH-47, UH-1H, UH-60, and AH-64 helicopters.

#### **Tests in Progress**

The Aviation Board began the follow-on test and evaluation of the Personnel Locator System in January of this year. The test is scheduled to be completed in September. This evaluation will determine the military utility and suitability of the system to perform research and rescue missions. The system is intended to enhance the capability of unit aircraft to locate downed aviators who are equipped with either the AN/PRC-90 or the AN/PRC-112 survival radios currently being tested by the USAF.

When used with the AN/PRC-90, the personnel locator system will provide only the azimuth to the downed aviator while the AN/PRC-112 will provide both the azimuth and distance.

The test is now in its third and final phase. Phase I was conducted in the Republic of Panama where the focus was on jungle and overwater environments. Phase II was conducted at Ft. Huachuca, AZ. This phase focused on mountainous and desert environments. Phase III is being conducted at Ft. Rucker, AL, to verify the established reliability, availability, and maintainability criteria.

#### BDU

In February of this year, Aviation Board personnel began the concept evaluation program of the aircrew battle dress uniform (BDU). This two-piece BDU flight suit is similar in appearance to the Army work uniform and it is being evaluated in garrison and tactical environments during day and night operations for compatibility with aircraft and aircraft systems, Army Aviation life support equipment, and mission oriented protective posture gear.

Aviation Board personnel are also currently engaged in the evaluation of the New Aircraft Tool System (NATS) and the (Testing — cont. on page 46)



#### Avionics:

## Joint Integrated Avionics Working Group

by LTC John M. Borky, USAF

WRIGHT-PATTERSON AFB, OH — In language accompanying the Defense Appropriations Bills for Fiscal Years 1987 and 1988, Congress has emphasized the importance of triservice cooperation in avionics.

On March 13, 1987 the Assistant Secretaries for Acquisition of the Services formally chartered the JIAWG to define, develop, and apply a Common Avionics Baseline (CAB) for the Army Light Helicopter Family (LHX) the Navy Advanced Tactical Aircraft (ATA now the A-12), and the Air Force Advanced Tactical Fighter (ATF).

The Joint Integrated Avionics Plan for New Aircraft prepared in response to Congressional tasking and widely referred to as the "Blue Book" describes the strategy, organization, and procedures to be followed in this common avionics initiative.

#### Commonality

Commonality offers the best hope for controlling spiraling costs of the increasingly sophisticated avionics needed to allow emerging combat aircraft to cope with a threat which grows daily in density and sophistication. In order to strike a proper balance between the economic advantages of common avionics and the need to match system designs to individual aircraft and

LTC Borky is Director of Avionics Advanced Tactical Fighter System Program Office, Wright-Patterson AFB, OH. missions, the JIAWG effort is focussed on a set of common hardware and software modules which a system architect can select, combine, and program to implement particular capabilities.

The JIAWG strategy is predicated on establishing a common architecture, a common technology baseline, and an inventory of hardware and software building blocks. The starting point for the CAB is an Advanced Avionics Architecture (A3) which defines the top level functional partitioning, interfaces, and system control strategy.

#### A3 Hierarchy

The A3 is to be implemented through a hierarchy of hardware and software item specifications and standards, design and test standards, and other documents. The CAB concept depends on maximum use of implementing technologies like VHSIC and Ada, functional technologies like ICNIA and INEWS, and integration technologies like PAVE PILLAR.

The JIAWG is tightly coupled to the participating weapon system programs. The decision making body, the Steering Committee, is composed of senior managers from the involved program offices. Under the Steering Committee, a structure of task groups and subtask groups drawn from program offices and supporting organizations works technical issues and develops the CAB documents. Industry is heavily involved in developing specs and standards and in applying the evolving CAB in system designs.

#### Specifications and Standards

The heart of the JIAWG process is the preparation of draft specifications and standards, each consisting of a baseline document containing the agreedupon content plus an issues document which controls the areas requiring resolution. Successive versions of these document sets are disseminated via hard copy and a JIAWG electronic bulleting board system (BBS) to qualified readers.

Both industry and government organizations with expertise in the areas involved are invited to provide comments and technical inputs - the price of admission to the JIAWG dialog is data which can be shared with the other participants. The documents also go to the ATF. A-12. and LHX contractors as guidance so that current design activities have maximum probability of converging to the final CAB configurations. As issues are closed, updated versions are issued until the baseline is complete and ready for application in full scale development.

#### Establishing the Group

Over the past year JIAWG activity has been concentrated on establishing the working group as a functioning joint organization, defining the rules and procedures, laying out plans and schedules, identifying areas of potential commonality and developing initial specifications and standards. The latter include an A3 standard which is now in (JIAWG — cont. on page 46)



FT. RUCKER, AL — Doctrinal literature to support U.S. Army Aviation is changing. Before 1983, Army Aviation doctrine was managed by existing branches; for example, Infantry, Armor, Field Artillery, and Transportation.

With the activation of the Aviation Branch, the proponency for our doctrinal literature was shifted. The prefix "1" was designated for numbering aviation publications, and we began building our inventory of doctrinal literature.

#### ADTLP

In June 1987, the TRADOC Commander set forth guidance for updating the Armywide Doctrinal and Training Literature Program (ADTLP). He approved a publications hierarchy with guidelines for managing the ADTLP and a revised definition of doctrine which conforms with JCS Publication 1.

He also established the requirement for a Doctrinal Review and Approval Group (DRAG). The DRAG reviews all "principles manuals" in the preliminary and coordinating draft stages to ensure consistency of doctrine across the scope of the combined arms team.

DCSDOC has begun revising TRADOC Regulation 11-7: TRADOC Doctrinal and Training Literature Programs. It prescribes

LTC Edwards is Director, Directorate of Training & Doctrine, USAAVNC, Ft. Rucker, AL.

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policies and responsibilities for the development and management of the ADTLP, which are derived from requirements identified through the Concept-Based Requirements System (CBRS).

The regulation includes doctrinal literature development standards, revised development and production time lines, and relaxed production and coordination requirements. A draft of 11-7 was fielded in August 1987, and

"Based on the guidance received, we reduced our total number of doctrinal publications from 44 to 27."

DCSDOC projects the completion of the final document in the third quarter of FY88.

#### Consolidation

At the Aviation Center we began reviewing our products to align with the new ADTLP hierarchy, focusing on the consolidation of material to eliminate redundancy and reduce the inventory. Based on the guidance received, we reduced our total number of doctrinal publications from 44 to 27.

Field manuals were reduced from 32 to two while training circulars were increased from 12 to 25 to align with the definitions within the hierarchy. Field circulars were eliminated from the program.

To reduce the number of publications required to support students in the various courses taught by USAAVNC, we defined a professional library to be retained by aviation soldiers in the grades of E7 and above. The library was established for each aviation MOS, both officer and enlisted, and consists of not more than 10 professional publications the soldier needs for personal reference in his or her career field.

A Basis of Issue Plan (BOIP) for aviation units, by Modified Table of Organization & Equipment (MTOE) down to the company level, was developed to ensure that units had all the necessary publications to perform their missions without being deluged by unneeded and thereby unused volumes of text. The BOIP will be used to establish pinpoint distribution of the "right publication to the right unit."

#### Implementation Schedule

Full implementation of the initiatives listed here will take place over the next three to five years. From this effort we expect to gain a smaller, more concise set of publications for aviation units and soldiers that focus on warfighting doctrine with tactics, techniques, and procedures to support it. We will also realize a cost savings in dollars and manpower for future revisions of doctrinal manuals.



Ft. Wainwright, AK — For those few who may not know, "Williwaw" is native Alaskan for the "sudden, violent winds" which blow throughout the Aleutians and Alaska.

Williwaw is also the new nickname for the Army's youngest divisional aviation brigade. The Williwaws of the 6th Infantry Division (Light) continue to serve proudly "above the line" in America's last frontier, Alaska.

It has been a busy year for Williwaws. In his second year of command, COL P. Wayne Gaskins has led the brigade to mission-ready status capable of worldwide deployment, but with a primary mission of defending Alaska and the Aleutian Islands.

#### 4th Squadron 9th CAV

The 4th Squadron 9th Cavalry, commanded by LTC Jim Beauchamp, has had a banner year in training. In addition to the normal mission of providing reconnaissance and limited security for the division, the Buffalo Soldiers have become one of the Army's best at conducting Joint Air Attack Teams (JAATS) and Combined Arms Live Fire Exercise (CALFEXEs) with the Air Force.

Teaming with A-10's from the 343d Tactical Fighter Wing at Eilson AFB, the CAV regularly demonstrates expertise at synchronization of fires with the in-

MAJ Schock is Commander of C-228th Aviation, Ft. Wainwright, AK.

JULY 31, 1988

fantry, artillery, aviation and the Air Force. Battle captains are CPT Kim Welliver, Commander, C Troop and CPT Wally Golden, Commander B Troop.

CPT Mark Hinton commands the Headquarters and Headquarters Troop. The Squadron's Ground Toop is E Troop, 4th Cavalry, a reserve component roundout unit located at Madison, WI.

#### HHC

The Brigade's Headquarters and Headquarters Company, commanded by CPT George A. Hicks, continues to provide excellent support to the entire brigade. In addition to providing the very best Class I, III, V and VIII support, HHC also has six OH-58A aircraft which provide the division with command and control capability.

#### Assault

The brigade's two assault helicopter companies are separated by more than 350 miles. Foxtrot Company, 123d Aviation, formerly the 187th (Crusaders) Assault Helicopter Company, is stationed at Ft. Wainwright and provides direct support to the 2d Infantry Brigade.

Golf Company, 123d Aviation, formerly the 120th (Arctic Knights) Assault Helicopter Company is stationed at Ft. Richardson and provides direct support to the 1st Infantry Brigade. Both assault companies are equipped

with six UH-1H Arctic-prepared aircraft. Foxtrot Company is commanded by CPT Tom Hart, and Golf Company is commanded by MAJ Gordon Henry.

The Brigade's attack battalion is a reserve component AH-1 Battalion which is currently being formed in Minnesota.

#### Lift

The Brigade also has a medium lift helicopter company attached. The "Sugarbears" of Charlie Company 228th aviation, formerly the 242d Aviation Company, are an echelon above division unit. The company, with 16 CH-47Cs, is commanded by CPT (P) Mike Morgan.

Among their many missions is the mission of High Altitude Rescue Training (HART). The unit supports the mountaineering team from the Army's Northerm Warfare Training Center (NWTC) and conducts rescue training each spring on America's highest mountain, Mt. McKinley.

The soldiers of 2d Platoon, Alpha Company, 2d Battalion, 58th Air Traffic Control Battalion provide excellent ATC support to the brigade. The platoon is commanded by CPT Bill Robson.

Since last summer's report, Williwaws of the Aviation Brigade have participated in numerous field and command post exercises and have flown more than 18,000 hours.

All brigade units have received external evaluations and all have been judged combat ready. Joint training with the air Force, Navy and Coast Guard has demonstrated the warfighting readiness of the brigade. Ready for any mission, anywhere, anytime, Williwaws of the Aviation Brigade 6th Infantry Division (Light) remain: Above the Line!



ST. LOUIS, MO — The Defense Acquisition Board (DAB) reviewed the Light Helicopter Program (LHX) on June 9, 1988 and recommended entry into the Demonstration/Validation (DEM/VAL) Phase of the program pending availability of funds.

#### Pre-briefings

Prior to the June 9 DAB, the LHX Program Manager, MG Ronald K. Andreson, gave two significant pre-briefings. First he briefed the senior Army leadership on May 16, 1988, at the Army System Acquisition Review Council, or ASARC, chaired by Mr. Michael P. W. Stone, at that time acting Under Secretary of the Army.

The ASARC briefing was approved without any significant changes. During this briefing HQDA, TRADOC-the user representative and the LHX program office fine tuned the Army position in preparation for the second and final prebrief before the DAB, the Conventional Systems Committee (CSC).

The office of the Secretary of Defense (OSD) CSC was chaired by Mr. Donald Fredericksen. The CSC was briefed on May 17, 1988. The CSC granted approval to take the LHX program forward to the DAB. The CSC did voice two concerns to

LTC Weand is Assistant Program Manager, T-800 Engine, LHX, PMO, Avlation Systems Command, St. Louis, MO the LHX PM for the DAB: first the LHX PM and industry should investigate the possibility of having international participation in the program, on a cost sharing basis if possible, and the second and overriding concern was to the affordability of the program.

On June 9 MG Andreson briefed the DAB covering the salient points and concerns listed in the paragraphs below.

Incorporating the LHX into Army Aviation by 1997 supports the Army Aviation modernization planned high-low mix of sophisticated and less sophisticated aircraft. The LHX production rate of just over 200 aircraft per year allows the retirement/replacement of 200 aircraft per year which will help attain and support the fleet average age policy of ten years for attack/reconnaissance helicopters.

Additionally, technology proven on the LHX will be incorporated, where practical, into modifications to improve the mission effectiveness of the current fleet.

The acquisition strategy and plan for the LHX DEM/VAL phase incorporates the technological gains achieved during the concept exploration phase and focuses them into four major areas, finalizing system requirements; finalizing the electronic architecture: demonstrating the technical capability of the mission equipment package in the laboratory and surrogate aircraft; and performing preliminary design of the airframe, substantiated by wind tunnel tests and engineering simulation, as shown below.

These efforts are aimed at achieving an LHX with an empty weight of 7500 pounds and an

#### LHX DEM/VAL APPROACH





### LHX | KEY FEATURES



average unit flyaway cost of \$7.5 million, in FY88 dollars. Industry will conduct trade studies to determine how to achieve the best aircraft system, incorporating the key features as shown in the figure above, while staying within the specified weight and cost restraints.

After briefing the DAB on the Army's cost estimate for the program, the Program Manager concluded his briefing by emphasizing how the LHX program supports the Aviation Modernization Plan, complies with OSD guidance, is affordable, ready to start, and most importantly fills the urgent need for a new light helicopter capable of performing armed reconnaissance, light attack, and airto-air combat.

Based on the DAB recommendation, the official approval to proceed into the DEM/VAL phase was provided to the Army via a Secretary of Defense Milestone I Acquisition Decision Memorandum. This memorandum was signed by Mr. William H. Taft, Deputy Secretary of Defense for Acquisition, on June 17, 1988. The approved acquisition schedule is shown in Figure 3.

The decision memorandum states "the LHX program for fielding a lightweight/armed reconnaissance helicopter is authorized to proceed into DEM/VAL phase consistent with available LHX FY88/89 funding and Defense Resource Board Army Aviation Modernization Plan decisions during the FY90-94 Program Operating Memorandum (POM) review. The Undersecretary of Defense for Acquisition has approved the LHX program baseline .... "

The Defense Resource

Board finalized agreement, on June 16, 1988, that the LHX would be fully funded, to Army estimates, for the POM years FY90-94.

The decision memorandum also contains guidance for the Army to update the Cost and Operational Effectiveness Analysis. This is to be done by April 1990 to support POM issue resolution.

#### **DEM/VAL** Timeframe

The DEM/VAL timeframe should be used to resolve differences between OSD and Army cost estimates to support the Milestone II decision to enter Full Scale production.

Finally, the memorandum directed the implementation of Total Quality Management including the objectives of integrated design and manufacturing process aimed at pro-(LHX — cont. on page 45)

#### Safety:

## Army Safety Success A Tribute to ASOs

by COL (P) Marvin E. Mitchiner

FT. RUCKER, AL — At the AAAA National Convention this past April, I had the pleasure of meeting CW2 Gary Braman, who received the James H. McClellan Aviation Safety Award for his accomplishments as aviation safety officer for S Troop, 4th Squadron, 11th Armored Cavalry Regiment, a tactical unit operating on the border between East and West Germany.

His unit's aviators flew UH-1 and EH-1 helicopters 3,600 hours in 1987 without a single Class A, B, or C mishap.

CW2 Braman's selection for the prestigious McClellan Award also honors the dedicated aviation safety officers all over the Army who, in addition to performing as operational pilots, take on

COL Mitchiner is Director of Army Safety, Ft. Rucker, AL. the responsibility for carrying out their commanders' aviation safety programs.

#### Tremendous Strides

Tremendous strides have been made in Army Aviation safety since 1958, the year we began collecting Armywide aircraft accident data. That year, the major — what we now call "Class A" — aircraft accident rate was 54.3 accidents per 100,000 flying hours.

That was also the year we started a formal course to train aviation safety officers — a move that has paid off many times over.

Our FY 88 Class A accident rate through the end of May stood at 1.87, and with only four months to go, we have the chance to make FY88 the safest year in Army Aviation history. Looking back at how far we've come, we must give credit to commanders and their right arms, the aviation safety officers.

#### **Mission Demands**

Our success in Army Aviation takes on even greater significance when we consider that it was achieved in spite of everincreasing aviation mission demands. Over the years, mission demands and exposure have placed tougher requirements on top of alreadytough requirements.

In fact, about 90 percent of the total flying hours of our combatready divisions are in the highrisk environment; that is, terrain flight, night with night vision goggles, slingloads, and hoist missions.

But while we are flying these more demanding missions and our exposure is greater, our accident rates are the lowest ever. And since every accidental loss directly affects readiness, the work our ASOs have done assisting their units in the prevention of accidents has paid off in increased warfighting power.





#### Simulators (continued from page 4)

Our AH-64 APACHE simulator meets the neartotal mission training that we desire in Army Aviation. The Apache Combat Mission Simulator (CMS) can completely integrate the AH-64's flight performance with its weapon characteristics. The CMS includes two totally independent cockpits that have a full six-degree-of-freedom, motion system. Each cockpit has a daylight color visual system that provides realistic out-the-window computer graphics. The CMS visual system, called the Army Tactical Digital Image Generation (ATACDIG), can actually provide computer generated tactical scenarios.

The pilot in command and the weapon systems operator can experience accurate Forward Looking Infrared Radar (FLIR) environments, replicating the essential ingredient of the tactical environment. Our crew members can practice target observation and engage the enemy with a full complement of available weapons. This simulation saves thousands of dollars in actual ammunition costs and provides us a safe tactical environment in which to train. The target engagement is so realistic our crew members can actually observe rocket explosions and smoke during their target engagement.

Our AH-64 simulator is providing realistic tactical training, but what about a simulator that can actually cut the cost of learning to fly? We are considering a flight simulator equipped with lowcost computer graphics visuals for possible use in our primary flight training phase. We recently unveiled a very inexpensive UH-1 computer generated visual scene simulator at the Aviation Center. This simulator was developed for us by the Army Reasearch Institute (ARI) here at USAAVNC.

Learning to fly a UH-1 without leaving the ground was merely an idea to some of us several years ago. Today, however, after completing a successful proof-of-concept using Initial Entry Rotary Wing (IERW) students, a visual system was added to one of our UH-1 simulators. Using this rapidly developing visual system technology, it may now be possible to acquire the skills necessary to fly helicopters without leaving the ground.

The Army Research Institute at the Aviation

Center is conducting the research effort, using a random sample of flight students in the Army's only UH-1 visual flight simulator. Our UH-1 visual simulator program is called THESIS, which stands for "Training Helicopter Initial Entry Students in Simulators." Through computer graphics, our UH-1 student pilot can "see" a world outside the simulator cockpit. They can actually look out both the front and side cockpit windows. Once in the air, he or she can actually fly over computerized green rolling terrain, complete with computer generated cultured features and miniature towns.

To meet our future training requirements, we will continue to investigate new technology while seeking realistic simulation to meet training needs and to augment the shrinking number of flight hours. Our helicopter pilot of tomorrow may be able to enter a field combat simulator, enter all the known and possible threat data and fly a combined arms mission on a simulated AirLand Battlefield. Whether in the actual aircraft or simulator — this training realism will help us remain "Above the Best."

#### LHX (continued from page 43)

viding continuing quality improvements during the program.

The Army has completed the initial steps leading to the development and acquisition of the LHX helicopter. The LHX will provide Army Aviation enhanced mission readiness and mission effectiveness far beyond any helicopter currently being flown. The Army and in particular Army Aviation has taken a great stride forward toward operational capability and readiness in the 21st century!

#### LHX PROGRAM SCHEDULE



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#### JIAWG - cont. from p. 39

its first update module specifications centering on 16-bit data processing and overall specifications for such things as packaging, backplanes, and connectors.

Work has also started on the content of a standard software engineering environment and on functional avionics areas such as electronic combat and communications/navigation/identification. Well over 100 government personnel and several hundred industrial personnel have participated.

#### Definitions

The goal has been to make an early start on definitions which heavily impact basic system characteristics and design decisions and on areas where a reasonable factual basis in data and system requirements exists.

Each Task Group is preparing detailed work plans for identifying potential common items gathering the necessary data, and drafting and refining the appropriate documents. The JIAWG schedule is driven both by the availability of data from laboratory and system program activities and the need dates of the using weapon systems.

A crucial point is that no document can be published or used until an adequate base of data. preferably from actual hardware/software implementation, is in hand. Final validation will occur on the basis of full scale development and qualification of designs with whatever refinements of the specifications and standards may be dictated by that experience. A significant body of additional JIAWG documentation is scheduled for initial release in the last half of 1988.

#### **Two Problems**

In addition to the inevitable difficulties caused by differences among the Services in organization and system acquisition practices, the JIAWG has had to cope with two problem areas in particular. These are the greater than anticipated scope and complexity of the task, complicated by a scarcity of solid data on avionics of the class being developed and the impact of competitive sensitivities with accompanying limits on the release and exchange of contractor data.

The program offices have worked hard with their contractors to establish the policy that competitive restrictions will be held to a minimum, recognizing that good ideas which are not part of the CAB are likely to be excluded from allowable FSD designs. Contractor-to contractor dialog has begun to bear fruit in working technical issues to the benefit of all parties, and the flow of data to the task groups has improved. The JIAWG is committed to publishing the CAB documents as rapidly as information permits.

#### Progress

Many of the tasks laid down in the Blue Book could not be completed for the reasons discussed. On the other hand faster than anticipated progress has been made in areas like software tools and economic analysis.

More importantly, the organization has now matured and stablized, and the plans for completing the CAB are now more realistic although still very aggressive and dependent on timely completion of a wide range of technology and prototype work.

The fact that the JIAWG is essentially a program office activity is vital, because this provides both a forcing function for completion of the CAB by the dates needed for FSD and a sanity check to ensure that the JIAWG product is truly mature and suitable for use in real systems.

Years of work remain, and the final level of commonality which is truly achievable and justified must be established through objective evaluation of the entire avionics suite. It is clear, however, that the economic and supportability benefits justify the effort and that unprecedented levels of standardization are now becoming technically feasible.

#### Testing cont. from p. 38

10 Kw, 28 Volt Aviation Direct Current Generator Set at the 24th CAB, 24th Infantry Division. The objective is to evaluate the ability of the NATS to enhance aviation maintenance and safety in the user's environment.

The New Aircraft Tool System should provide better tool accountability, increase the immediate availability of tools for inspection and repair purposes, and reduce potential foreign object damage (FOD) hazards.

The generator set is intended to replace the 7.5 Kw generator sets currently being used to support aviation maintenance operations.

The Aviation Board stands firm in its motto of Fidelis Operanti — fidelity to the operator.

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#### Lt. Generals

SAINT, CROSBIE E. CINCUSAREUR & 7TH ARMY COMCENTAG APD NY 09403

#### Colonels

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ANTHONY, DARRELL R. CMR, BOX 207 FT MCPHERSON, GA 30330 AULT, THOMAS E. HINC, 17TH AWN BDE, EA AVN APIO SI 96301 CASE, LARRY W. 409 W. VOELTER AVE KILLEEN, TX 78541 FULLER, GEORGE P. HARDING APTS, APT. 10B BOX 292, RR 3 ENTERPRISE, AL 36330 GLOVER, JODIE R. A CO, 8/158TH AVN REGT. APO NY 09457 GRAY, DWIGHT P. AGUSTA INTERNATIONAL 70 TRANS BN (AVIM) APO NY 09028 KNIGHT, WALTER J 357 BEACON RIDGE LANE WALNUT CREEK, CA 94596 KOPP, MICHAEL A. A CO, 7-159TH AVN REGT. BOX 1259, APO NY 09140 LIMA, RICARDO V. 611 MORGAN LANE ENTERPRISE, AL 36330 MELLA, SHERWIN J. PO BOX 445 FT. HUACHUCA AZ 85613 SCHOFIELD, GEORGE R. PSC BOX 4338 APO MIA 34001 SMITH, ROBERT L 3065 SOUTH BUCHANAN ST. ARLINGTON, VA 22206 UDECK, MICHAEL S. HHC 70TH TRANS BN APO NY 09028 WESSELER, PAUL D. B CO, MI BN (LI) APO MIA 34042 WHITEHILL, WILLIAM H. 101ST AJT GENERAL CO. FORT CAMPBELL, KY 42223 WING, STEVE A. RD 1, BOX 205A COCHRANVILLE, PA 19330 WISE, JAMES F. CO G, QK FIX, 4TH AVN BDE APO NY 09185 CW3s

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#### WO1s

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BACCA, JAMES A. 117 CANDLEBROOK FORT RUCKER, AL 36330 MCGAHEN, NEIL R, JR PO. BOX 70673 FORT BRAGG, NC 28307

#### Enlisted

CAMPANAS, JAMES P. SPC A CO, 8/158TH AVN REGT. USMCA-WSB, BOX 1333 APO NY 09457 APO NY 09457 COONEY, JAMES T. 15G 209 MANNING DRIVE COPPERAS COVE, TX 76522 JOHNSTON, JEFFRY L. E4 1970 OAK CREEK LANE NO. 69 BEDFORD, TX 76022 KIHARA, JASON S. E5 131 JACKMILLER BLVD. BLDG, 9, APT. 6 CLARKSVILLE, TN 37042 KING, DAVID C. SFC BOX 66 BLODGETT MILLS, NY 13738 NOBLE, GARY L. E4 PO. BOX 286 COLFAX, WA 39111 POTTER, ALEX E4 213TH AVN CO, BOX 235 APO SF 96271 APO SF B0271 POWERS, JEFFREY M. SPC CO A, IST/502ND INF REGT FORT CAMPBELL, KV 42223 SHOOPMAN, DENNY K. CSM 3108 CEDAPWOOD VLGE PL PENSACOLA, FL 32514 SICCAMA, RICHARD B, SGM S26 W, ALVERDEZ AVENUE CLEWISTON, FL 33440 SPARKS, DWAYNE T, SGT 163 BRIGHT STREET SAN FRANCISCO, CA 94132 STEWART, GREGORY R. SFC 918 BIRCHWOOD CT NEWPORT NEWS, VA 23602 STREB, SCOTT J. E4 2125 E HWY 190, APT, 27 OPPERAS COVE, TX 76522 YBARBO, JOE R. SFC HHT, 1/17TH CAV, 82ND AVN FORT BRAGG, NC 28307 Civilian BRINEY, FRANK E. PRKR HANNIFIN AEROSPACE 30981 WESTGREEN DRIVE LAGUNA NIGUEL CA 92677 CORNELSON, RITA A. THE PARK AT PRESA 2233 SE MILITARY DR, 414 SAN ANTONIO, TX 78223 PROST COPEND DROST, GREGG A. 4344 W. HIGHLAND DR, #107 MACON, GA 31210 4933 HOLMES DRIVE CORPUS CHRISTI, TX 78411

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#### Growing (continued from page 8)

pany commander was flying. The platoon sergeant also became the unit maintenance officer in the flight companies. Only one 15T maintenance officer was assigned to each battalion and he was located at the Headquarters and Headquarters Company with the unit maintenance platoon.

A recent change has transformed that platoon into a separate company. Since the flight companies are sometimes isolated from the maintenance company, the crew chief's job has taken an even greater importance. The need for more experience on the flight line prompted the branch to submit a proposal to designate the crew chief positions to be at least Specialist.

AOE also directed us to live with fewer supervisors which affected the span of control we were used to in our maintenance platoons and intermediate maintenance units. We propose the technical inspector should be at least a Staff Sergeant. Since we are losing the SSG leadership, due to personnel cuts, the Technical Inspector will have to take up the slack and be a supervisor as well as technical expert.

#### **Grade Increase**

Technical expertise and need for experience generated the need to increase the grade for the CH-47D flight engineers and crew chiefs. A proposal being staffed would put at least one SSG on each aircraft. The improvements made on the CH-47C included lightweight rotor blades, additional hooks, and improved avionics and flight stability controls.

All the aircraft have seen improvements in the on-board electronics systems. The BLACK HAWK and APACHE have very little hydraulics compared to the HUEY and old CHINOOK because of advanced electronic flight controls.

The most recent addition to the Aviation Branch was the avionic repairers from the Signal Corps. CMF 28 was transferred in 1986 and work began on incorporating them into CMF 67. The increased amount of electronics and high-tech equipment, like laser designators, radar jammers and detectors, digital flight controls has redefined the work loads of the maintenance units. It is imperative for our platoon and maintenance sergeants to become familiar with the electronic aspects of the aircraft. The only way to become familiar is through close contact with the avionic repairers. Integrating avionics into CMF 67 was the most logical way to ensure that contact.

Work is already underway to recode the 35 series MOS to 68 series in all aviation table(s) of organization and equipment and tables of distribution and allowances. By September 1989 all avionic personnel will be reclassified and CMF 28 will no longer exist as a separate CMF.

#### **Changes in Flight Operations**

Changes in Army Aviation are not limited to maintenance, our flight operations personnel were also fragmented before the formation of the Aviation Branch. One of the first major changes in personnel that took place after forming the Branch was the establishment of CMF 93, Aviation Operations. The CMF consisted of MOS 93H and 93J, air traffic control tower operators and radar controllers transferred from CMF 64. MOS 71P also came from CMF 64 and was redesignated 93P, Flight Operations Coordinator. The ATC maintainer 26D was transferred from the Signal Corps and redesignated 93D.

Since CMF 93 was originally formed, many changes have occurred as a result of AOE and the needs of the Aviation Branch.

Army of Excellence demands we have the proper mix of soldiers in each unit as well as an adequate grade structure to ensure mission accomplishment. The 93P grade structure had a bottleneck at the SGT level which had to be corrected not only for the well being of the soldiers but for the success of the MOS.

The conversion of aviation companies to battalions increased the need for senior level operation sergeants but we couldn't grow the senior level soldier because of the bottleneck at SGT. To fill our requirements, we accepted transfers from other CMFs at the SSG, SFC and MSG level. It was not really fair to the 93Ps who had served a long time in the MOS but none-the-less was done. In May 1988 a change to the structure of 93P was approved and recoding of positions is already in progress. The change eliminates the bottleneck and aligns the senior MSG and SGM positions in the battalion and brigade levels. All positions should be recoded by April 1989.

The ATC personnel were divided into two MOS,

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#### Training (continued from page 20)

ship ability, appearance, daily physical fitness, discipline, merits/demerits, drill and ceremonies, and academic averages. The students undergo two diagnostic Army physical fitness tests during the course.

The final test is used in determining the distinguished and honor graduate, along with the other factors listed previously. By using the total soldier concept, the distinguished and honor graduates are good examples of professional NCOs. The other students also learn their strengths and shortcomings, which gives them a base from which to improve and maintain.

The Army Aviation Center currently has three MOS BNCOCs: 93C Air Traffic Control Operator, 93P Air operations Coordinator, and 93B Aerial Observer Course.

These courses are approximately four weeks long. During BNCOC the students live in openbay billets, march to the dining facility, enjoy the opportunity to participate in local fun runs, and show their handiwork in community projects. All of this fosters teamwork, leadership ability and student interaction; and that leads to a full implementation of this year's theme, "Training."IIII

#### Growing (continued from page 50)

93H, ATC Tower Operator and 93J, ATC Radar Controller. In an effort to provide flexibility for the ATC commander and provide a feasible grade structure for the soldiers, these two MOSs were combined into 93C ATC Operator. The positions have already been recoded on all the TO&E and TDA documents and as of April 1988 about 10 percent of the personnel have been reclassified.

It is expected by April 1989, every 93H and 93J will be certified dual rated and converted to 93C. The radios, radars and navigational aids utilized by the 93C are maintained by the 93D. The 93D, ATC Systems Repairer, was formally 26D and 35L with the additional skill identifier B4. In the early stages of negotiations with the Signal Corps for proponency of CMF 28, the subject of where the 26D belonged arose.

Due to the exclusive relationship of 26D to ATC, it was determined it should be part of CMF 93.

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The Signal Corps had already staffed a proposal to combine the MOS and ASI; therefore, when the decision was made to transfer proponency, the MOS number was changed to 93D.

We are presently in the midst of revamping the training at Ft. Gordon to align it with the increasing tactical mission of ATC. Tactics and identification of the enemy is the job of our newest addition to CMF 93, the 93B Aeroscout Observer.

The 93B is our only full-time flying enlisted MOS. Only in existence a short time, the 93B has proven its worth to the Aviation Branch and the Army's warfighting capabilities. The 93B will be on the forward edge of the battleline, directing our aviation gunships to the enemy.

As more OH-58Ds are produced and armed, he will gain the responsibility of gunner. He will not only be able to locate but also destroy enemy targets. In this day and age of officer cuts the Aviation Branch was indeed fortunate to be one step ahead of Congress and have an enlisted man in the cockpit of our OH-58s. As our combat aircraft get lighter, smaller, and quicker we can anticipate a greater role of the enlisted personnel in the direct combat mode of operations.

The picture of Army Aviation certainly has changed in the past twenty years. Not only do we have new generations of flying machines, decked out with digital displays and television screens in the cockpits, but a new generation of enlisted soldier.

Our new soldiers must be and are smarter than their predecessors. They will have more responsibility at a much earlier time in their career. They will be expected to maintain, control and fly the latest technology we can buy.

The enlisted force has always been considered the backbone of the Army but the future will require much more. As Congress demands us to continue their "do more with less," policy, we must be prepared to train and support our enlisted force so it can, "Be all it can be." IIIII

#### CMF93 (continued from page 16)

 Provide technical and tactical job training for NCOs.

 Improve collective mission proficiency through increased individual NCO proficiency.

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Warrant Officer Candidate (WOC) Ronald D. Gray, assigned to C Company, 1/145 Aviation Brigade (Air Assault), Ft. Rucker, AL talks with local media following his award of the Soldier's Medal on May 6 Gray



was cited for heroism in saving the life of a fellow flight student when their UH-1 HUEY crashed near Troy, AL on Oct. 22, 1987.

The Association of Old Crows will meet October 10-13, 1988 in Anaheim, CA for the 25th Annual Electronic Warfare Technical Symposium and Convention. The technical sessions are classified. The session theme is: "A Firm Foundation — A Challenging Future." For more information, contact AOC at (703) 549-1600 or 1-800-262-6958.

COL John E. Kempster, director/commander of the U.S. Army Aviation Research and Technology Activity's Aviation Applied Technology Directorate (AATD), Fort Eustis, VA, recently flew the French Aerospatiale Panther helicopter. AATD hosted three days of flight demonstrations and a static display of the multipurpose aircraft at Fort Eustis.

Command Sergeant Major George L. Horvath III (below, left) CSM of the U.S. Army Forces Command (FORSCOM), Fort McPherson, GA, spoke during an Honor Eagle Ceremony honoring Staff Sergeant James K. Prier (second from left) and SPC Patricia A. Werner (right). Prier was honored as the FORSCOM Noncommissioned Officer of the Year, while Werner was honored as FORSCOM Soldier of the Year. Command Sergeant Major of the Army Aviation Center, CSM John P. Traylor (second from right), expressed pride in the accomplishments of the two Ruckerbased soldiers. For winning the FORSCOM titles, each received the Army Commendation Medal, a \$1,000 U.S. Savings Bond, and a Letter of Commendation from the commanding general of FORSCOM. Prier is a member of the Aviation Center Chapter of AAAA





The following information is provided by the U.S. Army Aviation Center at Ft. Rucker, AL:

Initial Entry Rotary Wing Aviator Course 87-17 (3/17/88): WO Bryan E. Branham, Distinguished Graduate; WOs Douglas D. Dahl, II, John D. North, Randall L. Sindelir, John S. Henderson, Honor Graduates.

Initial Entry Rotary Wing Aviator Course Class 87-18 (4/1/88): 2LT Mark Stevens, Distinguished Graduate; 2LT Albert Woo, Honor Graduate.

Initial Entry Rotary Wing Aviator Course Class 87-18 (4/1/88): WO Susan E. Davis, Dist. Graduate; WOs Mark T. Christianson, Matthew D. Deppen, Glenn A. Beck, Honor Graduates; WO Joseph P. Brennan, Honor Graduate and Leadership Award.

Initial Entry Rotary Wing Aviator Course Class 87-19 (4/13/88): 2LT Patrick H. Mason, Distinguished Grad.; 2LTs Loyd C. Lowery, James B. Anderson, Honor Grads. Initial Entry Rotary Wing Aviator Course Class 87-19 (4/13/88): WO Dean R. Katch, Distinguished Grad; WO Ernest A. Scott, Honor Graduate and Class Leader; WOs Francis J. Devine, Randolph A. Welch, Peter A. Nelson, Honor Graduates.

Aviation Officer Advanced Course Class 88-1 (3/25/88): CPTs Walter P. Rainey, Larry A. Carpenter, Larry J. Ciancio, Robert L. Hammond, Jr., James C. McCorwille, Richard C. Stockhausen, Marilee D. Wilson, Christopher C. Romig, Michael L. Roberts, Master Tacticians; CPTs James J. Fisher, Reynold W. Jordan, Jr., Catherine A. McNerney, Michael D. Ryan, Kent N. Schwaneveldt, 1LT Cynthia S. McClelland, Master Logisticians.

Aviation Warrant Officer Advanced Course Class 88-2 (2/26/88: CW2 Patrick H. King, II, Distinguished Grad; CW3s Nathaniel W. Williamson, Wayne C. Carlson, Arthur C. Redmond, Jr., Terry A. Morich, Honor Graduates.

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#### Basics (continued from page 14)

ciency in our basic job (PMOS). As seniors, we must mentor and guide the E-5 and E-6 (technician NCO) and give them the support and responsibility to take care of the soldier.

Fellow NCO's, this is our branch and it is about time we started developing ourselves and our juniors to run it. To the commander who selects a 1SG or CSM from other than an aviation CMF, remember, it's your branch too and you have an impact on its future when you select NCO's for these key leadership positions.

I guess what I'm saying is let's get off our backsides, get out of the hangar, get off of the flightline, and get off of the parade field and into the barracks. Let's get back to basics IIIII

#### CMF 28 (continued from page 18)

traces circuitry, tests, aligns and adjusts the equipment to ensure maximum operating efficiency.

The 35R (Avionic Special Equipment Repairer) will be converted to a 68R who will be responsible for the intermediate and depot level maintenance of terrain-following avoidance radar, Doppler navigation radar, weather radar, station keeping radar, radar altimeters, identification friend or foe, tactical air navigation and inertial navigation sets. The 35R replaces faulty components and individual parts down to the printed circuit board level and tests, aligns and adjusts equipment to ensure optimum accuracy.

At skill level 3, soldiers from these four specialties are capable of isolating and replacing faulty components down to the printed circuit board level. They also maintain records of both equipment and repair parts as well as maintain a technical library.

Once CMF 28 soldiers are promoted to staff sergeant, they become a 35P (Avionic Equipment Maintenance Supervisor). The 35P responsibilities include supervising the maintenance of all aviation electronic systems at the intermediate and depot level as well as performing the duties of each feeder MOS when required. In addition, the 35P provides technical assistance, establishes production and quality control procedures, assigns duties to personnel and assists in equipment modification. When 35Ps are incorporated into CMF 67, they will be redesignated 68P at skill level 4 and 67Z at skill level 5.

In addition to the MOS-producing courses, DOET will also train the five additional skill identifiers associated with CMF 28.

Planning and implementing such a move is a major undertaking and requires a tremendous amount of cooperation and free communication between the training department at Ft. Rucker and school personnel at Ft. Gordon. There is still a considerable amount of work to be done to ensure that CMF 28's transition to Ft. Rucker is a smooth one. The Department of Enlisted Training is prepared to answer the challenge and is moving forward toward its goal of 28 in 88.IIII

#### Horizontal (continued from page 12)

being developed which will allow the BNCOC soldier to practice skills learned in the classroom.

The next course in the horizontal training concept is the ANCOC. The skill level 40 for 93B, 93C and 93P MOSs is also taught by the NCO Academy at Ft. Rucker. The common core is again developed by the Sergeants Major Academy at Ft. Bliss. The MOS-specific lessons are developed by the NCO Academy. at Ft. Rucker.

During the last year, FEAs and TSSBs were either completed or will be completed in FY88 for MOS 67N, 67V, 93B, 93C and 93P. Throughout this entire process the directors of Directorate of Training and Doctrine and Department of Enlisted Training have stressed the concepts of progressive, sequential, horizontal and vertical training with duplication only by design.

As DOET and the NCO Academy look toward the future requirements of shared and vertical training, other training programs come under scrutiny. One course in particular has been brought to the forefront: the Officer/Warrant Officer Air Traffic Controller Course. Recently a joint working group met to consider redesigning the course. As the warrant officers are phased out of this program, DOET is studying the feasibility of developing an Officer/NCO course to replace it, with all students attending the same training classes. This would also give the NCOs a step toward the vertical training concept that is to provide an understanding of the officer's viewpoint.

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The following is a list of new members who recently joined AAAA. There will be a new list published each month. If you sign up five new members you will be declared an ACE, receive an ACE coffee mug and have your name published in the ACE's column of the madazine.

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WOC Debora R. Barr CW2 Mark E. Beck WO1 Charles R. Berry WOC Anthony C. Bogan MAJ Bill Brand 1LT Susan M. Brown MAJ Anthony D. Campbell CPT Timothy R. Cornett CPT James A. Cox, Jr. Ms. Debbie A. Goza WOC Stephen T. Grady 2LT Kevin J. Greenwood WOC John M. Harris WOC Ross G. Hoopchuk MSG Richard A. Howard CW2 James C. Kalahan 2LT John A. Lanzi CPT Robert D. McCorkie 2LT Stewart A. Michelini SPC Walter M. Novotka CW3 Richard B. Osterlund WOC Mark C. Richardson MAJ Ervin L. Shirey

1LT Steven C. Spitze CPT James A. Suarez 1LT Michael W. Temple WOC James J. Wallenburg

#### BLACK KNIGHTS CHAPTER WEST POINT, NY

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BONN AREA CHAPTER BONN, GERMANY

Mr. Wolfram Hoffmann

#### CHESAPEAKE BAY CHAPTER FORT MEADE, MD

MAJ Roland C. Alexander MAJ Lawrence J. Carmichael

COASTAL EMPIRE CHAPTER FORT STEWART, GA

CPT Donnie R. Allen MAJ Nicolas P. Stein, Ret

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#### CORPUS CHRISTI CHAPTER CORPUS CHRISTI, TX

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Mr. Nikolaos Caravasos LTC Chang Chae Na

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HANAU CHAPTER GERMANY

CSM John J. Beck

INDIANAPOLIS CHAPTER INDIANAPOLIS, IN

CW2 Tim A. Curless JACK H. DIBRELL (ALAMO) FORT SAM HOUSTON, TX

Mr. Hector M. Cuellar

LEAVENWORTH CHAPTER FORT LEAVENWORTH, KS

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> LINDBERGH CHAPTER ST. LOUIS, MO

Mr. Randall Britton Ms. Brenda J. Cammon Mr. Scott A. Skiple Mr. Morris L. Swofford

Ms. Deborah L. Tillman MAINZ CHAPTER MAINZ, GERMANY

2LT Richard P. Peterson

MONMOUTH CHAPTER FORT MONMOUTH, NJ

Ms. Margaret S. Dix Mr. Carlos L. Gratacos Mr. Kenneth J. Rau Mr. Lawrence P. Rubel

MONTEREY BAY CHAPTER FORT ORD, CA

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NORTH TEXAS CHAPTER DALLAS/FORT WORTH, TX MG Chester M, McKeen, Bet.

NORTHERN LIGHTS CHAPTER FORT WAINWRIGHT, AK

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2LT John A. Gawlik

E4 Michael R. Gentes E5 Michael H. Robinson

E3 Sean G. Senior

SGT Scott Von Hemel

RHINE VALLEY CHAPTER GERMANY

Ms. Kathy L. Doyle-Boothe

SCHWAEBISCH HALL GERMANY

PV2 Kevin S. Baker E2 Walter L. Currier SGT Rafael Perez

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Ms. Eva N. Brown Mr. Stephen A. Leishman

THUNDERHORSE CHAPTER FULDA, GERMANY

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TU-CAN CHAPTER CANAL ZONE

MAJ Keith R. Stafford

WASHINGTON, DC CHAPTER WASHINGTON, DC

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## The 1988 Monmouth Symposium



#### by Bobbi C. Campbell

The Monmouth Chapter of the Army Aviation Association of America (AAAA) sponsored the Sixth Biennial Monmouth Symposium recently at the Berkeley Carteret Hotel in Asbury Park, NJ. The symposium again brought together government and industry to explore the current developments in avionics and their impact on the management, doctrine, technology, and readiness of Army Aviation.

The symposium was opened by Mr. David V. Gaggin, Director of the Avionics Research and Development Activity (AVRADA) and President of the Monmouth Chapter. Gaggin Introduced the keynote speaker, the Honorable J. R. Sculley, Assistant Secretary of the Army.

Dr. Sculley said that new systems must be procured and developed to improve the capabilities of our existing forces. "Our challenge becomes one of integrating the new and the old to meet today's needs without mortgaging the future. I feel that our aviation modernization program and plan do just that."

#### LHX Will Sustain

In additional comments on the future, Scully remarked that "LHX will join our modernized fleet and literally reduce the numbers and types of light aircraft. We have a solid road map to the future in Army Aviation, a program that by hook or crook will sustain."

The next speaker, MG Richard E. Stephenson, Commanding General of the Army Aviation Systems Command (AVSCOM), St. Louis, MO, also addressed the modernization plan.

"What we are about at the Aviation Systems Command is taking care of our soldiers by giving them aviation equipment and materiel that will do the job," said Stephenson. The Army Aviation Modernization Plan has become a living document. There are many opportunities and challenges the Army and Industry can work on as a team." BG William H. Forster, then Program Executive Officer (PEO), Combat Aviation, St. Louis, MO, gave the next presentation.

Forster told the audience that the LHX "is where our future is as far as advanced sensors and advanced integration capabilities. Our near term improvements, if done well, will make integration of the LHX mission equipment package and its advanced technology, a piece of cake"

Following BG Forster's address, there were a series of briefings conducted over the next two days by leading figures in military and industry on such diverse subjects as Advanced Speech Recognition Utilizing a Human Recognition Paradigm and Concurrent Processing to make HF Communication Work for NOE.

#### Army/Industry Team

LTG Jerry Max Bunyard, Deputy Commanding General for Research, Development and Acquisition at the Army Materiel Command (AMO, was the Banquet Speaker.

Bunyard stated that, "You as the Army/Industry Team are making sure the soldier has the aircraft that he needs to either deter conflict and/or, if necessary, to fly, win, and survive to fight again. With MANPRINT (Manpower and Integration Program), we put the soldier first. It is the soldier and the system together that make a more effective operation on the battlefield."

In closing his address, LTG Bunyard stated, "The last thought I'd like to leave with you... is to remember that the soldiers who have to fly the machines or those that maintain our aircraft are dedicated and are intelligent... they are prepared to give their lives to their country...and they honestly believe that we in government and industry care enough about them to give them the best equipment and training that money can buy."

Mrs. Campbell is in the Plans and Resource Management Division of AVRADA, Ft. Monmouth, NJ, and a member of the Monmouth Chapter.

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Mr. David Gaggin, (left) Director of AVRADA and the Monmouth Chapter President opens the Monmouth Symposium.

Taking care of registration (below left) are (I to r) Cheryl Davidson, Hope Hampton, Barbara Marken, and Helen Kimball.

Mr. George T. Singley III (below right), PEO, Combat Support Aviation, addresses the opening day luncheon.



## **Enlisted Meeting Review**

Members of the AAAA National Office staff met recently with the Enlisted Affairs Committee chaired by CSM John P. Traylor to discuss specific programs and benefits for Enlisted AAAA Members. Several actions are being implemented as a result of the meeting: 1) The Aviation Branch CSM will have a quarterly column in ARMY AVIATION Magazine; 2) Every attempt will be made to have at least one article on Enlisted Issues in every issue of the magazine; 3) This month's issue has a Special Report specifically devoted to Enlisted Concerns; 4) The Blue Book — the Aug/Sept issue of this magazine — will feature the photos of both the Commanding Officers and the Senior NCOs of the organizations listed; and 5) The AAAA National Office will attempt to obtain less expensive hotel rooms to encourage enlisted attendance at the AAAA National Convention and will also check into the availability of messing facilities.

Additional issues discussed included: the investigation into securing supplemental health insurance benefits for AAAA members; promoting the existing chapter level AAAA Soldier and NCO of the Year Awards Programs to encourage greater chapter participation, including the possibility of sending these soldiers to the AAAA National Convention; and publishing the names of the top NCO Academy graduates in the Awards and Honors column in the Magazine.

#### New Industry Members

Fairchild Aircraft Corporation of Alexandria, VA. Olympus Corporation of

Lake Success, NY. Wilcox Electric, Inc. of Kan-

sas City, KS.

#### New

Sustaining Members

(Designated Representative indicated in parenthesis)

Econo Lodge of Daleville of Daleville, AL. (Ms. Debbie A. Goze)

Mil-Craft Manufacturing, Inc of Arlington, TX. (Mr. Russell H. Biegel)

#### Aviation Soldiers of the Month

SP4 Kelly A. Shannon, Aloha Chapter (May).

SGT Ronald A. W. Kennedy, Aloha Chapter (June).

SPC Walter M. Novotka, Aviation Center Chapter (June).

#### **New AAAA Officers**

The following members were elected to the Executive Boards of their respective Chapters:

LTC Charles Nowlin (Pres), WO1 Sterling Parks (VP, Memb Enroll), CPT Carl D. Wiley (VP, Memb Renewals), MAJ Joseph Weatherly (VP, Programming), CSM Jackie Beal (VP, Enlisted Affairs), Hanau AAAA Chapter.

LTC Jan Callen (VP, Memb Enroll), MAJ (P) E. Gary Campbell (VP, Memb Renew), CW4 John Willingham (VP, Programming), CSM Rufus Stills (VP Enlist Affairs), Mainz Chapter.

#### New Officers Cont.

COL Patrick J. Bodelson (Pres), CW3 Harold F. Lucas (Senior VP), MAJ William B. Sutherland (Sec'y), CPT Lewis E. Johnson (Treasurer), 1SG Michael W. Thompson (VP, Memb Enroll), CPT James B. Guthrie (VP, Programming), 1SG Mark Ruiz (VP. Publicity). Old Ironsides Chapter.

LTC David Cantrell (Sec'v). MAJ Charles G. Cole (Treas), Phantom Corps Chapter.



COL Mike Bissell was awarded the **Distinguished Service Medal from** Dr. Jay R. Sculley, Asst. Sec. of the Army (RDA), at his retirement ceremony after 26 years of active service. COL Bissell was Dr. Sculley's Exec. Officer. Bissell is Director of Government ILS, Sikorsky Aircraft, and VP, Programs of the CT Chapter.



Asst. Sec'y of the Army for Research, Development and Acquisition, the Honorable Jay R. Sculley (I) receives a special model of the VS-300, Igor Sikorsky's first successful helicopter, from Bill Stuck, **CT Chapter President. Dr. Sculley** was Speaker at the June Chapter Meeting in New Haven, CT.

Hanau, APO NY, In a general membership meeting March 10. 1988, representatives of Task Force 160 conducted an information presentation and Q&A period. The outgoing Chapter President, LTC Thomas E. Johnson, gave an overview of the Hanau Chapter during his tenure, and elections were held by hand vote. See results in New Officers Column)

Taunus, APO NY. The Executive Board convened on May 20, 1988. It was announced that: BG Thomas B. Arwood would replace Mr. James Egan as the Guest Speaker at the next General Membership Meeting. AAAA patches would be sold at the General Membership meeting in order to replenish Chapter funds, AAAA pins had been received for the outgoing Executive Board Members and would be presented on June 24, 1988. A discussion was held on how to verify membership during the next General Membership Meeting. Many in this section.

## **Chapter News**

AAAA members have not transferred their Membership to the Taunus Chapter and need to be identified.

Redcatcher, APO NY, The General Membership meeting May 26, 1988 was brought to order by CW4 Glen A. Biro, Senior VP. He briefly spoke on the success of the Model Flugtag and solicited a POC for their next major fund raiser, the Flugtag on August 27-28. PFC Robert D. Hives volunteered his services. It was decided and voted on to make a donation of \$300 to the local Boy Scouts to support their summer camp program, CW4 Biro again discussed upcoming events: a best ball golf tournament on June 9 and sponsorship of the 10K run during Family Day on June 18. Raffles were held for two Mini-Mag Lites and were won by SFC Bryant D. Springer and CPT (P) William D. Miller II.

NOTE: Please send in your Chapter Minutes for inclusion



## AAAA Calendar

#### July. 1988

July 1, Hanau Chapter, AAAA Luncheon, MG George A. Joulwan, 3D AD CDR, quest speaker, Hanau O'Club.

July 6. Thunderhorse Chapter. General Membership Meeting. Pay-as-you-go refreshments and bar, Fulda Community Club, Officer's Lounge.

July 8. Aloha Chapter. General Membership Meeting and Election of Officers. Free Pupu's, Pay-as-you-go bar. Schofield Barrack's Officer's Club, Wisteria Rm.

III July 17. Corpus Christi Chapter. Beach Party. Bring your own food. Cooking pits will be set up. Volley ball, horseshoes, swimming. Bring beach balls, frisbees, Public beach at North Beach.

III July 21. Colonial Virginia Chapter, Professional Luncheon meeting, COL John E. Kempster, Director/Commander, AATD, Ft. Eustis Officer's Club.

#### Lake Tahoe Skiing

March 18-25, 1989 Chespeake Bay Chapter \$400 members \$410 nonmembers not including airfare Debi Horne 301-879-5168 (H) (301) 671-8150 (W) Deposit due August 20

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