

# AIR FORCE MATERIALS AND MANUFACTURING ALUMNI ASSOCIATION (AFMMAA) NEWSLETTER

**SPRING 2007** 

## PRESIDENT'S CORNER

Another spring (2007) has come and it's a good time for your Association and its leaders to take stock and reflect on our accomplishments, new directions, and, of course, remember those we have lost in the last year. I hope you find this issue packed with information along these lines. It's also important for you, our members, active as well as potential, to give us input on where you would like the Association to head in the future. Importantly, YOU DO NOT HAVE TO BE RETIRED TO BE A MEMBER OF AFMMAA, so please join us and help us be of ever greater service to ML!

We believe we've set the stage with several years of successfully granting merit-based college and university scholarships for the qualified children of all military, civilian and on-site research and support contractors. Our ability to increase the number and amount of such scholarships will be enhanced (we don't know by how much yet) by our qualification as a CFC participating organization in 2006 and our notice of re-qualification for 2007 which was just received. <u>The number which must</u> be cited to earmark any contribution for AFMMAA will

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## More Good News

We were recently advised that our application for the 2007 Miami Valley Combined Federal Campaign (CFC) has been approved! After our 2005 application had been denied, we were successful for the first time in 2006 in being approved to participate in the CFC. As such, the AFMMAA was listed last year in the CFC Contributor's Information Guide and we were eligible to receive contributions for use in our Scholarship Program. Since we were late "getting the word out" to the ML employees, the number of contributors and returns for the 2006 Campaign weren't as great as we hoped. However, this year, we plan to make a more timely and conscious effort to notify all of the ML people of their opportunity to designate the AFMMAA as a principal beneficiary. The 2007 Campaign will begin on October 3 and end on November 16. We're hopeful that the returns will be increased in both number of participants and dollars and we can apply these to more and larger value scholarships for the sons and daughters of the ML workforce.

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Dr. David E. Walker

My fellow colleagues and alumni of ML, I'd like to take a moment of your time to talk to you about some of the exciting things going on today at the Materials and Manufacturing Directorate. First, I'd like to introduce myself to those of you not familiar with me. I retired from an active-duty Air Force career in July 2006 and took the reins of ML the following week. Prior to my current position,

I was AFRL's Vice Commander and previously served as Director of Air Vehicles. In addition to my time in the S&T community, I spent time in flight test at Edwards AFB culminating in commanding the Operations Group there.

What I'd like to talk about today is transition and change. Such simple words, yet their impacts are farreaching within our Directorate. There's been a major change of leadership within ML. Starting with myself, we've also experienced a surge of new leadership at the division chief level as several previous chiefs moved on, and ending with the newly instituted division technical directors. I'm extremely proud of our new, re-energized leadership team as they comprise a very talented and capable group of individuals.

With the change in leadership comes a change in the way we run the materials business for the Air Force. We've taken a frank look at all of the core competencies across ML, while building on our existing practices and principles. We've crafted an updated vision statement of where we'd like ML to go in the future. This vision addresses four main areas: the work environment, our people, processes we use, and how we manage our technology portfolio. It encompasses the gamut of technology production and professional development as we strive to be the aerospace materials and manufacturing leadership of the Air Force and the nation.

In crafting our new vision, the executive group has identified several areas of interest that we'd like to start promoting. In addition to maintaining leadership in materials and processing, system support, and

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# OUR PAST SCHOLARSHIP Award Winners

Much has happened on the scholarship front since our last report in the Spring 2006 AFMAA Newsletter. The association presented two scholarships again at the 2006 ML Awards Luncheon held in June 2006. Scholarships of \$1000 each were presented to Mr. Justin Spitzer and Mr. Jeffrey Zabinski, Jr. at the Hope Hotel luncheon. The actual checks were sent to their respective universities for application to their scholarship costs. Both awardees were college freshmen at the time of the awards. Both continue their excellent scholarship records this year as sophomores, and both have expressed gratitude to the AFMMAA for their scholarships. An update on their activities during the past year is provided in the following paragraphs.

In June 2007 Justin Spitzer will be completing his sophomore year in Chemical Engineering at the Ohio State University. Through winter Quarter of 2007, he has maintained a 3.5 GPA and is now into the core Chemical



Engineering classes. In the Fall of 2007, Justin will be starting his Junior Year and is looking forward to the new challenges of the Chemical Engineering curriculum. Upon returning in the fall, Justin will be moving into an apartment near campus with 4 of his friends,

**Justin Spitzer** 

leaving dorm life behind. Justin is currently looking for summer employment and considering a co-op option. He plans to continue as a Caddy on weekends at Moraine Country Club which he has done for the past 8 years.

During the summer of 2006 Jeffrey Zabinski, Jr. worked in the biotechnology group of AFRL/ MLPJE, helping with a project related to peptide

modified gold nanoparticles. The work will be published in Nano Letters. Currently a secondyear Biomedical Engineering student at Case Western Reserve University, he has been helping with the formation of a group dedicated to hands-on engineering opportunities for all undergraduate engineering students. This spring,



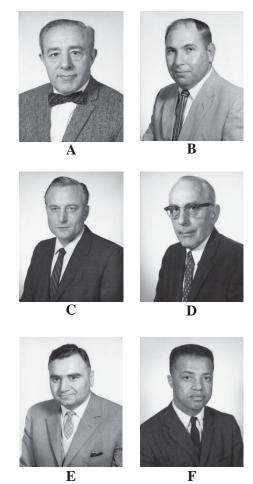
Jeffrey Zabinski, Jr.

he took a week-long intensive course in the Netherlands for a cross-cultural comparison of ethics and euthanasia (senior ML retirees beware!). He has also helped lay the ground work to set up an HIV/AIDS testing program in rural Kenya, and he hopes to study Biomedical Engineering for a semester at the University of Auckland in the 2008 school year. This coming summer, he again looks forward to working with AFRL/MLPJE.

The call for applications for the 2007 AFMMAA Scholarships was on the AFMMAA website and also on the AFRL/ML Intranet. The deadline for receipt of applications was 10 May 2007. We again anticipate the award of two \$1000 scholarships to highly qualified students planning to enter their first or second year of college. The students must be children of a current AFRL/ML government (civilian or military) employee, or a current contractor performing on-site at the time of application. We have received seven applications for the two scholarships this year. Evaluation of the applications is currently in progress.

## Do You Remember?

Shown below are the photographs of several ML engineers and scientists taken in the 1960's. How many do you recognize and remember? For the answers, see page 6.



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## HONORS AND AWARDS

Several ML employees and past employees have been presented with significant awards since the last Newsletter. Two current ML employees were named as AFRL Fellows. Their accomplishments are:

Carl E. (Ed) Snyder, Jr., a senior chemist in AFRL/ ML, was recognized for significant contributions to the Air Force. Mr. Snyder has been a major contributor and a leading chemist within the AFRL community during a career spanning more than 43 years. He is a recognized expert in the R&D of advanced fluids and lubricants for current and future Air Force weapons systems. He is personally responsible for moving the Air Force from predominantly mineral based fluids and lubricants to the improved performance achievable through synthetic based products. His pioneering work in the development and application of dynamic new nonmetallic materials, such as fire resistant hydraulic fluid, dielectric coolants for aerospace, and landing gear grease have helped establish AFRL/ML as a Center of Excellence.

Dr. Kumar Jata of AFRL/ML was recognized as an international authority in the field of microstructureprocessing-property relationships in structural metallic alloys with specialization in high-strength, light-weight alloys, friction stir welding, corrosion mechanisms, and high temperature creep crack growth. He is also a noted expert in technology transition as well as transfer of materials and processes to industrial applications. Dr. Jata's innovative and far-reaching research activities have resulted in significant technological advancements within AFRL/ML and throughout AFRL and the Department of Defense.

In addition to these outstanding awards, one current and one former ML employee have been recognized and selected as Associate Fellows of the American Institute of Aeronautics and Astronautics (AIAA). They are:

> Dr. David E. Walker, Director, Materials and Manufacturing Directorate, AFRL Dr. Robert E. Schafrik, General Electric Aviation

## We Need <u>You</u> To Take A SEAT, Please

#### What is SEAT?

**Students Exploring Advanced Technologies** (**SEAT**) is a Mentoring Program for High School Math and Science Students that attend the Dayton Public School System (DPS). The SEAT Program is a collaborative partnership program between the Materials and Manufacturing Directorate of the Air Force Research Laboratory (AFRL), DPS, Wilberforce and Central State Universities. The Program seeks to provide mentors to inner-city youth that display an aptitude in mathematics and science.

#### Who are the SEAT Mentors?

Currently, the majority of the mentors for the SEAT Program are from the Materials and Manufacturing Directorate. Additional SEAT Mentors are being recruited from retired or current scientists and engineers from the various Directorates of the Air Force Research Laboratories (AFRL). These mentors maintain close contact with students selected for SEAT participation during the course of their Science Fair Project.

Mr. Shane Juhl, Material Research Engineer, AFRL/MLBP, has mentored SEAT Participants. For the past two years, students whom he has mentored have participated in Science Fair Projects that have gone on to the State Science Fair. Here is what Shane said to Emory Beck-Millerton, the student he mentored this past year: "Congratulations on the superior rating. Truly an amazing accomplishment. Good Luck at State. It has been my pleasure to get to work with you."

#### Who are these Students?

SEAT DPS students attend the Academic Magnet Academy at Colonel White High School, which will become the new Thurgood Marshall High School next school year. These students are required to take Advanced Placement (AP) math and science classes, and complete a math or science fair project.

# What will I be required to do as a SEAT Program Mentor?

As a Mentor, your primary responsibility will be to provide **guidance** to selected SEAT Participants on how to successfully complete their math or science project for competitive participation in local, regional and state Science Fairs. For more information on the roles and responsibilities of Mentoring, please go to: http:// www.noblesolutions.org/mentors\_tutors.html

#### How Long? How much time? And where?

Your services as a mentor run concurrent with the life-cycle of the Math and Science Fair Project, from September to March of each academic school year. The amount of time you devote during this period is for you to determine. There will be a couple of informational/ training sessions prior to the start of the school year which you are highly encouraged to attend. For the most part, all mentoring will take place at the AMA, Colonel White High School, 501 Niagara Avenue, Dayton, OH.

Take advantage of this opportunity to make a difference!

FOR MORE INFORMATION, PLEASE CONTACT MR. HENRY NOBLE, PMP, hnoble@noblesolutions.org

## RECENT INFORMATION ABOUT AFMMAA MEMBERS

During the year, many of our members have provided comments regarding their current activities and interests for the AFMMAA website. Here are a few selected comments from the many that may be found at www.afmmaa.com or www.afmmaa.mil.

• Don M. Forney, Troy, OH. Still working part time at UTC Engineering. Finished book for NDE Branch "In Search of Quality" – a historical review of NDE R&D activities from 1919- 2006.

• James Hall, Gilbert, AZ., Senior Principal Engineer, Honeywell Aerospace. He departed AFML in 1974. He has worked in the Titanium Industry and Aerospace since then.

• Walt Griffith, Dayton, OH. Retired from ML in Feb 07 and started his own consulting business.

• TV Karas Matthews, Kettering, OH "Retired in 1985. Still feel great. Favorite trips: Greece. Still active in clubs, church groups. Never Bored, Always busy."

• George F. Schmitt, Dayton OH. A new Lifetime Member of AFMMAA. Went on concert tour with Dayton Philharmonic Chords to Czech Republic, Austria & Germany in June '06. Serving as Director of International Programs for ML.

• Jerry K. Sieron, Dayton, OH. Retired from ML as Chief, AFML/MLSS in June 1993. Retired from Universal Technology Corp in 2004 after serving as a consulting engineer for 10 years.

• Gary Waggoner, Beavercreek, OH. Working part-time for Macaulay Brown & LOGTEC. Spending time with grand kids and home projects. Traveling – just returned from Ireland and England.

• James M. Whitney, Beavercreek, OH. Retired from UD in May '06. He is now Professor Emeritus and still teaches part-time.

If you wish to share your recent activities or interest with others on the AFMMAA website, please send an email to Tom Cooper at tcooper@utcdayton.com, or Dick Engman at dkengman@msn.com.

## Your AFMMAA Officers and Committee Chairs







Warren Johnson Exec. Vice President







Bob Denison Treasurer Dick Engman Secretary

Tobey Cordell Membership



Tom Cooper Newsletter Editor



Bob Cochoy Scholarship Committee Chair



#### (President's Corner Continued)

<u>change</u>, so please watch for it as the CFC unfurls this year in October. Our biggest challenge here is to increase the number of qualified scholarship applications so <u>please</u>, <u>help</u> <u>us get the word out to ML workforce members with children</u> <u>entering undergraduate school in the foreseeable future</u>. Specifics are in related articles in the newsletter and on the website. We will also be exploring other appropriate means of supporting the educational needs of future generations of ML children and future ML employees.

Your executive board recently met with the current ML Director, Dr. Dave Walker. He expressed a very strong desire to both support and draw from the resources of the Association. Among the areas discussed (scholarships, membership, mentoring, preservation of the ML history, outreach to the community, enhanced liaison with the current workforce), Dr. Walker provided his own perspectives and thoughts on how ML and AFMMAA might work together more synergistically. We will be following-up on these potential activities, initially in the mentoring and membership areas, by resuming voluntary "brown bag" lunches between current ML employees and Association members with unique career experience, technical as well as managerial.

We hope to work with ML, consistent with privacy limitations, to gain access to both new and departing employees to offer them the opportunity to be a part of AFMMAA. We also talked with Dr. Walker about the need for a second "Former Directors Reunion" to serve as a catalyst for bringing all current and former ML members together to share professional and family experiences. Let us know what you think about this idea.

Finally, as part of a potentially expanded outreach role for the Association, we are invited by the SEAT (Students Exploring Advanced Technologies) program within the Dayton Public School System to provide voluntary mentors for promising high school math and science students. A separate article (see page 3) by Mr. Henry Noble explains this further. If you are interested, please contact him directly and let us know how it works out so we can determine if we should pursue this type of activity further.

I mention the above sampling of activities to give you a feel for some of the directions we are exploring for a better association with virtually no overhead complexity and little cost. Our aim is, and always will be, to support the mission of ML and the ML family of which we consider ourselves to be an integral part. Let us know how we are doing and what else we should be considering to be successful.

#### Jim Mattice, President, AFMMAA

#### (ML Director's Message Continued)

manufacturing technology, ML will build our capabilities in biotechnology, nanotechnology, and increase the scientific and technical content of our airbase technologies. These technologies play a leading role in developing war fighting capability for the Air Force of the future.

Our new vision and strategy are designed to support the new AFRL strategic plan. The new AFRL-wide Focused Long Term Challenges (FLTCs) are designed to deliver integrated technology solutions to the Warfighter. I have a corporate AFRL role as the Integrating Director for the FLTCs, responsible for orchestrating the planning and execution of the FLTCs across AFRL. As anyone associated with ML knows, materials are the foundation for the FLTCs. ML also supports the AFRL strategic plan through the six new Strategic Technology Thrusts (STTs), while leading the nano and bio thrusts.

With all of the above changes, I have not lost sight of the past successes of which you are a part. Following the lead of Dr. Charlie Browning and Col. Tim Sakulich, I am continuing the Company Grade Officer (CGO) Initiative Program to promote new, innovative ideas from our young officer corps. This program allows a CGO to initiate and execute a program of his/her choice, and stands as a prime example of reasonable risk taking with a potentially huge payoff! I applaud Dr. Browning for initiating and Col. Sakulich for maintaining this program during their tenure, which allows us to tap into the amazing resources of our CGOs.

As Director, I will continue to build on the past successes of ML and drive the Directorate toward the future vision developed by the ML Executive Group. This strategy is centered on investing in core technologies that will provide the AF with improved performance, sustainability, and affordability, with an emphasis on technology transition and support of the ATDs, FLTCs, and STTs as we continue to serve the AF's needs through our creativity and pioneering research.

EDITOR'S NOTE: Dr. Walker's full bio may be found on the web at http://www.af.mil/bios/bio.asp?bioID=8922.

## CURRENT ML WORKFORCE

The current size of the ML workforce includes the following:

a)	Civilian Employees	421
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b)	Military	74
c)	<b>On-Site Contractors</b>	727

Total 1222

This includes those at WPAFB, Tyndall AFB and other operating locations.

BEavercreek, OH 45434-1413 P.O. Box 341413

#### AFMMAA Newsletter

# WHERE IS YOUR AFMMAA MEMBERSHIP CARD?

Do you still have your membership card? If you were a single year member, please look at the bottom of the card and see if there is an expiration date. If the expiration date reads 9/30/06, your dues are due for the current year. 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 2006-2007 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.

## **PHOTO IDENTIFICATION**

#### Answers for Page 1

A) Issac (Ike) Perlmutter; B) Dr. Harold Rosenberg;C) Oscar Srp; D) Theodore (Ted) Felker; E) Dr. Karl Strnat;F) John Christian

### SIXTH EDITION / SPRING 2007

## LOSSES FROM THE ML FAMILY

We regret to inform you of the following losses from the ML Family since our last Newsletter.

Kent Eisentraut	June 2006	
Walter Gloor	September 2006	
Al Olevitch	November 2006	
Col. (Ret) John Kleperis	December 2006	
Roger Headrick	December 2006	
Ed Wheeler	February 2007	
Jesse Crosby	March 2007	

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



	ORCE MATERIALS & MAN		
Name:			
Address:			
City:	State:	Zip:	
Telephone Home:	Work:	Fax #:	
E-mail:			
Check here if we CAN NOT	release mailing address, telephone	number, and e-mail to other alumni.	
Year departed/retired from ML: _			
Recent information about yoursel	f:		

What areas would you like to support AFMMAA? (Scholarships, History, Mentoring, etc.)

Membership Category: Individual - (\$10.00/year) Lifetime - (\$150.00 one time fee)

Make check payable to: AFMMAA

Return to the following address: P.O. Box 341413 Beavercreek, OH 45434-1413