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INSIDE YOUR DISPATCH

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AND MUCH MORE

TECFT Highly Successful

By Becki Bryant
becki.m.bryant.civ@mail.mil

Dugway Proving Ground is celebrating the completion of the first—and very successful—Technology Experimentation and Characterization Field Trials (TECFT). A new two-grid system, an experienced and hardworking DPG team, and favorable weather all came together to produce a worthwhile and productive event for participants.

"We conducted 140 trials during the two-week event," said Adam Drochner, West Desert Test Center (WDTC) test officer, who was the DPG TECFT lead. "A new two-grid system was developed for outdoor testing; there was one grid to conduct biological trials and a separate grid to conduct chemical trials. This new setup was very efficient and allowed for nearly double the number of field trials than was executed during past events."

Built on the success of previous S/K Challenge events conducted at Dugway Proving Ground, TECFT allows cost-effective testing of chemical and biological detection technologies. This year's two-week event kicked off on Sept. 27, 2020, and took place in the Joint Ambient Breeze Tunnel and the Active Standoff Chamber the first week and then moved to outdoor field testing at Target S for the second week of trials.

The WDTC test referee system relies on multiple technologies such as the Real-Time Aerosol Test LIDAR (RATLR), which uses four wavelengths to profile a simulated agent plume, allowing TECFT participants to test the accuracy of their detection system. Photos by Mario Sandoval, Dugway Scientific & Technical Photographer

Dan Ondercin demonstrates the new Open Architecture Data Management System (OADMS) that provides an improved, fully instrumented and networked outdoor test capability. OADMS completed some verification testing earlier this year and was used to collect the West Desert LIDAR dissemination data during TECFT.

Speaking to the DPG test team and participants during the nightly safety briefing near the end of week two, Col. Scott Gould, Commander of Dugway Proving Ground, expressed his satisfaction. "We've had good trials and good results. Most importantly, we are moving these technologies forward and that's what this is all about."

TECFT's success didn't come easy. COVID-19 impacts included a four-month delay, and even with a later start date, some registered teams still canceled because of travel or safety restrictions. Some of the teams that did come had to limit their number of attendees.

Despite these challenges, seven teams, including one private industry and six government agencies, participated. More Department of Defense (DoD) programs participated this year than previously.

One of the participating DoD programs was the Joint Program Executive Office for Chemical, Biological, Radiological and Nuclear Defense (JPEO-CBRND), which brought its CBRN Sensors Integration on Robotic Platforms (CSIRP) technology to

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Command Perspective

By Aaron D. Goodman
Garrison Manager, USAG, DPG

Maintaining your wellbeing

One of the most important things we can do is maintain our wellbeing and that of our family. Also, supervisors should be looking out for the wellbeing of their teams. Everyone has been working diligently to keep all mission and mission support requirements going and kept at a high state of readiness on top of COVID-19 safety precautions. All of this comes at a cost and we have missed many opportunities to travel and socialize like we would under normal conditions. We can help ourselves and others by taking inventory of the 5 dimensions of strength.

1. The PHYSICAL dimension focuses on your physical health. Sleep, activity, and nutrition help support your overall health. This has been a difficult one for me and I'm setting a new goal to work on improving in this area. For those of you excelling in this area, great job! For those who may be like me, now is a great opportunity to establish some positive routines that support improved physical health.

2. The EMOTIONAL dimension focuses on tackling the

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Command Perspective . . .

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challenges we face daily with a positive attitude and maintaining emotional control. Daily issues we face can impact our emotional strength and it's important we have methods to maintain our resiliency in this area.

3. The SOCIAL dimension is one of the most impacted areas facing us today. Maintaining fulfilling friendships and strengthening those bonds are incredibly difficult with the need to physically distance ourselves. Please ensure you stay connected with friends and family. There are many creative approaches you can take to socialize safely.

4. The SPIRITUAL dimension—knowing your purpose, beliefs, and values—helps define you as a person. Spirituality means something different to each of us, but at its foundation helps us persevere, act ethically, and face adversity. However you maintain your spiritual strength, know that it's important.

5. The FAMILY dimension provides a safe, supportive, and healthy environment for you to thrive in. Take time to review your family dynamics and how you can better support your family. Also, I encourage you to let your family know what you need for encouragement. Like all families, disagreements happen, but how we respond means the difference between dysfunction and healthy compromise/understanding. If you are ever in need of help to work through family challenges, you can always talk to Chaplain Gornall, schedule time with Greg Mason at ACS, or talk with our EAP Counselor, Ms. Lohnes.

Keeping the five dimensions of strength in mind can help maintain your wellbeing and support your family and team members with theirs. You are all doing an outstanding job staying disciplined and doing what is needed to keep things going. It is one of my greatest honors to serve with all of you and I wish you the best as we enter the holiday season. Thanks for all you do and keep up the great work!

TECFT Highly Successful

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TECFT, a "rapid prototyping and fielding effort focused on miniaturizing and integrating modular CBRN sensor solutions," according to a program publication.

When asked about the value of TECFT for testing their technologies, a member of the CSIRP test team responded, "We're getting some data that we've never seen before."

Each TECFT participant collected their own data, comparing it against the WDTC test referee system for accuracy. The WDTC test referee system relies on multiple technologies to provide a digital picture of the simulant agent clouds and near real-time monitoring data so test teams know what their detection technology should be seeing.

Said another test team member who came to TECFT to improve their detector's algorithms, "This has been a good learning experience for us."

Drochner said making TECFT a success was a team effort. "I want to thank everyone involved in TECFT for making it a successful event," "It takes a lot of people to make this happen and make it beneficial for the participants."

TECFT will return to Dugway Proving Ground and the West Desert Test Center in 2022 and could, under the direction of the Deputy Under Secretary of the Army for Test and Evaluation, be expanded to support additional areas of interest such as protection and decontamination.

The Hyperspectral Imaging System is another key part of the WDTC test referee system. James Berry, DPG Lead Physical Scientist, says the system is a "dramatical improvement in our ability to reconstruct the simulant cloud and it provides a broader view and a lot more data for systems under test."

Hyperspectral Imaging System

The Hyperspectral Imaging System is a key part of the West Desert Test Center (WDTC) test referee system, providing a clearer picture of simulated chemical/biological (CB) clouds during outdoor field testing and providing near real-time monitoring data for systems under test.

"As threats evolve, the technology that tests new detection systems must also evolve," said Dr. James Berry, DPG lead physical scientist. Compared to its predecessor, the Chemical Cloud Tracking System (CCTS), the Hyperspectral Imaging System is a "much more precise instrument," said Berry, that is able to detect CB clouds much faster and recreate them in greater detail on a computer screen. Test teams use its data to compare against their own for accuracy.

WDTC currently has one Hyperspectral Imaging System and is working to acquire more to replace the older CCTS technology.

The sun sets on the first Technology Experimentation and Characterization Field Trials (TECFT) held at Dugway Proving Ground. The Active Standoff Chamber (left) and the Joint Ambient Breeze Tunnel (right) can be seen in the distance. Both are unique to the West Desert Test Center and were utilized during the first week of the TECFT event to test new detection technologies.

Soldiers Test DECON Identifier

By Darrell Gray
darrell.l.gray.civ@mail.mil

The 365th Chemical Company out of Murray, Utah, came to Dugway Proving Ground (DPG) to test the latest chem/bio technology being fielded to deployed units in high-risk areas.

The Contamination Indicator / Decontamination Assurance System (CIDAS) Tactical Applicator was brought to DPG to evaluate its effectiveness and reliability in field conditions.

Francis Bahe, a Test Control Officer at the Chemical Test Division at West Desert Test Center, Dugway Proving Ground, assisted soldiers in setting up and appraising the equipment in mock contamination/decontamination scenarios.

"We are out here testing the CIDAS tactical applicator," Bahe said, as he carefully observed the activities. "The test portion of the CIDAS is the RAM test, which is the reliability, availability and maintainability," he stated.

The testing scenario entailed three tactical vehicles of various sizes, contaminated with a simulant chemical agent. The CIDAS indicates when sprayed on the vehicles if they have been exposed to chemical agent. If contaminated, the agent will appear as red, giving the personnel the precise area to focus their decontamination measures.

A Soldier from the U.S. Army Reserve 365th Chemical Company tests the Contamination Indicator / Decontamination Assurance (CIDAS) tactical applicator on a vehicle at Dugway Proving Ground. Photos by Darrell Gray, Dugway Audio/Visual Production Specialist

A Soldier from the 365th Chemical Company prepares the Contamination Indicator / Decontamination Assurance (CIDAS) tactical applicator for use on various tactical vehicles at the Dugway Proving Ground Decon pad located at the West Desert Test Center.

CHAPLAIN'S CORNER

By Chaplain (MAJ) Wesley A. Gornall

Growing old is something we all must face. Some of us have a few years before getting to the hill; some of us are already "over" the hill. Physically, the "bod" has slowed down. The glory years, if there ever were any, have now ended. We huff and puff instead of rip and zip. It is harder to remember the most basic of information; we can't find "lost" items because they were put somewhere safe. We start to react in ways we swore we never would when younger: "Those young whipper snappers are wild and unsafe drivers." "Keep off the lawn" is now a daily vision statement. As we grow older, we may spend more time reflecting on the disappointments, should-haves or could-haves. We prefer to sit more than stand, to watch more than do.

Aging may cause us to feel like we haven't accomplished our goals in life, and we realize that time is short. We feel guilty over past mistakes. We resist the need to adjust and adapt. We wonder if the twilight years will bring any worth.

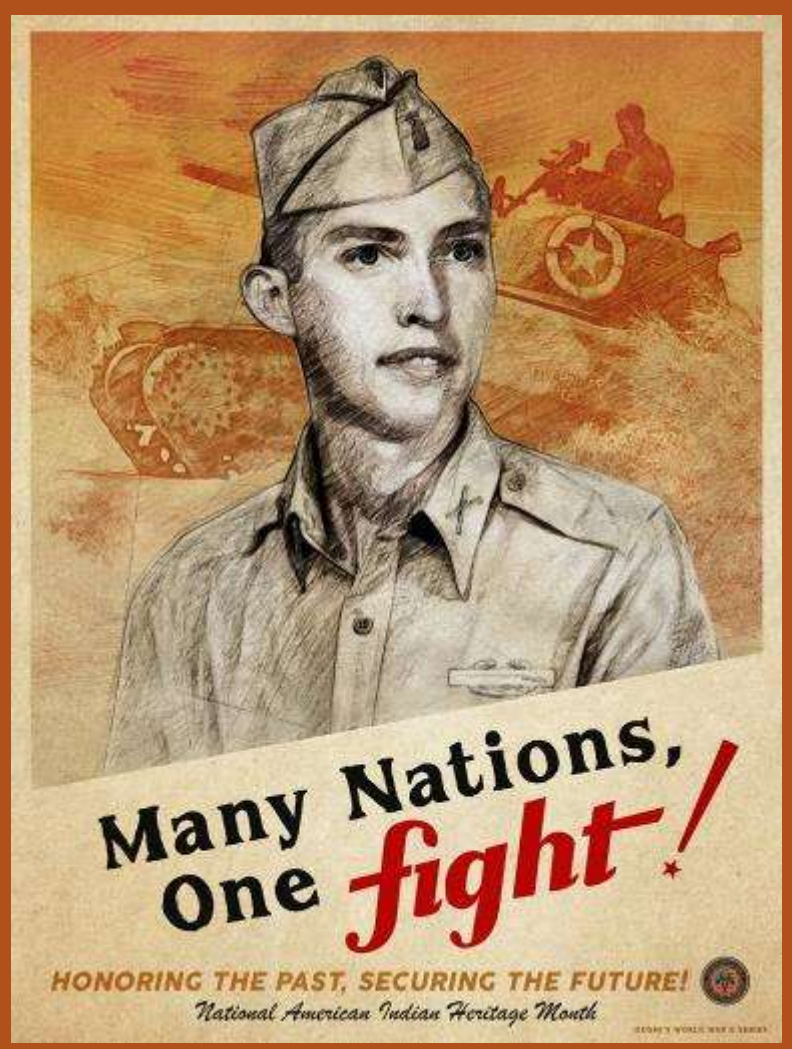
But there is hope with God. As one writer put it: "God's patriarchs have always been among His choicest possessions. Abraham was far more affective once he grew old and mellow. Moses wasn't used with any measure of success until he turned eighty. . . Samuel was old, old when the God of Israel led him to establish the 'school of the prophets,' an institution that had lasting influence for spirituality and godliness in the centuries to come."

God has brought us this far for a reason. He hasn't called us home yet. As we take time to be grateful this month, give thanks for the years you've had, and know that in the years ahead, there is still hope and purpose and meaning for your life.

Excerpt taken from *Growing Strong in the Seasons of Life*, Copyright © 1983, 1994, 2007 by Charles R. Swindoll, Inc.

NATIONAL AMERICAN INDIAN HERITAGE MONTH

1 - 30 NOVEMBER



Dugway Joins Lab-battle Against Virus

By Al Vogel
albert.c.vogel.civ@mail.mil

The BioTesting Division (BTD) will soon start a study to determine how severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is transmitted among airline passengers. The efficacy of practices to decontaminate the virus that causes COVID-19 will also be studied.

A section of a jet airliner fuselage, containing three rows of seats, five windows, overhead storage bins, armrests and folding seat-back trays was trucked to Dugway Proving Ground for the test. Outside air will pass through the fuselage's intact ventilation system, to study interior airflow and how the virus is disseminated.

SARS-CoV-2, which causes the COVID-19 disease, will be used only in industrially filtered and sealed labs at BTD. MS2, a virus that infects *E. coli* bacteria but is harmless to humans, will simulate SARS-CoV-2 outside the labs as required. The test will be conducted from mid-November through March 2021.

"MS2 has been used a lot in these kind of decontamination studies," said Test Officer Angelo Madonna of BTD, which resides on DPG, but it is a tenant unit under the command of the CCDC Chemical Biological Center.

Two commercial sprayers and two commercial liquid disinfectants will be tried in different combinations on surfaces in the passenger area to gauge effectiveness.

"They also want to know if the virus can be disinfected when it's airborne," Madonna said.

Part of this trial includes a machine that replicates the release of particles by human coughing, sneezing and speaking and is combined with artificial saliva developed in the lab.

A variety of trials will explore, using the MS2 simulant, how SARS-CoV-2 travels within a commercial airliner's fuselage. The most practical and effective means to decontaminate, hoping to make airline travel safer without long delays and setup, will also be examined. This includes ultraviolet light's effectiveness against aerosolized viruses.

Also, samples of fabric and plastic taken from the fuselage will be contaminated in the filtered lab with the MS2 virus, then disinfected with current equipment and methods.

Ultimately, the varied testing conducted at BTD is expected to advance our understanding of the transmission and decontamination of SARS-CoV-2, which has infected more than 47 million people worldwide with the COVID-19 disease.

Shown here is the entry to the section of a passenger jet, where the effectiveness of current practices of decontamination against SARS-CoV-2 that causes the COVID-19 disease will be tested at Dugway Proving Ground. Photos by Al Vogel, Dugway Public Affairs

The portion of the jet airliner fuselage to be used in the testing contains three rows of seats with armrests and folding seat-back trays, five windows, and overhead storage.

Test Officer Angelo Madonna explains how outside air passes along the vent across the top of the fuselage's ceiling and is distributed to the passengers in seats. Each passenger may also adjust personal airflow, which will also be studied.

Dominic Perez New Commissary Manager

Dominic Perez is the new manager at the Dugway Commissary. He began working there 15 years ago. Photo by Al Vogel, Dugway Public Affairs

By Al Vogel
albert.c.vogel.civ@mail.mil

In 2003, Dominic Perez began at Dugway Proving Ground as a laborer for Griffin Albers, cutting grass, shoveling snow, whatever was required. In 2005 he began working at the Dugway Commissary as a store worker, became grocery manager in 2018 and recently became Commissary Manager.

His rise from groundskeeper to commissary manager, "took a little while" Perez said with a chuckle. He has no complaints; for 15 years the Commissary's been a great job.

Raised in Guam, Perez was there with his wife when his in-laws took jobs at DPG and moved to Utah. They convinced the young couple to come to Utah as well.

"We loved it, we tried it out here, and we ended up staying in Utah," Perez said. Grounds maintenance for Griffin Albers was hard work, but after two years he became a store clerk at the Dugway Commissary.

"I love what I do. I love helping the community," Perez said. His wife found a good job in Tooele, where they now live with their two children.

With 10 employees (including Perez) there is still plenty of unloading and stocking to do.

"I really don't see my job as being so hard because I love what I do and I have a good crew," Perez said. "We have around 6,000 line items, and fresh meat and vegetables, brought in three times a week (from Hill Air Force Base Commissary).

"Getting the store manager position, I have big shoes to fill, so I'm going to try my best," Perez said.

Meteorology Loans Equipment for Inversion Study at Refuge

By Al Vogel
albert.c.vogel.civ@mail.mil

Meteorological equipment and instruments were recently loaned by Dugway Proving Ground to assist a study of ground-level ozone at the Ouray National Wildlife Refuge in northeastern Utah.

The Data Science Division, Meteorology Branch of DPG's West Desert Test Center provided the Bureau of Land Management (BLM) a 100-foot tower fitted with meteorological sensors at varying levels, a microwave radiometer and a sonic detection and ranging wind profiler.

The study will measure the low level atmospheric characteristics that lead to the trapping of locally emitted pollutants. The primary pollutants in the Uintah Basin are volatile organic compounds created by oil and gas drilling and refinement processes, which develop into ground level ozone pollution.

While ozone in the upper atmosphere beneficially reduces the Sun's damaging ultraviolet light from reaching the Earth's surface, near ground level ozone is a potent respiratory hazard and pollutant to plants and animals.

"The EPA has limits for ozone, which have been exceeded during winter time inversions," said Daniel Ruth, lead meteorologist at DPG. "Once the standards are exceeded, they have to work on a mitigation plan for that."

In 2014, the federal government's National Oceanic and Atmospheric Administration released a report noting wintertime levels of ozone in the Uintah Basin exceeding federal health standards. The goal of the study is to better understand the atmosphere that is trapping the pollutants so that adequate measures can be developed to prevent this from happening.

The microwave radiometer, "Basically gives us a temperature and humidity profile up through the atmosphere," said Ruth. "The sonic detection and ranging wind profiler emits an acoustic signal into the atmosphere, measuring the Doppler shift on that signal that is used to calculate the direction and velocity of upper level winds."

DPG uses these sophisticated meteorological instruments to monitor the atmosphere at Dugway, which is critical during outdoor tests of chemical or biological detectors (using simulated agent), Unmanned Aircraft Systems, etc.

The BLM is the primary investigator for a study of the ozone levels on or near the surface of the Ouray National Wildlife Refuge, partnering with Utah State University, the Utah Department of Air Quality and the U.S. Fish & Wildlife Service, which manages the wildlife refuge.

The Sonic Detection and Ranging Wind Profiler, and Microwave Radiometer, are currently fielded for a Bureau of Land Management study of cool -season atmospheric inversions at the Ouray Fish and Wildlife Refuge in Utah's Uintah Basin.

The 100-foot meteorological tower at Ouray National Wildlife Refuge with the setup crew. Left to right: Edward Martin and Bradley Hunsaker of DPG Meteorology, and Stephen Aagard of Jacobs at DPG.

IN A NUTSHELL

Army Software Factory

What is it?
The software factory is a U.S. Army approved program incorporating best practices from both the tech industry and Department of Defense. This initiative will immerse Soldiers and civilians from across the Army in modern software development, leveraging the full spirit of an innovative ecosystem.

What are the current and past efforts of the Army?
As part of the Army's modernization efforts, Army Futures Command will pioneer this first-of-its-kind pilot initiative to:

- Integrate "Training with Industry" pipeline to teach, develop and employ self-sustaining talent from all ranks within the military and civilian workforce.
- Expose Army Soldiers and Civilians to coding boot camp by building partnerships between coders and industry counterparts, enabling structured problem-solving and allowing graduates to take this capability back to the force.
- Increase digital proficiencies across the force and enable Soldiers to dominate an information-centric battlefield.
- Use modern cloud and software technologies to solve Army problems through agile and secure software development processes.

Software factory complements the Army Artificial Intelligence Task Force and AI Work Force Development program.

What continued efforts does the Army have planned?
The software factory will stand up in Austin, Texas with a full operational capability in the summer of 2021. Army Futures Command will utilize the software factory, a modern-day "solutions factory," to empower capable Army teams to scope problems with end-users in person or virtually.

Why is this important to the Army?
Software factory allows Soldiers and Army Civilians in future operating environments to:

- Solve enterprise-level Army problems with cloud technology and modern software, and better prepare them for disconnected warfare in 2028 and beyond.
- Scope and implement software-based solutions at the battlefield without connectivity or assistance from centralized support.

(Source - Army STAND-TO)

THE DISPATCH

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News, information or comments may be submitted to:
usarmy.dpg.atec.mbx.pao@mail.mil

Commander: Col. Scott D. Gould
Chief, PAO/Editor: Becki Bryant
Public Affairs Specialist: Al Vogel
Layout & Graphics: Robert Rampton
Video & Web: Darrell Gray

EMPOWERING THE NATION'S DEFENDERS

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The Trunk or Treat event Oct. 27 was enjoyed by numerous children and their families, as the youngsters moved from car to car to get their Halloween treats.

The event gave residents an opportunity to decorate their vehicles and have a little fun before Halloween.

In the vehicle decorating contest, first place went to Chris Knight and his crew of police, firefighters and dispatchers. Amber Kubat and Merceydece Quinney of AAFES took second for decorating the AAFES van. Shelby and Cody Bastian took third place.

After the vehicular event, children went trick-or-treating in the neighborhood until 9 p.m.

Merceydece Quinney and Amber Kubat won 2nd place for their decorated AAFES van. Photos by Al Vogel, Dugway Public Affairs

Heather McCarty on the right, but who is that debonair person beside her?

And here we have the Werewolf Family, with their werepup!

Shelby and Cody Bastian took third place.

Police, Fire Department and Dispatch combined to take first place.

Send some joy to others in need...

Accepted Items: Personal Hygiene Items, Non-Perishable Foods, Gently Used Clothing (Coats of all sizes needed)

Drop boxes are spread out across Dugway Proving Ground (Commissary, Shoppette, Ditto Diner, & UTTR Bldg. 1010 Avery Rd)

Fall Donation Drive

2 - 19 November

Donated items will be given to New Life Christian Fellowship to help the local community

For more information contact:
UTTR Det 1, 435-831-5344

Publication of this notice does not imply endorsement of the event or endorsement of the organizations benefitting from the event.