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INSIDE YOUR DISPATCH

NEW AND INNOVATIVE



Newly constructed gloveboxes will test the Next Generation Chemical Detectors in 2018.
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IMCOM COMMANDER



Eye-opening Dugway visit for IMCOM leadership.
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Air Resources Laboratory looks to future endeavors with meteorological division.
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NATIVE AMERICANS



Tribal Vice Chairman's presentation enthalls capacity Dugway crowd.
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PARALYMPIC ARCHER



200 witness world class archery skills and inspiring determination.
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AND MUCH MORE

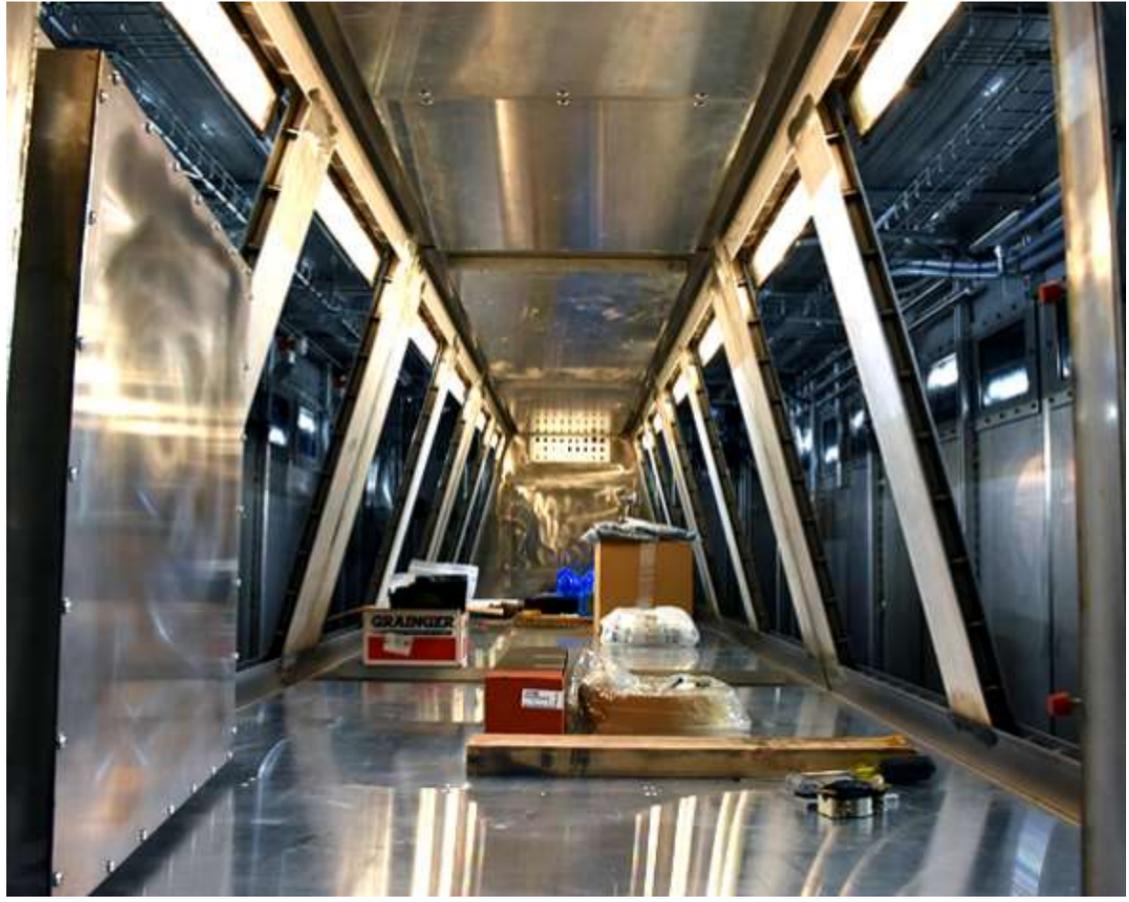
TESTING NEXT GENERATION CHEMICAL DETECTOR TAKES INNOVATION

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

When testing of the Next Generation Chemical Detectors begins at Dugway in early 2018, scientists will use gloveboxes and a moveable chamber as new and innovative as the detectors they test.

Testing will be at various facilities, but much of it will be conducted within newly constructed gloveboxes and a moveable chamber. At least four versions of the NGCD will be tested at Dugway: a man portable, aerosol and vapor detector; man-portable surface detector; a two-man portable NGCD sensitive to very low levels and a wearable NGCD that warns of chemical warfare agents, toxic industrial chemicals and non-traditional agents.

The NGCD testing marks the first use of the new gloveboxes and the moveable Secondary Containment Module chamber in testing at Dugway. Testing will be more efficient, "Making it more rapid to get our answers, to get our



Three gloveboxes were recently built at Dugway Proving Ground, and sealed together inline, to create a long chamber for testing defenses against chemical weapons and toxic industrial chemicals. Windows containing glove ports are not yet installed. Interior lights along top of interior chamber provide ample lighting. During testing, items may be passed along for contamination, sampling, decontamination, verification, etc. Photo by Al Vogel / Dugway Public Affairs.

data," Greg Dahlstrom, a Dugway mechanical engineer.

Acquiring accurate test data quicker benefits the

Warfighter. Rapid, accurate data hastens decisions to adopt, modify or abandon a proposed item, method or modification. Whether adopted or abandoned, the Warfighter benefits: It arrives in his hand sooner, or funds are not wasted on dubious research and may be better spent on more promising systems.

The new testing gloveboxes were recently made by machinists at the Dugway Metal Shop, and Tooele (Utah) Army Depot, for a little more than \$1 million. The glove boxes are designed to fit to each other to create a series of stations. Via interior doors, test items are moved from one glove box to another for contamination, measurement, observation, decontamination, etc. End caps, which have built-in air filtration, allow the introduction or retrieval of items from outside the glove boxes.

Each glovebox has banks of overhead lights, large

windows and portholes for sealed, permanent gloves, allowing operators to manipulate test items and equipment. Inside the linked gloveboxes, humidity and temperature may be regulated from 120 degrees to -25 Fahrenheit to replicate most climates for authentic challenging.

Three gloveboxes and two endcaps are within each of the two trailer-sized mobile chambers – 36-foot-long Secondary Containment Modules. In turn, the two modules are within the massive Multipurpose Chamber (50 feet long and wide, with 30-foot walls).

Redundant safety and air filtration prevent deadly chemicals from escaping during testing: each glovebox series is sealed and air filtered, and secured within the sealed and filtered SCMs. The two SCMs are within a large,



Greg Dahlstrom, a mechanical engineer, installs a window in the endcap of a series of gloveboxes at Dugway Proving Ground, Utah. The three gloveboxes, sealed together in-line, and culminating in endcaps, create a 25-foot-long test chamber. The Next Generation Chemical Detector (NGCD) is scheduled to be tested in two chambers such as this, in early 2018. Photo by Al Vogel / Dugway Public Affairs.

TESTING TAKES INNOVATION...

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sealed and filtered Multipurpose Chamber 50 feet long and wide, and 30

feet high. The effect is triple redundant safety.

Each 36-foot SCM may be moved

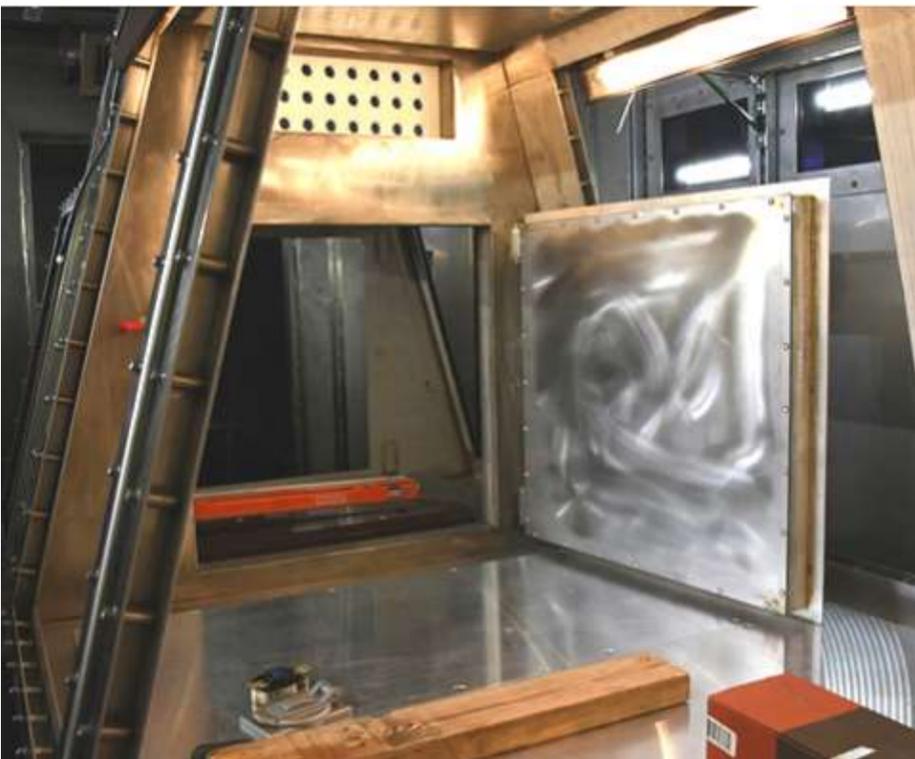
outside the large chamber, to ease setup for the next test, allowing ample room for forklifts, cargo, technicians and specialized test fixtures. "The Secondary Containment Modules are made to be mobile, so that on a rapid reaction test, we could bring these out and bring in new ones that had different fixtures set up inside them. It's mainly for efficiency," Dahlstrom said.

More than 10 years ago, Dugway Proving Ground tested the wearable Joint Chemical Agent Detector (JCAD) and the mounted Joint Services Lightweight Chemical Agent Detector (JSLSCAD) that has become commonplace among all services. Next Generation Chemical Detector testing will begin 100 years after World War I ended, the first conflict with the widespread use of modern chemical weapons. "Next Generation Chemical Detector testing is scheduled to begin in January 2018 and, if the previous JCAD test is any indication, it will probably be three years of testing," Dahlstrom said.

One hundred years ago, the world recoiled at the horrors of chemical weapons. It still recoils at recent



Electronics technician Micah Conner (left, on ladder) and Bryan Warr (seated) work on the electrical systems of the new Secondary Containment Module. The 36-foot-long SCM will hold three sealed and airtight inline gloveboxes and their endcaps for testing defenses against chemical agents. Both SCM are within the 50-foot long and wide Multipurpose Chamber. Photo by Al Vogel / Dugway Public Affairs.



Entry door from the interior of a glovebox to an endcap, at Dugway Proving Ground, Utah, where chambers are being prepared for the early 2018 test of the Next Generation Chemical Detector in four versions. The windows on each side will be fitted with high-impact glass containing portholes for heavy gloves. Operators will expose the detectors to real and simulated chemical agent in this glovebox, and manipulate test items and equipment with the gloves. Photo by Al Vogel / Dugway Public Affairs.

images in Syria, Iraq and elsewhere. It would be ironic if the weapon once called, "the most efficient killer" was rendered powerless by more efficient testing.

EMPOWERING OUR NATION'S DEFENDERS



Inside one of two 36-foot-long Secondary Containment Modules at Dugway Proving Ground, Utah. The SCMs will enclose three interlocked, airtight glove boxes used for testing defenses against chemical agents. During testing, the two SCMs are within a 50-foot long and wide chamber. Between tests either or both SCM may be moved outdoors, to make refitting for the next test easier. Photo by Al Vogel / Dugway Public Affairs.



Secondary Containment Modules are designed to quickly accommodate a variety of test requirements. This Penetration Panel allows hoses, pipes, tubes, wires and cables to enter the testing area without compromising the SCM's airtight seal. The panel may be switched with any of the windows, for convenient placement. Photo by Al Vogel / Dugway Public Affairs.

IMCOM COMMANDER CALLS DUGWAY TEST CENTER AN 'EYE OPENER'

By Bonnie A. Robinson
bonnie.a.robinson.civ@mail.mil

It was a "boots on the ground" tour for Lt. Gen. Kenneth R. Dahl, commanding general of Installation Management Command, and Command Sgt. Major Jeffrey Hartless, Nov. 16, at Dugway Proving Ground to talk with leaders and discuss issues that affect the garrison.

Dahl asked questions and observed how Army-wide programs such as family housing, Family Morale, Welfare and Recreation, Child and Youth Services, and the Police and Fire Departments implement their programs.

Dahl also attended an archery demonstration by the World Class

Athlete Program with Paralympic archer Staff Sgt. Michael Lukow at the Sportsman Lodge, a facility that is used by community members and employees.

Dahl had met Lukow while in Washington D.C. Learning that the Paralympic contender lived in Salt Lake City, the general invited him to join him for his installation visit. "I learn a lot about the relationships of a military community when I see how well events are supported," he said. "It was nice to see that Dugway is tightly knit."

Afternoon tours of Combined Chemical Test Facility and the Rapid Integration and Acceptance Center, a tenant organization, provided the IMCOM commander an overview of the testing that Dugway provides.

Christopher Olsen, Dugway's CCTF director, lead the tour of the 35,000 square-foot facility. "Our test officers and technicians challenge materials with a comprehensive list of chemicals or simulants in liquid, vapor or aerosol

to determine the survivability of military equipment." Olsen assured. "The size and range of the laboratories is extremely impressive," Dahl said.

The last stop was the Rapid Integration and Acceptance Center, a subordinate under the Unmanned Aircraft Systems at Redstone Arsenal, Alabama.

RIAC's mission is to test unmanned aircraft and systems for swift distribution to Warfighters. The Shadow, Gray Eagle and a re-engineered Cessna's capabilities were discussed by aircraft operators.

The IMCOM commander said what surprised him the most was the size of the test center and its advanced facilities. "I was expecting a legacy installation, but what I found was an expansion of critical missions that truly meets our nation's current and future needs," Dahl said. "This visit was an eye-opener."



Lt. Gen. Kenneth R. Dahl, commander of the Army's Installation Management Command, talks with Col. Sean Kirschner Dugway's commander about the accurate testing for Soldier's protective clothing, masks and point detectors. Photo by Bonnie A. Robinson / Dugway Public Affairs.

NOAA'S AIR RESOURCES LABORATORY LEADERSHIP VISITS DPG

By Bonnie A. Robinson
 bonnie.a.robinson.civ@mail.mil

A leadership team with the Air Resources Laboratory, part of the National Oceanic and Atmospheric Administration, or NOAA, toured Dugway's Meteorology Division test grids, Nov. 14.

Richard Artz, acting director of the Air Resources Laboratory in Maryland, said the visit was propelled by an interest in "strengthening relationships for future endeavors with Dugway's meteorological division personnel."

Dr. Ariel Stein, a scientist with the team noted that ARL's mission is to conduct research to gain atmospheric dispersion, atmospheric chemistry and climate change in the complex behavior of the environment near the Earth's surface called the boundary layer. It's meteorological research and services aim is a healthy and safe nation.

John Pace, Dugway's meteorological director, arranged a tour of the installation's weather tracking capabilities. The tour included a fixed Doppler radar weather station and various collection sites on a number of outdoor test grids.

Pace remarked that the terrain at Dugway offers a variety of elevations that make it ideal for outdoor testing. The protected area varies from salt flats that have no vegetation to pinnacled mountains that create up and down drafts channeling the evening and early morning air. The air at Dugway is "typically pristine," he added.

"Dugway has a remarkable location with unusual terrain," Artz said. "We are especially interested in seeing how Dugway's environmental data is collected and analyzed. We look forward to a united effort."



Dr. Richard Artz and Dr. Ariel Stein of the National Oceanic and Atmospheric Administration's Air Research Laboratory and Dr. John Pace, of Dugway's meteorological director visit a weather station at Dugway Proving Ground, Utah Nov. 14 as part of a tour to strengthen relationships with NOAA and ARL for future endeavors. Photo by Bonnie A. Robinson / Dugway Public Affairs.

DUGWAY HOSTS SHOSHONE TRIBAL LEADER AT NATIVE AMERICAN HERITAGE OBSERVANCE



Darren Parry, Vice Chairman of the Northwestern Band of the Shoshone Nation, was a guest speaker for the National American Indian Heritage Month observance Nov. 23, 2016 at Dugway Proving Ground. Parry talked to the capacity crowd about the significance of the eagle feathers in the Indian headdress. Photo by Robert Saxon / Dugway Public Affairs



Rachel Quist (left), Dugway Cultural Resource Manager, was a guest speaker at the Nov. 23, 2016 National American Indian Heritage Month observance at U.S. Army Dugway Proving Ground, Utah. Quist brought artifacts related to the history of Dugway to display as part of her presentation. Photo by Robert Saxon / Dugway Public Affairs



Col. Sean Kirschner (left), Dugway senior commander, and Command Sgt. Maj. Joe Bonds (right), Dugway command sergeant major, presented certificates of appreciation to Rachel Quist, Dugway Cultural Resource Manager, and Darren Parry, Vice Chairman of the Northwestern Band of the Shoshone Nation. Photo by Robert Saxon / Dugway Public Affairs



Certificate of appreciation presented Nov. 29, 2016 to Col. Sean Kirschner (third from left), commander of Dugway Proving Ground, by Lt. Col. Eric Vanek, commander of the 2916th Aviation Battalion, of Fort Irwin, Calif. The certificate was given for Dugway's and the Rapid Integration and Acceptance Center's assistance in training the unit's 66 Soldiers for three months. Also shown, from left in civilian clothing: Jenny Gillum, director of RIAC; David Rhyne, Michael Army Airfield manager; Ryan Harris, director of West Desert Test Center; and Ron Delgado of RIAC. Photo by Al Vogel / Dugway Public Affairs

U.S. ARMY PARALYMPIC ARCHER WOWS DUGWAY COMMUNITY

By **Bonnie A. Robinson**
 bonnie.a.robinson.civ@mail.mil

The bowman seemed unfazed as he drew the string taut. His eyes narrowed as he focused on the target. A look of confidence swept his face as if the result was already assured.

Staff Sgt. Michael Lukow, a Paralympic archer with the U.S. Army World Class Athlete Program, showed off his marksmanship as three arrows soared through the cold, blustery desert air at Dugway Proving Ground, Sportsman's Lodge, Nov. 19. The arrows each struck a target's center more than 50 yards away.

In September, Lukow represented America as a member of the 2016 U.S. Paralympic Archery Team in Rio de Janeiro. He came to Dugway at the request of Lt. Gen. Kenneth R. Dahl who was visiting the test center and garrison.

A crowd of more than 200 attendees, including the entire student body of the Dugway School, had come to see if the Soldier could really use the skill that had helped him recover from a severe injury.

In 2008, while Lukow was serving in Baghdad, Iraq, he was hit by one of the single most lethal weapons used against American Forces, a homemade explosive known as an EFP (explosively formed penetrator), which severed his right foot. Luckily for Lukow, a well-trained line medic was nearby and skilled Army surgeons were able to save his life.

Lukow still keeps in touch with the medic that first reached him. "Specialist Walden was a phenomenal paramedic, I only lost one foot," he said with a grin. That's probably the kind of humor Walden would appreciate, he said.

Lukow was sent for rehab in Texas, where he attended an archery exhibition that captured his attention. Once he picked up a bow, it became a critical part of his recovery process.

Skip Dawson, an archery instructor, became his coach for the next three years.

Lukow, a native of Alamosa, Colorado, who now lives in Salt Lake City, Utah, did not let his injury slow him down. In fact, it has propelled him to achieve goals he never had envisioned after his injury. "It forced me to walk and get used to the prosthetics and braces," Lukow said. "I found that the more consistently I hit the target, the easier it became to walk."

Capt. Mathew Hickey, the detachment commander of U.S. Army's WCAP at Fort Carson, Colorado, where Lukow is assigned, said it's "not unreasonable to take 10 to 12 years" of training to compete on a highly professional team level. "He did it in just three years," Hickey said. "He's the best archer I know."

The WCAP has 60 athletes in the program, Hickey said. Its Soldier-athletes train to compete and succeed in national and international competitions that lead to Olympic and Paralympic Games, the captain said.

Lukow, who is a recipient of the Purple Heart, National Defense Service Medal, and Iraq Campaign Medal, served as a member of the 2011 Pan American Team and the Czech Republic Teams of 2014, 2015. "I like representing the Army, I love traveling with this program, it's a great way to meet people and see places I never thought I would," he said.

The highlight of Lukow's visit to Dugway came at the end of his presentation, when school students were encouraged to pick up bow and arrow and aim for one of the three targets on the field. Lukow coached them until they, like the master archer, could hit the target. "That's awesome," whispered one young apprentice when an arrow struck the target.



1 QUESTION 4 ANSWERS



What is your favorite holiday activity and food?



Holli Harding
 Procurement Specialist

Activity: "Going out to cut the Christmas tree with my family."
 Food: Anything chocolate, or dessert."



Kim Shaffer
 RIAC Office Manager

Activity: "Going hooding. You pull the hood of a car behind a pickup or 4-wheeler, going over snow, ice and sagebrush."
 Food: "Christmas cheese balls and chocolate covered raspberries."



Amie Russell
 Procurement Specialist

Activity: "Our family gift exchange on Christmas eve. We give a gift and we also write a note to the person we're giving it to."
 Food: "English Toffee. My mom used to make it."



Irene De Cambra
 Food and Beverage Preparer

Activity: "Christmas with the family."
 Food: "Christmas dinner: ham, mashed potatoes, rolls, custard pie, green bean casserole, Tuna Mac, salad and Poke (raw fish), a Hawaiian appetizer."

If you have 1 QUESTION that might need 4 ANSWERS, send it to us for consideration at: usarmy.dpg.atec.mbx.pao@mail.mil

Holiday in the Hangar III

**December 15th
1430 - 1630
MAAF Hangar 1**

**Food and Refreshments
Bouncy House
Holiday Hat Contest
Best Dessert Contest**

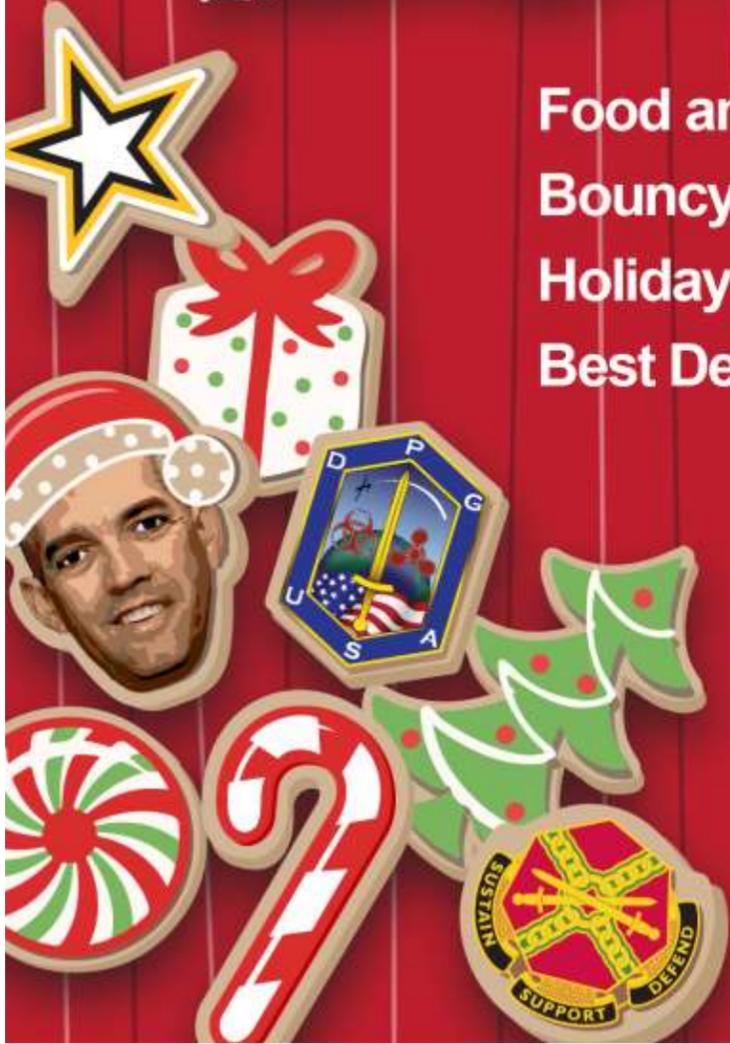
**Karaoke
Visit by Santa
Give-a-ways
Gift Wrap Challenge**

Bring Your Families

For tickets contact:
CJ Uttech in EV at
(435) 831-2141 or
Stephanie Hayes in Ditto at
(435) 831-5416

\$3

Per Person in Advance
Kids 16 & Under FREE



Dugway Proving Ground FMWR/Commissary/AAFES Holiday Hours

Army Community Services (ACS)
2 January: Closed

Community Club & Ditto Diner
19 December - 2 January: Closed

CYS Programs
2 January: Closed

Shockless Fitness Center
24 December: 8:00 AM - 3:00 PM
25 December: Closed
26 December: 8:00 AM - 3:00 PM
31 December: 8:00 AM - 3:00 PM
1 January: Closed
2 January: 8:00 AM - 3:00 PM

AAFES Express (Shoppette)
24 December: 10:00 AM - 5:00 PM
25 December: Closed
26 December: 10:00 AM - 5:00 PM
31 December: 10:00 AM - 5:00 PM
1 & 2 January: 10:00 AM - 5:00 PM

Library

26 December: Closed
2 January: Closed

Subway

23 December: 10:00 AM - 2:00 PM
25 & 26 December: Closed
30 December: 10:00 AM - 2:00 PM
1 & 2 January: Closed

Commissary

24 December: 10:00 AM - 4:00 PM
25 & 26 December: Closed
1 & 2 January: Closed

COMMUNITY CALENDAR

DECEMBER 2016

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
			Story Time & Crafts 1000 - Library	1 Holiday Tree Lighting 1700 - 1830	3	3 ODR - Festival of Trees - Salt Lake City
4	5	6 VA Advisor Meetings Garrison Staff Meeting - 0800 - Rm 1202	7 West Desert Staff Meeting - 0800 Ditto Story Time & Crafts 1000 - Library	8 ODR - Holiday Lights/ Christmas Concert - Salt Lake City	9 ODR Wendover Trip	10
11	12	13 Newcomers Orientation 1330 - 1700 - Bldg. 5124 - Rm 239	14 Command Staff Meeting - 0830 Ditto Holiday Dinner Special Community Club & Ditto Diner	15 IMCOM Awards Ceremony - 1100 Community Club Holiday in the Hangar III 1430 - 1630 MAAF Hangar 1	16	17
18	19	20 Garrison Staff Meeting - 0800 - Rm 1202	21 West Desert Staff Meeting - 0800 Ditto	22	23	24
25 Christmas Day	26	27	28	29	30	31 New Year's Eve Party at the Bowling Center

THE DISPATCH

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News, information or comment may be submitted to:

The Editor, Dispatch, Dugway Proving Ground
 TEDT-DP-PAMS#2
 5450 Doolittle Ave.
 Dugway, UT 84022-5022
 Phone: (435) 831-3409 DSN 789-3409
 Email to: usarmy.dpg.atec.mbx.pao@mail.mil



Commander: COL Sean G. Kirschner
 Chief, PAO/Editor: Robert D. Saxon
 Public Affairs Specialist: Al Vogel
 Public Affairs Specialist: Bonnie Robinson
 Layout & Graphics: Robert Rampton
 Video & Web: Darrell Gray

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Currently playing on the Dugway YouTube Channel

- Innovation/Glovebox Update
- General and Olympian
- CSM Change of Responsibility
- Trail & Ultra Run
- Garrison Town Hall

www.youtube.com/channel/UCPjFIEBY7j7ay6m7FouadqQ

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