



AIR FORCE MATERIALS AND MANUFACTURING ALUMNI ASSOCIATION (AFMMAA) NEWSLETTER

SEVENTH EDITION

FALL 2007

PRESIDENT'S CORNER

So, what's in a symbol? I've had a number of comments about the recent symbol change for our beloved Air Force "Materials Lab" (yes, it will always be that to me, and I suspect to many of you). AFRL/ML has been re-designated AFRL/RX. The current Director, Dr. Dave Walker, offers his perspective on this in his contribution to the Newsletter. Inputs to me have ranged from puzzlement to anguish. Some have even denounced the change because they believed it was the first time the Lab didn't have an "M" for materials in its symbol...definitely not so. Thus, I'd like to offer my limited perspective...and for an AFMMAA selfish reason, as you will see.

When I first came to WPAFB on a very cold (below 0) January day in 1959, my first symbol was WCLTNE-2 (Coatings Section, Elastomers and Coatings Branch, Nonmetallic Materials Division, ML). Historical records indicate that the lab-level symbol was WCLT (again, no M). Without getting too precise, as my historical research time was limited for this purpose, the 1960s brought us WWRC as the Materials Laboratory name gave way, for a period, to the Materials Central designation. This was also the timeframe that the Manufacturing Technology Program was assigned to the Laboratory; but that's another story.

Continuing organizational changes were going on all around and above the Materials Lab and symbols such as ASRC and MAG (yes; there's the M word at last) came with the later persisting through the 1960s until the formal 1963 designation of the Air Force Materials Laboratory. This was followed later (1975) by the activation of the AF Wright Aeronautical Laboratories (AFWAL), the 1979 reorganization and consolidation of AFWAL, and the 1988 designation of the Wright Research and Development Center (WRDC), and re-designation of WRDC to Wright Laboratory (WL) in 1990. Many of these changes had symbolic, as well as some mission changes as the Materials Directorate (ML) became the modern identifier...until RX.

After reflecting on, and living through most of these perturbations, I rapidly conclude that it's not what's in a name or symbol that makes a difference, although at the time it may have seemed terribly important and a major

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ML DIRECTOR'S MESSAGE



**Dr. David E.
Walker**

Dear colleagues and alumni. In the spring 2007 issue of the AFMMAA newsletter, I introduced myself to you as the new "Director of ML". Now, only 6 months later, I have the opportunity of reintroducing myself to you as the "Director of RX". As of 1 Oct 2007, ML, the symbol of excellence in materials and manufacturing technology research, changed to RX as part of

the AFRL technical directorate's office symbol realignment with the current Air Force environment. Personally, I believe the change merely reflects what we already know – the Materials and Manufacturing Directorate has been and will always be a key source of materials and manufacturing Research eXcellence for the DOD and the greater scientific community.

In this update, I want provide you details of some of the transitions and changes being implemented across RX to improve how we run the materials business for the Air Force. We are adopting a portfolio-based management process and have instituted shared technical and program management leadership. I will also give you a run down of the recent Scientific Advisory Board Review.

During the past year, the RX Executive Group evaluated the organization and management structure of the technical directorate with respect to changes in the Air Force S&T needs and the fundamental changes in AFRL's management processes. As a result, we identified an opportunity to evolve our internal process to continue to define the scientific frontier in material science and manufacturing technology. In the short term, these changes will support the AFRL FY10 POM submission, while in the long term the changes will strengthen RX's Core Technical Competencies (CTC's) and focus on our customer's needs through customer based portfolios. To accomplish these goals, we instituted a portfolio-based management process and a technical and program management structure based on shared leadership between RX's resource/program management workforce and its science and engineering

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OUR PAST SCHOLARSHIP AWARD WINNERS

The association presented two scholarships again for the Fall 2007 academic quarter. Since the ML Awards Luncheon was not held this year, the scholarship recipients were not formally recognized as in the past. Scholarships of \$1000 each were awarded to Ms. Margaret Hay and Mr. Jaison Nainapampil. The actual checks were sent to their respective universities for application to their scholarship costs. Both awardees are entering freshmen this year. Their academic accomplishments and an update on their activities since their high school graduation last summer are provided in the following paragraphs.

Margaret Hay is the daughter of Randall Hay in AFRL/RXLN (formerly MLLN). She was awarded the Alumni Association Chief Scientist's Scholarship.



Margaret Hay

She was one of the Salutatorians at Beavercreek High School and she is attending Cornell University this fall. She intends to major in biological engineering and pursue a doctorate in this field. In addition to her "straight A" average in tough honors and advanced placement courses, she is also a four-year varsity cross-country runner and three-year track runner. She was an active member of Student Council, and a member of a club that educates her peers about drug and alcohol abuse. She also volunteered at retirement homes and was a math tutor. During this past summer, Margaret worked as a camp counselor and waterski instructor for two months in the Adirondacks. Although currently taking a heavy load of 18 hours at Cornell, she finds time to volunteer at the Ithaca Youth Center and participate in the Cornell running club.

Jaison Nainapampil is the son of Josekutty Nainapampil, a contractor working in AFRL/RXBT. He was awarded the Alumni Association Scholarship. Jaison was the Valedictorian of Beavercreek High School graduating as #1 out of a class of 691. He is now attending the University of Dayton. Jaison was interested in pursuing a career in either biomedical engineering or in medicine. However, since entering UD, he has focused on a career in medicine. At Beavercreek Jaison served as President of the National Honor Society, and participated



**Jaison
Nainapampil**

in a variety of diverse organizations such as the Muse Machine and the Chess Club. He has won medals in the Regional Science Olympiad competition, and he has placed 1st in Ohio and 8th in the nation in the TEAMS (Test of Engineering Aptitude, Mathematics, and Science) competition. During this past summer, Jaison worked as a Wright Scholar Research Assistant writing a computer program using the MATLAB programming language. He has been accepted into the premed program at UD which will after four years allow him to directly transition into the medical school at the University of Cincinnati.

We currently plan to put out the call for applications for the 2008 AFMMAA Scholarships on the AFMMAA website and the AFRL/RX Intranet in February 2008. We again hope to award two \$1000 scholarships to highly qualified students planning to enter their first or second year of college.

CFC KICKOFF

The AFMMAA recently participated in the 2007 Miami Valley Combined Federal Campaign (CFC) Agency Fair/Kickoff event at the Ervin J. Nutter Center held on October 3rd from 1100 to 1300. This event provided us the opportunity to meet directly with the Federal workforce,



**Jim Mattice (L) and
Warren Johnson (R)**

especially employees of the Materials and Manufacturing Directorate, and inform them of our services, programs and scholarships. Over 100 agencies participated. Each of the participating agencies were provided a table on which to set up displays, materials and favors. Jim Mattice and Warren Johnson (shown in the photo) represented the AFMMAA. It is estimated that

approximately 2500 members of the Federal and local government workforce attended. The 2007 CFC is now officially open and the description of the AFMMAA activities is on page 85 of the CFC Booklet. Our new 5-digit organization number is 85464. All designated contributions will be applied to scholarships. Our goal is to double the number and value of the merit scholarships awarded to children of "Materials Lab" employees and on-site contractors.

(President's Corner Continued)

change to be comprehended and coped with. If history is any teacher, even RX will change in time. Perhaps we, the AFMMAA, should do the research to calculate the mean time between symbol changes (MTBSC). I suspect we will discover it is about 5 years. We will also find that what the lab really is to the Air Force has little to do with symbols, titles or even organizational structure, important though it might be to internal operations. I recently had the opportunity to see some of the current “stuff” and people of the lab as an invited external reviewer of the Directorates bi-annual presentations to the Air Force Scientific Advisory Board (AFSAB). All I can say is “wow”. I wish all of the Alums could see some of this as it was indeed impressive... people (especially young people), research, facilities and so on. I was also impressed with the real changes within AFRL directorates to work more closely together to deliver integrated technology capabilities.

This brings me to my selfish AFMMAA purpose. My little journey back through my “symbolic” history led me to the conclusion that this is a little story that has never been accurately described. There are a lot of archival tidbits, but not a complete story that would allow future leaders contemplating change to appreciate the timelines and tempo of previous changes. The symbols can be used to tell a real story in a much more concise fashion than the whole narrative history, which we do have in some detail. Thus, I would like to challenge AFMMAA members to document from your files and memories, the details of your organizational surroundings so that we can weave together a more complete story in this regard. I think the RX leaders and workforce would find it interesting and thought provoking. Who knows, maybe such a contribution could be an incentive for an invitation to the Alums to come and see some of what I had the opportunity to see recently. I think you would find it inspiring and a footnote to the legacy we all believe we left.

Let me, or any of the officers, know what you think about this and share with us any organizational/symbol tidbits you have in your archives.

Jim Mattice, President, AFMMAA

(ML Director's Message Continued)

workforce.

The adoption of a portfolio-based management process allows for better collaboration across divisions to reduce the duplication of effort and provide a better overall end product to our AFRL and AF customers. Through RX's portfolio-based management process, technical programs

are championed and road-mapped to application portfolios, via their portfolio managers. The programs in these portfolios are formulated, maintained and executed by the divisions and branches that are responsible for ensuring the health of their established technical competencies. Under the new portfolio management structure, the planning and programming processes are pulled up to the corporate level and are performed within the context of eight cross-directorate application portfolios:

- Directed Energy
- Sustainment
- Propulsion
- Survivability
- Airbase Operations
- C4ISR
- CBRNE/GWOT
- Air and Space Structural Materials

Additionally, two other portfolios have also been established to ensure we remain focused on the far term and near term materials S&T needs of the Air Force:

- Fundamental Research & Pervasive/Supporting Technology
- Rapid Response

These portfolios are intentionally application focused to ensure RX is supporting its Air Force customers. The formulation and execution of the programs and subordinate technical projects supporting these portfolios remain the purview of the technical divisions and branches within RX. Planning and programming are performed primarily at the division level and above using inputs from the portfolio managers. The effectiveness of these processes, however, remains completely dependent on participation, involvement, and ownership by all in the directorate.

In addition to portfolio-based management, we have instituted shared technical and program management structure between RX's science and engineering workforce and its resource/competency management workforce (people, dollars, and facilities). The intent of this approach is to gain efficiency by allowing people to focus on their areas of responsibility and expertise (resource management, technology development, or engineering) rather than attempting to be a ‘jack of all trades’. To accomplish this we added technical directors at the division level and technical advisors in the branches. We have also instituted a Technical Review Board led by the Chief Scientist and comprised of the division technical directors to provide oversight of our technical program and provide recommendations to the Executive Group on the technical

(ML Director's Message Continued)

plan. As we institute this dual leadership approach, we will develop two 'paths' for career growth: a resource/competency leadership path and a technology development/engineering leadership path.

Finally, I am pleased to share with you some of the highlights from the latest Scientific Advisory Board led by Dr Wayne Goodman of the Aerospace Corporation and Professor Michael J. Sailor of the University of California, San Diego.

The focus of the 2007 review included one of RX's core technical competencies: Support for Operations – six sub-core technical competencies: metals, nanomaterials, surfaces and interfaces, ceramics, hybrids and NDE – and three special topics: nanoenergetics, ManTech S&T Crossover and laser shock processing.

Although the official results from the SAB will not be known until early next year, the SAB recognized RX as a national resource employing high quality researchers and state-of-the-art equipment and facilities. RX was praised for integrating modeling and experimentation in most of the technical areas, maintaining a clear focus on both near-term and long-term Air Force issues, creating a culture of working for customers to solve near-term problems and effectively collaborating with academia, government, and other national and international researchers.

Air Force Chief Scientist Dr. Mark Lewis and AFRL commander Major General Curtis Bedke concluded the out-brief by recognizing the dedication and hard work displayed by those involved in making the RX SAB an extremely well run review filled with many impressive presentations and demonstrations. Dr Goodman presented the "Best Presentation" award to Drs. Allan Katz (Ceramics) and David Mollenhauer (Hybrids), while the "Best Demonstration" award was given to the Airbase Technologies division (AFRL/RXQ) at Tyndall AFB for their fire suppression demonstration.

As you can see from above, a lot has happened in the last year. As we enter FY08, we will continue to institute the changes detailed above, execute world class materials and manufacturing research, and search out opportunities to make RX an even stronger member of the AFRL and AF team.

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 RX WORKFORCE

The current size of the RX workforce includes the following:

a) Civilian Employees	413
b) Military	93
c) On-site Contractors	<u>732</u>
Total	1238

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

HONORS AND AWARDS

A number of RX employees have been presented with significant awards since the last Newsletter. Among those are the following:

- Dr. Lee Semiatin, RXL – Presidential Rank Award, Meritorious Senior Professional
- Dr. Tim Bunning, RXPJE – AFRL Fellow
- Mr. Marvin Gale, RXOC – The National Tibbets Award for Outstanding Individual Achievement in SBIR Program Management
- Dr. Howard Sizek, RXMP – AF Science and Engineering Award
- Dr. Carl Lombard, Jr., RXMP – AF Science and Engineering Award
- Dr. John Maguire, RXBP – McLucas Basic Research Award, Honorable Mention
- Dr. Dennis Dimiduk, RXLM – McLucas Basic Research Award, Honorable Mention
- Lt. Col. Duncan Dversdall, RXS – The Meritorious Service Medal
- Mr. Brench Boden, RXMT – Exemplary Civilian Service Award
- Mr. Charles Wagner, RXSC – Exemplary Civilian Service Award
- Mr. Robert Ware, RXSA – Exemplary Civilian Service Award
- Dr. Rajesh Naik, RXPJE – AF Outstanding Scientist Award, Mid-Career
- Dr. Janis Brown, RXBC – The Technical Cooperation Program Achievement Award
- Mr. George Schmitt, RXO – 2006 International Award for Armaments Cooperation, Non-Supervisory (awarded July 2007)
- Lt. Mark Mallory, RXLM – AF Junior Engineer of the Year

**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.

- Dale Chimenti, Ames, IA, chimenti@iastate.edu. Professor of Aerospace Engineering and Senior Scientist at the Center for Nondestructive Evaluation.
- Gordon H. Griffith, Big Canoe, GA, ghgriffith@tds.net. Still enjoy playing my mountain dulcimer, singing in the chapel choir, ringing in Chapel Bell choir and serving as chairman of Big Canoe Garden Trail and Plant Rescue efforts. Serving as Asst. Scoutmaster.
- David L. Judson, Fairborn OH, dediamond@sbcglobal.net. Retired from ML in 2003. I am doing great!
- G. Ed Kuhl, Cincinnati, OH cooleddie1@fuse.net Retired from UDRI in Oct 2006.
- Cyril (Sonny) Pierce, Palm Beach Gardens, FL. sonnyp@fuse.net. Retired from GE in 2001 and have a successful consulting business called Pierce Consulting, LLC.
- John M. Speers, Kettering, OH. taffy45431@ameritech.net Retired again in summer '06 from MLS as support contractor in environmental programs. In Sept 07 I spent 3 weeks on safari in S. Africa, Botswana and Zimbabwe. Also spend my "free time" with grandkids and playing golf.
- Roland J. Watts, Centerville, OH. rolandjw@woh.rr.com Retired from AFRL/MLBC. Emeritus, AFRL/MLBC. Interface with AFRL/PR. Member of Institute of Environmental Science Technology, SAEAC9 Committee and Affiliate Societies Council of Dayton.
- John Williamson, Beavercreek, OH. johnw13@earthlink.com After retiring I worked 6 years for Anteon and two years as an independent contractor. I have been fully retired for 2 years. During the winter I travel almost every month. During the past year I have visited the Greek Isles, Tahiti, Cook Island, Burma, Italy, Belarus, Tunisia, Slovenia, Croatia, Montenegro, Tanzania, Zambia, Albania, Macedonia and Bulgaria.

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@utcd Dayton.com, or Dick Engman at dkengman@msn.com.

DO YOU REMEMBER?

Shown below are the photographs of several ML (now RX) engineers and scientists taken in the 60's. How many do you recognize and remember?

For the answers, see page 8.



A



B



C



D



E



F



G



H

AFMMAA ANNUAL MEETING 8 NOVEMBER 2007 DAYTON ENGINEERS CLUB

The 2007 Annual Meeting of the AFMMAA was held on 8 November 2007 at the Dayton Engineers Club on East Monument Avenue in Downtown Dayton. An excellent turn-out attended the meeting. The meeting was deferred from June, when it was held in past years, to November due to the postponement of the AFRL/RX annual Awards Luncheon. The RX Awards Luncheon is now anticipated to be held in early 2008 to be more in line with the AFRL Awards ceremony. Twenty two members were in attendance (see photograph) and a busy agenda was followed. The meeting was chaired by AFMMAA President Jim Mattice. After lunch at the Club, reports were presented by Vice-President Warren Johnson, Secretary Dick Engman, Treasurer Bob Denison (presented in absentia), Membership Chairman Tobey Cordell (presented in absentia), the Scholarship report by Bob Cochoy, the Newsletter report by Tom Cooper and the RX Liaison report, including the new RX project portfolio management approach, presented by George Schmitt. Old business was covered, including the CFC status, the 07-08 dues status and the list of names of members deceased in the last year. New business was also discussed, including the many changes going on in the newly revised RX organization and the status of proposed history projects. The Election of Officers was postponed until early in 2008. The meeting was adjourned in the early afternoon.



Front Row: Warren Johnson, Jim Mattice, Dick Engman, George Schmitt; **Middle Row:** Walt Griffith, Ken Kojola, Tom Cooper, Ken Elbaum, Cole Litton, Clay Harmsworth, Bob Kincses; and **Back Row:** Dave Judson, Bill Woody, Jim Whitney, John Williamson, Phil Bouchard, John Speers, Bob Cochoy, Lee Gulley. Also in attendance but not in photo: Vince Russo, Charlie Browning, Mickey McCabe. Photo courtesy of Bob Kincses.

NEW AFRL TECHNICAL DIRECTORATES OSCs

<u>Former</u>	<u>New</u>	<u>Directorate</u>	<u>Former</u>	<u>New</u>	<u>Directorate</u>
VA	RB	- Air Vehicles	ML	RX	- Materials and Manufacturing
DE	RD	- Directed Energy	SN	RY	- Sensors
HE	RH	- Human Effectiveness	PR	RZ	- Propulsion
IF	RI	- Information	RO	RO	- Chief of Staff
VS	RV	- Space Vehicles			
MN	RW	- Munitions			

Change effective as of October 1, 2007.

YOUR AFMMAA OFFICERS AND COMMITTEE CHAIRS



Jim Mattice
President



Warren Johnson
Exec. Vice President



Bob Denison
Treasurer



Dick Engman
Secretary



Tobey Cordell
Membership



Tom Cooper
Newsletter Editor



Bob Cochoy
Scholarship
Committee Chair

AFMMAA CONTRIBUTORS AND MEMBERSHIP

The AFMMAA is very fortunate to have a solid membership and contributor base to support our Scholarship giving and yearly operating cost. Eleven members have contributed a total of \$720 to the Scholarship Fund. AFMMAA has a total membership of 114 members that includes 12 Charter members, 24 Lifetime Members, and up to 80 yearly renewing members. We encourage you to become a Lifetime Member or pay your annual dues for the coming year Oct '07 – Sep '08. Your scholarship contributions and membership dues are essential to support and grow our annual scholarships in the areas of science and engineering to children of AFRL/RX employees and on-site contractors. A list of Scholarship Contributors, Charter Members, and Lifetime Members is shown in the table.

2007 & 08 Contributors Scholarship Fund		
Bernard Chasman	Gordon Griffith	John M. Speers
Tom Cooper	J. Read Holland	Kathy A. Stevens
Robert L. Denison	Kenneth Kojola*	Gary Waggoner
David W. Fischer*	Paul Propp*	*Contributed both years
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	Warren Johnson	Vince Russo
Phil Bouchard	Dave Judson	Robert Schafrik
Ken Elbaum	Bob Kineses	George Schmitt
Larry Fehrenbacher	John Koenig	George Slenski
Harold Gegel	Edward Kuhl	James Snide
Alten (Skip) Grandt	Cole Litton	Jon Tirpak
John Henderson	Michael McCabe	Gary Waggoner
Rob Hull	Bob Rapson	Bill Woody

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

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 9/30/07, 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 2007-2008 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.



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.

Lew (Walter) Picklesimer	2004
Rand Biggers, RXPS, Auto Accident	July 2006
George Saul	May 2007
Bob Tomashot	June 2007
Paul Lane, Jr.	July 2007
Alan Hopkins	August 2007

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

PHOTO IDENTIFICATION

Answers for Page 5

A) Lt. Col. Mike Nadler; B) George Glenn;
C) Dr. Emile Rutner; D) Bill Ramke; E) Howard Middendorp; F) Bob Bowman; G) John Halpin; H) Jack Marsh



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

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 yourself: _____

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