



AIR FORCE MATERIALS AND MANUFACTURING ALUMNI ASSOCIATION (AFMMAA) NEWSLETTER

TWENTY SECOND EDITION

SPRING 2015

AFRL/RX DIRECTOR'S MESSAGE

Happy Spring Alumni Members!!

2014 was a stellar year and 2015 is shaping up to be just as productive. At our March Director's Call I provided a "State of the Directorate Address". I discussed all the phenomenal work accomplished by our directorate and how they relate to the six focus areas I touched on in my last letter to you. Here are some highlights:



Thomas A. Lockhart

Workforce – RX had over 45 new hires, and won more than 65 competitive awards to include an organizational Diversity award from AFRL.

Processes and Infrastructure – Our operations team upgraded and refurbished 23 Labs and 76 Offices, deployed over 200 computers with the AFNet Tech refresh, and grew the RDT&E/DREN network to over 350 accounts.

Push Innovation – RX demonstrated the first use of model-driven methods to size cracks with statistical metrics (not just manually estimating cracks) for damage characterization on turbine engines; we developed caps for fuel sealant application to reduce variability in application of sealant for F-35 production, and were heavily involved in the development of the Joint Biological Agent Decontamination System for aircraft.

Advanced Materials and Manufacturing – Our directorate designed and executed experiments on the additive manufacturing of titanium alloys with external collaborators from the Oak Ridge National Laboratory and the University of Tennessee – Knoxville; we hardened Night Vision Goggles against laser threats by developing screw-on filters and continued to develop new standards in open system architecture and agile manufacturing for ISR.

Affordability and Sustainment – RX supported 11 Class A Aviation Mishaps, in less than 1 month, delivered a solution within 3 months for erosion tape on the Global Hawk improving climb time conducting more than 50

flights with no signs of degradation, and identified the root cause of the rotor cracking on the 3rd Stage of the F135 Engine through a combination of analysis and novel test methods.

Cross-TD and International – I went on a tour of RY and was extremely proud of our collaboration with them. At every stop I had researchers and managers telling my how appreciative they were of the work RX was doing for them. This year we were awarded ~\$30M in 219 funds from proposals where we teamed with other Directorates. We increased the front office involvement in international activities, had ICMSE joint activity with UK, completed major reviews of UK and Israeli portfolios, and initiated
(Continued on Page 2)

AFMMAA PRESIDENT'S MESSAGE

Clearly, my most important message to you is – **SEE YOU AT THE 17 JUNE MEETING AT THE ENGINEERS CLUB OF DAYTON!!** Last year's turnout was fabulous, over 40 members, and let's make this one just as much fun.

The Materials and Manufacturing Directorate has recently finalized the selection of a new Chief Scientist, he is Dr. Tim Bunning, most recently the Chief of the Functional Materials Division of RX.

We had a great meeting with Dan Adducchio, the Assistant to the Director, and Dr. Dan Miracle, the Acting Chief Scientist, regarding the planning for the 2017 100th Anniversary of the Materials and Manufacturing Directorate. Dan Adducchio has been named as the person to lead the planning for the celebration. He shared an initial schedule of events occurring over the next two years. AFMMAA will provide a version of this for your use in the Fall Newsletter. We suggested that AFMMAA stands ready to provide whatever support we can. We did offer the suggestion that we would like to have some money raising events under the AFMMAA auspices to allow funding a fun family picnic for RX and AFMMAA families during the 100th Anniversary celebration. (Dan Adducchio has a brief comment about the celebration elsewhere in this newsletter.) After our meeting, Neal and I took both Dans on a tour of the historical files that would probably be used by whomever would be engaged
(Continued on Page 2)

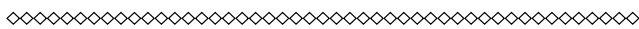
(AFRL/RX Director's Message continued)

efforts to revitalize or enhance interactions with France, Japan, Singapore and Australia. On top of all that we had more than 150+ separate interactions with international agencies! Truly World-Class!!!

As you can see, it's been an outstanding year!! This year we have already started hitting it again. Dr. Miracle has done a phenomenal job of stepping up and standing in as our acting chief scientist. Our own RXA division chief, Dr. Timothy Bunning has been selected to lead as our new materials and manufacturing Chief Scientist. I'm excited for Dr. Bunning to begin and look forward to the great things ahead. His first big task is hosting the Science Advisory Board for Structural Division this fall.

We have lined up milestones for the Materials and Manufacturing Directorates 100th year anniversary and have AFMMAA to talk about plans and leverage as much from the 75th anniversary as possible. Also this year we are briefing the Air Force Chief of Staff on nanotechnology. Nanotechnology and our focus there in, is an enabling technology and can dramatically change the way we engineer and develop materials. Be sure to follow this one!!! I am looking forward to all the possibilities the future holds for the materials and manufacturing directorate.

*Tom Lockhart, SES
Director, AFRL/RX
Lifetime Member of AFMMAA*



(AFMMAA President's Message continued)

to create the 100th anniversary book.

Dr. Dan Miracle has taken the lead on developing a book or books to commemorate the occasion. At his request, AFMMAA member Dr. Ron Kerans volunteered to take an active role in acquiring the information in preparation for the Directorate's selection of a company or individual to actually create the book. I'm sure Ron would be open to any of your pent up desires to tell the exciting story of the technologies that you helped move to the warfighter. Neal and I took Ron on a tour of the historical files that have been catalogued and safeguarded by UTC over the years.

ATTENTION: We are less than two years from the 100th anniversary and this MAY BE THE LAST NEWSLETTER you will receive if you aren't a Charter or Life Member or haven't renewed your annual membership (a measly ten bucks!!!). You will miss all

the updates and follow-ups to this once-in-a-lifetime occasion, including the mementos, books and CDs. So now is the time to renew or convert to Life membership (which I did after paying annually for almost ten years). We are the only alumni association in all of the Air Force Research Laboratory and WE WANT YOU AS A MEMBER FOREVER!!

It's hard for me to believe, but we are rapidly approaching the two-year point for the current leadership of your AFMMAA. We will be having Board elections at the June meeting. You are welcome to compete for any position within the AFMMAA. A number of people have agreed to stay in their Board posts: myself as President; Matt Di Biase as Vice President; Neal Ontko as Membership Chairperson and RX liaison; Dennis Naughton as the treasurer; and George Slenski as our secretary and webmaster, even though he is currently remote. Volunteer positions are as follows: Dick Engman continues as the key assistant for Neal and myself; George Schmitt continues in his role as a liaison to RX (with Neal Ontko); Dr. Charlie Browning has asked to step down as the Scholarship Chairperson and Dr. Jim Malas, the current Newsletter Chairperson, has volunteered to step in as the new Scholarship Chairperson; John Williamson will continue as the AFMMAA Luncheon Coordinator. I just want to add a brief word of the outstanding work done by EVERY member of your leadership team. They are all very busy people and yet have found time to help AFMMAA, you, and the Materials and Manufacturing Directorate through their thoughtful actions. Certainly an ovation is in order!!

I would like to close by volunteering to be your conduit to the Materials and Manufacturing Directorate. If you have any comments or concerns that you would like passed on to the RX leadership, feel free to send me e-mail or call me.

*Sincerely,
Tobey Cordell, AFMMAA President
tobeyf1@gmail.com 937-287-1871*

NOTICE

In order to control our costs and optimize our service to RX and our members, we are considering only mailing Newsletters in the future to AFMMAA Members (Charter, Life and Annual). If you have not already done so, please take advantage of this opportunity to fill out the membership form (Page 7) and continue to enjoy our Spring and Fall Newsletters.

THE RX EMBLEM: SYMBOLIC OF OUR DIRECTORATE AND MISSION

The gold circle of arrows projecting outwards signifies the extension of knowledge beyond present boundaries. The three arrows represent materials research, application, and manufacturing technology. The inward pointing arrows portray the extensive efforts contributing to the circle of knowledge. The emblem bears the Air Force colors, gold and ultramarine blue. Against a background of blue, depicting the sky, the primary theatre of the Air Force operations, the central atom represents the building block of all materials.



2015 COMBINED FEDERAL CAMPAIGN

Your AFMMAA, as a local independent charity, has received approval to participate with Miami Valley Combined Federal Campaign (MVCFC) in 2015. During the calendar year 2014, AFMMAA received \$2353.19 from the MVCFC. All CFC pledges to AFMMAA's fund number (85,464) go to support our Scholarship Fund! AFMMAA expresses sincere appreciation to those in RX who have pledged in the past and welcome continued support and consideration from others for the 2015 campaign. The AFMMAA intends to participate/exhibit in the MVCFC Kickoff scheduled in early October at the Nutter Center to foster greater awareness of the Association and its scholarships.



AWARDS / RECOGNITION

Dr. Jeff Baur, Dr. Mike Durstock, and Mr. Ed Hermes were selected in the 2015 class of Outstanding Engineers and Scientists by the Affiliates Council of Miami Valley. Jeff, Mike, and Ed are the 76th, 77th, and 78th individuals from RX to be so honored since 1971.

Dr. Rajesh Naik has been nominated to be the AFRL candidate for the 2015 Arthur S. Flemming Award in the Basic Science category. The Flemming Award was established in 1948 to honor outstanding federal employees. Recognized by the President of the United States, agency heads, and the private sector, the winners are selected from all areas of the federal service.

2014 AIR FORCE JOHN L. LUCAS BASIC RESEARCH AWARD

Dr. Richard Vaia, AFRL/RXA, won the 2014 Air Force John L. Lucas Basic Research Award. Dr. Vaia, RX's Technology Advisor for Functional Materials, was selected for outstanding research contributions in the area of single component nanoparticle hybrids, which have tremendous potential for next generation sensors and pulsed power subsystems. His research resulted in a game-changing enhancement in which the opto-electronic properties were engineered by controlling composition and structure between one and ten nanometers. The foundational understanding he developed will serve as the design underpinning for the foreseeable future in this new class of functional material. His work will have profound impact in a variety of DoD applications, particularly holding promise in next generation sensors, alternative weapons and counter-defensive anti-access and area denial technologies.

The John L. McLucas Basic Research Award, named for the former Secretary of the Air Force (1973-1975), recognizes individuals that make outstanding contributions through their scientific efforts and achievements in U.S. Air Force in-house basic research activities. This award is the highest award given by the Air Force for basic in-house research accomplishments.

CURRENT RX WORKFORCE

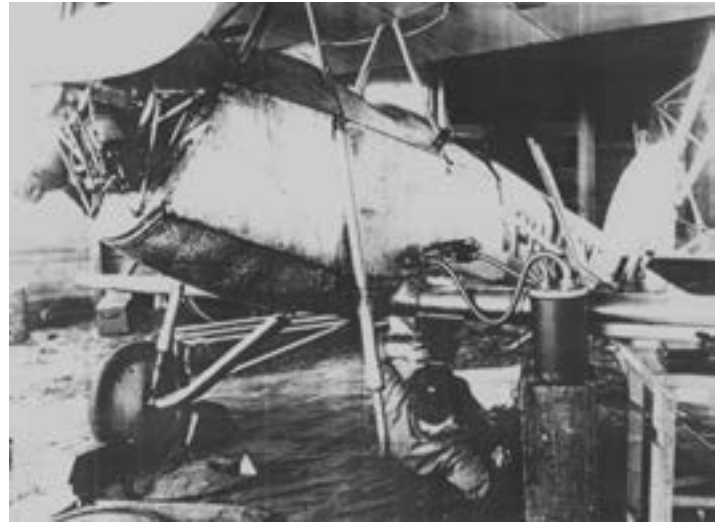
The current size of the RX government workforce includes the following as of 31 March 2015:

a) Civilian Employees		376
WPAFB	359	
Hill	7	
Tinker	6	
Robins	4	
b) Military		32
WPAFB	29	
Robins	2	
Tinker	1	
Hill	0	
c) Pathways (COOP) Interns		11
WPAFB	11	
d) Contractors		585
WPAFB	577	
Robins	7	
Hill	1	
	Total	1004

FLASHBACK TO EARLY BEGINNINGS



Original Materials Section - X-Ray Equipment



Example of Early X-Ray Imaging of Aircraft Component

The use of x-rays was explored in 1926 by the Materials Branch (former AFRL/RX organization) as a means of detecting defects in materials. Although the potential of the method was recognized at that time, it could not provide the desired reliability. If the straight line beam of the x-ray were not correctly oriented with the path of the crack, the defect would not be detectable. However, at some time later, attention was given to the challenging task of exploring possible means to apply this process to assembled parts.

By 1931, government specifications were published. The Branch also investigated a new potential tool – a magnetic particle inspection (MPI) method, drawing upon the pioneering work beginning in 1928 by Alfred V. de Forest of the Massachusetts Institute of Technology with the use of circular magnetization to detect longitudinal defects. Following a demonstration by de Forest at Wright Field, the Branch purchased some de Forest magnets and small magnetizing equipment and tried the method in routine overhaul inspections under the leadership of D.M. Warner. The result was the discovery of many fatigue cracks which would otherwise have gone unnoticed. A specification to require the use of this method by its contractors in purchase orders for aircraft, engines and parts became official in the late 1930s. By 1933, the dry powder method had been perfected and applied to inspections of steel propellers and springs, and adopted by propeller manufacturers. By 1935, complete specifications for a magnetic particle inspection apparatus had been prepared. In 1937, the magnetic particle inspection method was also adopted in the automotive, marine and railroad industries.

*Courtesy of Donald Forney
AFMMAA Member*

LOSSES FROM THE RX (ML) FAMILY

We regret to inform you of the following losses from the RX Family that we have heard of since our last Newsletter.

Dr. Fred E. Arnold 4 January 2015

Fred was a recipient of the Cleary Award and Fleming Award. Authored hundreds of patents, invention disclosures, and peer reviewed journals. He retired in 2002.

Dr. Benjamin Wilcox 10 March 2015

Benjamin was a recipient of the Cleary Award. During his

long term at DARPA he was instrumental in defining the field of material science and engineering as we know it now.

If you know of any others and would care to share this information, please contact us.

AFMMAA WINTER MEETING AT THE HOPE HOTEL

The Winter Meeting of the AFMMAA was held on Friday, 16 January 2015. This was the morning of the RX Awards Luncheon at the Hope Hotel. We welcomed new Life Member Ed Hermes. Ed had recently retired and new blood is always welcome. We learned that Ed has a very interesting talk about the history of the Systems Support Division and he is working to get it cleared so that he might present it to the AFMMAA members at some point in the future. After the AFMMAA meeting, many of the members present attended the Awards Luncheon. AFMMAA President Tobey Cordell was the featured speaker at the Luncheon. His presentation was titled: The Wright Brothers through the eyes of RX: A New Perspective.



AFMMAA Members at the Hope Hotel. Front Row (left to right): Tom Cooper, Dr. Vince Russo, Dr. Walt Griffith, Tobey Cordell, Dr. Charlie Browning, George Schmitt, Gary Waggoner, Al Gunderson. Back Row (left to right): Dr. Terry Ronald, Neal Ontko, Ed Hermes, George Slenski, Dr. Jack Henderson, Jim Mattice, Don Shrader, Roland Watts, Dick Engman

GETTING AFMMAA EMAILS?

Are you receiving emails from us for the AFMMAA Dayton area monthly luncheons? If not, please send an email to the Membership Chairman, Neal Ontko (nontko@utcd Dayton.com), or Dick Engman (dkengman@msn.com) and we will add you to our list. We do not share your email addresses or personal information.

The AFMMAA (John Williamson) organizes an informal lunch at a Dayton area eatery and typically sends an email notice for the monthly luncheons if you let us know you would like to be added to distribution for the monthly lunch.

The semi-annual AFMMAA meetings, and the RX Annual Awards Recognition Ceremony - Luncheon also go out electronically as well as written up in the newsletters.

We do this with emails to our "local area" addresses to the Dayton area alumni and friends for the monthly lunch and to our "all alumni" addresses to everyone for the semi-annual meetings. We want to insure you are notified of key events which may be of interest to you. Please let us know if we can serve you better.

*Neal Ontko
Membership Chairman*

YOUR AFMMAA OFFICERS AND COMMITTEE CHAIRS



Tobey Cordell
President



Matt Di Biase
Exec. Vice President



Neal Ontko
Vice President,
Membership



Dennis Naughton
Treasurer



George Slenski
Secretary



Jim Malas
Newsletter Editor



Charles Browning
Scholarship

APRIL AFMMAA LUNCHEON AT THE OSAKA STEAKHOUSE IN BEAVERCREEK



The AFMMAA monthly luncheons kicked off for 2015. The first one was at the Osaka Steakhouse in Beaver Creek. In attendance were: Don Shrader, Matt Di Biase, Warren Johnson, Dr. Bob Cochoy, Tobey Cordell, Kay March, Dr. Jack Henderson, Tom Cooper, Ken Kojola, John Williamson, Neal Ontko, and Clay Harmsworth



Spring is in the Air!



**AIR FORCE MATERIALS & MANUFACTURING
ALUMNI ASSOCIATION (AFMMAA)**

P.O. Box 341413, Dayton, Ohio 45434-1413

MEMBERSHIP APPLICATION AND SCHOLARSHIP DONOR FORM

Name: _____ Date: _____

Address: _____

City: _____ State: _____ Zip: _____

Telephone -- Home: _____ Work: _____

E-mail: _____ Is E-mail new? _____

Check here if we **CANNOT** release your information, i.e., address or e-mail.

Year departed/retired from RX: _____

RECENT INFORMATION ABOUT YOURSELF (for the website): _____

In what areas would you like to support AFMMAA? _____

You are invited to join (\$10/yr annual CY 2015 dues), become a Life Member (\$150) and/or make donations to the Alumni Association Scholarship Program.

\$ _____ **Alumni Association Scholarships** (open to students pursuing a degree generally related to the Air Force Science & Technology program, with emphasis on materials sciences, manufacturing technologies or associated management specialities (financial, logistics, administrative, etc).

\$ _____ **Chief Scientist Scholarship** (open to students pursuing an accredited degree in a field of science, math, engineering or technology)

\$ _____ **Annual Membership Dues** (for CY 2015, i.e., 1 Jan - 31 Dec '15) are \$10.

\$ _____ **Lifetime Membership is available for \$150 (one time fee)!**

\$ _____ *Total Amount Enclosed

***NOTE: Scholarship contributions and membership dues are tax deductible.**

Membership Category:

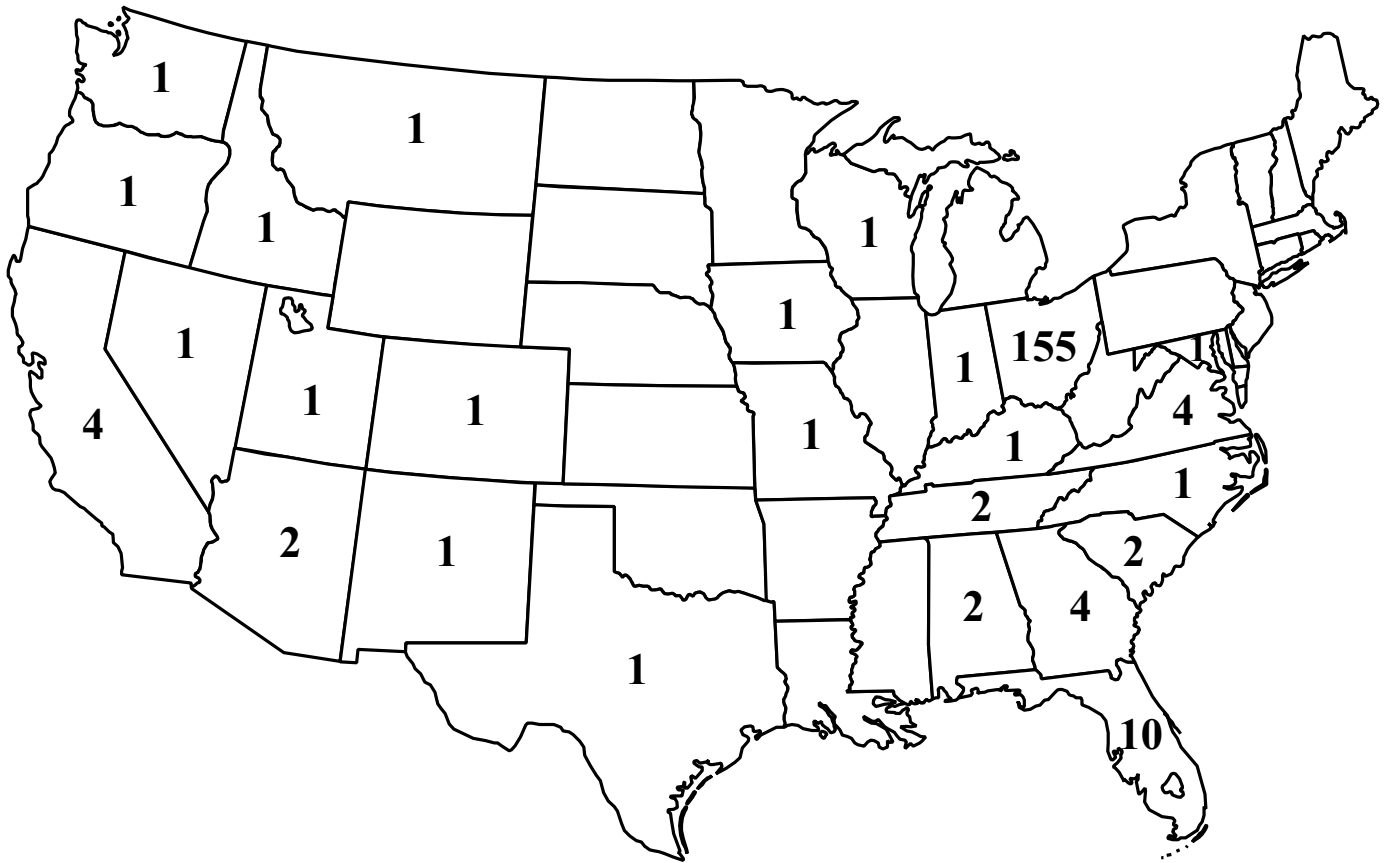
_____ **Annual (\$10.00/year)**

_____ **Lifetime (\$150.00 one time fee)**

Make check payable to AFMMAA and send form to:

AFMMAA, P.O. Box 341413, Beavercreek, OH 45434-1413

AFMMAA MEMBERS LIVE IN 25 STATES ACROSS THE COUNTRY



Pop Quiz: If you know of a RX (ML) alum that we should contact, email Neal Ontko at nontko@utcd Dayton.com.



RX ALUM ELECTED VICE PRESIDENT OF ASM INTERNATIONAL (2014-2015)

Jon Tirpak is currently Senior Program Manager for the SCRA Applied R&D Advanced Materials Division in Summerville, South Carolina. He is responsible for investigating, developing and implementing processes and technologies within the nation’s foundry and forging industries, to reduce lead times and costs and to improve quality of complex metal shapes. He is the Executive Director of the Forging Industry Association – Department of Defense Manufacturing Consortium and Program Manager of the Defense Logistics Agency’s PRO-FAST Program.



Jon D. Tirpak

Jon earned his BS in Metallurgical Engineering at Lafayette College in Easton, PA and his MS in Materials

Engineering at the University of Dayton in Dayton, OH. He was commissioned by the US Air Force in 1982 as a 2nd Lieutenant, and researched the fatigue and fracture of cast aluminum alloys for airframes and performed failure analyses on various aerospace systems while assigned to the Air Force Materials Laboratory. His second tour within the Ballistic Missile Office involved integrating the Air Force’s nuclear testing requirements which involved myriad materials and systems ultimately tested beneath the ground at the Nevada Test Site. In 1988, he departed the Air Force as a Captain, trading his blue uniform for green hiking togs to hike the entire Appalachian Trail from Georgia to Maine. After completing the trail and traveling extensively through Europe and the States, he resumed his materials engineering career with a position at Universal Technology Corporation in Dayton, OH and then to Aeroquip Corporation in Ann

(Continued on Page 9)

AFMMAA "HALL OF FAME"

Tom Cooper is a notable member of the AFMMAA Family. He is a Founding Member of the Air Force Materials and Manufacturing Alumni Association (AFMMAA) and served as the first Executive Vice-President. He also prepared and published the AFMMAA Newsletter twice per year for many years. He completed an outstanding, 39 year, Air Force career, including a tour on active duty, when he retired as Chief of the Systems Support Division in 1995.



Tom Cooper

After retirement from USAF, he worked for UTC for 19 years until his final retirement in Sept. 2014. He is known for his expertise in all aspects of aerospace metallurgical engineering and the application of materials in operational aerospace systems, including nondestructive evaluation (NDE), failure analysis, specifications and standards, materials selection and manufacturing. He is also widely recognized throughout the larger aerospace community as a Fellow of both ASM International (ASM) and the American Society for Nondestructive Testing (ASNT). He is also an Associate Fellow of the American Institute of Aeronautics and Astronautics (AIAA).

He is a model of the "can-do" culture of our organization, having supported major weapon systems, including the C-5, C-141, F-111, B-1B, F-15, and major engine programs, including the TF-30, F-100, TF-34, F-101 and T-406. He is regarded as a pioneer in the materials and processes aspects of the Aircraft (ASIP) and Engine (ENSIP) Structural Integrity Programs. He is also a Registered Professional Engineer in the State of Ohio. He is a member of ASM International, ASNT, AIAA, SAE, Tau Beta Pi, Sigma Xi, the Dayton Engineers Club, and the Air Force Association. He received his BS in Metallurgical Engineering from the University of Cincinnati in 1955 and MS from The Ohio State University in 1964.

On the national level, Tom has been very active in the National Research Council, National Materials Advisory Board (NMAB) panels for refractory metals and beryllium. He served as Chairman of the NMAB Committee on Technical Strategies for Adoption of Commercial Materials and Processing Standards in Defense Procurement.

He is active in a number of community and fraternal organizations; his favorite undoubtedly being his abiding connection to Kiser High School in Old North

Dayton. He graduated from Kiser and was President of his class. He is a founding member of the Kiser High School Alumni Association (KHSAA) and he is on the KHSAA Roll of Honor.

He was married to his high school sweetheart, the late Katherine Ann (Ambrose) Cooper (also a member of the Kiser Class of 1950) for 51 years prior to her death in December 2004. They have three children, Theresa D. Cooper, Michael B. Cooper, wife Abbott and granddaughters Marshall and Mira, and Stephen J. Cooper, wife Jane Marie and grandsons Zachary and Adam.

61ST ANNUAL RX AWARDS

The Materials and Manufacturing Directorate recognized its top performers during the 61st Annual RX awards ceremony at the Hope Hotel on 24 January 2015. - Engineering Expertise Award: F135 Blade Investigation Team of John Brausch, Dr. Jeffrey Calcaterra, Jeremy Knopp, Dr. Jonathan Miller, and Robert Ware, - International Award: Dr. Reji John, - R. Lee Kennard Science and Technology Manufacturing Heritage Award: Dilip Punatar, - Program Management Award: Dr. Jennifer Fielding, - Supervisor Excellence Award: Dr. Katie Thorp, - Vincent J. Russo Award: Dr. Michael Caton, - Mission Support Award: Robert Ellis, - Advanced Mission Support Award: Donald Piddock, - Director's Team Award: The Corporate Communications Team of Robyn Mack, Jeremy Gratsch, Sheila Boyer, and Mary Ann Klos, - Director's Junior Workforce Award: Dr. Jonathan Miller, - Director's Individual Award: John Brausch, - Senior Noncommissioned Officer: Senior Master Sgt. Andrew Hayes, - Company Grade Officer: 1st Lt. Jacob Heitzman, - Field Grade Officer: Lt. Col. Scott Fitzner, - Robert T. Schwartz Engineering Achievement Award: The PT6 Fuel Nozzle Evaluation Team of Dr. Patrick Golden and Robert Ware, - Charles J. Cleary Scientific Achievement Award: The BioNano-Energetics Team of Dr. Rajesh Naik and Dr. Jonathan Spowart.

FAMOUS "QUOTE"

"Don't interfere with anything in the Constitution. That must be maintained, for it is the only safeguard of our liberties."

Quoted by: President Abraham Lincoln

AFMMAA CHARTER AND LIFE MEMBERS

We currently have **76 Life Members** and hopefully that number will continue to grow each year. Three (**shown below in Bold**) became “Lifers” in 2014. If you are not a “Lifer” we encourage you to sign up now. **Lyn Brown, Walt Griffith, and Ed Hermes** recently became the newest “Lifers”. If you are currently a Life Member we encourage you contact fellow alums who aren’t and encourage them to “upgrade.” If you wish to become a Life Member, pay yearly dues or contribute to the scholarship fund please use the membership and scholarship donors form in the Newsletter or on the **afmmaa.org** website. Your memberships and scholarship contributions are very necessary for our mission and to grow our annual scholarships. A list of the Charter and Life Members is shown below.

AFMMAA Charter and Lifetime Members - May 2015		
Charter Members		
Wade Adams	Craig Hartley	Bob Rice*
Bernard Chasman	Bill Kessler	Lynn Trainor
Tom Cooper	Jim Mattice	Ben Wilcox
Gary Denman	James Myers	John Williamson
Lifetime Members		
Mark Anderson	Lois J. Gschwender	John Rhodehamel
Tia Benson-Tolle	James A. Hall	Terry M. Ronald
Larry Bidwell	John Henderson	Vince Russo
Phil Bouchard*	Ed Hermes	Timothy J. Sakulich
Lyn Brown	Rob Hull	Paul Sampson
Charles E. Browning	Henry Johnson	Robert Schafrik
Lawrence Butkus	Warren Johnson	Stan Schulman
John Christian	David Judson	George Schmitt
Bob Cochoy	Bob Kincses	Don Shrader
Dennis Corbly	John Koenig	Jerry Sieron*
Tobey Cordell	Edward Kuhl	George Slenski
Ron Decker	William V. Lampert	James Snide
Mathew DiBiase	Cole Litton*	John Speers
Ken Elbaum	Thomas A. Lockhart	George St. Pierre
Dick Engman	Jim Malas	Katherine A. Stevens
Kathleen Falensky	Kay March	Donald Tarazano
Frank Fecek	Michael McCabe	Scott Theibert
Larry Fehrenbacher	Bobby McConnell	Jon Tirpak
Thomas Fiorino	Dan Miracle	Angie L. Tymofichuk
David W. Fischer	James L. Mullineaux	Gary Waggoner
Donald M. Forney	Dennis Naughton	Roland Watts
Harold Gegel	Neal R. Ontko	Dennis Wisnosky
John W. Gloystein	Nicholas Pagano	Bill Woody
Henry C. Graham	Larry Parsons	Carol Yarnall
Alten (Skip) Grandt	Cyril (Sonny) M. Pierce	
Walt Griffith	Bob Rapson	*Deceased

MEMBERSHIP STATUS

We continue to reach out to many in RX who nearing retirement and also RX industry friends in the Dayton community. This year we have been fortunate to have 2 new members join and 3 members became “Lifers.” The new members are: **Melvin Ohmer and Chuck Wagner**. New Life Members are: **Lyn Brown, Walt Griffith, and Ed Hermes**.

Our current membership now consists of approximately 160 alumni. This includes 12 Charter members, 76 Life members and 79 members who pay yearly dues. Another 100 alumni currently receive the biannual Newsletters, but have not joined or recently paid dues.

If you have not paid your 2015 dues or want to become a member please use the Membership Application and Scholarship Donor Form in the Newsletter. Also, please give some serious thought to becoming a Life member. Your membership dues, Life Memberships and scholarship contributions are tax deductible. All are very essential for us to continue a successful program. Please

contact me, Neal Ontko, at nrontko@yahoo.com if you have any recommendations on how we can better reach out to our alumni base.

Neal Ontko, Vice President, Membership

ARE YOU A CURRENT AFMMAA MEMBER?

The annual dues are \$10.00, or a Lifetime Membership is available for \$150.00. If your dues lapse for one year, your membership will become inactive. Our records indicate there are still a number of members who have not paid their 2015 membership dues. We don’t want to lose a valuable resource to the Association – YOU!

Please give serious consideration to joining us. Enclosed is a form that can be returned to become an active member.

AFMMAA
P.O. Box 341413
Bevercreek, OH 45434-1413

MATERIALS AND MANUFACTURING DIRECTORATE (AFRL/RX) SIMPLIFIED ORG CHART

Director

- Deputy Director
- Chief Scientist
- Chief Engineer
- Chief Strategist

Functional Materials Division RXA

- Nanoelectronic Branch RXAN
- Photonic Materials Branch RXAP
- Soft Matter Materials Branch RXAS

Structural Materials Division RXC

- Materials State Awareness and Supportability Branch RXCA
- Composites Branch RXCC
- Metals Branch RXCM

Manufacturing and Industrial Technologies

Division RXM

- Electronic and Sensors Branch RXME
- Propulsion, Structures, and Manufacturing Enterprise Branch RXMS

Integration and Operations Division RXO

- Information Operations Branch RXOC
- Engineering Services and Support Branch RXOE
- Plans and Programs Branch RXOP

Systems Support Division RXS

- Materials Integrity Branch RXSA
- Acquisition Systems Support Branch RXSC
- Logistics Systems Support Branch RXSS

