IEEE life members newsletter

contents

www.ieee.org/lmc

2nd & 3rd quarters

2005

The Life Members Committee (LMC) holds one face-to-face meeting in the Spring and one in the Fall. Additional meetings are held via conference calls on a as-required basis. The LMC had a full agenda at its March 2005 meeting and made a number of decisions.

In response to a charge from the IEEE Board of Directors (BoD) asking the LMC to review how to create an electronic subscription incentive program for LMs, an ad hoc committee of the LMC did a thorough study of the definition and privileges of IEEE Life Membership. The recommendations of this committee were endorsed by the LMC. The LMC strongly holds the position that LMs should be treated the same way as other members of IEEE and have the same rights to the publication subscriptions. The LMC response has been conveyed to the BoD. It has been suggested to the BoD that IEEE should indeed consider introducing incentives for all members to switch to electronic subscriptions. But LMs should not be singled out.

As you know, the LMC instituted the LM Chapters program under its own aegis a few years back. Reports received back from the Sections seem to indicate that this setup was causing some confusion. To avoid that confusion, the LMC decided to make a proposal to the Regional Activities Board (RAB) that the LMC Chapters program be made into an Affinity Group. Approved by RAB at the June meeting, the LM Chapters will now be known as LM Affinity Groups. They will receive the same support as provided to any other Affinity Groups. In addition, LM Affinity Groups can approach the LMC for additional funds for special projects that they may wish to pursue. (See page 3 for more about affinity groups in general.)

The LMC is taking steps to broaden the awareness of the LMC and its programs at the 2005 Sections Congress scheduled for Tampa, Florida, in October. In addition to setting up an exhibits table and providing brochures, talks will be given to the Sections Congress delegates apprising them of how they can make use of LMs as an important resource for the Sections.

The LMC has been receiving inquiries from Life members about the availability of Life Member pins. After some discussion, the LMC has decided to obtain LM pins for the various grades of LMs. As soon as these pins are available, LMs will be provided information on how to obtain them.

The Life Members Fund (LMF) supports a number—but not all—of the worthy projects presented to the LMC for consideration each year. To be able to support these projects, it is essential that contributions to the LMF continue to flow. A vast majority of contributions to this fund come from LMs. An ad hoc committee is considering the goals and issues that LMC needs to pursue to attract contributions. During the year 2004, 26.4 % of LMs made a contribution to the LMF with an average contribution of $50.67. When the next letter to renew your active membership comes in the Fall, I encourage you to:

- Consider making a contribution to the Life Members Fund.
- If you do not wish to subscribe to the hard copy of the *Spectrum*, place a tick in the appropriate box.

I wish you all a very pleasant and enjoyable summer.

Om P. Malik, Chair
IEEE Life Members Committee

Life Members Committee's recent doings

The Life Members Committee (LMC), at its 21 March 2005 meeting, discussed and approved several items related to IEEE Life members. For instance, to ensure consistency in reviewing grant applications, the LMC agreed to the following process:

- All grant requests will be presented to the LMC Proposal Subcommittee prior to presentation to the LMC.
- The Subcommittee Chair will present a recommendation on each proposal to the LMC. Such recommendation will factor in the availability of funds based on the LM Spending Model (see box below).
- The LMC will discuss the proposals based on these recommendations.
- No advocates will be requested to speak on the item.

The LMC reviewed the current IEEE policy (10.1.15) regarding registration fee requirements. It was reported that not all conference committees are adhering to the current policy. The Vice President of Technical Activities and Chair—IEEE Meetings & Services Committee will be contacted and asked to please enforce the IEEE Policy 10.1.15 section regarding registration fees; i.e., "Conferences where IEEE is the sole sponsor must have a reduced fee, waiver of fees, or fee differential for Student members and Life Members....The individual registration fee for Life Members must be no more than that for Students."

When the LMC Subcommittee reviewed the IEEE Board of Directors' request to suggest ways to create an electronic subscription *incentive* program for Life Members, other points regarding *incentives* came up as well. For instance, the benefits of Life membership is an important *incentive to stay on* and continue as dues paying members including when IEEE members are getting closer to retirement.

The LMC spending model was approved in March 2004 and is used to estimate the funds available from the Funds for Grants in the current and subsequent three (3) years. At the last LMC meeting, it was noted that there was some confusion regarding it and that the language should be clarified. A Motion was made and approved that:

- The Fund balance shall remain at least at $1 million USD.
- Annual spending is based on the total of the past 3 year averages of:
  - 6% of investments on 1/1 (Fund Balance);
  - Annual LMF contributions;
  - Assume 2.5% growth projection from prior year investments (Fund Balance) for subsequent years projections.

IEEE Life Members Forum...Have you visited this virtual community? If so, did you contribute? This forum needs your continual input to succeed.

Applying to join? Please provide your IEEE member number in the "Optional Message to Community Administrators" box. Thanks!

https://www.ieeecommunities.org/lifemembers

Life members web site lists LM relevant IEEE Bylaws and IEEE Life Members Committee (LMC) activities. It also gives summaries concerning funded projects and programs as well as reports on recent LMC meetings and more (like this newsletter).

www.ieee.org/lmc

question....

How has IEEE helped you in your career?

see pg 3 "letters"

The IEEE Engineering Management Society is putting together case studies relating to management and/or management issues. Anyone who would like to share their experiences on such issues, or who have been directly affected by such issues, are welcomed to send a brief summary of their experiences to the case study coordinator, Terry Malkinson at:

Malkinst@telus.net

a prime example of a proposal funded by the LMF

One proposal funded in 2005 by the LMF was supported by the IEEE Oregon Section. The Apprenticeships in Science & Engineering (ASE) Program at Portland State University (Oregon) was given $2,700 per year (for three years). (Continued suppport depends on submission of satisfactory reports.)

This program helps "students from Oregon and SW Washington who are interested in exploring professional science, math, engineering and technology fields." The primary vehicle is an eight-week summer apprenticeship along with a Mid-summer conference and an ASE Symposium.

The application process includes written essays, letters of recommendation and an interview with a prospective mentor. More than 400 students applied for the 146 available spots last summer (2004).

Also, Daniel J. Arnold, 2005 Section Chair states, "Oregon Section members at all grade levels have served as mentors individually and through particpation of their employers during the 15 years of ASE Program operation."

the proposal

As often as possible, LMC grants should be regarded as "seed funds," and also should not be used for "overhead expenses." A full proposal is required for consideration. The proposal form/full procedures is available from the web <www.ieee.org/lmc> (left side of page under "How to apply for a grant") as an MS Word document.

Requests for support should be made at least three months before the desired start date.

Please submit it to:
Life-members@ieee.org

affinity groups

What are they anyhow?

First off, an affinity group is a non-technical subunit of one or more Sections or a Council. To establish one, a minimum of six (6) IEEE members in good standing, who are members of the Section(s) involved, is required. The group is established with a petition to the parent organizational unit(s) or standing committee concerned to fulfill the mission of the IEEE.

The petition contains the following information:

- the name of the Section/s or Council
- the name of the parent organizational unit (the Life Members Committee in this case)
- the name of the organizer (who becomes the interim Chair pending election of a regular Chair at a later organizational meeting)
- the signatures of at least six (6) IEEE members (in this instance Life Members) who are members of the Section/s involved and who indicate that they will join the Affinity Group if established.

The petition is submitted to the Section Executive Commitee for written approval which is then forwarded with the petition to the IEEE Managing Director, Regional Activities. After ensuring everything is in order and all the relevant parties are in agreement, the Managing Director notifies everyone necessary about the formation.

The affinity group is under the joint supervision of the Section and parent entity (Life Members Committee). The affinity group is required to report meeting activity, financial activity and a list of its current officers annually. In return, the annual Section Rebate allows for $200 for qualifying affinity groups, and an activity bonus of $75 can be earned for groups holding six or more meetings in a year that are technical, professional or eduational in nature. For additional funding opportunities, an affinity group can contact its parent entity (in this case, the Life Members Committee).

For more information on affinity groups, you can check out: http://www.ieee.org/organizations/rab/scs/Affinity_Groups/index.html

LM Affinity Regional Coordinators. Jacob Baal-Schem oversees this program for the LMC. For more information about creating a LM Affinity Group, contact him or your Regional LM Affinity Group Coordinator listed below.

Region	Coordinator	Email alias
1	Julian Bussgang	j.bussgang@ieee.org
2	TBA	lm-chapters@ieee.org
3	Dave McLaren	d.mclaren@ieee.org
4	Jack Hotchkiss	j110330@cs.com
5	Ross Anderson	r.c.anderson@ieee.org
6	Len Carlson	l.carlson@ieee.org
7	Ron Potts	r.potts@ieee.org
8	Jacob Baal-Schem	j.baal.schem@ieee.org
9	Eduardo Bonzi Correa	e.bonzi@ieee.org
10	Matt Darveniza	matt@carr.ug.edu.au

Jacob Baal-Schem, Regional LM Affinity Group Liaison,
Email: <j.baal.schem@ieee.org> or <lm-chapters@ieee.org>

"letters"

I have been working for several years on the problem of slowing sea level rise. I would like to interact with other LMs who have an interest in global warming and coastal flooding due to a rising sea level.

Here's a summary of my idea: The Florida Current and Gulf Stream transport heat that melts Arctic glaciers and raises sea level. Turbines in these currents can slow them down and reduce the melting while supplying electric power equal to 133% of the peak demand of New York City and Long Island.

We need to extract this much power to have a noticeable slowing effect on these currents. This is not cheap electric power. The open ocean is a hostile environment. The purpose is to preserve the Arctic ice cap. There is a positive feedback because ice reflects more solar energy than land or sea water, so we further reduce the Arctic melting.

I have details and supporting calculations at <www.sealevelcontrol.com> or email me at: <r.larosa@ieee.org>. Thanks.

Richard LaRosa, LF
South Hempstead, NY

When I graduated from college in 1950, my first jobs were designing airborne radars and fire control systems. We used to say (only partially in jest) that the basic requirements for airborne equipment were as follows:

1. It should take up no space;
2. It should weigh nothing;
3. It should use no power;
4. It should do everything;
5. It should cost nothing;
6. It should require no maintenance;
7. It should require no training to operate, and 8. It should last forever.

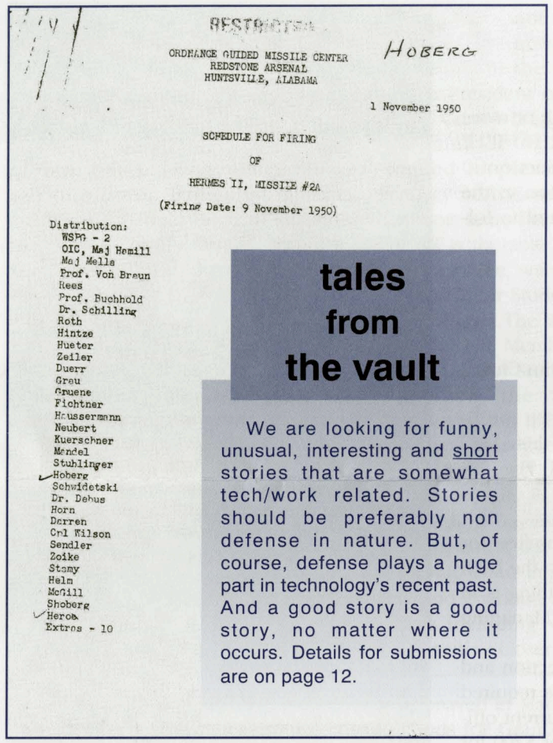
It seems to me with the chips being built today that have million of transistors that we are getting very close to meeting the above requirements! That is progress!!

Joe Vick Roy, LS
Scottsdale, AZ

This new "letters" column is in response to feedback received by the LMC. Thus, we now welcome comments on *tales from the vault*, along with ideas for projects, volunteer experiences, activities and answers to the "question..." (see pg 2).

Note: Letters may be edited due to space constraints, those not published cannot be directly acknowledged. Please be sure to include your name, Life grade, town and state.

Email: Life-members@ieee.org



RESTRICTED

ORDNANCE GUIDED MISSILE CENTER
REDSTONE ARSENAL
HUNTSVILLE, ALABAMA

HOBERG

1 November 1950

SCHEDULE FOR FIRING

OF

HERMES II, MISSILE #2A

(Firing Date: 9 November 1950)

Distribution:
WSPG - 2
OIC, Maj Hemill
Maj Mella
Prof. Von Braun
Rees
Prof. Buchhold
Dr. Schilling
Roth
Hintze
Hueter
Zeiler
Duerr
Grau
Gruene
Fichtner
Haussermann
Neubert
Kuerschner
Mandel
Stuhlinger
✓Hoberg
Schwidetski
Dr. Debus
Horn
Dorren
Crl Wilson
Sendler
Zoike
Stamy
Hein
McGill
Shoberg
✓Hero
Extras - 10

tales from the vault

We are looking for funny, unusual, interesting and short stories that are somewhat tech/work related. Stories should be preferably non defense in nature. But, of course, defense plays a huge part in technology's recent past. And a good story is a good story, no matter where it occurs. Details for submissions are on page 12.

okay...maybe_we_could_use_their_help

After graduating from Tulane University in 1949, I went to work for General Electric (GE) Company. After taking their Advanced Engineering Course, I was selected to go to Ft. Bliss, TX under a support contract with the US Army to work with the German V-2 engineers.

At the end of WWII, the Americans got to the Peenemunde V-2 Factory before the Russians. The German V-2 rocket was the first liquid fueled long range missile that exceeded the speed of sound. The German engineers didn't want to go to Russia and our Army wanted to keep their expertise for the US. The lower level personnel did finally end up in Russia; but, Wernher von Braun and the department heads ended up in Ft. Bliss. Also, some 20 almost complete V-2s were captured. After the war, the Army and the Navy both established missile design programs. However, neither really trusted the Germans so they kept them isolated. The German engineers were allowed to modify one V-2 a year and to fire it for research purposes. GE obtained a contract to provide an engineer for each of the German design teams as support in purchasing and for resolving language problems. As an added advantage to GE, whatever we learned could help in GE's missile program in Schenectady, NY.

In 1950, the Ft. Bliss group worked on Project Hermes. Back then, there were no large supersonic wind tunnels that could evaluate lifting bodies and wings going faster than the speed of sound. Thus, the project was to add stubby wings to a V-2 and send it into horizontal flight and measure the angle of attack needed to hold a constant altitude. Two wind vanes were mounted onto the nose of the V-2 connected to a potentiometer monitored by the telemetry data link.

I was working with Ernst Stuhlinger in the guidance laboratory. We were directly involved with Hoberg, Maunteffel and von Braun. In 1951, the whole operation moved to Huntsville, AL. The Redstone Arsenal had lots of spare room after the war. Our group moved into the old hospital building. This was all before NASA existed.

Everything was analog and used vacuum tubes. Digital wasn't even in the vocabulary yet. One project I worked on involved upgrading the 500 cycle German alternator controls so that the frequency could be used for timing. We designed a discriminator circuit running a saturable reactor that controlled the field winding. To test the accuracy, they found a piano tuner's device that had a tuning fork that ran rotating disks for each note. A microphone and amplifier lit a neon bulb in a window at each disk. If a tone was on key, the display was steady. The device was temperature compensated and was our frequency standard.

The rocket motor carbon steering vanes were controlled by a magnetic clutch with iron filings that stuck together when a winding was energized, turning the vanes. The controller connected to the gyros was a printed circuit board with miniature vacuum tubes from artillery proximity fuses. In the lab, the gyros were mounted in a salvaged B-17 ball turret that was connected to an analog computer. The computer had been captured along with the missiles. It used wound resistor cards that were tapered to conform to the changing missile parameters with the time of flight. The control stability of the missile was tested with this rig.

One of the German vacuum tubes burned out. There was no standard U.S. substitute. But, the Germans had a technical lab that could remove the envelope from a tube, replace the filament and evacuate it. They also could build to specifications any transformer we needed. We had to specify the core stack from their supply, specify the winding wire gauge, number of turns and number of laminations. Two days later we had a transformer. Very clever, these Germans.

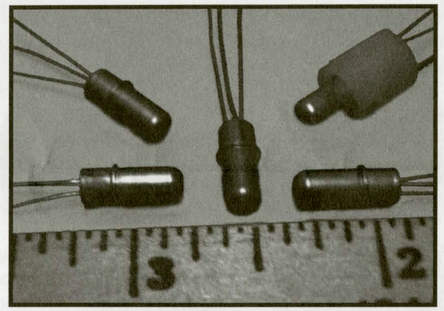
Working with this group was the most stimulating part of my career. Every project tested our knowledge of the basics of engineering. The field was new and the Germans had the experience. After the Army and the Navy missile tests ended up in flames, and Russia had put up Sputnik in 1957, the German group was allowed to lead in launching Explorer 1 on a modified Jupiter-C missle on 31 January 1958. It was the first US satellite successfully placed into orbit. President John Kennedy also let them help in reaching for the moon for the United States.

George Hero III, LM
New Orleans, LA

"faster_than_a_speeding_bullet"

During the mid to very late 1950s, I was employed by the Military Electronics Computer Division (MECD) of the Burroughs Corporation. It was located in its Tireman Avenue Plant in Detroit, MI. At that time, Burroughs was designing and building one of the industry's first transistorized computers for the Atlas space program. I was in charge of one of the engineering laboratories and a number of technicians. Among our duties, we had to sample test components purchased for this program to ensure they met specifications.

One of the most "exciting" components we had to test were physically small (3/8 inch long by 1/8 inch in diameter) surface barrier transistors manufactured by the Philco Corporation. These transistors looked very much like a .22 caliber cartridge: slender and bullet shaped. At the time, these hermetically sealed transistors were encapsulated with a silicon grease to improve heat transfer from the semiconductor chip to the outer casing.



Since the semiconductor revolution was only a few years old at the time and test equipment was still rudimentary, we had to improvise to get the job done. One of the simple tests was to measure the voltages between the base and collector and collector and emitter as well as the test circuit's output. The test technicians made small fixtures to hold the very small transistors during their tests. At times the technicians would accidentally short the base and collector together. This caused the transistor to instantly heat beyond its design capability. The oil in the transistor would also heat up, causing its internal pressure to rise. This, in turn, caused the transistor casing to separate from its base and shoot off like a bullet. The bullet-like casings at times embedded themselves in the bottom of the test bench wood shelves or took off for parts unknown in the laboratory.

Understandably, this reaction unnerved the test technicians. Unfortunately, we had no money in our budget for a more sophisticated test stand so once again we improvised. We put a foot long, sturdy, hollow plastic tube around the transistor under test. Now the technicians could at least direct (towards the ceiling) where the casings would go when they went off. Problem solved and no one got hurt.

Harold J. McLaughlin, LS
Rancho Mirage, CA

Zipping up the speed

Between major products that I managed, I was assigned to assist one of our smaller plants with their wish to double (I believe) production of stock for zipper (yes, zipper) manufacturers.

Thus, the production manager, plant engineer and I visited non-competitor factories. The consensus was that our objective could only be reached by adding another rolling mill. Even though, no one was rolling their machines at the high speed we thought possible.

Now the plant's existing mill drive motor was at least 20 years old (1950). Also, I noticed the very heavy cast iron stator (frame) which was typical of DC motors of the time.

My experience with DC motors went back to WWII; thus, I felt comfortable with their application. It occurred to me that the solution to doubling output might be attained by running our mill twice as fast.

A check with the motor manufacturer's designers confirmed that our old heavy design could handle doubling the speed well. (Back to DC motor theory—more speed would be attained by weakening the motor's field.) A resistor of the correct size was identified and installed. So for considerably fewer dollars, production was doubled.

J. M. Willcock, LM
St. Augustine, FL

Supplemental income

At the HQ US 7th Army outside Stuttgart, West Germany, the Army Quartermaster Corps had underway the experimental Project MASS (Modern Army Supply System). Its objective was to manage the logistics of spare parts for every vehicle in the 7th Army.

The project facility was located in one large room. A collection of IBM electromechanical punch-card machines constituting the ADP (Automatic Data Processing) system was located in the center of the room. The system's "database" consisted of an IBM punched card for each spare part for each vehicle type, from jeep to truck to main battle tank. This very large number of cards was housed in cardboard boxes on tables for ease of access. The US Army civilian and the local German employees who manned the facility related the following true story to me.

As the facility was being set up and the punched-card database established, there was considerable confusion and chaos. Procedures were gradually refined and the process was stabilized. Then, suddenly, a small part of the database inexplicably disappeared! Fortunately, the system designers had provided for backup so the missing cards could be replaced. The subsequent investigation failed to determine the cause of the disappearance. A while later, another part of the database vanished. The situation was now getting serious. A broader investigation was mounted that finally revealed the cause:

Each night, when no one else was around, an elderly German cleaning lady came to tidy up the large room full of tables holding cardboard boxes full of paper cards. Being naturally curious, she pulled a random card out of a random box. To her surprise, the card was full of holes, which made it worthless, of course. So, to supplement her meager income, she took as many boxes of the worthless paper cards as she could carry and sold them to a used-paper dealer as wastepaper.

John E. Laynor, LM
Yarmouth Port, MA

Two tales (T) of what comes from toying with level-assigned office perks

T1) A very competent and productive "Ph.D." engineer had repeatedly complained to our supervisor that he had great difficulty in concentrating on his abstract mathematical work due to the loud talk from surrounding people separated only by flimsy partitions. Our supervisor, with an MS and an outsider in that establishment, tried to get a more suitable office for the Ph.D. but to no avail. A man of determination and action, he exchanged offices with his good worker. His "bigger" boss took offense at that stating that company rules did not entitle the Ph.D.—at his assigned level—to an office with a window, curtains and carpet. The considerate supervisor was ordered to reverse his move; but he refused. So management sent a work crew to the office now used by the Ph.D. They removed the curtains and carpet. (Blocking up the window was apparently not in the budget.)

T2) I had found an old-style pen on the hallway floor near my office. The pen I had used had run dry days earlier, and I did not find any replacement in our supply cabinet. Trying to avoid a potential accident with somebody slipping on the old pen, I had picked it up, found it worked, washed it and put it to good use. Our supervisor's boss—an eastern blue-blood by rumor—made a rare visit to my office and happened to notice the imitation old-style pen (actually a cheap ball-point) on my desk. The "blue-blood" bellowed, "Where did you get that pen from?! This kind of pen comes only as part of a desk set, authorized only for my level (4) or higher!"

He may have thought that this was a pen he had lost. He was a smoker and that pen had a burn-mark on it. My first impulse had been to toss that pen into a waste can; but, sadly, my thriftiness intervened...

Erik Unt, LM
Tarzana, CA

My first design task out of college in 1961 was to design, prototype and have built 25 units of a tube amplifier. It was to have a frequency response from 54 to 220 MHz with 20 dB gain, a gain flatness of +/- 0.5 dB and a noise figure of 7 dB. The input and output impedance was 75 ohms. Another experienced engineer gave me papers on distributed amplifier design from the IRE (now the IEEE). As a result, I began the design using this topology. This topology consisted of a distributed stage using four tubes that where cascaded with three other distributed stages. The tubes selected where the 6AK5 high Gm pentodes that were normally used in UHF and VHF tuners in the early tube TV receivers.

checking,
checking,
1,2,3,4
or
more times

After the prototype was completely assembled, I turned it on. Using a sweep generator with a 75 ohms detector, I attained the gain flatness by adjusting the spacing on the eight turn center tapped coil. Noting the position of the turns on the form, I decided to have the production people duplicate them so that no adjustments would be needed for the finished product.

When the 25 units were delivered to the lab, I anxiously put one on the lab bench. I connected the sweep generator, detector and scope monitor to see the response and turned on the amplifier. The response looked like the Swiss ALPS!!! I thought something must be miswired.

Checking all the wiring, I started to replace tubes, check DC and AC filament voltages—still no luck. The lumped transmission line coils were correctly and mechanically secured using Q-dope. I checked the specifications on the Q-dope and decided that could not be the problem. Getting desperate, I decided to remove the transmission lines and make new ones with no Q-dope so I could again adjust the spacing. Installing the undoped lines, the response had smaller deviations, and by adjusting the spacing the required flatness could be obtained.

Puzzled as to why the production ones didn't work, I watched the person winding the coils and noticed that the coils were wound with more force to fit tight on the form. They also did not work as well initially. But—still without the Q-dope—they could be adjusted and the flatness specification obtained.

With the remaining 24 units returned to production and the un-doped lines installed, all the units could be aligned in the lab. After the alignment, the Q-dope was put on the coils. The rest of the electrical parameters were tested and met the requirements.

Now we were ready for the government inspector to come and witness the test results. The government inspector arrived a few days later. I ran all the tests except the noise figure. It was a hot July day when these tests were run. The lab was also hot—all the test equipment as well as the units were tube designs. Just before lunch, I tested the noise figure and the reading for all the amplifiers was 8 dB.

Before my chief engineer took the inspector to lunch, I told him about this problem. He was not happy. He told me to have it fixed by the time he got back! I went into the lab and wondered what had gone wrong. Even the prototype, which had measured okay three days ago, now measured more than 8 dB. I thought the only thing that could have changed was maybe the line voltage. Taking a Simpson meter, I measured the line voltage. It measured 92 VAC. I was shocked (not a pun). I quickly found a variable reostat and adjusted the line voltage to 117 VAC powering the amplifier. The noise figure measured 6.5dB!

When the chief engineer came back with the inspector, I told them the results. I can tell you we all felt a lot better. This is the first time I thought my job was on the line. I guess this proves that one must check everything in order to get the job done right.

William J. Garner, LS
Yardley, Pa

tales from the vault
(continued)

Delay equalization

In 1950, several new L-1 coaxial cable routes were completed to locations with no facilities to carry network television programs. But to carry video signals on the coax, a vestigial sideband was used on the L-1 carrier 2.8 MHz baseband to carry the required information. In order that a satisfactory color video signal could be carried, each section of the cable had to be carefully equalized for both gain and differential delay.

A new gain/differential delay transmission measuring system (the 45A) had just been developed by Bell Laboratories to simplify the equalization. The system was comprised of a transmit unit and a separate receive unit. The system automatically made and recorded gain and delay frequency runs as equalizers were added and adjusted. While units were transportable, they were not portable and had to be sent from location to location by Railway Express as the crew proceeded from route to route.

In April 1950, as an Engineer in the AT&T Long Lines Cleveland Division, I joined a crew consisting of five engineers from various Long Lines Division Offices for six months to equalize coaxial cable facilities. The route was from Washington, D.C. to Richmond to Charlotte to Augusta to Jacksonville to Macon to Atlanta to Birmingham. The operation was overseen by a Supervising Engineer from the Long Lines General Engineering Office in New York.

For each route, one person was assigned to the transmitting terminal. The rest of the crew was assigned to intermediate points and to the receiving terminals where the gain and delay equalization was applied. With the 45A transmitting unit staying in Washington, we proceeded down the line driving—and shipping the 45A receiving unit as required—and equalizing each section sequentially.

We utilized a standard video test pattern to evaluate the picture quality as we completed the equalization of each section. A final testing on each section included the feeding of a live network video program from Washington. Also, the picture quality was observed at video monitors at terminals along the route.

The supervisor's favorite network program was "Kukla, Fran, and Ollie," which he chose to use to regularly observe picture quality. However, this program was only broadcast at 9:00 at night.

This was a particular pain when we were assigned to Lyons or Waycross, Georgia. We had to make additional nightly trips to very remotely located unattended test stations to make the required manual patches to feed through the video signal. What's more, there was no equipment to monitor the picture at these stations. As a result, we could not even watch the program!

Randall Mattern, LS
Columbus, Ohio

Battery-powered "portable" radio

Around 1935, I was the neighborhood kid who mowed people's lawns, delivered their papers and so forth. I knew everyone around town and they knew me.

As a result, when some senior folk friends got a new superhet radio they asked me if I would like their old tuned radio frequency type. It had four tubes and used earphones or a cone speaker. Sure, I would like that old radio. I would build myself a portable battery one with it. (At 11, I already could build radios.)

I was also into telephony and had become good friends with the local telephone operator and her husband. They had the telephone switchboard in their front room. I found the telephone system, which used batteries, fascinating.

So when I got that radio, I had just what it needed for its batteries. The radio needed about 90 volts for the "b" battery. Back then, everyone had a bag of three one-and-a-half volt cells hanging in their cellar for their telephone system. When the technician annually came through town changing the batteries, he left the boxes of old batteries on the front porch of the telephone operator. Ninety volts meant 60 batteries or three full boxes of cells.

I made a couple of four foot tall birch posts with foot wide tee arms. I then threaded some 20 gauge copper wire back and forth. I wedged the battery boxes into my wagon to hold the posts upright. The three battery boxes delivered all the power, the birch tree antenna delivered the signal and the radio sat on top (tied down, of course). I anchored the cone speaker to the front birch pole. It sat on top of the batteries and in front of the radio.

I could tune in any local station and the sound was quite loud...for those days. I would pull the wagon—weighing about 150 pounds—behind me as I delivered papers.

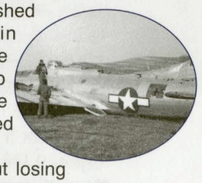
Al Barmby, LS
Huntsville, AL

Photo ops

I served in WWII as a crew member on a B-17 Bomber with the 15th Air Force in Italy. We were shot down on my 26th mission. We crash landed near Sasd, Hungary, east of the Russian/German battle lines. Our pilot, Colonel Richard Waugh, is standing on the wing of our downed plane (right photo).

We eventually joined up with 28 other crewmen who had also been shot down. We stayed in Hungarian homes and finally ended up on an old German train heading east.

We stayed on the train for over a week. We lived on what little food we could get by trading parachute silk with farmers on the wayside. In Bucharest, Romania, we got our only decent meal, furnished by the Red Cross. We finally ended up in Odessa, Russia, on the Black Sea. Here we managed to board an English transport ship which was heading back to England to take home English soldiers who had been released from German prison camps by the Russians.



Finally, after six weeks of staying alive but losing 20 pounds, we were dropped off in Naples, Italy and after a short visit back to my base, I got to fly home.

Edwin C. Wade, LS
Huntington, WV

2004 IEEE Life Members Fund (LMF) donors

The IEEE Life Members Committee (LMC) gratefully recognizes the generosity and support of all those IEEE members and other friends who supported the IEEE LMF during the calendar year 2004. We are lucky enough to be supported by so many that we, unfortunately, cannot list them all. Each and every gift, however, enables the IEEE LMC to support the philanthropic activities we hope represent the interests of IEEE Life Members and similarly mature members.

Sponsor - $1,000 to $2,499

*Paul Baran, LF
*Robert F. and Jean E. Holtz Trust-Non-members

Gold - $500 to $999

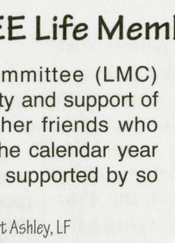
*Jules Cohen, PE, LF
Thomas E. Everhart, LF
Richard W. Landon, LM
Kenneth D. Skjervem, LM

Silver - $250 to $499

Ray F. Campbell, LM
*John W. Gore, Jr., LS
*Howland B. Jones, Jr., LM
Joseph E. Kidron, LA
Lauren E. Sechriest, M
Bernard F. Wadsworth, LM

Bronze - $100 to $249

Anonymous, LF
Anonymous, LF
Anonymous, LF
Anonymous, LM
Anonymous, LF
Anonymous, LM
Anonymous, LM
Anonymous, LM
*Carlton J. Abbott, LA
Kenneth Acton, LM
*Robert D. Adams, LS
Floyd W. Allen, LM
John F. Allen, LS
Karl M. Allison, Jr., LM
*Seymour S. Altman, LM
*Edward E. Altshuler, LF
Ted W. Anderson, LM
*Marvin Anmuth, LM
Dale T. Arnold, LM
J. Robert Ashley, LF
John R. Asmus, LS
Henry L. Bachman, LF
Larry G. Backus, LM
*James J. Bagnall, LS
*David L. Bailey, LM
Frank J. Balash, LM
Thomas W. Baldwin, LM
B. J. Ball, LS
James R. Barger, LM
James C. Barr, LM
Thomas A. Barr, LS
L. N. Bates, LM
Joseph E. Bear, LM
Barnes Beasley, LM
Benton Bejach, LS
*John E. Bennett, LS
*Inderjit S. Bhatti, Ph.D., LM
Harry P. Bifulco, LA
*Dean H. Binkley, LM
*Erich Bloch, LF
*W. Austin Bollen, LM
A. F. Bowers, LM
Roger S. Boyd, LM
*Frank A. Brand, LF
Harold D. Branstetter, LM
Donald B. Brick, LF
Edwin L. Bronaugh, LF
*Charles A. Broutman, LM
David Brown, LM
*E. Miles Brown, LS
Robert Bruce, LS
Clarence A. Brunkhorst, LS
M. O. Bryant, LS
*Eugene J. Buhmann, LM
Earle R. Bunker, LM
William P. Burbach, LM
*R. C. Burrows, Jr., LM
*#Julian J. Bussgang, LF
Malcolm D. Calhoun, LS
Bruce L. Campbell, LM
*James C. Campbell, Jr., LS
*B. Leonard Carlson, Jr., LS
Edward B. Carne, LS
*John J. Carroll, LS
R. C. Carroll, LM
Richard P. Case, LF
Amiram Caspi, LS
*Robert L. Castleberry, Jr., LM
*Robert L. Cattoi, LS
Fung Y. Chang, LF
David Chen, AF
Dr. Tu Chen, LF
Jon K. Clemens, LM
*Arthur Cohen, LM
Addison D. Cole, LM
Donald A. Cole, LM
John W. Collins, LM
John S. Conklin, LS
Thomas L. Connell, LM
A. Crawford Cooley, LA
*James W. Cooley, LF
*Edward H. Cooper, LS
Lloyd P. Cornell, Jr., LF
Henry A. Corriher, Jr., LM
*Leondard W. Cotton, LS
Whitworth W. Cotton, Jr., LS
*Donald W. Cottle, LM
James B. Cox, Jr., LM
*Milton E. Cox, LM
*Barry G. Craft, LM
Emil J. Crescenzi, LF
Don M. Cross, LA
*Leslie E. Cross, LF
Joseph A. Curtiss, LS
Sunil R. Das, LF
*Jack Davey, LS
*Charles M. Davis, LS
*Graham B. Davis, LM
David S. Dayton, LM
F. Paul De Mello, LF
George S. DeBeck, LM
Willis D. Dehart, LM
*Daniel J. Dere, LM
*George J. Dezenberg, LM
Bliss L. Diamond, LM
*Ernest J. Dieterich, LS
Walter Dietiker, LM
Jaulin Ding, LM
H. Marshall Dixon, LM
L. C. Dollet, LM
Dr. Noel E. Donlin, LM
Irwin Dorros, LF
*Richard L. Drane, LM
William J. Eckel, LM
Donald L. Eichenberger, LM
*James E. Ellerbe, LM
Lawrence D. Emmons, LM
*Maurice H. Esperseth, LS
Dr. Walter H. Esselman, LF
*Anthony J. Estrada, M
Ruth S. Euler, LM
Robert R. Everett, LF
Wallace O. Faison, PE, LM
*Robert M. Fano, Ph.D., LF
Albert B. Faris, LM
Lloyd W. Farley, LA
Walter S. Farley, Jr., LS
Murray H. Feigenbaum, LS
*Lyle D. Feisel, LF
Adolph Fejfar, LM
Patrick E. Ferguson, M
John R. Fetcher, LM
*John J. Fling, LM
Morton Flom, LM
Gordon M. Floyd, LM
+*Rodney M. Foley, LM
Art Fong, LF
*Glenn A. Fowler, LF
*Ronald J. Fraher, LM
Antonio Frontera, LS
Takeshi Fukao, LF
J. Aubrey Fussell, Jr., LM
Richard W. Gasdorf, LM
Edward Gee, LM
Urs Gessner, LA
Concetto R. Giuliano, LF
Clarence W. Goldey, LM
*Richard L. Goldman, LM
Thomas T. Goldsmith, Jr., LF
Alfonso L. Gomez, LM
John F. Gorman, LM
*Peter Greco, LS
*Geoffrey D. Green, LM
Robert F. Gribble, LM
*Davis Marshall Gritton, LM
*Stanislaw Grzybowski, Ph.D., LF
Richard U. Guth, LM
Marion Hagler, LF
James J. Hagner, LS
Leon D. Hall, LM



Marion Hagler (IEEE Life Fellow) has two passions when it comes to electrical and computer engineering: education and history. As an EE professor at Mississippi State University, he teaches engineering concepts including some of their historical context. Since becoming an IEEE Life Fellow in 2004, Marion has helped advance his two passions through his contribution to the IEEE LMF. Marion is "glad the IEEE Members Fund can support projects that stray beyond the confines of the main IEEE budget and support things like the IEEE Virtual Museum and programs that encourage engineers to become involved in their local education communities."

+ = Deceased, * = 3 or more years of consecutive giving to the IEEE LMF, # = 2004 LMC member

Maclin S. Hall, LM
*James R. Hancock, LA
James B. Hangstefer, LM
Edgar E. Harp, LM
Harold W. Harrison, LM
W. H. Hart, Jr., LM
Albert F. Hartung, LM
*Masao Hashiguchi, LM
*Ralph I. Hauser, LS
*Yeichi Hayashi, LM
W. T. Hayward, LM
Vinson D. Henderson, LM
John W. Herring, Jr., LM
Fred S. Hickernell, LF
John A. Higgins, LF
*James Hillier, LF
*Dr. Narain and Joyce Hingorani, LF
Khalaf H. Hirmina, LS
#Theodore W. Hissey, Jr., LF
Martin Hochdorf, LS
Wallace J. Hoff, LS
John R. Hoffman, LM
Harold A. Hogan, LM
*Leander H. Hoke, Jr., LF
G. W. Hollingshead, LA
Lowell J. Holloway, LM
J. F. Holmes, LM
*Charles W. Hoover, Jr., LF
Harvey R. Houston, LM
Jones V. Howell, Jr., LM
*Robert E. Howell, LM
*James D. Huddleston, III, LS
Albert L. Ickstadt, LM
J. David Irwin, Ph.D., LF
Shun-Ichi Iwasaki, LF
*Robert W. Jack, LS
Bruce B. Jackson, LM
Ira Jacobs, Ph.D., LF
*Robert A. Jacobson, LM
*Fred R. Jarratt, LM
*Frederic A. Jenks, LS
William H. Johnson, LA
*George I. Johnston, LS
*Arlindo Jorge, LM
Stephen J. Kahne, LF
Nick Kariambas, LM
*Tadao Kasami, LF
Eugene J. Kashmar, LM
*Terry T. Katayama, LA
Mikio Kawai, LM
*Shigeo Kazama, LS
John P. Kearney, LS
George E. Keith, Jr., LM
Il Kim, LM
Jae-Kyoon Kim, Ph.D., LS
John N. Kim, LM
Marvin R. Kimbrell, Jr., LM
*Russell C. King, LM
Russell Kirby, Jr., LM

Dr. Julian J. Bussgang, Life Fellow and Vice Chair of the IEEE Life Members Committee, was born in Poland and came to the US in 1949. His IEEE involvement started as a student at MIT.

Julian served as Chair of the Boston Section and served two terms on the Administrative Committee of the Professional

Group on Information Theory. He was awarded the USAB, Region 1 Professional Leadership Award (1995) and IEEE Millennium Medal (2000) and named as one of Boston Section's first Distinguished Members (2005).

Julian founded Signatron, Inc. and has made many technical contributions. He strongly believes in supporting the IEEE Foundation and the Life Members Fund, because of its active advocacy of engineering education and its role in documenting the history of electrical and computer engineering.

Karl D. Kirk, LM
John Kleppe, LS
*C. Raymond Knight, LF
*Myoung S. Ko, LS
Herbert S. Kobayashi, LM
*Howard C. Kohlbacher, LS
*John M. Kopper, LF
Frederick W. Kruger, LM
Yoshitaka Kurihara, LM
*Philip M. Lally, LS
Carl Landinger, LS
Almon E. Larsh, Jr., LS
Peter J. Lawrenson, LF
R. Y. Lee, LM
*Song P. Lee, LM
G. Robert. Leef, LM
Charles H. Leet, LS
*Don Leland, LM
*Benjamin J. Leon, LF
Ralph W. Leurgans, LM
M. E. Levi, LM
Oscar Levitan, LM
Peter A Lewis, PE, LF
*Richard E. Lewis, LM
W. M. Lewis, Jr., LS
*Zvie Liberman, LS
Frank E. Lowther, LS
*Albert R. Lubarsky, LS
*Gerald N. Luecke, LM
George D. MacMunn, LA
+Edward F. MacNichol, Jr., LF
Philip C. Magnusson, LS
Ernest A. Magyar, LM
William M. Mannel, LS
Alan S. Markham, LS
*J. H. Marshall, 3rd, LS
Vukota Mastilovic, LS
Richard E. Mathes, LF
Joe T. Mathis, LM
Peter T. Mauzey, LS
R. A. Mayers, LM
+George A. McCammon, LS
*L. Bruce McClung, LF
J. W. McConnell, LM
*Martin J. McCormick, Jr., LM
James C. McCrery, LM
John L. McKelvie, LM
Joseph J. McMahon, LM
A. J. McNerney, LS
A. H. Mendel, LS
George Merkel, LM
*George E. Merrill, LM
Kenneth J. Metzgar, LM
+John W. Millington, LS
Edward F. Mitchell, LM
Tsuneo Mitsui, LF
*John K. Miyasaki, LM
J. V. Moks, Jr., LM
Gordon E. Moore, LF
*John R. Moore, LF
Thomas C. Moore, LM
William J. Morrill, LM
Kenneth C. Muegge, LM
Rangaswamy Mukundan, LS
Michael J. Mulcahy, LM
James E. Mullins, LM
*Joe L. Mumma, LS
Jay H. Murdock, LM
Raymond J. Nelson, LM
*Peter G. Neumann, LF
Raymond J. Niksarian, LM
*James P. O'Loughlin, LM
C. E. O'Neil, LM
B. V. Ohman, LM
Richard Y. Okita, LM
*Osamu Omoto, LS
*Shoichi Ono, LS
Frank Oreskovich, LM
Allan D. Packler, LM
*James D. Palmer, LF
Jerald V. Parker, LS
*Lowell C. Parode, LS
*Edward F. Parry, LM
*Henry J. Passerini, LM
*Richard G. Patrick, LS
Carl M. Penney, LM
Douglas A. Perham, LM
*Jack R. Petrak, LS
*Francis J. Pettis, Jr., LM
James E. Pierson, LM
*Victor M. Pillichi Clavijo, LM
J. L. Podolsky, LM
John W. Poduska, Sr., LF
Harry E. Poe, LM
*Albert G. Ponte, LM
*Paul Popenoe, Jr., LM
*Don J. Popp, LM
C. Spencer Powell, LM
Ronald L. Prevost, LM
*James W. Pryde, LA
*Emerson W. Pugh, LF
Walter P. Quintin, Jr., LS
G. Ramakrishnan, LS
Charles N. Ray, LM
Wallace S. Read, LF
Thomas M. Reeder, LM
Charles F. Rehberger, LM
*William F. Reinke, LM
*Carl F. Rench, LM

Patricia (Pat) B. Ross, IEEE Life Member, loves being an engineer. Pat says, "Engineers are problem solvers and I love solving problems." As an EE student at the University of Illinois (Navy Pier campus) and then Purdue University, she was always the only female in her engineering classes. Together with her husband, a mechanical engineer, they passed the love of engineering on to their family. Two of her children are engineers and two of her granddaughters are currently studying to be engineers. She is grateful for the efforts made with the IEEE Life Members Fund to encourage interested students to become engineers.

*Akira Nabae, LF
Hideo Nakamura, LS
*Orville R. Neal, LS
*Gerald M. Nearman, LM
John H. Neiler, LM
Paul E. Nelson, LM
David A. Renwick, LM
George F. Reyling, LS
Willard A. Richardson, LS
Leon Riebman, LF
David W. Riley, LS
*Robert N. Riley, LS

+ = Deceased, * = 3 or more years of consecutive giving to the IEEE LMF, # = 2004 LMC member

Whose giving and getting what

Some "fun" competitive stats

The IEEE Life Members Fund (LMF) rules. That's right when it comes to IEEE dues renewal gift giving, the LMF beat out the IEEE History Center *and* the IEEE Foundation General funds even with many of you contributing to those funds as well (way to stay loyal). But, the not-so-good news is that while the number of LMF contributors increased (11.7%), the overall amount contributed decreased by (19.1%).

2004 dues renewal giving from Life members by Fund

	# gifts	dollars	% of total
IEEE Foundation General	1553	$57,615.23	11.3%
IEEE History Center	1088	$34,553.94	6.8%
IEEE Life Members Fund	5643	$191,195.88	37.4%

♦ ♦ ♦ ♦ ♦

Contributions by grade—2004 versus 2003

	2k4 Donors	Dollars	2k3 Donors	Dollars
Life Fellows	625	$46,422.19	669	$6,025.13
Life Seniors	1865	$90,251.72	2057	$104,050.14
Life Member	3,715	$170,837.59	3993	$196,106.80
Life Associate	265	$20,362.60	278	$14,028.04

♦ ♦

Earl R. Robbins, LM
*John D. Robbins, LS
Roland W. Roberts, LS
Roderick D. Robertson, LM
Reijiro Shito, LM
Harold L. Sicard, LM
John J. Sideravage, LM
R. M. Sills, LS

Stephen Weinstein, IEEE Life Fellow and former IEEE Board member, appreciates the need to advance the engineering profession and promote its value to society. Through his annual contribution to the IEEE Life Members Fund, he knows he is doing just that. Steve says, "I like the emphasis of the IEEE Life Members Fund on history and educational projects, and knowing that Life Members as a class can take credit for this extra support of IEEE's contributions to society. This Fund enables U.S. members to make relatively painless tax-deductible contributions reflecting our feelings that our profession is helping to build a better future."

*Thomas A. Rosse, LM
Edward J. Roth, LM
Milton Rothstein, LS
William W. Rumans, LS
Douglas D. Russell, LS
Graham Russell, LM
William E. Sabin, LM
Howard G. Sachs, LM
Phillip A. Sandford, LM
Lloyd R. Schissler, LM
*Hubert J. Schlafly, LS
*Frank W. Schmechel, LM
*Roland W. Schmitt, LF
Alvin D. Schnitzer, Ph.D., LM
Russell G. Schonberg, LS
Allan J. Schultz, LS
Richard P. Scott, LM
*Douglas R. Semmes, Jr., LM
Lloyd Shepherd, LS
William R. Sheridan, LA
D. Simons, LM
*Bernard J. Skehan, LM
*John W. Skooglund, LF
*Ellis F. Smith, LM
Robert D. Smith, LM
*Robert H. Smith, LM
*Robert T. Smith, LS
Spurgeon E. Smith, LM
James H. Somers, LM
John R. Sosoka, LM
Joseph F. Spades, LM
Richard A. Spaulding, LM
Joel Spira, LS
Walter O. Stadlin, LF
Bernard A. Stankevich, LM
Leo Staschover, LM
William R. Stephens, LM
David B. Stewart, LM
John Stewart, LM
Jack J. Stiffler, LF
*Robert A. Stratbucker, LS
Robert E. Stribling, LM
David E. Sundstrom, LS
William H. Surber, Jr., LS
*Willis E. Swanson, LM
*J. N. Sweeney, LM
William J. Tallon, LM
Duncan N. Tanner, LM
*Charles A. Taylor, LM
Thomas S. Teetor, LM
Stephen W. Tehon, LF
Edward M. Tomsic, LS
John C. Toomay, LS
James E. Totten, LM
S. C. Tracy, LM
W. Carl Travis, LS
John B. Trevor, Jr., LM
Timothy N. Trick, LF
*Hardy W. Trolander, LS
Raymond D. Tuminaro, LM
*Edward G. Tutle, LS
P. D. Tuttle, LS
John Tylka, Jr., LA
William A. Tynan, LM
*Arthur Uhlir, Jr., LF
Dean E. Upton, LM
*Gerald S. Ustach, LM
Stanley T. Uyechi, LA
Arthur Van Gelder, LS
A. S. Vander Vorst, LF
Eugene F. Vecchia, LA
Carlo Venditti, LS
*John E. Vetack, LM
Alfred E. Victor, LM
Clarence E. Vogel, LS
Reinhold P. Vogel, LM
G. G. Vurek, LM
Charles M. Waespy, LM
Edward L. Walker, LS
John C. Wallace, LM
Daniel W. Waller, LM
*Robert R. Walsh, LM
George M. Walter, LS
William L. Wearly, LS
James L. Weaver, LM
Walter E. Weber, LM
Roger R. Webster, LF
William M. Webster, LF
Don M. Weigle, LM
Wayne L. Weigle, LM
Stephen B. Weinstein, LF
G. B. Welbourne, LS
*Edward R. Westmeyer, LM
Joseph C. Wheeler, LM
Stanley A. White, LF
Hans Widmer, LM
*Arthur E. Wilde, Jr., LS
*Howard D. Wilson, LM
*Thomas G. Wilson, LF
William R. Wilson, LM
Oliver H. Winn, LF
*John G. Winston, LM
*Robert A. Wise, LM
*Ernest E. Witschi, LS
Charles M. Wolfe, Ph.D., LF
*Allen J. Wood, LF
David C. Wood, LS
Rudolf G. Wrzesinsky, LM
S. Zelencik, LM
Luis M. Zervigon, LM
Donald H. Ziebell, LM
*Stanley E. Zocholl, LF

The Development Office makes every effort to ensure the accuracy of the listings in this report including the proper acknowledgement of gifts and the correct spelling of names. Please notify us of any errors by sending an email to: supportieee@ieee.org or contact us by telephone at +1 732 562 5550.

+ = Deceased, * = 3 or more years of consecutive giving to the IEEE LMF, # = 2004 LMC member

Internet for the chronologically challenged

Yes, in my last column I was an alarmist on the matter of security issues. But it's hard not to be when faced with the threats to personal privacy and wealth that are lurking on the Internet. The latest scare to come my way was in the Security Watch article in the 10 May 2005 issue of *PC Magazine*, "Rootkits: The Ultimate Stealth Attack."

I won't pretend to understand, much less explain, what a rootkit is. According to Larry Seltzer, author of this one-page piece, a rootkit cannot only hide its own files but the files of various viruses and spyware as well. While originated for attacking Unix servers, he suggests that Windows-based systems will be a prime target for this stuff from now on. It's an opportunity that has already attracted the interest of security firms. Ah, more bucks to spend on security. (See http://research.microsoft.com/rootkit.)

So, why do people stick with Windows? A safer home computer alternative might be the Apple Macintosh system. And yet, according to a *Wall Street Journal* story by Nick Wingfield on 28 April 2005, Apple's share of the global PC business has slid from about 16% in the mid-1980s to 2% last year. This share has up-ticked to 2.3% in the first three months of 2005 for reasons that are not totally clear. Is it the halo effect of the iPod? Is it the appeal of the new Mac Mini PC? Or is it frustration with the security problems that have plagued Windows users? Apple's low share of the market is both a blessing and a curse—not an attractive target for bad guys but not for legitimate application software developers either. In the balance, the public seems inclined to stick with Windows, despite its higher security risk. The benefit is much greater software and hardware variety resulting from competition in the Windows arena. Who's to say the consumer is wrong?

Concern about viruses, worms and identity theft doesn't seem to have slowed the growth of the net as a global phenomenon. For example, year-end 2004 statistics in Vol. 2, No. 1 of *China Communications*, a new English language publication of the China Institute of Communications, show 41.6 million on-line computers and 94 million Internet users. These are pretty impressive numbers considering that Internet development in China didn't really begin until the mid-1990s. Preferential policies to promote communications projects have also led to a telephone market penetration of more than 50%, roughly half mobile and half fixed-line. So important is the Internet to their future that the Chinese have made it clear that they will want more say over how it is run.

Elsewhere, there is an effort in India to promote Internet use with a low cost computer known as a Simputer. According to a *Washington Post* article of 29 April 2005 by Jonathan Krim, this is one of several efforts to bridge the digital divide between developed and developing nations. An MIT group has picked up the challenge of creating laptops that can be purchased and given to the needy by governments for less than $100. Also, Advanced Micro Devices, Inc. under the leadership of CEO Hector de Jesus Ruiz, is taking a more radical approach. AMD visualizes producing and marketing a Personal Internet Communicator (PIC), a sealed box to be sold through Internet service providers. A key goal is not only low cost, but ease of use in Web browsing, e-mail, instant messaging, word processing and simple spreadsheet manipulations.

The top three Internet users (by region)

	Pop. 2k5 est.	Internet usage	World users
Asia	3,612,363,165	302,257,003	34%
Europe	730,991,138	259,653,144	29.2%
North America	328,387,059	221,437,647	24.9%
World Total	6,412,067,185	888,681,131	100%

Source: www.internetworldstats.com

Whether these, or any other approaches solve the digital divide among nations, remains to be seen. Should they succeed, they could well be a giant step in bridging the digital divide among senior citizens, particularly through the ease-of-use features.

Take my wife. Over the years she has had absolutely no interest in developing secretarial skills, much less computer skills. And yet she covets instant personal communications (besides the telephone) with her family and friends. My own computers, with all their security armor and warnings of impending disaster, are ridiculously complicated for her to use. To make things worse, I absolutely cannot resist telling her about all the different options for accomplishing the same functions, which drives her wild. Why not a simple PIC as proposed by AMD for this technology challenged market as well? While the market in the US might be small, it could possibly ride on the much larger potential in developing countries. Here's hoping that the proposed limited capabilities and a simple non-Windows operating system will prove unattractive to the bad guys. My 17-year old grandson is less optimistic. He says that the naïve wealthy will be found wherever they may be. Ouch!

Fred Andrews, LF
f.andrews@ieee.org

our mailing list

The Life Members Newsletter is distributed to Life members and those who are NOT Life members but are 1) IEEE members 65 years and older, 2) retired IEEE members aged 62 through 64 and 3) members of special boards and committees.

submitting articles

We welcome articles for this newsletter. In particular, we seek articles about projects initiated at the Section and Region level by Life members as well as "tales from the vault." In general, published story lengths are:

1/4 page—200 words 1/3—300 words
1/2 page—450 words 1 page—900 words

Acronyms should be completely identified once. Reference dates (years) also should be included. Editing, including for length, may occur. If you wish to discuss a story idea beforehand, you may contact by email Julian Bussgang <j.bussgang@ieee.org>, Louis Luceri <l.a.luceri@ieee.org> or the Managing Editor <Life-members@ieee.org>.

The deadline for possible inclusion in the next issue is 28 October 2005. Please include your Life grade, town, state, country, phone number and/or an email address with your piece.

stopping IEEE services

Those Life members who wish to have all services stopped should contact IEEE Member Services. If you are doing it at the request of someone else, submit the member's name, number, grade, address, change date and your connection, e.g. Section Chair.

IEEE member services
fax: +1 732 562 6380
or **phone:** +1 800 678 4333 (USA)
+1 732 981 0060 (worldwide)
or
contact us online at:
www.ieee.org/memberservices

2005 Life Members Committee

Om P. Malik, Chair
maliko@ieee.org (email)

Jacob Baal-Schem
j.baal.schem@ieee.org

Julian J. Bussgang
j.bussgang@ieee.org

B. Leonard Carlson
l.carlson@ieee.org

Theodore W. Hissey, Jr.
t.hissey@ieee.org

William J. Jameson
b.jameson@ieee.org

Louis A. Luceri
l.a.luceri@ieee.org

George F. McClure
g.mcclure@ieee.org

John W. Meredith
j.Meredith@ieee.org

Cecelia Jankowski
Secretary (staff)
c.jankowski@ieee.org

Dan Toland
Administration Manager, Regional Activities
d.toland@ieee.org

Managing Editor

qualifying for LM status

To qualify as a Life member, an IEEE member must be at least 65 years old, and the sum of the member's age and the number of years of paid membership must equal or exceed 100 years.

have questions, ideas or problems?

Have questions regarding your Life member status? Contact Member Services (see address left). Got something else you need to ask or discuss? Email the Life Members Committee or its Staff at <Life-members@ieee.org>, or call: +1 732 562 5501, or fax: +1 732 463 3657.

IEEE
445 Hoes Lane, PO Box 1331, Piscatway, NJ 08855-1331, USA

Non Profit Org.
U.S. Postage
Paid
Piscatway, NJ
Permit #52

p239 s237

R M SHOWERS
UNIV OF PENNSYLVANIA
DEPT OF ELECTRICAL ENG
200 S 33RD ST
PHILADELPHIA PA 19104-6390