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Vol. XXXVII, (37th year), Edition #78 since Year 2000), December 2012

P.O. Box 127, Indian Rocks Beach, FL., 33785-

## 'DOCTOR, I WANT MY YOUNG FACE BACK!'

3-D FACE PRINTING IN THE FUTURE WILL ALLOW ONE TO EITHER REPLACE AN AGING FACE WITH THE YOUNGER FACE MOLD MADE EARLIER OR BY REPLACING IT WITH A FACE FROM THE INTERNET—PERPETUAL YOUTH ?

*"Modern Meadow, Inc." is already producing fake "meat."*

Need an artery for bypass surgery or custom cartilage for that worn-out knee? Hit "PRINT."

It all began in Japan where Professor Nakamura found that droplets from inkjet printers were about the same size as human cells. He bought a home-use Seiko Epson printer in 2002 and tried to eject cells with it. But the inkjet nozzle got clogged. He rang up the company telling the operator that he wanted to print cells, an idea that was politely turned down. Nakamura did not give up and eventually reached an Epson official who showed interest and agreed to give him technical support. In 2003, Nakamura confirmed that cells survived even after the printing process, becoming one of the first in the world to unveil a 3D structure with real living cells using inkjet technology. In the future, Nakamura said the technology could pave the way for bio-printing with stem cells—which could go into building new organs.

In about a dozen major university and corporate labs, biomedical engineers are working on ways to print living human tissue, in the hope of one day producing personalized body parts and implants on demand. Still far from clinical use, these tissue-engineering experiments represent the next step in a process known as "bio-printing+", or *computerized adaptive manufacturing*, in which industrial designers turn out custom prototypes and finished parts using inexpensive 3-D computer printers. Similar 3-D printers are already exuding plastic, ceramics and powdered metal instead of ink in developing parts for Boeing airliners and Ford cars.

Here's how it works: First step involves taking a person's cells and growing those cells in a culture. They are then incubated and once enough cells are present, an enzyme is applied that releases them from the growing surface and they're loaded into a pellet-like structure. One printer nozzle deposits drops of these cells, while a second nozzle deposits a hydrogel that acts as a mold to shape the tissue. The printer then builds up the cells and the mold, layer by layer, creating the three-dimensional structure. After printing, the cells naturally knit themselves together to strengthen the tissue structure. The supporting hydrogel mold is then removed, leaving a structure made solely of living tissue that is virtually identical to something removed from a human. These machines can build up tissue structures, layer by layer, into all sorts of 3-D shapes, such as tubes suitable for blood vessels, contoured cartilage for joints, or patches of skin and muscle for living Band-Aids,

At Cornell University researchers are printing experimental heart valves, knee cartilage and bone implants. At Wake Forest University, bio-engineers are printing kidney cells. Their colleagues are working on a portable unit to print healing tissue directly into burns or wounds. At the University of Missouri-Columbia, researchers have printed viable blood vessels



### LATE BREAKING NEWS

**NOW HEAR THIS...Marco Medical Grand Rounds of the Air** is in trouble. We need you to notify the FCC of malicious interference with our Sunday net. Please read **PAGE FIVE** and follow directions.

**Aether recently reported** a met analysis that indicated an increase in morbidity and mortality from those taking multivitamins. Now, a Pfizer study of it's Centrum Silver reports an 8% reduction in risk of developing cancer. A new study, the Physicians Health Study II now finds multivitamins don't cut risk of heart attack **Take your pick!** Perhaps these misanalysis were not standardized? Only the Shadow knows!

**All MARCO membership dues** are now payable in January. Please check your mailing label for your status. Except for members that are paid in advance as indicated on their label, all members are expected to pay 2013 dues by January to remain in good standing.

**Malpractice a profitable business...**When you are interacting with a patient, you still have the feeling about whether this is going to result in a law suit. **That's not a feeling doctors should have when taking care of patients.** During the past five years, Florida malpractice insurance companies have netted about 40% profits nearly 10% higher than the national average, 30.9%, while paying out 30% on patient claims. A no-fault plan where physicians would refer injured patients to a not-for-profit non-governmental agency composed of expert doctors who would review cases and determine the amount paid is proposed. The plan will keep the payment per injury about the same, while costs would go down, due to eliminating profits and defense costs. Sweden & New Zealand have been using this plan successfully for 25 years. (Information from "Florida Medical Business," Nov. 2012.)

**WRITE TO US!**  
 We welcome your comments. Mail to Marco, P.O. Box 127, Indian Rocks, FL, 33785. Email to [warenbrown@aol.com](mailto:warenbrown@aol.com)  
 Letters may be edited for brevity & clarity.

**MARCO NET SCHEDULE**

<u>DAY</u>	<u>EASTERN</u>	<u>FREQ.</u>	<u>NET CONTROLS</u>
Any Day	On the Hour	14.307	Hailing Frequency
Sunday	10:30 a.m. Eastern	14.140	CW Net, VE3OQM
Sunday	11 a.m. Eastern	14.307	Warren, KD4GUA



**Page 2**

**MARCO Grand Rounds is held Sunday at 11 a.m. Eastern Time; 10 a.m. Central; 9 a.m. Mountain, and 8 a.m. Pacific Coast time on 14.307. You qualify for one hour Category II CME credit with your check-in.**

and sheets of beating heart muscle. (For example: when the bioprinter was used to deposit chicken heart cells onto a dish, they started to beat synchronously. Given a high-detailed map of the cellular networks in a human heart, there are no fundamental barriers between going from this rudimentary bioprinter to one that prints out full human organs within a decade or two.)

Eventually, biomedical engineers hope to print out tailored tissues suitable for surgery and entire organs that could be used in transplants, to eliminate long delays for patients awaiting suitable donor organs and the risk their bodies may reject the tissue.

A lot of biotech companies are sniffing around to see what the market value of all this might be. Leading the way is a closely held San Diego-based company called **Organovo Inc**, founded in 2007, which introduced the first commercial 3-D bioprinters in 2010. They are not for sale yet, but are kept for the company's own product-development projects. It does share them with Pfizer, United Therapeutics Corp, and Harvard Medical School, among others. You might have heard of other companies who are already in the 3D printing industry like **Stratasys (SSYS)** or **3D Systems (DDD)** but their ink is not human tissue.

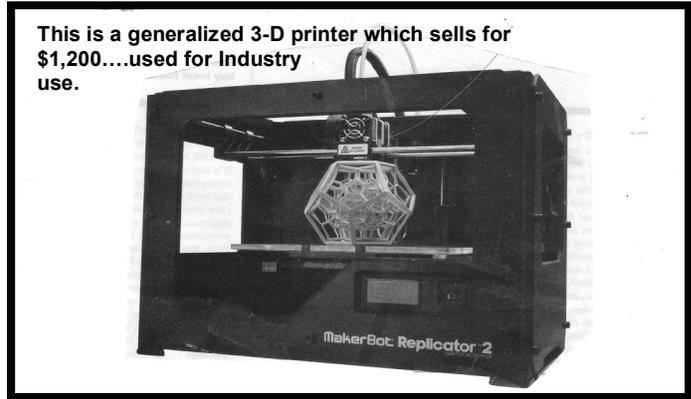
Once printing is complete, the tissue usually can support itself after 24 hours. Then the gel mold can be removed. The tissue is kept alive in a bioreactor bathed in nutrients. It takes another three weeks before the tissue gains its full strength, as the cells build bonds between themselves.

So far, bioprinting works best to make relatively simple cell structures a few hundred microns thick—the thickness of a few human hairs—comprising about 20 layers of cells. Larger printed tissues such as cartilages often aren't strong enough on their own to withstand normal wear and tear. **More important, engineers say they haven't yet mastered ways to print the microscopic networks of capillaries that run between layers of cells to keep normal tissue alive.**

Reporters were aflutter a few months ago with reports that Dr. Anthony Atala, director of Wake Forest's Institute of Regenerative Medicine, printed a real, working kidney at a recent TED talk. Headlines claiming things like **"Surgeon Creates a New Kidney By Printing It"** hit the news media compelling Wake Forest to issue a statement on its website calling the media reports "completely inaccurate." The kidney-shaped mold that Atala showed at TED was exactly that—a mold with-out the vessels or internal structures of an actual working kidney. Another Atala-team advance is using bioprinting to create new skin directly on wounds or burn victims. A flatbed scanner scans a patient's wound first to get an accurate "read" of it. Then it would come back actually printing layers of cells where they need to be. This could later be incorporated by having a young-face-mold made and kept on file and then re-inserting it on an older face for rejuvenation. Face molds of famous people could be kept on file for potential buyers fed up with their present face.—such as **"give me a Cary Grant face!"**

In another report, follow ups showed five urethras which had been inserted in Mexican boys injured in car accidents six years earlier were functioning well. Atala and his team have successfully "grown" new bladders for over ten years. Indeed, one of his first patients, Luke Massella appeared on stage at the TED talk to speak about the bladder he received 10 years ago that has successfully given him a new life after a battle with spina bifida left his bladder paralyzed and his kidneys failing.

Grouped together in a 3-D structure, human cells behave more nor-



**This is a generalized 3-D printer which sells for \$1,200....used for Industry use.**

mally than when they are cultured in a single isolated layer, as is customary in most labs test today. That means clusters of bio-printed cells may be more realistic for pharmaceutical assays, testing of drugs, compared with traditional lab culture and animal tests, which can often produce medically misleading results.

In the long run, bioprinting is bound to generate ethical concerns, "If you were an athlete with improved knee cartilage, would you be disqualified because you were bounciers?"

Modern Meadow, a company founded by Organovo founder Gabor Forgacs, has already developed what is called "NoKill Leather," leather made from a bioprinter that made the ingredients for an artificial leather pocketbook. He has also produced a sliver of meat 2 cm x 1 cm x 1 mm thick which is edible—a potential boom to vegetarians and those with religious restrictions on meat consumption.

The future is fast approaching—medicine is drastically changing—regenerative medicine is replacing supportive medicine and preventive medicine is replacing controllable medicine. We are approaching the era of Dorian Gray, where only the picture ages, not the individual—or are we?

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**CELL PHONE NUMBERS GO PUBLIC IN NOVEMBER....**All cell phone number are being released to telemarketing companies and you will start to receive sales calls **You will be charged for these calls.** To prevent this, call from your cell phone the following number—888 382 1222. It is the National DO NOT CALL list. It will only take a minute of your time. It blocks your number for 5 years. You must call from the cell phone number you want to have blocked. You cannot call from a different phone number.

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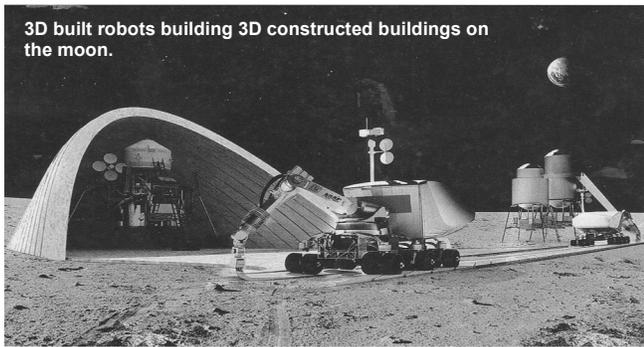
**ORLANDO HAMCATION, FEB. 8,9, & 10TH**

Marco is hoping to renew the Marco Regional Area Meeting Concept by having an informal Southeast get-together at the World's Play-ground—Orlando, Florida during the local HamCation.

Last year, at least five attended. Danny, W4DAN was able to get a special rate at the Mystic Dunes Golf Resort, 7600 Mystic Dunes Lane, Celebration, Florida 34747, phone 407 396 1311. Going rate is \$143 per night for a 4-person suite or around \$72/couple. Celebration itself is something to see being a Disney reproduction of 1890 America with quaint houses (no out houses however.) Confused? Call Danny at 423 665 2621, it was great fun last year and could be better this year.

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At a recent conference on the future of aerospace, 27-year old Jason Dunn outlined his philosophy of why, after more than 50 years of space exploration, humans are not yet living in space colonies. "Everything manmade that's ever been in space had to be built and launched from the ground," he says. "And that puts enormous constraints on what you can actually do in space, because everything has



3D built robots building 3D constructed buildings on the moon.

to survive launch. So how do you get around that?"

His suggestion: **Don't manufacture things on the ground.**

Dunn's Silicon Valley startup company, "*Made In Space Inc.*" would reinvent the space industry by putting into orbit a cheap, easy mode of manufacturing: the 3D printer. It doesn't print in the normal sense. But like an ordinary desktop printer, it receives instructions from a computer (*in this case a computer-aided design, or CAD, file*). Instead of arranging patterns of ink on a 2D sheet of paper, the 3D printer builds a solid object. Whereas traditional manufacturing techniques start with a solid block and cut unwanted material away from it, 3D printing—also called *additive manufacturing*—builds up material in layers, producing precisely the object desired with almost no waste.

3D printing is a growing industry on Earth, and has the potential to change not just the cost and speed of manufacturing but also the design of everything from airplanes to buildings. It could, in theory, have an even bigger impact on the space industry. For example, a Mars robot probe "printed" from a CAD file in orbit could be made 30% lighter than one that has to withstand the stress of a rocket launch from earth. Human interplanetary missions that don't have to bring along spare parts—because they can be made en route—will have more room for necessities like food, water and oxygen. Not only could 3D printing make human space exploration easier, it could make certain kinds of exploration possible.

Today, only a handful of people are working to adapt this technology for space, and their approaches vary. *Made In Space's* prototype machines print simple plastic items by extruding a polymer-based material through a nozzle. Other methods of 3D printing use different feedstocks: powder, metal, even glass. NASA's Langley Research Center in Virginia is working with a metal-printing technique called "Electron Beam FreeformFabrication," which it hopes to test on the Space Station. The "EBF" method, as it's called, uses a beam of electrons to melt metal wire, like a cross between a laser gun and a soldering iron, and deposits the metal in layers. The technology is ideally suited to space because electron beams require a vacuum and in space you've got vacuum for free.

The present EBF machine now weighs over a ton—too heavy for space—but workers are building a smaller 100 lb version. The most useful application of 3D printing in space may be the production of spare parts and tools.

Meanwhile, *Made in Space* doesn't expect to get a test printer on the space station manifest before 2014, and even then it would be a test printer. The team has already produced a small wrench in 8 minutes on a 3D printer placed aboard a Boeing 727 which experienced weight loss flying repeated parabolic arcs. "Yeah, so we built a tool," said Dunn with a kind of wonderment. One small step for man.

University of Southern California's research team is developing a large scale additive manufacturing system, called *Centour Crafting* for

The FCC no longer sends out license expiration notices or reminders to licensees. In 1996 the FCC authorized the Volunteer Examiner Coordinators (VECs) to handle and process license renewals and modification in addition to application involving examinations. Applications for renewal may be returned to the VEC who in turn files them electronically directly into the FCC's Universal Licensing system.

Recently the News Editor received a notice from W5YI-VEC, P.O. Box 200065, Arlington, TX 76006-0065, phone 800 669 9594, that my license was due to expire. They offered a simple card to fill out and a fee of \$7 to renew my license for ten years. The fee was to reimburse W5YI-VEC for administrative costs in providing this renewal notification service by mail and the electronic filing service to the FCC.

The FCC allows a 2-year grace period in which you may renew your license after the station license has expired. After the grace period, however, you would be required to retake and pass all of the license exams required to re-gain your operator class and be issued a new station call sign.

**Check your license status NOW and if in doubt contact W5YI or ARRL.**

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### DAYLIGHT SAVINGS TIME

Supposedly to save energy, some 225 years ago, Benjamin Franklin observed that people wasted daylight in the summer, sleeping through dawn's early light and burning candles to illuminate the night. If people would only move their schedule up an hour, they would save energy, he reasoned. So during the crises of two world wars, governments around the world adopted variants of daylight-saving time to trick people into getting up earlier by moving the clocks forward.

The U.S. adopted the annual use of daylight-saving time permanently in 1966, then lengthened its duration in the calendar in 1986 and again in 2007. For the past five years, an extended daylight-saving period has begun the second Sunday of March and ended the first Sunday of November.

The extension of daylight-saving time was brought to you by the same federal government that banned incandescent light bulbs. But at least that measure has a claim to saving energy. No such claim can be made for the added daylight time—there's still the same amount of sunshine! (*One woman in Clearwater, Florida stated she was against daylight-savings time because the additional sunlight was killing her plants!*). A household waking at 6 a.m. and going to bed at 11 p.m. won't experience any more daylight when its schedule is moved up an hour, to 5 a.m. and 10 p.m.

So the extension of daylight saving time gives us cold, dark morning, without the energy savings to compensate. Actually it causes us to expend more energy because of turning the heat on in the early morning hours and turning on the air-conditioners in the prolonged summer days.

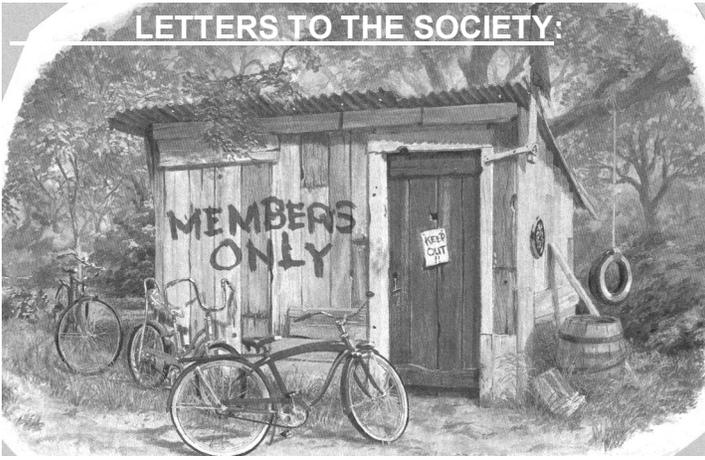
In 2006, some Indiana counties that had previously opted out of daylight-saving time were forced by state laws to adopt it. The measure provided an opportunity to compare how energy use changed in those counties after the imposition of daylight-saving time. It also provided a ready-made control group of nearby counties that had been using it for years. Result: daylight-savings time turned out to be more expensive.

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building structures on the moon. They would use lunar dust mixed with melted sulfur, an element available on the moon to use as building material to manufacture a 3D town on the moon—complete with landing platforms, hangars, habitat, manufacturing facilities, all made out of local materials.

**(Information for above was taken from Mark Betancout's fine article, "Printed in Space," which appeared in the Nov. 2012 edition of "Air & Space Smithsonian.)**

## LETTERS TO THE SOCIETY:



**Kudos from....**none this issue—losing our spunk?

**From Paul N6DMV**, Vacation to Hungary was very good and very-very long. We went first to Israel, super interesting at a 38+ C temperatures while climbing/descending about 500 steps—but it was worth doing it. We could learn a thing-or-two from them in the way of protecting our country. Hungary was also good by meeting some old ham friends at the yearly ham shindig. I was invited to a class at the Tech U. of Budapest by a friend professor teaching Space Dynamics—it was a pleasure to sit in the student's bench again. He is 84, very agile, he is a retired Air Force general flying earlier MIG 15,21,29.

**Chip NSRTF stated** "People don't lose weight by swimming because the cold water causes further fat depositions in the body to keep it warm."

**Doug Sanders W3FYA** reports that he is still working on his destroyed antenna farm—"slow but steady."

**Danny W4DAN** writes: "After repairs, and a long period of time while the beam was on the ground, these are the first 3 contacts I made after the beam was raised: 1. Alaska, KL2YV—10 mtr SSB Pile Up—599 first call-short path. 2. Franz Joseph Land, R11FJ, 15 mtr CW Pile Up—599 first call-short path. 3. Japan, JF1SQ—20 mtr CW, third call, 599, long path. No Dx cluster spotting involved. Good ground wave reports were received from area hams on 10 meters. Am looking forward to working Kentucky and South Carolina long path on 10 meters. They are two of the hardest states to contact during the 10 meter congested because of close proximity and sparse activity. This very modest installation was worth the wait, though frustrating, maybe someday I can get a tubular, crank up, tilt over tower with a new beam so I can fire the climber for never showing up when he promises. I hope to get some backup wire ants in place before the weather gets too bad."

**Doctor need for DXpedition...**Bob KK6EK writes: "I wonder if your group would be able to help in locating a doctor for our upcoming (March, 2013) DXpedition to Clipperton island, south of Cabo San Lucas, Baja. The website for the DXpedition is [www.Cordell.org/LI](http://www.Cordell.org/LI), where you can click on the link "Documents" to download a full description of the project. The rest of the website shows the team, schedule, sponsors and other information about the project. The boat leaves from San Diego on Feb. 19th and returns on March 18. However, it will make a stop at Cabo San Lucas on the outbound and return legs, which will cut about one week off the total time. So the trip is really three weeks. Each team member is putting in \$6500. However, if I could find a person who is interested in going but feels that is too much, I could make some allowance. Please contact me at: Dr. Robert W. Schmieder, 4295 Walnut Blvd., Walnut Creek, CA 94596 (925) 924 3735. [www.cordell.org](http://www.cordell.org), [Schmieder@cordell.org](mailto:Schmieder@cordell.org)."

Marco's **Bob Smithwick W6CS** states, "Wow, what a great opportunity!"

**Condolences** poured in concerning the passing of our beloved treasurer **Lou Wiederhold, M.D., WA1HGE....**Among them from **Harry Przekop, WB9EDP, Chicago** "Lou was great, RIP Lou, I can't help t have a tear roll down my cheek, I'll miss you Lou 73s sk." **Mary Favaro, M.D., AE4BX, Myrtle Beach, SC.**, "This was fast and unexpected. RIP Lou, we'll all miss you. **A moment of silence was held on Marco Grand Rounds of the Air for Lou** and there were several donations in honor of Lou to MediShare. Lou, being a Quaker among other things, was an inspiration to all of us.

**Nancy (Wiederhold, daughter)** responded: "MARCO was something near and dear to him. The annual meeting was always a high point for him. I have to admit, I am a total HAM idiot and the radio thing was something Dad always kind of kept to himself. We always used to joke about your Sunday meetings as saying that Dad was "In church."

**Max W4MEA**, wrote: "Over the years I've purchased many books. The radio/electronic types are the best. I would like to recommend one to you...it is "W1FB's Antenna Notebook" by Doug DeMaw, W1FB. This is an older book and is out of print. Might find one at a hamfest. Check with ARRL.

**Danny W4DAN** has gotten the word that Loyall Wilson, a MARCO Emeritus, passed away in 2006 in Harlan, KY. Danny wonders who has been reading his *Aether* all these years.

**EDITOR'S NOTE:** Walter Winchell began broadcasting in 1933 to an audience of 25 million people. The Winchell style was unmistakable. He talked rapidly at 197 words per minute...the voice was high-pitched and not pleasant to the ear; but it was distinctive. The staccato quality made every item compelling. He claimed he talked so fast because if he talked more slowly people would find out what he was saying...he began his radio program with a series of dots and dashes operating the key himself. Telegraphers throughout the country complained that what Winchell tapped out made no sense. He realized he hadn't the faintest knowledge of Morse code but he refused to have an experienced telegrapher provide the sound effects for him. He wrote like a man honking in a traffic jam.



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**Alcohol enemas no longer a joke!** Most people have never heard of alcohol enemas but thanks to the drunken exploits of a fraternity at the University of Tennessee, the bizarre way of getting drunk is giving parents a new fear. On Sept. 22, 2012, a 20-year old student was delivered to the hospital after midnight, his blood alcohol level at .448%—six times the intoxication level—all due to alcohol enemas induced through a funnel—he survived! The procedure bypasses the stomach, accelerating the absorption rate. Pouring the alcohol through a funnel can increase the amount of alcohol consumed and seeming like a small amount can induce unconsciousness quickly. The fraternity house has been closed until 2015. (Remember the "Murphy Drip," the milk enema?)

**A woman in Maine has given birth to her own grandson, after acting as a surrogate mother for her daughter.** Her daughter had a heart condition that prevented her from undergoing labor. Having successfully had her daughter's eggs implanted in her uterus, she gave birth to a healthy boy. The 49-year old mother stated, "I just saw it as I was babysitting for a few months."

**New HIV Drug pricing...**Gilead Sciences set an annual wholesale price of \$28,500 for its once-daily single-tablet HIV-1 medication following its Aug. 27 approval by the FDA. The tablet contains a combination of 4 drugs. Best not to get this disease—who can afford the therapy?

**Doctor shortage...**The Association of American Medical Colleges estimates that the U.S. will face a shortage of more than 90,000 physicians by 2020, a number that will increase to more than 130,000 by 2025. Although US Medical schools plan to increase enrollment by 30% by 2016, the overall supply of US-trained doctors cannot increase without more residency training slots. Congress capped the number of Medicare-supported residency training positions 15 years ago. How many of you would like to do it all over again?

**Single Sex Education...**decreased detraction to learning has been found in mixed class education. In Florida, Comprehensive Assessment tests (which measures achievement in math and literacy) the results were striking: Only 59% of girls in mixed classes were scored proficient, while 75% of girls in single-sex ones achieved proficiency. Similarly, 37% of boys in coeducational classes scored proficient, compared with 86% of boys in the all-boys classes. America once dominated educational attainment among developed countries, but we have fallen disastrously in rankings. To take single-sex education away from students who stand to benefit is unforgivable.

**Value of Medical Checkups Doubted...**General checkups for healthy adults may not be as beneficial as people tend to think. Data from fourteen studies involving 180,000 people reported the number of patient deaths in a follow-up 5 year period didn't show any effect on overall mortality or on deaths specifically from heart disease, stroke or cancer. Checkups did reducing worrying however and positive results were found in annual breast cancer and colon screening.

**It all makes sense now...Gay marriage and marijuana being legalized on the same day.** Leviticus 20:13—"If a man lays with another man he should be stoned." We've just been interpreting it wrong all these years!

From:

To: Federal Communications Commission, Enforcement Bureau, Amateur Radio  
1270 Fairfield Rd.,  
Gettysburg, PA 17325

Subject: Malicious Interference with the Medical Amateur Radio Council (MARCO) "Grand Rounds of the Air" Net held on Sundays at 11 a.m. EST on 14.307. MHz

Dear Sir:

For 27 years MARCO has conducted a weekly medical educational net on or about 14.307 MHz. Approximately, 5 months ago we experienced a station complaining "*Our net was bleeding over and interfering with communications on 14.315 MHz.*" We reduced power and asked for corresponding evidence from other stations that this was occurring only to get a negative reply. Since, this station has opted to continue to provide interference with recorded CQs, recorded QSOs and foul language (*tape evidence submitted to language used*) to the point where we are unable to communicate and on Nov. 4, 2012 was unable to continue. This provides hardships on the physicians listening as they receive one hour credit Category II Current Medical Education towards their medical license renewals from our lectures.

Evidence obtained via the Internet indicate this station has been reported before and is presumed to be.....

This individual is a detriment to the Amateur Radio society and should be reprimanded appropriately.

Sincerely,





**ALL MARCO MEMBERS: Please fill out the above with your name, address and call sign and mail it to the FCC TODAY!**

**The obstructed net of Nov. 4, has been recorded, including the deplorable language, and is being submitted to the FCC. Action by them, will be determined in large part by the quantity response obtained. Do IT now—keep the net viable**

TIME LINE

The first clocks were the Egyptian clock towers around 3500 BC by which they were able to deduce the passage of time by their shadows similar to a *sun dial*. In 440 BC the Greeks used a water clock called a *clepsydra* to limit the lengths of lawyer's speeches. It consisted of a hollow vessel with a hole through which water flowed out. When the water's was gone a speaker's time was up, similar to an *hour glass*.

Around 520 AD, the Chinese replaced *sun dials* with *candles* with evenly spaced markings that indicated the passage of time as they melted. In 1200 AD Arab scholars unveiled an elaborate robotic elephant clock that featured a myriad of moving elements. This was replaced in the 13th century by the first mechanical clock which appeared in monasteries in Europe. They were initially faceless, the clocks marking the hours purely with chimes (*the word "clock" comes from the French "clocke" for "bell."*)

In 1577, the Swiss invented the minute hand. It didn't catch on until the 1650s, when the addition of the pendulum decreased clocks daily margin of error from nearly 15 minutes to around 15 seconds.

In 1855 a racehorse set a world speed record. The sudden demand for watches that measured fractions of seconds prompted the American Watch Co, to create the first mass-produced stopwatches.

To simplify rail travel, the U.S. was divided into four time zones in 1883. Most cities marked two noons; their local noon, when the sun was directly overhead and the new standardized noon.

In 1895, New Zealand proposed a seasonal two-hour clock shift for summer's long days. In 1916, Brandon, Manitoba, became the world's first place to implement daylight saving time. In 1914 WW I officers realized a watch on the wrist is easier to read than a watch in the pocket. Convenience makes wristwatches previously "the mark of the woman" more manly.

**Sunday, Nov. 11, 2012...The "Terrorist" was back!** A tape of the previous Sunday's Marco Grand Rounds of the Air disruption should have been in the hands of the FCC in Gettysburg, PA. Three volunteer ARRL listeners were supposedly monitoring the frequency. He struck again with foul language and recordings of previous transmissions. Up on 14.314 another group of hams were complaining about this individual who was tying up the 14.305-14.320 band.

At the request of Bruce Small KM2L we attempted to continue the net and apparently we wore the "terrorist" down or he became interested in the discussion on "Lymphoma," and how radio frequencies do *not* induce this disease. (*At one time it was thought that non-ionizing radiation such as radio frequency waves could induce lymphoma, a cancer of the lymph nodes*).

If you are bored or wish to invade the terrorist's realm, tune in to 14.314 and experience yourself his satanic world and witness first-hand what we are experiencing as we attempt to educate the educationable. And, oh, by the way, fill in the above letter so we can once again resume normal communications.

(See the December 2012 issue of QST, page 59 concerning FCC enforcement.)

## MEDISHARE REPORT

Arnold Kalan, M.D. WB6OJB, MediShare Director,

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As far as I know we've had three donations in memory of Lou Wiederhold (SK) WAIHGE. A donation would be a way of honoring Lou who truly was a pillar in the MARCO organization.

Tax-deductible donation to MARCO's MediShare International are utilized to assist the less-fortunate. They should be sent to our Secretary, Danny Centers, 2712 Bryant Dr., Cleveland TN 37311. The Board of Directors thank s you for your compassion.

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### HEARING LOSS

To many people, hearing loss represents another step in the dreaded march to old age. In fact, only about 20% of the 36 million Americans who could benefit from a hearing aid actually use one. Now, a wave of new devices that are smaller, hipper and sold over-the-counter are trying to win over more consumers—and appeal to the growing number of younger people with hearing damage from loud music.

They're also less expensive: Traditional hearing aids can cost more than \$4000 per ear and aren't covered by Medicare or most insurers.

Often likened to "reading glasses" for the ears, many of the new models come preset to boost sounds in the high frequencies that most people lose first. That lets consumers bypass audiologists, who have traditionally controlled the market by giving hearing tests and selling custom-programmed hearing aids.

Technically, many of the new devices are "personal sound amplification products," or PSAPs, intended to help people with normal hearing better hear in situations like nosy restaurants and large gatherings. Hearing aids, by contrast, are medical devices for the hearing-impaired and subject to FDA approval.

But the distinctions are blurring, with some PSAPs boasting the same technology that digital hearing aids offer for hundreds, not thousands, of dollars. Audiologists warn that consumers who skip the professional exam could damage their hearing further with PSAPs. They also may miss finding a treatable cause of their hearing problems, from excess earwax to an auditory tumor.

If friends and family are bugging you because you ask them to repeat themselves too often and you can't hear the TV you can buy a PSAP over the Internet, stick it in your ear, and see if it helps. For a lot of people it will.

The most impressive new PSAP is the "Personal Sound AMP 2500." It is the size of Cheerio and sits in the ear where it is virtually invisible. It reduces background noise while it amplifies frequencies that carry speech. There is no volume control, but as the sound changes, say the restaurant gets noisier, you can discreetly switch among four built-in programs by cupping your hand over your ear and tapping. Price \$499 for one and \$890 for the pair.

The **Symphonix** made by RCA looks like a small behind-the-ear hearing aid. A clear plastic tube links it to a tiny plastic dome that fits inside the ear canal. The earpiece has an on-off switch, a three-stage volume control and uses a rechargeable battery. It cost \$299 at Radio Shack, and you can adjust it to fit in the right or left ear.

The **MDHearingAid** Also sits behind the ear with a plastic dome in the ear canal. It is an FDA-approved hearing aid, but it is sold online and pre-programmed for typical mild to moderate hearing loss. It costs \$180 for one; \$329 for a pair.

Others worth mentioning are the Elite HD Pro (\$209). A wide range of older, analog devices are available online for well under \$100. Most simply boost all nearby sounds indiscriminately without enhancing speech or blocking noise, so they aren't for the hearing impaired. The Bell & Howell **Silver Sonic XL** amplifies sounds up to 90 feet away for \$19.99 each. It's good for eavesdropping but picks up extraneous noises easily.

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### THE FANTASTIC INVENTIONS OF NIKOLA TESLA

Many of Nikola Tesla's inventions, now 100 years old, still seem like science-fiction to us today.

Tesla is credited with so many inventions, that one might begin to think that he invented much of our modern technology—the Tesla unit in MRIs, the Tesla car, the "Death Ray." Aether plans to expand on this shortly when his story will soon be presented—watch for it.

## NEW \$600 CAR FROM VOLKSWAGON

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This is not a joke and they do sell for \$600. They won't be able to make them fast enough—be good just to run around town.

Here's a car that will get you back and forth to work on the cheap...\$600 for the car, 258 miles per gallon...only a one-seater however...talk about cheap transportation!



Volkswagen's \$600 car gets 258 mpg—it looks like Ford, Chrysler and GM missed the boat. This car is no toy and is ready to be released in China next year. The single seater **aero car**

totes VW branding and is headquartered in Hamburg, Germany. Speed = 62-74 miles/hour; Body is 3.47 meters long and 1.25 meters wide and a little over a meter high. The prototype was made completely of carbon fiber and is not painted to save weight. The power plant is a one cylinder diesel positioned ahead of the rear axle and combined with an automatic shift controlled by a knob in the interior. Safety was not compromised as the impact and roll-over protection is comparable to the GT racing cars. Unfortunately, safety regulations in the U.S. will probably prevent it from being sold here.

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### EARWAX REMOVAL

Ears are supposed to be self-cleaning. Officially known as cerumen, earwax is part of the ear's own cleaning system, designed to stop incoming dust, dirt, bacteria—even bugs—in the ear canal and ferry them out, again. The wax and trapped debris are propelled along by the movement of the jaw, at about the same speed that fingernails grow. When it reaches the ear opening, the wax usually dries, flakes and falls out, often without the human host noticing. The process isn't always smooth. Having too much earwax, or wax that is too dry or too sticky, can create a buildup. Much of that is genetically determined.

Wearing headphones, hearing aids or ear plugs for long periods can also interfere with orderly extrusion. When excess earwax hardens or gets pushed back down the canal, such as with cotton swabs, it can become impacted, which afflicts about 57% of older patients in nursing homes. Excess earwax is also **the most common cause of partial hearing loss—and the most treatable.**

Removing the wax at home is an option but that doesn't mean poking cotton swabs or any other implement into the ear as it may pierce the eardrum. Putting anything in the ear canal usually results in packing the earwax in deeper. Try putting a few drops of mineral oil, baby oil, commercial ear drops or hydrogen peroxide. Then allow the loosened wax to work and be washed out with a baby ear syringe. Ear vacuums don't work.

Use cotton swabs only when able to remove visible wax that is at the ear opening. Softening drops like Ceruminex, mineral oil, baby oil, glycerin, H2O2 and then irrigate with half-peroxide and half-water with a baby ear syringe usually works. If this doesn't work, go to the doctor and he will usually use a curette to remove the wax.

Remember, as Bob VE3OQM stated, "Don't put anything in your ear smaller than your elbow."

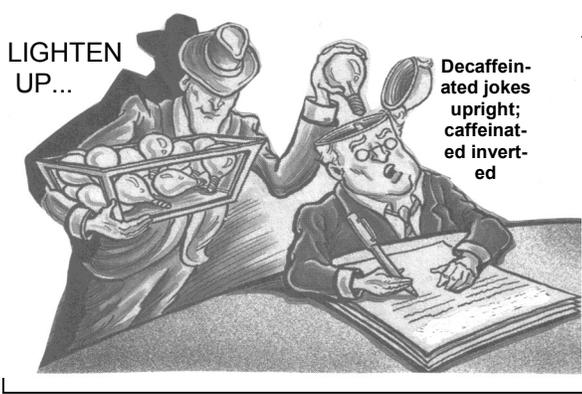
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**DADDY, HOW WAS I BORN?** A little boy goes to his father and asks "Daddy, how was I born?" The father answers, "Well son, I guess one day you will need to find out anyway! Your Mom and I first got together in a chat room on Yahoo and set up a date via e-mail with your Mom and we met at a cyber-café and sneaked into a secluded room and googled each other. There your Mom agreed to a download from my hard drive. As soon as I was ready I discovered that neither one of us had used a firewall, and since it was too late to hit the delete button, nine months later a little Pop-Up appeared and said, "You've got male!"

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**NOW HEAR THIS**—during the Dayton Meeting in May 2012, it was voted, that all MARCO dues would henceforth be due on January 1st for the year 2013.

LIGHTEN  
UP...



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**HISTORY OF THE MEDICAL AMATEUR RADIO COUNCIL**

In the fall of 1965, at the Astor Hotel in New York City, Dr. William L. Sprague WA0CRN, held a meeting of physicians and dentists interested in exploring the formation of a medically oriented amateur radio operators organization. A group of 95 members was organized. The organization was formalized at a meeting in New York on April 16, 1966. M.A.R.C.O. was chartered as a Corporation in the State of New York.

Marco is basically interested in medical and technical education and help to the less fortunate using our MediShare division. We offer one hour of category II CME for check-ins to our weekly Sunday "Grand Rounds of the Air," on 14.307 at 11 am Eastern time.



I knew I was getting bald when it was taking longer to wash my face.

\*\*\*\*\*  
**COURT STATEMENTS:** Q. Trooper: When you stopped the defendant, were your red and blue lights flashing? A. Yes. Q. Did the defendant say anything when she got out of her car? A. Yes, Sir. Q. What did she say? A. What disco am I at? Q. Now, doctor, isn't it true that when a person dies in his sleep, he doesn't know about it until the next morning? Q. So the date of conception of (the baby) was August 8th? A. Yes. Q. And what were you doing at that time? Q. She had three children, right? A. Yes. Q. How many were boys? A. None. Q. Were there any girls? Q. How was your first marriage terminated? A. By death. Q. And by whose death was it terminated? Q. All your responses must be oral, okay? What school did you go to? A. Oral. Q. Do you recall the time that you examined the body? A. The autopsy started around 8:30 pm. Q. And Mr. Dennington was dead at the time? A. No. He ws sitting on the table wondering why I was doing an autopsy. Judge: "Well, sir, I have reviewed this case and I've decided to give your wife \$775 a week." Husband: "That's fair, your honor, I'll try to send her a few bucks myself."

I have kleptomania, But when it gets bad, I take something for it." In just two days from now, tomorrow will be yesterday. I love cooking with wine...sometimes I even put it in the food.

Beware of the most recent E-Bay scam...If you buy stuff on line, check out the seller carefully. An anonymous friend of mine, Mike, spent \$150 for a penis enlarger. The jerks sent him a magnifying glass!

What is a "Politician Sandwich?" asked a man in a restaurant. The cook replied, "A Pork sandwich and we send the bill to your grandchildren." \*\*\*\*\*

A mother looked out the window to watch her two sons playing in the snow. She called the older boy to come inside. "I've told you to share the sled with your little brother," she said. "You can't keep it to yourself." "I am sharing," he protested. "I use it going down the hill and he uses it going backup." \*\*\*\*\*

Two young men came to my door and asked if I would like to donate to the new local swimming pool being built nearby. I gave them a bottle of water.

The Navy Wine Taster...At a wine merchant's warehouse the regular taster left town and the director started looking for a new one. A retired Chief Petty Officer, drunk and with a ragged dirty look, came to apply for the position. The director wondered how to send him away. They gave him a glass of wine to taste. The old Chief tried it and said, "It's Muscat three years old, grown on a north slope, matured in steel containers. Low grade but acceptable." "That's correct," said the boss, "Another glass, please." "It's a Cabernet, eight years old, south-western slope, oak barrels, matured at eight degrees, requires three more years for finest results." "Absolutely correct. A third glass." "It's a pinot blanc champagne, high grade and exclusive," calmly said the drunk The director was astonished and winked at his secretary to suggest something. She left the room and came back in with a glass of urine. The old Navy Chief tried it. "It's a blonde, 26 years old, three months pregnant, and if I don't get the job, I'll name the father."

Hi, I'm Bruce



## MEMORIES OF YEARS AGO IN

### MARCO

Our History Book

## Bruce Small, KM2L

Marco Webmaste

### 25 years ago in Marco

The December 1987 MARCO Newsletter announced a change in frequency for the 75 meter net to 3.906 MHz. President Fred K0FS in his column complained about being too busy to get on the air. He also related the highly amusing story of his tangle with a snake on the floor of his shack.

The "Talking With Your Fingers" column discussed members' involvement with packet radio.

John Haerle WB5HR's excellent antenna series continued with a discussion of the Zepp antenna.

### 20 years ago in MARCO

The lead article of the December 1992 MARCO Newsletter retracted the prior issue's call for the weeknight net to meet on 3.939 MHz. That frequency turned out to be a disaster, so, it was QSY to 3.949 MHz. We still couldn't find a decent place to hold the net.

Members were urged to register for the 1993 annual meeting to be held in Las Vegas.

Two articles featured the work of Len Traubman W6HJK. The first, reprinted from the California Dental Association UKUpdate, described Dr. Traubman's personal journey from hardworking dentist to global advocate for world peace. He and his wife founded the "Beyond War Foundation," later called the "Foundation of Global Community." The second article detailed an incredible story of international medical cooperation. Oleg Murugov, UF4FAY was severely injured in an automobile accident and hospitalized in Ryazan in the USSR. He was comatose and on a ventilator after multiple surgeries. The call for assistance went out over ham radio and reached Len. He recruited a (non-ham) local neurosurgeon who helped manage the case via daily schedules on 20 meters. On several occasions necessary medications were obtained in the US and flown to the Soviet Union. MARCO member Charles Starke NX2T was involved in that part of the effort. After a long, difficult course, Oleg recovered and was allowed to return home.

### 15 Years ago in MARCO

The November 1997 MARCO Newsletter brought the tragic news of Dale Johnston, AE5MP's murder. Dr. Johnston was shot in the head during a drug-related robbery in his clinic in Oklahoma City.

There was planet of medial education provided this month. Warren, KD4gua's on-air-lecture on diabetes was reproduced, as well as his talk about Viagra. Bruce, KM2L, had done a Marco Grand Rounds on homocysteine and thrombosis, and this was also printed.

Jeff Wolf provided a thorough survival guide to managed care, and Newsletter Editor Ed Briner issued an appeal for contributions of more material.

We welcomed new members Harlan N3MBC, Bill KE4SGV, Marc WA3QWA, and brothers Lester K6BJO and Rob AB7KF.

### 10 years ago in MARCO

The December 2002 MARCO Newsletter led off with a story about bowel gas, complete with an illustration of an erupting volcano!

Danny, W4DAN proudly described his Dayton purchase. A device that plugs into the headphone jack of an audio or radio device and retransmits the signal on the FM broadcast and at low power. This device allowed him to listen to his portable CD player while in the car, or to his ham rig while upstairs away from the shack!

Smitty, W6CS described a MediShare project providing radio equipment to outlying clinics in rural Zambia. Speaking of Africa, Arnold, WB6OJB described his recent trip to Zambia and Botswana.

# 8

**CME RANKINGS 11/16/12: BOB CURRIER  
MARCO GRAND ROUNDS OF THE AIR .  
14.307, Sundays, 11 a.m. Eastern, One Hour Cat. II CME**

**credit.**

Corrections: wahrenbrown.aol.com

CALL	HRS	NAME	QTH
KD4GUA	38	Warren	Largo, FL
WA1BEW	37	Bobbie	Tennessee
KC9CS	37	Bill	Largo, FL
WB5BHB	36	John	Vanceleave, MS
VE3OQM	35	Bob	Hamilton, Ont.
N4TSC	34	Jerry	Boca Raton, FL
KE5BQK	34	Linda	El Paso, TX
NU4DO	34	Norm	Largo, FL
N6DMV	33	Paul	Torrance, CA
WB6OJB	33	Arnold	Pacific Pal., CA
KG6DQF	33	Glenn	Palo Alto, CA
N5RTF	32	Chip	New Orleans, LA
KM2L	32	Bruce	Clarence, NY
KK1Y	32	Art	Seminole, FL.
N2OJD	32	Mark	Sidney, Ohio
N3JBA	31	Ed	Amenia, NY
N4MKT	30	Larry	St. Petersburg, FL
N9YZM	29	Mike	Crystal Lake, IL
WB9EDP	28	Harry	Chicago, IL
W4DAN	28	Danny	Cleveland, TN
KA4JWA	26	Jim	W. Virginia
W3FYA	25	Doug	Baltimore, MD
WB1FFI	25	Barry	Syracuse, NY
KNOS	24	David	Virginia
KD5QHV	24	Bernie	El Paso, TX
N4DOV	24	David	Ft. Lauderdale, FL
WA9HIR	23	Bill	Berwyn, ILL
K9CIV	22	Rich	Knox, Indiana
K4WFP	20	Wayne	Ocala, FL
W5SK	20	Wave	Lawton, OK
K0FS	20	Fred	St. Louis, MO
W4RDJ	19	Doug	Cape Cod, MA
N9GJ	18	Greg	Cleveland, TN
WA1EXA	16	Mark	Cape Cod, MA
AE4BX	16	Mary	Myrtle Bch. VA
WA3QWA	16	Mark	Chesapeake, VA
K6JW	16	Jeff	Palos Vardes, CA
W8LJZ	15	Jim	Detroit, MI
K3IK	15	Ian	Shavertown, PA
KG6JLE	14	Paul	Atherton, CA
N0ARN	13	Carl	Colorado
W3DRB	13	Miles	Francetown, PA
W9JPN	12	Wally	Champagne, IL
KC9ARN	11	Ellen	Chicago, IL
W0RPH	11	Tom	Denver, CO
WB2MXJ	10	Joe	New Orleans, LA
N8GMB	10	Chuck	Willoughby, Ohio
W5AN	8	Bud	Lafayette, LA
KE8GA	8	George	Fairview, NC
N9RIV	8	Bill	Illinois
KD8IDW	7	Mary	W. Virginia
K4RLC	7	Bob	Raleigh, NC

YEAR	TOTAL CHECK-INS	AVERAGE PER SUNDAY
1998	694	14.46
1999	766	15.95
2000	1,035	20.29
2001	1153	22.60
2002	1383	26.15
2003	1489	28.63
2004	1534	29.50
2005	1517	29.17
2006	1531 (one extra Sunday)	28.89
2007	1591 (one extra Sunday)	30.02
2008	1524 (Only 46 nets)	33.14
2009	1533 (46 nets)	33.32
2010	1591 (44 nets)	36.22
2011	1514 (44 nets)	34.41
2012	1362 (38 nets)	35.84

**SMITTY'S CORNER**

Robert Smithwick W6CS  
Los Altos Hills, CA  
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**Kids place long-distance call—to space!** Santa Clara, CA, Oct. 14, 2012...Ben Westlund is only in the third grade, but he seemed to fully grasp just how amazing it was to be talking to an astronaut in space. Decked out in a full astronaut costume, complete with space gloves and a jetpack backpack, the 8-year-old Santa Cruz boy said *konnichiwa*—"hello"—to the Japanese astronaut aboard the International Space Station and talked to him briefly about outer space. "That was like a rare time in life," Ben said after talking with English-speaking astronaut Akihiko Hoshide. "It was like he was standing right in front of me. Right there!" Ben was one of 14 local school kids who used a ham radio to ask Hoshide questions. Parents and local hams in town for an amateur radio convention beamed with pride and couldn't seem to stop commenting on how cute the whole thing was.

Since 1999, when an American court gave Jack Kevorkian a lengthy jail sentence after he admitted helping 130 patients to die, a big change has quietly taken place. Voters are now deciding whether a terminally ill patient, with less than 6 months to live, will be able to ask for a doctor's help in committing suicide. Assisted suicide is already permitted in 7 countries and states and is now being debated in New Zealand, Quebec, Australia and Britain. Most of the jurisdictions that allow assisted suicide make it available only for the terminally ill. Only Switzerland, Belgium and the Netherlands allows others—those in great psychological pain to take advantage of its rules. What's your opinion?

**Record number finishing college...** Although the U.S. no longer leads the world in education attainment, record numbers of young Americans are completing high school, going to college and finishing. The study attributed the increase both to the recession and a sluggish jobs recovery, which led many young people to see higher education as their best option. 90% are now graduating from high school, up from 78% in 1971; 33% of Americans ages 25 to 29 have earned at last a bachelor's degree, up from 20% in 1970; 63% in this age group who have completed some college work, up from 34% in 1971.

**New bionic leg that move by thought control...** Zac Vawter considers himself a test pilot. After losing his right leg in a motorcycle accident, the 31-year-old software engineer signed up to become a research subject, helping to test a trailblazing prosthetic leg that's controlled by his thoughts. He put this ground-breaking bionic leg to the ultimate test when he recently attempted to climb 103 flights of stairs to the top of Chicago's tallest skyscraper. His robotic leg will respond to electrical impulses from muscles in his hamstring. Vawter will think, "Climb stairs," and the motors, belts and chains in this leg will synchronize the movements of its ankle and knee. A team of researchers will be cheering him on and noting the smart leg's performance. The \$8 million project is funded by the U.S. Dept. of Defense and involves Vanderbilt University, M.I.T., the University of Rhode Island and University of New Brunswick. *Has anyone heard if he was successful?*



By Dr. Mary Favaro, President of Marco

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Hurricane Sandy left all of us on the Southeastern coast breathing a sigh of relief and yet suffering along with the Northeast in their disaster. It is very much a case of déjà vu from our experience with Hugo (was that really 23 years ago?!) when watching the sad destruction in the NY and NJ areas. We were without power for two weeks after that storm, at least some areas in the NE have the lights on already. We don't realize how dependent we are on the privileges/benefits of modern society until we lose them. No lights to turn on at shutdown, of course no TV, refrigeration, gas stations or banks were operational. Our thoughts will be with them for quite some time.



But on to happier topics, make your reservation for our MARCO meeting on April 25-28 next spring. Our section of the Atlantic should be quiescent at least until then. The number for the Breakers resort is easy to remember for your reservations: (843) 444 4444. MARCO has a set of rooms available at a negotiated reasonable price. Danny can also attest to the comfort and facilitates of the hotel. It is directly on the ocean and we can commute easily to any place in Myrtle Beach from there. Myrtle Beach is a short direct flight from the hubs in Charlotte, Atlanta or Charleston.

Come early and stay late to enjoy this pleasant resort. We have over 100 golf courses, shopping, many shows (some named us Branson-by-the-sea), Brookgreen Gardens, a fine aquarium and other attractions. Restaurants outnumber even the golf courses so there is no shortage of places to go and things to do. Although for many, a chance to rest by the sparkling ocean and sleep with the sound of the surf is enough.

Please drop me an email when you make your reservations so I can keep up wit the numbers. It's [maryfav@aol.com](mailto:maryfav@aol.com)....Hope to see you all then.

*Mary Kay Favaro AE4BX*

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**MARCO HAM \$ STOCK DERBY**

**BACKGROUND:** In order to drive up more interest in Aether, we are asking you to divulge your favorite winning stock and submit it to help our fellow ham-investors. We will keep bi-monthly score of your stock and reward you with points in our new "Stock \$ Derby. If you have not joined the group, simply send us your favorite stock and we will grade your stock against the others. Email: [warenbrown@aol.com](mailto:warenbrown@aol.com) or write P.O. Box 127, Indian Rocks Beach, FL., 33785. Costs nothing, no lawyers or brokers involved, just plain fun.

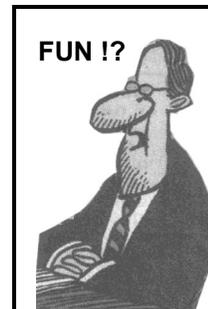
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Member	Stock	Price \$	% Change	Pts
1. Bob K4RLC	YUM	71.11	+5.8%	8
2. Mary AE4BX	PFE	24.25	+2.04%	8
3. Danny W4DAN CAT		81.30	+1.28%	6
4. Rich K9CIV	Gold	1730	-2.1%	9
5. Warren kd4gua	DDD	37.79	-2.11%	6
6 Lou W4IHGE	YORW	16.87	-6.4%	14
7. Bruce KM2L	IR	45.32	-10.24%	11
8. Chip N5RTF	SWHC	9.27	-14.25%	10

(The above are the changes since last edition.)

**Interpretation:** Points are determined by your place in the above list, each listing, i.e., First + 5th place = 6 points. The goal is to have the fewest points, i.e., closest to #1 place. In the above KD4GUA is actually in first place tied with Danny 6 points (1st last edition + 5 now = 6) whereas Danny also has 6 points. (3 + 3 = 6)

"Three D" a 3-dimensional printer company; YUM is a fast foods chain; YORW is a water company in York, PA; CAT is Caterpillar, manufacturing company; PFE is Pfizer Pharmaceuticals; SWHC is Smith & Wesson guns and IR is Ingersoll Rand Company.



## **OMEGA-3 FATTY ACIDS—Do they work?**

**As presented on Marco Grand Rounds, Oct. 7, 2012**

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Name the affliction—heart disease, Alzheimer's, arthritis, depression, asthma—and omega-3 fatty acids can help prevent it—or not?

That is the confusion being stirred up by new research on omega-3s, fats found in cold-water fish and plant oils that have intrigued nutrition scientists ever since the 1970s discovery that Greenland Eskimos rarely die from heart disease, despite a diet of fatty fish.

Some 21% of U.S. adults report using omega-3 fish-oil supplements, making it the most popular supplement after multivitamins and vitamin D.

But last month the JAMA published a meta-analysis of 20 clinical trials involving nearly 70,000 people that found that omega-3 fatty acids didn't prevent heart attacks, strokes, or deaths from heart disease. Other recent studies in the New England Journal found that the omega-3s didn't prevent heart problems in people with Type 2 diabetes or a history of heart disease.

Experts say such studies should be viewed with caution—just like studies with positive findings.

Critics noted that the JAMA study combined clinical trials that used different doses and sources of omega-3s. Many of the subjects were also on heart medication, which may have blunted the impact. Plus, diet studies are also notoriously imprecise. "It's impossible for five researchers to control the diet of almost 70,000 patients over several years," says one researcher.

What's more, the JAMA authors imposed an unusually strict standard for statistical significance. Using the typical standard, the analysis would have concluded that omega-3 supplements are associated with a 9% reduction in cardiac deaths.

"My colleagues are writing letters to the editor about this," said University of Pennsylvania nutritionist, a spokeswoman for the American Heart Association. She says, for now, the association will continue recommending that everyone eat omega-3 rich fish at least twice a week; people with heart disease or high triglycerides could also consider taking fish-oil supplements under a doctor's care.

Omega-3 fatty acids are essential for building cell membranes and maintaining the connections between brain cells. They also may reduce inflammation, incessantly recognized as a cause of chronic diseases.

**Humans can't produce omega-3 fatty acids**, so we must get them from outside sources. The two most important kinds—EPA and DHA—are primarily found in fish such as salmon, sardines, tuna and herring; a third kind, ALA is found in Walnuts, flaxseed, soybean oil and some green vegetables, including Brussels sprouts, spinach and kale.

The typical American diet is far higher in omega-6 fatty acids which come from corn and safflower oil and are plentiful in processed foods and corn fed beef and poultry. Some experts believe that reducing the ratio of omega 6s to 3s is even more important than increasing omega-3s, but the evidence is mixed.

Blood tests (typically \$100-\$200) can measure the amount of omega-3s in red blood cells or plasma and a growing number of doctors are ordering them. No official deficiency standard has been set, but according to one lab, OmedgaQuyant Analytics, having 4% or less omega-3s out of total fatty acids is "undesirable" and indicates an elevated heart risk; 8% or more is "desirable." Most Americans score between 3% and 5% omega-3s.

Thousands of studies since the 1970s have shown that people with high levels of omega-3s have lower triglycerides, lower blood pressure, lower LDL, less inflammation and a lower risk of heart disease. Those with low levels of omega-3s are more likely to be depressed, to commit suicide and have memory loss and brain shrinkage as they age.

Many of those are observational studies that can't prove cause and effect; it may be that people who eat more fish have more healthy behaviors in general. The evidence from randomized-controlled trials is more mixed—but experts say that's not surprising in dietary studies, where researchers often have to rely on patient to accurately report what they ate over long periods.

Recent research offers a tantalizing mix of healing possibilities:

**Alzheimer's disease and dementia:** Several studies show that older people who eat plenty of fish have lower levels of beta amyloid protein, associated with Alzheimer's than those who eat less. But giving elderly people omega-3 fish-oil supplements didn't help ward off cognitive decline, according to a meta-analysis published in June.

**Macular degeneration:** A 2011 Harvard study found that women who ate fish at least once a week were 38% less likely to develop age-related macular degeneration than women who ate it less than once a month.

**Attention-Deficit Hyperactivity Disorder:** Children with ADHD tend to have lower omega-3 levels than their peers, and a study in the Journal PLOS One last month found that DHA can improve reading and behavior in underperforming children. Still, there is no evidence to date that omega-3s are as effective as medication.

**Depression:** Rate of depression, bipolar disorder and postpartum depression are all lower in fish-eating populations. Supplements with a high ratio of EPA to DHA appear to be most effective.

**Cancer:** Mixed findings.

**Rheumatoid arthritis:** May help reduce symptoms and may allow people to lower their doses of anti-inflammatory drugs.

**Fetal development:** Omega-3s are needed for brain and vision development in unborn babies, but concerns about mercury levels have scared some pregnant women away from eating fish. Authorities say that many good omega-3 sources including shrimp, salmon and tuna, are relatively low in mercury. Nursing women and young children should avoid shark, swordfish and tilefish.

Many doctors are more comfortable urging patients to eat more fish than take fish-oil supplements, since fish also contain protein, vitamin B-12, zinc and iodine.

Side effects from fish-oil supplements are minor—mostly gastrointestinal upset and burping with a fishy aftertaste. In doses of 3 grams and above EPA and DHA can increase the risk of bleeding, so people on blood thinner should consult their physician before taking them.

What's the bottom line? Does it make sense to consume more omega-3s? There is no single answer here. Given that there is a potential for benefit, and the harm has not yet been fully explored, at reasonable levels of intake it's not a bad idea.

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### **100 YEARS AGO, TEDDY ROOSEVELT WAS SAVED FROM A BULLET BY 50 PIECES OF PAPER.**

**Oct. 14, 1912**, just after 8 p.m., Theodore Roosevelt stepped out of the Hotel Gilpatrick in Milwaukee, WI, and into an open car waiting to take him to an auditorium where he would deliver a campaign speech. Although he was worn out and his voice nearly gone, he was still pushing hard to win an unprecedented third term in the White House. He had left politics in 1909, when his presidency ended. But his disappointment in the performance of William Howard Taft, his chosen successor, was so great that in 1912 he formed the National Progressive Party (*better known as the Bull Moose Party*). He was running against Taft and the Republicans, the Democrats' Woodrow Wilson and the Socialist ticket headed by Eugene Debs.

The Bull Moose himself campaigned in more states (38) than any of his opponents. As he left the Gilpatrick, he was wearing his Army overcoat and carrying a 50-page speech—folded double to fit into the breast pocket where he had also tucked his metal spectacles case. A stretch of sidewalk had been cleared to speed his walk to the car. As Roosevelt was settling into the back seat, a roar went up from the crowds when they saw him. At the moment he stood to wave his hat in thanks, a man, five feet away, fired a Colt .38 revolver at Roosevelt's chest.

The assailant, John Schrank, an unemployed saloonkeeper, was tackled and quickly taken away. TR asked the driver to head for the auditorium. His companions protested, but Roosevelt held firm. "*I am going to drive to the hall and deliver my speech,*" he said.

Doctors later found that the bullet had been slowed by the thick manuscript and the spectacles case. But there was a dime-size hole in his chest, below his right nipple. He requested a clean handkerchief to cover the wound and headed for the stage where he gave his 50-minute speech. He proclaimed, "*it takes more than a bullet wound to kill a Bull Moose!*" He resumed the campaign a week later and carried the bullet lodged in his chest to his death. Wilson won the election.

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**BACKGROUND:** Erich Gimpel, who died in Brazil this summer at age 100, was a former German agent and ham radio operator, who was put ashore from U-1230 with co-conspirator William Colepaugh in Maine on Nov. 29, 1944. The FAHS news editor met him & has known him as a friend since 1991. In previous issues we learned 25 year old Gimpel was sent to Lima, Peru as a radio engineer. Here he was advised by Nazi diplomats to prepare for war as every German is a soldier and must do his duty wherever he is. Upon returning to Germany Gimpel was trained in an attempt to blow up the Panama Canal but this was cancelled because of a security leak. Now he and Billy Colepaugh (*an American turn-coat*), have arrived in America to find and destroy the atomic plant at Oak Ridge, Tennessee. The pair arrived in New York City and were holed up in a down-town hotel. Billy had left the hotel and had not returned. Gimpel was worried he had defected or was picked up only to find he had found a new girl friend. After failing to make a N.Y. contact Gimpel returned to the hotel only to find his partner had left—and with all the luggage and money! He finally located his baggage at Grand Central Station only to be surprised by an old friend from Peru! He was invited to stay at his friend's apartment which is already occupied by an American young lady. Billy, meanwhile, had let the cat out of the bag while drunk with a longtime friend. The friend went to the FBI and they are now looking for Gimpel alias "Edward Green" who is still unaware of Billy's actions. Gimpel after contacting a nuclear-physicist collaborator in N.Y. relaxed with his American girl friend in the N.Y. apartment. It was on Times Square, New Years eve, 1945, while buying a South American newspaper that he was picked up by the FBI.

**IN THE SHADOW OF THE SCAFFOLD**

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In my prison cell in Fort Jay, New York State, to which I had been moved after weeks of FBI interrogations I became acquainted with the dull, crushing monotony of prison life. My cell was a sort of wire cage through the mesh of which it was just possible to push a cigarette. It was kept immaculately clean and was big enough to enable me to walk six steps forward and six steps backwards. It was lit by a 200-watt lamp which burned throughout the day and night. A camp-bed provided a minimum degree of comfort for sleeping.

I had now become a captive of the American Army. My fellow prisoners, whom I saw only rarely, were soldiers serving sentences for insubordination, cowardice and similar military delinquencies. I was the pride of Fort Jay and was visited every day by high-ranking officers. Three or four times a day the door would be opened, the sentry would call "Attention!" and I would grab my trousers (my belt having been taken away just as my shoe laces had been removed as a suicide precaution), and stagger towards the staff officers.

They were without exception, friendly and chivalrous towards me. They enquired searchingly as to how I was being treated, whether the quality of the food was to my satisfaction and if I had any requests.

It took me some time to get accustomed to this treatment. I simply could not understand why they should treat me as enemy so fairly. The treatment meted out to me was quite different from that which fell to the lot of my Judas friend, Billy Colepaugh. I had also noticed that the FBI were particularly nice to me whenever Billy was around.

At dusk, every day, I was allowed to take a turn in the enormous court-yard of Fort Jay. The guards watched me at my exercise. Once they clapped as I passed them, and the cook asked me if the food he prepared was to my liking. I was, as I have said, the pride of Fort Jay. Another prisoner was the former trumpet soloist of Benny Goodman's orchestra. He performed every evening to the delight of guards and prisoners and instead of the *Last Post* played, "*Good-night, Baby*." The wardens all enjoyed his music.

I had been in Fort Jay about three weeks when things took a serious turn. I was told that Major Charles E. Reagin and Major John E. Haigney had come to see me.

"If you are agreeable," they began, "we are prepared to take on your defense." "I am most grateful to you," I replied, "Of course I am agreeable."

"We will conduct your defense with every means at our disposal, that we can promise you. We can also assure you that the courts will in no way limit your defense. As a matter of fact, the court has just recently assembled. President Roosevelt directed the matter personally."

"However, I do not consider your case hopeless. If Germany capitulates, that will probably save your life, but if the war goes on, you'll be hanged. It's really a race between your life and the end of the war. It can't go on much longer. The Russians are at the Oder and our troops

are in the Ruhr." (The U.S. does not execute foreign spies in peacetime.)

"They will call you to the witness box. They will ask you if you are guilty or not guilty...if you say you are guilty you are dead. The depositions you have already made to the FBI don't count in a court of law."

The distractions which the wardens did their best to provide for me, the chivalrous treatment and the business like conversations with my counsel **could not close my eyes to the one ghastly certainty that my days were numbered.**

The anxiety, the fear, the horror, came ever closer and I became their prey. I counted the meshes in my wire cage—once I got to ten thousand—then one day I had a visit from two officers from the O.S.S. (*today's CIA*)!

"You are going to be hanged, **BUT**, if you work for us by sending a few transmissions to Germany we may be able to help you."

"So you want to turn me into a double-crosser?" "Put it your way if you must." "It would be treason." "No, I believe that in present circumstances it would be the greatest service you could do your country." "No," I answered the Colonel, "I can't do it. Just think for a moment if you were in captivity in Germany and it was suggested you do the same against America, what would your answer be?" "You can let us have your decision tomorrow morning at ten. Your fate is in your own hands." My case was postponed one week—the war continued for another week—would it end soon enough?

Major Reagin, my council, returned and stated, "As I see it, the war will come to an end in May 1945. We are short of four weeks. How we can get over the difficulty I don't quite know. The case begins on Feb. 6 and will last a week. Sentence will be expected about four weeks after its pronouncement, that is to say the second week in April. I reckon that the war will end in the second week of May but those damned four weeks may cost you your life."

My case was still being kept a close secret. The journalists had not been informed. The Army trial was being held at Governor's Island, New York City. I was taken there in a closed car in handcuffs. Billy traveled in a second car kept apart. It was at this point that I saw the first reporters. They had no idea what was going on. The case against Erich Gimpel and William Curtis Colepaugh had begun. I pleaded "Not Guilty" as told.

Joan (*Gimpel's N.Y. sweetheart*) offered herself as a witness. Asked why she replied, "**Because I love him!**" There was complete silence in the courtroom. "I did not know of the work he did here...the war is to blame for everything, and everyone who is in the service of war is also its victim. I am a woman and a woman knows a man far better than men can know him. I must ask you to remember you are not sitting in judgment on a barbarian but on a man who is loved by a woman, a woman who is a citizen of this country." The court's final judgment, "**Erich Gimpel, you have been found guilty on all charges and you are to be hanged by the neck until dead.**" In four days—96 hours—I would be hung! But, Fort Jay is Army territory, would I be electrocuted at Sing Sing prison? No, it would be Fort Jay by hanging.

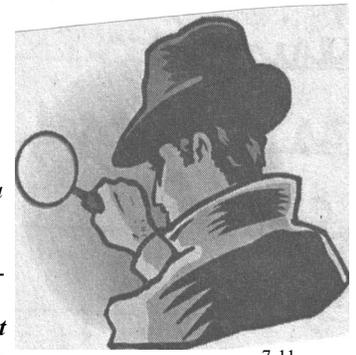
However, the case was appealed to the Supreme Court and the hours passed.

On April 14 I was led to the hanging chamber by the Chaplain—then, suddenly a G.I. ran excitedly along the corridor. Suddenly I heard shouts. I strained to hear what was happening, but I couldn't gather what it was all about. Then suddenly, I heard "**Roosevelt is dead!**"

An officer came up to me and put his hand on my shoulder. "This is a bit of luck for you," he said. "Why I asked? "The President is dead. That means that there will be four weeks' of state mourning." "And what's the use of that to me?" I asked. "During the period of state mourning no death sentences will be carried out."

The officer left. I could hardly believe my ears, Franklin Delano Roosevelt had done me a good turn....

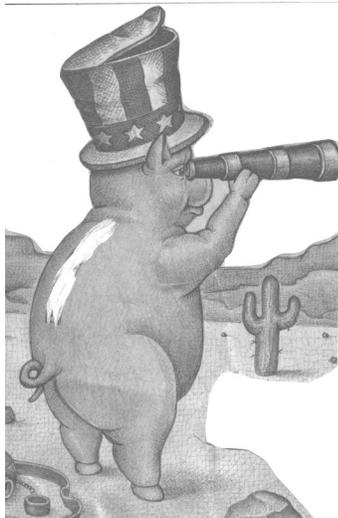
Continued next edition



7-11

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- Alperstein, David N4DOV
- Azar, Paul N5AN
- Concer Robert K4RLC
- Higley, Roger W8CRK
- Hiilesmaa, Ville PY2ZEA
- Knickerbocker, G. W3RJA
- Krasowski, Bernie KD5QHV
- Krasowski, Linda KE5BQK
- Lilly, Paul K4STE
- Lukas, Paul N6DMV
- Nevins, Robert KF1J
- Rowland, Carlyle N0ARN
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