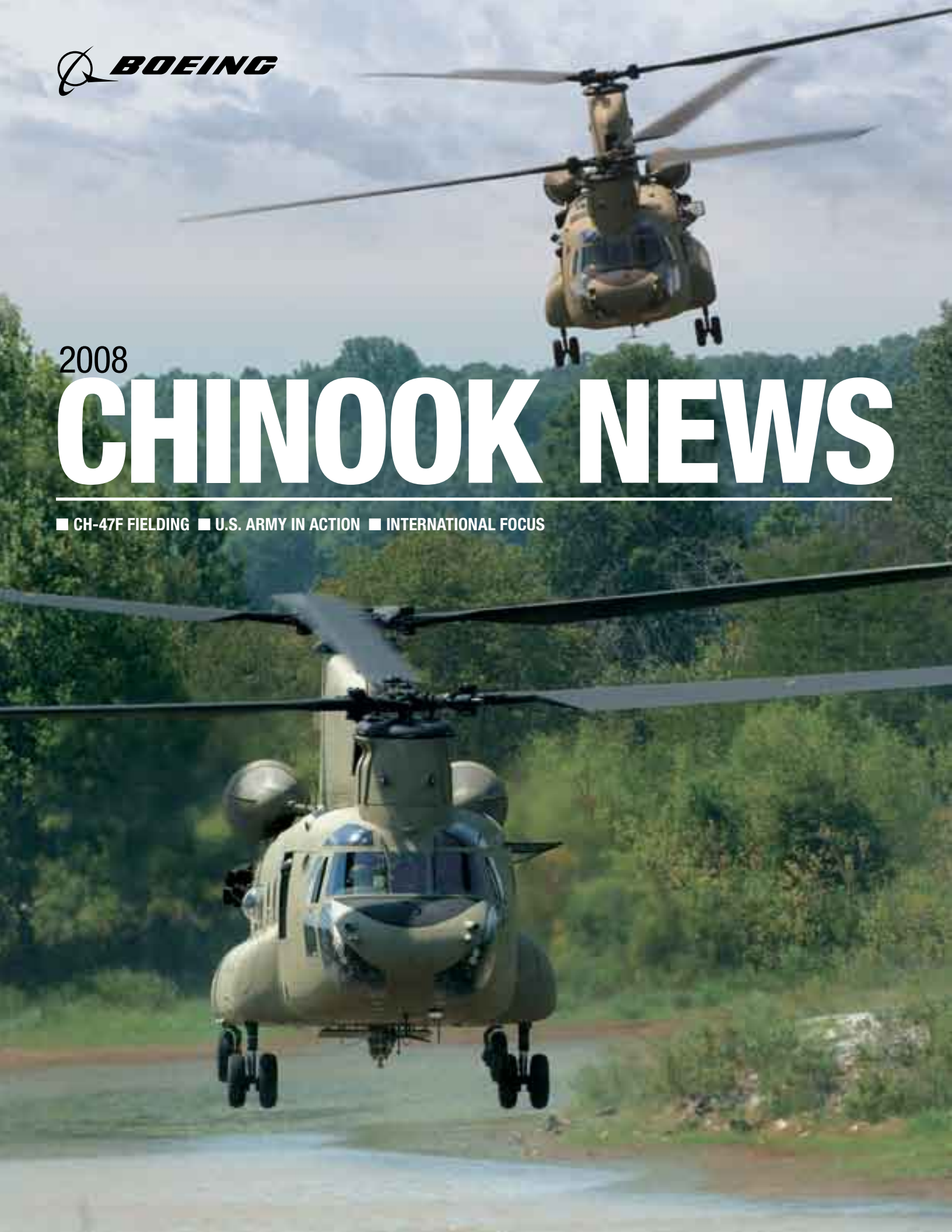

BOEING

2008

CHINOOK NEWS

■ CH-47F FIELDING ■ U.S. ARMY IN ACTION ■ INTERNATIONAL FOCUS

MISSION STATEMENT: AN INTEGRATED TEAM BRINGING TOGETHER THE BEST OF BOEING TO PROVIDE SYSTEMS AND SOLUTIONS THAT EMPOWER THE SOLDIERS OF TODAY AND TOMORROW.

PHOTO: FRED TROILO

BOEING CHINOOKS
STRIVING FOR EXCELLENCE
IN THE PROGRAM
IN THE FIELD

This was a remarkable year for the program. Chinooks continue to set new standards in performance regardless of where they are deployed. In 2006, the Chinooks maintained high levels of readiness and recorded more than 73,000 flight-hours. In 2007, the first MH-47Gs were deployed to Afghanistan. This issue of *Chinook News* will showcase the many stories of the Chinook's performance in combat and in civil support missions around the world. You also will hear from the courageous pilots and crews who conduct these missions, and proudly featured is the new CH-47F now entering Army aviation.

While this versatile platform is recognized as a force multiplier in combat, we consistently see it used in humanitarian missions at home and around the world. Chinooks in Oregon conducted high-mountain rescues for climbers lost at more than 10,000 feet. During severe winter storms, Chinooks were used to rescue people and provide feed for starving livestock. They also were deployed to save flood victims and fight forest fires.

With the fielding of the CH-47F, a new chapter in the history of Army Aviation has begun. It was just one year ago that the new aircraft was unveiled in Ridley Park, Pa. Since then, this magnificent new Chinook completed a first hover, air worthiness testing and was turned over to the U.S. Army customer. The CH-47F entered operational testing in April 2007 during which its performance received wide acclaim. In an August ceremony at Fort Campbell, Ky., Bravo Company (Varsity), 7th Battalion, 101st Aviation Regiment (Air Assault) officially fielded 12 CH-47Fs.

Jack Dougherty, Director of H-47 Programs. While this versatile platform is recognized as a force multiplier in combat, we consistently see it used in humanitarian missions at home and around the world.

The CH-47F, with its newly designed and modernized airframe, a Rockwell Collins Common Avionics Architecture System cockpit and a BAE Systems Digital Advanced Flight Control System, is generating interest around the world. In February 2007, the Netherlands made the first international purchase of the CH-47F. We expect more international sales to follow.

You have seen the *Chinook News* grow in popularity and prominence since its first publication as a tabloid two years ago. From its inception, the *Chinook News* told the stories of soldiers operating the CH-47s around the world.

This magazine recently won a Communicator Award of Distinction for creative excellence in the communications field. Congratulations to the *Chinook News* staff from everyone on the program. ■

PHOTO: FRED TROILO

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PHOTO: FRED TROILO

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PHOTO: PORTLAND MOUNTAIN RESCUE

U.S. ARMY IN ACTION

THE NEWLY FIELDED CH-47F BRINGS IMPROVED CAPABILITIES TO JOINT FORCES MISSIONS WORLDWIDE

PHOTO: PATRICK ALLEN

INTERNATIONAL FOCUS

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PHOTO: THE BOEING COMPANY

CH-47F FIELDING

THE CARGO HELICOPTER PROJECT MANAGEMENT OFFICE

PROVIDING A CAPABLE, SAFE, SUPERIOR PRODUCT TO THE TROOPS

BY COL. NEWMAN SHUFFLEBARGER

Team Chinook continues to provide the world with the best heavy-lift helicopter capability for all missions. The soldiers who fly and fight with the CH-47Ds in today's war conduct missions in the harshest environmental conditions and scenarios.

Soon the fight will be joined with the next generation Chinook, the CH-47F. This battle ready weapon system has undergone significant upgrades to provide our warfighters with the systems they require. The CH-47F rolled out in the fall of 2006 and underwent significant Developmental Testing prior to Operational Test in 2007.

The CH-47F Operational Test was recognized by the Vice Chief of Staff of the Army and Office of Secretary of Defense as the best run Army Aviation test program in fiscal year 2007.

This new weapon system performed beyond expectations and achieved 100 percent mission success, exceeding all reliability, availability and maintainability objectives. Members of Team Chinook were critical partners in achieving this success.

While the arrival of the CH-47F marks a major milestone, the Cargo Program Management Office (PMO) remains committed to providing complete support for the existing CH-47D fleet until the last CH-47Fs are fielded in 2018.
– Col. Newman Shufflebarger

On July 20, 2007, Bravo Company (Varsity), 7th Battalion, 101st Aviation Regiment, 159th Combat Aviation Brigade, 101st Airborne Division (Air Assault) became the First Unit Equipped with the CH-47F. This final event paved the way for operational combat units to equip, train and deploy with the CH-47F in support of Operation Iraqi Freedom and Operation Enduring Freedom.

The crews reported significant improvements while conducting missions using the integrated Common Avionics Architecture System cockpit and Digital Advanced Flight Control System. The immense technological challenges of creating this system were possible only by the synergy and teamwork of all on Team Chinook.

The Cargo Helicopter Project Management Office is proud to provide users with an operationally capable, safe, technologically superior and cost-effective Cargo Helicopter fleet. Team Chinook exists to provide dominant heavy-lift support to the warfighter – today and in the future. ■

PHOTO: THE BOEING COMPANY

CH-47F FIELDING

CH-47F
A PLACE **IN TIME**

A new chapter in Army aviation history begins with the fielding of the CH-47F Chinook. With a focus on meeting the needs of the warfighter, the U.S. Army Cargo Helicopter Office and the Boeing Rotorcraft team advanced the concept of a Chinook upgrade that evolved into an advanced, highly capable aircraft that will serve as a multimission asset well into the future.

The CH-47F initially began as a modest plan under a service life extension program to upgrade the existing D model with a vibration-reducing, stiffened airframe, dynamic component overhaul and partial "glass" cockpit.

In the late 1990s, Boeing implemented Lean manufacturing initiatives on its Chinook manufacturing line. With the Lean initiatives in place, Boeing engineers took advantage of computer-aided design tools to redesign the Chinook for producibility.

PM Cargo Helicopters, Boeing and Team Chinook worked together to redesign the fuselage using the latest Lean techniques – to reduce part count and simplify manufacturing and assembly to lower fuselage costs dramatically. They completed the design, integration and testing of the F-CAAS cockpit and the all-new digital automatic flight control system, and integrated numerous other Chinook improvements, all while reducing the total cost of a new CH-47F by more than 30 percent.

Boeing unveiled the first production CH-47F in Philadelphia in June 2006. The aircraft completed its first flight in October and airworthiness testing in November, followed by the first aircraft delivery later that month. The Army performed Initial Key Personnel Training and additional system testing during the remainder of 2006 and into January 2007. In February 2007, the aircraft transferred to Bravo Company (Varsity), 7th Battalion, 101st Aviation Regiment. The 7th Battalion performed new equipment training and completed operational testing in April 2007.

The cargo helicopter fleet will ultimately include 339 aircraft renewed with new airframes and refurbished drive trains and rotor systems. Another 113 totally new CH-47Fs will be built. The CH-47Fs delivered to the U.S. Army will meet the needs of the warfighter well into the future. ■

The Army accepted the first production CH-47F Chinook Nov.17, 2006. Army pilots at Fort Rucker conducted testing of the new aircraft.

Lt. Col. Thomas Todd, CH-47F product manager, accepts the keys to the first production CH-47F Chinook from Kenneth Eland, Boeing CH-47F program manager.

NOVEMBER

The Boeing Company unveils the first production CH-47F Chinook to the U.S. Army during a rollout ceremony in Ridley Park, Pa. The aircraft is the first of 452 new CH-47F heavy-transport helicopters included in the U.S. Army Cargo Helicopter modernization program.

JUNE

The CH-47F Chinook successfully completed the Acceptance Flight Test conducted in Ridley Park, Pa.

OCTOBER

The CH-47F Chinook helicopter is now certified combat-ready by the U.S. Army and has been fielded to the first operational unit. Following extensive testing, the Army authorized First Unit Equipped, assigning the aircraft to Bravo Company (Varsity), 7th Battalion, 101st Aviation Regiment, 159th Combat Aviation Brigade, 101st Airborne Division (Air Assault), based at Ft. Campbell, Ky. "The CH-47F is a next-generation aircraft that provides greater safety, mission management and situational awareness for our soldiers," said Jack Dougherty, director, Boeing H-47 Programs. "This represents a milestone in Army aviation." "It is an honor to have been chosen as the first unit to field the aircraft," said U.S. Army Lt. Col. Robert P. Dickerson, commander, 7th Battalion, 101st Aviation Regiment (Air Assault). "The Chinook is a combat multiplier and brings greater situational awareness, versatility and capability to the fight. "The CH-47F helicopter features a newly designed, modernized airframe, a Rockwell Collins Common Avionics Architecture System (CAAS) cockpit and a BAE Systems Digital Advanced Flight Control System (DAFCS). CAAS greatly improves air crew situational awareness; and DAFCS provides dramatically improved flight control capabilities through features such as "hover hold," "altitude hold" and "beep down" that improve performance and safety in brownout situations, and in the entire flight envelope. Advanced avionics also incorporate improved situational awareness for flight crews with an advanced digital map display and a data transfer system that allows storing of preflight and mission data. Improved survivability features include Common Missile Warning and Improved Countermeasure Dispenser Systems. The entire suite of improved cockpit capabilities will apply to other H-47 models.

The CH-47F Chinook successfully completes U.S. Army Operational Testing at Fort Campbell, Ky.

APRIL

The U.S. Army authorizes full-rate production and fielding of the new CH-47F Chinook.

JUNE

AUGUST

PHOTOS: FRED TROILO

CH-47F FIELDING

CH-47F CHINOOK:

DESIGNED & BRED AND TESTED FOR COMBAT

BY LT. COL. GERALD L. DWYER

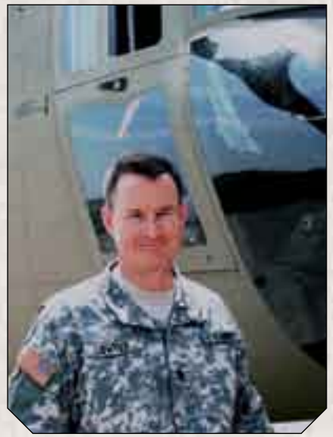
The CH-47F Chinook is the latest version of a long line of combat proven heavy-lift helicopters. It provides impressive cargo-carrying capability, which significantly increases the mobility and maneuverability of the supported combat forces. These combat forces are integral to providing the requirements that drive the design of the weapon system.

The requirements generation for the Improved Cargo Helicopter began in the early 1990s after Desert Storm. The requirements and the program have changed based upon the changes in doctrine and employment of the Chinook in the Global War on Terrorism (GWOT).

The Chinook's unique modularity and inherent design characteristics provide capabilities for the combat forces employed in far-flung areas. Significantly, the ability to operate tactically in hot, high and humid areas makes the Chinook the air assault and combat mission support aircraft of choice for the U.S. Army and Coalition forces in Operation Enduring Freedom. In Operation Iraqi Freedom (OIF) the Chinook's lifting capacity provides ground forces the ability to maneuver safely via air, mitigating the effects of Improvised Explosive Devices. In other theaters the ability to conduct amphibious operations is used to advantage.

The missions in support of GWOT are challenging and require a significant amount of situational awareness by the crews that operate the Chinook. The combination of Common Aviation Architecture System and Digital Advanced Flight Control System provides an optimal capability for the crew to operate in challenging environmental conditions, which required precise handling to successfully complete the missions. Additionally, the integrated and expanded avionics suite provides unparalleled capability to communicate with U.S. Army, Joint services and Coalition partners. The CH-47F also increases the weapons system's Reliability, Availability and Maintainability through the use of many systems including a monolithic airframe replacing built-up structures and enhanced air transportability features.

Lt. Col. Gerald Dwyer was assistant program manager, CH-47F during OT, and is now assistant program manager, CH-47, Foreign Military Sales.



Operational Test (OT) Phase II was the culminating event of the systems' Developmental Test using several Low-Rate Initial Production aircraft. This event was conducted by Operational Test Command, Army Test and Evaluation Command and evaluated by Director of Operational Test and Evaluation. The flight tests were conducted by Bravo Company (Varsity), 7th Battalion, 101st Aviation Regiment, 159th Combat Aviation Brigade, 101st Airborne Division (Air Assault). Significantly, the unit had recently returned from OIF, and the crews of the two test aircraft had a combined total of over 6,000 combat flight-hours. The U.S. Army fights as it trains. The crews conducted New Equipment Training in the CH-47F and the Transportable Flight Proficiency Simulator for over 2,000 hours. Being able to conduct the test and evaluation with the unit that will be the First Unit Equipped significantly enhanced the unit's capability, and provided them more flight-hours in the aircraft they will deploy with.

The OT included engine performance, communication and navigation verifications in addition to basic aircraft functionality testing. Also, the interoperability with current and future air and ground systems were validated. The OT included more than 60 flight test hours simulating a wide range of missions, including air assault, combat resupply and transport operations in a GWOT mission environment.

OT was accomplished ahead of schedule, and the CH-47F's System Evaluation Report defined the weapon system as effective, suitable and survivable. The RAM data reflects that the CH-47F is expected to reduce operating and support costs by decreasing the maintenance burden on the cargo helicopter unit as compared with the CH-47D.

OT was a significant stage in the development of the CH-47F Chinook as the world's premier heavy-lift helicopter. It was born from the requirements of the combat soldiers, developed to meet those requirements and rigorously tested by a combat proven unit. All who worked with the CH-47F stand ready to respond to the requirements of the soldiers who crew, support and fly them. ■

PHOTO: FRED TROILO

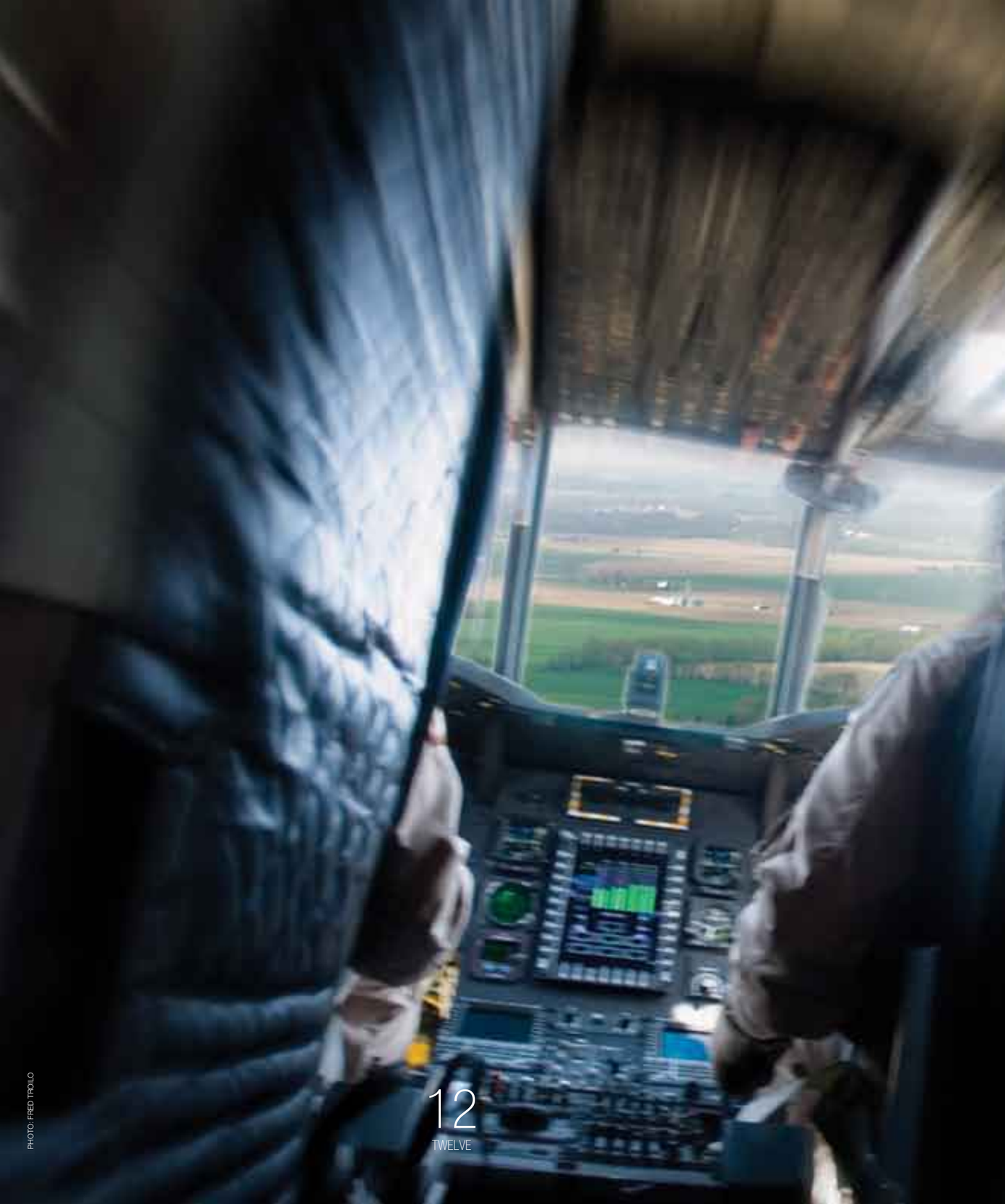


PHOTO: FRED TROILO

CH-47F FIELDING

CAAS COCKPIT GOES OPERATIONAL IN CH-47F

The U.S. Army has declared the Rockwell Collins Common Avionics Architecture System (CAAS) cockpit in the Boeing CH-47F to be operationally ready for deployment.

"Reaching this milestone is critically important because it gives CH-47F pilots the situational awareness that is necessary to operate more effectively in hazardous terrain," said Phil Jasper, vice president and general manager of Integrated Systems for Rockwell Collins.

The first CAAS-equipped platform, an MH-47G operated by the U.S. Army's 160th Special Operations Aviation Regiment (Airborne), was deployed in early 2007.

"Our CAAS cockpit is allowing pilots to safely navigate in hazardous terrain while enabling them to recalculate their flight plan and be on target within plus or minus 30 seconds," said Jasper. "This rerouting capability is enabling faster and more effective deployment and pickup of troops in the battlespace."

The CAAS cockpit open systems architecture integrates flight operations with mission systems and tactical situational awareness and provides growth required for the future.

The CAAS solution incorporates common, reusable processing elements in each piece of hardware and incorporates an open systems architecture based on commercial standards. The commonality of hardware components is designed to provide lower total life cycle cost and lower costs for technology insertion and supportability.

Development and testing of the CH-47F was recently completed at Fort Campbell, Ky., paving the way for the planned fielding of approximately 450 CAAS cockpits in the Chinook aircraft.

"Rockwell Collins has demonstrated its ability to deliver the CAAS upgrade on time and on budget," said Jasper. "But more importantly, our CAAS cockpits provide enhanced levels of situational awareness for pilots and can be easily upgraded as new technology is matured."

The U.S. Army's CH-47F Chinook is a multi-mission, heavy-lift transport helicopter that supports the movement of troops, artillery, ammunition, fuel, water, barrier materials, supplies and equipment on the battlefield.

Selected by the U.S. Army as a common digital cockpit for its rotary-wing transport aircraft, the Rockwell Collins CAAS provides the CH-47 platform with exceptional mission effectiveness with its fully integrated flight and mission management capabilities.

Incorporating integrated communications and navigation systems management, along with the latest in digital battlefield situational awareness and connectivity, the CH-47 CAAS-equipped aircraft provides army aviation with a reliable and efficient transport helicopter for tactical and combat support mission requirements around the world. ■

CH-47F FIELDING

OPERATIONAL TESTING

PROVING IT RIGHT

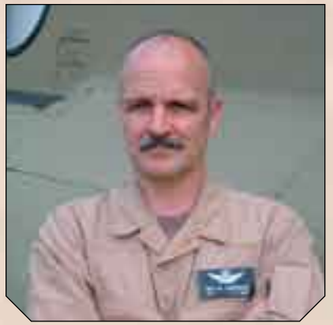
CH-47F PILOTS

PHOTO: DICK RUHLMAN

CW4 TOM MISKOWIEC

Bravo Company, 7th Battalion, 101st Aviation Regiment

The Common Aviation Architecture System cockpit is a great improvement over what we had in the D model. The amount of information and the ease in which it processes information gives us a set of tools that we never possessed. And it expands our mission capability and our ability to support the customer. The Digital Advanced Flight Control System provides us with a level of stability and safety we never had, and we can do precision hover with much less workload on the pilots. All the hover work that we do, load pickup in reduced visibility or dust landings all become much easier with the F model. The digital map and mission processor provide us with a situational awareness that we never had before. We now have all of the information – blue force tracker, friendly force, threat icons, real-time moving map right here in the cockpit and when needed. We can overlay our routes, and headings – overlay our courses, compass lines, CDIs, anything we want over the top of the digital map. It shows exactly where we are and exactly what's around us. There's an incredible amount of information in that system. The new equipment reduces workload. It's great fun to fly and there are so many tools you can use between imagery and map charting. It's a great airplane to fly. ■



CW4 NEAL LORENSON

Bravo Company, 7th Battalion, 101st Aviation Regiment

The CH-47F is a surprising piece of equipment. We were pleasantly surprised that the F is a reasonably mission-ready piece of equipment that is a quantum leap forward from the old D model. Starting with the airframe, the F model has most of the major structural forms milled out of single billets of aluminum, which stiffens the airframe, and reduces vibration. It has some composite material in places, and titanium under the engine decks, so it's a considerably beefed up airframe. The avionics have been upgraded to include an extra Fox mic radio. The two Fox mic radios now have integrated COMSEC. It has better vector and uniform radios and a good HF radio, and they are all data bussed together and controlled through a common display unit. The bright spot for us is the Digital Advanced Flight Control System, which immensely improves the aircraft handling at low speeds and gives us the ability to hover without any effort in dust. In fact, we proved that this thing can be hovered in a zero-zero environment without any trouble whatsoever. Based on our recent experience in Iraq, this is a huge deal for us. It's going to be a real mission and a real safety enhancer for us and we're pretty excited. We now have a Common Avionics Architecture System cockpit that integrates the flight displays for hover and navigation. The engine instruments, the system displays, the moving map and more. Basically, it's a big mission control computer. And, it's a real mission enhancement. The low-speed hover regimes are an advantage for us. We will be able to do more with one aircraft than ever before. We'll be able to safely execute missions that were probably a little more dangerous than we would have liked to have entertained in the past. The aircraft's Global Positioning System and moving maps gives us the ability to navigate to precise standards without any guess work. The Mission Management System will allow us to get there on time and right on the money without a whole lot of effort. It's going to improve our combat capability. The external cargo capacity of the aircraft is the same, but the ability to hook loads easily and safely with the new stability augmentation, the Advanced Flight Control System, is much better. We demonstrated that during Operational Testing. We went out with the D model and an F model together, hooked loads at night with tall grass and the F model performed significantly better. At high altitude you have the same basic performance; it's a pretty robust aircraft. Maximum gross weight is 50,000 pounds, which gives us a usable payload of between 15,000 and 20,000 pounds, depending on how we're configured. It's a marvelous aircraft; a great big Cadillac with a sports car heart. ■

PHOTO: DICK RUHLMAN

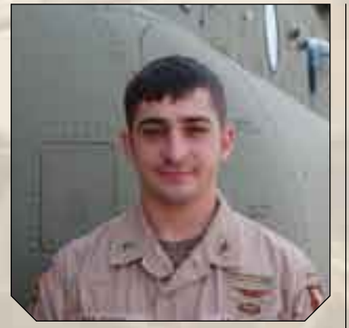
PHOTO: FRED TROILO

CH-47F FIELDING

NEW EQUIPMENT TEST PILOTS FIRST IMPRESSIONS OF THE CH-47F

CW2 JAMES LEVELY, PILOT
Bravo Company 7/101

I've been flying Chinooks since 2002. I have two combat tours, one in 2004 and I've just returned from another one in 2006. Most of my Chinook experience is in a combat environment, and most of our missions were in hot temperatures and dusty environments, a lot of good memories, a lot of good times. The CH-47D aircraft has been around forever and is still a great aircraft. We tried to fly them into the ground and were successful in putting quite a few hours on many of them. My last tour in Iraq, was a little over seven months, and I flew more than 600 hours. I think the CAAS cockpit is going to be an outstanding help in a combat environment, especially with less heads-down time in the cockpit and more information provided to the flight crews. The flight management is an awesome system. We can get new missions and put new missions in without having to go all the way back to our home station and recompute figures. The CAAS cockpit will do all of that for us enroute. One of the biggest features that will help in a combat environment besides the overall CAAS cockpit, is the transitional rate command and position hold. That will help in dusty Landing Zone environments, reducing hard roll-on landings. We'll be able to come in at a 10-foot hover and hover straight down. I feel that CAAS will improve our performance – once everyone learns the equipment and is a little more experienced, it's going to reduce head-down time and help manage the workload. The moving maps and navigational products on the aircraft will show us where we are as well as where our threats are. ■



CW2 MIKE MAGGIO, PILOT
Bravo Company 7/101

I've been flying Chinooks for about two-and-a-half years.I spent one year in Iraq and flew 350 hours. With the F aircraft there is a lot more information for you to use and more detail available for mission planning with out referencing paper material. Now it's all here, so if you have a mission change, you don't have to worry about whether you are able to do it or not. The CAAS system is able to tell you right then and there, if you have fuel, how long it will take and how far it is, and by constantly referencing the map you know where you are and the best route to take. Position hold and translational rate command I think are very useful, especially on windy days. These will really help the aircraft hold steady while hooking up loads or whatever needs to be done in brown-out conditions or limited visibility. It also helps the aircraft land safely. We constantly get mission changes – weights may be different or there are more people to take somewhere – or a new location. With CAAS you can plug in all the information, and the system tells you if you are able to do it, and you are able to give a quicker answer to the customer. It is the number one advantage in the aircraft. The difference between this and a D in combat is the CAAS cockpit, and the ability to rapidly adjust if the customer has a change in weight, packs or a different landing zone. CAAS will let you plug in the information and give you precise information on fuel burn, flight distance and time needed. You can check for any danger in the area that has been marked. You have it all right there, available to you in the aircraft. ■

PHOTO: FRED TROILO

CW4 GARY NEWSOME, PILOT
Evaluation and Standardization

I've been flying Chinooks for about 10 years, with about 20 years of experience flying. I deployed to Desert Shield and Desert Storm, flying Hueys and now flying Chinooks. I went to Afghanistan for a year rotation. I have about 2,000 hours total time in the CH-47. We've been able to mission manage with this cockpit and land at a location with information on a load we're picking up. With the mission management capability, we are able to handle a 4,000-pound load, that can be changed to a 5,000- or 6,000-pound load. We can input data into this system, and it will give us performance data on whether or not we can carry that load and reasonably deter-mine how far we can carry this load and whether we can take it to a higher altitude. With DAFCS in the cockpit of an F model you have precision hold and translational rate command. These will assist the pilot in keeping the aircraft in a low visibility environment, and straight and level to land the aircraft with little input from the pilot. For mission planning and decision-making processes, the more you know about the situation you are flying into, the better decision you can make on routes you are going to fly. With the availability of the digital map, you can pick the best route – especially if you know of a threat situation out in front of you. With the capability of the avionics, information can be updated quicker, and you can change a route at a moment's notice. ■

CW4 RON HENRY, PILOT
Standardization Instructor Pilot and Instrument Flight Examiner

I've been flying Chinooks for 19 years with about 4,000 hours in the airframe. I've been stationed at Fort Sill, where I deployed to Operation Desert Storm and made one visit this time to Operation Iraqi Freedom. Some of the main advantages of the CAAS cockpit versus the D model is the situational awareness that it provides with moving maps and the ability to put overlays on those maps. Additionally, the power requirements of the aircraft are given to you digitally with the proper information entered into the system. You know how much power is available at any time, and that should greatly enhance ability, especially in the high-altitude environments. Also receiving real-time updates with the joint variable mission format means getting the messages in and being able to send messages. This increases overall combat effectiveness, efficiency of the mission and the safety of the crew. ■

PHOTOS: 160TH SPECIAL OPERATIONS AVIATION REGIMENT PUBLIC AFFAIRS

U.S. ARMY IN ACTION

MH-47G CHINOOK DEPLOYS TO COMBAT

BY KIMBERLY T. LAUDANO, 160TH SPECIAL OPERATIONS AVIATION REGIMENT PUBLIC AFFAIRS

FORT CAMPBELL, Ky. (USASOC-CI News Service, May 14, 2007) – The 160th Special Operations Aviation Regiment (Airborne) deployed the first MH-47G Chinook helicopters to Afghanistan in support of Operation Enduring Freedom in March 2007.

After the first two and one-half months of the deployment, the detachment of aircraft executed numerous combat missions, flying more than 460 flight-hours and maintaining a readiness rate of more than 97 percent.

Lt. Col. Manfred Little, commander, 3rd Battalion, 160th SOAR, who deployed the new aircraft, said that the MH-47G is proving to be an impressive aircraft for his aviators who are conducting extremely challenging operations in Afghanistan, often on zero-illumination nights with limited visibility from blowing dust and haze.

"The MH-47G Chinook provides an increased safety and situational awareness capability by allowing the pilots to navigate utilizing a digital moving map display with a height-above-terrain feature, a fused image display and a radar picture of the terrain along the flight path," said Little.

"These mission aids allow our pilots to safely navigate above the hazardous terrain to put the ground force on target, plus or minus 30 seconds."

New technology onboard the MH-47G also is taking mission planning to a whole new level.

A MH-47G Chinook is staged on a flight line for potential missions while deployed to Afghanistan in support of Operation Enduring Freedom.

"On our first direct action mission with the G model, the Flight Lead (FL), with unprecedented speed and accuracy, was able to perform calculations on the fly for both the infil and exfil on three different flight routes with various allowable cargo loads to multiple helicopter landing zones," recalls Little.

This allowed the FL to provide more options to the ground force commander than ever before, enabling the commander to provide maximum combat power on the objective.

On another occasion, 160th crews received a time-sensitive mission while in-flight. The crews leveraged the technologies onboard the MH-47G to develop a plan enroute to their staging location. They quickly transferred the information electronically between aircraft at the staging area, providing an accurate mission plan within the short mission timeline.

"This is a tremendous leap in planning capabilities and accuracy compared to previously establishing a plan in flight with paper maps and in a blacked-out cockpit," said Little.

The 160th is growing its fleet of Chinooks and replacing the aging mixed fleet of D- and E-model Chinooks with the newest G models. These modernized rebuilt aircraft include all the features of the MH-47E with the addition of a new cockpit and selected airframe sections, and the Common Avionics Architecture System (CAAS) with five full-color multifunction displays. ■

Iraqi soldiers from 1st Brigade, 4th Iraqi Army Division, dismount a CH-47 Chinook during an all-Iraqi air assault near the northeastern portion of Lake Tharthar in Salah ad Din Province.

PHOTO: U.S. ARMY SGT. 1ST CLASS ROBERT BROGAN

U.S. ARMY IN ACTION

VITAL AND VERSATILE CHINOOK

BY COL. NEWMAN SHUFFLEBARGER AND KENT SMITH

The CH-47 Chinook is the heavy-lift aircraft of choice for many critical combat, combat support and combat service support missions of the United States Army. For more than four decades, U.S. soldiers have relied upon the Chinook to provide vital, versatile heavy-lift support for combat, emergency and peacetime operations.

Over the past year, the Chinook was able to meet all readiness requirements while accumulating more than 73,000 flight-hours. This is a seven percent increase in flight-hours over the previous year. This increase is significant because the hours flown were accomplished with 25 fewer aircraft. (The 25-aircraft reduction occurred because CH-47D aircraft were inducted into the CH-47/MH-47G remanufacturing line).

More than 55,000 of the flight-hours were logged in support of major theater operations, including Operation Enduring Freedom, Operation Iraqi Freedom and earthquake relief to victims in Pakistan.

The CH-47 also supported many rescue and relief missions throughout the United States. Most recent operations within the continental US include the search and rescue operations for the missing mountain climbers on Mount Hood and support of a number of search and rescue operations after major snowstorms hit several Midwestern states. Additionally, CH-47 units aided midwestern farmers and cattlemen by providing airdrops of hay to livestock stranded by the snowstorms.

continued on page 22

continued from page 21

The CH-47F: The next generation Chinook

Just like its predecessors, the CH-47F will soon be the U.S. Army's heavy-lift aircraft of choice. The first fully equipped production CH-47F was delivered to the U.S. Army in November 2006. A total of 452 CH-47F model aircraft will be delivered over the next 12 years. Every CH-47F delivered has the new machined monolithic airframe, new hydraulic systems and new wiring and wiring harnesses.

The new airframe is designed to provide additional structural support to previously identified stress areas. Of the 452 CH-47F aircraft, 119 are new builds. The remaining 333 CH-47F aircraft are remanufactured. The remanufactured aircraft have 97 items that are recapitalized components from retired CH-47Ds. These components range from rotor heads and rotor blades to landing gear and electronics. With the exception of the 97 recapitalized items, all other components on the remanufactured CH-47Fs are new.

The CH-47F aircraft come equipped with the fully integrated Common Avionics Architecture System (CAAS) digital cockpit, Digital Advanced Flight Control System (DAFCS) and improved aircraft survivability equipment, including the Common Missile Warning System (CMWS). The CAAS provides improved situational awareness while the DAFCS improves aircraft handling qualities. Each CH-47F also is fitted with the improved Air Transportability Kit. This new quick-disconnect design will significantly reduce teardown and rebuild times for deployment operations.

The first unit equipped with the CH-47F was completed in July 2007. Subsequent CH-47F units will be fielded at a rate of two units per year.

The CH-47F Chinook Transportable Flight Proficiency Simulator (TFPS) was developed to train pilots to operate the CH-47F CAAS equipped aircraft. The first CH-47F TFPS was delivered to Fort Campbell in 2006 and the first aircrew completed their flight simulator training in January 2007. Between January and July of 2007, aircraft were delivered to the first receiving unit. Maintenance crews and support personnel completed initial training and received tools, support equipment and publications required to support the CH-47 first unit equipped.

The CH-47D: Focused on support and sustainment for next decade

While the arrival of the CH-47F marks a major milestone, the Cargo Program Management Office (PMO) remains committed to providing complete support for the existing CH-47D fleet until the last CH-47Fs are fielded in 2018.

Soldier Focused Logistics, which consolidated key Chinook support organizations and personnel into one centralized location under the control of the CH-47 program manager, has proved to be an effective, Army transformation program. This colocation and integration of all CH-47 Life Cycle Management personnel has improved communications and provided quicker response times to support the CH-47 fleet.

Modernizations, improvements and upgrades continue to be integrated into the legacy D-model Chinooks. Integration of the third generation of Blue Force Tracker and the CMWS are two examples of improvements currently being installed on CH-47Ds.

CH-47D improvements on the near horizon include installation of the EPUSHA pump, which provides electrical power instead of manpower to "prime" the start accumulator for the Auxiliary Power Unit. In addition, the Cargo PMO is fielding a new crashworthy crew seat for crewmembers in the aircraft cabin.

Longer term development projects for the CH-47D include an improved Electronic Control Unit for the engines, a redesigned cargo hook and an improved engine tailcone designed to improve the survivability characteristics of the Chinook.

Condition-based maintenance and health usage and monitoring system

The Condition Based Maintenance (CBM) initiative is a risk reduction approach to aircraft maintenance. The key to the success of CBM is to identify component degradation to preclude a failure from occurring.

For more than four decades, U.S. soldiers have relied upon the Chinook to provide vital, versatile heavy-lift support for combat, emergency and peacetime operations.

In support of the CBM initiative, PM Cargo is developing a Health Usage and Monitoring System (HUMS) for the CH-47 aircraft. The CH-47 HUMS system will provide real-time monitoring and status reporting of critical components on the aircraft. The information provided by this system will allow maintainers and operators to identify problematic areas on the aircraft so the appropriate corrective action can be accomplished.

Digital collection of the HUMS data and comparisons of that data over a period of time will become the baseline for CBM. Analysis of the data collected will provide essential information required to identify failure rate trends of several key components. Once these trends are identified, the aircraft maintenance plan will be adjusted to repair or replace these items prior to their actual failure thus eliminating the propagation of these failures to other components. PM Cargo continues in its efforts to develop and field a complete data collection and analysis system to meet the goals and challenges of CBM.

Summary

The primary mission of the CH-47 PMO is to provide one face to the field to support and sustain the Chinook helicopter fleet. The Cargo PM and all Team Chinook members are excited about the promising future of the Chinook program. The modernized CH-47F is now an Army reality. The legacy CH-47D aircraft will remain a part of Army Aviation for a decade to come. The challenges of fielding, maintaining and sustaining both aircraft are many. The Chinook community is eager to take on these challenges. We are embracing the concept and implementation for CBM and are committed to further reducing the burden on the American soldier.

We are proud of the outstanding Chinook legacy that has been in the making for over four decades. We are determined to maintain the high standards established by our predecessors and we are looking forward to continuing that legacy with the modernized CH-47F. ■

Col. Newman Shufflebarger is the project manager for Cargo Helicopters and Kent Smith is CH-47 chief of staff in the Office of the Project Manager for Cargo Helicopters, Program Executive Office for Aviation, Redstone Arsenal, Ala.

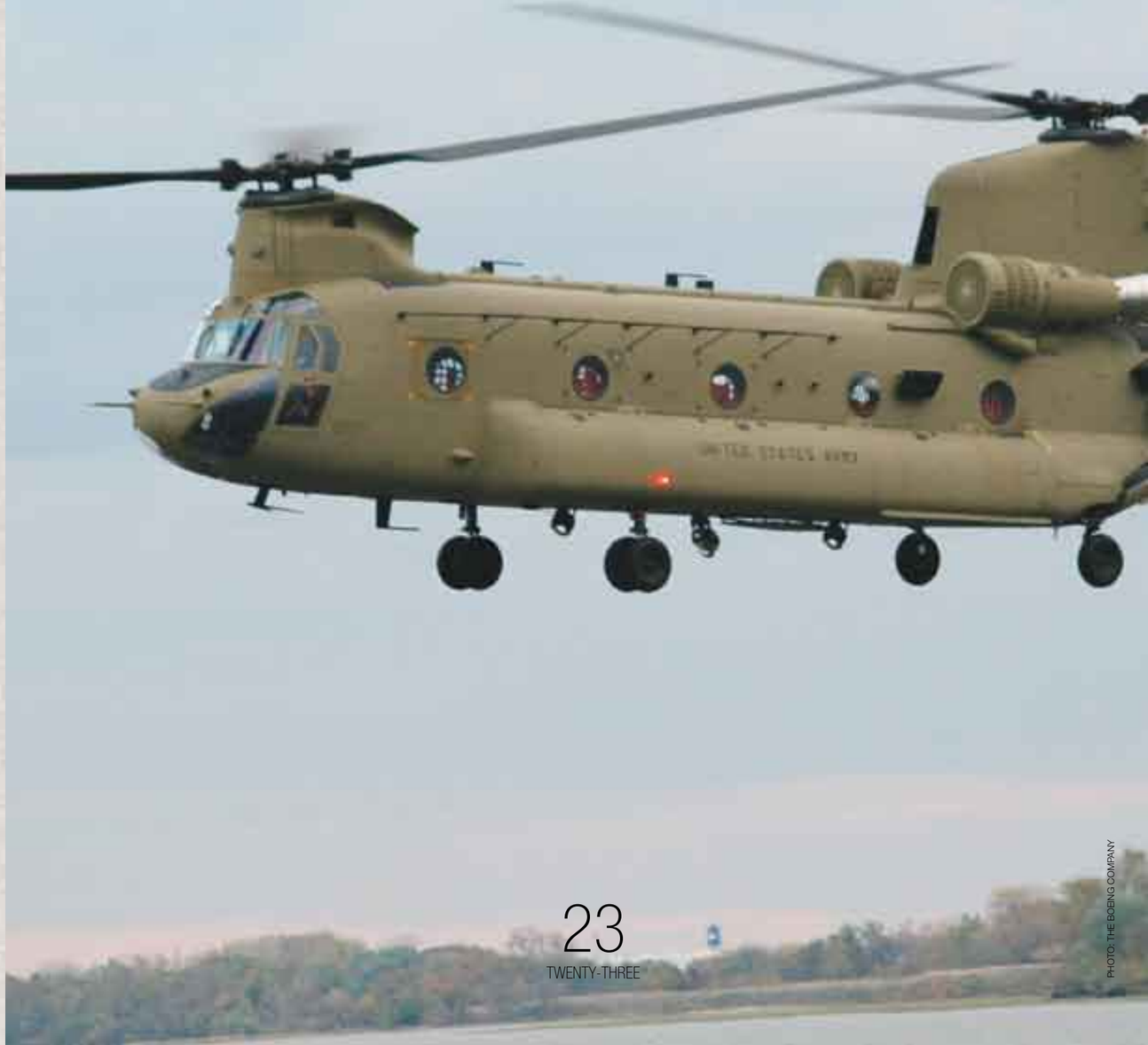


PHOTO: THE BOEING COMPANY

U.S. ARMY IN ACTION

BEST
OF THE BEST
BRAVO CO., 7-158TH COMMANDER
LT. COL. WALTER BRADLEY
TALKS MISSION PERFORMANCE

In the Army Reserve, we work for the Department of the Army, the Department of Defense, and we're under the 244th Aviation Brigade and the United States Army Reserve Command out of Atlanta, Ga.

Typical duties with the CH-47D Chinook are that we handle all aspects of military training and support. We are fully capable of performing all aspects of the CH-47 missions including day, night (with night-vision goggles) in virtually all weather conditions. In the event of any kind of a natural disaster, such as the one we responded to in Pakistan, we can haul cargo, relief supplies, humanitarian assistance supplies, anything that anyone would need in those scenarios. Stateside, we have responded to floods and firefighting.

PHOTO: JASON BARRAS

LT. COL. WALTER R. BRADLEY WAS THE COMPANY COMMANDER FOR BRAVO COMPANY, 7TH BATTALION, 158TH AVIATION REGIMENT, WHICH IS A CH-47D CHINOOK COMPANY BASED AT NEW CENTURY AIRPORT IN KANSAS, DURING DEPLOYMENTS TO PAKISTAN AND AFGHANISTAN.

To describe the Chinook, I would refer to its capability and versatility. When you speak about capability, look to the aircraft's performance, its power and versatility to handle different mission scenarios.

We were mobilized to go to Afghanistan as a company to perform a wartime mission. We were only at Fort Sill two days and were given a mission change for Pakistan to assist in the humanitarian efforts after the earthquake.

The mission in Pakistan was made for Chinooks because of the conditions we were in. We got there and we had to move rapidly. We moved by Air Force assets into Rota, Spain, then into Bagram and Afghanistan. We put the aircraft back together and we self-deployed them over as a unit into Islamabad to start our missions.

> I have never been in a scenario where a Chinook couldn't handle the mission.
>
> *– Lt. Col. Walter Bradley*

One day after we arrived in Pakistan, we were flying our first operational mission in the Himalayan mountains. Winter was coming on, so there was an overwhelming sense of urgency, and of course the immediate impact of the earthquake that killed tens of thousands of people. Relief supplies were needed because people were suffering there, and they could not be evacuated because of their numbers, the distance and the conditions of the mountains and the roads.

Our issues were operating at high altitudes, dust and snow conditions. Beyond that, the big demand was for of our crews to adapt to mission changes and switching from internal cargo loads, medical evacuations, external cargo loads, rolled vehicle, palletized equipment, and supplies. It was never-ending.

We'd be diverted to handle a medical evacuation mission or to move litter patients, litter casualties; we'd be diverted to accident scenes or hauling palletized cargo that was coming off airplanes from the international community. Mission changes were constant. The ability to land this machine in almost any condition is unique: mountains, two-wheel pinnacle landings, forward or aft gear. We'd be in snow in the morning, dust in the afternoon and operating up to altitudes as high as 14,000 feet. We did not need the water-landing capability, but we did need every aspect of the cargo handling, both internal and external.

We worked over several hundred square miles of the northern part of Pakistan, working out of Islamabad into the affected area to larger cities as well as the remote and isolated villages that were in very small, remote landing zones.

I have never been in a scenario where a Chinook couldn't handle the mission. You can land the machine on any slope, it doesn't matter. You are able to maneuver and hover around the center cargo hook, or maneuver around the nose or just around the tail as a pivot point in confined areas. That's part of the aircraft's flexibility.

During the overall deployment in Pakistan, we flew 3,000 flight-hours. We never cancelled a mission because of maintenance and we never lost a machine overnight in the field because of a mechanical failure. We moved over 25 million pounds of supplies, food, medicine, tentage and construction materials, and we evacuated over 4,000 refugees. In casualty evacuation, lifesaving mode, we moved over 300 medical patients. We terminated the mission in Pakistan in March 2006 and began moving back into Afghanistan to pick up our wartime mission in Kandahar.

We were in big demand in Afghanistan because of the capabilities of this machine and its ability to haul thousands and thousands of pounds of equipment. With the operating bases far out of Kandahar the re-supply effort for the most part was done by Chinook. We'd haul their food, their ammunition, fuel, we could externally load humvees over there. If something had to be moved out to the forward operating bases to support the troops, we moved it by Chinook.

I think one tremendous impact we had in Afghanistan was that we didn't move supplies by convoy on the ground, and thus you did not see the dangers associated with roadside ambushes, military vehicle breakdowns and having to retrieve that equipment out of the field.

We never lost a mission. We never cancelled a mission to any maintenance delay at all and that's a tribute to our folks who maintain these machines and the capability of that machine.

The same week we were going to Pakistan, our sister unit out of Fort Eustis Virginia was in New Orleans responding to the floods. The Chinook again is suited to that mission perfectly. Those folks have the capability to do rooftop landings or to do hoist extractions to remove people from rooftops, and if you are looking at being able to move 30 people at a time, that's a considerable capability that you don't have with smaller aircraft.

When you speak about capability, look to the aircraft's performance, its power and versatility to handle different mission scenarios. This capability enables us to respond. As always, the United States Army Reserve is ready to respond. ■

U.S. ARMY IN ACTION

THE HIGH AND THE MIGHTY

HIGH MOUNTAIN RESCUES

CW3 DENNIS RODGERS

Oregon National Guard, CH-47 Pilot

I've been on flight status, crewing Chinooks for 14 years. The Mount Hood rescue was one of those weekend calls: come in, fly to Mount Hood, see what you could do, provide the capabilities of high-altitude performance and possible mission insertion. So we went up. We had nine individuals in the back: para rescue men from the Air Force Reserves and some civilian climbers, and ultimately we had to ensure that gear, packs, ropes and individuals stayed safe. During a rescue mission, we are responsible for ensuring that the crew are hooked up correctly and hoisted down safely. There is a lot of activity in the back during these missions. And that's one of the critical things about the CH-47, when this aircraft is called upon to do a mission, it's ready to go. Much of this has to do with the experience of our guys, but it also comes down to the airframe and the support we have to get these things mission ready. ■

SGT. 1ST CLASS TODD ALBERTSON

Oregon National Guard, Flight Engineer, CH-47

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SPC. TIM HANFORTH

Oregon National Guard, Flight Engineer, CH-47

I've been operating on Chinooks for four years. I've been on three different rescue missions and numerous search missions – down to Bishop, Calif., Mount Rainer, Wash., and Mount Hood, Ore. Each one presents its own difficulties. All high attitude, but the weather, winds and other variables change the dynamics. The flexibility of the Chinook plays a huge part in the successful achievement of each mission – it's about being able to change on the drop of a dime, depending on the mission you are heading into. ■

STAFF SGT. ANDREW RODIN

Oregon National Guard, Flight Engineer, CH-47

I've been operating in Chinooks since 1997. The rescue on Mount Rainer required crew coordination – lowering the search teams to the target destination, looking straight down at a cable over 100 feet long and a quarter inch thick. It is vital to maintain communication and have good depth perception. We try to have at least four guys operating in the back during these rescues: maintaining airspace surveillance and ensuring crew safety. The maneuverability of the aircraft is a huge variable in the rescue. In the Chinook we can actually go left, right or forward in a matter of feet and then hold that hover, and that is a huge vari able to have such a stable platform. ■

CW 4 DOUG WALKER

Oregon Army National Guard, CH-47 Pilot

Where the Chinook succeeds is in its power. It takes us about 60 percent to hover at the higher altitudes, giving us the available power to maintain a large safety margin. We don't lose power to a tail rotor as some of the standard helicopters do and crosswinds do not affect us. ■

CW DAVID LONG

Oregon Army National Guard, CH-47 Pilot

Some of the high-mountain rescues encompass elevations anywhere from sea level to 13,000 feet. We were called upon on a late Sunday evening and asked if we could accomplish a mission down in Bishop, Calif. They had a stranded climber in the mountains at 13,000 feet. Bishop is about 575 miles away. That evening we planned for the rescue and the next morning loaded up an IRF tank and a CH-47 and flew the 575 miles nonstop. Upon arrival, we were given the location of the climber. He was just above the tree line, in a box canyon composed of granite and boulders. We had to approach the site in a manner that the only escape route for us was vertically up, or to back out of the situation. We got within about 50 feet of the rock face, hoisted the climber to the cable and got him out of there. ■

PHOTO: PORTLAND MOUNTAIN RESCUE

U.S. ARMY IN ACTION

TANDEM ROTOR SUPER SOAKER
THE CHINOOK FIGHTS FIRES

BY DMITRY CHEPUSOV, MASS COMMUNICATION SPECIALIST SEAMAN APPRENTICE,
NAVAL SUBMARINE BASE KINGS BAY, GA., PUBLIC AFFAIRS

KINGS BAY, Ga. (NNS) – Kings Bay sailors assisted the Georgia Forestry Commission in a massive firefighting effort to extinguish an ongoing fire that destroyed nearly 500,000 acres and displaced many area residents.

A severe drought and strong winds fanned several major fires that have burned in southeast Georgia and northeast Florida since April 16.

Although the fires were more than 40 miles west of the strategic submarine base, the impact was felt by many on the base and in the community.

Fire departments from Camden County and from around the state sent volunteers, many of whom were sailors assigned to Kings Bay to fight the fires. The volunteers used their off-duty time to bring their department's auxiliary trucks to assist in fighting Georgia's largest forest fire to date.

"This fire was very exhausting to fight, but it also demanded a lot of respect," said Culinary Specialist 1st Class (SS) Jeffrey Lay, a Kingsland volunteer firefighter.

"Many of our younger firefighters had the opportunity to experience what it is like to deal with a real emergency. This fire is definitely a once in a lifetime experience for many of us," added Lay.

According to the Georgia Forestry Commission, more than 900 firefighters and 100 fire trucks were on scene in neighboring Ware County at any given time. In addition, an Air National Guard unit based at Hunter Army Airfield in Savannah provided much-needed air support with several CH-47 Chinook rigged with buckets capable of scooping up to 2,000 gallons of water every few minutes to douse the blaze.

A National Guard unit based at Hunter Army Airfield in Savannah, Ga., provides air support with a CH-47 Chinook rigged with a bucket capable of scooping up to 2,000 gallons of water every few minutes to help douse fires in the area.

"When you were attacking the fire head-on it was incredibly hot," said Lay. "When the helicopter dumps 2,000 gallons of cold lake water on the flames the effect is instant. It allowed us to move in closer and attack the flame more directly."

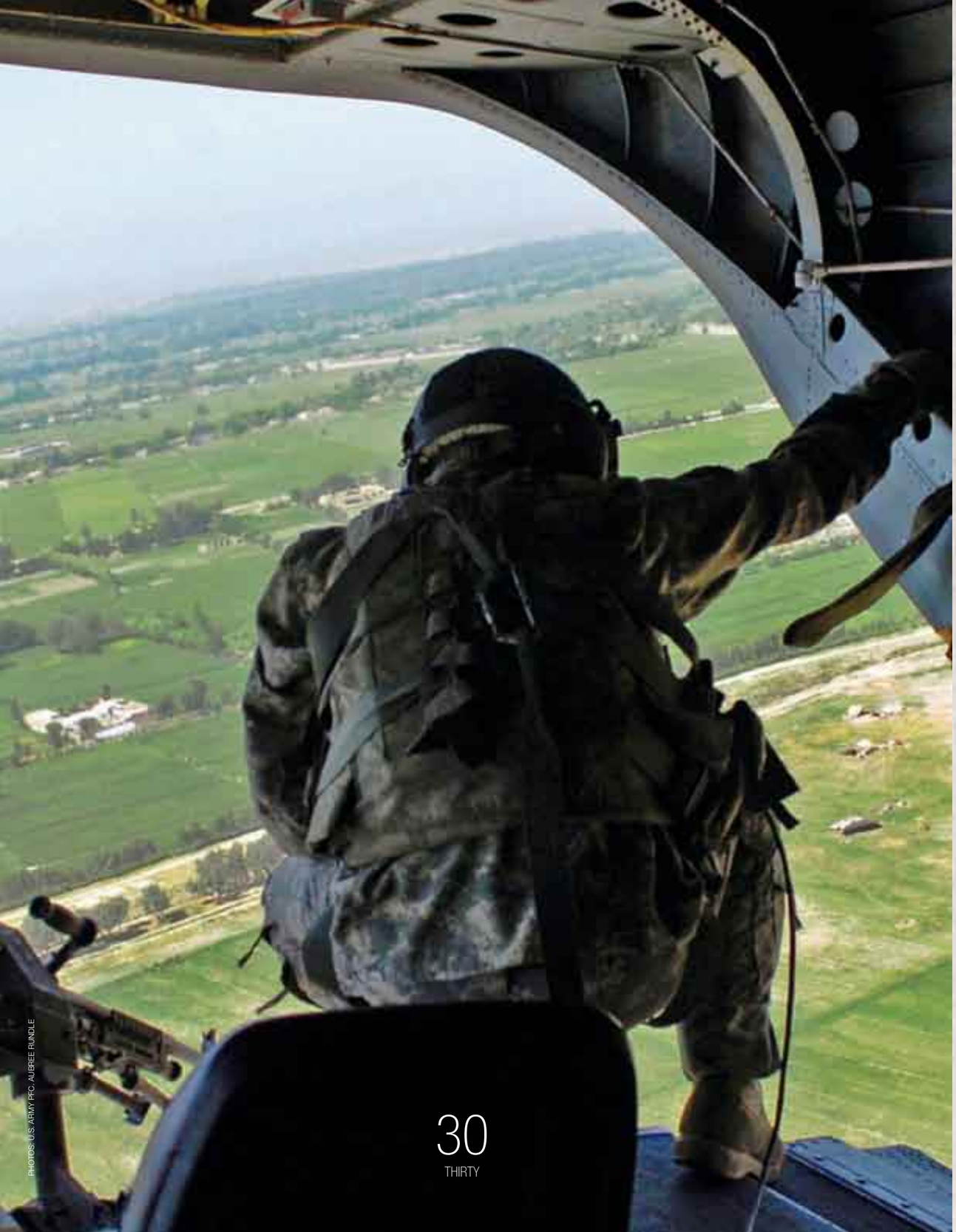
Although the submarine base is not in the path of the fire, Kings Bay Commanding Officer Capt. Mike McKinnon asked the installation's community relations manager, Neil Guillebeau, to explore ways in which the base could assist the firefighters.

Working with local organizations and community relations contacts within the state through e-mail, Guillebeau connected them directly with the commission's joint information center in Waycross with a list of needs that included bottled water, baby wipes and volunteers to help cook in the base camps.

"The e-mail traveled rapidly to people and places I never expected, and folks locally and from places 400 miles away began mobilizing efforts to provide support," said Guillebeau. "It is uplifting to know that during that extended and difficult firefighting challenge people near and far are not only concerned about our firefighters, they are continuing to chip in with prayers, money, donations and volunteer time."

The fires, after six weeks of burning, consumed more than 500,000 acres at a cost in excess of $55 million. More than 3,000 firefighters, some volunteering to come from as far away as Puerto Rico, are battling 36 active wildfires in southeast Georgia, with more fighting fires in adjacent northeast Florida. ■

PHOTOS: U.S. NAVY, MASS COMMUNICATION SPECIALIST SEAMAN APPRENTICE DMITRY CHEPUSOV

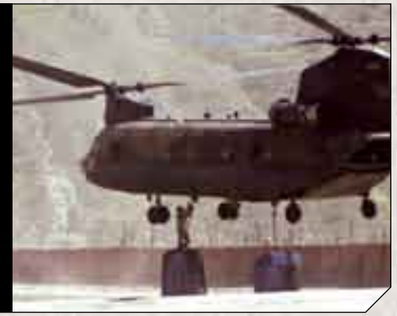


PHOTOS: U.S. ARMY PFC. AUBREE RUNDLE

U.S. ARMY IN ACTION

CHINOOK ESSENTIAL TO GROUND TROOPS

BY PFC. AUBREE RUNDLE, TASK FORCE PEGASUS PUBLIC AFFAIRS



C Company, 3rd Squadron, 17th Cavalry Regiment, 10th Mountain Division. **Right:** Troops make their way down a mountain to board a CH-47 at observation post Copenhagen, Afghanistan, to move to another Observation Post. **Left:** A soldier hooks two water palettes to a CH-47 to sling-load to soldiers at combat operation bases in northeastern Afghanistan.

FORWARD OPERATIONS BASE NARAY, Afghanistan – Pilots, crew chiefs and door gunners from B Company, 3rd General Support Aviation Battalion, 82nd Combat Aviation Brigade provided operational support to ground troops April 14, 2007.

Task Force Spartan's team elements received combat supplies and air assault assistance for Task Force (TF) Titan troops from Pegasus and Bravo Company.

"The soldiers from Co. C, 3rd Squadron, 17th Cavalry Regiment, 10th Mountain Division carry out movements throughout the northeastern region of Afghanistan and rely on TF Pegasus to provide provisions and transportation to their mission locations," said Army Capt. Jeffrey O'Dell, Operations Commander, 3-17th Cav.

"Without roads developed in these mountain regions, it's difficult to get supplies out to the combat operation areas," said Army Staff Sgt. George Beckett, logistics noncommissioned officer in charge, Co. C, 3-17th Cav.

The supplies that are transported by Co. B include ammunition, food and water, mail and combat equipment.

These supplies are transported in CH-47s Chinooks by means of sling-loading cargo underneath the aircraft or packing the aircraft's body with troops and supplies. A CH-47 can carry up to 10,000 pounds of cargo in one trip.

"Pegasus transports supplies almost weekly, keeping our soldiers well equipped and satisfied," said Beckett. "If we don't receive a delivery of water, soldiers don't drink water. Aviation support is that essential."

"Whether it is mail, (ammunition) or food packs, whenever a resupply helicopter arrives, especially before a mission, our team's entire attitude changes for the better," said Army Sgt. David Fischer, fire squad leader, Co. C, 3-17th Cav. "Getting mail out here is like Christmas Day."

"This operation and location wouldn't exist without the support that Co. B and Pegasus provide for our troops," said O'Dell. ■

U.S. ARMY IN ACTION

AIR CREWS TRANSPORT COALITION FORCES

BY SPC. DANIEL BEARL, 25TH COMBAT AVIATION BRIGADE PUBLIC AFFAIRS

TIKRIT, Iraq (American Forces Press Service, Feb. 5, 2007) – On Jan. 30, six CH-47 Chinooks touched down outside two villages near Kirkuk, Iraq. Iraqi and coalition soldiers poured from the back of the aircraft before the double-bladed machines lifted off again.

The sun was just beginning to break the horizon as the helicopters flew back to a nearby coalition base to stand by to pick the troops up again, but their aircrews had already been working for hours.

The pilots and crewmembers of the aircraft had been preparing their aircraft and examining maps of their routes and objectives since shortly after midnight that morning.

"(It was) pretty much a standard-type air assault that we do in order to assist the Iraqi army (IA) in doing cordon and searches so that the local populations can see that the IA is empowered and can provide security for the local nationals in the area," said Capt. James Fisher, the commander of B Company, 3rd Battalion, 25th Aviation Regiment, 25th Combat Aviation Brigade whose unit provided the Chinooks for the mission.

The ground troops' mission was to establish a perimeter and search the two villages for weapons caches or improvised explosive device production facilities. For the aircrew, the mission was simply to get the troops in and out as quickly and safely as possible.

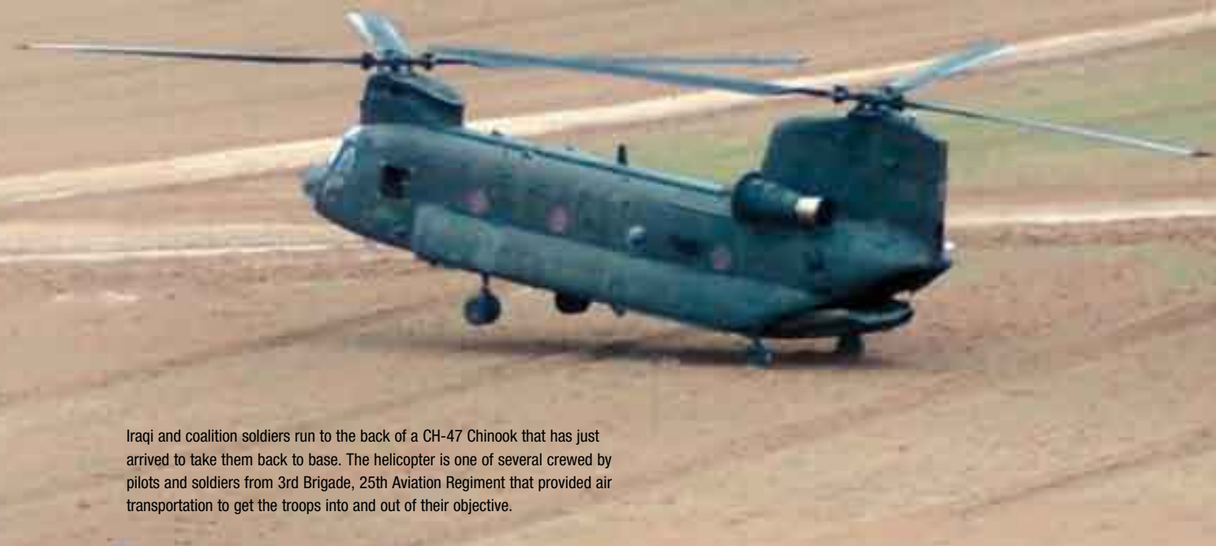
"This can be dangerous in itself, especially with so many aircraft involved," said Sgt. Jesse Anderson, a crew chief for one of the Chinooks from B Company, 3rd Battalion, 25th Aviation Regiment, 25th Combat Aviation Brigade.

"There's a lot of stuff flying around," Anderson said, "so we got to keep alert, make sure we don't fly into each other and watch out for obstructions on the ground. Coming in under goggles, kicking up dust is probably the most risky part of the operation for us."

Flying under goggles is when the pilots and crew operate the aircraft in the dark using night-vision equipment to see.

Working with Iraqi soldiers presents some challenges for the air crew. Before lifting off to take them to the villages, the crews and soldiers from 2nd Battalion, 6th Cavalry Regiment drill with Iraqi soldiers on loading and unloading the helicopters.

In the dark, just-above-freezing morning air, the troops practiced running onto the aircraft and taking their seats and then rushing out again.



Iraqi and coalition soldiers run to the back of a CH-47 Chinook that has just arrived to take them back to base. The helicopter is one of several crewed by pilots and soldiers from 3rd Brigade, 25th Aviation Regiment that provided air transportation to get the troops into and out of their objective.

PHOTO: 25TH COMBAT AVIATION BRIGADE PUBLIC AFFAIRS

"You have a communications barrier and the biggest thing you need to have is linguists," Fisher said.

Interpreters with Iraqi troops echoed the coalition soldiers' orders in Arabic while the troops trained. Once the ground mission was completed, the Chinooks took to the skies again to retrieve the troops and bring them back to base.

The flights keep the aircrews very busy.

"We have to maintain the aircraft, make sure everything is good to go for the flights," Anderson said. "And then we get up, go out and fly. We have to man our guns and maintain airspace surveillance."

Despite the dangers and the challenges, the pilots and their crews say they enjoy their work.

"I enjoy the fact that I get out and I actually execute the mission," Fisher said. "It's good to actually have job satisfaction and to know that you're out there helping people and you're getting the job done."

"For me, I enjoy just getting up and going out and flying around," Anderson said. "Sitting back on the ramp, it's like watching the world through a big-screen TV. I love it." ■

U.S. ARMY IN ACTION

MARYLAND NATIONAL GUARD WINTER HELP

BY CAPT. DAVID MAGNESS, MARYLAND NATIONAL GUARD

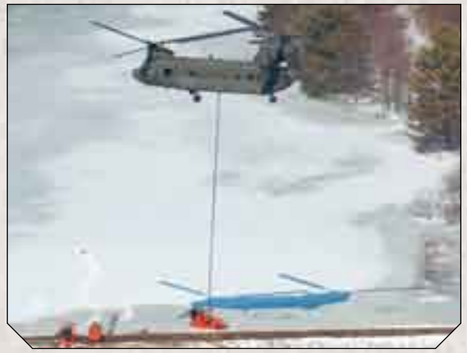
OAKLAND, Md. – Soldiers and their helicopters from two Maryland Army National Guard aviation companies were called out in early March to move pumps into position to drain water from an overflowing reservoir.

Water from a 7.5-million-gallon reservoir in this small western Maryland mountain town was pouring over an earthen dam, threatening the safety of homes and businesses downstream. Beavers had clogged the dam's drainage pipe so thoroughly that divers could not clear it. To make matters worse, warmer temperatures were forecast that would melt the snow pack and raise the water level. The reservoir urgently needed to be drained of some of its water.

Soldiers from Company B, 3rd Battalion, 126th Aviation and Company C, 2nd Battalion, 224th Aviation used CH-47 Chinooks to lift two 8,900-pound pumps into place so they could begin draining the water and easing the pressure on the dam. UH-60 helicopters were also used in the operation.

The helicopters and crews overcame several challenges, including small landing and pickup zones with encroaching wires and buildings, unusual loads and nighttime operations.

Maryland Army National Guard CH-47D Chinook from Company B, 3rd Battalion, 126th Aviation Regiment, assists local authorities by hauling two giant pumps used to relieve pressure on a dam in the western Maryland town of Oakland on March 7.



Almost all the members of newly minted Company B were new to the CH-47 and were not experienced in this type of mission. Combat veterans of the 29th Combat Aviation Brigade and Company C aided their Chinook brethren.

The helicopter crews rehearsed for the mission by hauling a 4,000-pound oil tank to the top of the dam and carefully setting it down.

After the pumps were in place and operating, the reservoir level receded, allowing workers to unclog the drainage pipe and avoid a potential flood.

"The training gained by deploying Company B will prove instrumental to the war fight and to future emergency hurricane and flood missions in the United States," said Col. Fritz Kirklighter, the 29th CAB commander.

"This mission was a tremendous success," said Kirklighter. "Citizen-soldiers took time off from their jobs and families to help their neighbors in need. We were needed to support the people of Maryland, which also gave our soldiers better training to refine both our state and combat operation missions." ■

PHOTOS: MARYLAND ARMY NATIONAL GUARD

INTERNATIONAL FOCUS

BRAVO NOVEMBER
REMEMBERED

BY PATRICK ALLEN

On April 25, 1982, four Chinook HC1s and 100 personnel from 18 (B) Squadron, under the command of Wing Commander Tony Stables embarked with the British Task Force to sail south to the Falkland Islands.

The four aircraft, along with all their engineering spares and the majority of squadron personnel, were loaded onto the MV *Atlantic Conveyor*. As the ship approached the Falkland Islands, the four aircraft, which had been cocooned in plastic for the journey with their blades removed, were prepared for flight by the squadron engineers. On May 25, 1982, the *Atlantic Conveyor* was due to enter San Carlos waters, but was hit by an Argentinean Exocet missile. The ship caught fire and sank with the loss of 12 lives. The passengers and Squadron personnel had to jump into the sea to await rescue.

At the time of the attack, Chinook HC1, ZA718 with the squadron code BN (Bravo November) was airborne on an engineering test flight. The remaining three Chinooks aboard the container ship were lost but Bravo November managed to make it to the safety of the aircraft carrier HMS *Hermes*.

With only one surviving Chinook, no engineering spares, tents or other supplies BN plus two aircrews (two pilots and two load masters) and 17 engineers deployed ashore, they joined up with 846 Naval Air Squadron who were flying Sea Kings from a forward operating base at San Carlos.

Almost immediately, the Chinook was tasked to support Special Forces patrols that had started to occupy Mount Kent, a strategic location overlooking Port Stanley. These patrols were coming under heavy fire from Argentinean positions. On May 25, BN was tasked to move three 105mm howitzers (carried internally) and 22 men with under slung pallets of ammunition forward to support these Special Forces patrols. A difficult night task, even with the aid of recently issued night vision goggles, the mission was made harder as the landing site was on sloping ground covered in large boulders. This meant that the pilots had to maneuver within range of the enemy for long periods to find suitable locations to deploy the guns in exactly the right position for the gunners. Sea Kings subsequently brought up ammunition to supply the 105mm gun.

PHOTOS: PATRICK ALLEN

While returning from their last drop-off, the crew of BN encountered heavy snow showers. Flying low and fast to reduce their exposure to the enemy, they accidentally hit the water at over 100 knots. On impact, a huge bow wave went over the top of the cockpit and the engines almost flamed out. With the collective in the raised position, and the engines going into "pull" power, the Chinook lifted off the water and only sustained limited damage, ripping off the radio antennas, along with several dents in the fuselage and the loss of a cockpit window. The major concern was the helicopter now had no navigation system or radios for the return to San Carlos.

Squadron engineers did magnificent work keeping the aircraft serviceable during the following vital two weeks, as British Forces began their advance to Port Stanley. The British 105mm guns relied on BN and other Navy helicopters to move them forward, bring up supplies of ammunition and take casualties back to the field hospital at Ajax Bay.

The Chinook's legendary status was confirmed when it flew 81 fully equipped men from two PARA forward in a single lift to a position 10 miles from Port Stanley before the final assault, then returning for a second load. This time 75 PARAs were carried, thereby saving many hours of marching. Between May 27 and June 14, BN flew a total of 109 hours; carried over 2,150 troops, 500 POWs, 95 casualties; and lifted in excess of 550 tons of cargo. All this was achieved with no spares, a tribute to the squadron engineers who kept the aircraft flying. Squadron Leader Dick Langworthy who was at the controls of the aircraft, during the night gun mission to Mount Kent, was later awarded the DFC.

Dick Langworthy returned to the Falklands a year later, as Officer Commanding 1310 Flight but sadly died of a heart attack. In his honor, the Air Force Board approved the placing of a plaque in the cockpit of ZA718 to commemorate his DFC.

BN returned to the Falklands quite soon after the conflict, operating with No. 1310 Flight (Chinook), based at Kelly's Gardens, near Port San Carlos. This flight was formed from Nos. 7 and 18 Squadron personnel, until amalgamated with No. 1564 Flight (RAF Sea King HAR3s) to form No. 78 Squadron based at RAF Mount Pleasant.

Since the Falklands Conflict, ZA718 has been updated to Chinook HC2 standards and has seen action in every major operation the RAF has been involved, including Lebanon in 1983, Northern Ireland, the first Gulf War and Kurdistan in 1991. It was the first British helicopter to land Royal Marines ashore in Iraq during Operation Telic (Gulf War 2). Squadron Leader Steve Carr, who flew ZA718 during Operation Telic, later became the second pilot to be awarded the DFC at the controls of this aircraft.

Today, BN is operating on the front line again, this time deployed to Afghanistan as one of the Chinooks operating with No. 1310 Flight as part of Joint Helicopter Force (Afghanistan). They fly throughout the southern region of Afghanistan supporting UK, Afghan and NATO-led International Security Assistance Force units covering long distances and encountering difficult conditions. Based at Kandahar airfield, Chinooks also are routinely forward deployed to Camp Bastion at JHF (A) Forward undertaking Instant Response Team and High Readiness Force duties, whilst other Chinooks undertake day-to-day tasking.

The plaque inside Bravo November to commemorate the role played by pilot Sqn Ldr Dick Langworthy during the Falkland War.

A typical day would see the Chinooks, including BN (Chinooks operate in pairs to provide mutual support) departing Kandahar to deliver urgently needed humanitarian aid (underslung netted loads) to a forward distribution point deep within southern Helmand, immediately followed by a casualty evacuation to the field hospital at Camp Bastion. Once refuelled, the Chinooks are retasked to move a 105mm light gun battery, ammunition and resupplies to a remote forward location in the mountains northwest of Kandahar.

On the way back, the Chinooks deliver mail, supplies and troops to a number of outposts at FOBs Robinson at Sangin and Gereshk and on to Lashkar Gah, before heading back to Camp Bastion to refuel. Next they move company-strength marines from 42 Commando.

This mission is to preposition the marines prior to a major raid due to take place that night at Kajaki. Whilst this is taking place, IRT aircraft have been launched to recover an injured Afghan National Army soldier. Chinooks work long hours each day, which are often followed by night missions. The operational capabilities of the Boeing helicopter continue to exceed all expectations.

After 25 years of service, BN is still proving to be a key player in supporting UK military operations. ■

Chinook (ZA718) Bravo November seen in April 2007 over The Red Desert on the way from Kandahar to Camp Bastion in Helmand Province Afghanistan

INTERNATIONAL FOCUS

ANTARES REGIMENT HELPS HONOR FALLEN COMRADES

An Italian army Chinook was The star at an event to commemorate army service men and women who gave their lives in the service of their country. into Lake Bolsena, Europe's largest volcanic crater lake, some 60 miles north of Rome, A chinook Released a commemorative plaque, to sink and lie forever on the lake's deep bed.

The helicopter then demonstrated its superb flying agility and made a lake landing, before returning to the base of the Antares – 1st Army Aviation Regiment at Viterbo, the historical town known as the City of the Popes. The event was attended by a large crowd of enthusiastic visitors and by Lt. Gen. Rocco Panunzi (head of Italian army military personnel), Maj. Gen. Enzo Stefanini (Chief of the Italian army aviation) and Col. Erminio Pierangelini, Commanding Officer of the Antares regiment. ■

An Italian Army Chinook, left, prepares to release a plaque into Lake Bolsena. A large crowd turned out for the event.

INTERNATIONAL FOCUS

DUTCH CHINOOKS IN HIGH DEMAND: A CONVERSATION WITH 298 SQUADRON COMMANDER BART HOITINK

BY MARIBETH BRUNO

The Royal Netherlands Air Force's CH-47D Chinooks have seen the better part of the world while on deployment for all but one of their 11-plus years of service.

The unique capabilities of both the Dutch Chinooks and the 180 members of Operating Squadron 298 have created a high demand for their services in international crisis and relief missions in the Federal Republic of Yugoslavia, Africa, Eastern Europe, Iraq and Afghanistan, to name just a few recent deployments. The squadron supports the Dutch Air Mobile Brigade, NATO and United Nations operations.

In June 2007, 298 Squadron Commander Lt. Col. Bart Hoitink was overseeing the deployment of three Chinooks performing a variety of missions in Afghanistan, three more flying advanced training exercises in Spain, two taking part in basic training and test flights at Soesterberg Air Base in the Netherlands, with no more than two to three at a time in phased maintenance at Soesterberg or at Materiel Command in Woensdrecht. "It's a precise puzzle" to maintain optimum aircraft and personnel availability, Hoitink said.

Six new-build CH-47F (NL) Chinooks will be delivered to the squadron in 2009–2010. They will include an Avionics Control and Management System cockpit avionics suite, an integrated forward-looking infrared capability, improved situational awareness and survivability features, special operations equipment and a modernized airframe.

Preparations for the new aircraft have increased Hoitink's workload, but he noted that the purchase resulted from the squadron's success with its current fleet. "The 'big truck' has proven itself," he said.

The following is an excerpt of an interview conducted with Lt. Col. Hoitink in June 2007.

CHINOOK NEWS: What's the current status of 298 Squadron?

HOITINK: Because of all the experience and success we've had so far, we deployed again to Afghanistan in May 2007 for operations that will continue at least until August 2008 and eventually some time longer, depending on a political decision. That's three Chinooks and 30 people in theater, with redeployments every three to four months to give everyone a certain amount of time back in the Netherlands.

To sustain our work in Afghanistan, we're constantly training the troops who are about to go and reevaluating our training methods. Right now we have three Chinooks in Spain for training in hot temperatures and high altitudes. They'll then go on to Italy for training in mountainous terrain.

CHINOOK NEWS: The Dutch Ministry of Defense signed a contract for six Netherlands-unique CH-47F Chinooks in February 2007. Will the squadron grow to match its increasing fleet size?

HOITINK: Last year we made some changes to our organization so that we can gradually increase the size of the squadron to 300 personnel by 2012 or 2013. We'll have the F-series Chinooks then and of course we need the pilots, loadmasters and technicians to operate them.

We currently perform corrective maintenance at Soesterberg and preventive maintenance both at Soesterberg and at Materiel Command in Woensdrecht. But by mid-2009, a completely new maintenance squadron will be established to perform all preventive maintenance on the Chinooks. That relieves 298 Squadron of that pressure and allows us to move from three to five flights of personnel to rotate into deployment.

There's a huge demand on the Chinook. You can feel and see that everyone's very proud to be flying it.

CHINOOK NEWS: Do you plan to conduct the same kinds of missions with the F-series Chinooks as you do with the D model?

HOITINK: When we were in Afghanistan from 2005 to 2006 to prepare the road for NATO, that was more of a special forces mission, and during that time we lost two of our original 13 Chinooks – with no casualties. So when we were looking at the new builds – I was in the procurement office at headquarters then – we were looking for a little bit more capability to support special forces. But generally, we had had success with our D-series Chinooks and wanted more of the same, for humanitarian work and special forces support.

CHINOOK NEWS: Dutch Chinooks already have some unique features. How will the F-series Chinooks improve on those?

HOITINK: With the D-series, we have a very modern glass cockpit that some countries are jealous of. With it, we can foresee parts of the flight – if we get a request for a change in mission, we can simulate it while flying. We tell it we need to be at this position to pick up this much freight, the temperature is this, etc., and the Chinook will tell us if we can do the mission. That's a huge advantage in harsh conditions and some nasty locations. We also have capabilities in protection against missiles and radar – we came up with a solution we use in all our transport helicopters, airplanes and attack helicopters.

All that will be brought forward into the CH-47Fs; plus we're focused on adding growth potential, expansion capabilities. If we need something to be added, it must be possible for it to be put on quickly. We're moving toward using night sight instead of goggles. On the electronic warfare side, we're always looking at new possibilities – moving from more passive to more active protection, for example. We're conducting some test flights now to determine the best placement for various sensors.

CHINOOK NEWS: Could you describe a memorable recent mission?

HOITINK: There was fighting going on in a city in Afghanistan, during which Taliban forces had pushed out the Afghan police and army and international forces. So we were part of an assault operation over a couple days during which ground forces were supported by helicopters and protected by Apaches and fighters. It required very quick transport of troops and supplies so they could go on with the fight. The city was held by the Taliban for just 24 hours before it was retaken, which the Afghans were very happy about.

Of course, all our missions are memorable – we're operating at high threat levels. I talk with the squadron members deployed to Afghanistan every week, and they are on some breathtaking missions. When they tell their stories, you feel the tension and how much they rely on the Chinook helicopter every day. ■

PHOTO: PROVIDED BY ROYAL NETHERLANDS

FROM VIETNAM
TO IRAQ TO AFGHANISTAN

ARMY RESERVE **AIR WARRIOR CONTINUES LEGACY** OF **SELFLESS SERVICE**

BY MAJ. JERRY GRAY, U.S. ARMY RESERVE COMMAND, AVIATION DIRECTORATE, TRAINING AND STANDARDIZATION

On March 9, 2007, in Bagram, Afghanistan, SSG James A. Fleming, an Army Reserve soldier with Chinook Company A, 7-158th Aviation Regiment (The Yetis), received recognition from Brig. Gen. William H. Forrester, director of Army Safety, commanding general, United States Army Combat Readiness Center, for safely flying more than 5,000 flight hours as a crew chief and flight engineer.

SSG Fleming is one of the few if not the only flight engineer and Air Warrior who flew combat missions in Vietnam, Iraq and Afghanistan. Over 75 percent of the unit was not even born when Fleming joined the Army on March 28, 1968.

Everyone seems to ask Fleming the same question; "How can you serve on Active Duty in the National Guard and the Army Reserve for almost 40 years and only be an E-6?" SSG Fleming's response is easy for an Air Warrior to understand, "I get to fly as a staff sergeant. As a SFC or MSG I get to hover over a desk." His warrior ethos is captured in selfless service that is above and beyond the normal call of duty and worthy of emulation of all soldiers sacrificing to support the Global War on Terrorism.

Staff Sgt. James A. Fleming is awarded a certificate for flying more than 5,000 flight-hours.

In 1996 he deployed for the Haiti Peacekeeping Mission. On Jan. 15, 2003, SSG Fleming deployed to Balad, Iraq and he volunteered to redeploy to Afghanistan in March 2006.

Upon arriving in Iraq, SSG Fleming and A/5-159th Aviation Regiment, Army Reserve (CH-47D), moved 220 soldiers, 15 Chinooks and 75 twenty-foot-long containers across 550 miles of Iraq without an incident. "Home" became an aircraft in a bombed out hangar for the next three months. SSG Fleming flew approximately 90 missions and 350 combat-hours in Iraq.

When asked what he wanted or needed for all his selfless service to his country he replied: "All I need is to know I did my job to the best of my abilities and that I provide my family, my grandchildren and their children a safe and free country for all Americans to live. Freedom is not free, but it is a price that my wife and I have gladly paid." ■

PHOTOS: U.S. ARMY RESERVE

INTERNATIONAL FOCUS

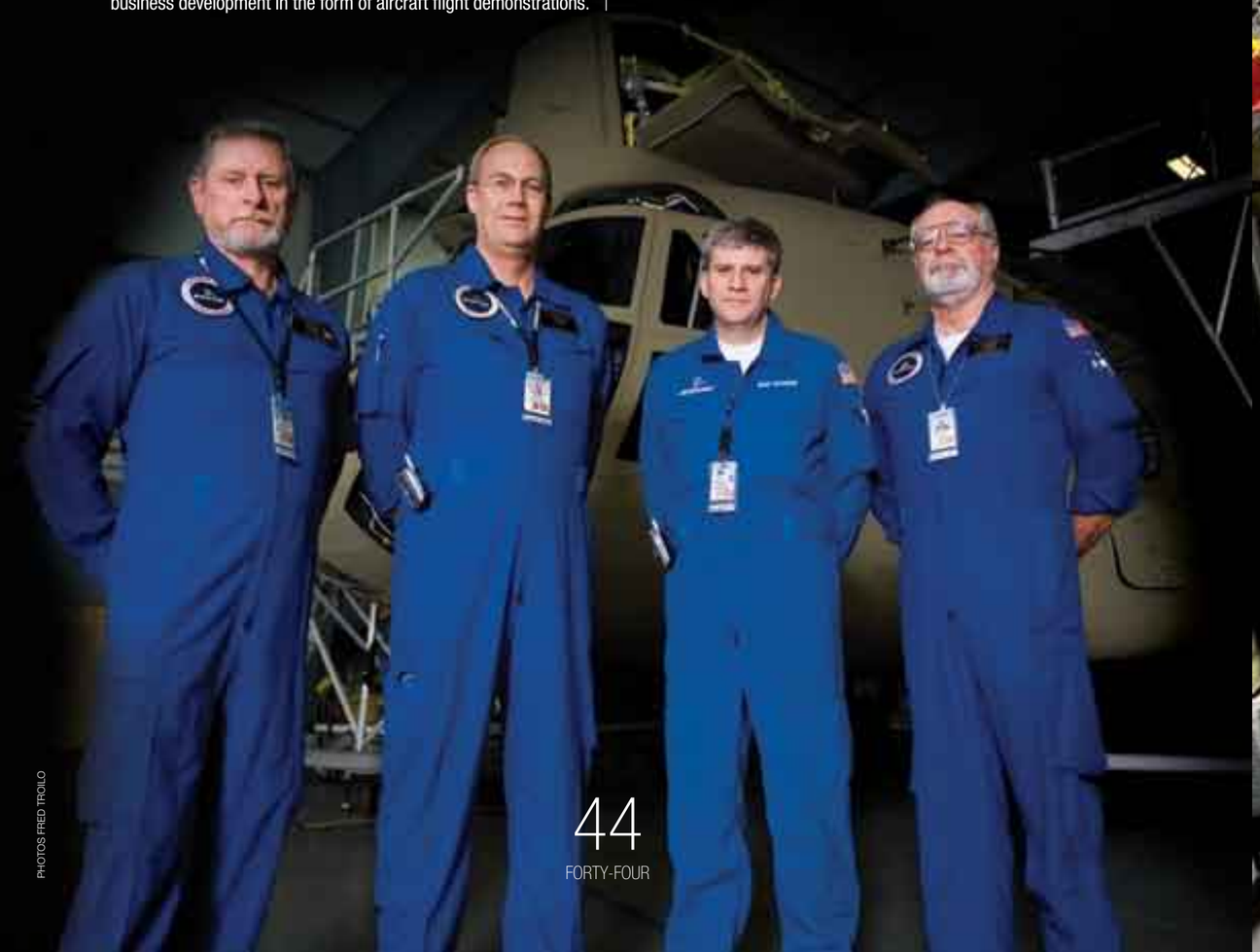
FIRST TO FLY

A PROFILE OF BOEING FLIGHT OPERATIONS

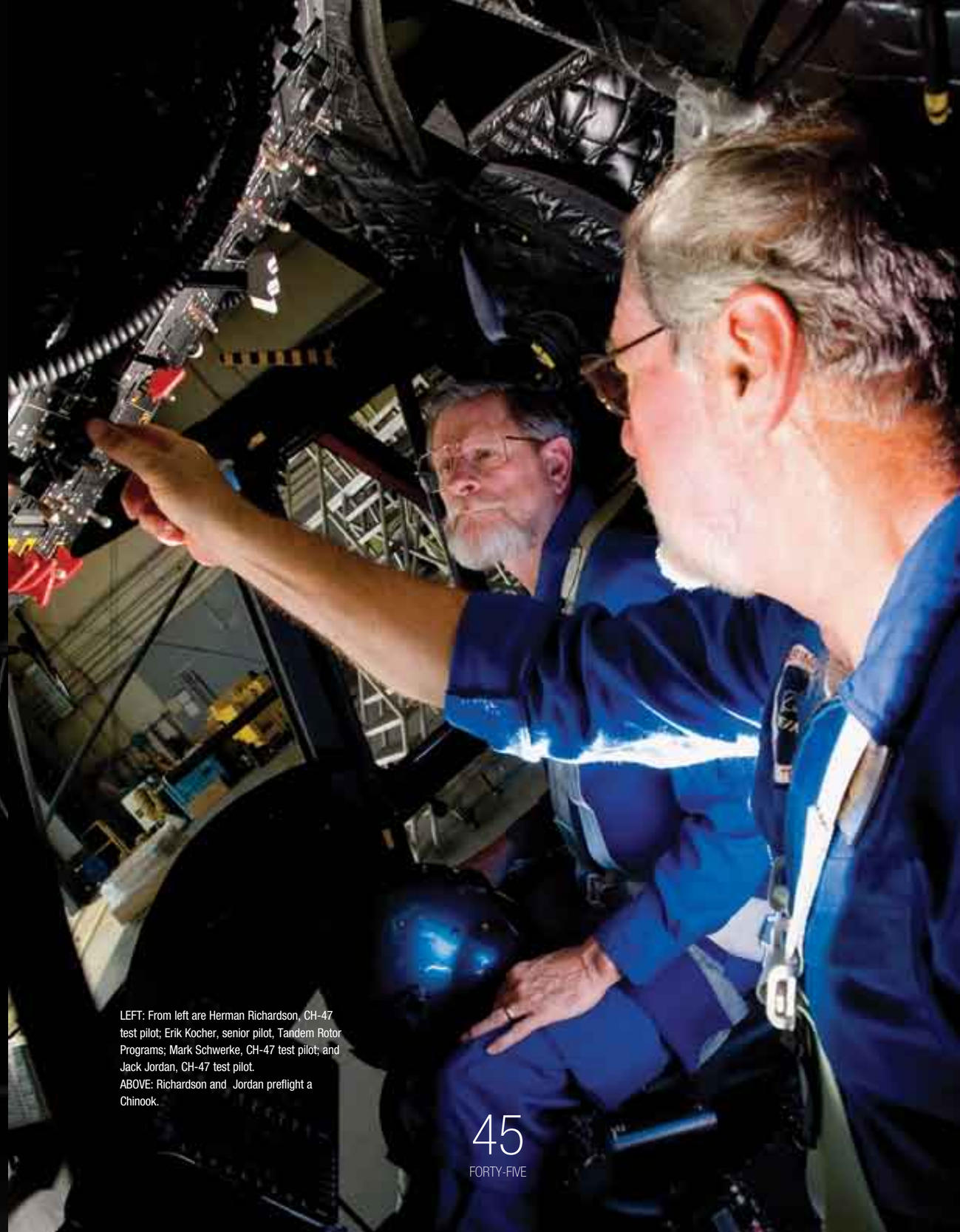
BY CHARLES CLOUGH III

Flight Operations is a multifaceted organization with a primary mission to support various flight requirements for the CH-47 programs. These include Experimental Flight Operations, Engineering Flight Operations and Production Flight Test. The department performs worldwide support of aircraft deliveries, flight training and program support. Flight Operations also supports new business development in the form of aircraft flight demonstrations. The department also is responsible for training and annual proficiency evaluations of Boeing flight engineers.

Flight Operations is staffed with four pilots, two flight engineer instructors, one aircraft scheduler and a manager. These individuals represent more than 67 years experience with The Boeing Company and more than 32,000 hours of flight time. ■



PHOTOS FRED TROILO



LEFT: From left are Herman Richardson, CH-47 test pilot; Erik Kocher, senior pilot, Tandem Rotor Programs; Mark Schwerke, CH-47 test pilot; and Jack Jordan, CH-47 test pilot.
ABOVE: Richardson and Jordan preflight a Chinook.

TEAM CHINOOK SUPPLY NETWORK

To deliver a superior heavy-lift aircraft, the Chinook Team must work together with a focus on efficiency, productivity and the fiscal bottom line. Maintaining customer satisfaction is a commitment Boeing and its network of suppliers continue to honor.

In today's global economy, the relationships forged between Boeing and its suppliers facilitate the company's ability to exceed customers' expectations.

Team Chinook suppliers are a diverse group scattered across the United States. In addition to providing parts, components and specialty items to ensure that Chinooks are delivered on time, Boeing and these suppliers support urgent needs for spares and repairs so the U.S. Army can keep pace with wartime operational tempo – providing parts needed to keep Chinooks in flight.

Many suppliers have been part of the Chinook program since before production of the first Chinook and others are coming on board to provide technologies to be incorporated on the new production variants of the H-47. Each Chinook supplier is valued for its unique contributions to the success of the Chinook program. ■

Alabama
Electro Systems
PPG Industries

California
Barry Wright Corp
Ducommon Aerostructures Inc.
Esterline Mason
Hamilton Sundstrand
HR Textron
Hydroform USA
Industrial Tectonics Bearing Corp.
ITT Industries Inc.
Le Fiell Manufacturing
Loud Engineering & Manufacturing Inc.
Meggitt Airdynamics
Pacific Contours
Parker Hannifin Corp.
Smiths Aerospace
Tuffer Manufacturing
Whittaker Controls

Colorado
Manes Machine & Engineering

Connecticut
Fenn Manufacturing
HTD Aerospace Inc.
Leed Corporate Services
Purdy Corporation

Delaware
Summit Aviation

Florida
Aerosystems International Inc.
Crestview Aerospace Corporation
Pall Aerospace Corp.
Shaw Aero Devices Inc.

Georgia
Boeing Macon
Engineered Fabrics
L3 Communications

Idaho
Unitech Composites

Illinois
Borg Warner Transmission
Northstar Aerospace Inc.

Iowa
Rockwell Collins

Kansas
Excell Manufacturing
Globe Manufacturing
Plastic Fabricating Co. Inc.
Senior Aeros Operations

Kentucky
Blue Grass Army Depot

Maryland
Bechdon Company Inc.
Harvard Custom Manufacturing Inc.
MRA Systems Inc.

Massachusetts
AMETEK

Michigan
Aeroquip Fluid Con
Model & Tools Inv

Minnesota
Rosemount Aerospace Inc.

Mississippi
Eaton Aerospace

Nebraska
General Dynamics

New Hampshire
Timken Aerospace
Vibrometer

New Jersey
Bodine Tool & Machine Co. Inc.
Roller Bearing Company of America Inc.
RV Metals Inc.

New Mexico
Honeywell Engines

New York
Amer. Aerso Controls
Arkwin Industries
B&R Machine
BAE Systems Controls
Flightline Electronics
Fluid Mechanisms Inc.
Genmech Aerospace Corp.
Jamco
Moog Inc.
MRC Bearings Inc.
Russell Plastics Technology Corp.
Smiths Aerospace
Tactair Fluid Controls
Telephonics Corp.

North Carolina
Frisby Aerospace

Ohio
Crane Company
Goodrich Corp.
Smiths Aerospace
Triumph Thermal Systems Inc.

Pennsylvania
Bissinger & Stein
Container Research
D&R Machine
Davidson Fabricating
Deco Sales
Eaton Aerospace
Ehmke Manufacturing
Folsom Tool
Fraccaro Industries
Hexcel
Lord Corporation
Moog Comp
Olympic Tool & Machine Co.
Ruscomb Tool & Machine Co.
US Metal Forms

Texas
Merritt Tool Co.
Marathon Norco
Skyline Industries

Vermont
Goodrich Corp.
Liquid Measurement Systems

Washington
Page Aerospace
University Swaging

PHOTO: FRED TROILO

CHINOOK NEWS BRIEFS

CH-47 IN THE NEWS

The CH-47 Chinook continues to log impressive new milestones.

CH-47F JOINS ACTIVE U.S. ARMY CHINOOK FLEET

The Boeing Company's CH-47F Chinook helicopter, certified combat-ready by the U.S. Army and fielded to the first operational unit in late 2007, is the latest addition to the Army's aviation fleet. The Army's first unit to be equipped with CH-47F Chinooks is Bravo Company ("Varsity"), 7th Battalion, 101st Aviation Regiment, 159th Combat Aviation Brigade, 101st Airborne Division (Air Assault), based at Ft. Campbell, Ky.

PHOTO: FRED TRINLO

FIRST INTERNATIONAL SALE OF CH-47F CHINOOKS TO ROYAL NETHERLANDS AIR FORCE

The Boeing Company had its first international sale of a CH-47F Chinook in February 2007 to the Netherlands. The Direct Commercial Sales agreement with the Defense Materiel Organization of the Dutch Ministry of Defense was for six new-build CH-47F (NL) aircraft. The agreement, provides for non-recurring development, production and post-delivery support for the Chinooks. The Netherlands-unique version of the U.S. Army CH-47F, will include a next-generation Honeywell Avionics Control and Management System (ACMS) cockpit avionics suite, an integrated forward looking infra-red capability and several other newly developed multi-mission capabilities.

PHOTO: THE BOEING COMPANY

CONNECTICUT NATIONAL GUARD VISITS BOEING PHILADELPHIA

The Philadelphia site hosted a visit from Bravo Company, 2nd Battalion, 104th Aviation, of the Connecticut National Guard July 19, 2007. "This was very impressive and informative," said 1st Lt. Carina L. Roselli."The Boeing tour is the highlight of our annual training." While at the site, Ken Eland, CH-47F program manager, presented several of the pilots with Certificates of Achievement for completing 1,000 flight-hours in Chinooks. Following the presentations, the unit took a tour of the Chinook and V-22 production lines and received a Rotorcraft program overview.

PHOTO: JASON BARRAS

THE CH-47F HITS THE SMALL SCREEN

"The CH-47F is a 21st-century aircraft for the 21st-century warfighter," said Ken Eland, CH-47F program manager in a video interview at Fort Campbell, Ky., in June 2007. The CH-47F Chinook will be the focus of a new technology feature on the Daily Planet, Canadian television news show, that began on Canadian stations in September 2007.

PHOTO: JASON BARRAS

NASCAR SPECIAL DELIVERY – 160TH SOAR DELIVERS PACE CAR

The crowd at NASCAR's Kobalt Tools 500 rises to its feet as the official pace car exits a MH-47E Chinook after a demonstration by 160th Special Operations Aviation Regiment Soldiers Sunday.

PHOTO: 160TH SPECIAL OPERATIONS AVIATION REGIMENT PUBLIC AFFAIRS

CH-47 PHOTOS & CAPTIONS

MEMORABLE IMAGES OF CHINOOKS PERFORMING REMARKABLE MISSIONS AROUND THE WORLD

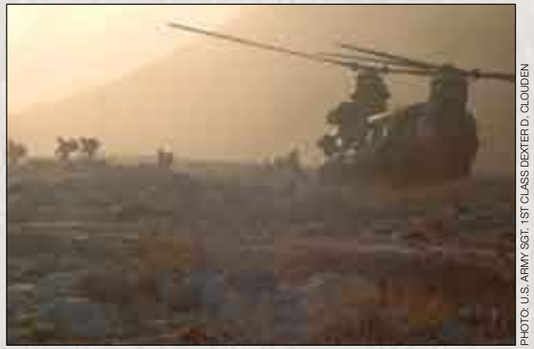


PHOTO: U.S. ARMY SGT. 1ST CLASS DEXTER D. CLOUDEN

Soldiers from the 10th Mountain Division (Light Infantry) exit a CH-47 Chinook on Nov. 25, 2006, to conduct a search for weapons caches in Landikheyl, Afghanistan.

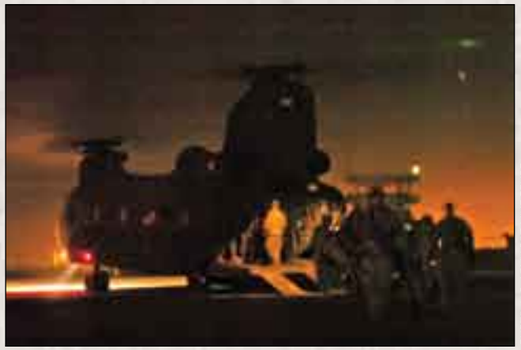


PHOTO: U.S. ARMY SGT. MIKE PRYOR

Paratroopers from the 82nd Airborne Division's 2nd "Falcon" Brigade Combat Team exit a CH-47 Chinook after landing at Camp Taji on Jan. 20, 2007.

PHOTO: U.S. ARMY SPC. RODNEY FOUENTE

A soldier from Combat Aviation Brigade, 4th Infantry Division, is silhouetted against a blur of Baghdad city lights as he keeps vigil by the cargo door of a flying CH-47 Chinook on June 19, 2007.

PHOTO: U.S. ARMY SGT. 1ST CLASS DEXTER D. CLOUDEN

CH-47 Chinooks from Combined Joint Task Force 76 carry troops and supplies over the rugged mountains of eastern Afghanistan on Feb. 5, 2007.

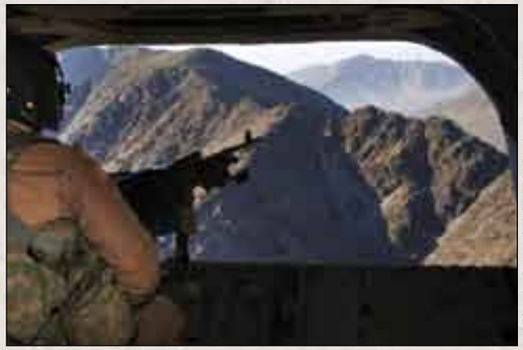


PHOTO: U.S. ARMY PHOTO STAFF SGT. MICHAEL L. CASTEEL

Spc. Tim Parson, from the 158th Aviation Regiment, keeps a lookout aboard a CH-47 Chinook on the way to conduct a re-supply mission for forward operating bases near the village of Naray, Afghanistan, on Jan. 5, 2007.

PHOTO: U.S. ARMY PHOTO STAFF SGT. R.A. STEELE

B Company, 2nd Battalion, 135th Aviation Regiment, 36th Combat Aviation Brigade CH-47 Chinook prepares to conduct a nighttime mission at LSA Anaconda, Iraq, on June 11, 2007.

CHINOOK NEWS BRIEFS

MESSAGES FROM THE FACTORY FLOOR

THESE FEW WORDS FROM THE DEDICATED PEOPLE BUILDING THE CHINOOKS IN PHILADELPHIA GO OUT TO THOSE WHO SERVE

It has become a tradition for Boeing employees in Philadelphia, where the CH-47 Chinook is produced, to share their thoughts about the aircraft they build for customers around the world. These words from dedicated employees who build Chinooks go out to the men and women who fly and maintain them.

Randy Illum
Chinook Factory Manager

Here at the Chinook production factory we are building the very best aircraft we can because you deserve the very best for all you do.

Rich Bertolino
Sheet Metal Assembler

I hope you are as safe flying our aircraft as you keep us here at home.

Joe Coghlan Jr.
Manager, Chinook Flight Operations

I'm proud of you and appreciate all that you do.

John "The Hat" Kirlin
Sheet Metal Assembler

The MH-47G is a powerhouse!

John Fisher
Sheet Metal Assembler

I appreciate all that you do for us. Keep up the good work.

PHOTOS: JASON BARRAS

PHOTO: FRED TROILO

The Boeing Company

Integrated Defense Systems
Stewart Avenue and Industrial Highway
Ridley Park, PA 19078