AIAA, your Institute, is moving smartly to stay relevant to you as an aerospace professional and relevant to our industry and our profession. As our industry evolves, we will grow by staying true to our core values, which are built upon technical knowledge and expertise. AIAA has always provided a meeting place where ideas can be freely and openly exchanged in an intellectually challenging, yet collegial, atmosphere. One appealing attribute of AIAA is that it brings together members from industry, government, and academia without a bias or prejudice toward any one of these constituencies. Having existed for over 50 years—over 80 if one includes legacy organizations—we are positioning ourselves to remain relevant for the next half century. Today, like never before, the convergence of technologies from the communications, information, and automation/robotics industries within aerospace systems is changing the way in which we think about designing, building, and operating aircraft and spacecraft, and the systems in which they operate. Advances in legacy engineering disciplines, such as materials sciences and manufacturing are similarly allowing us to reimagine how we do our jobs during any point of the aerospace product life cycle. Many of AIAA’s members are involved in the design, development, and test and evaluation of engineered systems. A large percentage also are involved in research and development, where advances being made today will affect how we take that knowledge and engineer useful and salable products, systems, and services in the future. AIAA’s Institute Development Committee recently has been discussing and deliberating about technologies and adjacent industry sectors that are affecting what we can do as aerospace professionals. By focusing our efforts on industry sectors such as commercial space, cybersecurity, advanced manufacturing, unmanned aerial system operations and rotorcraft/runway independent air vehicle technology, we will provide opportunities to learn, share, and ultimately expand our collective knowledge, uses, and novel applications of these technologies. This is the first of several columns to explore these sectors and AIAA’s role in them.

Within our industry today, systems thinkers and engineers are merging and linking technologies in ways heretofore unimaginable, and in so doing, are revolutionizing our industry. Two striking examples where convergent technologies will revolutionize our industry and profession are the proliferation of unmanned aerial systems operating in the National Air Space and the ever-expanding capabilities and uses in the area of advanced manufacturing. Small unmanned aerial systems (sUAS) are the current media darling of the aviation industry. Entrepreneurial and corporate communities, as well as government, envision using sUAS for myriad applications, making some form of sUAS traffic management a certainty. A sUAS traffic management system conceived at NASA Ames Research Center and being developed with partners from the aeronautics, communications, and IT industries will realize the vision of ubiquitous sUAS operations for the numerous services and applications that these systems can perform. AIAA is a collaborator in the upcoming UAS Traffic Management Convention 2015 to be held 28–30 July in Mountain View, CA, during which this system will be discussed in an open forum.

Within academia, the FAA has established an FAA National Center of Excellence (CoE) for UAS. Led by Mississippi State University, the Alliance for System Safety of Unmanned Aircraft Systems through Research Excellence (ASSURE) comprises the world’s top UAS universities with 15 core schools and five associated members from three countries and more than 100 government and industry partners. Along with the other member schools and institutions, The Ohio State University was selected as a partner in ASSURE for reasons related to geography, history, and resident expertise. Initial research areas will include detect and avoid technology; low-altitude operations safety; control and communication; spectrum management; human factors; compatibility with air traffic control operations and training and certification of UAS pilots and other crewmembers. Coordination among these many partners will be key to the CoE’s success. To that end, Ohio State and the Sinclair National UAS Training and Certification Center will be co-hosting the first Unmanned Systems Academic Summit, focusing on UAS technological advances, research, and education on 24 August in Dayton, OH.

In the area of advanced manufacturing, techniques being used today are revolutionizing designs as we begin to use additive manufacturing techniques to make parts that defined manufacturability by traditional “subtractive” methods. The recent example of the 3D-printed ratchet and socket aboard the ISS from the start-up company Made In Space, located in Mountain View, CA, is paving the way to printing hardware for use in space, in-space recycling, and even possibly manufacturing from in situ materials. Lightweighting is another important trend impacting advanced manufacturing—especially in the aerospace and automotive industries. In 2014, a research consortium led by Columbus, OH-based EWI (the leading engineering and technology organization in North America dedicated to advanced materials joining and allied manufacturing technologies), Ohio State, and the University of Michigan was chosen by the U.S. Department of Defense to operate the Lightweight and Modern Metals Manufacturing Innovation (LM3I) program. Dubbed LIFT (Lightweight Innovations for Tomorrow), the consortium provides the commercial and military sectors with innovative solutions for lightweight subsystem design, component-level manufacturing, joining, and assembly processes and quality control methods, e.g., distortion-control during joining and heat treatment. These lightweighting solutions involve the development of cutting-edge predictive capabilities and standardized certification methods to enable accurate knowledge of microstructure and damage evolution and performance through physics-based models and advanced interrogation tools.

But LIFT won’t focus on technology at the expense of talent. Its vision—to be the world leader in lightweight materials manufacturing—can only be realized if an educated and skilled workforce can use new lightweighting technologies and processes. Its plan to develop and deploy that workforce is comprehensive and spans both the continuum of jobs in manufacturing where the nation is now experiencing a “skills gap,” and the continuum of education and training that must be available in communities and states seeking to sustain, grow, and attract manufacturing jobs.

At colleges of engineering within our research universities, faculty, staff, and students are being challenged to work collaboratively across departmental and even institutional lines, while at the same time doing discipline-specific research that is truly cutting edge. It is an exciting time to be working in the aerospace profession, regardless of your specific role and responsibilities. AIAA intends to progress into these and other areas that represent challenges and opportunities for our profession. With your support and participation, we can perhaps entice those in aerospace and, frankly, those from other discipline areas that are now intersecting with aerospace, to become active in AIAA. In this way, we can all benefit as we conceive, design, build, and operate aerospace systems, taking full advantage of new technologies and technology convergence opportunities.

Thomas B. Irvine serves as AIAA’s managing director of Content Development. Last year, he retired as NASA’s deputy associate administrator for Aerospace Research after a 32-year career at the agency.

Dr. David B. Williams is the dean of the College of Engineering at The Ohio State University. He served as president of University of Alabama in Huntsville from 2007 to 2011. Both are longtime members of AIAA.
CALL FOR BOARD OF DIRECTORS NOMINATIONS

The 2015–2016 AIAA Nominating Committee will meet in early September to review nominees and select candidates to participate in the Board of Directors (BoD) Election to fill the following vacancies by election in 2016:

- Vice President-Elect, Member Services
- Vice President-Elect, Technical Activities
- Director–Technical, Information Systems Group
- Director–Technical, Propulsion and Energy Group
- Director–Region IV
- Director–Region V
- Director–Region VII
- Director–At-Large
- Director–International

AIAA BoD Duties Highlights

Details to keep in mind when running for the Board of Directors:

- Volunteer Board service (commitment to attend 3–4 meetings per year in person)
- Need employer time and travel commitment
- Support Institute mission and vision
- Provide strategic discussion and input when required
- Duty to protect assets and exercise fiduciary prudence
- Serve in BoD leadership or support capacity as required
- Be vigilant of the aerospace landscape and identify business opportunities for the Institute
- Support AIAA Executive Director and staff as appropriate

AIAA members may submit themselves or other members qualified for the chosen position as nominees by submitting a nomination through the AIAA website (go to www.aiaa.org, log in, and select Board of Director Nomination from the left-hand navigation bar) no later than 21 August 2015. Nominations will open 9 June 2015.

Bill Seymore
AIAA Corporate Secretary/Treasurer

MARK YOUR CALENDARS

The AIAA Defense and Security Forum (AIAA DEFENSE 2016) brings together the contractor, acquisition, and R&D communities for classified and unclassified discussions of critical technical, programmatic, and policy topics in a SECRET/U.S. ONLY unbiased, nonpartisan environment.

Sign up today to be notified when the Call for Papers opens.

aiaa-defense.org
The AIAA New England Section held a celebration at Textron Systems in Wilmington, MA, on 27 April, to celebrate the dedicated efforts of Avco and Textron employees who developed, fabricated, and tested the reentry heatshield that was used to protect astronauts returning from the moon in the 1960s and 1970s and that flew last December on the Exploration Flight Test (EFT-1) of the Orion space capsule. Three of the 61 attendees, Joseph Kowal, Jack Graham, and Bruce Belason, were retirees who were part of the initial development of the heatshield for Apollo. The event was supported significantly by Emily Springer at AIAA Headquarters and Dr. Ferdinand Grosveld, AIAA Region I Director.

The guests were welcomed by Textron business managers James Tibaudo and Michelle Pelersi, who introduced a NASA Apollo film from the 1960s describing the Apollo program. Dr. Annalisa Weigel and David Padgett, the New England Section Chair, described AIAA and its section activities. Dr. Annalisa Weigel, AIAA Vice President–Membership, presented certificates to the three employees who worked on Apollo and the 21 Textron employees and contractors who worked on Orion, while Bruce Belason entertained the audience with comments about working on the Apollo program.

Larry Price, Lockheed Martin’s Orion Deputy project manager, described the Orion project and NASA’s future plans. He showed a video of the launch and reentry of EFT-1. Erik Takacs, Textron program manager, described Textron’s heatshield build process, which was supported by a dedicated and hardworking team. Robert Knudsen, Textron’s principle thermo design engineer, described the extensive array of testing performed at NASA facilities to simulate the initial skip and final reentry conditions for lunar and deep space reentry. The presentations were followed by a tour of the Orion production area where a full-scale Manufacturing Demonstration Unit (MDU) was on display.
MEMBERSHIP ANNIVERSARIES

AIAA would like to acknowledge the following members on their continued membership with the organization.

25-Year Anniversaries

Raymond A Lewis | Central Pennsylvania
Alok Sinha | Central Pennsylvania
William A Daniels | Connecticut
John J Eikon | Connecticut
Bruce L Monir | Delaware
Mark A Stafford | Delaware
Richard G Villani | Delaware
Dave P Codogan | Delaware
Richard Golazewski | Greater Philadelphia
Brohamand Panda | Greater Philadelphia
John L Papp | Greater Philadelphia
Frank T Storner | Greater Philadelphia
Eeian M Choudhari | Hampton Roads
Victoria I Chung | Hampton Roads
Richard DeLoach | Hampton Roads
Karl T Edalitz | Hampton Roads
James R Florence | Hampton Roads
Stephen J Horan | Hampton Roads
Karen E Jackson | Hampton Roads
Thomasian Krishnamurthy | Hampton Roads
Andrew E Lovejoy | Hampton Roads
Sudheer N Nanyani | Hampton Roads
Craig L Nicol | Hampton Roads
Matthew N Rhode | Hampton Roads
Mark E Roberson | Hampton Roads
Daniel T Tally | Hampton Roads
Jeffery A White | Hampton Roads
Gregory J Faletalla | Hampton Roads
Sue J Lin | Hampton Roads
Delano Carter | Mid-Atlantic
Timothy J Collins | Mid-Atlantic
James E Jenkins | Mid-Atlantic
Harris L Edge | Mid-Atlantic
Erich H Mueller | Mid-Atlantic
Frank E Tassler | Mid-Atlantic
Paul W Wells | Mid-Atlantic
John P Baird | Mid-Atlantic
Gail P Sarin | Mid-Atlantic
Thomas K Butash | Mid-Atlantic
Christopher P Dadou | Mid-Atlantic
Robert C Wilson | Mid-Atlantic
Samuel H Dupree Jr | Mid-Atlantic
Bruce Eickhoff | Mid-Atlantic
Clare A Eue | Mid-Atlantic
Michael J Kobos | Mid-Atlantic
Michael P Grone | Mid-Atlantic
William Grossmann | Mid-Atlantic
Jason E Jenkins | Mid-Atlantic
John D Kelley | Mid-Atlantic
Glen T Logan | Mid-Atlantic
Lon L Lome | Mid-Atlantic
Timothy D Maclay | Mid-Atlantic
Thomas E Myers & | Mid-Atlantic
Jacob W Mitchell | Mid-Atlantic
Gerald C Musser | Mid-Atlantic
David M Tyler | Mid-Atlantic
Angel J Oria | Mid-Atlantic
Michael W Plesnik | Mid-Atlantic
Wade J Pulliam | Mid-Atlantic
Jeffrey A Randolph | Mid-Atlantic
David T Rusk | Mid-Atlantic
Robie I Samanta-Roy | Mid-Atlantic
Paul W Laid Jr | Mid-Atlantic
Merrie J Scott | Mid-Atlantic
Raymond J Sedwick | Mid-Atlantic
John J Shottles Jr | Mid-Atlantic
John H Stacy | Mid-Atlantic
Steven E Summer | Mid-Atlantic
Edward V Svatko Jr | Mid-Atlantic
Michael J Barry | Mid-Atlantic
Michael W Vanik | Mid-Atlantic
Vill Vargass | Mid-Atlantic
James M Wright Jr | Mid-Atlantic
Herbert R Zucker | Mid-Atlantic
Richard C Zwerko | Mid-Atlantic
Kenny S Breuer | Mid-Atlantic
Peter K Coots | Mid-Atlantic
Charles R Daуwaller | Mid-Atlantic
Richard Greenspan | Mid-Atlantic
John F Hawk | New England
Charles P How | New England
Basant K Parida | New England
Jean P Pio | New England
Albert Sacco Jr | New England
Robert A Vivona | New England
Brian L Vardle | New England
John L Crassidis | New England
Jacqueline F Moretti | New England
Venkat E Tangirala | New England
Kenneth D Visser | New England
Michael J Zwick | New England
Richard B Miles | New England
Keith B Ossian | New England
Charles C Chen | New England
Nicholas V Chielli | New England
Jeffrey D Keller | New England
Jenny M Seitzman | New England
Howard S Kaner | New England
Teresa L Kinney | New England
Rohit R Patel | New England
Arthur L Scholz | New England
Kevin A Bradley | New England
Brian J Kirby | New England
James I Middleton Jr. | New England
David F Robinson | New England
Randal T Allen | New England
Robert R Meburd | New England
Frank J Cerra | New England
Jaysanta K Kapal | New England
Charles R Kendor | New England
Lawrence S Ulkofey | New England
Theodore J Wierzbanowski | New England
Stuart Las Wilkinson | New England
ShuJiung B Ying | New England
William J Corrier | New England
David G Cooper | New England
William E Dietz | New England
Jeffrey L Finckener | New England
Jame B Tranch | New England
James P Hubner | New England
Joseph A Huewaldt | New England
Stephen L Johnson | New England
Mohammad J Khan | New England
Michael A Lawler | New England
James R Meheen | New England
Lee A Miller | New England
Masoud Rais-Indroh | New England
Julia A Ras | New England
Joel W Robinson | New England
Mark L Underwood | New England
Peter G Valette | New England
Joseph V Verhage | New England
David L Williams II | New England
David J Coote | New England
Howard L Tiesler | New England
Gary M Nizi | New England
Mark E Ray | New England
James D Humn | New England
Edward J Dumas | New England
Christy B Gattis | New England
Robert P Howard | New England
Ralph R Jones III | New England
Donald H Koh | New England
Robert W McKinnes | New England
John D Schmisseur | New England
Michael W Bailey | New England
Gregory L Costa | New England
Douglas J Dolvin | New England
Brian T Drake | New England
Sivaram P Poginieri | New England
Bruce K Press | New England
Gregory W Reich | New England
Thomas E Reigner | New England
Joseph B Williams J | New England
Douglas W Cunzeman | New England
Monta G Doyle | New England
John I Enoch | New England
Deborah A Levin | New England
Farzad Mashayek | New England
Roses M McCarthy | New England
Constantine Megardis | New England
M. S. Andal | New England
Phil B Hender | New England
Robert A Ress | New England
Stephen P Schneider | New England
Jeffery R Herbon | New England
Charles J Jacobus | New England
Glen R Pollock | New England
Kenneth J Preston | Michigan
Khaled W Shewman | Michigan
Lynn A Arrington | Michigan
Barbara Eski | Michigan
Robert I. Kreger | Michigan
Stewart J Leib | Michigan
Larry C Lou | Michigan
Robert H Lagasse | Michigan
Steven R Oleson | Michigan
Manhenna S Raju | Michigan
Ashwin R Shah | Michigan
Peter M Struk | Michigan
Matthew T Domonkos | Michigan
Michael R Good | Michigan
Dale R Rite | Michigan
Jason E Pepin | Michigan
Andrew D Santangelo | Michigan
Marion E Sorge | Michigan
Richard E Huffman Jr | Michigan
Christopher S Allen | Michigan
Vatsal N Bulsara | Houston
Barry W Finger | Houston
J. L. Foster | Houston
Larry J Friesen | Houston
Theodore E Goetz | Houston
Brian J Johnson | Houston
Lol I. Jones | Houston
Brian O Hagan | Houston
Michael L Rafferty | Houston
Chris Y Taylor | Houston
John D Whitcomb | Houston
George S Briggs | Houston
Paul W Finnegan | Houston
Choaqun Liu | Houston
Dave E Tietz | Houston
Jeffrey S Nakyer | Houston
Samuel W Ximenus | Houston
David K Holger | Houston
Chris G Jones | Houston
Ping Lu | Houston
Paul J Bradley | Houston
Wilbert F Craig III | Houston
Andrew H Grimes | Houston
Barry A Hamilton | Houston
Michael J Holsh | Houston
William C Jackson | Houston
Monte F Kopke | Houston
Stephen R Pirman | Houston
Barry W Rice | Houston
Jeffrey A Schnackel | Houston
Richard F Moormaw | Louisiana
David L Swoboda | Louisiana
Jerry J Sellers | Louisiana
Steve W Slivers | Louisiana
Peter V Martin | Louisiana
Victor W Whitehead | Louisiana
Gary J Hansus | Louisiana
Vojin R Nicolic | Louisiana
Phillip J Andrews | Louisiana
David J Bernstorf | Louisiana
Charles A Hawley | Louisiana
John A Offerman | Louisiana
Dave V Whinery | Louisiana
Charlie Z Zeng | Louisiana
nhory N Pilon | Louisiana
Brenda K Rasmussen | Louisiana
Donald N Williams | Louisiana
Myles L Baker | Louisiana
Edward J Beling, III | Louisiana
Richard A Fowell | Louisiana
Joe Freitag | Louisiana
James H Hiling | Louisiana
Alan B Jenkins | Louisiana
Bill W Kramer | Louisiana
Kurt B Kreiner | Louisiana
Steven P Kurtz | Louisiana
P给了 N Chastek | Louisiana
Douglas W Pentecest | Louisiana
Robert D Sechrest | Louisiana
Michael M Sinali | Louisiana
Steve Smith | Louisiana
Larry N Berge | Louisiana
William G Burnett | Louisiana
Raymond P Fuller | Louisiana
Donald G. Graves | Louisiana
Orange County
Scott W Landry | Orange County
Hugh D MacInnes | Orange County
David V Shuter | Orange County
Rhonda A Statter | Orange County
James D Canti | Pacific Northwest
Robert Alberto | Pacific Northwest
Julie A Arndt | Pacific Northwest
Kevin W. Zwick | Pacific Northwest
Philip G Cooper | Pacific Northwest
William A Creel | Pacific Northwest
Glen P Doppert | Pacific Northwest
Frode Engelson | Pacific Northwest
Clifford K Forest | Pacific Northwest
James A Fort | Pacific Northwest
Jonathan H Goss | Pacific Northwest
Robert C Griffths | Pacific Northwest
John C Heint | Pacific Northwest
Charles L Norman IV | Pacific Northwest
Luis A Bohorquez | Pacific Northwest
Kenneth R Darling | Phoenix
Armando A Rodriguez | Phoenix
Mark E Strickland | Phoenix
George E Zureny | Phoenix
Daniel W Bursch | Point Lobos
Bill R Lawver | Sacramento
Ching P. Tringa | Sacramento
Walter A Einslie | San Diego
Philip C Birkhahn | San Diego
Raymond R Naylor | San Diego
Matthew M Bennett | San Diego
Sean Buckley | San Diego
David H Haur | San Diego
Atherton A Carly | San Diego
Stephen C Jensen | San Diego
Knut J Olaf | San Diego
Manuel S Tialia | San Diego
Scott T Vogt | San Diego
Joe A Richwine | San Diego
Glen D Cali | San Francisco
Richard A Cipperger | San Francisco
San Francisco
Melissa A Farrell | San Francisco
Ir ine S Huang | San Francisco
David J Haur | San Francisco
Stuart L Hurg | San Francisco
Laurie W Limp | San Francisco
Eric Tilenius | San Francisco
Ted B Wetherbe | San Francisco
Jeffrey E Fisch | San Francisco
Jairus M Hinh | San Francisco
Danny D Howard | San Francisco
Danny A Black | San Francisco
Jon A Sims | San Francisco
Saranvan Sushamsa | San Francisco
Jeffrey N Webster | San Francisco
Scott E Coleman | San Francisco
Donald H Sauvageau | San Francisco
Nicholas J Whitehead | Utah
Dianne J DeTurris | Vandenberg
Fred F Afteg | Vandenberg
Mohammad F Al-Maki | Vandenberg
Masahiro Atsumi | Vandenberg
Monika Auwter-Kurti | Vandenberg
Jorg M Barsta | Vandenberg
Jose E Barros | Vandenberg
Eduardo M Belo | Vandenberg
Jenes B Berke | Vandenberg
Eduardo W Berguni | Vandenberg
Gustavo C Bostein | Vandenberg
Keyoung Choi | Vandenberg
James E Canto | Vandenberg
Gennaro Colabatistotta | Vandenberg
Luis Fernando F De Silva | Vandenberg
William A Fetter | Vandenberg
Ann P Dowling | Vandenberg
Dimosthenis Dr Trik | Vandenberg
Walter E St新人 | Vandenberg
Terry F Korn | Vandenberg
Hiaro Fumura | Vandenberg
Rizwan Gunahussine | Vandenberg
Ismet Gursul | Vandenberg
Itaru Hatade | Vandenberg
In March, the Embry-Riddle AIAA Student Branch in Daytona Beach hosted AIAA Distinguished Lecturer Todd Barber. About 30 students attended Todd’s lecture, “Lord of the Rings: Cassini Mission to Saturn,” which was followed by an informal networking/question-and-answer period.
MENSAH INDUCTED INTO NATIONAL ACADEMY OF INVENTORS

AIAA Atlanta Section member and former Chair, Dr. Thomas Mensah, was inducted as a Fellow into the National Academy of Inventors (NAI) by the Deputy U.S. Commissioner for Patent Operations Andrew Faile and Dr. Paul Sanberg, NAI president, at the NAI Annual Conference at the California Institute of Technology on 20 March.

Dr. Mensah is the president and CEO of Georgia Aerospace Systems, an advanced aerospace composite manufacturing company in Atlanta, GA. He is a recognized authority on fiber optics and nanotechnology and holds over 25 issued and pending patents. An AIAA Associate fellow, he currently is the AIAA Region II Deputy Director for Technology.

Dr. Mensah with (left) Andrew Faile and (right) Dr. Paul R. Sanberg. (Photo courtesy of National Academy of Inventors)

CALL FOR NOMINATIONS

Recognize the achievements of your colleagues by nominating them for an award! Nominations are now being accepted for the following awards, and must be received at AIAA Headquarters no later than 1 October.

Any AIAA member in good standing may serve as a nominator and are highly urged to carefully read award guidelines to view nominee eligibility, page limits, letters of endorsement, etc. Please note that the nomination form, related materials, and the three required AIAA member letters of endorsement must be submitted to AIAA by the nomination deadline.

AIAA members may submit nominations online after logging into www.aiaa.org with their user name and password. You will be guided step-by-step through the nomination entry. If preferred, a nominator may submit a nomination by completing the AIAA nomination form, which can be downloaded from www.aiaa.org. Nominators are reminded that the quality of information is most important.

Awards are presented annually, unless otherwise indicated. However AIAA accepts nomination on a daily basis and applies to the appropriate award year.

Premier Awards & Lectureships

Distinguished Service Award gives unique recognition to an individual member who has provided distinguished service to the Institute over a period of years.

Goddard Astronautics Award is the highest honor AIAA bestows for notable achievement in the field of astronautics. This award honors Robert H. Goddard—rocket visionary, pioneer, bold experimentalist, and superb engineer.

International Cooperation Award recognizes individuals who have made significant contributions to the initiation, organization, implementation, and/or management of activities with significant United States involvement that includes extensive international cooperative activities in space, aeronautics, or both.

Reed Aeronautics Award is the highest award AIAA bestows for notable achievement in the field of aeronautics. The award is named after Dr. Sylvanus A. Reed, the aeronautical engineer, designer, and founding member of the Institute of Aeronautical Sciences in 1932.

Dryden Lectureship in Research was named in honor of Dr. Hugh L. Dryden in 1967, succeeding the Research Award established in 1960. The lecture emphasizes the great importance of basic research to the advancement in aeronautics and astronautics and is a salute to research scientists and engineers.

In April, the AIAA Student Branch at the Illinois Institute of Technology welcomed AIAA Fellow Dr. John Tracy (center) to speak to members of the student branch and others. Dr. Tracy, who is the Chief Technology Officer and Senior Vice President of The Boeing Company, spoke about the aerospace industry and his engineering career. Branch members then presented their work from project teams for High-Altitude Student Payload (HASP) and UAVs. The event concluded with some informal chat and networking.
von Kármán Lectureship in Astronautics honors Theodore von Kármán, world-famous authority on aerospace sciences. The award recognizes an individual who has performed notably and distinguished himself technically in the field of astronautics.

Technical Excellence Awards

Aerocoustics Award is presented for an outstanding technical or scientific achievement resulting from an individual’s contribution to the field of aircraft community noise reduction.

Aerodynamics Award is presented for meritorious achievement in the field of applied aerodynamics, recognizing notable contributions in the development, application, and evaluation of aerodynamic concepts and methods.

Aerodynamic Measurement Technology Award is presented for continued contributions and achievements toward the advancement of advanced aerodynamic flowfield and surface measurement techniques for research in flight and ground test applications. (Presented every 18 months)

Aerospace Communications Award is presented for an outstanding contribution in the field of aerospace communications. Candidates are individuals or small teams (up to 4 members) whose achievements have had a positive impact on technology and society.

Aircraft Design Award is presented to a design engineer or team for the conception, definition, or development of an original concept leading to a significant advancement in aircraft design or design technology.

Chanute Flight Test Award recognizes significant lifetime achievements in the advancement of the art, science, and technology of flight test engineering. (Presented every 18 months)

Engineer of the Year is presented to an individual member of AIAA who has made a recent significant contribution that is worthy of national recognition. Nominations should be submitted to your AIAA Regional Director.

F. E. Newbold V/STOL Award recognizes outstanding creative contributions to the advancement and realization of powered lift flight in one or more of the following areas: initiation, definition and/or management of key V/STOL programs; development of enabling technologies including critical methodology; program engineering and design; and/or other relevant related activities or combinations thereof that have advanced the science of powered lift flight. (Presented every 18 months)

Fluid Dynamics Award is presented for outstanding contributions to the understanding of the behavior of liquids and gases in motion as related to need in aeronautics and astronautics.

Ground Testing Award is presented for outstanding achievement in the development or effective utilization of technology, procedures, facilities, or modeling techniques or flight simulation, space simulation, propulsion testing, aerodynamic testing, or other ground testing associated with aeronautics and astronautics.

Hap Arnold Award for Excellence in Aeronautical Program Management is presented to an individual for outstanding contributions in the management of a significant aeronautical or aeronautical-related program or project.

Hypersonic Systems and Technologies Award recognizes sustained, outstanding contributions and achievements in the advancement of atmospheric, hypersonic flight and related technologies. (Presented every 18 months)

Jeffries Aerospace Medicine & Life Sciences Research Award is presented for outstanding research accomplishments in aerospace medicine and space life sciences.

Losey Atmospheric Sciences Award recognizes outstanding contributions to the atmospheric sciences as applied to the advancement of aeronautics and astronautics.

Multidisciplinary Design Optimization Award is presented to an individual for outstanding contributions to the development and/or application of techniques of multidisciplinary design optimization in the context of aerospace engineering. (Presented every 18 months)

Otto C. Winzen Lifetime Achievement Award is presented for outstanding contributions and achievements in the advancement of free flight balloon systems or related technologies. (Presented every 18 months)

Piper General Aviation Award is presented for outstanding contributions leading to the advancement of general aviation. (Presented every 18 months)

Plasmadynamics and Lasers Award is presented for outstanding contributions to the understanding of the physical properties and dynamical behavior of matter in the plasma state and lasers as related to need in aeronautics and astronautics.

Jay Hollingsworth Speas Airport Award is presented to the person or persons judged to have contributed most outstandingly during the recent past toward achieving compatible relationships between airports and/or heliports and adjacent environments. The award consists of a certificate and a $7,500 honorarium. Jointly sponsored by AIAA, the American Association of Airport Executives, and the Airport Consultants Council. (Nominations due 1 November)

Theodol W. Knacke Aerodynamic Decelerator Systems Award recognizes significant contributions to the effectiveness and/or safety of aeronautical or aerospace systems through development or application of the art and science of aerodynamic decelerator technology. (Presented every 18 months)

Thermophysics Award is presented for outstanding singular or sustained technical or scientific contribution by an individual in thermophysics, specifically as related to the study and application of the properties and mechanisms involved in thermal energy transfer and the study of environmental effects on such properties and mechanisms.

James Van Allen Space Environments Award recognizes outstanding contributions to space and planetary environment knowledge and interactions as applied to the advancement of aeronautics and astronautics. The award honors Prof. James A. Van Allen, an outstanding internationally recognized scientist, who is credited with the early discovery of the Earth’s “Van Allen Radiation Belts.” (Presented every 18 months)

Service Award

Public Service Award honors a person outside the aerospace community who has shown consistent and visible support for national aviation and space goals.

For further information on AIAA’s awards program, please contact Carol Stewart, Manager, AIAA Honors and Awards, carols@aiaa.org or 703.264.7623.
OBITUARIES

AIAA Fellow Townsend Died in April

Marjorie R. Townsend, an electrical engineer who became the first woman to manage a U.S. spacecraft launch, died on 4 April. She was 85.

After enrolling in college at age 15, she became the first woman to receive an engineering degree from George Washington University in 1951. She then was a physical science aide at what is now the National Institute of Standards and Technology and worked on sonar-signal-processing mechanisms for anti-submarine warfare at the Naval Research Laboratory.

In 1959, Mrs. Townsend joined NASA, working at NASA Goddard Space Flight Center where she helped develop the first successful weather satellites, including TIROS-1 and the Nimbus satellite series. From the mid-1960s to 1975, she managed the agency’s small astronomy satellite program, where she was responsible for the design, construction, testing, and orbital operations of NASA’s first astronomical spacecraft. Most notably, she oversaw the development and launch of Uhuru, the world’s first X-ray astronomy satellite, which was used to detect, survey, and map celestial X-ray sources and gamma-ray emissions. It was the first U.S. spacecraft to be launched by another country (Italy) in a foreign location (the coast of Kenya). The data collected from Uhuru helped revolutionize the field of high-energy astronomy and astrophysics.

Mrs. Townsend served as the program manager for NASA’s applications explorer missions program before retiring in 1980. She received the agency’s Exceptional Service Medal and Outstanding Leadership Medal. She was director of space systems engineering at BDM International and then vice president for space systems development for Space America until her second retirement in 1996.

Townsend was named a Knight of the Italian Republic Order in 1972 for her contributions to U.S.–Italian space efforts. She also was chair of a local chapter of AIAA, past president of the Washington Academy of Sciences, and a fellow of the Institute of Electrical and Electronics Engineers.

AIAA Member Rose Died in May

James T. Rose, an early pioneer of commercial pursuits in space, died on 24 May.

Mr. Rose’s long career in aerospace began with a position as an aeronautical research engineer at Langley Research Center, developing satellites for the Vanguard program. Next, as one of the first Space Task Group members, he became a NASA project engineer on Project Mercury and in 1961, joined NASA’s advanced manned space project, which was later named Gemini.

In 1964, Mr. Rose joined McDonnell Aircraft, Gemini’s contractor, as systems control manager for guidance and control. He continued with McDonnell Douglas Corporation in positions of increasing responsibility until 1974, when he returned to government service under his mentor, John F. Yardley. From NASA Headquarters in Washington, DC, he directed vehicle development and engineering on the space shuttle program.

In 1976, Mr. Rose returned to McDonnell Douglas Astronautics Company in St. Louis as manager of space shuttle payload development for research and commercial applications of space. In that capacity, he applied his talent and skill toward utilizing the nation’s space transportation system for commercial advancement. He created Electrophoresis Operations In Space (EOS), the first joint endeavor agreement between industry and NASA to bring space commercialization into reality. This program exploited the unique aspects of space microgravity to separate pharmaceuticals in space. McDonnell Douglas partnered with Ortho Pharmaceuticals on this far-reaching effort. EOS developed many firsts, including launching the first non-NASA shuttle passenger, McDonnell Douglas engineer Charles Walker, as a payload specialist. The program was dealt a significant setback by the loss of Space Shuttle Challenger in 1986. During the flight hiatus, other scientific advances eclipsed the advances of space-based manufacturing, bringing EOS to an end.

Undaunted, in 1987, after 20 years with industry, Jim accepted a government position as NASA assistant administrator for Commercial Programs. In that capacity he continued to promote many possibilities for the use of space to a wide variety of business interests. At its zenith, more than 200 U.S. corporations attracted to space and other commercial applications were affiliated with the 17 NASA Centers for the Commercial Development of Space (CCDS).

Mr. Rose retired from NASA in December 1991. He continued to consult internationally for several years early in his retirement. He received many honors throughout his career, including NASA’s Distinguished Presidential Rank Award, the highest honor bestowed upon a government employee, and NASA’s Exceptional Service Medal; the Aerospace Laurel Award; and AIAA’s Lindbergh Award.