

ON ORBIT

PROJECT MERCURY 2024

PART OF THE INTELLECTUAL EDGE ALLIANCE



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PROJECT MERCURY AT A GLANCE

13
COHORTS



30
WORKSHOPS



451
CPIs (AS OF AUGUST 2024)



Cadet: 1%
Contractor: 1%
E1-E5: 5%
E6-E9: 27%
O-1 to O-3: 11%
O-4 to O-6: 35%
Civ (GS 6-15, NH, GG): 20%

PARTICIPATING SERVICES (AS OF AUG 2024)

USAF: 86%
USSF: 4%
USArmy: 1%
USNavy: 1%
USMarine: 1%
NATO Allies: 3%
Civil Air Patrol: 2%
OPM: 1%
ANG: 1%

WELCOME: A DISPATCH FROM MISSION CONTROL

5 years ago, Gen Hecker, then president and commander of Air University, asked his team to partner with the Innovatrium and Dr. Jeff DeGraff at the University of Michigan to develop and deliver a world-class innovation education program. Together they built an innovation education program that was focused on building innovation readiness—developing innovators who shape culture, competencies, and community across the Department of the Air Force and beyond. Like RED FLAG, the concept was to give Airmen their first “10 innovation sorties” through twin tracks of academics and student-led projects.

13 Cohorts later, the Project Mercury program has produced **nearly 450** Certified Professional Innovators and over **60** Innovation Coaches. While the original goal was to unlock the true potential of our Total Force Airmen, the program has smashed that original goal, and now includes members of the Space Force, Army, Navy, Marines, Office of Personnel Management, and multiple allied countries. Those diverse cohorts have, in turn, inspired spin-off programs for the U.S. National Guard, the Republic of Singapore, and now the first specialized Project Mercury-NATO Cohort.

Project Mercury has also delivered **30** short interactive workshops over the past three years, from Osan to AFCENT, helping over **1,000** participants adopt creative practices. For instance, the U.S. Test Pilot School at Edwards AFB recently utilized this curriculum for week 1 of their training in order to drive innovation and new thinking in their test community. In Europe, our Polish Allies hosted a Project Mercury workshop titled “Innovators on the Eastern Flank,” gathering over 100 people from 14 countries. These 3 day workshops pack a punch!

Our coaches and alumni have also included these principles into the curriculum at ACSC, USAFA, SNCOA, ROTC, FTAC, CLC, and ASLDS just to name a few. Our alumni carry

the adaptive mindset into their work throughout the DoD, from the Pentagon to the maintenance squadron, and are supported by a healthy alumni network.

With our courses growing to include members of the Army, Navy, Marines, Allied Partners and other government agencies, we are transitioning to a new model of sustainment. Whereas Air University, through annual congressional inserts and end of year funding, has supported these first 13 cohorts, in the future this financial support will be a combined effort, reflecting multiple stakeholders across the innovation ecosystem.

Project Mercury has already successfully experimented with several examples of these stakeholder-specific Cohorts. For example, for the past three years, the Republic of Singapore Air Force has partnered with the Innovatrium for a version of Project Mercury that is adapted both in pace and cultural nuance for this Air Force – and more recently the broader Singapore joint force – participants. In the United States, ARCWERX sponsors a partner program to Project Mercury, AIM-HI, which also results in the same Certified Professional Innovator credential that alumni of Project Mercury receive. Most recently the NATO alumni of Project Mercury took their experiences to scale by sponsoring a Cohort, Workshop, and upcoming Conference under the Project Mercury-NATO (PM@NATO) umbrella.

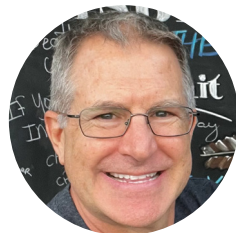
Our people are our most important resource. If they are going to be able to adapt rapidly to a changing battlefield, then we need to provide them with the training, tools, and time to build skills and develop teams and networks—prepared and ready to make a difference when it counts most. We here at Project Mercury are proud to be part of this effort, and will continue to partner with organizations and leaders who share our passion.

With Courage,



J. Dryjanski

James Dryjanski
Col (ret) USAF
Project Mercury Director
2019-2024



J. Barnes II

Johnny Barnes
Col (ret) USAF
Intellectual Edge Alliance
AIM-HI
PM Workshops



W. Ethan Eagle

W. Ethan Eagle
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M. Smith

Melissa “Cleo” Smith
LtCol (Ret), USAF
DICL (Singapore)
Project Mercury@NATO
AIM-HI

THE INTELLECTUAL EDGE ALLIANCE (IEA) COHORTS 2019-2024



5 Years ago, Project Mercury was formed under a partnership between the Innovatrium and Air University and guided by the leadership of Gen James Hecker, the Commander and President of Air University at the time. Since that time, alumni of Project Mercury have carried the torch of innovation back to their units and organizations, some of whom built customized programs of their own such as ARCWERX's AIM-HI program, Singapore's Disruptive Intrapreneurship and Change Leadership Program, or NATO's inaugural innovation cohort.

*Sponsored by Air University

2020	PM Cohort 1	Maxwell AFB, AL
2020	PM Cohort 2	Virtual
2020	PM Cohort 3	Virtual
2021	PM Cohort 4	Virtual
2021	PM Cohort 5	Virtual
2022	PM Cohort 6	Virtual
2022	PM Cohort 7	Virtual
2022	PM Cohort 8	Virtual
2023	PM Cohort 9	BRICC, Arlington VA
2023	PM Cohort 10	MGMWex, Montgomery, AL
2023	PM Cohort 11	The KRESS, Montgomery, AL
2024	PM Cohort 12	NSIN JIL, Crystal City, VA
2024	PM Cohort 13	NSIN JIL, Crystal City, VA



Affiliated Cohorts of Project Mercury, Sponsored by Other Military Organizations:

2021	AIM-HI Cohort 1	<ul style="list-style-type: none"> Innovatrium, Ann Arbor, MI Selfridge Air National Guard Base, Harrison Twp, MI Haworth, Washington, DC
2022	AIM-HI Cohort 2	<ul style="list-style-type: none"> ARCWERX, Tucson, AZ Innovatrium, Ann Arbor, MI Hap Arnold Innovation Center, March Air Reserve Base, CA
2022	AIM-HI Cohort 3	<ul style="list-style-type: none"> ARCWERX, Tucson, AZ Innovatrium, Ann Arbor, MI Selfridge Air National Guard Base, Harrison Twp, MI
2023	AIM-HI Cohort 4	<ul style="list-style-type: none"> Duke University Virtual SOFWERX, Tampa, FL
2023	AIM-HI Cohort 5	<ul style="list-style-type: none"> Wright Brothers Institute, Dayton, OH Innovatrium, Ann Arbor, MI Selfridge Air National Guard Base, Harrison Twp, MI
2024	AIM-HI Cohort 6	<ul style="list-style-type: none"> Southwest Mission Accelerator Center (SWMAC), Phoenix, AZ The Eagle Institute, Montgomery, AL Haworth, Washington, DC
2020	RSAF Cohort 1	Virtual
2021	RSAF Cohort 2	Virtual
2022	RSAF Cohort 3	Singapore
2023	RSAF Cohort 4	Singapore
2024	DICL Cohort 1	Singapore (Command and Staff College)
2024	PM-NATO Cohort 1	Ramstein AB, Germany

NATO LAUNCHES FIRST-EVER PROJECT MERCURY COHORT: A NEW ERA OF INNOVATION

In July, NATO launched its inaugural Project Mercury cohort to drive innovation across the alliance. Hosted at Ramstein Air Base, Germany, by U.S. Air Force General James B. Hecker and Air Marshal Johnny Stringer of the UK, the three-day Jumpstart event brought together military and civilian talent from 12 NATO nations to address strategic challenges. The in person aspect allows teams to build relationships and establish team charters and working relationships among different NATO entities. These sessions helped to frame the challenges each team will work on over the course of the program, enabling participants to approach their projects with a focus on actionable outcomes.

At the Jumpstart event in Ramstein General Hecker and Air Marshal Stringer not only welcomed the cohort but also emphasized the importance of Project Mercury as a critical driver for NATO's future capabilities. Both leaders underscored that the initiative reflects the alliance's pivot toward a more agile, adaptable, and innovation-focused approach to security in an increasingly complex global landscape.

Diverse Teams Tackling Complex Problems

These teams are tackling issues related to operational readiness and enhancing joint force integration. The diverse backgrounds of the participants bring a rich mix of perspectives and expertise to the table, reflecting NATO's commitment to harnessing innovation across all fronts. The two AIRCOM teams focus on air and space operations and meeting culture. The SOF community team is taking on special operations-specific challenges, leveraging their deep operational expertise and strategic insight. Meanwhile, three additional teams composed of a mix of NATO civilians and military members from across 12 nations are working on broader issues, including digital transformation, military recruiting, and resilience in the face of emerging threats.

What makes this cohort of Project Mercury unique is the unprecedented level of cross-national collaboration. Participants from different nations and operational backgrounds are working side by side, creating a vibrant ecosystem of shared knowledge and innovation. This collaborative structure is a powerful tool for fostering creative solutions that reflect the diversity of the NATO alliance. Each student is encouraged to bring their national and organizational perspectives into the mix, ensuring that solutions are both comprehensive and adaptable across different NATO contexts.

The Road Ahead

Project Mercury graduates are expected to significantly impact NATO's ability to innovate in a rapidly changing global security environment. The course will culminate with a live pitch on October 8th, where teams will present their solutions to NATO leadership. Project Mercury is also a reflection of NATO's commitment to breaking down silos between nations, military branches, and civilian sectors. By blending these different perspectives, the program aims to produce not only innovative solutions but also to enhance NATO's overall ability to respond to future threats in a cohesive and unified manner.

By launching Project Mercury, NATO is institutionalizing innovation, positioning itself at the forefront of defense advancements, and demonstrating the power of cross-border collaboration in solving shared challenges. Project Mercury not only highlights the alliance's commitment to staying ahead of emerging threats but also serves as a powerful example of what can be achieved when nations come together to solve shared challenges. The second cohort of Project Mercury NATO will kick off in Belgium in February 2025.





Citizen-Airmen of the Air National Guard (ANG) often combine entrepreneurial and warfighting experience. This unique blend of diverse experience is worth more than the sum of its parts. Guardsmen from across the nation are strengthening innovation culture, competency, and community in the Academia, Industry, Military - Hybrid Innovations (AIM-HI) program. AIM-HI is a partnership between the Air National Guard's ARCWERX and the Innovatrium which brings together military personnel, academia, and industry leaders to address complex military challenges. AIM-HI encourages participants to adapt to emerging challenges through a unique blend of hands-on projects, expert-led workshops, and collaborative teamwork.

The program is designed to stimulate and foster innovation by introducing participants to frameworks, tools, and methodologies essential for designing and implementing innovative solutions. The curriculum spans 16 weeks and is divided into multiple phases: **Jumpstart to Project Acceleration, Experimentation, and Pitch Week**. Each phase immerses students in real-world problem-solving, emphasizing the importance of cross-functional collaboration and iterative experimentation.

Throughout the program, participants benefit from the guidance of subject matter experts (SMEs), coaches, and industry professionals. These experts play a crucial role in shaping the participants' understanding of innovation, from problem diagnosis to the creation of hybrid solutions. During the **Jumpstart phase**, students were introduced to "The Innovation Code" by professor Dr. Jeff DeGraff, which provided insights into developing an innovator's mindset. Additionally, SMEs like IDEO Alum, Hal Monson and VC investor and entrepreneur, Jim Fish guided participants through the rapid prototyping (Hal) and pitch phases (Jim), ensuring each team's solution was well-defined and ready for real-world application.

AIM-HI attracts highly motivated individuals who bring a wealth of experience, creativity, and technical knowledge to the table, making the program an incubator for breakthrough ideas. Participant's diverse backgrounds and perspectives contribute to the strength of their teams, as each group is intentionally formed to leverage a wide range of skills and viewpoints. Solutions are not limited to domestic operations. In fact, the National Guard's State Partnership Program (SPP) gives ANG units international reach. With several decades of experience, National Guard leaders have unparalleled relationships and interoperability with their partner nations, leading to growing opportunities for shared integration of emerging technology, tactics, and concepts for success in great power competition.

The program emphasizes experimentation and rapid prototyping. Teams run numerous small, but radical experiments to validate their proof of concept. One AIM-HI team, **Resilient Waves Society**, worked on resilient communications, a critical area in modern warfare that requires constant evolution in technology and strategy. AIM-HI's rigorous approach to problem-solving ensures that the solutions developed are both innovative and practical, ready to be tested and implemented in real-world scenarios.

The program culminates in **Pitch Week**, where each team presents their final solutions to a panel of experts and potential sponsors in Washington, D.C. This high-pressure environment mimics real-world pitching scenarios, providing students with invaluable experience in communicating their ideas and securing buy-in from key stakeholders.

Always Ready, Always There...the citizen-Airmen of AIM-HI are making a difference in their communities and around the globe bringing adaptive thinking and innovation from across the Total Force to cost-effectively enhance national defense and international security.

BEYOND THE RSAF: SINGAPORE'S DISRUPTIVE INTRAPRENEURSHIP AND CHANGE LEADERSHIP PROGRAM

5 years ago, officers from the Republic of Singapore Air Force (RSAF) participated in an Innovation elective while attending the USAF's Air Command and Staff College at Air University. Seeing promise and potential for this approach to innovation education in their own service, the RSAF partnered with the Innovatrium to launch a program mirroring the elements of Project Mercury cohorts and leading to the same Certified Professional Innovator certification from the University of Michigan.

Now after four years, the size of this initiative has nearly tripled, expanding from an Air Force-only endeavor to all services. Named the Disruptive Intrapreneurship and Change Leadership program, its purpose is to empower military leaders to drive innovation from within. Furthermore, this curriculum is now an integrated component for the students at the *Goh Keng Swee Command and Staff College*, marking the first time it has been implemented across all branches of the Singapore Armed Forces: Army, Navy, Air Force, and Digital and Intelligence Services.

The class is divided into 20 teams, including international officers from partner nations. They are coached by a blend of US-based coaches and Singapore-based coaches.

The Jumpstart Event: Laying the Foundation for Intrapreneurship

This August, the three-day Jumpstart event was held on-site at Singapore's Goh Keng Swee Command and Staff College and brought together top leaders from across all services. Building upon the cohort's prework, Dr. Jeff DeGraff, known for his expertise in creating innovation ecosystems within

organizations, emphasized the importance of "disruptive intrapreneurship" – the idea that individuals within an organization can act as entrepreneurs, driving change and innovation from within. He introduced participants to various innovation frameworks, including design thinking, rapid experimentation, and *The Innovation Code*, which helped leaders understand how to cultivate diverse thinking styles within their teams to solve complex problems.

The Jumpstart event also focused on change leadership, teaching SAF leaders how to effectively manage and guide their teams through the process of innovation. By equipping commanders with the skills to lead through change, the program aims to encourage a more agile and innovative approach to military strategy and operations.

A Future-Focused Approach to Military Leadership

During the next 2 months, participants from all services will continue to experiment with new ideas, run pilot projects, and implement innovative solutions within their branches. The goal is not just to develop new technologies or strategies, but to fundamentally transform how the SAF and its allied partners approach leadership, problem-solving, and operational effectiveness.

Plans are underway for a January 2025 cohort, marking 6 years of collaboration. Through this program, the Singapore Armed Forces will not only cultivate intrapreneurial leaders but also ensure that they remain at the cutting edge of military innovation, well-positioned to maintain its strategic advantage in an increasingly complex and uncertain global landscape.



TEAM SAGE, AIM-HI COHORT 6

Team Sage, from AIM-HI Cohort 6, has taken on one of the National Guard's most pressing challenges: outdated and ineffective readiness training. While there is widespread recognition that the current training programs fall short of meeting modern demands, finding a constructive, scalable solution that fits within tight time and budget constraints has been a difficult task. Team Sage, under the leadership of CMSgt Shane Amundson and Maj Nate Carlson, is making impressive strides in developing a revolutionary proposal called HI-CAP (High-Impact Comprehensive Readiness Program) that aims to address these critical issues.

Since the AIM-HI showcase in Washington, D.C., Shane and Nate have continued to build momentum for HI-CAP by engaging with key military leaders including the incoming North Dakota TAG (The Adjutant General) and LTG Thomas Carden, the Deputy Commanding Officer of NORTHCOM. These open lines of communication are helping Team Sage refine HI-CAP and better align it with the broader strategic needs of the military. Additionally, the Director of the Air National Guard (DANG) recently released the "Vision for the National Guard 2036," which emphasizes the importance of robust readiness training across the Guard. This vision dovetails perfectly with Team Sage's HI-CAP proposal, making this the ideal moment to push their solution forward.

Next Steps: Pushing HI-CAP Forward

These innovators continue to drive this innovative proposal forward. Future plans include a work session with ARCWERX, the sponsor of AIM-HI, offering the space and support to refine their project and their pitch based on the feedback they've gathered. In November, Chief Amundson will attend a high-profile event alongside the North Dakota TAG, providing a prime occasion for Team Sage to share HI-CAP with key decision-makers and secure further support.

A Commitment to Readiness

As Team Sage prepares to present HI-CAP to a wider audience in the coming months, they remain steadfast in their mission to modernize readiness training. With the continued leadership of Chief Amundson and Major Carlson, Team Sage is poised to revolutionize the way the National Guard prepares for the challenges of the future, ensuring that readiness training meets the evolving demands of modern military operations.



TEAM HIDE AND SEEK TAKES ON AIR BASE DEFENSE WITH PROJECT GHOST SHIELD



Team Hide and Seek, comprised of Dakota Belcher, David Eckstein, Colt Brock, Aza Pierce, Michael Fowler, and Mike Rutland, is tackling one of the most pressing challenges in modern FOB air operations: reimagining strategies for maintaining air superiority in scenarios where it is episodically compromised. Given the sobering projection from the Center for Strategic and International Studies that 90% of aircraft attrition could occur on the ground, Team Hide and Seek is making significant strides with their proposal, Project Ghost Shield.

Concept: A Strategic Game of Hide and Seek

The core concept of Ghost Shield draws inspiration from the classic childhood game. In this case, airfields are the “hidiers,” while low-cost drones act as decoys, employing GPS spoofing to mislead adversaries and delay their ability to strike critical assets. This layered, low-cost air defense strategy aims to bolster the survivability of U.S. and Partner Forces, with the ambitious goal of demonstrating a 90% survivability rate for key assets by 2025.

Pitch Results: Securing Sponsorship for Project Ghost Shield

Project Ghost Shield garnered the support of the 366th Fighter Wing Air Staff and Innovation Cell, who have agreed to sponsor the next step in the innovation journey. The project has successfully transitioned to the National Security Innovation Network (NSIN) through their Azimuth and Capstone programs. This fall, students from Marshall University will engage in an interdisciplinary program to further develop innovative solutions. Using methodologies like Lean Startup, Design Thinking, and Systems Thinking, these students will focus on challenges akin to the initial problem statement, particularly in the Indo-Pacific region, where ground-based aircraft attrition is expected to reach alarming levels.

A Call to Action: Collaborate and Innovate

Fifteen students from Marshall University, organized into four teams, have begun their work on this critical challenge, exploring new dimensions of the problem and generating potential solutions. Mercury Alumni Mike Rutland and Michael Fowler continue to offer their expertise and support to the initiative. Those interested in contributing to or learning more about Project Ghost Shield are encouraged to reach out to Mike Rutland (mike.t.rutland@gmail.com) and Michael Fowler (mfowler3573@gmail.com).

Learning Opportunity: Harnessing the Power of Interdisciplinary Teams

Team Hide and Seek shows the value of leveraging interdisciplinary student teams to tackle complex military challenges and expanding the network through engaging deep and diverse domain experts, while giving the initiative to small, lightweight, ok-to-fail teams. This initiative serves as a model for how innovative ideas can be off-ramped to broader networks, with the potential to significantly enhance partner agency capabilities. Use your Project Mercury connections to support and expand this vital work.



TEAM ECHOLINK TACKLES SMALL TEAM MANEUVERABILITY IN THE INDO-PACIFIC



In a rapidly evolving and increasingly contested Indo-Pacific theater, where vast distances, airspace denial, and the decentralized positioning of friendly and partner forces pose new challenges, Team EchoLink has stepped up to redefine air battle management. The team—comprising Matthew Botts, Matthew Evers, Michael Junkins, Shelly LaMore, Sameer Shrotriya, and Freya Slocumb—is dedicated to enabling combat airmen with cutting-edge tools to maintain superiority in this complex environment. Under the guidance of coaches Jeff Mitchell and Jeroen Franssen, their mission is clear: to increase the maneuverability and effectiveness of small teams operating in this high-stakes region.

Concept: EchoLink—A Bottom-Up Revolution in Battlefield Awareness

Drawing inspiration from lessons learned in the Ukrainian conflict, EchoLink offers a groundbreaking approach to battlefield awareness. Unlike traditional systems that rely on large, vulnerable assets like dishes or vehicles, EchoLink is embedded directly into DoD cellular devices, providing a decentralized, bottom-up perspective that complements the top-down, “god’s eye” view of the battlefield. This holistic approach ensures that small teams can navigate, communicate, and execute their missions with unprecedented agility and precision, even in the most challenging scenarios.

Pitch Results: Moving Forward with BESPIN

EchoLink has successfully off-ramped to BESPIN, where it will benefit from their established partnerships with small businesses and innovative ecosystems. The next phase involves integrating EchoLink with existing applications, pushing it closer to real-world testing. The team plans to collaborate with partners in Ukraine to gain insights into how similar technologies have been implemented in a live conflict environment, further refining EchoLink’s capabilities.

Call to Action: International Collaboration for a Multi-Sensory Platform

As EchoLink advances, two teams—one from BESPIN and one from Singapore—will work together to develop a dual-platform system that merges visual and acoustic inputs. This collaboration aims to enhance situational awareness for small teams, creating a comprehensive, multi-sensory operational tool. For those interested in learning more or contributing to this initiative, please reach out to BESPIN at:

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Strategy and Business Operations
USAF AFMC AFLCMC/GBO-BESPIN
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Learning Opportunity: Leveraging Existing Innovations for Rapid Deployment

EchoLink is built on a foundation of pre-existing applications, demonstrating how innovation can be accelerated by integrating and enhancing tools already in various stages of development. This project highlights the importance of understanding both audible and non-audible cues in a connected battlefield, offering valuable lessons in how to quickly adapt and deploy new technologies in response to emerging threats.

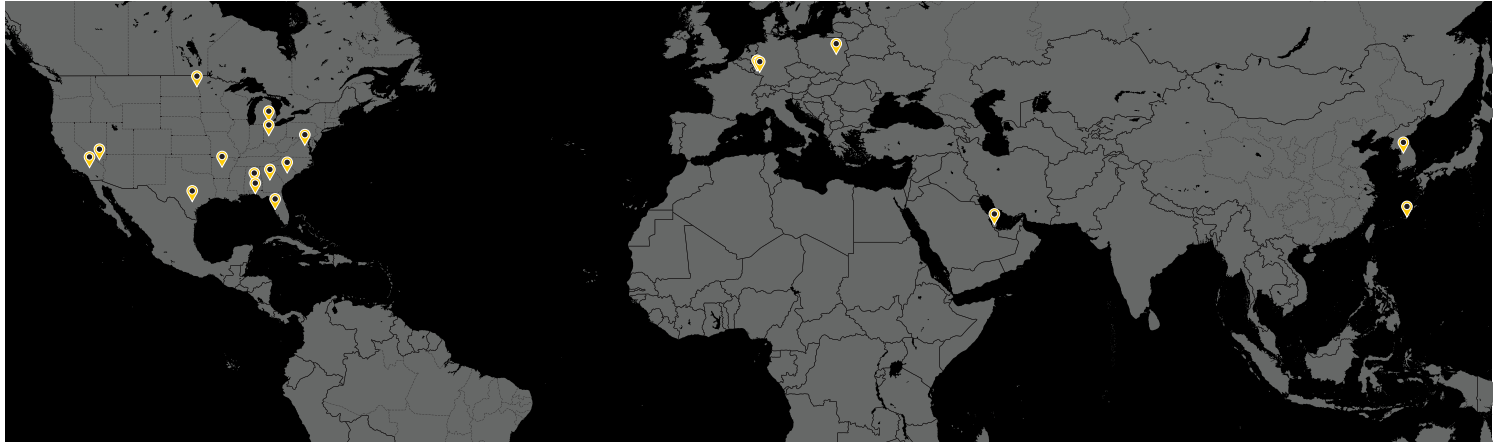


PROJECT MERCURY INNOVATOR WORKSHOP (PMiW) 2022-2024 AT A GLANCE

THIS SUMMER WE HIT A PROUD MERCURY MILESTONE—OUR 30TH PROJECT MERCURY INNOVATOR WORKSHOP!

3 Years ago, we envisioned the PMiW as a way to magnify and accelerate the efforts of our Project Mercury alumni in the field. By sending a head coach and team of alumni facilitators, each workshop brings the opportunity to grow, educate, and strengthen the PM network.

From Warsaw to Osan, from downrange to the HQ conference table, we are proud to be part of the growing network of innovators across the Air Force, DoD, and beyond.



PMiW Beta	Nellis AFB NV	Jul 21	PMiW 23-8	5 teams/Virtual [^]	Aug 23
PMiW 22-1	Hurlburt AFB FL	Mar 22	PMiW 23-9	AETC Conference/Maxwell AFB AL	Aug 23
PMiW 22-2	Grand Forks AFB ND	Apr 22	PMiW 23-10	AFWERX Fellows/Virtual	Sep 23
PMiW 22-3	Robins AFB GA	May 22	PMiW 24-1	Michigan ANG/NG, Ann Arbor MI	Nov 23
PMiW 22-4	Edwards AFB CA	Jun 22	PMiW-LFC*	Land Forces Conference, Poland	Nov 23
PMiW 22-5	MacDill AFB FL	Jun 22	PMiW-24-99	Task Force 99/AOR	Dec 23
PMiW 22-6/7	Wright Patterson AFB OH	Jul 22	PMiW 24-2	AFCENT/Shaw AFB SC	Dec 23
PMiW 22-8	Ramstein AB Germany	Jul 22	PMiW 24-3	Edwards AFB CA	Feb 24
PMiW 22-9	Spangdahlem AB Germany	Jul 22	PMiW 24-4	AFWERX Fellows/Virtual	Feb 24
PMiW 22-10	Little Rock AFB AR	Aug 22	PMiW 24-5	AETC Workshop/Randolph AFB TX	Apr 24
PMiW 23-1	Civil Air Patrol Nat'l Conclave DC	Mar 23	PMiW-NATO*	Eastern Flank ^{^^} Warsaw, Poland	Jun 24
PMiW 23-2	Task Force 99/AOR	Apr 23	PMiW 24-6*	USAF Test Pilot School CA	Jul 24
PMiW 23-3	Grand Forks AFB ND	May 23	PMiW 24-7	Osan AB, Korea	Jul 24
PMiW 23-4	AFCENT/Shaw AFB SC	May 23	PMiW 24-8	Kadena AB, Japan	Aug 24
PMiW 23-6/7	San Antonio (Regional) TX	Jul 23	PMiW 24-9*	AFWERX Fellows Crystal City VA	Sep 24

Thank you to Air University for funding 27 Innovator Workshops from 2022-2024!

* Funded by host (NATO-IH, USAF Test Pilot School, AFWERX)

[^]5 teams: Hanscom/Kadena/Holloman/Lakenheath/Spangdahlem

^{^^} Attended by 14 allied nations

INNOVATORS ON THE EASTERN FLANK: A PROJECT MERCURY@NATO WORKSHOP

Dispatch from Warsaw, Poland, June 25-27, 2024. “Innovators on the Eastern Flank” was a dynamic three-day workshop organized by Project Mercury@NATO leaders Bart Hollants (PM 12) and Jeroen Franssen (PM 9). Mercury thrives on collaboration, and this event was no different, local hosts in Poland included the Polish Armed Forces Doctrine and Training Center and their partners at the Central Military Library. Designed by PM@NATO to be part one of a two part entry to the Mercury culture, competency, and community environment for the Allied Command Transformation Hub and NATO Innovation Network, the event featured keynote remarks by Dr. Jeff DeGraff and two days of innovation facilitation led by Dr. Ethan Eagle.

Opening Keynote—DeGraff-isms and Innovation Wisdom



The workshop was designed for three primary audiences: leadership, individuals or teams actively working to adopt innovation, and those new to or curious about innovation processes and drew attendance from 14 countries in NATO. Dr. DeGraff set the stage with his introduction to the Competing Values Framework alongside weather watching tips and his own boyhood dream of flying cars, DeGraff energetically kickstarted the three days with the “Foundations of Innovation” prodding the audience with his usual candor and wit. Alumni of Mercury will no-doubt recognize his core talking points. Mercury is designed to be experience-based, “Facts don’t change minds, experiences do.” Mercury is designed to be a community of agitators, “Large organizations love innovation, but hate their innovators.” The critical need to think about a problem prismatically, “The biggest barrier to innovation is intolerance of ambiguity.” And the absolute need for sponsorship to avoid your innovation becoming a ‘beautiful orphan.’ “No one cares about your stupid innovation, they care about solving their problem.”

Cultivation of an Innovation Mindset—Learning by Doing!

Following lunch and some networking opportunities it was Dr. Eagle’s turn on the core stage. With help from a cadre of Mercury alumni facilitators, a key focus of the

workshop (hands-on elements) was the development of an innovation mindset and practical applications of the CVF to teams. The workshop flow consisted of Problem Finding and Clarification drills like impromptu networking, group decision making (ostrich or giraffe), problem identification with Quinn’s 21 pressing problems of modern organizations, Covey’s circle of concern, influence, and control and ended with 9 different teams set for a day 2 focused on getting a newly formed group into a new creative frame of mind.

Session 2 (day 2 morning) focused on unlocking creativity (you better believe we busted out the sticky notes!) in teams with the group playing Championship rock-paper-scissors, practiced planning with ‘yes, and.’ and divergent thinking through the 100 ways to use a paperclip exercise, and a red-teaming exercise with the TRIZ Liberating Structure, “Worst possible outcome.”

Session 3 took place over the final afternoon and morning, day 2 and 3. It was a highly accelerated jumpstart, with steps—“A more beautiful question”—arriving at a challenge statement with prismatic logic, Watching the weather to identify trends and event triggers that inspire deeper inquiry. The groups then accelerated to taking multiple shots on goal and how to gain buy-in.

From the stage with Dr. Eagle, ‘think of watching the weather as akin to ‘intelligence prep of the battlefield’ for innovation. Adapting the language of 99 rules for Better Faster Cheaper from NASA, When you start an innovation project, “choose to be specifically wrong.” If people start off telling you you’re vaguely going in the right direction, you don’t get any useful feedback about where they think you *SHOULD* go. If you want to find that out, you have to be deliberate and provocative about a different direction and show the audience you are keen to hear their thoughts and incorporate their feedback. Landing at the end of a workshop, not on the ‘sales pitch’ for a new idea ‘for immediate release’, but instead a ‘pitch for immediate feedback,’ designed to get you to the next place!

Day 3 also featured a leadership session hosted by Dr. DeGraff, supported by retired Illinois National Guard Adjutant General, Major General Richard Neely who brought his unparalleled knowledge of the State Partnership Program with Poland, along with our AIM-HI counterpart, Colonel Andrew Adamczyk.

We hope to see continued interest and demand for workshop level content. These shortened workshops get the tools of innovation into the hands of teams (particularly when there is support of Mercury alumni to aid in facilitation) is a winning formula!

FROM PLAY TO PURPOSE: LESSONS FROM THE EDWARDS AFB TEST PILOT SCHOOL



July 15-18, 2024 – Edwards Air Force Base, California

It's no secret that The US Air Force Test Pilot School (TPS) stands for excellence, but did you know they are also developing innovators? This July, we had the privilege of joining Class 24-B, a cohort of 33 pilots, scientists, and engineers from the USAF and USSF, to explore the cutting-edge at the intersection of aviation and innovation. Our week together was part of an overall modernization of TPS curriculum, under the guidance and leadership of TPS Commandant James "Fangs" Valpiani. Fangs opened the session with a call to the students to embrace the discomfort of ambiguity and spend the week challenging themselves to think differently.

The Symphony of Learning

Our host, Lt Col Jason "Strap" Schulze, an instructor at the Edwards Test Pilot School and graduate of Mercury Cohort 12, orchestrated a week of learning experiences. The lectures and activities led by Dr. Ethan Eagle and Col (ret) Johnny Barnes, were designed to push boundaries and inspire innovation. Participants were encouraged to say and do things they wouldn't in a 'buttoned up' environment and highlighted the importance of warm-ups and trust to get the best performance from a team.

Understanding oneself and one's core values is foundational to unlocking intrinsic motivation. We challenged each participant to answer a simple yet profound question: "What are my interests?" This introspection is crucial for pilots and engineers who must remain focused and driven amidst complex and demanding tasks. Knowing what truly drives us helps maintain momentum and passion, critical elements for success in any innovation endeavor.

Innovation is not a solo journey; it's a team sport. We emphasized the importance of identifying negative patterns

and effectively managing team dynamics to gain buy-in and maintain energy. In an environment where collaboration is key, the ability to navigate interpersonal challenges and harness collective strengths determines the success or failure of a project. The exercise "Would you rather fight off an ostrich or a giraffe" taught the importance of listening with an open mind, while the "5 jerks plan a vacation" gives students the experience of seeing negative team dynamics and imagining how to improve.

To keep our teams fresh and our minds sharp, we introduced the concept of Question Storming. Unlike traditional brainstorming, which focuses on generating answers, Question Storming encourages us to delve into inquiry. In a rapidly evolving field like aviation, where yesterday's solutions quickly become obsolete, maintaining a culture of curiosity ensures we're always on the cutting edge.

Finally, we explored the intricate relationship between innovation and ethics. As Lt Col Dave Blair (Morpheus, SSG) insightfully put it, "To the bureaucracy, innovation is isomorphic with corruption." This stark reminder challenges us to navigate the delicate balance between pushing boundaries meaningfully and maintaining compliance. For test pilots and engineers, this means not only advancing technology but also ensuring it aligns with ethical standards that serve the greater good. Case studies help us to ask "was it worth it?", "Who matters most?" And 'what's the next right thing?'

The Road Ahead

Closing out our time at Edwards, Commandant Valpiani reminded everyone of the many 'forgotten' stories of Jimmy Doolittle and the innovative team he assembled to rapidly revise the bombers for the Doolittle Raid. To pay homage to this history, Fangs reaffirmed the vital role innovation plays in shaping the future of aviation, and its place at the Test Pilot School. The lessons learned here go beyond the confines of the classroom; students must remember and practice so they don't look back on their class photo and ask "remember when we used to be cool?"

This is about the journey more than the destination. I am grateful to have seen first hand the boundless potential that lies in every test pilot, engineer, and scientist. Together, with the spirit of play, the strength of our values, and the courage to ask the right questions, we are charting a course for innovation that will propel us into the future. Test leads the way.

UTSA'S NATIONAL SECURITY COLLABORATION CENTER (NSCC): DEMOCRATIZING INNOVATION FOR ECONOMIC GROWTH AND SECURITY



UTSA's San Pedro I facility where the Innovatrium and NSCC will co-locate, forming a unique hub for innovation leadership development & education in support of national & economic security.

Innovatrium, a leading force in fostering creativity and innovation across America's top industrial ventures, has officially partnered with the University of Texas at San Antonio's (UTSA) National Security Collaboration Center (NSCC). This strategic alliance is designed to tackle some of the most pressing national security challenges while inspiring innovation from within one of our renowned Hispanic Serving Institutions (HSI). By democratizing innovation, this partnership aims to bring together academia, industry, government, and local talent to solve the nation's most pervasive security and industrial technology challenges.

UTSA, as a Carnegie R1 institution and a Tier-1 research leader, provides an ideal platform for collaborative innovation. As one of the few institutions to hold all three National Center of Excellence designations from the National Security Agency and the Department of Homeland

Security, UTSA's commitment to producing a cyber-ready workforce is already unparalleled. The collaboration will provide an avenue to integrate the Innovation Genome™ methodologies, designed to democratize and accelerate technological breakthroughs, throughout UTSA's existing academic framework and other key partnerships across the Greater San Antonio community.

By partnering with an HSI like UTSA, Innovatrium aligns with the goal of fostering inclusivity while generating innovation that supports economic development within underrepresented communities. San Antonio, home to one of the nation's largest and fastest growing technology corridors, offers a fertile ground for growing talent, creating jobs, and incubating technology commercialization.

The Classroom to Career (C2C) program at UTSA, which emphasizes experiential learning, is central to this partnership. Innovatrium's expertise in training programs, such as Project Mercury and AIM-HI, will enrich this program, providing students, graduates, faculty, and area professionals with hands-on opportunities for solving real-world, federal level challenges using an innovation ethos.

This collaboration also reflects a strong commitment to long-term growth. Future milestones include faculty development, program accreditation, and building pathways for research commercialization leveraging these facilities as a central hub for innovation.

Ultimately, the Innovatrium-NSCC partnership is designed to provide national security solutions while driving regional economic prosperity. By creating an inclusive innovation ecosystem, Innovatrium and UTSA are laying the groundwork for a more secure and prosperous future.

The Mercury Innovation Council (MIC) was recently established to lead the Project Mercury Alumni Association (PMAA) in its mission to Engage, Educate, and Empower our growing community of alumni. Composed of experienced alumni from various cohorts, the MIC aims to foster a culture of innovation, competency, and community across the U.S. government and its allies. The PMAA is committed to strengthening ties between the Defense Innovation Community of Entities (DICE) and our Project Mercury family alumni (Project Mercury, Project Mercury NATO, AIM-HI Graduates).

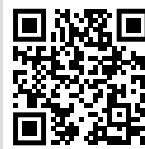
The MIC has three main objectives:

- **Increase alumni engagement and connect alumni with each other:** The MIC aims to foster a sense of community and camaraderie among alumni by facilitating connections and increasing engagement. We will provide opportunities for alumni to engage with each other and contribute their skills, knowledge, and experience through various channels and initiatives.
- **Connect cohort teams with alumni:** The MIC will facilitate opportunities for current cohort teams to connect with alumni, providing them with valuable insights, mentorship, and networking opportunities.

- **Expand the Project Mercury network:** The MIC will work to expand the reach of the Project Mercury network by partnering with other organizations, promoting the PMAA's mission, and recruiting new alumni to join the association.



Follow our public facing LinkedIn page for the latest open events and announcements



Alumni – Follow this link to find our Private LinkedIn group to join our Alumni Only events and conversations.

We look forward to serving you, sharing your amazing stories, and further expanding our competence and community! Join us in our mission to Engage, Educate, and Empower the Project Mercury alumni network.

– Mercury Innovation Council

MIC Board	<p>Visionary Catalyst Becky Gorman (Project Mercury Cohort 3)</p>	<p>Converge (Purple): Provides overall direction and strategy for the assembly. Ensures alignment and integration of tasks across the board positions. Inspires and motivates the board members to achieve the organization's goals.</p>
	<p>Futurist Innovator Trevor Elben (Project Mercury Cohort 4)</p>	<p>Create (Green): Focuses on fostering radical breaks from the past and breakthrough ideas. Encourages experimentation and speculation to create new concepts and services. Helps the organization remain agile, adaptive, and forward-thinking.</p>
	<p>Efficiency Maestro Molly Locke (Project Mercury Cohort 4)</p>	<p>Control (Red): Focuses on systematic, careful, and practical approaches for incremental change. Strives for efficiency and predictability in the organization's processes. Ensures the implementation of innovation is well-organized, disciplined, and controlled.</p>
	<p>Empowerment Ambassador Jefferson Mitchell (Project Mercury Cohort 11)</p>	<p>Collaborate (Yellow): Focuses on building a strong community and nurturing empowered individuals. Helps the organization remain committed to its shared values and communication. Encourages collaboration and teamwork within the board and the wider community.</p>
	<p>Results Champion Craig Buying (Project Mercury Cohort 7)</p>	<p>Compete (Blue): Focuses on the intensity of competition and achievement. Strives for speedy, profitable outcomes and disciplined actions. Motivates the board and organization towards success and recognition.</p>
MIC Committee Members	<p>Narrative Navigator Stacie Shafran (Project Mercury Cohort 12)</p>	<p>This position falls under the Results Champion and works with the Digital Connectivity Director. Develops and publishes compelling stories about the association's mission and vision. Works closely with active cohorts to identify, craft, and publish stories that highlight their achievements, innovations, and experiences.</p>
	<p>Mercury Masterclass Coordinator Nimisha Shah (Project Mercury Cohort 13)</p>	<p>This position falls under the Empowerment Ambassador. Manages and coordinates the monthly Mercury Masterclass initiative, ensures a supportive, inclusive, and empowering atmosphere for participants to share ideas and collaborate.</p>
	<p>Member-at-Large Laura Wilson (Project Mercury Cohort 8)</p>	



**AUSTIN
WORCESTER**
PM Cohort 9

What have you been up to since finishing your cohort?

I've been elected to the town council, and working to create a town from the ground up.

What is the role of innovation in your current position?

I'm the Senior Program Manager at the Civil Air Patrol's National Technology Center. My primary job is to find that "next best thing" that helps us meet our Total Force responsibilities: supporting Air Force missions in the US and its territories, defense support to civil authorities, and search and rescue missions.

Most impactful memory of PM?

Working the same problem concurrently with both my team and at the same time with the NATO partners team. It provided an amazing perspective in points of view.

Which PM 3C (culture, competencies, community) resonates the most?

I learned a great deal in the culture area just collaborating with our NATO allies. It truly changed my thought processes and perspectives on how to approach change and innovations. Project Mercury has been instrumental in helping the Civil Air Patrol build an innovation culture.

Goals for the year ahead?

To fully integrate TAK, HF Communications and AERONet communication in a single mesh network, building upon our successes in Operation Bold Quest '23.



**BART
HOLLANTS**
PM Cohort 12

What have you been up to since finishing your cohort?

After Cohort 12 finished, our team returned to our daily jobs, but we decided not to let go of our Project Mercury project. I managed to pull it into my daily work at the NATO Innovation Hub and we pushed our idea (a NATO-wide innovation practitioner conference) further into our HQ, with success. In September of this year, NATO ACT will host the first of its kind NATO Open Innovation Conference & Expo, with an acronym that truly fits the idea of innovation: *Let's make some NOICE!*

What is the role of innovation in your current job?

I am NATO's Innovation Broker at NATO Allied Command Transformation (ACT) and chairman of the NATO Innovation Network. In my capacity as Broker, I liaise between NATO Nations and connect their innovation programs for capability development to our efforts at NATO ACT. As chairman of the NATO Innovation Network, I connect the (military and non-military) entities and innovators associated with these programs into an Alliance-spanning network and as such turn program-based innovation into a dynastic and community-driven innovation effort within NATO.

Most impactful memory of PM?

Without a doubt the energizing and challenging atmosphere of the coaching sessions with Ethan were my favorite elements of the program. Working on a bottom-up idea outside of your comfort zone and without tasking from your organization can be challenging, and Ethan manages to both give feedback and imbue the teams with a sense of bravado that is necessary to bring projects forward in a fun way. "At least you had fun!" It inspired our team to pitch the project to the highest level of command at our HQ, and talking to our 4* about a crazy idea you cook up in a twelve-week course was both a thrilling and enlightening experience I will not soon forget.

Which PM 3C (culture, competencies, community) resonates the most?

For me, both as a person and in my professional environment, community in innovation is key. In order to innovate, you often need to be and behave deviant(ly) to existing structures and the status quo, which in bureaucratic organizations can be an uphill battle. This tension almost always creates friction, and having a community to fall back on, experiment with and generate additional momentum for an innovative idea is crucial for success.

Goals for the year ahead?

For the coming year, we plan to build on the successes of the NOICE event and turn it into an annual conference for innovation practitioners. In parallel, we will continue to expand the Project Mercury @ NATO program and as such, further reinforce the Alliance-wide innovation community in the NATO Innovation Network.



**IAN
PIERCE**
AIM-HI Cohort 4

What have you been up to since finishing your cohort?

I decided to use the curriculum taught during [AIM-HI] to educate others. By teaching people what it means to go and make incremental changes, find unique opportunities for collaboration, and build a stronger cohesion amongst themselves, we have impacted the culture of ideation and unlocked new areas of interest.

Also I have continued collaborating with my past AIM-HI cohort members as we charge through innovation hypotheses and potential solutions, creating an internal ecosystem that leverages experience, location, and knowledge with rank being a secondary factor and not stopping us from pushing problems through.

What is the role of innovation in your current job?

I first joined the Air Force as a tactical aircraft maintainer. There were always ways to create incremental improvements, from putting wheels on chocks to lighten the burden of towing the aircraft, to developing trainers for new airmen to avoid damaging the aircraft as well as attacking policy changes.

It wasn't until I attended AIM-HI that I fully understood the ideation-to-implementation process of innovation. What I thought would be a couple phone calls and conversations, turned more into identifying the true root problem, finding the correct champions, "winning a bar fight" and even refining my pitch at the correct level and for the correct audience. AIM-HI taught me what an initial prototype could look like, how to properly gather an equally defined team, and how to look for solutions in places that weren't necessarily visible from one single perspective.

Following the cohorts, the 412th Aircraft Maintenance Squadron Commander recognized the need for continuous momentum in creating change and the pursuit of an innovative focused force, so he created the "412 AMXS Futures Office" and put me in the seat of NCOIC.

Most impactful memory of PM?

The 2nd in person week of AIM-HI was our journey mapping week. After spending weeks understanding what our problem was, we were then stuck understanding what to do with it. When we learned about Aristotle's square of opposition, hitting the target audience, understanding roles of a sponsor, and journey mapping, my team, and many others, took off running. We had the right idea, and now we

had the tools to effectively gather support and champions across the force to help push our idea to the correct levels. It was at this stage that our team went from uncertain, to firing on all cylinders. We leveraged everyone's expertise in the group, understood strengths, weaknesses, and contacts within the DoD, that took us to the end goal.

Which PM 3C (culture, competencies, community) resonates the most?

The innovator > innovation piece is a phrase that has stuck with me since day 1 of the program. Since hearing that, my goal has been and remains to pierce the leadership, and attack the tactical edge, down in the dirt warfighters ideology of innovation. If our warfighters invite change, then our leadership will invite change, and if they don't then the tactical edge will react. Impacting the culture produces a push pull movement of chemistry between leadership and subordinates.

My current leadership has been the most open minded, risk willing, change agents I have ever had. Their open mindedness and willingness to test new things has truly brought people to ask "what if?" and "If they could, then I would..." Tiger teams are being created that help eliminate silos in and around the squadron, people are working together, and progress is being shared and awarded up and down the chain of command.

Goals for the year ahead?

One innovation goal is to work with my wing to sign off on the Certified Wing Innovator course, designed to be an incubator and prerequisite for programs like PM and AIM-HI. This would give HAF programs like PM higher caliber applicants, who have a basic understanding of innovation prior to attending the course.

Anything you would like to add?

AIM-HI and PM are meant to do more than teach. Once you graduate from this course, the work does NOT end. You are a trusted source of inspiration, knowledge, and assistance in the ever growing innovation ecosystem and culture.

General Brown said we need to "accelerate change or lose". We are told to accelerate but with what support? What resources? I challenge that by stating we need to ACCEPT change or lose. By ACCEPTING change in the culture, the process, the tools, the shared resources, we then automate acceleration.

ALUMNI REPORT: WHERE ARE THEY NOW?



JEFF MITCHELL
PM Cohort 11

What have you been up to since finishing your cohort?

PM Coach for CH12, PCS to Hanscom AFB, MA, Empowerment Ambassador for the new MIC [Mercury Innovation Council]

What is the role of innovation in your current job?

I'm supporting modernization efforts for a large radar site. The base technology is from the 1960's but the program team is looking for new avenues and partnerships to maximize the site's capabilities to meet the new needs of Great Power Competition in a contested and congested space environment.

Most impactful memory of PM?

Meeting people from across the DoD and learning their needs

Which PM 3C (culture, competencies, community) resonates the most?

Community for sure (says the yellow)

Goals for the year ahead?

Help welcome the first Project Mercury jumpstart to the Boston area. Lay the foundation as part of the first MIC cohort.



JOHN "MOOSE" DESMARAIS
PM Cohort 10

What have you been up to since finishing your cohort?

Chief Operating Officer, Civil Air Patrol: In my current position I serve as the top employee for Civil Air Patrol and I'm responsible for managing the day to day affairs of the corporation. Innovation is one of our developing programs. Our leader, Marybeth Slocumb, is working to develop ways for each of our CAP wings and regions to establish innovation cells.

Most impactful memory of PM?

Along with FEMA, further developing the app our team prototyped during Cohort 10 for use in hurricane impacted areas.

Which PM 3C (culture, competencies, community) resonates the most?

The community and culture were most impactful for me. Being able to incorporate that with our CAP teams and organization will make a difference at all levels.

Goals for the year ahead?

My innovation-related goals are to support developing innovation cells in each region and in as many wings as possible.





**JULIAN "COSMO"
GLUCK**
PM Cohort 9

What have you been up to since finishing your cohort?

I transitioned from active duty to the Air Force Reserve—where I am currently serving in the Defense Innovation Unit in the Office of the Secretary of Defense—and am a full-time MBA student at Harvard Business School.

What is the role of innovation in your current job?

As an Individual Mobilization Augmentee to the Defense Innovation Unit, I help contribute to the Secretary of Defense's mission of strengthening national security and bolstering our American and allied innovation bases through accelerating the adoption of commercial technology throughout the military. The flexibility of this particular reserve position enables engagement at home and abroad while I continue my full-time education and pursue a civilian career. This summer I performed my annual tour at the DIU Headquarters in Mountain View, California, where I supported a briefing by the House Appropriations Subcommittee for Defense and the Vice Chiefs of the military branches. Technological innovation is an imperative for being able to continue to promote peace and provide security, and this requires solving operational challenges with acquisition at speed and scale with our commercial partners. I could not ask for a better unit with which to apply the lessons I have learned in the classroom, through consulting, or from Project Mercury.

Most impactful memory of PM?

I particularly enjoyed rallying the members of our cohort—who ranged in rank from enlisted airmen to a full-bird colonel—toward our goal of designing and proposing a program that would buttress community resiliency. Presented our ideas...to senior leaders in the non-profit sector and the spouse of the Chief of Staff of the Air Force

was certainly a rewarding experience. Additionally, it was a lot of fun designing our patch for PM Team 9-5 that I nicknamed "The Dolly Partons" since we were "working nine to five" during our week with the cohort in DC.

Which PM 3C (culture, competencies, community) resonates the most?

I really resonated with the culture of constructive conflict through collaboration, creation, control, and competition—not just for the alliterative mnemonic but as a guidepost for driving engaged teamwork among diverse thinkers, whether as an aviator on a crew, a consultant on a study, or a director on a board.

Goals for the year ahead?

Over the year ahead, I aim to learn as much as I can about leadership and management as I finish my coursework at Harvard University before embarking on the next chapter of my life and pursuing the right path for driving strategic impact. In my volunteer capacity, I will be continuing to serve as a director on the boards of various non-profits including as Deputy Chair for Innovation at the Daedalian Foundation where I am helping the full-time staff with modernization efforts. I have great expectations for some major strategic moves at The Spaatz Association, overhauling our governance and developing new initiatives that will better support developing future leaders and aiding the Civil Air Patrol—a vital member of the Total Force. Lastly, I am looking to bring some great speakers to campus or to present over Zoom as Co-President for the HBS Government & Public Policy Club, and I might try to sing a feature with our school's a cappella group before graduation after having a great time performing with them this past year.



**LAURA
WILSON**
PM Cohort 8

What have you been up to since finishing your cohort?

I got the wonderful opportunity to help facilitate a Project Mercury Workshop in San Antonio and introduce the Competing Values Framework to folks across Joint Base San Antonio, as well as coach Cohorts 11, 12, and 13. Locally, I've also enjoyed touching base with two spark cells located at Little Rock AFB who now have PM alumni and coaches. With each coaching engagement I can help others grow while I learn more, not to mention I also get to meet some awesome innovators and continue growing our community.

What is the role of innovation in your current position?

I am the Director of Operations for the 913th OSS. In a position of leadership, innovation plays a huge role especially when it comes to helping with grassroots effort and working toward thawing that frozen middle. It's so important to have innovation advocates among Squadron leadership.

Most impactful memory of PM?

My most impactful memory was hosting a workshop and seeing the beautiful vulnerability shared by our participants. It takes bravery to share your struggles and one of our participants did just that, creating a connection and further reminding us of our shared human experience.

Which PM 3C (culture, competencies, community) resonates the most?

Community. Building community makes culture change last.

Goals for the year ahead?

I hope to complete my DO tour and continue coaching for PM workshops.

Final thoughts?

It can be a lonely uphill battle when trying to make meaningful change in the military so any opportunity to have others join you is incredibly relieving. I love this PM community and look forward to continually supporting it.



**MATT
EVERS**
PM Cohort 12

What have you been up to since finishing your cohort?

I was part of Cohort 12 during my last semester at Marine Corps Command and Staff College. Some of our team members have continued to work on our Echolink solution and have gone on to coach Cohort 13. The work we were doing with Project Mercury provided me with new ways of thinking and fresh ideas as I completed my Command and Staff College thesis, leadership classes, and final papers on contemporary war. Project Mercury has followed me to the Pacific with a workshop at Kadena Air Base. I am currently the Operations Officer at III Marine Expeditionary Force Support Battalion at Camp Hansen, Okinawa and will continue to support applied professional military education such as Project Mercury.

What is the role of innovation in your current job?

Our organization, III MEF Support Battalion, provides combat service support to several different headquarters and functional units, each with their own "language", perspectives, and requirements, and who are all going through their own paces of force development and modernization. Possessing a prismatic, innovation mindset is essential to being adaptive and effective in this environment.

Most impactful memory of PM?

Our sponsor pitch was a thrilling experience. It was very rewarding to have developed a tangible solution that a General Officer believed could bring serious value to the warfighter.

Which PM 3C (culture, competencies, community) resonates the most?

Community stands out. A network helped bring me to Project Mercury and I would not have been exposed to new cultures and gained new competencies without diversifying my network and connecting communities of practice between the Marine Corps and the Department of the Air Force. Make the "two call rule" a superpower!

Goals for the year ahead?

I think an adjacent community to organizations like Project Mercury is the professional wargaming community which explores emerging complex issues, is cross-disciplinary, factors the human dimension, and requires flexibility of mind. I plan to establish a wargaming club overseas and design my own game on logistics in a contested environment.



**NIMISHA
SHAH**
PM Cohort 13

What have you been up to since finishing your cohort?

Training and Curriculum specialist for Child & Youth Programs with the Air Force.

Most impactful memory of PM?

One of the most impactful moments of Project Mercury was during a group meeting in which our team started the conversation in one direction, however with the compounding ideas and perspectives of each member we landed at a completely different vantage point—and an arguably better one. Something else that I found to be impactful was the instructors’ modeling of the pedagogical values emphasized in the curriculum: specifically, the humility and courage to seek honest feedback (that we might otherwise be nervous to) in order to grow.

Which PM 3C (culture, competencies, community) resonates the most?

Something beautiful about the innovation culture across the Mercury network is everyone’s willingness and readiness to help each other: I was initially nervous about conducting interviews during the accelerate phase of the project, but it was incredible how my coaches connected me with their peer network and other Mercury Alumni to set the pace for the remainder of the project.

Goals for the year ahead?

I’m eager to affect positive change in my community and to do something that really counts—something that can’t be done by a machine...

Bonus quote?

“We cannot solve our problems with the same thinking we used to create them.”



**PAUL
ELLIS**
PM Cohort 4

What have you been up to since finishing your cohort?

I established two cutting-edge Spark Cells: one at Fort Sam Houston, focused on revolutionizing medical education across 19 Air Force Specialty Code (AFSC) technical training programs, and one at Kadena Air Base [Samurai Spark], pioneering medical innovation and launching the first embedded Defense Health Agency (DHA) Spark Cell. I also coached six cohorts, facilitated three Project Mercury Innovation Workshops (PMIW), and helped enroll 10 Airmen in Project Mercury.

What is the role of innovation in your current position?

As the SEL for the 18 MDG, I am driving medical innovation, particularly within the Shogun Spark Cell. A key aspect of this role involves the strategic incorporation of innovation processes into the Group Commander’s Lines of Effort. By applying Project Mercury (PM) innovation methodologies, we have successfully expedited initiatives that previously required a year to complete, reducing the timeline to just 13 weeks. Notable achievements from our spark cell include the development of Project Lavoy [blood analogous donation in contested wartime environments], Katie Cups [innovative urinalysis solution], and advancements in fit mask connector designs.

Most impactful memory of PM?

My most impactful memory of PM was watching individuals I coached [progress from feeling] lost and frustrated to the end of their respective cohort where they ended up coaching and guiding future innovators.

Which PM 3C (culture, competencies, community) resonates the most?

Culture. As an innovator you can come up with ideas all day long but if you don’t bake it into the culture within your organization then, it is not sustainable; it’s what we call an ‘ism which doesn’t survive your time.

Goals for the year ahead?

I would like to replicate the Medical Group’s Samurai Spark culture across Team Kadena; this is the only way to make it a lasting culture across the wing.

A MESSAGE TO THE PROJECT MERCURY ALUMNI: EMBRACING THE FUTURE OF INNOVATION

As I reflect on our journey together, I am filled with pride and a sense of accomplishment. We have achieved something remarkable, and I am honored to have shared this experience with each of you. Our mission to democratize innovation has resonated deeply, and I am thrilled to see the impact it has had on our military and beyond.

My passion for working with the military stems from a deep respect for your commitment to protecting our nation and our allies. I believe that by empowering you with the tools and mindset to innovate, we can create a more secure and prosperous future. The SODOTO approach – see one, do one, teach one – has been instrumental in unlocking the problem-solving potential within organizations. By embracing this methodology, we have witnessed firsthand the power of self-sufficiency and creative solutions.

The Innovation Code, rooted in the Competing Values Framework, has been a cornerstone of our program. By embracing prismatic thinking, adaptive mindsets, diverse worldviews, and the creative power of constructive conflict, we have cultivated a culture of innovation that transcends borders and silos.

As we look to the horizon, I am excited to share with you the new initiatives on the horizon. Our work with Poland and the Eastern Flank, in response to the situation in Ukraine, has been both eye-opening and inspiring. The willingness of our multinational allies to take risks and embrace new approaches has been a testament to the power of collaboration. As General Marek Łapiński, Polish Land Forces, aptly puts it, “Innovation is not a luxury, it’s a necessity. We must learn from each other and adapt to stay ahead.”

In the Pacific, we are witnessing a surge in interest for more fluid, multinational innovation relationships. Singapore’s investments in this area are paying dividends, and their collaborative efforts with allied nations in Southeast Asia are a shining example of what can be achieved through collective effort. The National Guard’s State Partnership Program is another beacon of innovation, demonstrating the impact that can be made through grassroots initiatives.

As we embark on the next five years, I am filled with a sense of anticipation. Each of our service branches, allies, and programs will be bringing more agility to their approach, and it is clear that an adaptive and creative mindset will determine who will win the next wars.

To my fellow innovators, I offer these parting thoughts: our work is far from over. We need your continued leadership to make innovation happen everywhere, every day. I thank you for your service and appreciate the trust you have placed in me. Onward, ever onward!

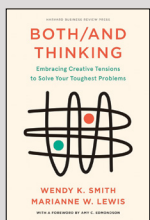
Sincerely,



Jeff DeGraff

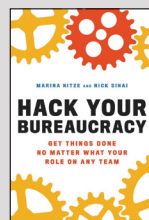
Professor, Ross School of Business, University of Michigan

THE BOOKSHELF: WHAT OUR COACHES ARE READING



Both/And Thinking: Embracing Creative Tensions to Solve Your Toughest Problems

Wendy Smith and Marianne Lewis



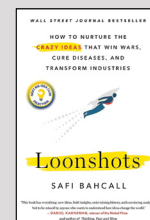
Hack Your Bureaucracy: Get Things Done No Matter What Your Role on Any Team

Marina Nitze and Nick Sinai



LIFT: Innovation Lessons From Flying Machines That ALMOST Worked and the People Who NEARLY Flew Them

Dan Ward



Loonshots: How to Nurture the Crazy Ideas That Win Wars, Cure Diseases, and Transform Industries

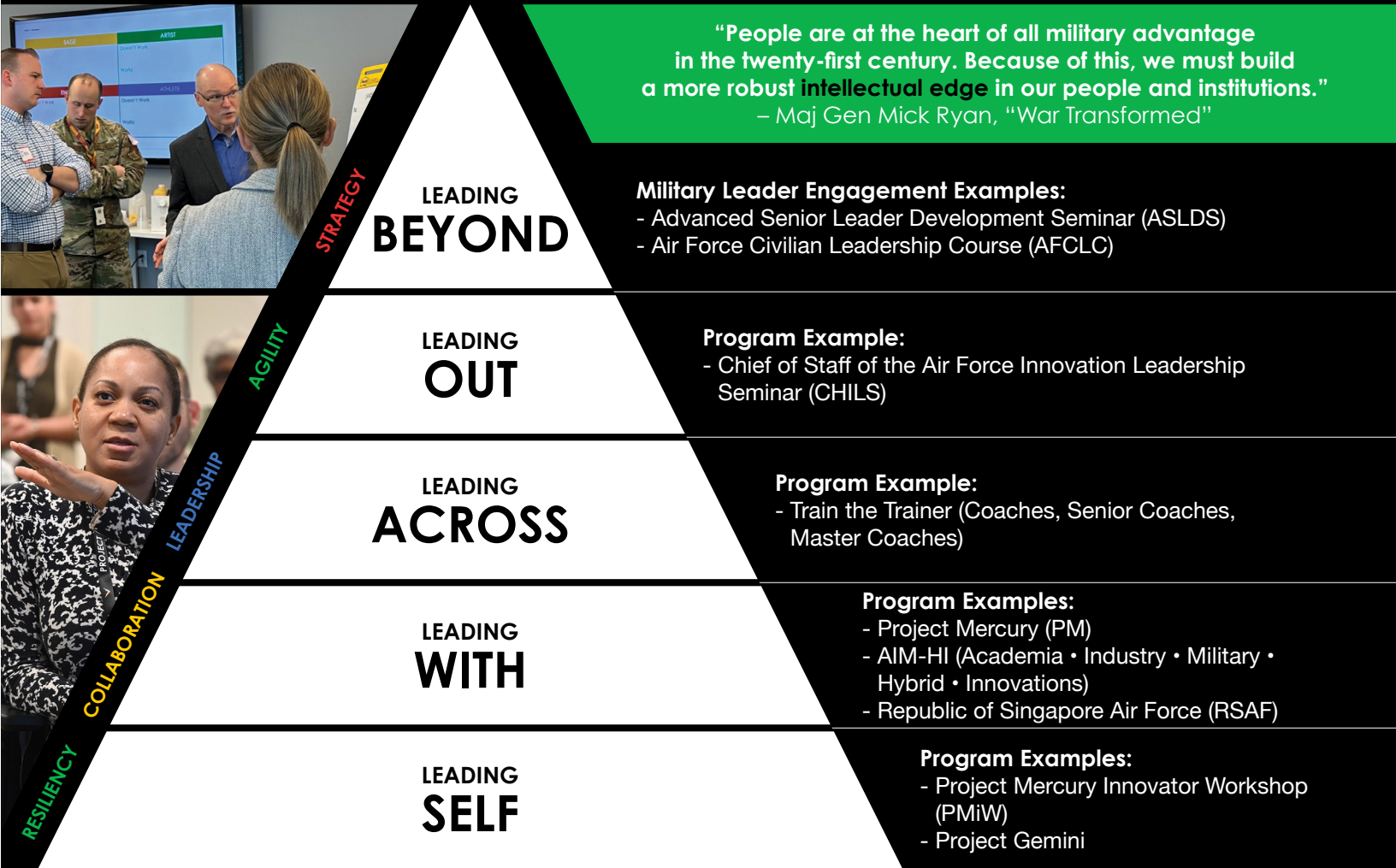
Safi Bahcall

New Book By Jeff DeGraff Coming Spring 2025 – *The Art of Change: Transforming Paradoxes into Breakthroughs*



Innovation Mindset See-One, Do-One, Teach-One (SODOTO)

 iGenome / Competing Values Framework

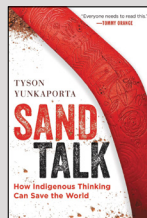


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Orbiting the Giant Hairball: A Corporate Fool's Guide to Surviving with Grace

Gordon MacKenzie



Sand Talk: How Indigenous Thinking Can Save the World

Tyson Yunkaporta



The Origins of Victory: How Disruptive Military Innovation Determines the Fates of Great Powers

Andrew F. Krepinevich Jr.



The War for Ukraine: Strategy and Adaptation Under Fire

Mick Ryan

PROJECT MERCURY @ USA

OUR PURPOSE

The mission of Project Mercury is to strengthen the innovation culture, competency, and community in the USAF, USSF, joint partners, and allies. Now in its 5th year, ProjectMercury@US has graduated nearly 450 Certified Professional Innovators, conducted over two dozen workshops, and nurtured a robust community of practice.

Project Mercury (PM) introduces participants to proven practices required to stimulate and manage innovation. Using collaborative seminars, real projects, and individual study, participants learn frameworks for designing, developing, and implementing innovation within and across organizations. This program provides not only perspective, vocabulary, and skill base—but also the tools to lead innovation-focused projects, people, and ventures through a practical project-based approach.

OUR METHOD

Project Mercury applicants are invited from a wide range of ranks and responsibilities and placed in intentionally diverse teams. These teams strengthen their innovation mindset and toolkit as they grapple with challenging problem sets that are relevant to their collective organizations.

Guided by experienced PhD coaches and Project Mercury alumni mentors, participants learn how innovation tools and methods can be successfully employed in real work situations through a dual track of academics (conceptual) and project application (experiential). Throughout the course, participants engage with graduate level academics and dynamic group work, resulting in a professional certificate from the University of Michigan School of Engineering. More importantly, our alumni graduate with the mindset, tools, and network that changes their effectiveness in their units and future endeavors.

OUR REACH

From Project Mercury's founding in 2019 until today, the scope of this program has expanded substantially. Original participants quickly responded to the methodology of "See One, Do One, Teach One" and many of them co-created workshops and spin off programs. In the past four years, PM has laid the foundation for sister programs such as AIM-HI (National Guard), RSAF-Swift (Singapore), PM@NATO Cohorts, Project Mercury Innovator Workshops at locations throughout the USAF and NATO, and lesson blocks in PME throughout the USAF/USSF/USAF/ ROTC.

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