Air Force A3 Receives Award for Space

SECRETARY OF THE AIR FORCE PUBLIC AFFAIRS COMMAND INFORMATION (DEC. 4, 2015)

WASHINGTON—The Air Force Association presented the General Thomas D. White Space Award to the Headquarters U.S. Air Force deputy chief of staff for operations for outstanding contribution to American aerospace progress on Nov. 20.

Air Force Chief of Staff Gen. Mark A. Welsh III nominated Lt. Gen. John Raymond for this award for his role as the commander of 14th Air Force, Air Force Space Command; and commander of Joint Functional Component Command for Space, U.S. Strategic Command.

"General Raymond's tireless leadership, persistent dedication to excellence, and innovative efforts have enabled the delivery of unrivalled space effects to nine unified combatant commanders and assured our nation's continued asymmetric advantage in the space domain," Welsh said.

According to the award citation, Raymond distinguished himself by leading more than 20,500 airmen and commercial contractors, providing unrivalled space effects to nine unified combatant commanders. His team tracked 260 foreign missile launches and 95 worldwide space launches, detected 345 on-orbit spacecraft maneuvers, and executed more than 335 days of space control missions for Operation Enduring Freedom, supporting 400 joint task force operations.

Under Raymond's guidance, operations and intelligence reached new levels of integration in the standup of the joint space intelligence enterprise and joint exploitation and fusion cell. Additionally, in partnership with the commercial space industry, Raymond led the standup of the Commercial Integration Cell at the Joint Space Operations Center.

"I am extremely honored and humbled to accept this coveted award," Raymond said. "In fact, the only way I can accept this award, is to do so on behalf of the 22,000 airmen of 14th Air Force and JFCC Space that I was privileged to lead. These airmen professionally operate the space capabilities that fuel our American way of life and our American way of war … they make it look easy and it's not."

When Gen. Thomas D. White retired in 1961, the National Geographic Society established an annual award in his name, to be given to an Air Force military or civilian person for outstanding contribution to American aerospace progress. The first recipient was Virgil I. "Gus" Grissom, a pilot of Mercury Liberty Bell 7, for the 15-minute suborbital flight.

The sponsorship of the award passed from the National Geographic Society to AFA and the General Bernard A. Schriever Chapter 147 in 1996.

Lt. Gen. John Raymond, Headquarters U.S. Air Force deputy chief of staff for operations, gives an acceptance speech after receiving the Air Force Association General Thomas D. White Space Award Nov. 20, 2015. Air Force Chief of Staff Gen. Mark A. Welsh III nominated Raymond for this award for his role as the 14th Air Force and Air Force Space Command commander and Joint Functional Component Command for Space, and U.S. Strategic Command commander.

Courtesy photo/Shelly Kemp

Air Force Life Cycle Management Center Product Support Managers Win DoD-level Awards

88TH AIR BASE WING PUBLIC AFFAIRS (DEC. 16, 2015)
Gina Marie Giardina

WRIGHT-PATTERSON AIR FORCE BASE, Ohio—Two product support managers in the Air Force Life Cycle Management Center each won a 2015 Secretary of Defense Product Support Manager Award announced by Under Secretary of Defense for Acquisition, Technology and Logistics Frank Kendall Dec. 9, 2015.

Dale Hertenstein, the product support manager in the Global Hawk division, won in the Major Defense Acquisition Programs category; and, Perry Hill, the PSM in the Space, Aerial and Nuclear Networks division, won in the Major Weapon System/Other Weapon Systems category.

Hertenstein and Hill were chosen from a field of 44 nominees across the center, and an even larger number across Air Force Materiel Command and the Department of Defense, said Col. Shawn Harrison, the AFLCMC logistics director.

In the announcement of the winners, Kendall stressed the significance of this award and the ways in which it highlights the PSMs' efforts for warfighters across the Services.

"The prestigious award recognizes PSMs as important partners in providing the very best product support for our soldiers, sailors, airmen, and Marines," he wrote. "It furthers the Defense Acquisition Workforce vision of 'creating a high-quality, high-performing, agile [Defense Acquisition Workforce] to achieve technological superiority and protect America's national security'."

Hertenstein and Hill, along with other winners in the DoD, will be recognized at the spring 2016 Office of the Secretary of Defense Product Support Manager/Performance-Based Logistics Workshop as well as at their respective commands.

"This is a testament to the tremendous caliber of life cycle logisticians we have within AFLCMC," said Harrison.

Harrison also commended the supervisors of these PSMs for supporting their efforts and building strong nomination packages.

While AFLCMC is headquartered at Wright-Patterson Air Force Base, the center has far-reaching support at Air Force bases and other locations worldwide. The Global Hawk division is located at Wright-Patterson AFB in Dayton, Ohio; and the Space, Aerial and Nuclear Networks division is located at Hanscom AFB in Bedford, Massachusetts.

Dale Hertenstein
Product Support Manager, Global Hawk Division
Wright-Patterson Air Force Base, Ohio
Winner of 2015 Secretary of Defense
Product Support Manager Award
DoD photo

Marilyn Thomas Selected as Presidential Distinguished Rank Award Winner

SECRETARY OF THE AIR FORCE PUBLIC AFFAIRS COMMAND INFORMATION (DEC. 21, 2015)

WASHINGTON—The deputy chief management officer, Office of the Under Secretary of the Air Force, was named the Air Force's top Presidential Rank Award winner and recognized at the "Unlocking the Full Potential of America's Federal Workforce" event hosted by the Office of Management and Budget Dec. 15.

Marilyn Thomas, who was selected as a Presidential Distinguished Rank Award winner, is responsible for improving effectiveness and efficiency of business operations and serves as the Director of Business Transformation, overseeing implementation of continuous process improvement initiatives.

The Presidential Distinguished Rank Award is limited each year to only 1 percent of the Air Force's senior executives, and only 5 percent of SES employees may receive the Presidential Meritorious Rank Award.

Marilyn Thomas
Director of Business Transformation
Air Force Top 2015 Presidential Rank Award Winner
DoD photo

Michael A. Gill
Air Force Materiel Command Executive Director
2015 Distinguished Executive
Presidential Rank Award Winner
DoD photo

"This award is really the pinnacle award for an SES career," Thomas said. "To be recognized by the President with the distinguished award is unlike any other recognition that a civilian can get."

Thomas said she was humbled to receive the award.

"The only reason I was able to receive this award is because all of the other SES employees, the general officers, and of course all of the workforce and people I've served with over the years," Thomas said. "They taught me and helped with any success I've managed to have. "

She also had some advice for civilians seeking mentorship.

"Every day is a job interview," Thomas said. "You can have a great resume, you can put together a great reference letter, a great package to submit for a position, but what people are really impressed with is your day-to-day performance."

AFMC Executive Director and AFRL Senior Civilians Among 2015 Presidential Rank Award winners

AIR FORCE MATERIEL COMMAND PUBLIC AFFAIRS (DEC. 23, 2015)

WRIGHT-PATTERSON AIR FORCE BASE, Ohio—The Office of Personnel Management recognized recipients of the prestigious Presidential Rank Awards for 2015 on Dec. 15, and the list includes six Air Force Materiel Command civilians. One of the AFMC recipients is the command headquarters' own Executive Director Michael A. Gill.

"Each year, the President selects a very small cadre of Senior Executive Service civilians to receive a Presidential Rank Award in recognition for their long-term accomplishments in providing exceptional service to the American people," Secretary of the Air Force Deborah Lee James said in an e-mail message announcing the winners. "The recipients of this prestigious award are outstanding leaders who consistently demonstrate strength, integrity, and a relentless commitment to public service."

There are two categories of rank awards: distinguished and meritorious. Award winners are chosen through a year-long rigorous selection process. They are nominated by their

agency heads, evaluated by boards comprised of private citizens, and approved by the President. The evaluation criteria focus on leadership and results.

"This is well-deserved recognition for Mike Gill and all of our AFMC honorees," said Gen. Ellen Pawlikowski, commander of AFMC. "They set the bar high and delivered outstanding leadership, dedication, and hard work. They are public servants of the highest caliber."

Gill appreciated the award but acknowledged the others who contribute to his success.

"I am very honored by this recognition, but it also recognizes the great team we have at AFMC," he said. "From our senior leaders to our some 80,000 military and civilian airmen, they make AFMC the world's best provider of agile combat capabilities."

Specific categories and AFMC recipients include:

2015 Distinguished Executive
Michael A. Gill, Air Force Materiel Command Executive Director, Wright-Patterson Air Force Base, Ohio. Gill advises the commander in managing the delivery/support of agile, war-winning capabilities through leading-edge science and technology, life cycle management, test and evaluation, and supply chain management.

2015 Meritorious Executive
Ricky L. Peters, Air Force Research Laboratory Executive Director (retired). Peters partnered with the AFRL commander, managing a $5 billion portfolio, and delivering science and technology breakthroughs for the warfighter.

Dr. John S. Wilcox, Air Force Research Laboratory Munitions Director (retired). Wilcox led the discovery, development, and integration of affordable warfighting conventional air-launched weapon technologies for the Air Force.

2015 Meritorious Senior Professional
Dr. Robert E. Peterkin, Air Force Chief Scientist for Directed Energy. Peterkin is responsible for all Air Force research and development of high energy lasers, high power microwaves/dense plasmas, and advanced optical technologies.

Dr. Steven K. Rogers, Air Force Senior Scientist for Automatic Target Recognition and Sensor Fusion. Rogers pioneered efforts advancing machine intelligence for Air Force data-to-knowledge challenges, to defeat terrorist networks and cyber attacks.

Dr. Gregory G. Spanjers, Air Force Research Laboratory Space Vehicles Directorate Chief Scientist. Spanjers is also the Capability Lead for science and technology investments in both Space Superiority and Nuclear Deterrence.

For the full list of the 2015 Air Force PRA winners, visit https://www.opm.gov/policy-data-oversight/senior-executive-service/presidential-rank-awards/agency/department-of-the-air-force/

Hanscom Employee Captures DoD-level Award

66th AIR BASE GROUP PUBLIC AFFAIRS (DEC. 23, 2015)
Patty Welsh

HANSCOM AIR FORCE BASE, Mass.—The Department of Defense has recognized a Hanscom employee with a prestigious product support award.

Perry Hill, product support manager and chief of logistics for the C3I and Networks Directorate's Space, Aerial and Nuclear Networks Division, recently won the 2015 Secretary of Defense Product Support Manager Award in the category of Major Weapon System/Other Weapon System, acquisition category II or below.

According to DoD, the award recognizes PSMs as "important partners" in providing the best product support for warfighters. In the memo from the Undersecretary of Defense for Acquisition, Technology and Logistics soliciting nominees for the award, it says, "the Product Support Manager (PSM) is a critical program position in delivering weapon system readiness affordably and effectively."

"Perry revolutionized our support to critical warfighting systems," said Col. Todd Krueger, Space, Aerial and Nuclear Networks Division senior materiel leader. "His initiatives and innovative solutions are paying huge dividends in controlling life cycle costs while ensuring world class sustainment."

Hill's ability to create efficiencies helped him garner the award.

For example, his multi-program executive officer's approved process for linking product support execution across the division's 20-plus programs and projects connected development and sustainment and resulted in the creation of a combined life cycle planning and execution team. He also looked for opportunities to create business models to eliminate overlapping capabilities, leading to savings for the Air Force and, ultimately, the taxpayer.

"He is simply the best in his field," Krueger said. "Perry is renowned for his exceptional knowledge and skill. You can't

Perry Hill
Product Support Manager and Chief of Logistics for the C3I and Networks Directorate's Space, Aerial and Nuclear Networks Division
Winner of 2015 Secretary of Defense Product Support Manager Award

DoD photo

effectively accomplish full life cycle management responsibility without an outstanding product support manager, and Perry sets the example."

Hill delivered weapon system support by driving development of an integrated maintenance schedule that enabled sustainment of the $1.6 billion Battlefield Airborne Communications Node fleet in theater with a 90 percent aircraft availability rate and a 100 percent mission effectiveness rate.

According to Krueger, Hill is also responsible for sustainment planning, execution, and transition for numerous airborne networking and satellite communication (SATCOM) terminal programs. In addition, he led product support efforts for the division's nuclear command, control and communications (NC3) programs, ensuring the entire life cycle was considered during initial strategy development.

And technical expertise was not the only area noted. According to his nomination package, Hill worked to improve professional development of the life cycle logistics workforce by developing a monthly academic and leadership development program to enhance critically needed skillsets.

"Perry is a phenomenal leader and teacher," Krueger said. "He saw the need for strong mentoring, and on his own initiative he developed his unique and informative program."

Hill praised others for helping him win.

"The credit goes to HNA [Space, Aerial and Nuclear Networks Division] and C3I&N PEO who have provided me with strong leadership support and an outstanding support cast to make this happen," he said. "I'm certainly indebted to them and the team for all they've done."

The winners of the PSM awards will be acknowledged at the Spring 2016 Office of the Secretary of Defense Product Support Manager/Performance-Based Logistics Workshop.

Perry Hill, product support manager and chief of logistics for the C3I and Networks Directorate's Space, Aerial and Nuclear Networks Division at Hanscom Air Force Base, Massachusetts, recently won the 2015 Secretary of Defense Product Support Manager Award in the category of Major Weapon System/Other Weapon System, acquisition category II or below.

Face of Defense: Army Logistics Duo Supply Excellence

DEPARTMENT OF DEFENSE NEWS ARTICLE (DEC. 31, 2015)
Army Master Sgt. Duff E. McFadden

JOHNSTON, Iowa—The military logistics business is not for the faint of heart. Supplies and equipment must be received, inventoried, stored, and issued under stringent rules of accountability.

Joint Forces Headquarters soldiers here can depend on senior supply sergeant Army Sgt. 1st Class Harold G. Tackett, 51, and supply sergeant Army Sgt. 1st Class Daniel Aguirre, 33.

Tackett, who hails from Runnells, Iowa, and Aguirre, who's from Altoona, Iowa, manage the daily logistical support for the Iowa National Guard's JFHQ, United States Property and Fiscal Office, Warehouse 12, Employer Support for the Guard and Reserve, Education Office, Identification Card Section, the U.S. Army Operation Support Airlift Command and 671st Troop Command.

Within JFHQ alone, they service nearly 300 soldiers, 54 percent of whom are officers. All told, this Camp Dodge duo

Iowa Army National Guard Sgt. 1st Class Harold G. Tackett, the senior supply sergeant at the Iowa National Guard's Joint Forces Headquarters and a native of Runnells, Iowa, prepares to issue ammunition during a German Armed Forces Badge for Military Proficiency competition at Camp Dodge in Johnston, Iowa, Nov. 8, 2014.
Iowa Army National Guard photo by Master Sgt. Duff E. McFadden

is ultimately responsible for more than $21 million worth of equipment and supplies.

Recognized Excellence
Recently, they were presented the regional Chief of Staff, Army, Supply Excellence Award, which recognizes supply excellence at the organizational level.

"It's validation that we're good at what we do," Tackett said. "We've won the regional competition, after going up against seven other states. Now we go on to the national level."

While recognition is always nice, the duo said their biggest impact is in servicing soldiers through the day-to-day operations of a fluid, functioning logistics system.

JFHQ received 93,000 items from the Defense Reutilization Management Office, worth approximately $840,000. Those items were then re-issued to units throughout the state, making a huge impact on spending, while putting the equipment to good use. They've scored 100 percent on their physical security inspections over the last two years, as well as on their Command Supply Discipline Program.

Organization is Key to Success
Organization is the key factor that's required in managing a successful supply operation, Tackett said.

"You have to be really, really organized in supply," he added. "If you're not organized you'll have nothing but chaos. You simply have to pay attention to detail on a daily basis."

Tackett's been involved with supply throughout his military career, beginning with his first active-duty Army assignment in Okinawa, Japan. After leaving the U.S. Army in 1992, he joined the Iowa Army National Guard.

A 22-year Iowa National Guard member, as well as serving in the active-duty Army for 11 years, Tackett said he's seen or done just about everything when it comes to supply.

"There are too many young supply sergeants today who have been suddenly thrust into new jobs and left to fend for themselves," Tackett said. "You have to mentor junior logisticians on how to do their job and how to do it proficiently. Once you get the basics down, it's easy."

One such soldier is Tackett's right-hand man. A 14-year Iowa National Guard veteran, Aguirre has been a member of the JFHQ supply team since July, when his position moved from the 671st Troop Command and was incorporated with JFHQ. Aguirre joined the Iowa National Guard in 2001, during his senior year at Ankeny High School. He originally served as a supply technician with the 186th Military Police and then became a supply sergeant for the 671st Troop Command. He began looking into a full-time, Active Guard and Reserve position, so he reclassified into the Unit Supply Specialist career field.

In July, he volunteered to move to Joint Forces Headquarters to assist with supply issues.

"Sergeant Tackett knows everything there is to know about supply," Aguirre said. "Anything I can learn from him definitely helps me. He mentors me, he gives me advice, he answers any and all of my questions."

For these supply soldiers there's no such thing as a typical day at work. An automated property book problem may arise, just as easily as a supply, repair, protocol, or purchasing issue. They may have to prepare weapons and ammunition for the qualification range, while getting ready for the Iowa State Fair Military Day parade.

While having only two supply personnel servicing so many units can provide unique challenges, Tackett said he's confident that he and Aguirre are up to the task.

Taking Care of Customers

"Daniel can do everything I can do, from credit card purchases for local purchases, to dispatching out a vehicle," Tackett said. "I'm in charge ultimately and I oversee everything that comes in and out. Between the two of us, we provide a much better customer service."

According to Aguirre, the best part of the job is taking care of customers. He acknowledged his job can be challenging at times.

"It's pretty amazing how much stuff gets accomplished during the week in order to get ready for a drill weekend. You have to be really fluent in multi-tasking and in working under pressure," he said.

Coming to work is the easiest part of their day, Tackett added. "It's what happens when you get here," he said.

R&D Strategy Leverages Innovation, Partnerships

AIR FORCE RESEARCH LABORATORY (JAN. 4, 2016)
Derek Kaufman

WRIGHT-PATTERSON AIR FORCE BASE, Ohio—The stakes are high for Department of Defense leaders seeking to equip the U.S. military force of the future.

In addition to the ever-present and evolving dangers presented by global terrorism, defense planners face proliferating and increasingly sophisticated cyber threats by nation-states, organized crime, and other actors.

As Deputy Secretary of Defense Bob Work told attendees of the Reagan National Defense Forum in November, the department will meet these demands by incorporating new operational and organizational constructs, relying heavily on innovation, teaming, and collaboration between industry, academia, and the defense laboratories.

The October standup of the Defense Innovation Unit Experimental in California's Silicon Valley is one endeavor to establish new information technology sector connections to harness innovation for the military.

"DoD needs the ability to quickly adapt others' technologies for our purposes and do it more rapidly than our adversaries who have access to the same resources," said Maj. Gen. Tom Masiello, commander of the Air Force Research Laboratory.

Masiello said productive engagement with both large and small businesses already underpins the development of AFRL's advanced technologies, and this trend will continue. He highlighted AFRL Industry Days and Technology Interchange Meetings as events where Air Force officials highlight capability gaps and needs to focus industry research and development efforts.

Additionally, AFRL hosts "Deep Dives" with major defense industry partners. These detailed reviews of AFRL science and technology portfolios reveal challenges and opportunities. The idea is to establish a longer term vision of shared government and industry objectives, and invite new approaches to solving technology challenges. AFRL held four such engagements in 2015 and plans to reach out to more industry partners in 2016.

Small business is critical to the Laboratory. AFRL exceeded its overall fiscal 2015 goal of 39 percent of contract awards

A Wright Flyer and images of aviation pioneers Wilbur and Orville Wright are featured on the newest Department of Defense supercomputer, "Thunder," operated by the Air Force Research Laboratory at Wright-Patterson Air Force Base, Ohio. Research in advanced computing and man-machine teaming are envisioned as vital to future DoD capabilities.
U.S. Air Force photo/Derek Hardin

to small businesses, said Bill Harrison, the laboratory's Small Business lead.

AFRL Small Business Collider Events are a recent addition to the AFRL industry outreach mix.

"These free and open events, focused around specific technology areas, are popular with entrepreneurs, industry, and university researchers," Harrison said. "They help strengthen the Air Force industrial base and benefit small technology businesses by identifying new commercial markets for promising Air Force technology."

This year the AFRL Small Business Hub at Wright-Brothers Institute in Dayton, Ohio, grew to nearly 450 members, held 70 collider events, and 210 one-on-one meetings to assist businesses and link them with the laboratory, according to Harrison.

About 300 people from across the U.S. converged on a similar "Commercialization Catalyst" event held Dec. 4, 2015, in Dayton. The event featured presentations on a dozen AFRL technologies as candidates for entrepreneurial investment to commercial markets.

"We're building trust and relationships with these small business partners who then become better positioned to support us with their creative ideas. This is win-win and a bridge to speed innovation," Doug Ebersole, AFRL executive director said.

"Innovation doesn't happen in a vacuum. Innovation isn't just creating new things. It's frequently gathering existing products and using them in a new way," Ebersole said. "Our challenge is to do it faster than the other guy."

Ebersole said the diversity of ideas contributed by a variety of technology partners is important to delivering the agility DoD seeks in an uncertain world.

"Agility is all about adapting technology faster. It's about harnessing creativity to solve technical problems—such as using a technology that was invented for one purpose for something completely different, inside or outside of the military," said Ebersole.

"This kind of agility requires the entire community of researchers from the federal labs, research organizations like [Defense Advanced Research Projects Agency], small and large businesses, and universities to really collaborate and understand what each can offer to the others. We leverage investment and acceleration speed to market by connecting the communities."

Masiello believes today's research in game-changing technologies like hypersonics, autonomy, unmanned systems, and directed energy will play an important role in protecting our nation.

"Hypersonics enables us to fly to a target at Mach 6, directed energy is about precise effects at the speed of light, autonomy is focused on things like airmen-machine teaming and big data analytics to make faster, better-informed decisions," he said. "We're on a path to enable these things, and

they will give our future warfighters an unfair advantage over their adversaries—which is exactly what we want."

Former Employee Receives DoD Leadership Award

DEFENSE LOGISTICS AGENCY ENERGY PUBLIC AFFAIRS (JAN. 14, 2016)

Elizabeth Stoeckmann

ARLINGTON, Va.—A former Defense Logistics Agency Energy Bulk Fuels Contracting division chief earned the 2015 Under Secretary of Defense for Acquisition, Technology and Logistics Acquisition and Contracting Legends Award during a ceremony at the Pentagon Jan. 12.

Donald Peschka, the first DLA Energy employee to receive the award, was recognized by Defense Procurement and Acquisition Policy Director Claire Grady with DLA senior leaders, fellow co-workers, and his wife, Claudine, in attendance.

"I had no idea," Peschka said, when he was called in for a DLA Energy meeting to discuss the nomination package. "We didn't have much time ... so we said we'd see what happens."

The award, established in 2013, honors contracting legends who embody leadership and mentorship in executing the defense mission.

Peschka was selected from a list of nominees as the individual energy leaders believed best exemplifies the contracting wisdom and values that characterize such inspirational leaders.

According to the award citation, Peschka's commitment to the professional development and mentorship of the workforce, effective collaboration, and creative leadership made him one of the most influential and respected leaders within the DoD acquisition and contracting community.

"Mr. Peschka was an instrumental part of the DLA Energy program and, quite frankly, the reason so many DLA visitors are here today." Grady said. "It's ... Mr. Peschka's influence, mentoring, coaching, and standard for excellence that inspires others in excellence.

"He fueled the future," she added. "There were tremendous challenges that he took on, overcame, and found solutions for ... one of my favorites was when Iraq invaded Kuwait and all of sudden we didn't have access to JP5 [jet propellant fuel] ... people would say that's horrible ... and Mr. Peschka would pick up the phone and call Mr. Hess of Hess Oil [Corporation] and find a solution to get the fuel flowing."

It's examples like this that speak to the relationship, knowledge, and influence Peschka had with the industrial community he worked with, Grady said.

"Setting the standards for excellence and expecting people to step up is one thing, but what Mr. Peschka did is empower people, and not just with the confidence, but with the professional competency and capability to step up and take those challenges while he supported their superior performance," she said. "That's a role model we all would like to become, and that is why Mr. Peschka was selected for this particular legend's award."

Defense Logistics Agency senior leaders and DLA Energy employees attend the ceremony to witness and honor Donald Peschka for his work earning the Under Secretary of Defense for Acquisition, Technology and Logistics Acquisition and Contracting Legends Award.

Photo by Elizabeth Stoeckmann

A humbled Peschka said he credits his success to the relationships he established and the proud team he served with during his career at DLA Energy.

Air Force Office of Scientific Research Awards Grants to 56 Scientists and Engineers through Young Investigator Research Program

AIR FORCE OFFICE OF SCIENTIFIC RESEARCH STAFF (JAN. 14, 2016)

ARLINGTON, Va.—The Air Force Office of Scientific Research announced today that it will award approximately $20.6 million in grants to 56 scientists and engineers from 41 research institutions and small businesses who submitted winning research proposals through the Air Force's Young Investigator Research Program (YIP).

The YIP is open to scientists and engineers at research institutions across the United States who received Ph.D. or equivalent degrees in the last five years, and who show exceptional ability and promise for conducting basic research.

The objective of this program is to foster creative basic research in science and engineering, enhance early career development of outstanding young investigators, and increase opportunities for the young investigators to recognize the Air Force mission and the related challenges in science and engineering.

AFOSR received more than 265 proposals in response to the AFOSR YIP broad agency announcement solicitation in Engineering and Information Science and Physical and Biological Science research areas. These areas include: Engineering and Complex Systems, Information and Networks, Physical Sciences, and Biological and Chemical Sciences. AFOSR officials select proposals based on the evaluation criteria listed in the broad agency announcement. Those selected will receive the grants over a three-year period.

The award recipients and their anticipated research areas are:

- Dr. Adel Alaeddini, University of Texas–San Antonio, An Active Learning Methodology for Design and Optimization of Complex Expensive Tests
- Dr. Steven Anton, Tennessee Tech University, Continuous Real-Time State Monitoring in Highly Dynamic Environments
- Dr. Scott Baalrud, University of Iowa, Theory of Magnetized Ultracold Neutral Plasmas
- Dr. Xiaoli Bai, Rutgers University, Advanced Orbit Prediction for Resident Space Objects through Physics-based Learning
- Dr. Waseem Bakr, Princeton University, Single-atom Microscopy Of Dipolar Fermi Gases
- Dr. Sally Bane, Purdue University, Plasma-Enhanced Flames at Elevated Pressure
- Dr. Can Bayram, University of Illinois at Urbana-Champaign, Investigating Heteroepitaxy Principles and Transport Characteristics of Vertically-Integrated GaN-on-Graphene Heterostructures
- Dr. Nicholas Boechler, University of Washington, Materials with Designed Nonlinearities: Enabling A New Generation of Stress Wave Transformation
- Dr. Denys Bondar, Princeton University, Operational Dynamical Modelling: Towards Efficient Model-Building and Simulation of Complex Systems
- Dr. Philip Bradford, North Carolina State University, Multifunctional Ultralow Density Structures Based on Aligned Carbon Nanotube Sheets
- Dr. James Burns, University of Virginia, The Effect of High Altitude Environments on the Dislocation Structure Evolution During Fatigue Cracking of Legacy and Next Generation Aerospace Aluminum Alloys
- Dr. Venkat Chandrasekaran, California Institute of Technology, Latent Variable Graphical Modeling for High-Dimensional Data Analysis
- Dr. Lunjin Chen, University of Texas-Dallas, Investigation of Wave Particle Interaction in the Earth's Magnetosphere using Conjugated Observations
- Dr. Michael Chini, University of Central Florida, High-order Harmonic and Attosecond Spectroscopy in Materials
- Dr. Hugh Churchill, University of Arkansas-Fayetteville, Quantum Devices Based on Transition Metal Dichalcogenides
- Dr. Raghvendra Cowlagi, Worcester Polytechnic Institute, Multiscale Dynamic Data-Driven Guidance and Control for Autonomous Vehicle Networks
- Dr. Neil Dasgupta, University of Michigan, Atomically-Precise Interfacial Modification of Low-Density Nanostructured Composites
- Dr. Jillian Dempsey, University of North Carolina-Chapel Hill, Controlled Assembly of Quantum Dot Heterostructures
- Dr. Yousong Ding, University of Florida, Engineering Biosystems for Aromatic Nitration
- Dr. Vivian Ferry, University of Minnesota, Tunable Chiroptical Response In Metamaterial-nanocrystal Hybrid Systems
- Dr. Jessica Fox, Case Western Reserve University, Mechanosensory and Visual Integration For Fly Takeoff And Flight
- Dr. Hadi Ghasemi, University of Houston, Toward Bio-Inspired Smart Thermal Spreaders (BSTS)
- Dr. Ebenezer Gnanamanickam, Embry-Riddle Aeronautical University, Exploiting the Non-linear Interactions within Wall Turbulence for Flow Control

- Dr. Ximin He, Arizona State University, Bioinspired Artificial Homeostatic Multifunctional Material Microsystems (AHM3) based on Self-sustaining Autonomic Adaptive Structures
- Dr. Marcus Hultmark, Princeton University, Theoretical and Experimental Characterization of Turbulent Heat Transfer in Compressible Flows
- Dr. Bharat Jalan, University of Minnesota, Ultra High-Density Complex Oxide Quantum Wells for Emerging THz Plasmonic Effects and Devices
- Dr. Sumit Jha, University of Central Florida, Faster: Formal Methods Based Computer-Aided Synthesis of STochastic inExact in-memoRy Computing Systems
- Dr. Thomas Juliano, University of Notre Dame, Plasma-Actuated Flow Control of Hypersonic Crossflow-Induced Boundary-Layer Transition in a Quiet Tunnel
- Dr. Rehan Kapadia, University of Southern California, Optical Cavity Enhanced Electron Emitters
- Dr. Christina Lee, University of California-Berkeley, The Role of the Background Solar Wind on SEP Events
- Dr. Somin Eunice Lee, University of Michigan, Sub-Diffraction Temperature Mapping of Protein Interconversions
- Dr. Daniel Licata, Wesleyan University, Software Verification with Directed Type Theory
- Dr. John Licato, Purdue University, Active Formalization Through Analogico-Deductive Reasoning
- Dr. Kin Fai Mak, Pennsylvania State University, Exploring Atomically Thin van der Waals Metals for Spintronics
- Dr. Tijana Milenkovic, University of Notre Dame, Efficient Comparison of Multiple Complex Networks
- Dr. SungWoo Nam, University of Illinois at Urbana-Champaign, Reconfigurable, Corrugated Graphene Plasmonics
- Dr. Venkateswaran Narayanaswamy, North Carolina State University, Investigation of Shock Boundary Layer Interactions to Unravel the Physics of Unstart in Axisymmetric Inlets
- Dr. Nicholaus Parziale, Stevens Institute of Technology, Instantaneous Velocity Profiles of Wall-Bounded Shear Flows in Thermochemical Non-Equilibrium
- Dr. Philip Richerme, Indiana University, Programmable 2D Arrays of Interacting Quantum Spins Using Trapped Ions
- Dr. Laurel Riek, University of Notre Dame, Trust Affordances in Human-Automation Teaming
- Dr. Alessandro Salandrino, University of Kansas Center for Research, Inc., Time-varying Metamaterials: Dynamic Transformation Optics and Parametric Phenomena
- Dr. Themistoklis Sapsis, Massachusetts Institute of Technology, Complementing Dynamical Equations with Data in Adaptive Reduced-order Subspaces
- Dr. Vishal Saxena, Boise State University, Realizing Large-Scale Integrated RF Photonic Signal Processing Systems
- Dr. Joseph Scott, Clemson University, Rapid and Accurate Uncertainty Propagation for Nonlinear Dynamic Systems by Exploiting Model Redundancy
- Dr. Javad Shabani, City University of New York, Epitaxial Superconductor-semiconductor Materials Systems for Quantum Computation
- Dr. Matthew Sheldon, Texas A&M University, Hot Electron Enhanced Thermionic Emission (HEETE) Converters for All-Metal Optical Power Generation
- Dr. Nicholas Stephanopoulos, Arizona State University, Peptide-DNA Tiles as Building Blocks for Complex Nanostructures
- Dr. Wenting Sun, Georgia Tech Research Corporation, Explosive Ozonolysis Reactions for Combustion Control
- Dr. Behrouz Touri, University of Colorado-Boulder, Structural Approach to Distributed Optimization
- Dr. Thomas Vidick, California Institute of Technology, Towards a Secure Quantum Network
- Dr. Dashun Wang, Pennsylvania State University, Modeling and Predicting Individual Scientific Impact
- Dr. Yue Wang, Clemson University, Trust-based Human-Robot Collaboration (HRC) for High-Level Distributed Multi-Robot Motion Planning with Temporal Logic Constraints
- Dr. Justin Wilkerson, University of Texas-San Antonio, A Multifunctional Materials-by-Design Approach to Ignition Desensitization
- Dr. Yu Yao, Arizona State University, Mid-Infrared Laser Frequency Comb Generation Based on Ultrafast All-Optical Graphene-metasurface Modulators
- Dr. Andrea Young, University of California-Santa Barbara, Scanning Magnetometry of Low Dimensional Electronic Systems
- Dr. Zhibin Yu, Florida State University, Engineering Organometallic Hybrid Perovskite/Polymer Composites for New Generation Electro-Optics Manufacturing

For general information on the YIP program, contact afosryip@us.af.mil.

Missile Defense Advocacy Alliance Recognizes Air Force Missile Defender of the Year

SECRETARY OF THE AIR FORCE PUBLIC AFFAIRS COMMAND INFORMATION (JAN. 19, 2016)

WASHINGTON—Air Force Vice Chief of Staff Gen. David L. Goldfein presented the Missile Defense Advocacy Alliance's 2015 Defender of the Year award to Maj. Michael Sward during a ceremony Jan. 8 in Alexandria, Virginia.

Sward serves as a Joint Integrated Air and Missile Defense staff officer with the Space and Integrated Air and Missile Defense Division, Operations Directorate, U.S. Pacific Com-

Riki Ellison, the Missile Defense Advocacy Alliance chairman, congratulates MDAA's 2015 Air Force Defender of the Year award winner, Maj. Michael Sward, a Joint Integrated Air and Missile Defense staff officer, Space and Integrated Air and Missile Defense Division, Operations Directorate, U.S. Pacific Command, as Air Force Vice Chief of Staff Gen. David L. Goldfein looks on during a during a ceremony Jan. 8, 2016, in Alexandria, Virginia. Sward synchronized non-kinetic activities with active defenses by integrating offensive cyber capabilities into Pacific air and missile defense operations, and coordinated for the analysis of U.S. defenses with high-fidelity, advanced and emerging threat assessments.

U.S. Air Force photo/Tech. Sgt. Bryan Franks

mand, where he is responsible for daily air and missile defense operations and training, while supporting the entire command in several key areas.

"This is a classic story of a young man with vision, a young man with credibility, and a young man who has great intellect," Goldfein said. "He's able to translate that into real plans that are now [being executed] in ways to better defend the [PACOM] region."

According to Col. S. Edward Boxx, the Space and IAMD Division chief, Sward synchronized non-kinetic activities with active defenses by integrating offensive cyber capabilities into Pacific air and missile defense operations, and coordinated for the analysis of U.S. defenses with high-fidelity, advanced and emerging threat assessments.

Sward also captured critical capability gaps in regional and U.S. defenses, which led to combatant command efforts to enhance regional sensor coverage, improve Pacific tactical command and control capabilities, and counter unmanned aerial system threats.

While Sward has many more accomplishments contributing to his selection for the Air Force's Defender of the Year, the vice chief remembered him from 2011 when he served on the integrated air and missile defense team supporting Goldfein, who served as the U.S. Air Forces Central Command commander at the time.

Goldfein was concerned about the threats that could potentially launch missiles throughout the region and needed to develop a response to this emerging threat. Sward assisted Goldfein in developing relationships with the Gulf Coalition Council and orchestrated bringing them together to create

what Goldfein called the Gulf Combined Air Operations Center.

After Sward received the award, he thanked PACOM leadership for the support he has received and said he represents everyone that serves on Integrated Air and Missile Defense team in the Pacific.

"I'm extremely grateful for PACOM's confidence, trust, and ability they give our team to do this mission in the Pacific," Sward said. "I'm fortunate to work with an innovative team at PACOM where we can touch policy, where we can touch acquisitions and requirements and get after closing those gaps, and write the plans and develop the courses of action to succeed in defense … it's a 'no fail' mission."

The MDAA Defender of the Year award recognizes military members who command fully operational and deployed missile defense systems. The MDAA is a nonprofit organization dedicated to building broad public support for the development and deployment of an effective missile defense system for the U.S. and enhancing missile defense partnerships with its allies.

Tobyhanna Workforce Improves Processes, Realizes $25 Million Financial Benefit

U.S. ARMY COMMUNICATIONS-ELECTRONICS COMMAND (JAN. 21, 2016)
Amanda Spock

TOBYHANNA ARMY DEPOT, Pa. — Do-It-Yourself (DIY)-type projects saved Tobyhanna a bundle by cutting labor hours and material costs during fiscal year 2015.

Internal efficiencies accounted for more than 30 percent of the $25 million financial benefit that resulted from multiple continuous process improvement (CPI) initiatives. Successful Lean events, belt projects, employee suggestions, and value engineering ideas are also credited with helping Tobyhanna surpass last year's savings/cost avoidance goal of $14.8 million.

An internal efficiency is a shop-generated process or idea that is implemented on a DIY basis to reduce direct labor hours or material costs in order to generate savings specific to a cost center.

Earlier this year, the C4ISR Directorate's Thermal Targeting Section teamed up the Ground Sensors Program Management Office to learn how to reprogram circuit cards found in the Long Range Advance Scout Surveillance System (LRAS3). Reprogramming the cards instead of discarding them generated a $7.3 million cost avoidance over three years.

"Prior to the training, we would tag and set the circuit cards aside for possible future repair," said Electronics Worker Jack Scott, adding that he joined Electronics Mechanics Patty Decker and Carl Harshbarger, and Electronics Engineers Corey Petruncio and Vince Shuta to develop and learn the new procedure. "I am pleased with how well the process to convert scrap to useful material came together. In the end, it benefited not only the cost center, but the warfighter as well."

Petruncio and Shuta work in the Production Engineering Directorate's C4ISR Maintenance Engineering Division. Scott, Harshbarger, and Decker are assigned to the C4ISR Directorate's Avionics and Sensors Division.

Another internal efficiency helped the USMC Surveillance Systems Section realize a $713,000 financial benefit by reducing labor hours on AN/TPS-59 Transportable Air Radar transmitter operations and receiver overhaul processes.

Further benefits were achieved when an employee's idea for a new handheld tool became a reality.

His ingenuity and attention to detail saved $15,000. Electronics Mechanic John LaCapra crafted a prototype of a thumb screw adapter from an ordinary binder clip and attached it to a screwdriver.

The tool was designed to keep coworkers from having to perform frequent and repetitive motions while installing and removing countless thumb screws. He submitted his idea to the Army Suggestion Program as an invention that could improve working conditions and increase customer satisfaction. Once the suggestion was approved, a custom-machined bit was fabricated using material that keeps the tool from marring the painted screws. LaCapra works in the C4ISR Directorate's Microwave Radio Section.

"With this tool we can produce a quality product while keeping safety a priority. Because of the speed at which we can accomplish the job, we're able to provide on-time delivery thus keeping customer satisfaction at its highest level," said LaCapra.

Tobyhanna also realized a $717,000 savings generated process improvement initiatives conducted on Lean systems. The Logistics Modernization Program (LMP) provides monthly reports on any of these systems that have completed some type of Lean initiative over the years. Tobyhan-

From left: Corey Petruncio, Patricia Decker, Vince Shuta, Jack Scott and Carl Harshbarger examine and evaluate a Long Range Advance Scout Surveillance System prior to reprogramming the circuit cards at Tobyhanna Army Depot.
Photo by Steve Grzezdzinski

na's total savings is based on the comparison of standard and actual hours charged in LMP for completed programs.

Lean systems include the AN/TRC-190 Line Of Sight Multichannel Radio Terminal, AN/TPT-1 Unmanned Threat Emitter System, AN/ARN-89 Direction Finder Set, Blue Force Tracking, AN/PSS-14 Mine Detector Set, and the AN/TSQ-253 Air Defense and Airspace Management Cell Overall.

The final boost to Team Tobyhanna's savings effort came from the Value Engineering Program.

Electrical Engineer Stan Czock discovered a way to improve the Nett Warrior Program while saving $9.4 million. His hard work led to new cable testing procedures and an alternative power source, providing a better value to the warfighter. Czock works in Production Engineering Directorate.

"Financial benefits resulting from CPI initiatives play a substantial role in making Tobyhanna an attractive place of business for our customers," said Elijah Londo, management analyst who validates the financial benefits. "In times of budget cuts and uncertainty, it is extremely important that we look for ways to improve processes to save money. Doing so keeps Tobyhanna competitive, and more importantly helps ensure that the warfighter receives a quality product from the depot."

Since its inception in 2002, the CPI Program has realized $306 million in financial benefits from process improvement initiatives.

Tobyhanna Army Depot is a recognized leader in providing world-class logistics support for C4ISR systems across the Department of Defense. Tobyhanna's Corporate Philosophy, dedicated work force, and electronics expertise ensure the depot is the Joint C4ISR provider of choice for all branches of the Armed Forces and industry partners.

Tobyhanna's unparalleled capabilities include full-spectrum logistics support for sustainment, overhaul and repair, fabrication and manufacturing, engineering design and develop-

ment, systems integration, post-production software support, technology insertion, modification, foreign military sales, and global field support to our Joint Warfighters.

About 3,100 personnel are employed at Tobyhanna, which is located in the Pocono Mountains of northeastern Pennsylvania. Tobyhanna Army Depot is part of the U.S. Army Communications-Electronics Command. Headquartered at Aberdeen Proving Ground, Maryland, the command's mission is to research, develop, acquire, field, and sustain communications, command, control computer, intelligence, electronic warfare, and sensors capabilities for the Armed Forces.