



CHINOOK NEWS

NEW TECHNOLOGY | TRAINING | IN THE FIELD | AT HOME | AT WAR | AROUND THE WORLD

2009



MISSION STATEMENT:

An integrated team
bringing together the best of Boeing
to provide systems and solutions
that empower the soldiers
of today and tomorrow.



MESSAGE FROM JACK DOUGHERTY

THE CHINOOK CONTINUES TO SET NEW STANDARDS IN PERFORMANCE

Welcome to the 2009 edition of *Chinook News*. This issue provides an exceptional look at the performance of what many have come to call the ultimate aircraft — the Chinook.

Once again the aircraft demonstrated exceptional performance in combat theaters, logging more than 90,000 flight-hours in Operation Iraqi Freedom, with outstanding readiness levels and number of missions flown. Also this year, Chinook units responded to humanitarian needs around the world — fighting forest fires across California, providing aid to flood and earthquake victims and again deploying high on Mount Rainier to rescue climbers stranded above 10,000 feet in a storm.

On the program side, we delivered 36 Chinooks by the close of last year. That's a level not seen in nearly 15 years. We've taken some bumps and bruises along the way, but our team continues to do the right thing, focusing on quality and delivering on our commitment to our warfighters.

To date, Boeing Rotorcraft Systems has delivered more than 50 CH-47Fs to the U.S. Army and has fully trained and equipped three units. Since the aircraft received its combat-ready certification from the Army in 2007, the F model has completed several thousand flight-hours. It also has completed several deployments, including a mission to Liberia in support of the president, and has deployed for the first time to Iraq in support of OIF.

Beyond that, the number of MH-47G models delivered to our Special Forces customer has reached 45, and these aircraft are deployed in support of Operation Enduring Freedom and OIF.

On the business front, in mid-2009 we will begin delivery to the Netherlands of

We also are looking forward to a contract award from Canada for 16 aircraft. That, coupled with the Italy proposal, will bring orders for more than 30 new aircraft to the Chinook program. We expect contract awards by early 2009.

We are happy to report that the Chinook program was awarded a five-year contract valued at \$4.3 billion dollars for 191 CH-47Fs plus options for 24 additional aircraft. The multiyear award will reduce overall program cost and will accelerate delivery of this critical asset to our soldiers around the world. The multiyear award will yield a cost savings of hundreds of millions of dollars for the U.S. Army and the taxpayers. This award also builds security into our production schedule for the next five years, stabilizing the work force for Boeing and our supplier partners in more than 45 states across the country. Finally, it ensures that warfighters are outfitted with the highest quality equipment available to do their job.



JACK DOUGHERTY, VICE PRESIDENT, H-47 PROGRAMS

the first international CH-47F. We now have a collaborative agreement with AgustaWestland for the manufacture of 16 new CH-47Fs for the Italian army. We have a long and successful history with Agusta, which sold more than 150 CH-47s in the Mediterranean region. This new agreement will have an immediate impact on Italy and opens possibilities for expanding business throughout the region.

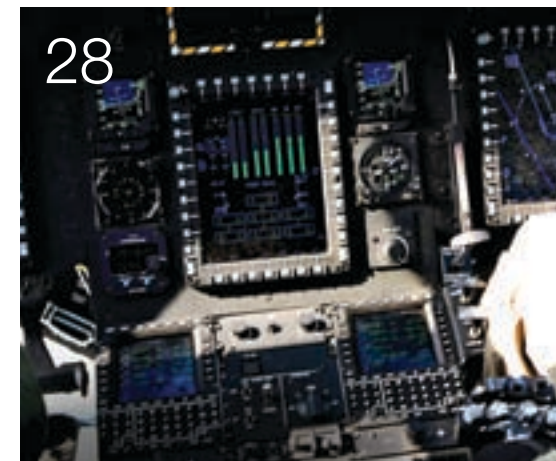
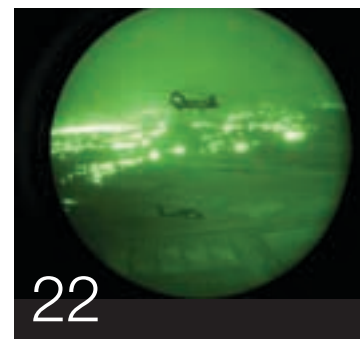
Now, I invite you to enjoy this issue of *Chinook News*, which presents stories on Chinook performance in combat and civilian operations and in humanitarian missions around the world.

SOLDIERS FIRST! ●



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CHINOOK NEWS 2009

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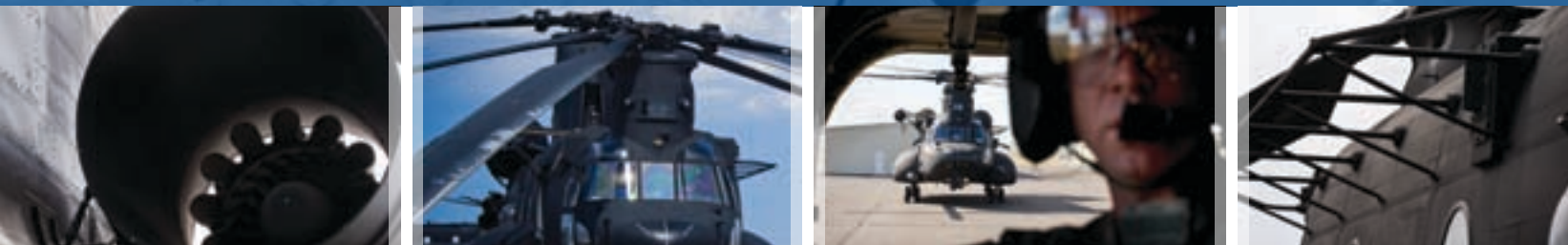
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↓
DOOR JETTISON
PUSH TRIGGER
TURN HANDLE DOWN



MESSAGE FROM COL. NEWMAN SHUFFLEBARGER

TEAM CHINOOK CONTINUES TO PROVIDE THE WORLD WITH THE NEXT GENERATION OF PREMIER ALL-MISSION, HEAVY-LIFT HELICOPTER CAPABILITY.

The soldiers who fly and fight with the CH 47Ds in the demanding conditions of Operation Iraqi Freedom have been joined by the CH-47Fs of Bravo Company, 2nd Battalion, 4th Aviation Regiment, 4th Combat Aviation Brigade. Our soldiers and Chinooks continue to excel and have surpassed 170,000 combat flight-hours since 2001.

Bravo Company achieved unit-equipped status on March 3, 2008, and immediately began preparing for its Iraq combat deployment. The company departed for theater in May 2008 and arrived in Iraq to begin missions in July. The unit has maintained a robust 90 percent operational readiness rate while in Iraq. The weapon system continues to perform beyond expectation, validating the hard work of Team Chinook members.

Immediately on completion of new equipment training for 2-4 Aviation, the fielding team began training the pilots and maintainers from the third unit equipped, the 2nd Battalion, 227th Aviation Regiment, 1st Cavalry Division. The unit will undergo new equipment training through August

2008. As of mid-July 2008, the U.S. Army has taken delivery of 48 CH-47Fs.

Bravo Company (Varsity), 7th Battalion, 101st Aviation Regiment, 159th Combat Aviation Brigade, 101st Airborne Division

demonstrate the Chinooks' superior capability with an operational deployment to Africa to support President Bush's visit in February 2008.

Two key advocates of the CH-47 program, former Army Acquisition Executive Claude Bolton and Vice Chief of Staff of the Army Gen. Richard Cody, had the opportunity to fly the CH-47F. Cody also had occasion to experience the newly activated coupling of the flight director, which allowed him to fly hands-free from Redstone Arsenal, Ala., to a 30-foot hover above the runway at the airport in Fayetteville, Tenn. The hard work and synergy of Team Chinook made possible the enormous technological challenge of integrating this system that reduces pilot workload.

With a focus on meeting the needs of the warfighter, the U.S. Army Cargo Helicopter Project Office and Team Chinook advanced the concept of a

Chinook upgrade that evolved into an advanced, highly capable aircraft that will serve as a U.S. Army multimission asset well into the future. ●



COL. NEWMAN SHUFFLEBARGER, CARGO HELICOPTER
OFFICE PROJECT MANAGER

(Air Assault) became the first unit equipped with the CH-47F in July 2007 and continues to train for deployment in support of Operation Enduring Freedom. Varsity also had a chance to



PM HARDWARE UPDATE: CARGO HELICOPTERS PROVIDING HEAVY LIFT TO WARFIGHTERS

BY LTC THOMAS H. TODD III

The CH-47 Chinook Helicopter continues to be the world's dominant heavy lift aircraft for critical combat, combat support and combat service support missions. During our Nation's current conflict, the Chinook has continued to excel in its traditional heavy lift missions, and in addition has become the assault aircraft of choice in the high altitude operational environment of Afghanistan.

Over the past year U.S. Army Chinook units flew 42,125 hours in support of Operation Enduring Freedom and Operation Iraqi Freedom, while maintaining an operational readiness rate of over 70%. The CH-47 also supported many humanitarian missions throughout the United States. Most recent operations within the continental U.S include numerous high altitude search and rescue operations, and numerous fire fighting missions in the Southeast and West.

THE CH-47F: THE NEXT GENERATION CHINOOK

The past year was a remarkable one in the history of the Army's storied heavy-lift helicopter with the advent of the CH-47F – the first new CH-47 Chinook in over three decades. The CH-47F 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 supported combat forces.

The CH-47F's Common Avionics Architecture System (CAAS) and Digital Advanced Flight Control System (DAFCS) provide an optimal capability for the crew to operate in challenging, reduced visibility environments, and precise handling required to successfully complete complex missions. Additionally, the integrated and expanded avionics suite provides unparalleled capability to communicate with US Army, Joint Services and Coalition Partners. The CH-47F also increases the Reliability, Availability and Maintainability (RAM) of the system through the use of many systems including new monolithic machined airframes, new hydraulic systems, new wiring and wiring harnesses and enhanced air transportability features. The CH-47F "New Builds" are from the ground-up 100% new aircraft with all new components.

While the "Renewed" CH-47Fs also receive the new airframes, CAAS and DAFCS, they make use of 116 recapitalized components from retired CH-47Ds such as rotor systems, drive systems and landing gear.

The CH-47F began Operational Testing (OT) at Fort Campbell, KY in February 2007. By April, it had successfully completed more than 60 hours of testing, simulating a wide range of mission scenarios – consisting of air assault, combat resupply and transport missions in a Global War on Terror (GWOT) mission environment. The eighteen OT missions were conducted by crews from B/7-101st AVN, who had only months earlier returned from Operation Iraqi Freedom (OIF). The OT was conducted by Operational Test Command (OTC), Army Test and Evaluation Command (ATEC) and evaluated by the ATEC Army Evaluation Center (AEC) and the Director, Operational Test and Evaluation (DOTE). It was accomplished ahead of schedule, and the CH-47F's System Evaluation Report (SER) 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 to the CH-47D. In short, OT was the culmination of many years of testing that the CH-47F platform had undergone and validated the CH-47F as the Army's heavy lift helicopter of choice for the future.

In the month of July, the Army Acquisition Executive approved a Type Classification of Standard for the CH-47F and the CH-47F Transportable Flight Proficiency Simulator (TFPS) with direction to proceed to a Material Release

OPPOSITE PAGE: TWO U.S. ARMY SOLDIERS WAIT TO HOOK UP A M777 LIGHTWEIGHT 155-MM HOWITZER TO A CH-47D CHINOOK HELICOPTER DURING AN AIRLIFT MISSION ON FORWARD OPERATING BASE FENTY IN JALALABAD, AFGHANISTAN, DEC. 20, 2007.

Review Board, as soon as possible. Full Material Release (FMR) for the CH-47F was achieved on 18 July with the U.S. Army Aviation & Missile Life Cycle Management Command Commanding General's approval. AMCOM recognized the CH-47F program as the first major developmental aviation program to achieve full material release on its initial submission. Two days later on 20 July, the CH-47F PM completed handover of all aircraft and supporting equipment to the Commander, 7-101st AVN, 159th CAB, 101st ABN (Air Assault), achieving an on-time CH-47F First Unit Equipped (FUE). A new chapter in Army aviation history had begun with the fielding of the CH-47F Chinook. By year's end, the Army had taken delivery of a total of 35 new CH-47Fs – 13 "New Build" and 21 "Renews." At end-state, a total of 452 CH-47Fs will be delivered to the Army at a rate of three per month through 2018 – 120 "New Build" and 332 "Renews."



CH-47F CONDUCTING AN OT MISSION AT FT. CAMPBELL, KY IN MARCH 2007. OT CONSISTED OF 18 MISSIONS AND OVER 60 HOURS TESTING, SIMULATING A WIDE RANGE OF AIR ASSAULT, COMBAT RESUPPLY AND TRANSPORT MISSION SCENARIOS IN A GWOT MISSION ENVIRONMENT.

A key contributor to the success of OT and achieving FUE was the CH-47F New Equipment Training Team (NETT). The CH-47F NETT is a PM-led team that provides home-station academic curriculum, simulator training, and on-aircraft flight training to fielded units. The NETT expertly – and ahead of schedule – trained 59 rated crewmembers, 26 non-rated crewmembers, and 134 aircraft maintainers and supervisors at Ft. Campbell in support of FUE. By year's end, the NETT also completed Initial Key Personnel Training (IKPT) for the US Army Aviation Warfighting Center (USAAWC) and began 2UE NET at Ft. Hood, TX with 2-4th AVN. To date, the CH-47F NETT has trained a total of 492 personnel – to include nine Logistics Assistance Representatives (LARs), eight Depot maintenance personnel, and five civilian TFPS Instructor/Operators (IOs) – and executed over 5,400 training flight hours.

An integral piece of rated crewmembers' training is the CH-47F TFPS. With a 2:1 ratio of simulator to aircraft training, the TFPS proved invaluable by carrying over 65% of the flying hour workload required to train operational aircrews on the new CAAS and DAFCs. Of the 5,400 total

flight training hours flown to date, 3,500 were flown in the TFPS. Developed by Cargo PM and Manned Flight Simulator of Paxtuxent River, MD, the TFPS is currently produced by WestWind Technologies, Inc. of Huntsville, AL. A total of 17 TFPS units are scheduled to be delivered through 2014 for fielding to 14 locations.

With a focus on meeting the needs of the Warfighter, the U.S. Army Cargo Helicopter Project 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 U.S. Army multi-mission asset well into the future.

THE CH-47D: FOCUSED ON SUPPORT AND SUSTAINMENT FOR A DECADE TO COME

While the arrival of the CH-47F marks a major milestone, the Cargo PMO remains committed to providing complete support for the existing CH-47D fleet until the last CH-47Fs are fielded in 2017. Soldier Focused Logistics (SFL), which consolidated key Chinook support

organizations and personnel into one centralized location under the control of the CH-47 Project Manager, has proven to be an effective army transformation program. This collocation 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. The Left Hand Crash Worthy Crew seat is currently being delivered by the contractor and initial deliveries are being sent into theater to support deployed aircraft. The PM, in coordination with the TRADOC System Manager (TSM), is in the process of developing specifications for a new, light weight, ballistic protection system. Future development will focus on development and integrations of an advanced cargo handling system.

The current Aircraft Survivability Equipment (ASE) suite on the CH-47 is Common Missile Warning System (CMWS) and APR-39. Modernizations to the current package include 5th Sensor and the Infrared Suppression System (IRSS).



FIVE CH-47FS FROM B/7-101ST AVN AT FT. CAMPBELL, KY. 7-101ST BECAME THE CH-47F FIRST UNIT EQUIPPED ON 20 JULY 2007.

The 5th Sensor is integrated as part of the CMWS by adding one sensor to the four already installed. This capability provides additional coverage to defend against Infrared Man-Portable Air Defense Systems (IR MANPADS). This capability will be fielded beginning March 2008 to deploying aircraft.

The IRSS is an all inclusive suppression system. This system suppresses engine IR signature as well as the IR signature generated by the transmissions. This capability complements the performance of the current ASE suite. The flight testing for this system is ongoing and fielding will begin February 2008 on deploying aircraft.

CONDITION BASED MAINTENANCE AND HEALTH USAGE AND MONITORING SYSTEM

In support of the CBM initiative, PM Cargo is developing a health monitoring specification for the CH-47 aircraft. The CH-47 HUMS system will provide real time monitoring and status reporting of critical components in addition to performing the existing track and balance and vibration checks. 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.

Currently there are 20 ACFT in OIF/OEF equipped with HUMS demo technology. The user has been very supportive of the technology and has stated there has been a reduction in maintenance time and improvement in their ability to troubleshoot and diagnose problems. The systems also allow data collection and comparison over a period of time which will become the baseline for CBM. Analysis of the data collected will provide essential information required to identify failure trends. Once these trends have been identified, the aircraft maintenance plan will be adjusted to repair or replace

these items prior to their actual failure thus eliminating the propagation to other components. PM Cargo continues in their 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 Project Management Office (PMO) is to provide one face to the field in support of 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 and the legacy CH-47D aircraft will remain a part of Army Aviation for a decade to come. Challenges of fielding, maintaining and sustaining both aircraft are many, but the Chinook community is eager to take them on.

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



CH-47F CHINOOK FIELDDED BY U.S. ARMY'S 4TH INFANTRY DIVISION

In April 2008, The CH-47F Chinook was fielded by Bravo Company, 2nd General Support Aviation Battalion, 4th Combat Aviation Brigade, 4th Infantry Division, based at Fort Hood, Texas. This is the second U.S. Army unit to field the CH-47F since the aircraft was certified combat ready in July 2007.

This aircraft is light-years ahead in flight-management systems compared with our older aircraft," said Col. Patrick Tierney, commander, Combat Aviation Brigade. "The F-model Chinook has the same systems as the latest civilian aircraft."

Lt. Col. Dave Fleckenstein, commander, 2nd Battalion, 4th Aviation Regiment, Combat Aviation Brigade, Huntington, W.V. —

who pilots one of the new Chinooks — noted that the aircraft's radar altitude hold "keeps the aircraft a set number of feet off the ground and negates making multiple passes to land. Also, the all-digital cockpit gives us five displays, with each capable of showing several different pages of flight plans, alternate routes and data from different sources processed by the central processing unit."

Since the U.S. Army certified the Chinook as combat ready, units have completed in excess of 1,000 flight-hours, performing a wide range of training exercises under night-vision goggles simulating air assault, combat resupply and transport operations. The CH-47F has successfully completed all evaluations, including airworthiness, functional testing and operational testing.

"There is a great deal of enthusiasm for the CH-47F from pilots and crews in the field," said Jack Dougherty, vice president, Boeing Chinook programs. "This advanced aircraft provides greater capability to meet our military forces' growing range of mission demands." ●



LT. COL. DAVID FLECKENSTEIN, commander, 2nd Battalion, 4th Aviation Regiment, Combat Aviation Brigade, 4th Infantry Division comments on the CH-47F

As a Chinook guy flying with the Clydesdales I am personally looking forward to executing missions in an aircraft that not only gives you better situational awareness of where you are operating but also has system improvements meant to overcome some of the unique challenges involved with working in the desert/operating environment.

In terms of capabilities, this aircraft has a list of improvements, including an all-glass cockpit, all new components for the new build aircraft, a new machined frame, corrosion protection, aircraft tuning, improved cockpit doors that can be jettisoned, tactical air navigation, a Storm scope; integrated blue force tracking, improved avionics and flight

controls, a flight data recorder, an improved countermeasure dispenser and a reengineered aft pylon, making it easier for C5 breakdown.

Some of the unique improvements include being able to track ourselves and other members of the flight and communicate by text messaging, landing in near-zero brownout conditions and "coupling," which provides a nearly hands-free flight capability.

The CH-47F is an extremely versatile platform capable of performing resupply, passenger transportation and air assault missions. The new aircraft provides the means to deliver personnel and supplies to the right

place at the right time in a wider range of environmental conditions than the CH 47D can.

Given the amount of combat experience within the general support aviation battalion, the extensive training conducted across our seven companies and the leadership of the combat aviation brigade, we are certainly a formidable force ready to support 4th Infantry Division and coalition forces. We expect to learn from the general support aviation battalion within 3rd Combat Aviation Brigade and improve on what it has already achieved. When all is said and done, I would like to see our replacements think of us as a group of hard-working professionals. ●



CAB SOLDIERS SHIP OUT, BRING NEW CHOPPERS TO COMBAT

BY SGT. JASON DANGEL, Combat Aviation Brigade PAO, 4ID

A swift and emotional hug, kiss and wave described the beginning of a 15-month deployment to Iraq as the first soldiers from the Combat Aviation Brigade, 4th Infantry Division said goodbye to their loved ones and loaded buses destined for Iraq for the third time since 2003.

Approximately 3,000 “Iron Eagle” soldiers will make their temporary homes in Kuwait as they train-up and prepare for their mission in support of Operation Iraqi Freedom.

The entire brigade is slated to spend at least two weeks in Kuwait and will be required to complete additional training on their personal and crew-served weapons before moving into the Multi-National Division–Baghdad area of operations under the jurisdiction of the 4th Inf. Div. Commanding General Maj. Gen. Jeffery Hammond.

“This brigade has had some great training leading up to this mission and I am convinced that this deployment will be the most successful one we’ve had to date,” said Maj. Shane Cipolla, (Rear) commander, CAB.

“Our soldiers are dedicated and excited to go back into combat with the rest of the 4th Infantry Division under Maj. Gen. Hammond,” he said.

The “Iron Eagles” primary mission will be in the form of combat aviation support, transportation and medical evacuation for thousands of soldiers operating in and around the Iraqi capital.

With the addition of newly acquired CH-47F Chinook Helicopters and an arsenal of some of the most advanced

combat aviation technology available to date, brigade leaders have high expectations for the Iron Eagles.

Aside from this being the third deployment for the unit in approximately five years, the CAB will also set a new milestone for U.S. Army Aviation as the Iron Eagles will be the first aviation unit to deploy the newly modified CH-47F Chinook helicopters into combat.

“As a Chinook guy flying I am personally looking to forward to executing missions in an aircraft that not only gives you better situational awareness of where you are operating but also has system improvements meant to overcome some of the unique challenges involved with working in the desert operating environment,” said Lt. Col. David Fleckenstein, commander, 2nd Battalion, 4th Aviation Regiment, referring to the new CH-47F.

“The CH-47F is an extremely versatile platform capable of performing resupply, personnel movements and air assault missions. The new aircraft provides the means to deliver personnel and supplies at the right place and time in a wider range of environmental conditions as opposed to the CH-47D,” Fleckenstein continued.

“Given the amount of combat experience within our battalion, the extensive training

conducted across our seven companies and the leadership provided by the CAB, we are certainly a formidable force ready to support the 4th Inf. Div. and coalition forces,” he said.

As the leaders and soldiers move out into the combat zone, officials also want to emphasize their commitment to the families of all those deployed to OIF.

“I just want to reiterate how dedicated we are to ensure the soldiers moving forward that we will do our best to take care of the families while they are gone,” Cipolla said.

“We as soldiers have one of, if not the hardest jobs in the world and as the rear detachment commander for the brigade it’s my job to ensure of all the families are taken care of and the information link between soldier and family is strong,” he said.

For more information on the CAB’s deployment or if you are a family member of a deploying soldier and need to update your contact information please contact your battalion family readiness group assistant or your chain of command. Brigade rear detachment contact information can be found on the 4th Inf. Div. Web site at www.pao.hood.army.mil/4ID/.



CHINOOK PILOT DISCUSSES MH-47G PERFORMANCE: FLYING THE MIGHTY G



I have been flying Chinooks for about 18 years and have over 5,000 hours in the air frame. I began flying the Delta model in Desert Storm, progressed to the Echo model with the 160th Special Operations and have been lucky enough to fly the 47 Golf in Afghanistan and Iraq with great success.

As a Special Ops Chinook pilot, I fly a variety of missions, including assaults, rescues, recovery, basically the whole gamut. Anything a helicopter can do in combat, we do. I've been lucky enough to perform all those missions with the 160th.

There is no comparison between flying the Delta model in the desert in zero-lum conditions and the 47 Golf. Today's aircraft has greater capability with air refueling, extended-range

tanks, multimode radar, digital maps and flight control. This allows us to fly in conditions we never considered operating in years ago.

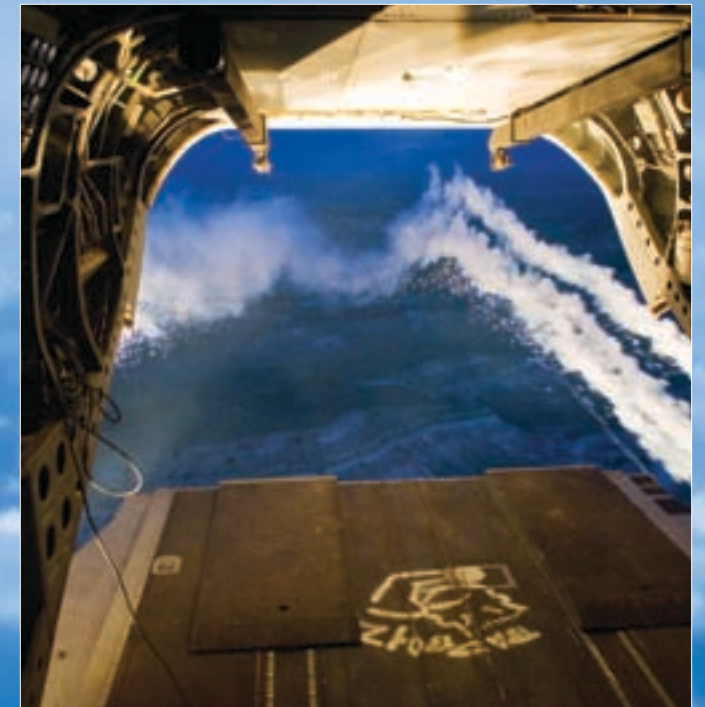
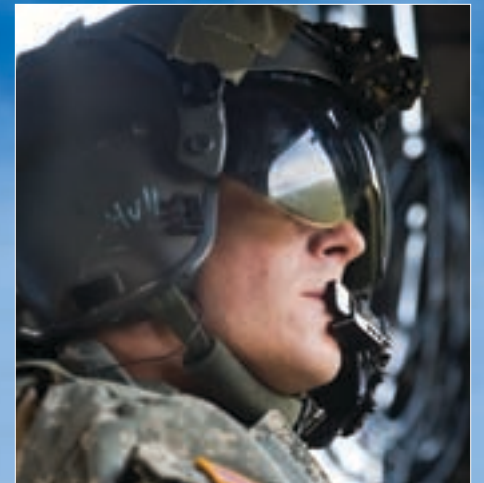
Today, we are certainly an adverse-weather platform. And the 47 Golf gives us the advantage of situational awareness and mission management, which enable us to adjust to changes. We always have a detailed plan, but events happen; weather, enemy, and we have to make changes in the route, like crossing a bigger mountain than planned. This cockpit allows for that. We have a very capable aircraft.

I would say it's a combat multiplier. The Chinook, in general, is the workhorse of the fleet, and with the 47 Golf you don't just have a workhorse, you have a racehorse. ●



“When you think of the Vietnam War, you think of the Huey helicopter. Think of Afghanistan, and you think of the Chinook.”

THE MIGHTY G MH-47G





THE 1ST CAVALRY BLACK CATS FIELD THE NEW CH-47F CHINOOK

BY CAPT. KEVIN CONSEDINE, Commander, Bravo Company, Black Cats,
227th Aviation Regiment, 1st Air Cavalry Brigade, 1st Cavalry Division



Bravo 227 has a distinguished history of performance in combat operations and humanitarian support missions. Our Chinooks were deployed in relief efforts during Hurricanes Katrina and Rita and followed those operations with two deployments to Pakistan, performing missions after the massive earthquake.



Our Chinook pilots set new standards in performance across the board, including a 15-month tour in support of Operation Iraqi Freedom. We can perform any mission assigned.

It is certainly appropriate that the 1st Cavalry's Black Cats, Company B, 227 are the next unit equipped with the advanced, mission-capable CH-47F. This multimission asset is perfectly suited for the Cav. and the missions we perform.

The situational awareness and mission management in the new Chinook

will greatly improve our ability to fly missions. The combination of Common Aviation Architecture System and Digital Advanced Flight Control provides an optimal capability for our crews to operate in challenging environmental conditions, which typically demand precise handling to accomplish.

These advanced features will make this aircraft a combat multiplier for the 1st Cavalry and all the gallant warfighters we support. ●



CHINOOK CREWS MOVE, SUPPLY TROOPS

BY SGT. 1ST CLASS RICK EMERT, 1st Air Cavalry Brigade, 1st Cavalry Division Public Affairs

CAMP TAJI, Iraq — They are the workhorses of Army aviation, and in Iraq, CH-47 Chinooks from the 1st Air Cavalry Brigade touch the lives of thousands of soldiers in some way every single day.

Whether moving soldiers who are going home on rest and recuperation leave or carrying mail and supplies for forward operating base life support, the Chinooks are a vital part of the Multi-National Division–Baghdad’s fleet of aircraft. The Chinook pilots and crews from Company B, 2nd Battalion, 227th Aviation Regiment, 1st Air Cavalry Brigade, 1st Cavalry Division, spend hours a day loading and unloading cargo and transporting passengers to locations throughout the Baghdad area.

The Chinooks move in teams of two and spend about half of their flight time transporting passengers and the other half transporting cargo, said Capt. Ronald Reynolds, Company B, 2-227th.

In all, the teams move about 144,000 pounds of cargo in a given night, Reynolds said. “Hauling all that cargo weight is not easy on the pilots or the crew,” said Staff Sgt. Miguel-Angel Gonzalez.

ABOVE: A CH-47 CHINOOK FROM COMPANY B, 227TH AVIATION REGIMENT, 1ST AIR CAVALRY BRIGADE, 1ST CAVALRY DIVISION, SLING-LOADS A UH-60 BLACK HAWK THAT WAS BEING TRANSPORTED FOR REPAIRS TO ANOTHER FORWARD OPERATING BASE IN EARLY MAY.

“The pilots have to control the aircraft with the heavy cargo, and the three guys in back have to push that heavy equipment and cargo in and out of the aircraft. I think our ability to do this every day says a lot about teamwork,” he said. The teams can move up to 90 pallets a night, but they set a personal record for the company by moving 93 pallets in one night in May.

“I think what I like most about our missions is the numbers,” Reynolds said. “When we go back and look at what we have accomplished and see that the air crews have pushed 90 pallets in one day or moved a whole brigade of soldiers in two days, that says something about our unit’s camaraderie and cohesion,” he said.

The crews played a big part in moving soldiers during the buildup of troops in Multi-National Division–Baghdad that was completed in June. “With the surge, we were going in and out of (Baghdad International Airport) every hour some nights, transporting soldiers to (various forward operating bases),” Gonzalez said. Although the Chinook crews see a lot of Baghdad in their nightly missions, they don’t see a lot of activity. “

Usually, a curfew is being imposed while we fly,” Reynolds said. “Every few blocks we can see police vehicles with flashing lights. It looks to me like the people of Baghdad like to keep a nice place.” Still, the crews come under fire from insurgents on the

ground occasionally. “We hear gunfire, and sometimes people shoot toward the noise we are making as we fly overhead,” said Sgt. Christopher Scharff. Even with that occasional gunfire, the crews say it is possible to become complacent with the repetitive missions. “It’s not very glamorous, and sometimes it can be monotonous,” Reynolds said. “Occasionally, we do air assaults and insert ground forces into a landing zone; that sparks the excitement level.” “A lot of nights, we have to pump each other up and remind ourselves why we do this,” Gonzalez added. “We are keeping about 180 people off the streets of Baghdad per night.”

As they work through the night, the Chinook crews also miss out on things that other soldiers may take for granted. “A lot of our soldiers haven’t seen the sun in nine months,” Gonzalez said. “They miss out on going to the (Post Exchange) and even taking care of any administrative stuff, because the (personnel offices) are closed during our shift. We have to stay up until the equivalent of midnight for us to get those things done,” he said. Despite the drawbacks, the Chinook crews — composed of a pilot in command, pilot, flight engineer and two crew chiefs — find their missions rewarding, too. “No matter what, if you have had a rough day or there is bad news on television, when you strap in, that all goes away,” Reynolds said. “I love flying; I feel better in the air than on the ground any day,” Scharff said. “It’s rare to find a job you love doing. I’ve got that.” ●



STAFF SGT. MIGUEL-ANGEL GONZALEZ, COMPANY B, 227TH AVIATION REGIMENT, 1ST AIR CAVALRY BRIGADE, 1ST CAVALRY DIVISION, SECURES A PALLET IN THE CABIN OF A CH-47 CHINOOK BEFORE TAKEOFF ON A RECENT MISSION. GONZALEZ IS A FLIGHT ENGINEER WITH COMPANY B AND FLIES OVER BAGHDAD ALMOST EVERY DAY.



CH-47D BOWS OUT AT FORT HOOD

BY GREG L. DAVIS

FORT HOOD, Texas — The final CH-47D Chinook assigned to a unit based at Fort Hood has left. The aircraft, CH-47D serial number 86-01673, was the last D model flown by the 2nd Battalion, 227th Aviation Regiment, 1st Air Cavalry Brigade, 1st Cavalry Division, and departed Hood Army Airfield at 8:00 a.m. en route to Fort Lewis, Washington.

Once at Fort Lewis it was taken onto the rolls of B Company, 1st Aviation Regiment, 52nd Aviation Brigade. The final CH-47D Chinook assigned to a unit based at Fort Hood has left. The aircraft, CH-47D serial number 86-01673, was the last D model flown by the 2nd Battalion, 227th Aviation Regiment, 1st Air Cavalry Brigade, 1st Cavalry Division, and departed Hood Army Airfield at 8:00 a.m. en route to Fort Lewis, Washington. Once at Fort Lewis it was taken onto the rolls of B Company, 1st Aviation Regiment, 52nd Aviation Brigade.

The next step in the Chinook evolution — the Fox model — now dominates the ramp and will allow units of the 1st Cavalry to continue their association of more than 40 years with the twin-rotor craft. Elements of the 1st Cavalry Division took CH-47B Chinooks to Vietnam, where they served gallantly, resupplying troops

in the field and moving equipment and field artillery pieces to firebases deep in enemy territory. The other unit to fly the Chinook at Fort Hood came from the 4th Combat Aviation Brigade, 4th Infantry Division, made the transition to the F model in late 2007.

Number 86-01673 is a war-weary airframe that returned to Fort Hood after spending approximately 28 months in the Iraqi theater. Extended operations in a harsh environment really show — the aircraft is in desperate need of a paint job. That, however, won't likely happen because Boeing is slated to rework it into an F model. Regardless of the well-worn and blotchy paint scheme, the unit's pride in ownership was plain to see as it wore the famous 1st Cavalry Division crossed sabers on the nose and colorful nose art titled "Mouth Breather" on the right side below the cockpit.

The flight crew for CH-47D number 86-01673 all came from B Company, 2-227th Aviation, 1st Air Cavalry Brigade, 1st Cavalry Division. The crew is Chief Warrant Officer 2 David Facio; Capt. Kevin Consedine, B Company commander; Sgt. Brandon Pollard and Staff Sgt. Gilbert Richmond. Flying CH-47F number 07-08034 is Chief Warrant Officer 2 Jonathan Brecheisen, Chief Warrant Officer 2 Michael Anderson, Sgt. Miguel Gonzalez and Sgt Karl Hamamoto.

B Company, 2-227th Aviation continues to train on its new mounts in preparation for their wartime tasking of theater heavy lift, as part of the general support aviation battalion for the 1st Cavalry Division. ●



OUT WITH THE OLD, IN WITH THE NEW. TWO MODELS OF CH-47 CHINOOK FLY IN FORMATION DURING THE FINAL FLIGHT FOR A CH-47D, SERIAL 86-01673, ASSIGNED TO A FORT HOOD, TEXAS-BASED UNIT. IN THE FOREGROUND IS THE D-MODEL'S REPLACEMENT, THE CH-47F, (SERIAL 07-08034) BOTH AIRCRAFT ARE ASSIGNED TO B. CO. 2ND BATTALION, 227TH AVIATION REGIMENT, 1ST AIR CAVALRY BRIGADE, 1ST CAVALRY DIVISION.



SOLDIERS DEPLOY NEW CHINOOKS FOR BUSH'S AFRICA VISIT

BY SGT. JEANINE TOLOZA, 159th Combat Aviation Brigade



First operational deployment outside U.S. successful for CH-47F models

The 159th Combat Aviation Brigade, 101st Airborne Division, successfully deployed CH-47F Chinooks during its first strategic air deployment overseas in support of Operation Nomad Fire during President George W. Bush's tour of Liberia Feb. 21.

Soldiers from 7th Battalion, 101st Aviation Regiment, worked together with Marine Helicopter Squadron One to form

Joint Task Force West, which provided air support for the president on the final stop of his visit to Africa with White House staff and press members.

With only two weeks to prepare aircraft and soldiers for the mission, the unit disassembled the Chinooks at Fort Campbell before loading them onto C-5 Galaxy planes en route to Liberia and gathered soldiers within the 159th to provide a security detail for the aircraft.

"It was an outstanding success thanks to a team effort," said Lt. Col. Robert Dickerson, the 7-101 commander, of the 81 soldiers who participated. "We had folks from 563rd Aviation Support Battalion and 4th Battalion, 101st Aviation Regiment, who helped make up JTF West with brigade and division assistance."

The soldiers arrived Feb. 17 with the four CH-47Fs at Roberts International Airport

in Monrovia, Liberia, and prepared for the president's visit by rehearsing with MHX-1 before his arrival Feb. 21.

"This was the first operational deployment outside the U.S. for the new CH-47F models," said Capt. Dustin Marlett, an assistant operations officer assigned to 7-101 who worked with United Nations and American embassy personnel to provide logistical support for soldiers. "The helicopters were exceptional and were easier to assemble and disassemble than the previous CH-47D model," he said.

The unit was the first in the Army to receive the CH-47F Chinooks in July 2007 and has trained soldiers throughout the brigade on the advanced capabilities the new model offers.

"Our pilots are very comfortable with the CH-47F model now, since they were the first unit equipped with them," Dickerson said. "It was great experience for crew chiefs and maintenance personnel for a lead-up to our deployment in Afghanistan."

Despite short notice and receiving aircraft later than planned in Liberia, the soldiers overcame obstacles to meet their timeline and complete the mission on schedule during the president's visit.

"This is the first time the CH-47F has been used in a strategic air deployment overseas with any unit," Dickerson said. "When it was all over, everybody knew the Screaming Eagles came and left Liberia."

Soldiers and aircraft arrived back safely from Liberia Feb. 27 after the unit completed its mission. ●

A CLOSE-UP LOOK AT THE CH-47F DIGITAL AUTOMATIC FLIGHT CONTROL SYSTEM

BY JEFF OAKLEY, Deputy Director, Boeing Rotorcraft Programs, BAE Systems

The Digital Automatic Flight Control System on the U.S. Army CH-47F Chinook improves performance over the previous analog system on the CH-47D, MH-47E and MH-47G.

The DAFCS reduces pilot workload and provides additional safety during low-speed, low-altitude and poor-visibility missions; in operations near obstacles; and in sling-load missions.

In side-by-side operational testing of Chinook F and D models, the F model picked up loads in a fraction of the time it took the D model, and it did so with a better safety margin for the ground crew. The F model also outperformed the D model in degraded visual environments, where visual cues may be misleading or obscured. Coupled with the new Common Avionics Architecture System avionics displays, the DAFCS provides a crucial advantage to crews operating in degraded visibility, a common occurrence when helicopters fly in desert environments.

The system provides enhanced, low-speed modes for velocity stabilization and altitude hold, allowing the aircraft to hover without pilot input and improving low-speed maneuverability. The handling qualities of the DAFCS-equipped Chinook rates are exceptional and are among the best of any Army rotorcraft in production.

DAFCS improves the mean time between failures in more extreme environmental conditions by a factor of 5. Additional enhancements include graceful degradation that provides partial

functionality — even in the presence of detected failures — and user-initiated built-in test that provides improved self-diagnostic capabilities. Upgraded self-diagnostic tools eliminate the need for specialized ground support equipment that requires regular maintenance and calibration. That reduces test time and the labor-hours required to maintain the system.

With DAFCS, the Chinook is better suited to support Army missions and saves more lives by being

- Safer, reducing pilot workload and offering better handling qualities.
- Faster, providing better flying precision and reducing the time for sling-loading.
- More effective, performing missions in degraded visual environments.
- More affordable, significantly reducing support costs.

“Our company always has been focused on protecting those who protect us,” said Clark Freise, vice president for Defense Avionics at BAE Systems. “We are extremely proud that the DAFCS we have developed by partnering with Boeing makes the Chinook a safer and more capable aircraft.”

CARGO HELICOPTER PILOTS GET LIFT WITH TRAINING

BY BARBARA NASH

Flight training is reaching new heights without ever leaving the ground. The Army has moved into a new era in proficiency and safety, and Redstone’s PM Cargo is leading the way.

With the new model of the CH-47F heavy lift helicopters comes the need for equally-sophisticated training equipment. In order to maintain mission readiness at a pace equal to that of current operations, PEO Aviation and PM Cargo developed a bold vision for meeting the critical training needs of the future.

The program began at Patuxent River, Md., at Manned Flight Systems with design and prototyping of the CH-47F Transportable Flight Proficiency Simulators with software developed by NavAir. Then full-rate production moved to Huntsville to WestWind Technologies. With on-site engineering, manufacturing and aviation integration facilities, WestWind set about to meet the accelerated production schedule designed to get the new equipment to the Soldiers faster than ever before.

The build-to-print TFPS package required a bill of material of over 2,000 line items, the manufacturing and assembly of approximately 1,000 metal components, modification or manufacture of more than 500 wire harnesses and/or cable assemblies, and complex installation of all electrical and mechanical components. Through hard work, long hours, weekend work, and dedication of the entire design and production team, the vision of PEO Aviation and PM Cargo became a reality.

Barely six months after opening the simulator facility, WestWind Technologies delivered the first two TFPS units to

PM Cargo ahead of schedule, under cost, and without waiver - one for shipping to Fort Rucker Flight Training School, and one for deployment to the combat arena. It marked the first time that CH-47F simulators have been built in Alabama.

The simulators contain the most current cockpit and provide Soldiers with a dynamic training environment that increases operational readiness and ensures that the pilots are fully prepared to fly the actual aircraft. The new simulators are easily transported and include a judicious combination of commercial off-the-shelf and aircraft components as well as realistic graphics, saving considerable flight training costs while providing unprecedented safety for the Soldiers.

“The TPFS program is monumental — not only for the Army, Army Aviation, and the Tennessee Valley, but more importantly for our Soldiers going into harm’s way,” Cargo Helicopters project manager Col. Newman Shufflebarger said. “These simulators will train the Soldiers much better for the future and increase their chances of mission success and a safe return home.”

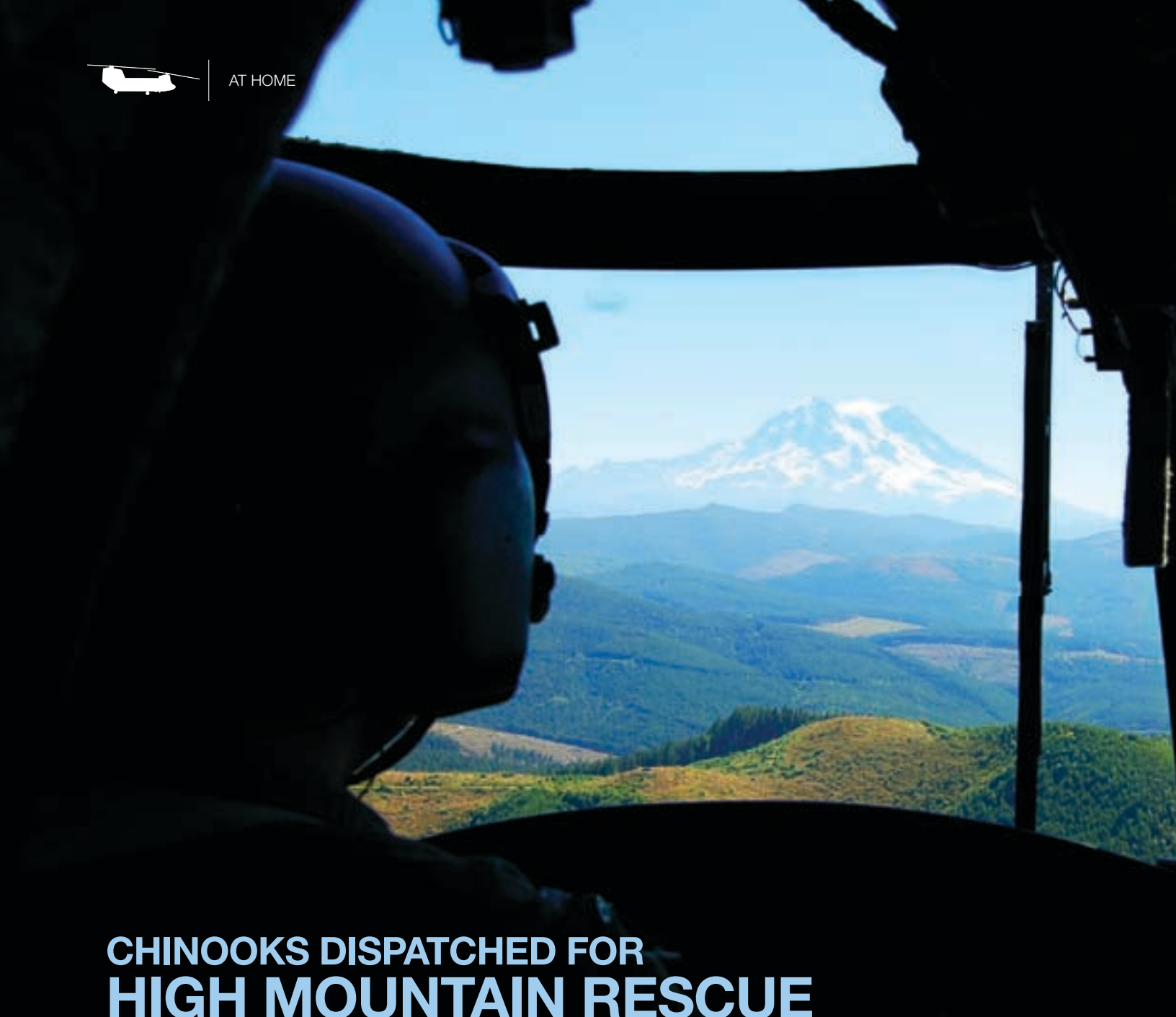
Because of the success of the CH-47F program, WestWind Technologies was presented with the Joseph A. Cribbins Aviation Product Symposium Award at the recent event in Huntsville. WestWind was selected by PM Cargo as the company “most instrumental in assisting the organization”



THE SIMULATORS CONTAIN THE MOST CURRENT COCKPIT AND PROVIDE SOLDIERS WITH A DYNAMIC TRAINING ENVIRONMENT THAT INCREASES OPERATIONAL READINESS AND ENSURES THAT THE PILOTS ARE FULLY PREPARED TO FLY THE ACTUAL AIRCRAFT.

based on the delivery of the CH-47F Transportable Flight Proficiency Simulators ahead of schedule, below cost and without waiver.

Said WestWind Technologies president Daniel Petrosky, a retired lieutenant general, “Accomplishing the mission of PEO Aviation, PM Cargo, and the Logistics Support Facility took a team effort of hard work, expertise and commitment by many people in Army Aviation, at WestWind Technologies, our industry partners, PAX River and NavAir. Because of the dedication of the entire team, the CH-47F crews are the winners.”



CHINOOKS DISPATCHED FOR HIGH MOUNTAIN RESCUE

Even the most experienced climbers are rarely a match for high-mountain storms.

BY TOM MARINUCCI

In June 2008, a freak blizzard dumped two feet of snow on Mount Rainier in Washington, stranding three hikers at an elevation of 10,000 feet. The U.S. Air Force Search and Rescue Coordination Center dispatched a Chinook from 244th Aviation Brigade, Fort Lewis, Washington, to rescue the climbers.

Weather, elevation and rapidly deteriorating conditions faced the Chinook crew preparing for the mission. "We received a call from the National Park Service on the condition of the victims," said Chief Warrant Officer 4 Bryan Campbell, pilot in command. "They were suffering from severe hypothermia, and transport was critical." The hikers were near Anvil Rock, a large outcropping at the edge of the Camp Muir snowfield. The area was hit with two feet of fresh snow, and 70-mph winds were creating drifts of up to five feet.

ABOVE: CHIEF WARRANT OFFICER 4 SCOTT SALKOVICS OF ALPHA COMPANY, 5TH BATTALION, 159TH AVIATION REGIMENT, FLIES A CH-47D CHINOOK HELICOPTER TO MOUNT RAINIER TO PERFORM SIMULATED RESCUE OPERATIONS.



SOLDIERS OF A COMPANY, 5TH BATTALION, 159TH AVIATION REGIMENT, ALONG WITH RESCUE WORKERS FROM THE MOUNT RAINIER NATIONAL PARK SERVICE, PERFORM SIMULATED RESCUE OPERATIONS ON MOUNT RAINIER AUG. 27. A RESCUE WORKER IS LOWERED DOWN FROM A CH-47D CHINOOK HELICOPTER.



In near-zero visibility, the Chinook crew took off under instrument flight rules. "There was a cloud layer at 2,000 feet and extended up to 10,000 feet, where we broke out of it," explained Campbell. "We were under instrument and vectored toward the mountain by air traffic control till we reached the site."

Once on target, the Chinook crew used a Jungle Penetrator to combat the high winds and hoist two of the victims along with a Park Service ranger into the Chinook. The third victim perished from exposure, after using himself to shield the other climbers against the horrific storm. With the victims safely on board, the Chinook flew to the hospital pad on Madigan Army Medical Center, where the climbers are now recovering from their ordeal.

SIZE MATTERS

According to the crew, a CH-47D has to perform virtually any rescue on Mount Rainier above 10,000 feet. "The Chinook is the perfect platform for this type of rescue," said Campbell. "Not only does it have the power needed to perform rescue operations at high altitude, and sometimes warm conditions, but it also has plenty of room in the back. We will regularly have a rescue team on board, which is usually six rangers, our two flight engineers and one or two medical personnel, and, of course, the victims." Additionally, the Chinook carries a search



and rescue kit, consisting of climbing gear and oxygen, and a litter kit in case victims are not ambulatory.

"The additional advantage of the Chinook as a rescue aircraft is flight capability," said Campbell. "The Chinook carries enough fuel to allow for several hours on station, and it is also an extremely stable IFR platform — without the IFR capability, we would not have been able to complete this particular mission. In my opinion, the Chinook is the perfect bird for this type of mission."

EVER READY

"We prepare, prepare, prepare," said Campbell. "Our unit, along with the Park Service, practices search and rescue missions regularly. Our pilots and flight engineers are requalified annually. For this particular mission, I'm glad we were able to get the wife and friend to safety; however, it's hard for us when we lose a climber."

For the thousands of hikers and for the climbers who make the excursion to the high peak of Mount Rainier, the Chinook rescue crew — Pilot in Command Bryan Campbell, pilot Rich Bovey, and flight engineers Bob Copeman and Jason Loveday — along with the other Chinook crews stationed in the greater northwest, could be called on to use their training and expertise at a moment's notice. They are prepared to meet any challenge and overcome any obstacle, for the safety of others. ●



NATIONAL GUARD HELPS ATTACK CALIFORNIA WILDFIRES BY AIR AND LAND

BY STAFF SGT. JIM GREENHILL, National Guard Bureau

SAN DIEGO, Ca. — Army National Guard helicopters were attacking southern California's ferocious wildfires, and Guard soldiers on the ground were manning traffic control points and were prepared to provide people who had lost their homes with some of the necessities of life in October 2007.

The newspaper headline, "Help From Above," summed up how aircraft, including National Guard helicopters carrying big Bambi water buckets, were trying to bring under control the firestorm that forced some 500,000 residents to flee the devastated, seven-county region.

"This is true and pure homeland defense. This is my home. This is what I joined to do," said California Army Guard 1st Lt. Robi Yucas, who was coordinating the Guard's aviation assets here even as his wife and daughter and dog were preparing to evacuate their fire-threatened home in Oceanside.

Yucas, from 1st Battalion, 140th Aviation, was part of the National Guard crew that was diverted from Operation Jump Start, deterring illegal aliens from crossing the California-Mexico border into this country, to support the firefighting mission.

Four UH-60 Blackhawks were dispatched from the border mission to support the California Department of Forestry, and two more Blackhawks and two larger CH-47 Chinooks flew in.

The aircraft attacking the flames were the most visible part of the firefighting mission, and the Guard helicopters were expected to be flying water-drop missions all day.

A California Guard S-70 Firehawk, specially designed for firefighting missions, also joined the battle against the inferno of a dozen fires that already

had scorched 600 square miles and destroyed a reported 1,800 homes.

It prompted the largest evacuation in California history, from north of Los Angeles to the Mexican border, the Associated Press reported.

Meanwhile, 1,500 soldiers from the California Guard's 40th Infantry Brigade Combat Team conducted presence patrols to prevent looting, manned traffic control points and prepared to assist people at the Qualcomm Stadium and the Del Mar Fairgrounds in San Diego. The Guard soldiers were supporting the San Diego County sheriff's department.

"(This has) been probably the most proactive response to a domestic event that I have seen in my 40 years in uniform," said Lt. Gen. H. Steven Blum, chief of the National Guard Bureau. "And we continue to be flexible and agile to meet the needs of Governor Schwarzenegger and the citizens of California as the area is ravaged by what is a very dangerous and unpredictable fire."

California Gov. Arnold Schwarzenegger directed that 1,500 Guard troops be made available for the firefighting mission.

About 70 Guard soldiers were on duty at the stadium, where large stockpiles of water, food and clothing were ready for the displaced people who needed them.

Some of the Guard soldiers were pulled off border duty to help with the

firefighting mission and for their own safety from the fires.

The Air National Guard reinforced the fight from the air with four C-130 Modular Airborne Firefighting Systems from North Carolina and Wyoming. The planes, which drop large amounts of fire retardant, were staged at Naval Air Station Point Mugu, California.

"The size of this operation is enormous compared to every other MAFFS mission I've done," said Air Guard Lt. Col. Brian Ratchford, an aircraft commander with North Carolina's 145th Airlift Wing. "The size of the response, the size of the fire is so much larger than I have ever seen."

Ratchford, who has been flying since 1987, has flown missions during Operation Just Cause in Panama in 1987, during the first Gulf War and during Operations Iraqi Freedom and Enduring Freedom. He has been a MAFFS pilot with the 145th since 1991.

"We hope to fly as many missions as we can and drop as much retardant as we can. I would like to see all the fires out before we leave," Ratchford said.

"Personally, this is really challenging flying, but it's also very gratifying. These aircraft are built for war but are being used in support of American citizens and their property," he added. "I believe in every mission the Air National Guard has undertaken. It is especially gratifying to help people protect their homes and property." ●



CREWS OF 'BIG WINDY' KEEP SOLDIERS, CARGO MOVING IN IRAQ

BY SGT. DALE SWEETNAM, Task Force 49 Public Affairs Office

Soldiers from the 12th Combat Aviation Brigade's Company B, 5th Battalion, 158th Aviation Regiment, oversee the loading of a pallet on the back of a CH-47 Chinook at Logistical Support Area Anaconda in Balad, Iraq, in preparation for a cargo mission.

LOGISTICAL SUPPORT AREA ANACONDA, Balad, Iraq — Soon after kissing the lucky lady painted on the side of their aircraft, two CH-47 Chinook crews loaded up and took to the sky under the cover of night on a general support mission over Baghdad.

The two five-soldier flight crews belong to the 12th Combat Aviation Brigade's Company B, 5th Battalion, 158th Aviation Regiment, more commonly known as Big Windy. It's a small unit with a large mission to support and a massive aircraft to fly.

Big Windy consists of 14 of the big tandem-rotor Chinooks that fly every night, supporting corps air movement operations, moving people and equipment and taking part in air assault missions.

"We pretty much take the fight to the enemy," said Capt. Howard Titzel, the commander of Company B.

Big Windy crews get the chance to see interesting loads that range from Hellfire missiles to Gatorade, said Spc. Cameron Randall, a door gunner attached to Company B from the 12th Combat Aviation Brigade's 412th Aviation Support Battalion.

The missions are really intense, but it feels great to be able to fly one of the most protected aviation assets in the Army, said Chief Warrant Officer 2 Colt Galusha, a Chinook pilot in Company B.

"It's pretty unique," Galusha said. "We get a lot of different missions; we go out and do a variety of things. It's a lot of responsibility, but with our training and everything we've done, we're covered."

The flight crews consist of a pilot in charge, a copilot, a flight engineer, a crew chief and a door gunner.

Because the unit is relatively small, Big Windy soldiers and crews are a close-knit team, and that results in excellent execution in the air, said Titzel.

That closeness allows Big Windy soldiers to build a great deal of trust in one another, says Randall, who is relatively new to the unit but said he feels perfectly comfortable putting his life in the hands of his crew.

"I'm terrified of heights, but I have no problem being 1,000 feet up in an aircraft taken care of by soldiers as professional and as competent as the crews and pilots of Company B," Randall said.

Big Windy used to be a company-sized element with about 300 soldiers and two flight platoons, but after its last deployment the unit was reduced in size, said Titzel.

Now Company B reports to two UH-60 Black Hawk battalions while in Iraq. For general support missions, they work with 5th Battalion, 158th Aviation, but they work with 2nd Battalion, 147th Aviation Regiment, for air assault missions.



SPC. CAMERON RANDALL, A DOOR GUNNER ATTACHED TO THE 12TH COMBAT AVIATION BRIGADE'S COMPANY B, 5TH BATTALION, 158TH AVIATION, INSTALLS A MACHINE GUN ON THE BACK GATE OF A CH-47 CHINOOK HELICOPTER AT LOGISTICAL SUPPORT AREA ANACONDA IN BALAD, IRAQ.

Since arriving in Iraq, Big Windy has flown 460 missions, clocked more than 3,700 flight-hours, and transported more than 37,500 passengers and 5,710,500 pounds of cargo.

The 12th Combat Aviation Brigade is a U.S. Army Europe unit with headquarters in Ansbach, Germany. ●



CHINOOKS: WORKHORSE OF AVIATION

BY SPC. AUBREE RUNDLE

Flight crews and personnel on board a CH-47 Chinook dismount the helicopter for safety each time the aircraft lands to fuel.



FORWARD OPERATING BASE SALERNO, Afghanistan — Executing resupply and transport missions and conducting air assault operations are done on the shoulders of the CH-47 Chinooks operating in Regional Commands East and South.

These vital missions make daily operations go as smoothly as possible and therefore play a major support role in Afghanistan as part of Operation Enduring Freedom.

Soldiers with A Company, 1st Battalion, 158th Aviation Regiment Yetis, an Army Reserve aviation element from Fort Carson, Colo., and Fort Hood, Texas, are deployed in support of the 82nd Combat Aviation Brigade, 82nd Airborne Division. They are one of two Chinook companies supporting aviation operations here.

Chinooks, referred to as the workhorse of rotary-wing aircraft in theater, work around the clock as an aviation benefit to ground elements throughout Afghanistan.

Manned by five-person flight crews, the Chinook has maintenance requirements and flight procedures that are anything but simple.

“We conduct preflight inspections and check all systems several hours ... before the execution of any mission,” said Army Staff Sgt. James Fleming, a flight engineer with 1-158th Aviation Regiment.

Flying in and out of valleys and around mountain ridges, the Chinook is the fastest working rotary-wing aircraft in the

fleet. Chinooks routinely carry several thousand pounds of cargo in one trip, delivering pallets of military supplies, mail, food and bottled water to the various outposts and fire bases throughout Afghanistan.

According to Staff Sgt. Fleming, these workhorse helicopters do get a break from the strain put on them each day because they are put through down phases after so many flight-hours pass. This break helps keep the aircraft up to speed and always prepared for the

high altitudes and weathering they receive while in theater, Staff Sgt. Fleming continued.

The Yetis have been deployed since September 2006, supporting the 10th Combat Aviation Brigade, 10th Mountain Division, and are soon to bid farewell to the 82nd Combat Aviation Brigade and return to their home posts.

“I volunteered to deploy for this rotation because, as a door gunner and crewmember for a Chinook, our tasks

are to maintain mission readiness for all the soldiers on ground patrol; this is an important mission for me,” said Sgt. Chase Cervanka, door gunner with 1-158th Aviation Regiment. ●



ARMY RESERVE AVIATION UNIT OF THE YEAR

**COMPANY A, 7TH BATTALION, 158TH AVIATION REGIMENT
FORT HOOD, TEXAS**



The Co. A "Yetis" of the 7th Bn., 158th Avn. Regt., as Army Reserve CH-47D Chinook unit, distinguished themselves by superior performance and selfless service while deployed in support of Operation Enduring Freedom. With 69 soldiers, they conducted simultaneous 24/7 combat operations from two locations in Afghanistan, to including support of the Combined Joint Special Operations Task Force. With Co. A's collaborative combat operations, the CJSOTF achieved the highest rate of "captured" or "killed" high value enemy targets since the beginning of OEF. Co. A maintained an operational readiness rate of over 75 percent and never cancelled a mission due to maintenance. During their deployment, they conducted 1,729 combat missions, flying approximately 7,000 hours, transporting over 39,000 troops and delivering more than 15 million pounds of supplies. The Yetis started pre-deployment training with only 25 percent of its crews qualified at readiness level 1(RL-1) for day, night and night vision goggle missions; and over 50 percent of the unit's soldiers were cross leveled from seven different Reserve units. With an aggressive training program and hard work,

the unit trained to 100 percent RL-1, and was the first USAR aviation unit to deploy with 100 percent of personnel night vision qualified. The outstanding achievements of the Co. A "Yetis" of the 7-158th Avn. clearly mark them as AAAA's Army Reserve Aviation Unit of the Year. ●



TOBY KEITH, A CHINOOK FREQUENT FLYER

The Chinook carries a Big Dog across Afghanistan. These images were captured by 7-158th Aviation Regiment who transported the Big Guy on his visits to troops throughout Afghanistan. The flight engineer's sign says it all! Thanks, Toby, for all you do!





CHINOOKS STILL GOING STRONG

BY PFC. MONICA K. SMITH, 3rd Combat Aviation Brigade, 3rd Infantry Division Public Affairs Office

CAMP STRIKER, Iraq — Her name is Ann, and she has been deployed since 2005. She took care of troops in two different units before joining the Combat Aviation Brigade, 3rd Infantry Division, last December. She is Chinook 86-01659.

We call her Raggedy Ann or Little Orphan Annie because she's been around so long," said Sgt. Jimmy Fletcher, Company B, 2nd Battalion, 3rd Aviation Regiment, 3rd Combat Aviation Brigade.

Before Raggedy Ann came to 3rd Combat Aviation Brigade, she worked with the 1st Cavalry Regiment stationed at Camp Taji. At the time, B Company, 2-3 Aviation Regiment was using Chinook 185 but discontinued its use because of cracks in its sheet metal, said Fletcher.

Chinook 185 was sent back to the States, and Ann moved to Company B.

"We spent half a day at Taji and brought it down that night," Fletcher said. "We flew a couple of missions and then put it in phase where 603rd (Aviation Support Battalion) spent almost a month in phase to repair all the sheet metal damage. ... It runs like a champ, minus a few gremlins."

Though few aircraft have been around as long as Ann, Chinooks as a fleet have a strong lineage dating back to the Vietnam War.

Boeing produced the first Chinook, designated an YHC-1B, in 1961 for the Army and Air Force as a medium-lift helicopter. Four years later, during the

Vietnam War, Chinooks were first used in combat and by 1968 had logged 161,000 hours in flight, carried 22.4 million passengers and transported more than 1.3 million tons of cargo.

That heritage continues with today's Chinook fleets. To date, Company B has moved more than 12 million pounds of

Company B, 2-3 Aviation Regiment. "We take everyone: Army, Marines, Air Force, the Special Forces guys, foreign soldiers, prisoners, anyone who asks or needs to be moved."

After the Vietnam War, plans were developed to upgrade the fleet of A, B and C models to what is now the

CH-47D. In 1982 the first D-model aircraft were delivered; the upgrade was completed in 1994. Since then, only two D-model aircraft were created to replace aircraft losses during the Persian Gulf War, making some of the D-models' airframes more than 40 years old.



STAFF SGT. DANIEL ENUS, COMPANY B, 2ND BATTALION, 3RD COMBAT AVIATION BRIGADE, WASHES CHINOOK 659, CALLED RAGGEDY ANN, FEB. 16, AT THE COMBAT AVIATION BRIGADE, 3RD INFANTRY DIVISION, FLIGHT LINE, BAGHDAD.

It's the same airframe, but it's been remanufactured," said Lt. Col.

Alex Covert, commander of 2-3 Aviation Regiment. "Helicopters in general are maintenance intensive. With Chinooks, every 25, 50, 100, 200 and 400 hours, there is a scheduled inspection. A lot of times we replace parts or items. You almost rebuild it completely, but it's essentially the

same airframe."The constant inspecting and maintaining of the aircraft adds to the Chinooks' durability over the years.

cargo and 55,000 passengers, said Cpt. Kurt Blankenship, commander of B Company, 2-3 Aviation Regiment.

"We move mail, passengers, equipment, anything to keep as many trucks off the roads as possible with the (improvised explosive device) threat," said Chief Warrant Officer Rodger Howard, standardization instructor pilot with

"The Chinooks have a lot of inspections for safety and the replacement of parts," said Staff Sgt. Daniel Enus, Company B, 2-3 Aviation Regiment. "As long as we follow the maintenance program set forth, the birds will last forever." ●



MIDNIGHT FLYERS

BY MAJ. ENRIQUE T. VASQUEZ, Combat Aviation Brigade, 1st Infantry Division

From air assaults to passenger transport, the Army's biggest helicopters dominate the skies of northern Iraq. The CH-47 Chinooks belonging to 2nd General Support Aviation Battalion, 1st Aviation Regiment, Fighting Eagles, transport troops into battle and mail, passengers and cargo between bases within Multi-National Division – North.

A CH-47 CHINOOK BELONGING TO 2-1 GSAB, SITS READY FOR TAKE OFF ON MARCH 5. THE 2-1 "FIGHTING EAGLES" ARE PART OF THE COMBAT AVIATION BRIGADE, 1ST INFANTRY DIVISION, FROM FORT RILEY, KAN., FLYING IN SUPPORT OF TASK FORCE IRON, 1ST ARMORED DIVISION, IN NORTHERN IRAQ.



The Fighting Eagles are part of the Combat Aviation Brigade, 1st Infantry Division, from Fort Riley, Kan., flying in support of Task Force Iron. Since the start of their deployment last fall, the 2-1 General Support Aviation Battalion has moved more than 2,400 tons of cargo, transported more than 30,000 passengers and flown numerous combat sorties.

The Chinook is the favorite mode of travel for ground unit commanders. Because the Chinook can carry more than 30 combat troops and all their equipment, it is the preferred rotary-wing aircraft for moving large amounts of cargo and large numbers of soldiers in northern Iraq.

"Ground commanders routinely request the Chinooks because of their unmatched capability to move larger groups of soldiers and all of their

equipment," said Maj. Scott Bovee, 2-1 operations officer.

Moving troops and cargo by CH-47 Chinook takes the talent of several crewmembers working together to ensure that the mission is accomplished in a safe manner.

"The crew is made up of two pilots, one crew chief, one flight engineer and one gunner. The crew chief makes sure the aircraft is ready to fly and that passengers and cargo are loaded safely," said Sgt. Joshua Velsor, B Company, 2-1, Chinook crew chief.

"The pilots fly the aircraft, and the flight engineer advises the crew on the airspace around the aircraft. The flight engineer keeps an eye out for other aircraft and enemy on the ground," said Sgt. Gregory Moseley, B Company, 2-1 Chinook flight engineer.



PASSENGERS WAIT FOR MORE PERSONNEL TO BOARD A CH-47 HELICOPTER BELONGING TO THE CAB.

FAST MOVERS A CH-47 CHINOOK BELONGING TO 2-1 GENERAL SUPPORT AVIATION BATTALION, SITS LOADED WITH PASSENGERS AND CARGO BEFORE A MISSION ON MARCH 5



"The flight engineer is also responsible for any unscheduled maintenance that needs to be performed on the airframe and for ensuring the gunner remains trained," said Moseley.

A typical day for a CH-47 crew starts early. Crews come in and check the Chinook from top to bottom, making sure the aircraft are safe and flyable.

"I normally wake up in the morning, like around four, then after breakfast I come out, check the technical manuals, get the bird ready. I and the other crewmembers then get with the pilots and start our run-ups and conduct preflight checks and make sure there are no problems with

the birds," said Spc. Raymond Sauseda, B Company, 2-1, Chinook crew chief.

"We look at the mission plans and check the routes being flown and go over where we will be going and load any equipment in preparation for our mission," said Sauseda.

Crews not only prepare the Chinooks for flight but also prepare the cargo being moved during the mission.

As we receive cargo we load it onto the aircraft. Sometimes we receive pallets of mail, ammo and anything the soldiers need moved. We also move humvees and Gator carts. We just have to put the

seats up and make sure the units prepare the vehicles properly," said Velsor.

A Chinook not only carries cargo inside the aircraft, but it can also sling-load cargo to the bottom of the helicopter. Cargo hooks on the bottom of the aircraft help move large items, such as water and fuel blivets and artillery pieces.

"You can either use a tandem load or a center-of-cargo sling load to move cargo. The tandem load takes a forward and aft line hooked and secured to the cargo, while the center-of-cargo sling load is just a sling connected to the center cargo hook of the helicopter," said Sauseda.



A CH-47 CHINOOK BELONGING TO 2-1 GSAB AVIATION REGIMENT, SITS IN FRONT OF AN IRAQI SUNSET.

Chinook crews load passengers and any equipment they may have. "Not only do we move passengers, but we usually move baggage like duffle bags, assault packs and personal gear," said Sauseda.

"Although a person has to carry his or her own bags, the crews are usually very helpful if you are carrying a ton of stuff. The crews will help you load and unload

"I appreciate the fact that I don't have to ride in the ground convoys just to do my job," said Smith.

"I enjoy the service the helicopters provide. It's really convenient, because I do a lot of flying between Tikrit, Mosul, and Kirkuk. The service makes my job a whole lot easier," said Smith.

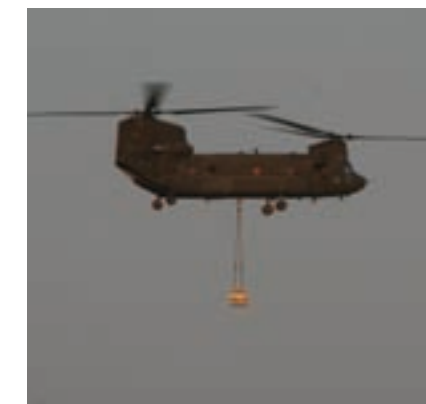
"I enjoy the service the helicopters provide. It's really convenient, because I do a lot of flying between Tikrit, Mosul, and Kirkuk. The service makes my job a whole lot easier."

your bags on the helicopter if needed. I take care of electronic equipment at several different forward operating bases, so the Chinooks allow me to go where I need to go," said Staff Sgt. Valentine Smith, 5th Battalion, 5th Air Defense Artillery Regiment.

With hundreds of soldiers and civilian contractors requiring transportation in Iraq, the Chinook is the mode of travel many are using instead of moving by ground.

Chinook air crews recognize the positive impact they have on the remote bases in northern Iraq. "We pick up a lot of passengers, cargo and supplies and move them to the different places we visit. It's good to see the places that you're bringing cargo to. It feels good to see the people who need the cargo get it," said Sauseda.

"It makes me feel good to see soldiers ride with us because it keeps them off the roads. By riding in a Chinook, soldiers are kept from facing improvised explosive devices," said Velsor. ●



A CH-47 CHINOOK BELONGING TO 2-1 GSAB, CARRIES A CENTER-OF-CARGO SLING LOAD.



JOSHUA VELSOR, CH-47 CHINOOK CREW CHIEF ASSIGNED TO COMPANY B, 2-1 GSAB, CHECKS THE FORWARD ROTOR BEFORE A MISSION.

THE SLING-LOAD TEAM OF THE 26TH BRIGADE SUPPORT BATTALION, 2ND BRIGADE COMBAT TEAM, 3RD INFANTRY DIVISION, PREPARES TO HOOK THE CONTAINER TO A CHINOOK JAN. 4 AT FORWARD OPERATING BASE KALSU. THE SUPPLIES IN A CONTAINER HELPED BUILD PATROL BASE DOLBY.

26TH BRIGADE SUPPORT BATTALION SUPPLIES FRONT LINES

BY SGT. JASON STADEL, 2nd Brigade Combat Team, 3rd Infantry Division, Public Affairs Office

FORWARD OPERATING BASE KALSU, Iraq — In combat, the success of troops fighting on the front line depends heavily on the efforts of the troops supplying them. The 26th Brigade Support Battalion, 2nd Brigade Combat Team, 3rd Infantry Division, ensures continued success as it helps build the latest patrol base in the brigade's area of operations.

On Jan. 4 soldiers from the 26th Brigade Support Battalion, with the help of CH-47 Chinooks from Company B, 2nd Battalion, 3rd Aviation Regiment, Combat Aviation Brigade, sling-loaded 12 military containers to Patrol Base Dolby, a new base that soldiers of 2nd Brigade Combat Team use to conduct operations.

The containers, commonly called "milvans," held food, water and wood. They become barriers filled with sand and dirt to provide protection around the base.

The executive officer of the 26th Brigade Support Battalion, Maj. Henry Young, said sling-load missions — when helicopters transport containers from one location to another — are crucial to combat missions.

"We're a force multiplier in combat logistics support," Young said. "Every day counts. These 12 milvans will help

our soldiers in the battle. By doing this we're helping each soldier to create a safer and more secure Iraq."

With sling-loading, there are fewer patrols on the road, meaning fewer soldiers are in harm's way.

"That means less risk of one of our drivers going out there and getting hit by an IED (improvised explosive device) or small-arms fire," said Spc. Ivan Zayas-Taylor, Company A, 26th Brigade Support Battalion.

The soldiers' experience plays a vital role in the success of the missions.

"Experience is a pretty big part," said Zayas-Taylor, who is sling-load team leader and rigger. "You can't really practice for it until you have a helicopter overhead." Zayas-Taylor and Staff Sgt. Floyd Lewis, the sling-load team's inspector, gained experience sling-loading while assigned to the 101st Airborne Division (Air Assault).

"Air assault ties into it because it's part of the sling-load procedure," Zayas-Taylor, a Jacksonville, Ala., native. "During the second phase of air assault school you learn how to rig, hook and set up a landing zone, pickup zone and drop zones."

These missions give soldiers a unique job while in Iraq.

"It's not every day you work with a Chinook a couple feet above your head," Lewis said. "I think our guys like doing this. It's a different kind of pace."

Whether on the front lines or supplying the front lines, Young said every soldier has a role in the overall success of the mission in Iraq.

"It's a team effort; we all make up the Marne team. We all have a part to play," he said. ●



CHINOOK = UNMATCHED VERSATILITY

BY LT. COL. GERALD DWYER, Assistant Program Manager, CH-47 International Programs and Foreign Military Sales

The CH-47 Chinook has more than 40 years of serving military, public service and civilian users around the world. This prolific helicopter is a resilient design that consistently meets the many and varied requirements of its users.

As the largest user, the U.S. Army employs more than 450 Chinooks as a critical asset to conduct combat, combat service support and support missions. There are more than 380 Chinooks serving internationally in a similar manner.

Many users consider the Chinook an optimum platform for rescue, evacuation and recovery of downed aircrews and injured personnel. For decades, these missions have been accomplished in humanitarian assistance and disaster relief scenarios, during challenging environmental and combat conditions.

Many international variants are specifically configured for this mission.

The standard configuration CH-47 is equipped with an internal hoist and winch that enables the crew to recover personnel through the lower rescue door, using a jungle penetrator or litter.



RAF CHINOOK COMBAT OPERATIONS HELMAND PROVINCE, AFGHANISTAN

BY PATRICK ALLEN

Royal Air Force No 1310 Flight, operating Boeing Chinook HC2s, continues to support land operations in Afghanistan as part of the UK's Joint Helicopter Force (Afghanistan). The flight first arrived in Kandahar in support of Operation Herrick in early 2006 and has been operational in Afghanistan ever since.

FIGHTING BY FLIGHTS

As part of the RAF Chinook Wing, home based at RAF Odiham in Hampshire, No 1310 Flight is a deployed flight comprising aircrew and personnel from the two front-line operational Chinook squadrons: No 18 (Bomber) Squadron and No 27 Squadron. No 27 Squadron has three operational flights, and No 18 (B) Squadron has two operational flights plus an operational conversion flight.

The fighting-by-flight system allows each of the five operational flights to rotate through No 1310 Flight on an eight-week rotational cycle, which provides a much more stable working environment and allows all RAF Chinook crews the opportunity to broaden their operational experience. The system provides all RAF Chinook crews the opportunity to broaden their operational experience by undertaking all the commitments of the RAF Chinook Force, including detachments and operational deployments.

During a two-and-a-half year tour of duty, for example, a Chinook crew goes on four operational detachments with No 1310 Flight. This tour provides a broad range of operational experience and allows Chinook crews to work together as a single flight. The fighting-by-flight rotational system can be broken down into three main phases: UK tasking/national stand-by and an operational predeployment training phase followed by a detachment phase. The system has helped share out an already extremely busy work load, enabling the RAF Chinook Force to provide an even better service to its many customers at home and abroad.

All the JHF squadrons (Boeing Chinooks, Pumas, Merlins, Commando Sea Kings, Lynxes and Boeing Apache AH1s) are operationally deployed (Operations Herrick and Telic), and maintaining manning levels remains a challenge. The UK's Defence Helicopter Flying School and operational conversion units are committed to producing more aircrews for the front-line squadrons. The entry into operational service of eight Chinook



RAF 1310FLT CHINOOK SEEN OPERATING IN SUPPORT OF THE ROYAL CANADIAN HORSE ARTILLERY (RCHA) DURING AN ISAF MISSION IN THE MOUNTAINS NORTH OF KANDAHAR. CHINOOKS MOVED THEIR M777, 155MM HOWITZERS, AMMUNITION AND SUPPLIES IN SUPPORT OF AN ISAF LED MISSION.

HC3s now being modified to HC2/2A standard will help provide additional operational lift capacity for the RAF Chinook Force. Sustainability is one of the main operational priorities, with platforms versus hours versus crews versus spares, as the UK's Joint Helicopter Command continues to maintain its operational tempo.

NO 1310 FLIGHT — OPERATION HERRICK TASKING

RAF Chinooks continue to undertake combat and logistics support for general tasking, moving troops and supplies and conducting air assaults and combined air operations in support

Several Active, Reserve, and National Guard U.S. Army units have established a high degree of effectiveness in this task in the mountainous or remote areas where they operate. The Chinook is a highly stable and maneuverable platform, made even more so with the current CH-47F's coupled flight director and Digital Advanced Flight Control System. Some Chinooks are equipped with external hoists, usually above the main cabin door, which provide additional capability. Units that are equipped with this external hoist require a high degree of crew coordination and risk management in addition to specialized flight-training hours, maintenance and spares for their unique equipment.

The CH-47 has an aft ramp that provides the aircraft with the unique capability to land only on the rear wheels for the rapid ingress and egress of personnel. This capability provides the user with the ability to rescue personnel from a footprint as small as the aft ramp. Many crews use this capability to rescue personnel

from the tops of buildings, mountain cliffs, disabled ships and bridges. Some international users have procured Chinooks specifically for the purpose of rapidly rescuing passengers from disabled ferries far out at sea. The ability to travel at 170 knots, with a long range, and carry up to 55 passengers to safety makes the international Chinook uniquely suited to this type of mission.

In Operation Enduring Freedom the speed and size of the Chinook proves to be an advantage in the rescue and recovery of injured personnel. The size of the theater of operations requires a long-endurance helicopter that can hover at extreme altitudes, carry the required life support equipment and personnel to treat the injured during the golden hour and fly quickly to a combat support hospital. The medical professionals in theater requested the Chinook specifically to accomplish this mission.

Many international users of the Chinook have selected it for its amphibious

capability, one that few helicopters have. Most nations have coastal or littoral regions that require rescue or recovery missions, and the CH-47 is uniquely suited to meet this requirement. There are many U.S. Army mission tasks that use this unique capability to rapidly deploy and recover personnel directly from the water. The capability of the Chinook to deploy a boat directly off the ramp to rescue survivors and rapidly recover is unmatched.

More than 15 countries worldwide use the CH-47 Chinook for up to four million flight-hours. The aircraft is a proven, substantial asset to any user who has a requirement for the rescue, recovery and evacuation of personnel in extreme environmental and combat conditions. ●



RAF CHINOOKS, PROTECTED BY UK ARMY BOEING APACHE AH1S, MOVED THEIR M777A, 155MM HOWITZERS (APPROX 3745 KGS OR 8,256 LBS), AMMUNITION, TROOPS AND SUPPLIES TO A REMOTE FORWARD LOCATION IN SUPPORT OF AN ISAF MISSION.

FIGHTING BY FLIGHTS

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NO 1310 FLIGHT — OPERATION HERRICK TASKING

RAF Chinooks continue to undertake combat and logistics support for general tasking, moving troops and supplies and conducting air assaults and combined air operations in support of UK and International Security Assistance Force troops within the Regional Command South area of responsibility.



RAF 1310FLT CHINOOKS SEEN OPERATING IN SUPPORT OF THE ROYAL CANADIAN HORSE ARTILLERY (RCHA) DURING AN ISAF MISSION IN THE MOUNTAINS NORTH OF KANDAHAR. CHINOOKS MOVED THEIR M777, 155MM HOWITZERS, AMMUNITION AND SUPPLIES IN SUPPORT OF AN ISAF LED MISSION.

RAF Chinooks remain forward-deployed at Camp Bastion, undertaking immediate response team and Helmand Reaction Force duties, 24 hours a day. These helicopters are on permanent standby for medical evacuation and the HRF, ready to deploy quick-reaction forces in support of troops in contact, protected and escorted by UK Army Air Corps Apaches. The availability of the IRT and HRF helicopters at Camp Bastion has helped provide the UK with a fast and impressive casualty evacuation capability. The Chinook has proved to be an extremely capable CASEVAC helicopter, with aircrew and medical personnel exploiting the Chinook's size and versatility, often turning the Chinook into an airborne emergency trauma room. Many of these IRT missions (between 25 Dec. 2007 and 25 Jan. 2008 there were 27 IRT and 21 HRF callouts) have resulted in RAF Chinook crews flying into unfamiliar, sometimes hostile locations, often at night with little information other than that there is a casualty that needs to be evacuated.

Helicopters are vital in almost every aspect of ISAF operations in Afghanistan. The JHF (A) is truly a joint force, with RAF Chinooks from No 1310 Flight operating alongside Army Boeing Apache AH1s and Lynx AH7s. In November 2007, they were joined by the Royal Navy Commando Sea King HC4+ helicopters from the Commando Helicopter Force. By late 2007, as part of a command structure change in ISAF RC South, JHF (A) began to get its daily tasking through the helicopter tasking cell at ISAF Headquarters RC South in Kandahar, rather than through

the British force commander based in Lashkar Gar, Helmand Province. This change allows ISAF Headquarters RC South to allocate helicopters throughout the entire operational AOR, with JHF (A) helicopters tasking throughout RC South rather than predominantly in support of UK operations in Helmand Province. However, this change in allocation does not mean that deployed British troops suffer any shortage of helicopter support. When bidding for helicopters, all ISAF units now have a full range of helicopters available, including JHF (A) U.S. helicopters from Task Force Eagle Assault, 101st Airborne (Air Assault) Division, and Dutch Chinooks.

JOINT HELICOPTER FORCE (AFGHANISTAN)

No 1310 Flight, under the operational command of JHF (A) and flying Chinook HC2s, continues to support land operations in Afghanistan.

As part of ISAF RC South, JHF (A) often works alongside other ISAF nations, flying missions alongside U.S. Army and Dutch helicopters. During the battle for Musa Qaleh in December 2007, for example, JHF (A) helicopters, including Chinooks from No 1310 Flight, worked alongside U.S. Army and Dutch helicopters. They conducted several COMAO, deploying ISAF and Afghan National Army troops into the Musa Qaleh area and then conducted the extraction after the battle in extremely poor winter weather conditions.

The change in tasking headquarters from British Brigade Headquarters at Lashkar Gah, to RC South at Kandahar does not mean that deployed British troops in Helmand will see less of the pooled helicopter support. Instead of tasking national assets, all helicopters within RC South, including those from the Dutch (Apache and Chinook), U.S. Army and U.S. Marine Corps are available for daily tasking.

This joint tasking was evident during a visit to No 1310 Flight in late January 2008, when RAF Chinooks from No 1310 Flight and Commando Sea King HC4s from 846 Naval Air Squadron, escorted by AAC Apaches, were tasked to move ANA and British troops from Camp Bastion to several forward operating bases in the Sangin Valley. The following day saw a pair of RAF Chinooks from No 1310 Flight, along with their Apache escort, tasked in support of 1st Royal Gurkha Rifles and the 4th Royal Canadian Horse Artillery, moving their M777 155 mm howitzers from Camp Frontenac, in the mountains north of Kandahar, to a gun position south of Tarin Kowt.

RAF Chinooks continue to maintain high rates of availability and provide a surge capability when required. They operate over a wide range of environmental extremes, often under significant threat from the enemy. Much of their availability is down to the hard work of RAF engineers and ground crews, ensuring that No 1310 Flight Chinook availability remains as high as ever. ●



ITALIAN SPECIAL FORCES WATER DEPLOYMENT EXERCISE

BY LT. PASQUALE ANGELO ZAMBOI, 1st Italian Army Aviation Regiment Antares

So much has been written about the versatility of the CH-47, but the personal, hands-on experience is something you never forget. I'd like to narrate a Special Forces experience of floating on water.

On March 30, 2008, a CH-47C of the 1st Italian Army Aviation Regiment, Antares, conducted a light-boat deployment and release for the 9th Special Forces Regiment of the paratrooper brigade Folgore.

When the Battalion Operations Office received the helicopter task, the helicopter was prepared for flotation and loaded with the boat and all the mission materials.

A few hours later, we were mission ready, and seeing my name on the flight manifest as one of the pilots, I could barely hide my emotions. At the preflight briefing, the standard operating procedure was explained to everybody. At the end, we on the flight crew and our colleagues from the 9th Regiment looked at each other, and I saw the confidence in their eyes. I knew that what for me had so far been a flying machine, a helicopter, would today also perform perfectly as a big boat.

We took off from Viterbo Airport, and in a few minutes we were flying over Lake Bolsena at just over six feet above the water, maintaining a forward groundspeed of 5 to 10 knots, when we turned on the green light. From the rear-vision mirror, I saw the ramp coming down and the flight engineer releasing the boat and then making the team jump into the water. Just a few seconds later, we were already flying at 500 feet.

But the interesting part of the mission was still to come. Just 20 minutes later, Special Forces called us back. "Just think of the lake as a big helipad," the commanding pilot told me. The Chinook smoothly touched down on the water, we manoeuvred to sink the ramp and part of the loading compartment...green light. Soon afterward, the team and the boat were safely back on board with thumbs up and permission to take off.

The helicopter took off, hovering without any major differences from a normal land takeoff. With the aircraft parked back at Viterbo Airport, I was walking to the postflight briefing, feeling incredulous and satisfied with what I had just done, with a machine that I already knew as extraordinary but that had revealed itself to be even better than I had believed. ●



AIR COMMODORE THEO TEN
HAAF, COMMANDER, DEFENSE
HELICOPTER COMMAND, RNLAf



CHINOOKS LIFT DUTCH AFGHANISTAN MISSION TO GREAT HEIGHTS

BY HARALD BOERSMA

Since 1998, the Boeing CH-47D Chinook has delivered added value to the Royal Netherlands Air Force on many occasions in conflict zones throughout the world. From Bosnia to Ethiopia and from Iraq to Afghanistan, this heavy-lift transport helicopter performed flawlessly. To serve and protect not only the Dutch troops but also the troops of NATO partners. Air Commodore Theo Ten Haaf, the new commander of RNLAf Tactical Helicopter Group, reflects back on his tour as first commander of the Dutch Air Task Force in Afghanistan during a three-month mission at the end of 2007 and on the complexity of modern day warfare, productive cooperation with NATO partners and the role of a remarkable helicopter.

It's the ultimate workhorse", says Ten Haaf when asked about his view on the Chinook. "Its design may date back to the days of the Vietnam War, where it entered service with the U.S. Army 1st Cavalry Division in late 1965, but it's still a great concept today. It has proven itself over and over again." The RNLAf has 11 D-model Chinooks and has ordered six new ones, all F models. Ten Haaf: "The F model has promising new features. Not only do we expect to benefit from its lower maintenance costs, but the improved digital avionics that the automatic flight control system delivers will enable us to reduce the hazards of brownout when landing in arid desert terrain."

INCREASED SAFETY THROUGH AUTOMATIC FLIGHT CONTROL

Brownout refers to a landing or takeoff procedure in which the rotor downwash causes dust and sand to stir up, limiting the pilot's visibility, which in turn leads to severe flight safety risks. Ten Haaf has good reasons to look forward to using the automatic flight control system incorporated in the F model. "We lost two Chinooks during our mission in Afghanistan, one of them as a direct result of brownout. Needless to say, we could sure use technology that can land the helicopter automatically and safely under all circumstances."

LEADING IN CHINOOK DEPLOYMENT

The loss of the two Chinooks was unquestionably a blow to the RNLAf, but it hasn't detracted from the success of its mission in Afghanistan. As part of the NATO security and assistance



mission, International Security Assistance Force, the Dutch Air Task Force deploys Apaches, Cougars, F-16s, C-130s and Chinooks for logistical, transport, medical and combat operations. The Netherlands has deployed around 2,000 troops in total, of which the majority of ground troops are stationed in the strategically important southern province of Uruzgan. However, the helicopters of the Air Task Force are deployed in the entire southern part of Afghanistan and the F-16s in the whole country. Ten Haaf explains: "In principle, we work with and for all 37 ISAF nations involved in the mission, but during our helicopter operations, we work particularly closely with the Americans and the British. These countries are the three main players in conducting helicopter operations over southern Afghanistan. Not only do we work seamlessly together in



“As warfare becomes increasingly complex and less conventional, more flexibility and speed are demanded of our troops. Deployment of Chinook helicopters gives us exactly that. No other air transport vehicle can rapidly transport large numbers of troops from one place to the other, carrying heavy loads of munitions and vehicles at the same time.”

the operational theatre, we also have integrated our training programs. Our pilots, for instance, spend many flight training hours at the U.S. Army base at Fort Hood, Texas.”

THE PLEASURE OF A MULTIPURPOSE HELICOPTER

Air Commodore Ten Haaf vividly remembers the countless occasions on which this multinational cooperation paid off during the often perilous missions in Afghanistan: “More often than not our Dutch Chinook pilots would be transporting British Army Nepalese Gurkha troops, escorted by U.S. Army Apaches on a number of missions. During the attack on Taliban stronghold Musa Qu’Ala, American, British and Dutch helicopters worked seamlessly together and were very effective in conducting the largest single air assault to date in Afghanistan.” In addition to praising the synergy between the NATO forces, Ten Haaf’s reflections on his mission in Afghanistan are permeated with his passion for the one transport helicopter that “rules them all,” the CH-47D Chinook. “As warfare becomes increasingly complex and less conventional, more flexibility and speed are demanded of our troops. Deployment of Chinook helicopters gives us exactly that. No other air transport vehicle can rapidly transport large numbers of troops from one place to the other, carrying heavy loads of munitions and vehicles at the same time. And let’s

not forget that in the field of national defence and security the Chinook also contributes significantly to the safety of our own citizens here in the Netherlands. Our helicopters have more than once taken center stage in firefighting operations, helping firefighters on the ground extinguish forest fires and large industrial fires. We’re all looking forward to many more years working with this superb helicopter.

DEFENCE HELICOPTER COMMAND, THE FUTURE OF DUTCH HELICOPTER OPERATIONS

In the future, Dutch helicopter operations will undergo major changes. On July 4, 2008 the Netherlands DHC was formed. In the DHC all military helicopters in the Netherlands (AB 412s, Alouette IIIs, Chinooks, Cougars and Apaches of the RNLAf and Lynx helicopters of the Royal Netherlands Navy) will be grouped under a single command. The DHC will operate mainly from Gilze-Rijen Airbase and from Maritime Air Station de Kooy.

As of 2009 the DHC will be further modernised with the introduction of 20 NH-90 helicopters in both frigate and maritime troop transport configurations. The NH-90 will replace the Lynx helicopter. The centralization at Gilze-Rijen and the foundation of the DHC will result in greater efficiency, increased effectiveness and enhanced prioritization. ●



AUSSIES IN AFGHANISTAN 'CLARABELLE' TAKES ON THE TALIBAN

REPRINT WITH PERMISSION - HELITAC MAGAZINE

In March this year, Helitac spent time with Australia's 5AVN (Aviation Regiment) and their hard-working CH-47D Chinooks based in Kandahar, Afghanistan. As Helitac soon discovered, Australia's relatively small contingent of 100-odd personnel and only two helicopters, formed a vital component of a much bigger "whole" by combining with and becoming part of the US task force in RC (Regional Command) South.

The task force in which the Australian unit was originally "embedded" was known as Task Force "Knighthawk", but in the course of their deployment, was replaced with "Corsair".

The Aussies' area of operations as part of Knighthawk and Corsair, covered all of southern Afghanistan—Kandahar, where the task force was based, Helmand Province to the west, Zabol Province to the east, Oruzgan to the north and occasionally as far as Paktika, further north.

With only two aircraft, the Aussies would not have had sufficient economy of scale to do an effective job on their own. However, by combining with the Americans—with whom they have a great deal in common—they were effectively able to "multiply" their abilities to provide service to the allied contingent in southern Afghanistan.

When 5AVN first deployed to Afghanistan, their two helicopters comprised only 14% of the combined force alongside 12 American Chinooks, but as the American-led force transitioned to a NATO operation, the number of American Chinooks reduced

to only four, meaning that the Australians' two airframes comprised fully one third of the total heavy-lift capacity in RC South.

To give an idea of the degree of commitment by the Australian contingent, during the course of their deployment,

a Brigadier based in Iraq, known as Commander, Joint Task Force 633, and each was given a 633.x designation. Task Group 633.7 was the designation given to 5 AVN's contingent, under the command of. Lt Col. Kevin Humphreys.



The Australian aviation task group didn't work specifically for Australian ground forces, Instead, even before the overall force became a Nato unit, the Australians joined a "pool" of aviation resources that serviced all ground units amongst the allied contingent, who all submitted routine requests for air support as required. In addition to working alongside US air units, the Australians also worked with UK units (mainly Chinooks) and the Netherlands (Apaches). "Overall," said Humphreys, "the system worked very, very well and everyone made efforts to ensure it did."

5AVN's two Chinooks achieved over 90% of the entire (six-aircraft) squadron's normal annual effort. They achieved this despite the hectic pace of operations in Afghanistan's appalling climatic and meteorological conditions. What is even more, the squadron only dropped three missions due to unserviceability throughout its deployment.

The various groups in the Middle East came under the overall command of

While the Aussies' strength of 100 staff seems like a lot to support 2 helicopters, it would probably only have needed another 20 staff to support the full squadron of six aircraft. Unfortunately, in order to ensure that everyone is fed, paid, watered and accommodated, and the squadron's aircraft maintained, then the instant a squadron deploys overseas, there is an unavoidable





minimum requirement for support and logistics—regardless of whether it is for one helicopter or six.

As Humphreys pointed out, this was one area where it helped enormously to be part of a big group, because once everyone was together in the one spot, synergies developed. As the deployment progressed, many support functions devolved to other agencies and human resources were able to be “shared” to promote greater efficiency in both Australian and American units. It was also good for the Aussie Chinooks to have the ability to team up with UH60s and AH64s for maximum flexibility and support.

The standardisation of machinery helped enormously. Australia’s Chinooks are mechanically “standard” CH-47D models, just like the Americans’, so there were few problems with spares. While it was mostly the case that—when they needed things they hadn’t brought along—the Aussies bought their parts from American stores, the Americans occasionally had to buy parts from the Australians’ supplies; it was a bonus for

both nations to be able to do this. It was also beneficial to have identically qualified maintenance personnel from both nations on hand to service the combined Chinook force.

The economy of scale conferred by being part of a combined force extended to operations, mission management and flight planning as well as supply, logistics and maintenance.

Lt Col Humphreys expressed understandable pride in his unit’s performance in Afghanistan. “When RC South did some stats on the ratios of volumes of material supplied, compared to the numbers of hours and missions flown by the various Chinooks—ours, the Americans’ and the Brits’—we were well above the average. To me, it illustrated the calibre of the guys putting everything together.

“Another thing I’m very happy about,” said Humphreys, “is that we [the Australian contingent] suffered no casualties throughout our 12-month deployment. On one occasion, we got

into quite a stoush, but never even received a bullet hole. In over 1,200 hours, our two aircraft suffered no battle damage and there were no injuries. Some people say we were tremendously lucky,” he added, “and we were—but I like to think we made a lot of our own luck because of our planning, planning and planning, our maintenance, and our training—and strict discipline in following our training.”

There were some minor differences in the ways the Australians and Americans operated their aircraft. For example, the Americans preferred to fly their missions quite a bit higher than the Aussies. Humphreys explained that neither contingent sought to “impose” any of its operational techniques on the other, but instead, formulated de-confliction methods and mutually suitable ways to incorporate different procedures that allowed everyone to “play to their strengths and mitigate their weaknesses.”

“Some of the things we did in the course of what were normal operations for us—the way we’d always trained—other



units considered ‘special’. This height thing was just one of those,” he said. “We believe that the height we fly is the right balance between tactical safety in avoiding small arms fire, and staying out of the trees.

“We’re very disciplined about communication in the cockpit at that height,” he added. “There’s no time to think about anything other than flying—it’s all part of the training and discipline that kept us safe.”

Humphreys described how they good-naturedly joked about the height the Americans flew; “We often used to thank them,” he joked, “for flying as ‘decoys’ for us when we flew together on the same missions.”

One aspect of 5AVN’s Australian training that was not directly transferable to operating in Afghanistan was night operations. “In Afghanistan,” he explained, “when there’s no moon, it really is ‘zero illumination’—especially if there’s cloud cover as well. It’s blacker than the inside of a cow—even with goggles on; flying in these conditions is some of the most frightening flying I’ve ever done. Goggles are certainly good,” he added, “but if you aren’t trained to use them properly, all they really do, is help you to see what you’re about to run into—and there are plenty of rocks

to run into in Afghanistan.” Humphreys commented further on Afghanistan’s “rocks”, describing the country’s rugged terrain as some of the most awesome scenery he’d seen anywhere, but adding wryly, “which is why it’s so absolutely bloody frightening flying around in it with no moon and stars!”

Having accompanied the Australians and American units in Afghanistan, Helitac’s publisher, Ned Dawson, and I had experienced the constant and ever-present dust and haze that limits visibility, even during the day. In this mountainous country devoid of electricity, moonless nights—especially in the presence of cloud cover—do indeed make for a black and scary sky.



Humphreys explained that the number-one killer of aviators in Afghanistan is the environment—a combination of terrain, weather and human factors. “After that,” he went on, “it is the enemy. It’s important to maintain a very healthy respect for the environment,” he insisted, “so that you don’t let it kill you first. Just ask the Russians,” he added. “They lost most of their guys to the environment. At least give the enemy a chance to do it” he ended sardonically.

Something that helped the Australians guard against the environmental dangers was a fleet-wide upgrade of the avionic and navigation systems in 5AVN’s Chinooks. A primary component of this upgrade—and one that the crews valued highly—was an advanced GPS navigation system, which is able to incorporate important real-time tactical information along with navigational information. Especially in Afghanistan’s challenging environment, this reduced the workload and stress on flight crews at the same time as providing greatly improved situational awareness.

“If we hadn’t had this equipment,” Humphreys explained, “we may not even have been able to go; we certainly couldn’t have operated as we did, and we would have been far more vulnerable—to both the environment and the enemy.”

Particularly near the end of the Australians’ deployment, their Chinooks’ equipment fit (which the Americans didn’t have) resulted in their taking the

lead as element commanders (air mission commanders in US-speak) in a number of missions, as Knighthawk evolved into Corsair and new, less experienced American crews arrived in theatre. A well-planned approach, coordinated between Humphreys and the American commander of Corsair (Lt Col Huggins), saw the Australians' lead decreasing as their deployment drew to an end and the Americans became increasingly familiar with operations. Such harmonious cooperation in both mission planning and mission command, existed throughout the deployment, according to Humphreys, who added that there was never a hint of inter-unit politics in these matters—every decision was made for objective and logical reasons that everyone understood.

Something else that everyone understood was the need for careful planning. When crews were on duty, then if they weren't flying, they were planning," Humphreys, says. "The only thing more important than adhering to training is planning. You can never spend too much time on it," he insists. "We always tried to cover every possible contingency and leave nothing to chance, and the more complex a mission was, the more important it became."

All missions were risky, according to Humphreys, who quipped that while there was no such thing as missions that were "less risky", it was certainly the case that some were more risky than others!

Training was essential to mitigate risk in every area. He explained that training was constant and said that whenever it could be included as part of a mission, it was. Contrary to what many might believe, training became even more essential in a war zone than at home. So much so, that Humphreys once needed to "withdraw" his two helicopters and their crews from the routine mission roster for a week of intensive training in the build up to a planned high-threat operation.

"It might have been a 'nuisance' for ground commanders in the field when we weren't available to do their bidding



"But I have to say, the Chook, or Clarabelle—as we used to call it before we started doing real warfighting with it—continually amazed me throughout the deployment."

immediately," Humphreys said. "Ground commanders always think aviators aren't doing enough—but in this case, it was essential that we trained when we did and in the end, it meant we were able to provide better service for those on the ground. We did think of ways to make it up to them for being "offline" for a week—gave them additional service at other times to make it up—but at the end of the day, it was absolutely essential to do that training when we did."

Time out for training was not the only time Humphreys was less than popular with some ground commanders, but as he explained, he and his pilots were unwaveringly firm in their refusal to risk men or equipment for convenience, or as result of someone else's stupidity. He described having refused several missions where he believed the risks were not justified. "I did this three or four times at command level," he said. "My pilots did the same a couple of times—and I stood by them. To me, it highlighted the calibre of our pilots and their training, because it showed that they were always assessing circumstances objectively without letting a rush of blood to the head prompt rash decisions." Vindicating his and his pilots'

decisions in each of these instances, no one on the ground had died or been injured as a result. "As a commander, I might have pissed off a few people on the ground in the short term," he admitted, "but I sleep very well knowing that all of us did everything we could to avoid unnecessary risk, and our safety and mission accomplishment records speak for themselves.

By contrast, he detailed an extremely dangerous and complex mission—at night with poor visibility in a high (enemy) threat environment—where he and his men had accepted a great deal of unavoidable risk in order to save the lives of a significant number of soldiers on the ground. "That night, we did take risks," he admitted. "We risked our lives because it's what we were there for—it's part of the job we accept as military pilots and none of us are afraid to take them—provided the risks are worth it; in this case, they were. Our training and discipline mitigated the risks as much as possible, and it all paid off resulting in a bunch of soldiers getting out of an otherwise dire situation."

On the subject of risk, I asked Humphreys if he ever felt he was driving round in a



100 ft to consider, so the 3 rear crew are essential in tight manoeuvring situations, they're your eyes and ears—coordination is essential—and extended hovering five feet from a cliff edge certainly gets the blood pumping!

"The Chinook has a stabilisation system that will hold pitch attitude, roll and heading (you can take your hands and feet off and it will stay flying), but no automated system to maintain a fixed position over the ground, so you still have to hand fly a hover to hold the same position."

Humphreys, who has also served in Iraq and spent time flying in East Timor and Papua New Guinea, during his career in the Australian Army, considers himself extremely fortunate to have been involved in 5AVN's deployment to Afghanistan. "Comparing our aviation task group with all the other Aussie task groups in the Middle East (except the SOTG), ours had—by far—the widest latitude for autonomous control at the

tactical level, and we were one of the least used "strategic screwdrivers". Pretty much, when we were sent there [to Afghanistan], we were left to get on with war fighting.

"On a couple of missions in particular, it was very much a case of 'the buck stops with me' and some significant decisions were all mine. As a professional military officer, when this all worked out as intended, it was very satisfying."

Humphreys was convinced that the lack of political interference in tactical considerations had played a big part in the morale of the whole task force being 'outstanding'. "Despite the threats and hardships," he explained, "because we were actually allowed to prosecute military operations the way we'd been trained—the way they needed to be prosecuted—it was very rewarding. He said that he had spoken to personnel from every rotation of 5AVN's deployment and that—just about to a man—all had said they could easily have

stayed another couple of months without difficulty, and that many had expressed a desire to do so.

Lt Col Humphreys was careful to avoid political comment but it was clear that he held a strong personal belief in the legitimacy of the international presence in Afghanistan. No one who has seen the extent of the opium crop in the country, as this writer has done, can possibly doubt its effects on the rest of world, nor its "motivation" for terrorism.

Kevin Humphreys and the men and women of 5 AVN—like the men and women from every nation serving in Afghanistan—deserve a great deal more recognition than is currently afforded them. The battle to succeed in Afghanistan may no longer be "sexy" in the eyes of the general media, but its importance cannot be overstated. ●

CH-47 PHOTOS AND CAPTIONS

Memorable images of Chinooks performing remarkable missions around the world

1 U.S. Army Sgt. 1st Class Malwonte Stewart of 3rd Battalion, 82nd Combat Aviation Brigade, 82nd Airborne Division, monitors his radio while a CH-47 Chinook lands at the Paruns District Center in Nurestan Province, Afghanistan June 26, 2007.



U.S. ARMY PHOTO: STAFF SGT. ISAAC A. GRAHAM

2 A U.S. Army CH-47 Chinook belonging to 2nd General Support Aviation Battalion, 1st Aviation Regiment, flies by an Iraqi sunset Nov. 27, 2007. The 2-1 General Support Aviation Battalion Fighting Eagles are part of the combat aviation brigade, 1st Infantry Division, from Fort Riley, Kan., flying in support of Task Force Iron, 1st Armored Division, in northern Iraq.



U.S. ARMY PHOTO: MAJ. ENRIQUE T. VASQUEZ

3 A CH-47 Chinook from 82nd Combat Aviation Brigade, 4th Brigade Combat Team, 82nd Airborne Division, sling-loads water and meals ready to eat in Nurestan Province, Afghanistan June 26, 2007.



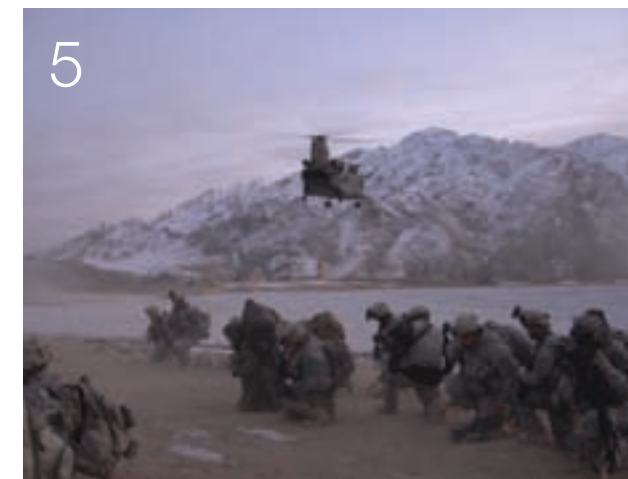
U.S. ARMY PHOTO: STAFF SGT. ISAAC A. GRAHAM

4 U.S. Army paratroopers from Bravo Company, 3rd Battalion, 509th Parachute Infantry Regiment, 4th Brigade Combat Team, 25th Infantry Division, board a CH-47 Chinook before an air assault mission at Forward Operating Base Kalsu, Iraq, Aug. 21, 2007. The paratroopers are conducting the raid to find a suspected weapons cache in Sawarah.



U.S. ARMY PHOTO: STAFF SGT. SEAN A. FOLEY

5 Soldiers from Bravo Company, Special Troops Battalion, 82nd Airborne Division, Task Force Gladius wait for a CH-47 Chinook at the landing zone at Forward Operating Base Morales-Frasier Jan. 20, 2008. The Chinook airlifted them into the Surobi District, Kabul Province, Afghanistan, to protect another CH-47 that made a hard landing there.



U.S. ARMY PHOTO: SGT. JOHNNY R. ARAGON



U.S. AIR FORCE PHOTO: STAFF SGT. JOSHUA T. JASPER

6 Two U.S. Army CH-47 Chinooks fly over the Nangarhar Provincial Reconstruction Team Forward Operating Base in Jalalabad, Afghanistan, Nov. 9, 2007. The Nangarhar PRT is a joint team of U.S. Air Force airmen; Army soldiers; and representatives of the U.S. Department of State, U.S. Agency for International Development and U.S. Department of Agriculture responsible for helping the Government of the Islamic Republic of Afghanistan improve security and governance and promote reconstruction.



MESSAGES FROM 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 is produced, to share their thoughts about the aircraft they build for customers around the world. These words from dedicated employees who build the Chinooks go out to the men and women who fly and maintain them.



CARL OLSZEWSKI

Flight Test Instrumentation

Keep up the fight. We will do our best to keep sending you the best aircraft.



DONALD MARTIN

Flight Test Instrumentation

You are the reason we do what we do!



DONALD MCIVOR

Chinook BackShop Manager Spares

We build the best for the best. We support and appreciate everything that you do. Come home safe!



SCOTT OLSEN

Manager Lot Time and Unit Structures

We build the Ultimate machine for the Ultimate warriors. Please come home safe.





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