DEPARTMENT OF THE AIR FORCE
AIR EDUCATION AND TRAINING COMMAND

28 Nov 21

MEMORANDUM FOR DISTRIBUTION

FROM: HQ AETC/A9
       100 H Street East, Suite 11
       JBSA Randolph AFB TX 78150

SUBJECT: Minutes from the Quarterly AETC Innovation Summit (iSummit), 10 Nov 2021.

1. The quarterly AETC Innovation Summit was conducted virtually at Randolph AFB, TX on 10 Nov 2021 from 0930-1130. The theme for this event was Innovation Accelerators You Need to Know. Invitees included HQ AETC Directorates, NAF/NAF-E leadership, AFWERX, AFLCMC/Platform One and numerous AETC innovators. One-hundred-seventeen locations dialed-in with ranks/grades ranging from SSgt/GS-12 to Brig Gen.

2. The purpose of the iSummit was to advance collaboration by providing AETC Airmen at all levels a platform to share experiences on innovation activities and replicate successes stories, while identifying potential internal/external business partners as well as to discuss and counter obstacles to innovation.

3. Lt Gen Brad Webb (AETC/CC) provided crucial remarks, driving home key points on innovation and the Air Force's way forward. He mentioned he was proud of AETC efforts in all things innovation. He also re-emphasized Platform One's comments to empower Airmen to move forward with their great ideas and how important it is to push these those innovation efforts to implementation. In closing, Lt Gen Webb emphasized that losing is not an option if we want to meet Air Force strategic objectives and deter our near-peer competitors.

4. Experts from across AETC and other AF organizations provided the following presentations (full presentations are at Attachment 1):

    a. Resources, support and scaling opportunities available through AFWERX - Major Steve Lauver. Major Lauver introduced the AFWERX capability developments, discussing the four innovation strategies that AFWERX offers: AFVentures, SPARK, PRIME, and the AFWERX portfolio of capabilities. Finally, Major Lauver highlighted key strategic innovation partners they support, such as Beta Technologies thru Electric Aviation and Kitty Hawk Autonomy, as well as Medevac exercise programs.

    b. HQ AETC A6C support to innovators - Mr. Lewis Thornton. Mr. Thornton discussed the capabilities A6C brings to bear and how innovators can leverage the Innovation Pathfinder program. Their innovation support includes developing standard IT security related contracting language and the use of the Innovation Pathfinder program, which is a 2-Phase process that allows testing of innovative IT enhancements not yet approved for use by the DoD/AF.

    c. Platform One: a DoD-wide Path to accreditation of COTS or GOTS software via DevSecOps - Mr. Joey Arora. The presenter highlighted why the DoD continually falls behind its adversaries in software, and how using the DevSecOps platform provides software development while incorporating a security mindset. The approach of Platform One is to help Airmen solve Airmen's problems by helping users find functional solutions to their problems through empowerment and collaboration.

d. New Era in Training Evaluation - Mr. Ricky Collison. Mr. Collison described the current field evaluation process and how it measures training effectiveness, identifying notable issues that hinder the process. To combat this, Mr. Collison proposed several developments for training evaluation, such as incorporating field evaluation data collection into the training record system, which provides immediate data for analysis. These actions enable better identification of training requirements, eliminate survey software subscriptions and produce the data on demand needed to assess training effectiveness.

4. A question and answer session followed the formal presentations (Attachment 2).

5. Col Wegner (HQ AETC/A9 Director) thanked the presenters for their continued efforts to find innovative ways to improve the AETC mission. He stressed the innovation spirit exists in each one of the attendees and innovation is more than objects and technology; that is why it is important to communicate the roadblocks to innovation and to work with leadership to get those roadblocks removed. To that end, he encouraged attendees to go back to their units and share with them the useful resources they discovered at this iSummit.

6. Col Wegner closed by asking the participants to mark their calendars for the next iSummit, tentatively scheduled for 10 Feb 2022. He encouraged attendees and the recipients of these iSummit Minutes to fill out the iSummit feedback form found at the link below to help make the next iSummit even better: https://docs.google.com/forms/d/e/1FAIpQLSdfqm54nwkFU5QANd11z4qL-T_oK7y2vCiS_vhqbDAltruz_w/viewform?usp=sf_link.

7. My POC for the iSummit event is Mr. Greg O'Donnell (HQ AETC/A9A). If there are additional questions or requests for information, please contact him at aetc.a9a.workflow.2@us.af.mil.

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Date: 2021.11.28 13:44:09 -06'00'

THOMAS F. WEGNER, Colonel, USAF
Director, Analysis and Innovation

2 Attachments:
1. iSummit Slides
2. Question and Answer Session Summary

DISTRIBUTION:

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HQ AETC/CD
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HQ AETC/HO
HQ AETC/IA
HQ AETC/IG
HQ AETC/IP
HQ AETC/JA
HQ AETC/PA
HQ AETC/RF
HQ AETC/RS/HQ AETC/SB
HQ AETC/SE
HQ AETC/SG
Air University
2nd Air Force
19th Air Force
Air Force Recruiting Service
59 MDW
502 ABW
12 FTW
14 FTW
17 TRW
33 FW
37 TRW
47 FTW
49 WG
56 FW
58 SOW
71 FTW
80 FTW
81 TRW
82 TRW
97 AMW
314 AW
381 TRG
602 TRG
SWTW

HQ AETC
INNOVATION SUMMIT

Col Thomas F. Wegner
HQ AETC/A9
10 Nov 2021

1

THE FIRST COMMAND!

HQ AETC INNOVATION SUMMIT
Innovation Accelerators You Need to Know

TIME	ORGANIZATION(S)	SME	TOPIC
0930 - 0940	HQ AETC/A9	Col Wegner	Opening Remarks
0940 - 1005	AFWERX	Maj Lauver	Resources, support and scaling opportunities available through AFWERX
1005 - 1030	HQ AETC A3/6C	Mr. Lewis Thornton	The Pathfinder Process and resources/expertise A6C offers innovators
1030 – 1035	AETC/CC	Lt Gen Webb	Innovation Remarks
1035 - 1100	AFLCMC	Mr. Joey Arora	Platform One: a DoD-wide path to accreditation of COTS or GOTS software via DevSecOps
1100 - 1125	2 AF	Mr. Ricky Collison	Transitioning Field Evaluation Questionnaires for immediate evaluation
1125 - 1130	Facilitated Discussion	Col Wegner Mr. Greg O'Donnell	Closing Comments

2

THE FIRST COMMAND!

AFWERX

TECHNOLOGY | TALENT | TRANSITION

2021 iSummit Presentation

Maj Steve Lauver

3

Capability Development with AFWERX

EXPANDED TECHNOLOGY

AFVENTURES

EXPANDED TALENT

SPARK

AFWERX SBIR ★ STTR

EXPANDED TRANSITION

ACQ

AFWERX PRIME

VALLEY OF DEATH

EXPANDED PORTFOLIO OF CAPABILITIES

JADC2   Autonomy

Hypersonic   Adv Log   Swarm

AI   Quantum

GDP

AFWERX   4
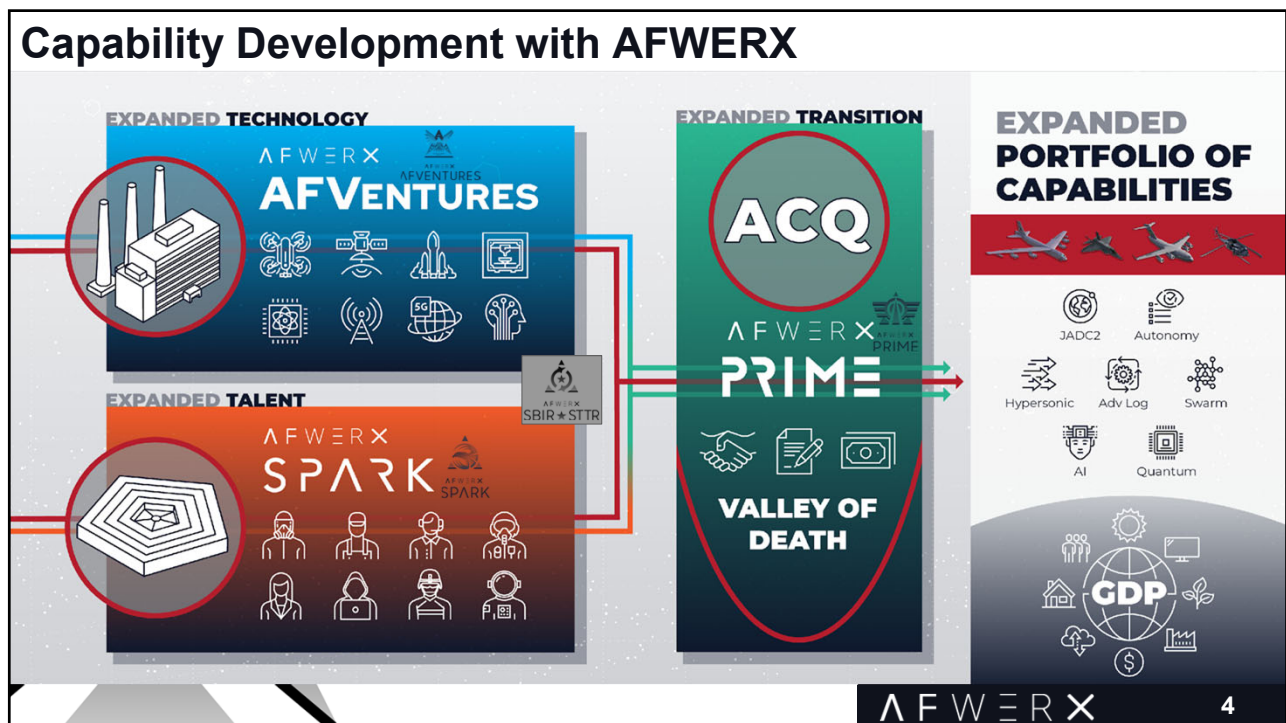
Spark Overview

MISSION: We relentlessly inspire and enable Airmen and Guardians to <u>unleash their potential</u> and to <u>drive capability development</u> that increases the efficiency, effectiveness and quality of life of the warfighter.

TAG LINE: Empowering Innovators, Accelerating Results

We do this by Connecting, Developing, and Supporting Airmen and Guardian Innovators

Network Branch (RGSC)

Specializes in promoting the expansion, connectivity, energy and culture of the innovation ecosystem

Development Branch (RGST)

Specializes in training and developing Airmen & Guardian Innovators through curriculum and experiences
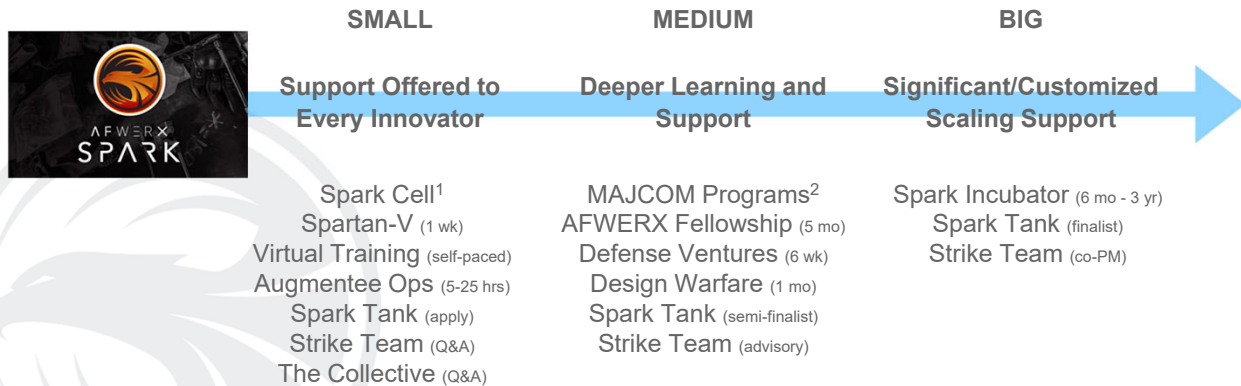
Innovation Catalyst Branch (RGSI)

Specializes in accelerating capability development through advocacy, advisement and support

ΛFWΞRX   5

A Pathway for Innovation to Scale

By making **progressively larger investments** in our Airmen & Guardian innovators as they show promise and demonstrate success, we mitigate risk, control costs, and increase the likelihood that truly disruptive innovators (and the capabilities they are creating) realize their full potential.

SMALL	MEDIUM	BIG
Support Offered to Every Innovator	**Deeper Learning and Support**	**Significant/Customized Scaling Support**
Spark Cell[1]	MAJCOM Programs[2]	Spark Incubator (6 mo - 3 yr)
Spartan-V (1 wk)	AFWERX Fellowship (5 mo)	Spark Tank (finalist)
Virtual Training (self-paced)	Defense Ventures (6 wk)	Strike Team (co-PM)
Augmentee Ops (5-25 hrs)	Design Warfare (1 mo)	
Spark Tank (apply)	Spark Tank (semi-finalist)	
Strike Team (Q&A)	Strike Team (advisory)	
The Collective (Q&A)		

[1] Items listed in one category are also available to all innovators in later categories (further right on the continuum)
[2] Variations across MAJCOM programs

ΛFWΞRX   6

Spark Programs

CONNECT

Spark Cells - base-level, Commander-owned, AFWERX-supported innovation cells

MAJCOM Cells - MAJCOM-level, Commander- owned, AFWERX-supported innovation cells

Colliders - scalable methods to pair industry providers with DAF customers and end-users

Augmentee Opportunities - large-scale efforts to empower decentralized government talent to solve hard DAF problems

DEVELOP

Fellowships - full-time experiential and curriculum-based innovation training:

- *Defense Ventures Fellowship* - 6-week, intensive immersion with startups and venture firms (~4/yr)
- *AFWERX Fellowship* - 5-month immersion with AFWERX (3/yr)

Internships - semester-aligned, experiential training that pairs AFROTC & USAFA cadets w/DAF innov. efforts (3/yr)

Innovation Training - virtual and in-person training for innovators:

- *Design Warfare* - 4-week, intensive design thinking training
- *Spartan-V* - 1-week version of D.W.

SUPPORT

Spark Tank - annual competition for Airmen/Guardian-generated efforts; elevates, celebrates & supports winners

Strike Team - dedicated AFWERX team to support innovators through consultation, advocacy, and support

Products & Tools - advocates for and develops best-in-class innovation tools

- *Vision* - DAF Innovation PM Platform and Connectivity Layer

Spark Incubator - DAF innovators with high-potential projects embed with AFWERX as they pursue their innovations (supported by AFWERX)
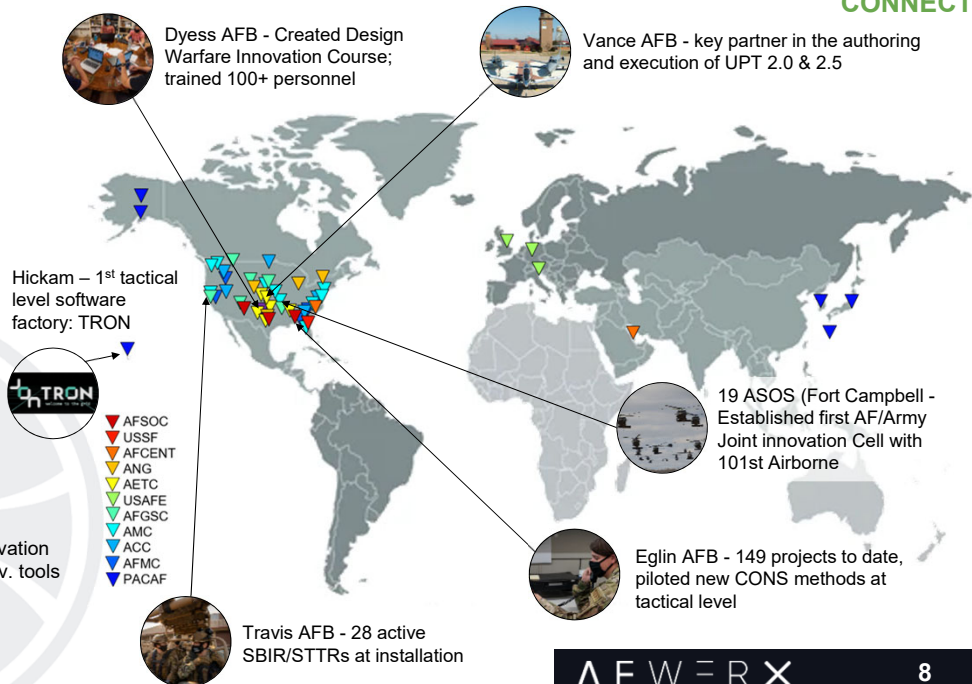
AFWERX **7**

Spark Cells

Common Characteristics:
- Commander owned
- Direct Report to Wg/CC
- MAJCOM aligned (objective)
- AFWERX supported
- Manage SIF for instillation
- Leverage SBIR/STTR
- FOC:
  - 1 lead (FGO/CIV/SEL)
  - 1 deputy (CGO/CIV/NCO)
  - 1-2 team (AMN/NCO)

AFWERX Role
- Connect the ecosystem
- Host training events
- Empower (versus own)
- Create common products
- Proliferate best-practices
- Support creation of new cells
- Advocate for grassroots innovation
- Support development of innov. tools

Dyess AFB - Created Design Warfare Innovation Course; trained 100+ personnel

Vance AFB - key partner in the authoring and execution of UPT 2.0 & 2.5

Hickam – 1st tactical level software factory: TRON

TRON

- AFSOC
- USSF
- AFCENT
- ANG
- AETC
- USAFE
- AFGSC
- AMC
- ACC
- AFMC
- PACAF

19 ASOS (Fort Campbell - Established first AF/Army Joint innovation Cell with 101st Airborne

Eglin AFB - 149 projects to date, piloted new CONS methods at tactical level

Travis AFB - 28 active SBIR/STTRs at installation

AFWERX **8**

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AFVENTURES
A DUAL-USE APPROACH
TO NATIONAL SECURITY SOLUTIONS

MISSION
Leverage commercial technology to deliver better capability to the warfighter, faster.
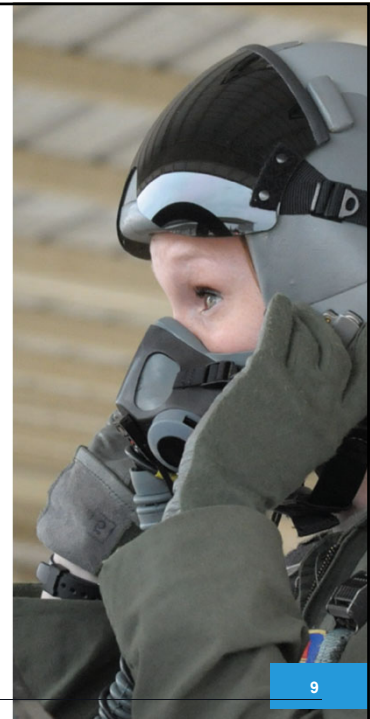
SIMPLICITY
An easy open door enables the Air Force to solve problems using existing & emerging commercial solutions

A NATIONAL APPROACH TO SECURITY
Incentivizes private capital investment in national security interests
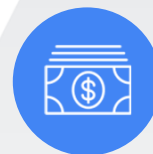
AFWERX
AFVENTURES

AFVentures at a Glance

MANY SMALL BETS (PHASE I)

▶ "Open door for innovation"
▶ Up to $50,000 per award
▶ 1000-1500 awards per year
▶ Three solicitations per year

SOME MEDIUM BETS (PHASE II)

▶ Up to $750K per initial award
▶ Matched funding encouraged
▶ 300-500 awards per year
▶ Live and virtual customer matchmaking

A FEW BIG BETS (TACFI/STRATFI)

▶ Annual Solicitation
▶ TACFI - $375K - $1.7M
▶ STRATFI - $3M - $15M
▶ Defense Only or Dual-Use Matching option

AFWERX
AFVENTURES   SBIR★STTR

Agility Prime Overview

WHAT - THIRD REVOLUTION IN AEROSPACE
Electric Vertical Takeoff and Landing (eVTOL)
Organic Resupply Bus (ORBs)
Coalescence of three technologies
1. **Electric:** Large electric power systems (auto industry)
2. **Autonomy:** AI/Autonomy/Simplified Vehicle Operations
3. **Manufacturing:** Advanced manufacturing and materials

WHY - ACCELERATE FIELDING OF EMERGING DUAL USE TECH
1. **Strategic:** Build domestic industrial base (est. $1.5T market)
2. **Process:** New transition paths (contracts, certification, budget)
3. **Product:** Field new air mobility in FY23 (20+ use cases)

HOW - COLLABORATIVE RISK REDUCTION
1. **Tech Risk:** Opportunities for collaborative test and eval
2. **Regulatory Risk:** Early military airworthiness review
3. **Financial Risk:** Contracts for testing and early use cases

IN JUST OVER A YEAR SINCE INCEPTION:
- **Industry:** 29 companies applied to air race
- **Airworthiness:** Four complete; Two in process
- **Contracts:** $100M+, 9 SBIR Phase 2s awarded, 220+ STTRs
- **Co-investment:** Over $1B in commercial investment
- **Training:** AETC Agility Prime detachment + simulators
- **Hardware:** Aircraft delivered to Springfield + charging station
- **Operations:** C-130J transport OH to TX + ACC Exercise Bushwacker
- **Demonstrations:** JROC, SecAF, CSAF, and CMSAF

WAY AHEAD

- **MAJCOM/CCMD Sponsors/Exercises**
- **Digital Engineering**
- **Airmen first flights**

FLIGHT DEMO FOR SECAF, CSAF & CMSAF NEAR DOWNTOWN AUSTIN

Engaged User Community:
- ACC
- AFMC
- AFGSC
- AFSOC
- AETC
- USMC
- USCG
- USA

Potential Missions:
- CSAR
- Distributed Logistics
- Emergency Response
- Base/Range Logistics
- Firefighting
- Dedicated Trainer

Engagement
- MAJCOM/CC briefs
- Business case analytics
- Concept and use case development

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Key Milestones

Beta Technologies -- Electric Aviation: continues to advance eVTOL technology with manned flight testing of their ALIA all electric aircraft and strategic installation of their vertiport charging stations across the Northeast US.

        Beta first manned electric aircraft flight airworthiness
           First charging station

Joby Aviation -- Batteries and Electric Infrastructure: leads the eVTOL industry with key technology contributions, increasing battery flight cycle, additive manufacturing, quiet propeller design and also investing in infrastructure to develop takeoff and landing sites in North America.

        Joby Batteries (2k - 10k cycles)
        Infrastructure Partnership

Kitty Hawk -- Autonomy and Medevac Exercise: matures and optimizes its Heaviside II prototypes with autonomous flight and demonstrating the first medical evacuation by an electric aircraft in a demonstration to the USAF.

        First exercise KH (AFRL article)

Lift Hexa -- JROC Urban Demo and C-130 Load: Lift Aircraft's Hexa all electric multicopter shows promise as a proving ground for key eVTOL enabling technologies including autonomy development, hybrid electric propulsion, and a variety of cargo or emitter payloads for operations.

        LIFT demonstration JROC (AFRL)
        C-130 Load of LIFT Hexa

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Questions

AFWERX

A6C SUPPORT TO INNOVATORS

Mr. Lewis Thornton, GS-13
Mr. Dennis Hawn, CTR
HQ AETC/A6C
10 Nov 2021

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Talking Points

- What is Agency IT
- Lifecycle Management and IT Ownership
- A6C Support to Innovators
- What is Innovation Pathfinder
- Sample of Innovations within Innovation Pathfinder
- Innovation Pathfinder Risk Endorsement Form
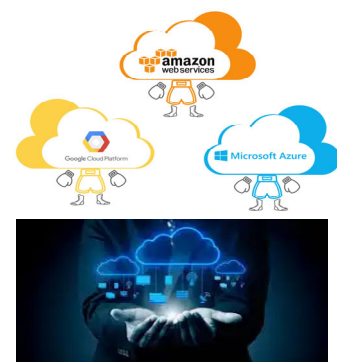- Additional Resources

What is Agency IT?

Hardware	Software	Cloud Services

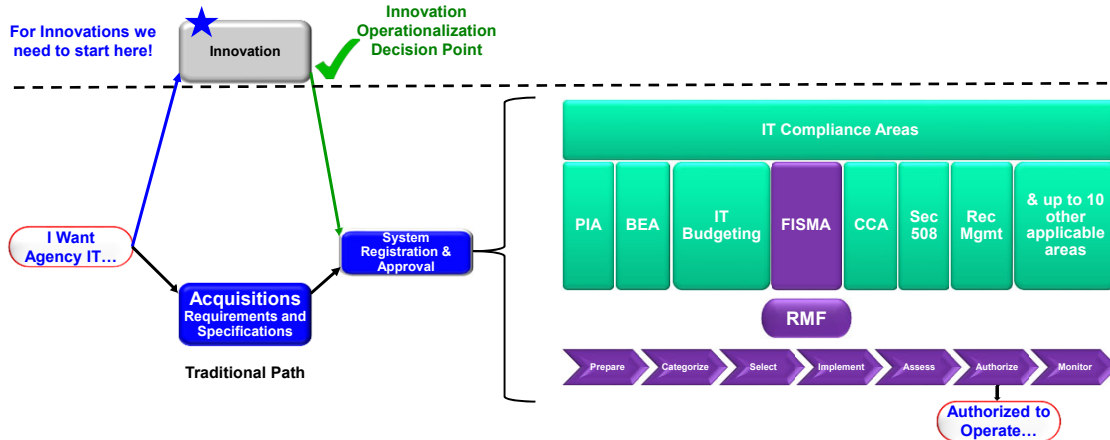**All IT that receives, processes, stores, displays, or transmits DoD information or supports a DoD/AF mission**

Lifecycle Management & IT Ownership

Operationalized Innovations Require Information System Ownership & IT Compliance Responsibilities

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A6C Support to Innovators

U.S. AIR FORCE

- **Supported A9A with Blanket Ordering Agreement (BOA) Development**
- **Developed Standard IT Security Related Contracting Language (PWS)**
  - **Risk Management Framework (RMF) i.e. ATO Development**
  - **Info Sys Security Officer (ISSO) / Info Sys Security Manager (ISSM)**
  - **Training and Certification Requirements (DoD 8570.1M)**
  - **Software Development Requirements**
  - **Cloud Computing Requirements**
  - **IT Program Management Support**
- **Developed Innovation Pathfinder Process**
  - **Recruit Train and Educate (RT&E) Authorizing Official (AO) endorsed process**
  - **2-Phase process to allow testing of innovations/innovative IT enhancements**
  - **New or emerging IT that is not yet approved for use by DoD/AF**
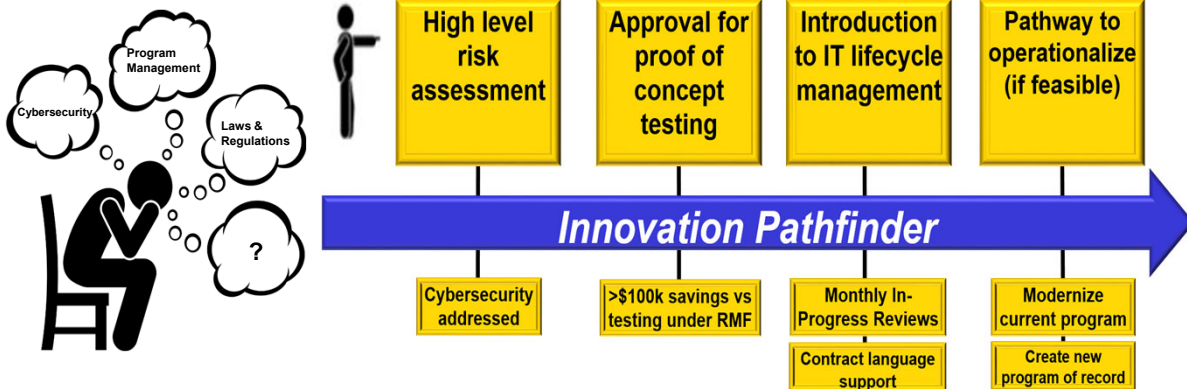 - **Associated costs are less than $200K**

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Innovation Pathfinder

High level risk assessment	Approval for proof of concept testing	Introduction to IT lifecycle management	Pathway to operationalize (if feasible)

Innovation Pathfinder

Cybersecurity addressed	>$100k savings vs testing under RMF	Monthly In-Progress Reviews	Modernize current program
		Contract language support	Create new program of record

Use of Operational Data Requires Approval from AETC DCOM (RT&E AO)

Sample Innovations Within Innovation Pathfinder

Classroom Collaboration Tools

AR/VR Solutions

Cloud Hosted Solutions

Innovation Pathfinder Risk Endosement Form

(Slide showing the AETC IT Innovation Pathfinder Proof-of-Concept Endorsement form, pages 1-3, Version 2.1)

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Innovation Pathfinder Additional Resources

Innovation Pathfinder – Helping innovators find the best path forward
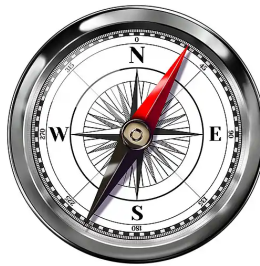
Additional Information

SharePoint URL

Innovation\Pathfinder Process

Innovation Pathfinder BBP

Innovation\Pathfinder Proof of Concept Endorsement Form

Points of Contact			
Team Lead	Mr. Lewis Thornton	210-652-7101 (DSN: 487-7101)	morris.thornton.2@us.af.mil
Team Member	Mr. Dennis Hawn (Ctr)	210-652-1312 (DSN: 487-1312)	dennis.hawn.ctr@us.af.mil
Team Org Box	AETC/A6CR Innov-Path Workflow	N/A	AETC.A6CR.Innov-PathWorkflow@us.af.mil

THE FIRST COMMAND!

QUESTIONS

PLATFORM ONE

Platform One

A DoD-wide Path to Accreditation of COTS or GOTS software via DevSecOps

November 2021

DoD Continually Falls Behind Adversaries in Software
Yet… **all** modern DoD systems including weapon systems are **software**-intensive systems

Build → Learn → Build … **takes too long**…

Fielding **simplest, useful function**	3 – 5 yrs
Testing complete system against side-effects	2 yrs
Testing cybersecurity via audit/penetration	2 yrs
Fielding **high priority** function	1 – 5 yrs
Fixing **security** holes	1 – 18 mos
Publishing software to use	1 – 18 mos

Months | Years

*Standish Group CHAOS report

…and we **still fail**

94%
Failed projects
over $10M*

43%
Utter and
Complete
Failures

51%
Failed Expectations
Over Budget
Behind Schedule

Yet… **all** modern DoD systems including weapon systems are **software**-intensive systems

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What is DevSecOps?

Human-Centered Design

Agile / Lean

Commodity IT / Cloud

DevSecOps

- **Continuous** software development with ops/sustainment w/security throughout
- Driven by the convergence of:
  - **Human-Centered Design** (HCD): a humanistic way to learn and work
  - **Commodity IT**: cheap, ubiquitous infrastructure = low-barrier of entry
  - **Agile**: *learning fast* to find solutions for complex/ill-defined challenges

Sec

CODE · PLAN · BUILD · **Dev** · RELEASE · TEST

DEPLOY · **Ops** · OPERATE · MONITOR

Agile Private Sector vs. Waterfall DoD

| Metric	Private Sector (SpaceX)	DoD (F-35)
Vehicles	9	1 (with several variants)
Developers	200	4,000
Code Reuse Rate (Vehicles/Platforms)	80%	5%
Software Update Time	Day prior to launch	7 years (on average)
Software Builds (Daily)	17,000	Not capable today
Hardware-in-the-Loop (HIL) Tests (Daily)	3	Not capable today
Technology Used	Containers	GOTS and closed IP from Primes

Accelerate Solutions with **DevSecOps**

Build → Learn → Build → *Win*

Hours / Days
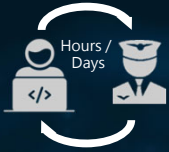
Bring developers and operators together...

DevSecOps

...with trusted leading edge technology

- Apps written and operated on Platform One
- Coordinated **100** crew members on **25** C-17s, **10** KC-10s, **18** commercial planes
- Evacuated **124,000** noncombatants from Afghanistan

"The massive inflow of information and coordination issues could not have been managed without the collaboration capabilities provided by Mattermost."   — Afghan Ops Theater Direct Delivery section

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Platform One: Why, How, What

MISSION
Guide, empower, equip, and **accelerate** DoD program offices and weapon system through their **DevSecOps** journeys

VISION
Fundamentally **transform** how the **DoD** delivers secure software at speed through DevSecOps **culture, process**, and **technology**

Mission Apps

DevSecOps Platforms — LEVELUP CODE WORKS — BLACK LABEL

DevSecOps Capabilities

Infrastructure — CLOUD ONE — AWS — Azure

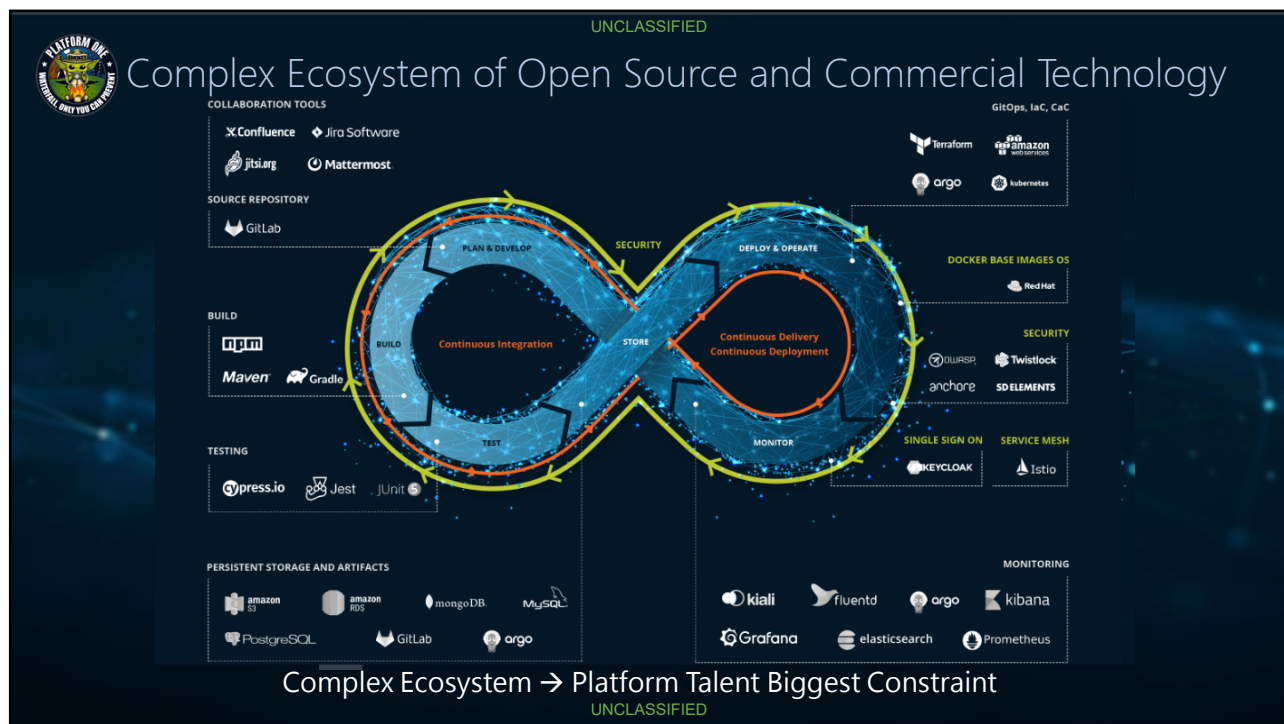| Secure & Connect Users	Harden & Store Components	Build & Deploy Platforms	Code & Operate Apps
CNAP	IRON BANK	PLATFORM ONE BIG BANG	Party Bus
Cloud Native Access Point provides **zero-trust security** for development, test, and production enclaves	DoD repository of **hardened binary container images** approved for DoD-wide use across enclaves	**Infrastructure as Code (IaC)** and **Configuration as Code (CaC)** deployable to cloud or on-premise infrastructures	DevSecOps Platform-as-a-Service at IL-2 to IL-4 accredited and managed by Platform One

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Complex Ecosystem of Open Source and Commercial Technology

COLLABORATION TOOLS
Confluence · Jira Software
jitsi.org · Mattermost

GitOps, IaC, CaC
Terraform · amazon web services
argo · kubernetes

SOURCE REPOSITORY
GitLab

BUILD
npm
Maven · Gradle

TESTING
Cypress.io · Jest · JUnit

PLAN & DEVELOP · SECURITY · DEPLOY & OPERATE
BUILD · Continuous Integration · STORE · Continuous Delivery Continuous Deployment
TEST · MONITOR

DOCKER BASE IMAGES OS
Red Hat

SECURITY
OWASP · Twistlock
anchore · SD ELEMENTS

SINGLE SIGN ON
KEYCLOAK

SERVICE MESH
Istio

PERSISTENT STORAGE AND ARTIFACTS
amazon S3 · amazon RDS · mongoDB · MySQL
PostgreSQL · GitLab · argo

MONITORING
kiali · fluentd · argo · kibana
Grafana · elasticsearch · Prometheus

Complex Ecosystem → Platform Talent Biggest Constraint

By the Numbers
As of September 2021

Collaboration Tools
28,268 Daily Users

CNAP

 # Connected Devices / Apps
- IL2 - **284,300**
- IL4 - **114,771**
- IL5 - **510**

861 Containers Hosted

230
P1 Personnel
14 military, 12 civilian
12 A&AS, 4 FFRDC
188 Vendors

PLATFORM ONE BIG BANG
15 Deployed Platforms

Air Force + Army + Navy + Joint Customers
- Ground-Based Strategic Deterrent
- Unified Platform, Black Label
- Global Positioning System OCX
- Edge ONE
- Weapon ONE
- 76th Software Engineering Group
- U2 Federal Labs
- Advanced Battle Mgt System
- Army INSCOM
- Navy COLUMBIA Sub Program
- Navy Black Pearl
- F-35 Joint Program Office
- Joint Artificial Intelligence Center
- NCCT

34 average times P1 publishes software updates per day

ABMS ADCE Party Bus PLATFORM ONE

2,808 Customer App Developers
27 Average Days for Certificate to Field
192 Customer App Teams
55 Customer Production Apps

16

Platform One: **Airmen** Solving **Airmen's** Problems
...because the Status Quo is Not OK

[**Agile Speed** + **Leading Edge Tech** + **Innovative Acquisitions**] ✕ **Culture**

Value diversity through **inclusion** means appreciating unique characteristics of **people, ideas, and solutions.**

Empathize with our **users** and solve their challenges by **delivering** actual, **functional solutions**

Nourish **open, safe, candid** discussions to invite and celebrate **collaboration** at all levels

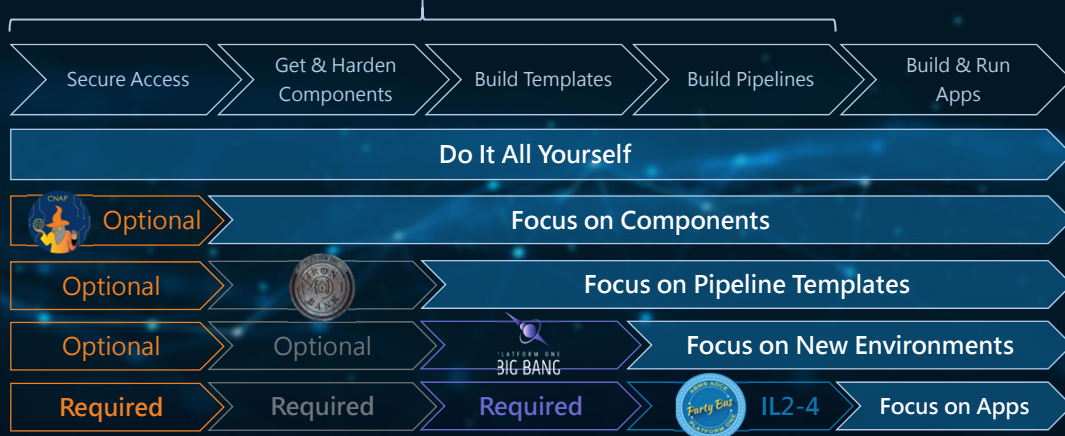**Empower individuals and teams** with the trust to be make decisions and be accountable

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DevSecOps **Options** for the Organization

Changes requires organization to get their own authority to operate or certificate to field

Higher Control
Higher Cost
Lower Focus

| Secure Access | Get & Harden Components | Build Templates | Build Pipelines | Build & Run Apps |

Do It All Yourself

Optional — **Focus on Components**

Optional — **Focus on Pipeline Templates**

Optional — Optional — **Focus on New Environments** — BIG BANG

Required — Required — Required — IL2-4 — **Focus on Apps**

Lower Control
Lower Cost
Higher Focus

1. Start one or a combination of options that gets your apps to your users that quickest
2. Evolve to other options as your needs grow, talent matures, and/or funding increases

Tailor Options and Contribute to the DoD Open Source

Changes requires organization to get their own authority to operate or certificate to field

Higher Control
Higher Cost
Lower Focus

| Secure Access | Get & Harden Components | Build Templates | Build Pipelines | Build & Run Apps |

Use your own identity/access mgt, pull from Iron Bank, deploy own Big Bang instance

Optional + Contribute new components, deploy own Big Bang instance

Optional + Contribute new templates or add-ons

Optional Optional + Deploy to new environments

Required Required **Required** IL2-4 **Build & Run Apps**

Lower Control
Lower Cost
Higher Focus

- Pick and choose what exists, add anything else, get your own ATO and CTF
- Core changes to CNAP, IB, or BB will affect everyone and is subject to P1 approval

UNCLASSIFIED

UNCLASSIFIED

DevSecOps Options for the Organization

Changes requires organization to get their own authority to operate or certificate to field

Higher Control
Higher Cost
Lower Focus

| Secure Access | Get & Harden Components | Build Templates | Build Pipelines | Build & Run Apps |

Do It All Yourself

Optional **Focus on Components**

Optional **Focus on Pipeline Templates**

Optional Optional **Focus on New Environments**

Required Required **Required** IL2-4 **Focus on Apps**

Lower Control
Lower Cost
Higher Focus

1. Start one or a combination of options that gets your apps to your users that quickest
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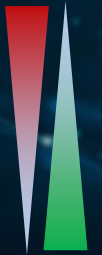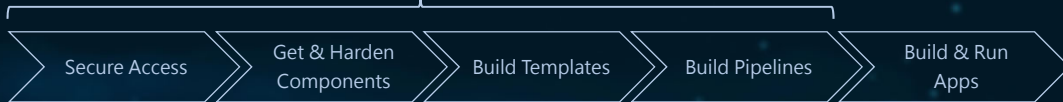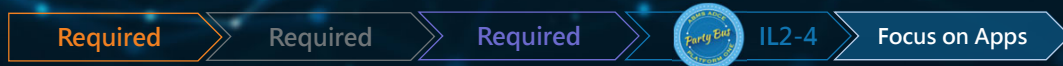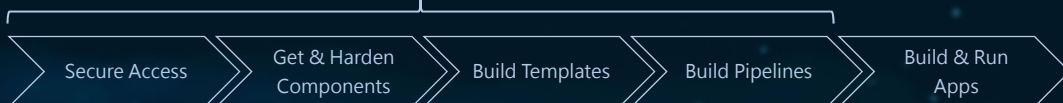
UNCLASSIFIED

DevSecOps **Options** for the Organization

Changes requires organization to get their own authority to operate or certificate to field

Higher Control
Higher Cost
Lower Focus

| Secure Access | Get & Harden Components | Build Templates | Build Pipelines | Build & Run Apps |

1. This option requires you to have Govt Funding and adhere to Platform One Standards
2. Connect with our Customer Success team at PlatformOne@afwerxpartner.com

Lower Control
Lower Cost
Higher Focus

| Required | Required | Required | IL2-4 | Focus on Apps |

Tailor **Options** and Contribute to the DoD Open Source

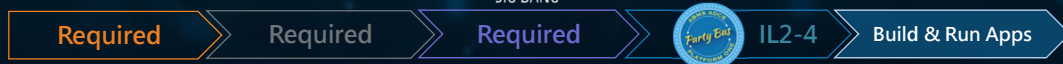Changes requires organization to get their own authority to operate or certificate to field
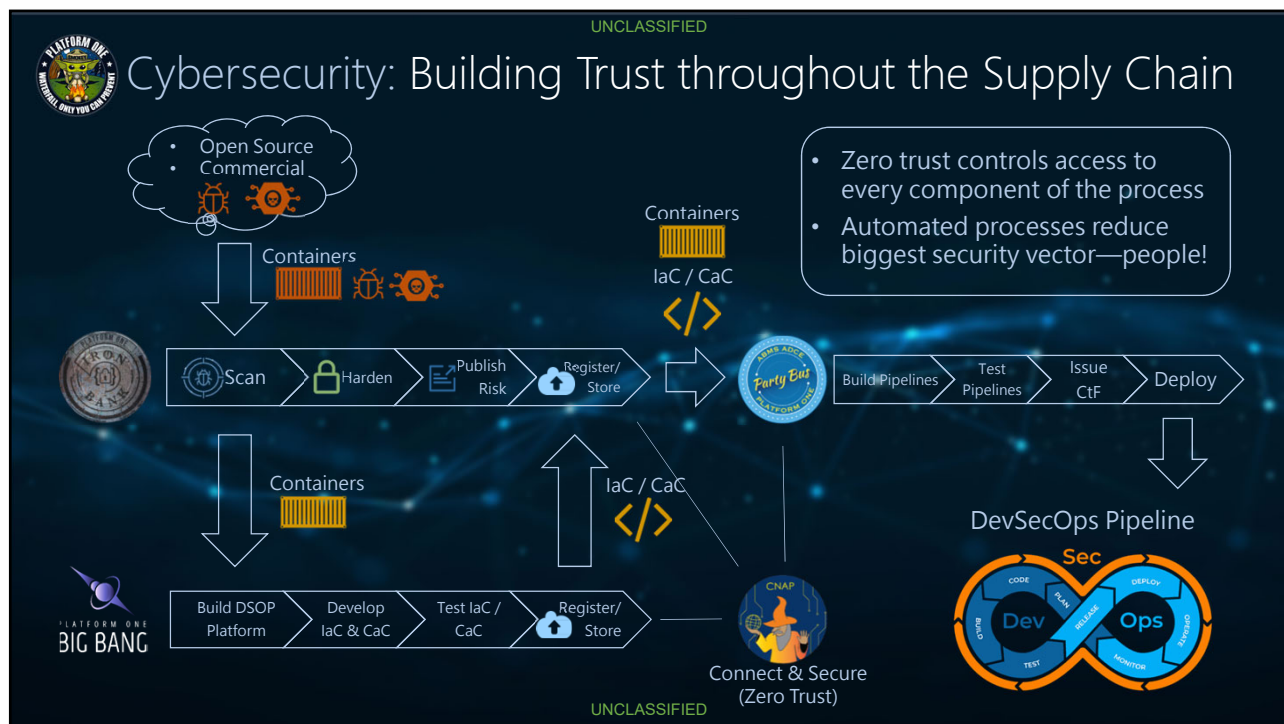
Higher Control
Higher Cost
Lower Focus

| Secure Access | Get & Harden Components | Build Templates | Build Pipelines | Build & Run Apps |

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Optional	+ Contribute new components, deploy own Big Bang instance
Optional	+ Contribute new templates or add-ons
Optional	Optional	BIG BANG	+ Deploy to new environments
Required	Required	Required	IL2-4	Build & Run Apps

Lower Control
Lower Cost
Higher Focus

- Pick and choose what exists, add anything else, get your own ATO and CTF
- Core changes to CNAP, IB, or BB will affect everyone and is subject to P1 approval

Cybersecurity: Building Trust throughout the Supply Chain

Questions?   Comments?

New Era in Training Evaluation

GS-13 Ricky Collison
2 AF/A3OS
10 Nov 2021

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Overview

- **Current Field Evaluations**
- **Issues**
- **Proposed Process**
- **Pros & Cons**

Current Field Evaluation

- **Graduate performance in workplace; measure of training effectiveness.**
- **Field Evaluation Questionnaire predominate tool.**
    - **Tasks to be surveyed coordinated between multiple stakeholders.**
    - **Tasks and graduate data from OTA uploaded into homegrown database.**
    - **Database constructs and sends survey links via email to unit training managers.**
    - **Unit training managers identify and distribute to field supervisors.**
    - **Supervisors respond to online survey.**
    - **Training evaluators follow up with unit training managers for sufficient replies.**
    - **Unit training managers encourage field supervisors to complete surveys.**
    - **The database creates standard analysis report utilized by training evaluators.**
    - **Training evaluators synthesize data into summary reports distributed to stakeholders.**
    - **One course field evaluation project averages 3-4 months.**
    - **Process repeated for a minimum of 250+ initial skill and mandatory 7-level courses.**

Issues

- **Project timelines are lengthy.**
- **Survey questions up to 200+.**
- **Personnel changes during assessment period.**
- **Performance witnessed by multiple assessors.**
- **Multiple follow ups to gain statistical relevance.**
- **Manual graduate data transfer between systems.**
- **Constant updates to unit training manager POCs.**
- **Unit training managers unaware of responsibility.**
- **Negative sentiment towards surveys influences bias.**
- **Airmen's time lost when statistical confidence is not met.**

Proposed Process

- **Incorporate field evaluation data collection into training record system.**
    - **Tasks certified in the field and trained in schoolhouse triggers system request for graduate's initial performance level based on recent observation.**
    - **Training record system provides a means for assessor comments.**
    - **Training record system role established for training group evaluators to mine data.**
    - **Data immediately available for analysis.**

Pros & Cons

- **Pros.**
    - **Data on demand.**
    - **Return Airmen's time.**
    - **Better assess training requirements.**
    - **Eliminate 250+ field evaluation surveys.**
    - **Lengthy survey reduced to minute moments.**
    - **Elimination subscription for survey software.**
    - **Elimination of support for homegrown database system.**
    - **Accuracy of task assessment through recency of observation.**
    - **Eliminate maintenance of AF-wide unit training manager POC list.**
    - **Data accuracy increased through actual observer's assessment of performance.**
- **Cons.**
    - **Initial investment for functionality.**

Conclusion

■ **CONCLUSION:**

- ■ **We need to take advantage of emerging systems.**
- ■ **We need to reduce our footprint on field organizations.**
- ■ **We need a better, more responsive gauge to increase the quality of training evaluations and quality of graduates.**

U.S. AIR FORCE

Questions?

HQ AETC Innovation Summit Discussion

AETC's All Partners Access Network (APAN):
https://community.apan.org/wg/aetc/

HQ AETC Innovation Dashboard:
https://datastudio.google.com/reporting/bceedd1c-7abf-4016-a58f-0a75b6fd9d0c/page/CVyuB

A9 Contact:
aetc.A9A.workflow.2@us.af.mil

Innovation Summit Feedback

Please take a few minutes to use the link below (or in the chat box) to provide us feedback on this iSummit. This will help us make future events even better!

https://docs.google.com/forms/d/e/1FAIpQLSdfqm54nwkFU5QANd11z4qL-T_oK7y2vCiS_vhqbDAltruz_w/viewform?usp=sf_link

HQ AETC Innovation Summit

U.S. AIR FORCE

Closing Remarks

HQ AETC/A9
Col Wegner

Next iSummit: Tentatively Scheduled
10 Feb 2022/0930-1130

THE FIRST COMMAND!

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Attachment 2
Question and Answer Session Summary

<u>**AFWERX: Resources, support and scaling opportunities available through AFWERX**</u>

Question: Mr. Wiley Hill (HQ AETC A6) - How does AFWERX get involved in the innovation process regarding the speed of the innovation, or does this default to someone else regarding the speed of the innovation?
Answer: Maj Steven Lauver - The investments needed and/or scaling required for the project (to include the size of the innovation), will determine if AFWERX gets involved and will impact the speed of innovation.

Question: Mr. Matthew Correia (Eaker Center) - Can an innovator (i.e., me) proceed through the AFWERX process to solicit small businesses for potential solutions?
Answer: We can review your request through AFWERX, then push the submission to independent organizations that might be able to help with your innovation solution set.

Question: Ms. Julie Cantwell (517 TRG) - Can a project be selected but not funded for Phase II and still use Phase III money (the organization's own funds) to continue development for STRATFI or TACFFI?
Answer: Currently there are no instructions for this situation, but we're looking to push these out at the beginning of next year.

Question: TSgt Jorge Grullon-Rodriguez (HQ AETC A9/A9A) - Where can an Airman go to get more information on AFWERX?
Answer: We recently established this website http://afwerx.com (responsive and up to date), but we still have http://afwerx.af.mil (military centric) that you might find useful.

<u>**HQ AETC A3/6: The Pathfinder Process and resources/expertise A6C offers innovators**</u>

Question: Mr. Matthew Correia (Eaker Center) - Can your office assist in getting software, applications, and/or user licenses for innovation prototype testing?
Answer: Contact us, but we are not the approval authority to purchase; that will come from your organization. Once you have an innovation you want to test, we can provide assistance to allow that testing to occur.

Question: Maj Philip Geddes (25 OSS) - Is there an "Innovation Pathfinder" equivalent at Air Combat Command?
Answer: Not that I'm aware of, but you can reach out to us to see if we can support, or we will help route you to the appropriate office.

Question: Capt Charles Ruffin (13 DOS) - I'm a Guardian. We don't have a NAF. Is there a similar process to support Guardians?
Answer: Not that I'm aware of, but you can reach out to us to see if we can support, or we will help route you to the appropriate office.

Question: Col Wegner (HQ AETC A9) - When should an innovator reach out to A3/6 to start the process to get their innovation an ATO so it can access the AFNET?
Answer: The sooner you talk to AETC A6, the sooner A6 can help you with your innovation design and ATO establishment.

Question: Capt Rock Reid (Luke AFB) - Could you please give an example of a project you've helped innovators with?
Answer: 365 TRS (Sheppard AFB) had a tablet solution to share information in the classroom. We helped them through the process, what they needed for project management support, and assisted with authorizations to move forward with project.

Question: Capt Rock Reid (Luke AFB) - When should we approach you?
Answer: If you are ready to move from concept to operationalize, then you should talk to us immediately. If you are using sensitive information for your project, please also contact us immediately.

Question: Mr. Roger Kovacs (336 TRS) - How does one get authority to create a sandbox for off-net development/test efforts?
Answer: If you are looking for approval for physical hardware, submit an Innovation Pathfinder Proof of Concept Endorsement form. If you are looking for approval for a cloud solution, contact Platform One or Cloud One as both have sandbox capabilities.

AFLCMC: Platform One: a DoD-wide path to accreditation of COTS or GOTS software via DevSecOps

Question: TSgt Jorge Grullon-Rodriguez (HQ AETC A9/A9A) - Can an Airman use Platform One to prototype applications?
Answer: We can help an Airman in a development environment, where we have about 50 licenses and can help with development space with regard to cost and Platform One requirements.

Question: TSgt Jorge Grullon-Rodriguez (HQ AETC A9/A9A) - Can On-Base Legacy systems send data to Platform One Cloud Systems?
Answer: Data sharing is not allowed from the party-bus environment; we don't allow outside connections to our environment.

Question: TSgt Jorge Grullon-Rodriguez (HQ AETC A9/A9A) - What type of coding languages or platforms do you recommend Airmen be familiar with in order to have a smooth transition into Platform One?
Answer: Some examples would be modern coding language, and we recommend visiting Digital University as they offer a good coding language baseline.

Question: TSgt Michael Bridges (HQ AETC A9/A9A) - Innovation is an important step in any creative cycle. How can we protect both the innovator and the Air Force as it pertains to ownership rights of intellectual property? This is especially critical when developing software and its evolutionary life cycle.
Answer: Is there something you want to develop for an Air Force environment or is there something you are doing on your own? We would need to know which to decide where we can help you in this matter.

Question: TSgt Justin Foster (37 TRSS) - What are the costs involved for developing/hosting proof of concept (not production) applications? Is Platform One viable for use at an 'airman solving airman problems' level to develop and demo a software solution before units are willing to spend any significant amount of money?
Answer: We enable Airman to do that by offering 50 Platform One licenses that may help. Show us your proof of concept and we can rotate licenses to your organization as needed.

Question: Mr. Richards Clayton (HQ AETC A9/SAS) - Can contractors leverage some of those 50 Platform One licenses?
Answer: It depends on the requirements and what you are doing with them in support of AETC requirements.

2nd Air Force: Transitioning Field Evaluation Questionnaires for immediate evaluation

Question: Matthew Correia (Eaker Center) - Your proposed process is well overdue! Using an OJT certification process is the most obvious way to meet your goal. Is OJT certification digitalized in a way that supervisors can record the task and job certification on a tablet/smartphone?
Answer: That would be designed into the new system, although I'm not sure of all the requirements. They are still building the program.

Question: MSgt James Heffron (USSF/Delta 3) - Will this requirement be required for all the UGT (upgrade training) systems that are used in both the Air Force and Space Force as some AFSCs may not be moving to TAFT 2.0? If not, how will you get that data?
Answer: I'm not sure of all the current requirements. The Air Force wants a single system and I believe Space Force should be included.

Question: Ms. Rhonda Battles (59 TRG) - Will all Training Groups have access to extract the data from the proposed platform, regardless of location or host installation IT support? Currently, we operate from an Army installation and some of the Legacy systems currently used are not accessible. As a result, we pay for an independent survey platform.
Answer: I would hope accessibility will be the same for all Air Force units with cross-network functionality across all systems.