



# AIRCRAFTSMAN

CORPUS CHRISTI ARMY DEPOT

August-September 2020



Safety - Quality - Accuracy  
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**U.S. ARMY**®

# 1st UH-60 Victor Model Released

by Della Adame, Public Affairs Specialist, Corpus Christi Army Depot

CCAD's role to strengthen partnerships across industry, to advance military modernization efforts and field critical systems quickly to the Warfighter continue with a milestone event.

Modernization efforts at the Corpus Christi Army Depot (CCAD) were celebrated in a historic event as the first UH-60V (Victor) model aircraft passed the final phase of flight testing and was released by CCAD Commander, Colonel Joseph H. Parker, during a ceremony.

"This is the first of up to 760 Black Hawks that will modernize the helicopter fleet through the Army's recapitalization program. They are Army built and Army owned," said Parker.

CCAD's recapitalization program reduces the costs of replacing aging helicopters with new ones and avoids spending approximately \$9M in tax dollars with each rebuild.

Since its original induction as a UH-60 Lima (L model) airframe, CCAD configured this helicopter into the cur-

rent UH-60 Victor (V model). The upgrade replaced analog display with a modern digital, open glass cockpit, which allows for an easy-to-use, integrated Pilot Vehicle Interface.

The reconfiguration enhances safety and interoperability with other advanced aircraft currently on the battlefield.

After rigorous flight testing, the first production model for the Depot and the U.S. Army, was certified to receive the QC stamp.

Amongst the backdrop of the helicopter and ceremonial flags, COL Parker signed the official documents on behalf of the hundreds of Depot artisans who worked tirelessly on the milestone aircraft throughout the unexpected pandemic and a summer of record high temperatures.

The ringing of the bell that was originally onboard the USNS Corpus Christi Bay signified the landmark milestone for Army Aviation and the Depot.

"The completion of this aircraft is the



first step in moving the U.S. Army forward, transitioning to Future Vertical Lift," said Colonel Joseph H. Parker, CCAD Commander. "We couldn't be more proud."

Modernization of the U.S. Army is essential to remain the world's premier land fighting force. Maximization of the value of every dollar spent and making decisions that help secure the technology need to compete in multi-domain operations and provide troops with vital air cover needed in battle will strengthen our ability to fight and win.

## Scanning Electron Microscope for Helicopter Forensics

by Kat Pettaway-Clarke, Lead Public Affairs Specialist, Corpus Christi Army Depot

In a variety of 'hit' television shows, forensic investigations and crime scenes investigator are often glamorized. Appealing to an audience desire to find the truth and the lure of investigating accidents. In real life, the Analytical Investigation Branch of Corpus Christi Army Depot's team with CCAD's material engineers can discover how a helicopter accident may have occurred utilizing the Scanning Electron Microscope (SEM).

A story unfolds as each indentation in the metal's microscopic character becomes visible through the SEM. The Analytical Investigation Branch (AIB) often sends a team of experts worldwide to help discover the facts. "There is a group of investigators that will go out to the field and essentially gather all the information; the investigators will filter out what we need," said Johnathan Ramirez, Materials Engineering Branch Chief.

CCAD is renowned for aircraft

service overhaul. The depot conducts analytical crash investigations and material failure analysis. While examining an accident scene can often be a scrupulous task to find the reason for the event, CCAD's "Material Engineering Branch (MEB) works hand and hand with the AIB" says Jack Worthington Jr., Material Engineer.

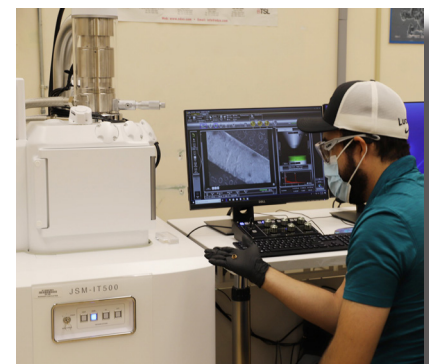
In other words, AIB will send the damaged parts to the MEB for Metallurgical failure analysis, which adopts a variety of observations, inspections, and laboratory techniques to determine root causes for stressors. "The type for problems that end up on our deck are accidents that don't have anything to do with the pilot error, but things such as failure of an engine or transmission." Worthington continued.

To the naked eye, this may seem like an impossible task, but to a forensic engineer, it's a world of infinite theories to be examined

and validated thru multiple tests. In these situations, it can be advantageous to survey the ruptured surface using the SEM.

According to Dorian Lucero, Materials Engineer, "The SEM is one of the microscopes we use mainly for failure analysis. For example, chips that come through the oil filter, we can see what components they are coming from."

To continue reading click [here](#).



ABOVE: Johnathan Ramirez, a materials engineer in the MEB, explains how CCAD uses a scanning electron microscope in forensic aviation investigations.



## Commander's Corner

Over my first five months in command, everyone here at CCAD has shown how important the Depot is to our Army and to the community.

As a result, we've updated our mission and motto and I want to share it here: CCAD is and will continue to be the world's premiere helicopter and component repair and remanufacturing facility.

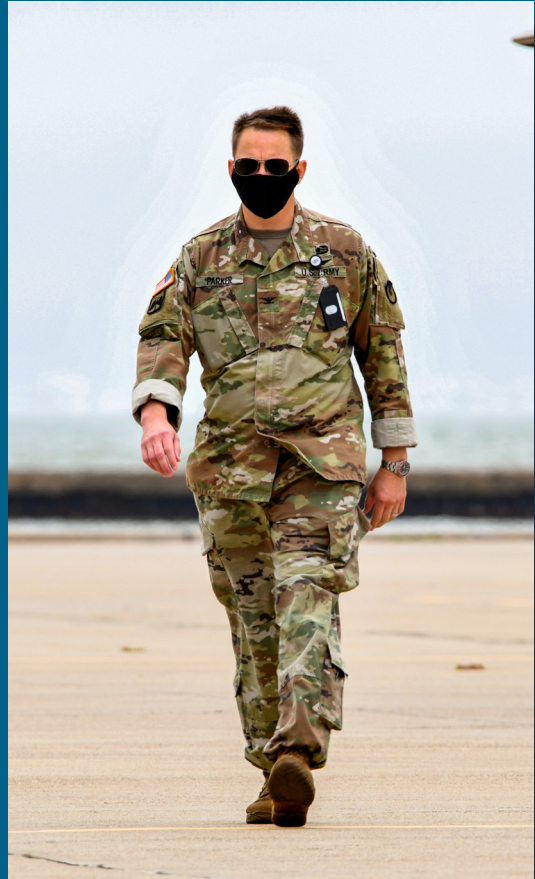
When someone asks us what we do, I want everyone to be able to respond: We keep the Army flying!

Be on the lookout for our new command video as we proudly publish the background to I AM CCAD.

I am CCAD and together, we are CCAD.

Winning matters!

Joseph H. Parker  
Colonel, Aviation



### Flexible Testing Module and Powertrain Transmission Assembly Ribbon Cutting Ceremonies

CCAD held a ribbon cutting ceremony for the flexible testing module (FTM) smart transmission test system at the Dynamic Components Repair Facility (DCRF).

The system is capable of testing the AH-64D nose gear boxes. The stand allows the Powertrain Output Division to perform Depot Maintenance Work Requirement (DMWR) level testing to meet the rigorous demands of an aircraft in flight.

The opening of the Powertrain Transmission Assembly Plant (PTAP) was also celebrated.

"The PTAP facility is a really huge win for the base and the Department of Defense because of what we do here for the Warfighter," said Colonel Joseph H. Parker, CCAD Commander.

The new Powertrain Facility will house rotary wing aircraft component rebuild activities and infrastructure. The facility includes 25 bridge cranes and a medium-voltage duct. It is constructed at a raised level above the 100-year floodplain.

The new facility, phase 2 of 7 total phases, has a design life span of 50 years. Once all phases are complete, CCAD will see enhanced efficiencies and process flow with these new facilities.



ABOVE: Deputy to the Commander, Mark Wagner; FTM SME, Tony Butt; CCAD Commander Colonel Joseph Parker; Powertrain Production Director, Marc Gonzalez (bell ringer) and Production Engineering Director, Thomas Sandoval.



ABOVE: NASCC Public Works Officer, Cmdr. Eric Hass; NASCC Commanding Officer, Capt. Chris Jason; Col. Joseph Parker; Brad Winans, District Manager and Vice President of Hensel Phelps Construction Company.

# Training for Flaw Detection is Vital Prior to Assembly

by Della Adame, Public Affairs Specialist, Corpus Christi Army Depot

A supply chain is only as strong as the weakest link and when it comes to the rotary aviation industry, weakness is prohibited. Notwithstanding unexpected delays in production and training due to the COVID-19 pandemic, the Corpus Christi Army Depot's (CCAD) Non-destructive Testing (NDT) program ensures that it is the strongest link in the supply chain for the U.S. Army.

At CCAD, the ability to examine the internal structure of manufactured components identifying any flaws or defects is paramount prior to the assembly of an aircraft. Defects, undetectable to the untrained eye, are made visible by special testing methods known as Non-destructive Testing (NDT).

Prevention of defect development into a critical flaw is vital to risk reduction and safety principles. Internal detection of the minutest changes in thickness, corrosion, flaws and material density is critical to our mission.

John Quesada of the NDT Program Office explained that during the pandemic, CCAD delivered the proper training needed for inspectors, whether virtual or face-to-face, and continuously provided quality NDT support to the Warfighter.

## PROCESSES

Great care is taken ensuring that every single part that goes into an aircraft has zero defects.

Approximately, 80% of all NDT inspections performed at CCAD are penetrant and magnetic particle methods of inspections.

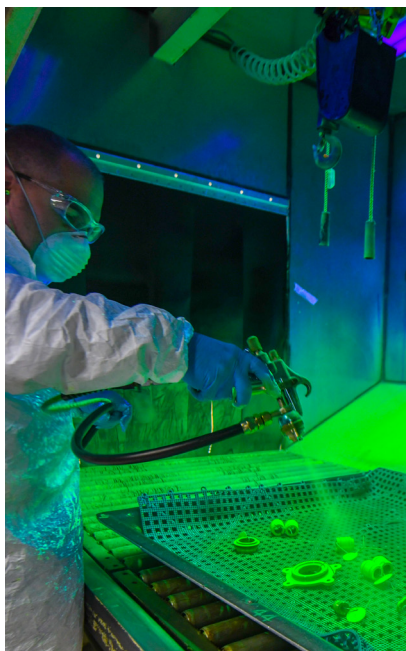
Penetrants have fluorescent dye in the liquid that illuminates under ultra-violet black lights making it easier for the human eye to detect defects in component characteristics or welding.

Methods of penetrant application and removal processes utilized at CCAD are water washable, solvent removed, and post emulsifiers. Each method is the means by which the penetrant is removed from test specimens.

Magnetic particle inspections can only be performed on materials that are ferrous; i.e. can be magnetized. Once a part or component becomes magnetized, a fluores-

cent oil based solution, that has very tiny metal particles, is applied. Any cracks on or near the surface will cause a break in the magnetic field. This break will produce a positive and negative field at each end of the break. Just like the common horseshoe magnet, the break will attract tiny fluorescent metal particles at the break site.

The use of Radiography Inspection is familiar to most individuals who have had an X-ray. The test part is placed between the radiation source and film (or detector).



ABOVE: CCAD artisan Paul Zaklukiewicz, Non-Destructive Tester applies a concentrated fluorescent oil penetrant to the aircraft components on the tray to help detect defects that can only be seen under a black light in a special booth.

CCAD uses direct Digital Radiography with Digital Detector Array (DDA) panels.

"From manufacturing, refurbishment, examination to final flight test, the U.S. Army is assured that components are defect free and the aircraft are ready to engage and improve combat readiness," acknowledged Mr. Rod Benson, CCAD Chief Operations Officer.

## TRAINING

The NDT Certification Program is responsible for the allocation of funds for critical training needs as it relates to industry standard certification requirements.

According to Bryan McMillan, CCAD Workforce Development Division, collaboration between CCAD and Wichita State University (WSU) garnered high level training from Cowley College in Wichita, Kansas, for certification levels I and II. At the conclusion of the six-week training course, three NDT operators will be certified through comprehensive written examinations and hands-on examinations.

"The instructor led training provided was exceptional and fulfilled all requirements for NDT Level I & Level II. Both theory and application reinforced a technical understanding which enhances and ensures safety, quality and reliability for NDT examination processes," said Yessica Hernandez, Division Chief, Directorate of Manufacturing & Process Production.

"The instructor's aerospace experience was instrumental in providing and keeping with the type of training our NDT artisans require," noted George Franco, Quality Assurance Specialist in the NDT Program Office, "Cowley College and WSU were invaluable for their assistance and participation in facilitating this training opportunity. We look forward to working together again."

With supplemental training and the future deployment of new technology at the Depot, the natural progression of an Artisan's lifecycle brings about the opportunity to bolster and enhance methods of prevention and detection.

## LOOKING AHEAD

CCAD continues to look beyond 2020, for more efficient and sustainable methods to safely inspect aircraft components. Recruitment and retention of a workforce that is trained in the latest technology ensures capabilities for future workload.

Hernandez summed it up, "Most importantly, CCAD remains the U.S. Army's resource of choice with its NDT testing providing a permanent record of the inspection for all components that are manufactured, with the assurance of precision, quality and accuracy in each and every aircraft."





## Alert Tracers Distributed to Workforce

The Corpus Christi Army Depot has deployed a pilot program using the latest in real-time measurement wearable contact tracing technology. The device is a valuable tool to manage workplace safety and risk during the COVID-19 pandemic.

The product was developed by VOS Systems and distributed as the AlertTrace™ Contact Tracing Device. The low energy Bluetooth wearable device, with a battery life of six months, is worn by an employee –much like ID badges. The device can be worn on the wrist, lanyard, or clipped to a belt.

When within 6 feet of another AlertTrace™ device, a unique ID is captured and registered as a contact. No personal information or GPS location data is collected; only peer-to-peer contact. Data is uploaded whenever the device is within range of a hub and transmitted to the Cloud.

During contact tracing, the AlertTrace™ will quickly and accurately identify employees who may have come into contact with someone who is infected so immediate action



can be taken. Contact data is viewable by the Contact Trace Team on an application dashboard. Positive cases of infection can quickly trace their contact history and support the COVID-19 Trace Team to alert those most at risk, early and quickly.

The device gives employees, who did not have close contact with a case, confidence that they have not been exposed and no further mitigating actions are required.

The AlertTrace™ is not a fail proof device. Vigilant efforts must continue in order to protect the CCAD workforce and families at home. The commitment to maintain social distancing, wearing of face coverings, and wearing the AlertTrace™ device is paramount and could possibly save a life.

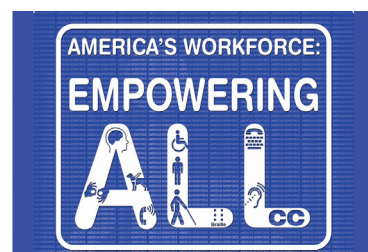


## Do Your Part and #BeCybersmart

Keep the Army theme for Cybersecurity Awareness Month in mind as you execute your mission, regardless of rank or position, be deliberate and careful with all sensitive information! Cybersecurity must be a top priority for all. It is about our nation's security, our mission success and protecting one another.

Every CCAD employee is encouraged to strengthen their cyber smarts during the month of October. Each of us is responsible for maintaining cyber awareness and proficiency.

## EEO Corner



"Increasing Access and Opportunity" is the 2020 theme for October's annual observance of National Disability Employment Awareness Month (NDEAM). 2020 is the nation's 75th observance of NDEAM, administered by the Department's Office of Disability Employment Policy. The observance culminates in the commemoration of the 30th anniversary of the Americans with Disabilities Act. Each October, NDEAM celebrates America's workers with disabilities and reminds employers of the importance of inclusive hiring practices. In 1945, Congress declared the first week of October "National Employ the Physically Handicapped Week." In 1962, the word "physically" was dropped to include individuals with all types of disabilities. Congress expanded the week to a month in 1988, and changed the commemoration to National Disability Employment Awareness Month. For more information about NDEAM visit [www.dol.gov/ndeam](http://www.dol.gov/ndeam).



## FEDERAL EMPLOYEE VIEWPOINT SURVEY



Have you filled out your Command Climate Survey? This is your opportunity to provide opinions and help determine where to focus attention to improve the human relations climate of the Corpus Christi Army Depot. The voluntary

survey is designed to assess the “shared perceptions” of respondents about formal or informal policies and practices. Your input is valuable because it gives leadership insight into the general climate of our organization. No attempt to identify you will be made.

In order to complete the survey, a PASSCODE, required to gain access was sent via email. The randomly generated case-sensitive code is not associated with your name or any other identifying source.

Find the survey at <https://www.surveysdrc.com/mil> through Monday, October 27, 2020.

### Joint Services Working Together



Kudos to CCAD, Defense Logistics Agency and Air Force for the upload of a UH-60L Black Hawk onto a C-17 Globemaster III for transport. The UH-60L is part of an aviation sustainment plan collaborative effort between the Department of the Army, the U.S. Army Aviation and Missile Command and U.S. Army South.

### Aviation Support Battalion at CCAD



Colonel Joseph Parker, CCAD Commander, presented Certificates of Appreciation to Soldiers from the 615th Aviation Support Battalion (ASB), Fort Hood for their contributions to the Depot.

## Around the Depot



#WinningMatters



#ReadyAndResilient



#WeAreCCAD



#OpenForBusiness



## SOCIAL SECURITY TAX DEFERRAL



In order to provide relief during the COVID-19 pandemic, a Presidential Memorandum was issued 8 August 2020, deferring certain employee Social Security tax withholding. In response to the memorandum, and subsequent Internal Revenue Service guidance issued 28 August 2020, the withholding of 6.2 percent of wages subject to Social Security tax will be deferred for service members and civilian employees under the wage threshold. This change is effective mid-September through the end of 2020. The deferred taxes not withheld from wages during 2020 will be collected from wages paid between January 1, 2021, and April 30, 2021.

For more information: <https://www.dfas.mil/taxes/Social-Security-Deferral/>

# ELECTION 2020

The Corpus Christi Army Depot will be an early voting location for the 2020 General Election. ID is required. Voting booths will be set up in Bldg. 8 in front of the Subway:

October 19 - 23	8:00 am - 5:00 pm
October 24 (Sat.)	7:00 am - 7:00 pm
October 26 - 30	7:00 am - 7:00 pm

The Depot will also be a General Election Voting site on Election Day, Tuesday, November 3, 2020 from 7:00 am - 7:00 pm.

AW01-8 Prescribed by Secretary of State - Section 62.066, Texas Election Code - 09/2018

### ID required for Texas Voters

If you possess one of the following forms of acceptable photo ID, you must present it when voting in person:<sup>a</sup>

- ★ Texas Driver License issued by the Texas Department of Public Safety (DPS)
- ★ Texas Election Identification Certificate issued by DPS
- ★ Texas Personal Identification Card issued by DPS
- ★ Texas Handgun License issued by DPS
- ★ United States Military Identification Card containing your photograph
- ★ United States Citizenship Certificate containing your photograph
- ★ United States Passport (book or card)



Do not possess and cannot reasonably obtain one of these IDs? Fill out a declaration at the polls describing a reasonable impediment to obtaining it, and show a copy or original of one of the following supporting forms of ID:

- ★ A government document that shows your name and an address, including your voter registration certificate;
- ★ Current utility bill;
- ★ Bank statement;
- ★ Government check;
- ★ Paycheck; or
- ★ (a) A certified domestic (from a U.S. state or territory) birth certificate or (b) a document confirming birth admissible in a court of law which establishes your identity (which may include a foreign birth document).

<sup>a</sup> With the exception of the U.S. Citizenship Certificate, for voters aged 18-49, the acceptable form of photo identification must be current or have expired no more than 4 years before being presented for voter qualification at the polling place. A person 70 years of age or older may use a form of acceptable photo identification that has expired if the identification is otherwise valid.   
 **Exceptions:** Voters with a disability may apply with the county voter registrar for a permanent exemption to showing acceptable photo ID or following the Reasonable Impediment Declaration procedure at the polls. Voters with a religious objection to being photographed or voters who do not possess an acceptable form of photo identification or follow the Reasonable Impediment Declaration procedure at the polls because of certain natural disasters may apply for a temporary exemption to showing an acceptable form of photo identification or following the Reasonable Impediment Declaration procedure at the polls. Please contact your voter registrar for more details.

**VOTETEXAS.GOV**

#### CCAD Command Team

COL Joseph H. Parker  
**Commander**

SGM Patricia Wahl  
**Sergeant Major**

Mr. Mark Wagner  
**Deputy to the Commander**

Mr. Rod Benson  
**Chief Operations Officer**

Mr. Tom Bamford  
**Chief of Staff/Senior Editor**

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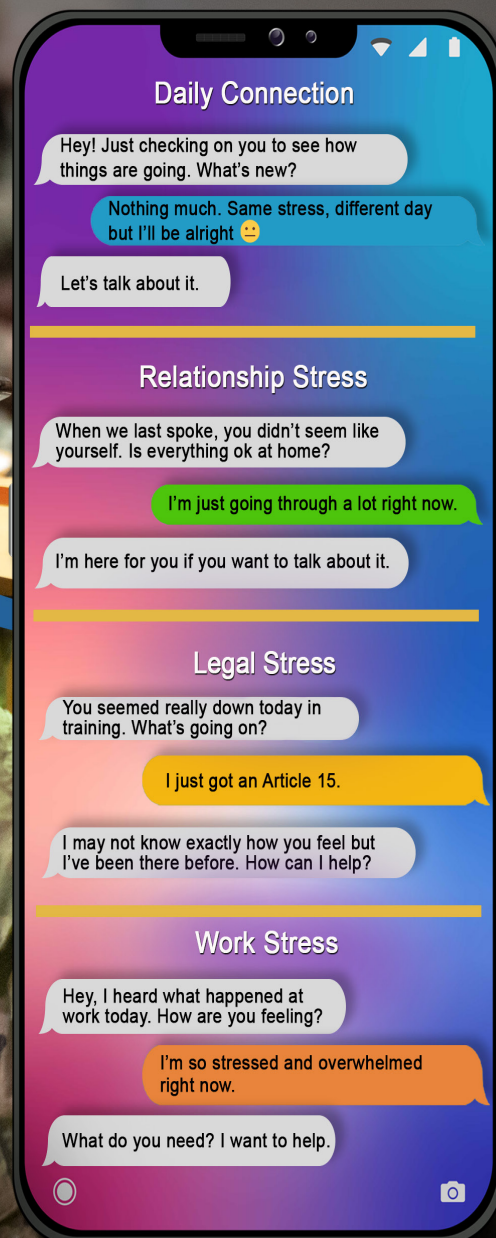
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# CONNECT TO PROTECT

## TEXT TO PROTECT

When someone is having a tough time, we don't always know what to say. Here are a few conversation starters to help them open up and let them know you're here to help.



# #BETHERE



**If you're struggling with your mental health, talk to your primary care provider for a professional referral.**

**Military Crisis Line - Call 1-800-273-8255 Press 1 or Text 838255  
#SuicidePreventionMonth**