



CTI WINS MAJOR AIR FORCE TRAINING CONTRACT



CONTRACT SUPPORT TEAM

"Accelerating your performance through cutting edge learning"

Opening statement from CTI President and CEO Alan Mullen:

Just prior to close of business yesterday afternoon I received a call from Air Force Contracting near Langley AFB, VA. The contracting officer informed me that CTI would be officially named the following morning (today) as the winner of the much anticipated Predator/Reaper Contract Aircrew Training solicitation. This brings to a successful conclusion eight months of intense research, site visits, manpower projections, strategic partnering and proposal writing by our CTI Team. The contract award, made public this morning, is hugely significant to our company and our partners. We went up against some of the largest names in Defense Department contracting, including Lockheed, L3 Communications, CAE North America, and many others. The government received eight formal proposals from various teams of experienced contractors. At the end of the day our proposal received the highest evaluation and was deemed "best value" to the Air Force.

It is impossible to overstate the importance of this contract award to CTI. Defense Secretary Robert Gates has personally insisted on more Predator and Reaper unmanned aircraft to support our ground troops in Iraq and Afghanistan. When he perceived resistance from then Secretary of the Air Force Michael Wynne and Air Force Chief of Staff, General Michael Moseley, he "invited" them to submit their resignations. Now the Air Force is under considerable pressure to field fifty drone orbits on a 24/7 basis. The effort consumes tremendous manpower since each drone can stay airborne for more than 24 hours and requires multiple ground support crews periodically relieving each other. In other words, crew training is the bottle neck and this program has national visibility at the highest level. Obviously the Air Force believes that CTI is up to the challenge. This award solidifies our claim to be the C3ISR

(Command, Control, Communications, Intelligence, Surveillance and Reconnaissance) training provider of choice for the Air Force.

We are the prime contractor for this effort but we have important partners. SAIC (Science Applications International Corporation) is an 8-Billion dollar company and one of DoD's ten largest. They will provide management and instructor recruitment assistance. The University of North Dakota's John

D. Odegard School of Aerospace Sciences produces over 2000 commercial pilots a year and has been designated an Unmanned Aircraft Systems Center of Excellence. They will provide distance learning capability and instructor training. Dallas-based BGI-LLC will provide simulator networking expertise and finally, XVionics Corporation will provide the backbone software for

our Operations Management System.

Our proposal is comprehensive and meets all the Air Force's requirements to produce approximately 400 trained pilots and sensor operators per year. The value of this contract is estimated to be \$60 to \$80 million depending on options and expansions. We will post shortly for 41 fulltime positions at Creech Air Force Base outside Las Vegas, NV; more will follow at Holloman AFB near Alamogordo, NM and an undetermined number of staff positions will be created here in Memphis. The period of performance begins with Phase-In starting on 1 August, the day after tomorrow. On 1 October we will begin providing classroom, simulator and live flight instruction to Predator students. The contract runs through 2013.



Today the U.S. Air Force contracting squadron at Langley Air Force Base in Hampton Roads, VA announced that Memphis based Crew Training International (CTI) has been selected to provide contract training to Predator drone pilots. The contract begins with Phase-In on 1 August and extends through 2013.

Unmanned Aircraft Systems (UAS), as they are now called, represent one of our most effective intelligence gathering and counter-terrorism weapons. Secretary of Defense, Robert Gates, recently fired the Air Force Secretary and the Chief of Staff because they failed, in his view, to put enough emphasis on UAS over more conventional platforms like fighters and bombers. The MQ-1 "Predator" and its slightly larger cousin, the MQ-9 "Reaper," are deployed in large numbers in Iraq and Afghanistan. They are credited, in large measure, with counteracting the employment of Improvised Explosive Devices (IED's) that had been killing and wounding U.S. and allied ground forces. With their long on-station time, sophisticated sensors and guided munitions, "drones" can monitor urban areas and secure major supply routes much more effectively than manned aircraft.

The limiting factor has become the ground-based control teams that each vehicle requires. This team consists of a pilot, a sensor operator and, in some cases, a mission supervisor. The teams must work in several shifts, around the clock, to control each drone during missions up to 36 hours in length. The Secretary of Defense has stated that he wants the Air Force to provide as many as 50 orbits on a 24/7 basis. This requires the training of over 200 new operators per year.

The visibility and strategic importance of this contract attracted the attention of some of America's largest defense contractors including Lockheed-Martin and L3 Communications as well as Canada's premier training and simulation provider CAE. Despite 17 corporations on the bidders list, and eight formal proposals received Memphis' own CTI emerged as the winner.

CTI President and CEO, Alan Mullen, states:

"We formed an innovative team and put forth a bold proposal providing new training paradigms and technology to the Air Force. Our offering includes cutting-edge learning management and operations control software, simulation expertise, and partnership with a large university and flight school. The University of North Dakota provides 2100 commercially-licensed pilots each year to airlines and corporate operators. They will be one of our subcontractors on this effort.

"Normally the Air Force would assign too much risk to such an unconventional training plan. CTI's superb record of past performance on our existing Air Force contracts overcame that hurdle. In this respect, our current employees and the great job they do every day was probably the most important single factor in our selection."

Company sources estimate the value of this new contract award to be between \$60 and \$80 million over five years.

CTI (www.cti-crm.com) was founded as a Tennessee corporation in 1992 by Alan Mullen and Steve Harden, both former TOPGUN instructors and longtime residents of Germantown/Collierville. It has grown steadily over the past six-

teen years and now employs over 150 course developers, instructors and administrative staff in 19 states. The company headquarters is located in the "technology corridor" near the intersection of Forrest Hill-Irene Rd. and Winchester. Other major CTI offices are located in Omaha, NE, Marysville, CA, Tucson, AZ and Gilenkirchen, Germany.

CTI currently provides Crew Resource Management (team training) to all units of the Combat Air Forces, Air Force Reserve Command and most units of the Air National Guard. In addition, they provide contract training managers, instructors and course developers to Air Force formal training units at Offutt, AFB near Omaha (RC-135 & E-4B platforms) and Beale, AFB (U-2 Spyplane) in central California. Over the last decade the company has become the "C3ISR" (command, control, communications, intelligence, surveillance and reconnaissance) training provider of choice for not only USAF but NATO. CTI provides linguist/instructors who speak Arabic, Korean, Russian, Serb and Chinese. The company maintains a TOP SECRET security clearance.

The Predator training contract will add over fifty employees, most located at Creech, AFB outside Las Vegas and later Holloman, AFB in New Mexico. Some new staff positions will be created in Memphis, but job descriptions and a final number has not yet been determined.

CTI is an equal opportunity employer and advertises position vacancies online and in local media. The company is also the title sponsor of the Crew Training International IMAX® Theater located at the Pink Palace.



U.S. Air Force Fact Sheet

MQ-9 REAPER

Mission

The MQ-9 Reaper is a medium-to-high altitude, long endurance remotely piloted aircraft system. The MQ-9's primary mission is as a persistent hunter-killer against emerging targets to achieve joint force commander objectives. The MQ-9's alternate mission is to act as an intelligence, surveillance and reconnaissance asset, employing sensors to provide real-time data to commanders and intelligence specialists at all levels.

Features

The typical system consists of several air vehicles, a ground control station, communication equipment/links, spares and personnel who can be a mix of active duty and contractor personnel. The crew for the MQ-9 is a pilot and a sensor operator, who operate the aircraft from a remotely located GCS. To meet combatant commanders' requirements, the MQ-9 delivers tailored capabilities using mission kits that may contain various weapons and sensor payload combinations.

The MQ-9 baseline system has a robust sensor suite for targeting. Imagery is provided by an infrared sensor, a color/monochrome daylight TV and an image-intensified TV. The video from each of the imaging sensors can be viewed as separate video streams or fused with the IR sensor video. The laser rangefinder/designator provides the capability to precisely designate targets for laser-guided munitions. Synthetic aperture radar will enable Joint Direct Attack Munitions targeting. The aircraft is also equipped with a color nose camera, generally used by the pilot for flight control.

Each MQ-9 aircraft can be disassembled into main components and loaded into a container for air deployment worldwide in Air Force airlift assets such as the C-130. The MQ-9 air vehicle operates from standard U.S. airfields.

Background

The U.S. Air Force proposed the MQ-9 system in response to the Department of Defense request for Global War on Terrorism initiatives. It is larger and more powerful than the MQ-1 Predator and is designed to go after time-sensitive targets with persistence and precision, and destroy or disable those targets. The "M" is the Department of Defense designation for multi-role and "Q" means unmanned aircraft system. The "9" refers to the series of purpose-built remotely piloted aircraft systems.

In July 2004, the Air Combat Command Commander approved the MQ-9 Enabling Concept Document. The MQ-9 is operated by the 42nd Attack Squadron and based at Creech Air Force Base, Nev.

General Characteristics

Primary Function: Unmanned hunter/killer weapon system

Contractor: General Atomics Aeronautical Systems, Inc.

Power Plant: Honeywell TPE331-10GD turboprop engine

Thrust: 900 shaft horsepower maximum

Wingspan: 66 feet (20.1 meters)

Length: 36 feet (11 meters)

Height: 12.5 feet (3.8 meters)

Weight: 4,900 pounds (2,223 kilograms) empty

Maximum takeoff weight: 10,500 pounds (4,760 kilograms)

Fuel Capacity: 4,000 pounds (602 gallons)

Payload: 3,750 pounds (1,701 kilograms)

Speed: cruise speed around 230 miles per hour, (200 knots)

Range: 3,682 miles (3,200 nautical miles)

Ceiling: up to 50,000 feet (15,240 meters)

Armament: Combination of AGM-114 Hellfire missiles, GBU-12 Paveway II and GBU-38 Joint Direct Attack Munitions.

Crew (remote): Two (pilot and sensor operator)

Unit Cost: \$53.5 million (includes four aircraft with sensors) (fiscal 2006 dollars)

Initial operating capability: expected in fiscal 2008

Inventory: Active force, 10; ANG, 0; Reserve, 0



U.S. Air Force Fact Sheet

MQ-1 PREDATOR

Mission

The MQ-1 Predator is a medium-altitude, long-endurance, remotely piloted aircraft. The MQ-1's primary mission is interdiction and conducting armed reconnaissance against critical, perishable targets. When the MQ-1 is not actively pursuing its primary mission, it acts as the Joint Forces Air Component Commander-owned theater asset for reconnaissance, surveillance and target acquisition in support of the Joint Forces commander.

Features

The MQ-1 Predator is a system, not just an aircraft. A fully operational system consists of four aircraft (with sensors), a ground control station, a Predator Primary Satellite Link, and approximately 55 personnel for deployed 24-hour operations.

The basic crew for the Predator is one pilot and two sensor operators. They fly the aircraft from inside the ground control station via a line-of-sight data link or a satellite data link for beyond line-of-sight flight. The aircraft is equipped with a color nose camera (generally used by the pilot for flight control), a day variable-aperture TV camera, a variable-aperture infrared camera (for low light/night), and a synthetic aperture radar for looking through smoke, clouds or haze. The cameras produce full motion video while the SAR produces still frame radar images.

The MQ-1 Predator carries the Multi-spectral Targeting System with inherent AGM-114 Hellfire missile targeting capability and integrates electro-optical, infrared, laser designator and laser illuminator into a single sensor package. The aircraft can employ two laser-guided Hellfire anti-tank missiles with the MTS ball.

The system is composed of four major components which can be deployed for worldwide operations. The Predator aircraft can be disassembled and loaded into a "coffin." The ground control system is transportable in a C-130 (or larger) transport aircraft. The Predator can operate on a 5,000 by 75 feet (1,524 meters by 23 meters), hard surface runway with clear line-of-sight. The ground data terminal antenna provides line-of-sight communications for takeoff and landing. The PPSL provides over-the-horizon communications for the aircraft.

An alternate method of employment, Remote Split Operations, employs a smaller version of the GCS called the Launch and Recovery GCS. The LRGCS conducts takeoff and landing operations at the forward deployed location while the CONUS based GCS conducts the mission via extended communication links.

The aircraft includes an ARC-210 radio, an APX-100 IFF/SIF with Mode 4, an upgraded turbo-charged engine and glycol-weeping "wet wings" for ice mitigation. The latest upgrade, which enhances maintenance and performance, includes notched tails, split engine cowling, steel braided hoses and improved engine blocks.

Background

The "M" is the Department of Defense designation for multi-role and "Q" means unmanned aircraft system. The "1" refers to the aircraft being the first of a series of purpose-built remotely piloted aircraft systems.

The Predator system was designed in response to a Department of Defense requirement to provide persistent intelligence, surveillance and reconnaissance information to the warfighter.

In April 1996, the secretary of defense selected the U.S. Air Force as the operating service for the RQ-1 Predator system. A change in designation from "RQ-1" to "MQ-1" occurred in 2002 with the addition of the armed reconnaissance role.

Operational squadrons are the 11th, 15th and 17th Reconnaissance Squadrons, Creech Air Force Base, Nev.

General Characteristics

Primary Function: Armed reconnaissance, airborne surveillance and target acquisition

Contractor: General Atomics Aeronautical Systems Incorporated

Power Plant: Rotax 914F four cylinder engine

Thrust: 115 horsepower

Wingspan: 48.7 feet (14.8 meters)

Length: 27 feet (8.22 meters)

Height: 6.9 feet (2.1 meters)

Weight: 1,130 pounds (512 kilograms) empty

Maximum Takeoff weight: 2,250 pounds (1,020 kilograms)

Fuel Capacity: 665 pounds (100 gallons)

Payload: 450 pounds (204 kilograms)

Speed: Cruise speed around 84 mph (70 knots), up to 135 mph

Range: up to 400 nautical miles (454 miles)

Ceiling: up to 25,000 feet (7,620 meters)

Armament: two laser-guided AGM-114 Hellfire missiles

Crew (remote): Two (pilot and sensor operator)

Initial operational capability: March 2005

Unit Cost: \$40 million (fiscal 1997 dollars) (includes 4 aircraft, ground control stations, and Predator Primary Satellite Link)

Inventory: Active force, 102; ANG, 0; Reserve, 0

Background resources and news reports:

Source: [Aviation Week Magazine](#)

Schwartz On UAV Pilots, ISR Cooperation –

U.S. Air Force Gen. Norton Schwartz asked senators July 22 for more time to weigh arguments for and against boosting the number of unrated unmanned aircraft pilots, but promised that as chief of staff, he would have USAF intelligence, surveillance and reconnaissance (ISR) experts work closely with combat commanders and the nascent ISR Task Force set up by Defense Secretary Robert Gates.

“By increasing the number of MQ-9 vehicles, pursuing the ‘Liberty Ship’ construct for acquisition of more ‘light’ manned ISR aircraft, and accelerating the development of the Wide Area Airborne Surveillance sensor system, the Air Force is working very hard to get more ISR capability to the combatant commanders in support of ongoing operations,” Schwartz testified at his confirmation hearing. “If confirmed, this will have my personal attention from day one.”

Integration

Nevertheless, Schwartz – who is leaving behind Transportation Command – said the USAF needs to move away from the notion of discrete airborne ISR operations in separate domains and instead focus on integrating such capabilities to meet a seemingly insatiable combat demand.

“This includes integrating nontraditional ISR capabilities such as targeting pods and sensors on fighters, new UAVs, exploring the potential of airships with sensors, and then merging the ISR from all sources in networks that can be accessed by any warrior,” Schwartz said.

Still, Schwartz said the Air Force has both nonrated enlisted operators as well as rated officer pilots operating drones, and that the level of responsibility involved and the flight regime of the unmanned system influences the appropriate level of qualification required. Qualified-rated pilots generally have the training and experience that is crucial to successful kill-chain decision-making, and FAA and ICAO rules require an instrument-qualified pilot for high- and medium-altitude aircraft in and through positive-control airspace.

But in written answers to lawmakers’ questions submitted prior to the hearing, the general appeared to acknowledge that the limiting factor in accelerating fielding of ISR UAVs in combat theaters has been the availability of trained operators, who, under current USAF policy, must be rated pilots.

“It may well be that a blend of rated and nonrated operators makes the most sense,” Schwartz told the Senate Armed Services Committee. “If confirmed, I will come to a conclusion on this issue quickly.”

Meanwhile, the Air Force is increasing UAV combat air patrols (CAPs) from 26 today to 31 by December. In fact, the Air Force flew its first operational MQ-9 Reaper mission from Balad, Iraq, on July 21. Flying in Afghanistan since September 2007, the Reaper has flown about 480 sorties in Central Command's area of responsibility, totaling more than 3,800 hours.

Jun 16, 2008

Amy Butler – Aviation Week

In the wake of the U.S. Air Force leadership shake up, Defense Secretary Robert Gates is directing the service to field six more Predator combat air patrols (CAPs), as well as more Reapers to support operations in Afghanistan and Iraq.

The order comes shortly after Gates' first briefing from the new Intelligence, Surveillance and Reconnaissance (ISR) Task Force June 6. He set up the task force in April, explaining during a speech at Maxwell Air Force Base, Ala., that getting warfighting support from institutional military – namely, the Air Force – was “like pulling teeth.”

A lack of support for the ground wars in Iraq and Afghanistan was one of several reasons cited by insiders and observers for his abrupt ousting of Air Force Secretary Michael Wynne and Chief of Staff Gen. T. Michael Moseley. While DOD is looking across the services for ISR support, the Air Force's immediate task is to field more Predators and Reapers, which provide much-desired full-motion video to operators on the ground. The Air Force has fielded 25 Predator MQ-1B CAPs – each including four air vehicles plus ground control and support – as of this month. Gates is directing that six more be fielded by December, a military official says.

One additional MQ-9 Reaper CAP will go to Central Command as well. The service can provide the support without buying additional hardware; the major change will be how it allocates trained crews.

Industry, meanwhile, is compiling copious options for the task force. Goodrich is preparing to begin flight testing its latest upgrade to the Senior-Year Electro-Optical Reconnaissance System, Syers-3, this summer. Syers-3 will be used during a summer 2009 demonstration funded by a fiscal 2008, \$16 million congressional plus-up to the Joint Surveillance Target Attack Radar System (Joint STARS). The concept is to co-host the moving target indicator capability of the Joint STARS radar as well as the electro-optical imagery of Syers on the same platform. Rules of engagement typically call for an image of the target from a camera – not a synthetic radar image – before launching weapons.

“Now, if Joint STARS picks up something, they've got to bring in a second sensor to look at it,” says Bill Lennox, Washington-based senior vice president for Goodrich. That requires, in some cases, waiting for another aircraft to maneuver within range of the target. With a camera onboard, “Once you pick up movement [with the radar], turning a camera on it gives you the ability to identify what is going on...and it shortens the targeting timeline.” This is similar to the concept behind the simultaneous carriage of multiple sensors on the U-2.

Goodrich also is proposing a Syers derivative, the DB-110, on the Air Force's growing fleet of MQ-9 Reapers. One military official said Central Command's air component commander, Lt. Gen. Gary North, has expressed interest in the project.

CREECH AIR FORCE BASE, Nevada (CNN)

From a desert outpost northwest of Las Vegas, elite fighter pilots journey to a war zone in Afghanistan, some 7,500 miles away.

The Air Force's new unmanned bomber, the "Reaper," commutes from Nevada to Afghanistan.

It might be the world's longest commute, except that these armchair pilots at Creech Air Force Base in Nevada never leave the air-conditioned comfort of their command center.

Air Force pilots are employing remotely controlled fighter-bomber aircraft -- known in military parlance as unmanned aerial vehicles, or UAVs -- to fly combat missions over Afghanistan, hunting for insurgents bent on undermining Afghan President Hamid Karzai's fragile government.

This is the future of aerial combat.

Sitting in a virtual cockpit is not as exciting as flying a fighter jet, but unmanned attack-plane pilots can enjoy a normal workday schedule -- more or less. Watch the Reaper at work »

<http://www.cnn.com/2008/TECH/07/09/remotefighters/index.html#cnnSTCVideo>

"Seeing bad guys on the screen and watching them possibly get dispatched, and then going down to the Taco Bell for lunch, it's kind of surreal," says Captain Matt Dean.

The original drone was the "Predator," armed with a pair of Hellfire missiles. It was followed by its bigger and far more lethal cousin, "the Reaper," which carries four times as much firepower. The Reaper can carry the same bomb load as an F-16 fighter plane, but its pilots are not put in harm's way.

The Air Force once employed jerry-rigged missiles strapped to unmanned spy planes. Now military commanders see remotely piloted aircraft as the model for the way future wars will be fought.

For over a year, Reapers have been flying two separate round-the-clock patrols over eastern Afghanistan, controlled from the Creech AFB command center, which has been strictly off-limits to the media until now.

Reaper pilots so far this year have launched 64 missiles and dropped seven 500-pound bombs in Afghanistan. Originally a spy plane, the Predator was converted to a strike aircraft shortly after the September 11, 2001, attacks on the Pentagon and World Trade Center. Air Force technicians strapped two Hellfire missiles -- one under each wing -- and turned the unarmed "surveillance platform" into a remote-controlled killing machine.

By the weekend following September 11, the Predator's operators believe they had Taliban leader Mullah Omar in their sights, but never got the authorization to pull the trigger.

Son Of Predator Goes To Iraq

June 16, 2008: For the last three months, two pre-production models of the U.S. Army's new Sky Warrior MQ-1C UAVs have been in Iraq for testing. The first flight, lasting 10.5 hours, was on April 18th. The two MQ-1Cs are slightly larger Predators, and are being used for missions formerly performed by Shadow 200, and other large army UAVs. The big difference is that Sky Warrior can carry weapons (like Hellfire missiles.)

The MQ-1C Sky Warrior weighs 1.5 tons, carries 300 pounds of sensors internally, and up to 500 pounds of sensors or weapons externally. It has an endurance of up to 36 hours and a top speed of 270 kilometers an hour. Sky Warrior has a wingspan 56 feet and is 28 feet long. The Sky Warrior can land and take off automatically, and carry four Hellfire missiles (compared to two on the Predator). The original MQ-1 Predator is a one ton aircraft that is 27 feet long with a wingspan of 49 feet. It has two hard points, which usually carry one (107 pound) Hellfire each. Each hard point can also carry a Stinger air-to-air missile. Max speed of the Predator is 215 kilometers an hour, max cruising speed is 160 kilometers an hour. Max altitude is 25,000 feet. Typical sorties are 12-20 hours each.

As its model number (MQ-1C) indicates, Sky Warrior is a Predator (MQ-1) replacement. The U.S. Air Force plans to replace its MQ-1s with MQ-1Cs. Sky Warrior enters production next year, and the U.S. Army (which paid for development) wants over 500. So far, the attrition rate of Predators has been over five percent a year. Unless that can be brought down, few Predators will last more than a decade and the MQ-1C will replace it gradually. Most of the losses are due to mechanical, electronic, software or operator failure. Never have so many UAVs been used so extensively, and intensively, in combat. So it's a learning experience in a new environment. The attrition rate is coming down, but not rapidly.

The army and air force are going to jointly manage the Predator force, or at least the MQ-1Cs. This will cause some unexpected scuffles, as many air force generals believe the army should not have the MQ-1C, or at least not use them with weapons. That has already caused some sparks to fly in the Pentagon, but the recent purge and reshuffle of the senior air force leadership, by the Secretary of Defense, makes it appear that the army will be left alone to build its new robotic air force. Back in the 1950s, after a decade of bickering, the Department of Defense ordered the army to stick with helicopters, while the air force got all the fixed wing aircraft. But UAVs have no pilots in them and the army does not consider them part of the half century old deal.

There is a third member of the Predator family, that will stay just with the air force. The MQ-9 Reaper is a 4.7 ton, 36 foot long aircraft with a 66 foot wingspan that looks like the MQ-1. It has six hard points, and can carry 1,500 pounds of weapons. These include Hellfire missiles (up to eight), two Sidewinder or two AMRAAM air-to-air missiles, two Maverick missiles, or two 500 pound smart bombs (laser or GPS guided.) Max speed is 400 kilometers an hour, and max endurance is 15 hours. *The Reaper is considered a combat aircraft, to replace F-16s or A-10s.*

WASHINGTON (CNN) --

The demands of wars in Iraq and Afghanistan are behind a new push by the Pentagon to increase the ranks of one of its most tireless fighting machines: remote-controlled attack aircraft called Unmanned Aerial Vehicles, or UAVs.

U.S. soldiers in Iraq prepare to launch an RQ-7B Shadow drone over Diyala province in February.

The U.S. military in recent months has doubled its squadrons of the small, quiet and deadly drones, which are operated by pilots in the United States.

Gen. David Petraeus, the top U.S. commander in Iraq, praised the work of the Predator UAVs flying over Baghdad.

"I think there's some path-breaking work ongoing here," Petraeus said.

Yet Defense Secretary Robert Gates said last month that it's "been like pulling teeth" to get more UAVs into the air over Iraq and Afghanistan. He established a task force to speed up the process.

"Unmanned systems cost much less and offer greater loiter times than their manned counterparts, making them ideal for many of today's tasks," Gates told Air War College graduates last month. Watch drones blast unsuspecting targets » <http://www.cnn.com/2008/US/05/23/drone.wars/index.html#cnnSTCVideo>

CNN has obtained previously classified video of the Air Force's newest heavily armed unmanned warplane with the grim moniker "The Reaper," which is essentially a Predator on steroids.

The newly declassified video shows a 500-pound bomb slamming into a suspected Taliban bunker in southern Afghanistan this year.

Another video clip shows a 500-pound bomb, aimed and fired by a pilot at Creech Air Force Base in the Nevada desert, striking two insurgents in Afghanistan as they try to escape on a motorcycle.

"It flies higher. It flies faster. It carries more of a weapons load," said Lt. Gen. Norman Seip, commander of the 12th Air Force at Davis-Monthan Air Force Base, Arizona. "They're flying long, they are flying hard and they are making a big impact."

The CIA began using unmanned drones with cameras in the early 1990s, when Gates was the CIA director.

"After 27 years of experience as an intelligence professional, I had seen many agents place themselves in harm's way to collect information in some of the world's most dangerous and inaccessible environments," Gates said in his Air War College address. He welcomed the UAVs as a "far less risky and far more versatile means of gathering data."

The addition of Hellfire missiles to the original "Predator" spy drone just after September 11, 2001, gave it the ability to live up to its name.

Gates said the Pentagon now has 5,000 UAVs in service -- 25 times the number before the September 11 attacks.

The Air Force recently announced that it can now keep 24 UAVs in the air at all times, putting it two years ahead of its goal.

"But in my view, we can do -- and we should do -- more to meet the needs of men and women fighting in the current conflicts while their outcome may still be in doubt," Gates said.

Gates said he was concerned the military was "not moving aggressively" to get more UAVs to the battlefield.

"I've been wrestling for months to get more intelligence, surveillance and reconnaissance assets into the theater," he said. "Because people were stuck in old ways of doing business, it's been like pulling teeth."

The task force, created last month, includes representatives from all four branches of the military. It has a short deadline, he said.

The biggest challenge may be finding and training men and women to pilot the growing fleet of UAVs.

"All this may require rethinking long-standing service assumptions and priorities about which missions require certified pilots and which do not," Gates said.

Critics argue that any aircraft carrying weapons should only be flown by certified pilots.

The Air Force has reduced manpower demands by letting pilots in the United States operate the planes through satellite links supported by ground crews closer to the battlefield.

The Air Force has reassigned pilots from other aircraft, and the Air National Guard has also accelerated its Predator commitment in five states, the Air Force said.

It will establish a second Predator training squadron and a Predator weapons instructor course in early 2009, the

Air Force said.

AIR FORCE MAGAZINE NEWS SERVICE 22 Feb 2008

UAVs Are the Wave of the Future:

Gen. Michael Moseley, Air Force Chief of Staff, said Thursday that he has directed a number of bureaucratic and organizational changes to raise the profile of unmanned aerial vehicles within the service.

First, Moseley said he instructed the USAF Weapons School at Nellis AFB, Nev., to stand up a UAV squadron by July.

He also instructed Gen. William Looney, head of Air Education and Training Command, to begin looking into assigning airmen directly to UAV operations as first assignments. Moseley said the details of such assignments are still to be worked out, but one possibility would be for fighter- or bomber-track pilots to serve a two-year assignment first with UAVs. (To offset a current shortage of UAV pilots, the service reportedly already has tapped more than a hundred experienced fighter and bomber pilots for UAV duty.)

Finally, Moseley said the service will assign a new Air Force Specialty Code to UAV operators and sensor operators. These airmen would then have both a "primary" and a "secondary" AFSC to better capture their UAV bona fides.

These moves are a reflection of the growing importance of UAVs within the Air Force's operations.

Moseley noted that the Fiscal 2009 budget funds 93 new Air Force aircraft—and 52 of them are unmanned Predators, Reapers, and Global Hawks.

-Adam J. Hebert