THE QUARTERLY GRANITE

2Q21

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SRA Aaron Walker
Unit: 436 AMXS
Project: C5 Battery Extractor
Training Completed:
-Fusion 360

TSgt James Goerss
Unit: 436 MXS
Project: APU Hoist End Cap
Training Completed:
-Fusion 360
-Excel

SSgt Jeremy Barr
Unit: 3 AS
Project: RAPCON Tablet Hub
Training Completed:
-Project Management

Bedrock Farewell

The Bedrock Team would like to express our deepest thanks to Major Nate Miller, 2d Lt Johann Johnson, 2d Lt Bailey Ishler and SSgt Armand Lu, whose contributions to our program have helped us grow tremendously over the past 9 months since our grand opening. We wish you all the best of luck in your future endeavors!

Major Raul Cantualla

436th Operations Support Squadron

Major Raul Cantualla, 436 OSS Operations Officer, played a vital role during the 2021 SIF campaign by pitching multiple ideas to a panel of judges at the first Bedrock Spark Tank. Through Ideascale, Major Cantualla submitted project proposals for the funding of Multi-Capable Airmen (MCA) kits and a Small Unmanned aerial systems (SUAS) project. The SUAS project was selected by the panel of judges for funding. This project will focus on leveraging SUAS technology onthe flightline to modernize aircraft inspections to save both time and create a safer method of inspection for our maintainters.

02

Innovator of the Quarter

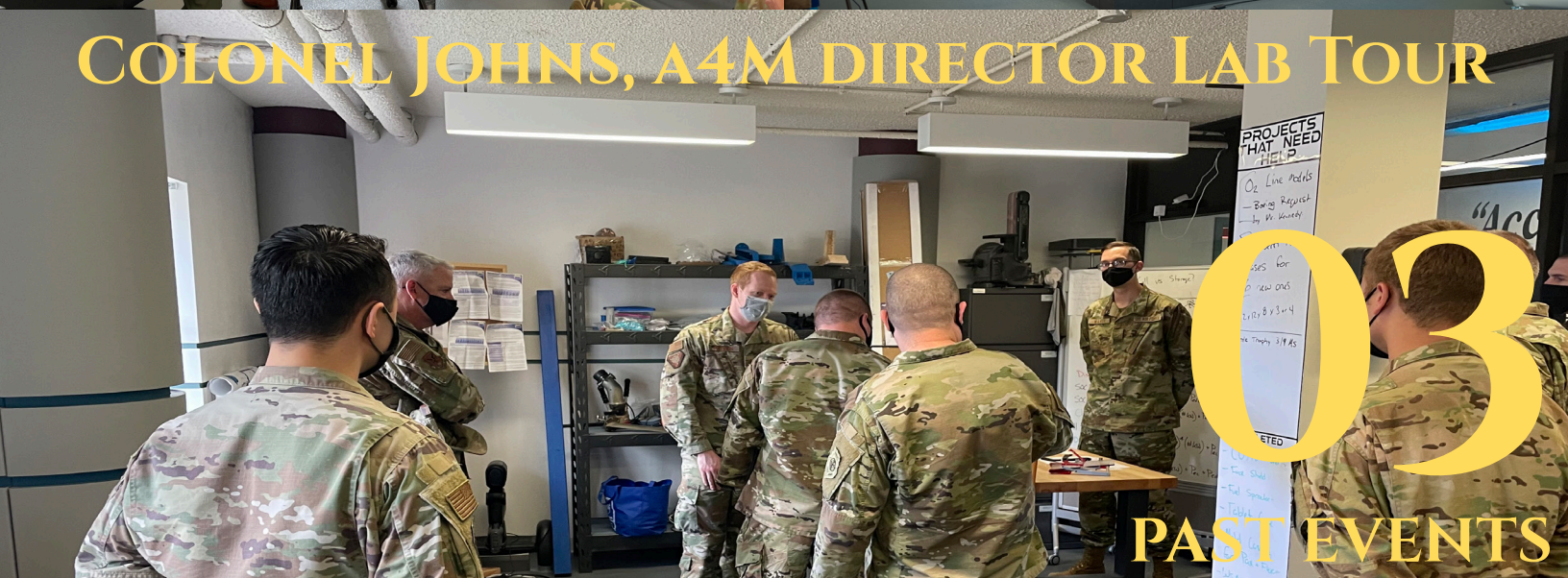
Bedrock Spark Tank

DoDEA Visit

Travis Honorary Commanders Visit

Kodiak Robotics Lunch & Learn

Within Reach Lecture Series



Colonel Johns, A4M director Lab Tour

03

Past Events

AFWERX Vegas Spark Summit 2021

The Bedrock team recently returned from a TDY to the 2021 AFWERX Vegas Spark Summit. This event was held at the AFWERX Headquarters in Las Vegas, Nevada. majcom and installation Level Spark Cells representatives from AMC, Global Strike and AFSOC attended to network and share successes from their respective units. During this event, Bedrock shared best practices with other spark cells and briefed the innvoation intern program. The bedrock internship was adopted by afwerx as a standard for developing multi-capable airmen and shared with the innovation ecosystem.

Bedrock SBIR

Xage - Synchronized Flightline Ops (Phase II $750K)

Scope: Automated data collection and distribution for MX operations

Sponsor: 436 MXG & SAF/CN

Sketchbox 3D - C5 VR Egress Trainer (Phase II $850K)

Scope: Immersive, multi-player egress VR simulator

Sponsor: 9 AS

Kodiak Robotics - Autonomous Flightline Vehicle (Phase II $750K)

Scope: Simulated autonomous vehicle software

Sponsor: 436 APS & RSO

Spectrohm - RF imaging and threat detection tools for rapidly deployable cargo screening(Phase II $750K)

Scope: Cargo Screening System

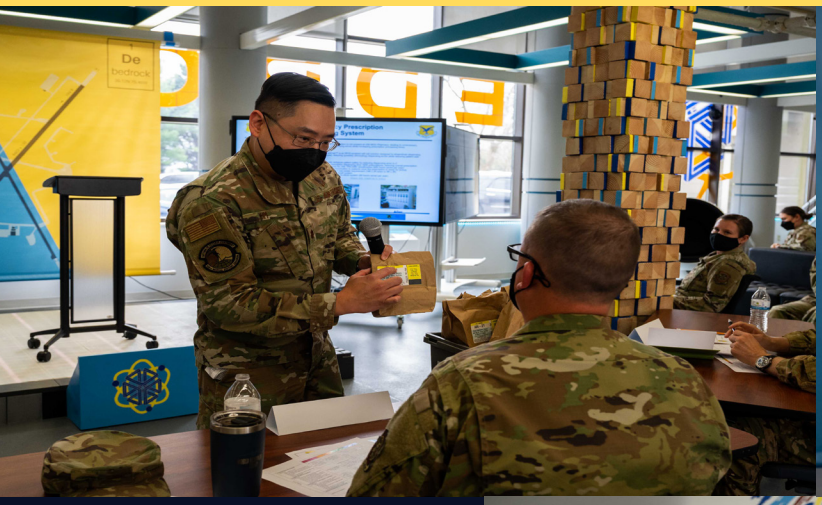
Sponsor: 436 APS

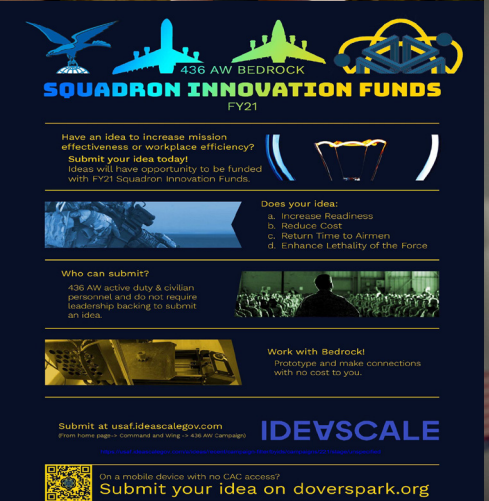
SPECTROHM

SAFELY SEE INSIDE

2021 SIF Campaign Recap

The 2021 SIF Campaign concluded in the beginning of April with the first ever Bedrock Spark Tank. This event was modeled after the hit TV show "Shark Tank" and gave the opportunity for eight unique projects to be pitched to a panel of judges that included Colonel Matthew Jones, Major Ryan Nichol, Major Steven Lauver and Mr. Nicholson from the Delaware Department of Technology & information. Bedrock received over 40 idea submissions from around the base during the course of the SIF campaign. In the end, the judges selected four projects to be funded which included DACMS, SUAS, virtual training environments and RFID Prescription Management. Collectively, over $400,000 was allocated to these projects for funding.





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2021 SIF Campaign

Deployable Automatic Cargo Measurement System

SMSgt Andrew Silkworth: 436th APS

The Problem

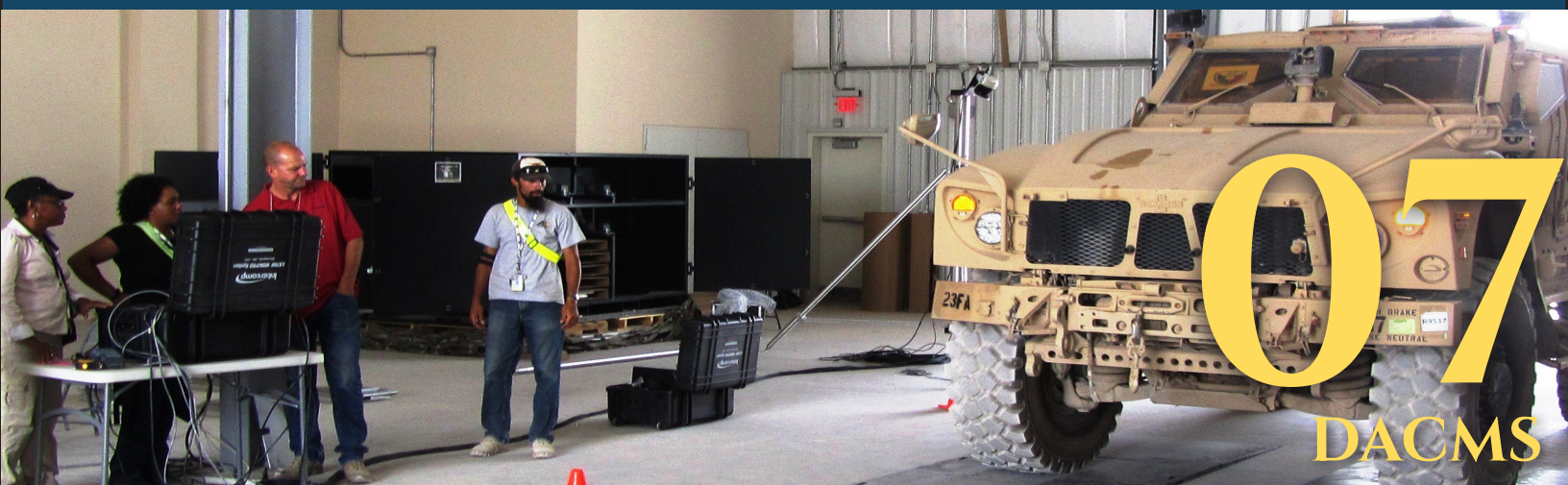
Traditional wheel axis scales cause a large drain on time and manning. This causes a lack of efficieny in Dover Air Force Base's ability to conduct timely air and unit cargo inspections.

Proposed Solution

Weight in motion provides the base cargo deployment function with a roll-over replacement to standard wheel axis scales. Weight in motion increases efficiency of CDF by reducing the amount of time spent of weighing vehicles, equipment and pallets while simultaneously computing center of gravity.

"Successful innovation programs typically have a positive impact on the local community, contributing to economic growth. SMSgt Silkworth's weight in motion scale project will not only improve Dover AFB's mission support services but also has the potential to bring economic benefits to the greater Dover area."

-Mr. Rob Nicholson, Innovation Program Lead, Delaware Department of Technology and Information



Virtual Training Environments

MSgt Trevor Wilkinson

Proposed Solution

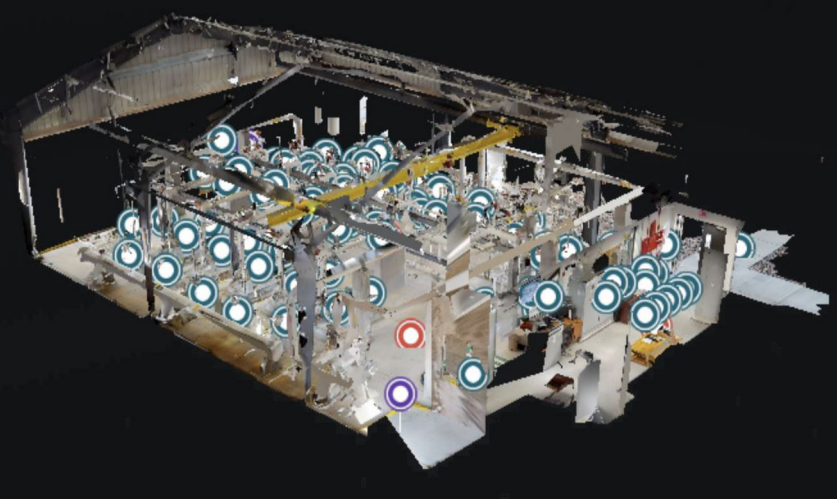
By using this system (360 degree, 4k camera system that creates immersive 3D images replicating real-world environments) we can create virtual learning environments found within career fields that individuals can access from any device, anywhere there is internet, anytime they want.

The Problem

Due to resource constraints, safety requirments, physical space feasibility, and mission requirements/tempo we do not always have the proper time, equipement, or locations for training.

"Though all teams did a fantastic job pitching their proposed solutions last week, I was particularly impressed by the clear, concise and compelling messaging of the 'Virtual Training Environments' team. I believe their proposed solution has the potential to benefit multiple organizations at the 436 AW, and more broadly across the DAF, in an operationally relevant timeframe. Congratulations to MSgt Wilkinson and the Virtual Training Environments team, who represented the 436 CES, the 436 AW, and the Air Force well last week."

-Maj Steve Lauver, Spark Division Chief, AFWERX



08

Matterport

Small Unmanned Aerial Systems (SUAS)

Major Raul Cantualla: 436th OSS

The Problem

Airfield inspections are time consuming, labor intensive, and sometimes dangerous. SUAS will increase force protection, airfield, airplane and building assessment capabilities, while reducing man hours, and reduce risk of injury. Several squadrons have identified SUAS requirements, integration of SUAS activities into the airfield envrionment requires deliberate planning.

Proposed Solution

Stand-Up a 436 AW SUAS program to provide safe and effective integration of SUAS capabilities to conduct building, land, aircraft, and lighting inspections.

"SUAS is a game changer... with the potential to save countless man-hours and reduce risk exposure to our Airmen."

-Maj Debora Berg, Commander, 436th Contracting Squadron

09

SUAS

RFID Prescription Management

Maj Jin Kim: 436 MDSS

The Problem

Optimal will-call system is not present at 436 MDG Pharmacy, leading to unnecessary medication dispensing errors while increasing prescription processing times

Proposed Solution

GSL IntelliCab™ is an RFID-enabled will-call solution designed to streamline dispensing procedures, reducing (possibly eliminating) dispensing errors while reducing patient wait times

CURRENT

FUTURE

"Maj Kim's RFID prescription management solution not only streamlines the pharmacy process by saving more than 600 man hours a year, it also has patients in mind as it amplifies the safety and accountability of prescription medication."
-Maj Kevin Byram, Commander, 436th Comptroller Squadron

Restoring Night Fright: British team restores a C-47 to D-Day specifications

Charlie Walker, owner and project manager of the Night Fright C-47 restoration project, discusses the history and restoration of one of the most successful planes ever built with 1st Lt Steven Miller, 3d Airlift Squadron pilot. The C-47 Night Fright was stationed at RAF Membury and assigned to the 436th Troup Carrier Group, the ancestor of Dover's 436th Operations Group.

Leading through times of crisis

Col. Matthew Jones (436 AW/CC) and Col. Corey Simmons (60 AMW/CC), lifelong friends and colleagues, give their thoughts on leadership during times of crisis and how they have successfully led airmen through difficult times. They also discuss the profound impact personal and professional relationships have had on their Air Force careers.

A Pilot's Thoughts on Service & Innovation

Two Air Force reserve pilots talk service, side hustles and success. Major Packy Hill, former Chief Innovation Officer and Jason Depew, an Air Force reserve pilot and major U.S. airline captain discuss various topics from flying to innovation.

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