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Web Site: <http://www.marco-ltd.org>  
Internet address: [warren.brown1924@gmail.com](mailto:warren.brown1924@gmail.com)

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

## THE PLACEBO EFFECT

### ARE BIG PHONY PILLS MORE EFFECTIVE THAN SMALL ONES?; ARE CAPSULE MORE EFFECTIVE THAN PILLS? IS THIS A SCAM? IS THE ENVIRONMENT A PLACEBO?

The Placebo effect is a remarkable phenomenon to which a placebo—a fake treatment, an inactive substance like sugar, distilled water, or saline solution—can sometimes improve a patient's condition simply because the person has the expectation that it will be helpful. Expectation plays a potent role in the placebo effect. The more a person believe they are going to benefit from a treatment, the more likely it is that they will experience a benefit. 32% of us are susceptible to the placebo effect and it works in 50% to 90% of them. Children seem to have greater response than adults to placebos.

To separate out this power of positive thinking and some other variables from a drug's true medical benefits, companies seeking governmental approval of a new treatment often use placebo-controlled drug studies. If patients on the new drug fare significantly better than those taking placebo, the study helps support the conclusion that the medicine is effective.

The power of positive thinking is not a new subject. The Talmud, the ancient compendium of rabbinical thought, states that: "Where there is hope, there is life." And hope is positive expectation, by another name. The scientific study of the placebo effect is usually dated to the pioneering paper published in 1955 on "The Powerful Placebo" by the anesthesiologist Henry K. Beecher. He concluded that across the 26 studies he analyzed, an average of 32% of patients responded to placebo.

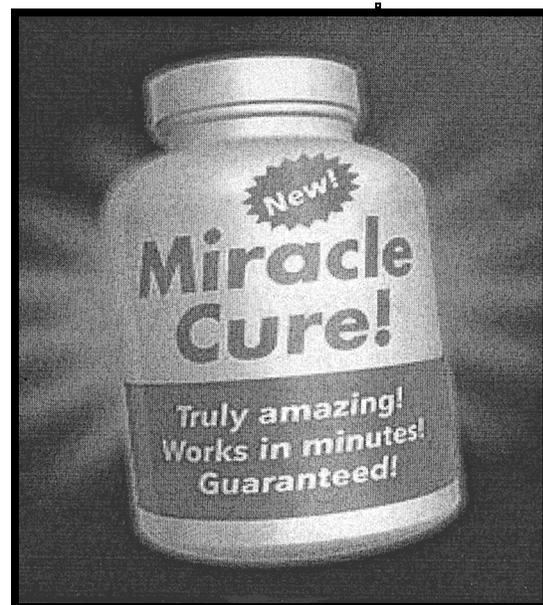
It has been shown that placebos have measurable physiological effects. They tend to speed up pulse rate, increase blood pressure, and improve reaction speeds, for example, when participants are told they have taken a stimulant. Placebos have the opposite physiological effects when participant are told they have taken a sleep producing drug.

The placebo effect is part of the human potential to react positively to a healer. A patient's distress may be relieved by something for which there is no medical basis. A familiar example is a Band-Aid put on a child. It can make the child feel better by its soothing effect, though there is no medical reason it should make the child feel better.

People who receive a placebo may also experience negative effects. They are like side effects with a medication and may include for example, nausea, diarrhea and constipation. A negative placebo effect has been called the **nocebo** effect.

Those that think that a treatment will work display a stronger placebo effect than those that do not. A placebo presented as a stimulant will have this effect on heart rhythm and blood pressure, but when administered as a depressant, the opposite effect.

Because placebos are dependent upon perception and expectation, various factors that change the perception can increase the magnitude of the placebo response. For example, studies have found that the color and size of the placebo pill makes a difference, with "hot-colored" pills (red or yellow) working better as stimulants while "cool-colored" (blue or white) pills



The Placebo Effect is related to expectations.

### LATE BREAKING NEWS

**EXTRA. EXTRA!!** ....The 2018 Annual meeting of MARCO will be held at the HamCation Event, February 9 –11th in Orlando, Fl. H.Q. will be at the Hilton Garden Inn Orlando Airport, 7300 Augusta National Drive, Orlando, FL. 3282, Phone 1 –407 240 3725 for reservation. Business meeting, Friday, Feb. 9th, 8 a.m., Annual Banquet (*on the house*) Saturday Feb. 10th.

**Chip Keister, N5RTF reports that the past 8 MARCO Grand Rounds are archived at the following address:** <http://marcoaudio.ddns.net:2199/start/tkeister> Click on any audio file to listen to that week's net. Download if you like. No passwords are required. Feel free to share this link. There is room for 100 listener at a time.

### NEED CATEGORY I CME?

(Tnx to Morton Plant Hospital, Clearwater, Florida, an associate of the University. of South Florida medical school.

**Go to [www.mpmcme.org](http://www.mpmcme.org) enter; go to "medical surgical archives" and a list will pop up...pick the lecture you want (includes mandatory ones) & when completed take the simple test and submit it to "Lee" for accreditation. When your medical license is up for renewal, notify Lee & she will submit the papers required. Tell her you affiliated with the hospital through MARCO and Dr. Warren Brown.**

**WRITE TO US!**  
 We welcome your comments.  
 Mail to Marco, P.O. Box 127,  
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 Letters may be edited for  
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**MARCO NET SCHEDULE**

<u>DAY</u>	<u>EASTERN</u>	<u>FREQ.</u>	<u>NET CONTROLS</u>
Any Day	On the Hour	14.342	Hailing Frequency
Sunday	10:30 a.m. Eastern	14.140	CW Net, Chip, N5RTF
Sunday	11 a.m. Eastern	14.342	Warren, KD4GUA

(Alternate confidential Grand Rounds frequency—  
 on or about 14.344 or as announced on the air.)

**MARCO'S CW  
 NET IS NOW  
 CALLED THE  
 "Bob Morgan  
 Memorial  
 Net"  
 Sundays, 10:30 am,  
 14.140 MHz**

**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 14.342. You qualify for one hour Category II CME credit with your check-in.**

work better as depressants. Capsules rather than tablets seem to be more effective, and size can make a difference. One researcher has found that big pills increase the effect while another has argued that the effect is dependent upon cultural background.

Remember the old saying, "Nature heals the doctor gets the fee?" 70% of diseases will go away if we trust in Mother Nature and Father Time. 60%-90% of doctor visits are in the mind-body realm (consider the blush reaction) and are poorly treated by drugs and surgery. That's where relaxation techniques as well as belief systems kick in.

One doctor is now conducting a study where half the group who have by-pass surgery have others praying for them and half not...results pending. One surgeon said, "Before every surgery, I say a prayer for my patient before my scalpel starts." Many others do the same, are they quacks? Walter Cannon, 70 years ago, found there were counterbalancing mechanisms in the fight or flight response. Just as stimulating an area of the hypothalamus can cause the stress response, so activating other areas of the brain results in a reducing action. This relaxation response is a state of deep rest that changes the physical and emotional response to stress, that is, heart rate, bp and muscle tension. If practiced regularly, it can have lasting effects. People who meditated came in with decreased metabolism and blood pressure.

Conditions where placebos are effective include: ADHD, anxiety, asthma, autism, BPH, binge eating disorder, bipolar mania, Crohn's disease, depression, dyspepsia, epilepsy, food allergy, peptic ulcers, headache, hypertension, irritable bowel syndrome, migraine prophylaxis, multiple sclerosis, nausea & vomiting, pain, panic disorders, premenstrual disorder, psoriatic arthritis, GERD, restless leg syndrome, rheumatic disease, sexual dysfunction in women, social phobia, ulcerative colitis, cough, congesting heart failure, herpes simplex, Parkinson's disease.

For example, if I say "headache, headache, headache" over and over I can get a headache started—you are wired to it from memory. You are also wired to turn the headache off through memory. One researcher discovered that by speaking the same word or sound over and over again, praying or otherwise, can cause the body to relax and promote healing better. The body seems to possess a physiological response to the repetition of a phrase or action.

Another found that people who attend church had lower death rates, were more likely to stop smoking, exercised more and had more social contacts and stayed married longer than those who did not.

Of the 125 medical schools in the US, 54 now require classes in body/mind and spirituality in classes. Alternative medicine, conversely, does not have scientific validation. As long as alternative medicine lacks this proof, it will continue to exist outside the mainstream of medicine.

An example of mind into body response: In Normandy France there is a group of Buddhist monks in the practice of g tum-mo yoga. Mediators enter a 100-day cycle of meditation, all leading toward a spiritual state in which their bodies produce elevated levels of heat. At around day 85, they perform the remarkable feat of drying ice sheets on their naked bodies. Baseline data was taken for oxygen consumption, carbon dioxide elimination, respiratory rate, immunologic measurements and determination of nitric oxide were all measured before the meditation began. They will be observed with thermal imaging to discover how the monks generate heat by measuring distribution of heat in the body.

One realizes that in stress reactions adrenalin, growth hormone, thyroid hormone and cortisone are thrown out. In the rebuilding state, insulin, testosterone, estrogens are emitted. Constant consistent fear and anxiety produces constant secretion of stress hormones until they are deleted and then infection and disease sets in.

The body is also affected by: the gravitational pull of the moon (lunatics with a full moon?), the menstrual cycle and changes in barometric pressure. We have all heard patients state, "Doctor, I can tell when it is going to rain by my arthritis kicking up." Light depression is most common in northern European countries where there is little sunlight. These changes tend to bring on body rhythms of which four have been identified.

The 90-120 minute bio-rhythm, periods of day dreaming and great concentration, creates the need for the coffee or coke break; The 24 hour Circadian bio-rhythm, peaks in resistance to disease as well as changes in bp and temperature. Body cycles reach a low level at 6 am and 4 pm, the time of most deaths. Then there is the monthly 28 day bio-rhythm exhibited by the menstrual cycle. The yearly bio rhythm, with beards growing faster in the fall, sexual desire peaking in the fall and not in the spring the natural time to conceive. Most heart and respiratory deaths occur in the winter.

An issue of concern to pharmaceutical companies is that the effectiveness of placebos has increased over time, thus making it more difficult to demonstrate the effectiveness of new drugs. The reason is unknown.

Summarizing, the body has reacts to its environment and this reaction affects the mind just as placebos do—and remember what the psychiatrist once said to his patient, "you are not sick, it is all in your body!" Do YOU think placebos are unethical or really real?

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**WHICH WAS THE FIRST NETWORK—ABC, CBS, NBC OR FOX ?**

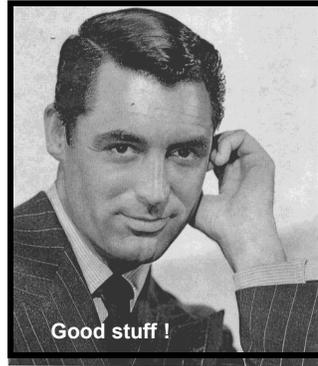
**It was NBC**, the National Broadcasting Company, founded Nov. 11, 1926 by David Sarnoff (1891-1971), who was then president of RCA. Sarnoff considered one of the pioneers of radio and TV created NBC to provide a program service to stimulate the sale of radios. In the 1940s, he reorganized the network to provide TV programming, again to stimulate sales of RCA products—this time, television. It was Sarnoff who demonstrated TV at the World's Fair in New York in 1939.

**Next came CBS** (Columbia Broadcasting System) on Sept. 26, 1928, which was established by William S. Paley (1904-1990), an advertising manager for the Congress Cigar Co., Paley sold some of his stock in the cigar company in order to raise \$275,000 to buy into the beleaguered United Independent Broadcasters (which controlled Columbia Phonograph, hence the name). He built the floundering radio network into a powerful and profitable broadcasting organization.

The **ABC** (American Broadcasting Company) was next, in 1943. It was only by government order that the third network, ABC was created at all. In 1943, when RCA was ordered to give up one of its two radio networks, it surrendered the weaker of the two (NBC Blue), which was bought by Edward J. Noble, the father of Life Savers candy. In 1945 Noble formally changed the name to the American Broadcasting Company, which three years later began broadcasting television from its N.Y. flagship station.

In Oct. 1986, Australian Rupert Murdoch formed **Fox** Television Network a branch of 21st Century Fox. Walt Disney, at present, is interested in purchasing the company but it is still under negotiations

Vitamin B-12 (cobalamin) is a water soluble vitamin obtained through the ingestion of fish, meat and dairy products, as well as fortified cereals and supplements. It is co-absorbed with intrinsic factor, a product of the stomach's parietal cells, in the terminal ileum after being extracted by gastric acid.



Vitamin B-12 is crucial for neurological function, red blood cell production, and DNA synthesis, and is a cofactor for three major reactions: the conversion of methylmalonic acid to zucchini coenzyme A; the conversion of homocysteine to methionine; and the conversion of 5-methyltetrahydrofolate to tetrahydrofolate.

The prevalence of vitamin B-12 deficiency is about 6% in persons younger than 60, and nearly 20% in those older than 60.

Certain risk factors increase the prevalence of B-12 deficiency. Dietary insufficiency, pernicious anemia (P.A.) i.e., an autoimmune process that reduces available intrinsic factor and subsequent absorption of B-12 and long term use of metformin or acid suppressing medications have been implicated in B-12 deficiency.

A multicenter randomized controlled trial of 390 patients with diabetes mellitus showed that those taking 850 mg of **metformin** three times per day had an increased risk of vitamin B12 deficiency and low vitamin B-12 levels. This effect increased with duration of therapy, and patients had an unclear prophylactic supplementation response. A case-control study that compared 25,956 patients who had vitamin B-12 deficiency with 184,190 control patients found a significantly increased risk of Vitamin B-12 deficiency in patients who had taken **proton pump inhibitors** or **histamine H-2 blockers**. In light of these findings, long-term use of these medications should be periodically reassessed, particularly in patients with other risk factors for vitamin B-12 deficiency.

B-12 deficiency affects multiple systems, and sequelae vary in severity from mild fatigue to severe neurological impairment. The substantial hepatic storage of vitamin B-12 can delay clinical manifestations for up to 10 years after the onset of deficiency. Bone marrow suppression is common and potentially affects all cell lines with megaloblastic anemia being most common. The resultant abnormal erythropoiesis can trigger other notable abnormal lab findings, such as decreased haptoglobin levels, high lactate dehydrogenase levels, and elevated reticulocyte counts. Symptoms typically include being easily fatigued with exertion, palpitations and skin pallor. Skin hyperpigmentation, glossitis, and infertility have also been reported. Neurogenic manifestations are caused by progressive demyelination and can include peripheral neuropathy, reflex, and the loss of proprioception and vibratory sense. Areflexia (*below normal muscular reflexes*) can be permanent if neuronal death occurs in the posterior and lateral spinal cord tracts. Dementia-like disease, including episodes of psychosis, is possible with more severe and chronic deficiency. Clinical evaluation seems to show an inverse relationship between the severity of megaloblastic anemia and the degree of neurogenic impairment.

Maternal vitamin B-12 deficiency during pregnancy or while breastfeeding may lead to neural tube defects, developmental delay, failure to thrive, hypotonia, ataxia, and anemia. Women at high risk or with known deficiency should supplement with B-12 during pregnancy or while breastfeeding.

Screening persons at average risk of vitamin B-12 deficiency is not recommended. Screening should be considered in patients with risk factors, and diagnostic testing should be considered in those with suspected clinical manifestations.

The recommended lab evaluation includes a CBC and serum vitamin B-12 level. A level of less than 150 pg per ml (111 pmol. Per l.) is diagnostic for deficiency. Serum vitamin B-12 levels may be artificially elevated in patients with alcoholism, liver disease or cancer because of decreased hepatic clearance of transport proteins and resultant higher circulation levels of vitamin B-12; physicians should use caution when interpreting lab results in those patients. In patients with a normal or low normal serum vitamin B-12 level, complete blood count results demonstrating macrocytosis, or suspected clinical

manifestations, a serum methylmalonic acid level is an appropriate next step and is a more direct measure of vitamin B12's physiologic activity. Although not clinically validate or available for widespread use, measurement of holotranscobalamin, the metabolically active form of vitamin B-12, is an emerging method of detecting deficiency.

Pernicious anemia refers to one of the hematologic manifestations of chronic auto-immune gastritis, in which the immune system targets the parietal cells of the stomach or intrinsic factor itself, leading to decreased absorption of vitamin B-12. Asymptomatic autoimmune gastritis likely precedes gastric atrophy by 10 to 20 years, followed by the onset of iron-deficiency anemia that occurs as early as 20 years before vitamin B-12 deficiency pernicious anemia.

Patients diagnosed with vitamin B-12 deficiency whose history and physical examination do not suggest an obvious dietary or malabsorptive etiology should be tested for pernicious anemia with anti-intrinsic factor antibodies particularly if other autoimmune disorders are present. Patients with pernicious anemia may have hematologic findings consistent with normocytic anemia. If anti-intrinsic factor results are negative but suspicion for pernicious anemia remains, an elevated serum gastrin level is consistent with the diagnosis. The Schilling test, which was once the diagnostic standard for pernicious anemia, is no longer available in the U.S.

Vitamin B-12 deficiency can be treated with I.M. injections of cyanocobalamin or oral vitamin B-12 therapy. About 10% of the standard injectable dose of 1 mg is absorbed which allows for rapid replacement in patients with severe deficiency or severe neurological symptoms. Guidelines recommend injections 3X- per week for two weeks in patients without neurological deficits. If deficits are present, injections should be given every other day for up to three weeks or until no further improvement is noted.

In general, patients with an irreversible cause should be treated indefinitely, whereas those with a reversible cause should be treated until the deficiency is corrected and symptoms resolve. If vitamin B-12 deficiency coexists with folate deficiency, B-12 should be replaced first to prevent subacute combined degeneration of the spinal cord.

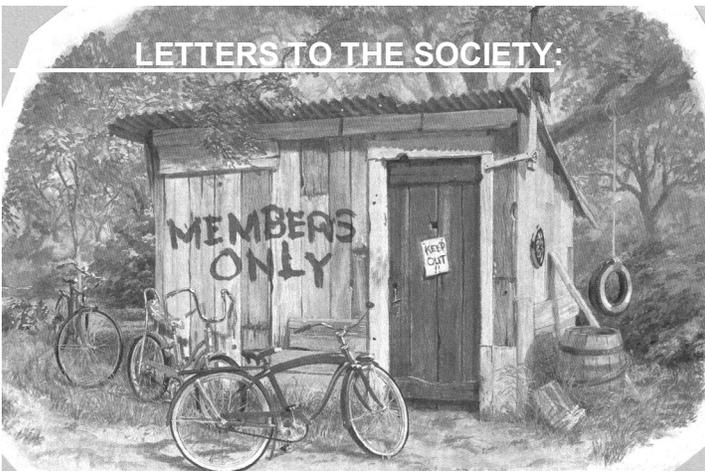
A 2005 Cochrane review involving 108 patients with vitamin B-12 deficiency found that high-dose oral replacement (1 mg to 2 gm per day) was as effective as parental administration for correcting anemia and neurological symptoms. However oral therapy does not improve serum methylmalonic acid levels as well as I.M. therapy. Although the clinical relevance is unclear.

Because of potential interactions from prolonged medication use, physicians should consider screening patients for B-12 deficiency if they have been taking **proton pump inhibitors** or **H-2 blockers** for more than 12 months, or **metformin** for more than four months. The average intake of B-12 is 3.4 mcg per day, and the recommended dietary allowance is 2.4 mcg per day for adult men and non-pregnant women, and 2.6 mcg per day for pregnant women. Patients older than 50 may not be able to adequately absorb dietary vitamin B-12 and should consume food fortified with B-12. Vegans and strict vegetarians should be counseled to consume fortified cereals or supplements. Those who have had bariatric surgery should take 1 mg of oral B-12 per day indefinitely.

B-12 deficiency is a much more common cause of hyperhomocysteinemia in developed countries than folate deficiency because of widespread fortification of food with folate. Although epidemiologic studies have shown an association between vascular disease and hyperhomocysteinemia, large randomized controlled trials have shown that lowering homocysteine levels in these patients does not reduce the number of myocardial infarctions or strokes or improve mortality rates. Similarly, an association between elevated homocysteine levels and cognitive impairment has been noted, but subsequent B-12 replacement does not have preventive or therapeutic benefit.

**(Information for the above was taken from Dr. Langan and Goodbred's fine article which appeared in the Sept. 15, 2017 "American Family Physician" magazine and which was recently presented on MARCO's Grand Rounds of the Air.)**

**LETTERS TO THE SOCIETY:**



**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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**Bold Bald MEN...**A man who is bald in front is a lover; if he's bald in back, he's a thinker. If he's bald all over, he just thinks he's a lover....and note: **If your mother's father has normal hair you cannot inherit baldness from your bald-headed father.**

**HIV update...**Less people are dying from it because of a 3-drug combination that must be taken for a lifetime and which costs between \$1,000 and \$1,400 per month. There are people who have had HIV for over 30 years and are still alive....hot beds for the problem are N.Y., N.J. and Washington D.C. The disease is a disease of primates—dogs and cats not involved. It is a criminal act in some states for a known HIV person to have relations with an innocent victim without their knowledge. Vaccine? Not available—in experimental stage.

**Garlic compound could kill superbugs...**Garlic can do more than ward off vampires and chase fleas from dogs...It appears an active sulphurous compound, called *ajoene*, in the allium can help fight superbugs in patients with chronic infections.

**Uber reaches for the skies...**Commuters of the future could get some relief from congested roads if Uber's plans for flying taxis works out. The company aims to have its first paying passengers in cities around the world by 2023. The battery-powered aircraft look like a cross between a small plane and a helicopter with fixed wings and rotors.

**Nearly half the world's 36 millionaires live in the USA....**Swiss banking giant Credit Suisse reports there are 15 million millionaires in the U.S., or one in every 21 Americans. However the "millionaire" of today would require around 8 million dollars to have that distinction in the past due to inflation. Japan and U.K. were a distant second and third. Asia has the most billionaires led by China. Credit Suisse included the value of financial assets plus housing and other nonfinancial assets minus debt.

**Why amateur radio operators are "HAMS."** In 1908, three Harvard members started one of the first wireless stations. The members, Albert Hyman, Bob Almy, and Pogie Murray first used all three last names fully spelled out to identify their station. Tapping this in code got laborious s they shortened their call sign to "HYLAMU" but this became confused with the Mexican steamship HYALMO so they decided to use only the first letters of their last names. The HAM station was later called to testify before Congress and the name stuck.

**No kudos this issue.....**

**Boys will be boys...Bruce Small KM2L** writes: Received the latest Aether, and I was very impressed by the wealth of clinical information. Good stuff. On page 4, under Walter Winchell's gaze, some news/opinion bits appear, and Warren asks "What is in your opinion?" My opinion is that the column should be titled 'Fake News.' First, the statement that a Tesla home charging system requires 75 amps is completely false. The chargers are adaptive ("smart") and can adjust the load to the situation. Tesla recommends that you have a dedicated 240 V line installed to supply the unit. You specify the current you desire with your electrician, and he performs the appropriate installation. The charging units will work with circuit breakers rated for anywhere from 15A to 100A. The higher the capacity, the faster your car recharges. The standard mobile connector for Tesla Models S and X can carry 40A, and for the new Model E it is 32A.

This particular item in Aether ends with a howl about gummint bureaucrats dooming us by insisting on developing "unreliable" alternative energy resources. This is preposterous. The rest of the world is actively shifting to alternative energy production and even the big fossil energy companies are making plans for an alternative energy future. As of 2015, the US generated approximately 14% of its power through wind, solar, biomass and hydroelectric means. The percentage is exceeded by ...Bruce mentions about 30 countries. I just returned from Spain, where windmills are easy to find (and have been since the days of Don Quixote), and small towns have dedicated areas to solar energy farms. Spain is a net exporter of electric power and is profiting from their investment. China has initiated an aggressive electric vehicle development program and is also dedicated to becoming a world leader in solar energy production. We in the USA will be left in the dust and it will be coal dust.

**Chip Keister N5RTF, New Orleans** caters with: "Bruce, I am in favor of developing a wide range of power technologies, for the sake of redundancy if nothing else. To be fair though, most of the world does not have the 100 years of installed and paid for gas and oil infrastructure which makes fossil fuels so cheap here. Many of those countries you listed went straight from cow dung to solar. Likewise, I hope to own an electric car one day, but the recent Florida hurricanes raised a big issue: Do electric cars have the range needed to evacuate safely from a natural disaster.

**Jerry N4TSC, Boca Raton, FL.** Suggests Chip might think about evacuating a Florida hurricane with a hybrid.

**Bruce KM2L** responds:.....if your concern is outrunning a hurricane, then an eclectic vehicle is not your best choice at this time. Range will improve over time.

**Arnold Kalan WB6OJB** apparently is up and improving from his recent surgery as he sent the membership a large "WOW."

**Joe Breault WB2MXJ, Metairie, LA,** our secretary reports he has received conformation of our booth location in the Orlando HamCation (price: \$81.25) and his room at the Hilton Garden inn, Orlando Airport at the reduced price of \$129/night.

**ORLANDO CALLING**  
**Come & experience the largest radio & electronics**  
**show in the Southeast!**  
 Central Florida Fairgrounds & Expo Park, 4300 W. Colonial Dr.,  
 Orlando, FL. 32808, Feb.9-11th, 2018.

## ALZHEIMER'S MAY NOT BEGIN IN THE BRAIN

The long assumption that Alzheimer's disease originates in the brain may not be true after all—as new findings indicate the disease could be triggered by breakdowns elsewhere in the body.

Researchers believe that the new discovery could lead to new drug therapies that may be able to stop or slow the disease down without acting directly on the brain, an often complex, sensitive and hard to reach target

The researchers were able to demonstrate the cancer-like mobility of the disease with a technique called parabiosis—where they surgically attached two specimens together so they shared the same blood supply for several months.

The researchers modified normal mice, which do not naturally develop Alzheimer's, to carry a mutant human gene that produces high levels for a protein called amyloid-beta that ultimately forms clumps or plaques that smother brain cells in humans.

Amyloid-beta is produced in blood platelets, blood vessels and muscles and its precursor protein is found in several other organs. However, until the current experiment it was unclear if the protein from outside the brain could contribute to Alzheimer's disease.

"The blood-brain barrier weakens as we age," Psychiatry Professor Dr. Welhong Soong, said in a statement. "That might allow more amyloid betas to infiltrate the brain, supplementing what is produced by the brain itself and accelerating the deterioration.

The mice that had been joined to the genetically modified partners for a year ended up contracting Alzheimer's disease. The amyloid-beta traveled from the genetically modified mice to the brains of their normal partners, where it accumulate and began to inflict damage.

Along with developing plaques, the mice also developed a pathology similar to tangles—twisted protein strands that form inside brain cells, disrupting their function and eventually killing them from the inside-out.

The mice also developed Alzheimer's like damage including brain cell degeneration, inflammation and micro bleeds, as well as the impairment of the ability to transmit electrical signals involved in learning and memory—even in mice that had been joined for just four months.

"Alzheimer's disease is clearly a disease of the brain but we need to pay attention to the whole body to understand where it comes from and how to stop it," he said.

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### A CHRISTMAS ENCOUNTER WITH THE RUSSIAN SOUL

Excerpts from David Sutter's article in WSJ, 22 Dec. 2017

As tension with Russia deepens it may seem as if Americans have little in common with those living under Putin's dictatorship. But I have witnessed the triumph of good over evil in Russia many times, including on one striking occasion 25 years ago when an expression of the "*Russian soul*" defused a dangerous situation and gave me hope for the country's future.

Christmas eve 1992 was bitter cold in Moscow, and the mood of the city was marked by depression and despair. I was there to complete my book, "Age of Delirium," about the fall of the Soviet Union.

History was moving rapidly all around me. On the streets, there were rows upon rows of stalls. The capital had turned into a giant bazaar as people sold anything—to survive.

Yet there were still a few signs of progress, including new public telephones that used prepaid cards. I had a card in my wallet, along with cash and i.d., but I had trouble using it in the subzero Russian winter. Once, while making a call, I put the card in my wallet and the wallet on a ledge in the booth. After hanging up, I left the booth having forgotten my wallet. When I returned less than five minutes later, My wallet had disappeared.

Forty-eight hours later, I received a call from "Yuri," who told me that he had my wallet. He claimed it didn't contain any cash when he found it, but he gave me his address and suggested I come see him so the "problem" of my wallet could be discussed.

Yuri lived in the Moscow suburb of Lyubertsy, a concrete jungle also famous for being the H.Q. of the Luberetskaya criminal organization, which had terrorized Moscow since the early 1980s.

One year after the fall of communism, the criminal was king in Russia. Gangs collected *extortion* money from anyone operating a business on their "territory." In the case of a dispute between rival gangs, there was a *strelka* or meeting, at which the conflict was discussed. Usually the rivals tried to resolve the matter peacefully, but Russia was now awash in guns and both sides arrived at a *strelka* fully armed.

I took the metro to a station on the outskirts of Moscow and then flagged down a private car which took me to the address. I went to an apartment on the 14th floor and rang the bell. A man who looked about 30—nearly bald, with an athletic build—greeted me. He let me into his apartment, which consisted of a single room.

"Thank you for keeping my wallet," I said. "Yes," I went to a lot of trouble," Yuri replied. →



## HIGHLIGHTS FROM QST

Letter from Scotty Ward K3TIC

I worked in the Pentagon during the September 11, 2001 attack. Thousand of Pentagon residents and hundred of thousand of people in the DC metropolitan area, did what people typically do in an emergency—we attempted to phone our relatives. However, when we all attempted to use our phone simultaneously, the massive spike in usage overwhelmed the commercial phone systems, so I was unable to contact my family and tell them I was unhurt. To add to my complete isolation in a metropolitan area, we had been placed onto a metro system bus, which joined the area-wide traffic jam that ensued in the hours following the attack and the crash into the Pentagon. As a result I spent over 6 hours without the ability to inform any of my family that I had survived.

Following that day, I began to search for other means to communicate, and learned about Amateur Radio. The Washington D.C. area contains some two dozen repeaters, anyone of which I could have used on 9/11 had I only had the training, license, and equipment to use them. I studied for and passed my exams and now carry a handheld radio on my backpack every day, be it to work, church, or any other location.

Today, if any disaster or other massive event disrupt the commercial communications infrastructures, I carry my little handheld radio as an insurance policy, adding to my peace of mind and giving me additional options to stay in touch with my loved ones.

**Scotty Ward K3TIC, Waldorf, Maryland.**

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He explained that he worked in a supermarket as a security guard. "You can't imagine how much time I spent trying to find you. I lost two days of work and almost a day's worth of overtime."

"I don't want you to suffer," I said, desperate to recover my wallet, and especially the identification I needed for traveling. "How much money do you think you lost?"

"At least 50,000 rubles." At the official rate of exchange that was \$120, an astronomical sum for an ordinary Russian at that time. But I took out five crisp 10,000-ruble notes and gave them to him.

"And my wallet?" I asked. "I also need an honorarium." "I was happy to pay you for your expenses," I said, "but I can't pay you an honorarium. You are obliged to give me my wallet." "Why is that?" Yuri asked looking at me incredulously.

"Because," I said, "it does not belong to you."

Yuri hesitated for an odd moment, as if trying to assimilate what I had just said. He then stood up, reached over and opened a cabinet behind where I was sitting. A car backfired somewhere in the distance and I suddenly became convinced he was reaching for his service pistol.

Yuri turned, and I saw that in one hand he was holding a bottle of vodka and in the other, two glasses. He put them on the table and poured out two drinks. "You know, you taught me something today," He then said, "bottoms up" and downed his vodka in one gulp. I reluctantly followed suit.

Then Yukri reached into his back pocket. "Here is your wallet," he said, "You don't have to pay me an honorarium." It was now well past midnight and I shook hands with Yuri before taking an elevator to the ground floor. Outside a full moon lit a cloudy sky I never heard from Yuri again, as Russia descended into criminality and chaos in the 1990s, I often wonder if our brief encounter had a lasting effect on him.

In subsequent years, as the Putin dictatorship tightened its grip, Westerners wondered how to answer Russian propaganda. Speeches were made and learned conferences were organized without getting us any closer to penetrating Moscow's false worldview.

But as the encounter with Yuri that night showed, Russians can be reached if basic moral principles are made clear to them. Russians do not share the ethical heritage of the West, but moral intuition exists everywhere, and is able to be inspired.



- **Don't let noise**, known as radio frequency interference (RFI), ruin your enjoyment of broadcast, radio listening, shortwave listening, and ham radio. With some patience and common sense, you might be able to eliminate it without sophisticated test equipment.
- Being an amateur radio operator, and having over 30 years experience operating and working with commercial two-way radio equipment. I have solved many cases of radio frequency interference. The methods that I use to find and remedy several types of noise are very simple.

- **Searching for noise and RFI problem.** Here are a few simple tips to use when searching for noise sources. The simplest and least expensive piece of equipment that can be used is a portable AM broadcast band receiver. If you are a shortwave listener, or a ham radio operator, a portable radio that includes shortwave bands will work better.
- **Almost any electrical device can develop electrical arching.** The strongest noise usually comes from within the house. Weaker interference is probably coming from outside. You can carry the portable radio around and hold it close to the suspected device. If the noise gets stronger, you will want to unplug it to see if the noise goes away.
- Another way to trace the noise is to listen to your radio, then turn wiring circuits off at the breaker box, one at a time. If the noise stops, throw the breaker switch back on. Unplug all appliances on that circuit, then plug each one up separately until you find the one that is causing the interference.
- There may be some appliances and devices that are wired directly to the circuit. These will have to be disconnected very carefully with the circuit breaker off. Electrical devices that generate noise should be inspected for defects.
- **Sources of RFI.** TV sets, computers, fluorescent lights, CFL6 light bulbs, dimmer switches, touch lamps, night lights that are photo cell operated. Thermostats, dishwashers, clothes dryers, washing machines, door bells, electric toothbrushes, electric motors, utility power lines, including transformers, switches and insulators.
- **Power line noise.** Interference that is not so overwhelming, but has a constant frying sound, maybe noise coming from the local electric utility transmission lines. When searching for power line noise, you can walk using a portable receiver, or drive around your neighborhood listening to your car radio, until you find the strongest interference.
- Look for vines or trees growing into power lines or transformers. Also look for large switches and broken insulators on poles. Sometimes these switches can't make good contact and cause arcing that is not visible, but can be heard on the radio. Any findings should be reported to the involved utility.
- If the power company does not respond within two or three days, be persistent and go back for a second or third complaint. If you detect any visible damage that may be causing noise, photograph it, and present the photos to them. Utilities are in violation of Federal Communications Commission (FCC) regulations. [HYPERLINK 'http://www.fcc.gov'](http://www.fcc.gov) [www.fcc.gov](http://www.fcc.gov) if they do not respond to interference within a reasonable amount of time. Sometimes the electric companies can be helpful in finding noise.



**THIS BABY IS 24 YEARS OLD—HIS MOTHER IS 25!**

A Tennessee mom just gave birth to a girl who's almost as old as she is. The baby miraculously developed from an embryo frozen 24 years ago—the oldest known to ever result in a live birth, researchers say. The mother was just 1 and 1/2 years old herself when the egg was frozen.

"Do you realize I'm only 25? This embryo and I could have been best friends," mom Tina Gibson said shortly after being implanted with the embryo. She gave birth to her daughter Emma Wren, on Nov. 25.

Gibson and her husband, Benjamin, 33, couldn't conceive their own child because he suffers from cystic fibrosis, which can cause infertility. They were planning to adopt when he learned about the National Embryo Donation Center (NEDC) in Knoxville, Tenn., she said. "I think we need to submit an application for embryo adoption," Tina told the press. The couple submitted an application came home one day, looked at Benjamin, and said, "I think we filled the forms that same night.

After being approved, they began the process of selecting an embryo to be implanted. Tina, sitting through 300 profiles over two weeks stated, "It was overwhelming," said Tina, now 26. "There was so many, and it's like, how do you pick?"

The couple started to narrow down donors using physical characteristics such as height and weight to match their own, then bigger things including medical history. Little did they know their eventual choice had been frozen more than two decades ago. Such embryos, or fertilized eggs in the beginning stages of development, have been dubbed "snow babies": cryo-preserved, or slow frozen.

The embryo selected by the Gibsons was frozen Oct. 14, 1992. It wasn't thawed until March of this year, when it was ready to be implanted into Tina's uterus.

It is believed to be the longest frozen embryo to be born and survive according to researchers at the University of Tennessee Preston Medical Library. The previous record involved a 20-year-old frozen embryo. NEDC Lab Director Carol Sommerfelt called the Gibsons' story "deeply moving." Proud dad Benjamin said his daughter is no worse for the wear after her time in the freezer. "Emma is such a sweet miracle," he said. "I think she looks pretty perfect to have been frozen all those years ago."

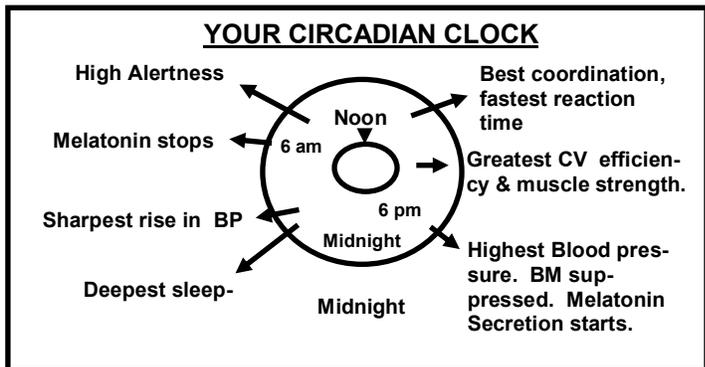
His wife said she couldn't care less how long Emma was put on ice. "I just wanted a baby. I don't care if it's a world record or not." Tina said.

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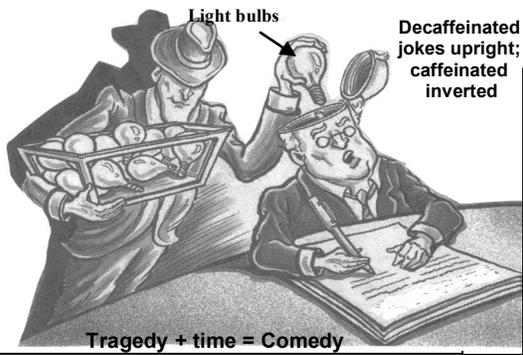
**HAPPY NEW YEAR!** From Chip Keister N5RTF, New Orleans, LA...If you are away from your radio, in a skip zone, or unplugged due to thunderstorms, join the MARCO CW net and Grand Rounds by internet streaming audio. If you miss the SSB net, listen in later through the Archive. **To Listen:** 1. Use a browser to go to the following web page which has a player app and links to the audio stream and archive: <http://marcoaudio.ddns.net:2199/start/keister> 2. The second way is to manually enter: <http://arcoaudio.ddns.net:8011/stream> into a standard music player on computer, phone, or portable device while the net is in progress.

Feel free to share these links with anyone, MARCO member or not. No login or password is required. There is room for 100 listeners at a time. Comments are appreciated.

Chip N5RTF  
(Chip can be contacted through [marco-ltd@googlegrkousps.com](mailto:marco-ltd@googlegrkousps.com))



LIGHTEN UP...



MARCO OFFICERS, 2017-2018

(Subject to change in Feb. 2018.)

- President: Richard Lochner, M.D. K9QA
President-Elect: Jay Garlitz, D.M.D., AA4FL
Secretary: Joseph Breault, M.D., WB2MXJ

- Treasurer: Bobbie Williams, WIBEW
Web Master: Dave Lieberman, KT8E

- Radio-Internet Coordinator: T. "Chip" Keister, M.D., N5RTF

- MediShare Director: Arnold Kalan, M.D., WB6OJB
Newsletter Office: Warren J. Brown, M.D., KD4GUA

REGIONAL DIRECTORS:

- Robert A. Nevins, M.D., KF1J (1st)
Bruce Small, M.D., KM2L (2nd)
Keith Adams, M.D., N3IM (3rd)
Mary Favaro, M.D., AE4BX, (4th)
Tom Reilly, M.D. W3GAT (5th)
Paul Lukas N6DMV (6th)
Albert Breland, M.D., KA7LOT (7th)
Roger M. Higley, D.D.S., W8CRK(8)
Bill T. Hargadon, WA9HIR (9th)
Frederic M. Simowitz, M.D., K0FS (0)

DIRECTORS AT LARGE:

- Harry Przekop, PA-C WB9EDP
Arnold Kalan, M.D., WB6OJB
Linda Krasowski, R.N., KE5BQK
Jeff Wolf, M.D., K6JW

WAS TOM MIX A "PHONEY" COWBOY? Tom Mix, the Western movie star of the early '30s, wasn't just some celluloid cowboy. He served in the Spanish-American War, China and the Boer War. Later, while a member of the Texas Rangers, he was shot and carried three slugs in his body the rest of his life.

What CONFUCIUS nealy said: Man who wants pretty nurse must be patient. Lady who goes camping must be aware of evil intent. Many who runs in front of car gets tired. Man who runs behind car gets exhausted. War does not determine who is right. It determines who is left. Man who drives like hell is bound to get there.

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HELLO!

Ford motor mechanic was removing a cylinder head from the motor of a V8 when he spotted a cardiologist in his work shop. The doctor was waiting for the service man-ager to take a look at his car when the mechanic shouted across the garage "Hey doc, do you want to take a look at this?" The cardiologist obliged and the mechanic stated, "So doc, look at this engine. I opened the heart, took the valves out, repaired and replaced anything damaged and then put everything back and when I finished it worked just like new, so how is that I make \$48,000 a year and you make \$XXX when you and I are doing basically the same work?" The cardiologist paused, and whispered to the me-chanic. "Try doing it with the engine running!"

My wife gives me sound advice—99% sound, 1% advice.

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"I think you are the FATHER of one of my kids." A fellow goes to the supermarket and notices an attractive woman waving at him. She says hello and he's rather taken aback because he can't place her, so he says "Do you know me?" She replies, "I think you're the father of one of my kids." Now his mind travels back to the only time he has ever been unfaithful and says, "By gosh, are you the stripper from my bachelor party that I made love to on the pool table with all

An 80-year old man married a girl of 20 and was given advice by his friend. "If you want a happy marriage, you must take in a boarder." This appealed to the old man, and a few months later he met his friend who wanted to know how things were coming along. The old man said, "Things couldn't be better, and I owe it all to your good advice." His friend said, "I'm glad to hear it and how's your wife?" The old guy said, "Oh, she's pregnant." His friend said, "That's great, and the boarder?" The old man said, "Oh, she's pregnant too."

my buddies watching?" She looks him in the eye and says calmly, "No, I'm your son's teacher."

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FROM THE DIARY OF A YOUNG GIRL ON A CRUISE...Day 1: Having a wonderful time. Day 2: The Captain invited me to his table for dinner. Day 3: The Captain invited me to his stateroom. Day 4: The Captain made advances and I refused. Day 5: The Captain told me if I didn't give in he would sink the ship. Day 6: Last night I saved 535 passengers.



3486

**MEMORIES OF YEARS AGO IN MARCO**

*Our History Book*

**Fifteen years ago in Marco**

**February 2003**

Marco President **Bob Currier** had just gotten out of the hospital after suffering a fractured hip and should be back on the air soon. In the meantime, **Warren KD4GUA** was handling Grand Rounds of the Air from Dr. Bill Hazell W4TAD's shack. **Gene Hoenig N3HG** will be publishing the next edition of the Marco NL since he will be handling the upcoming Philadelphia annual convention.

**Ten years ago in Marco.**

**February 2008**

Marco's Aether featured a lead story of "Diabetic Drugs—an update"...*So many new agents have arrived that doctors can't keep up. Here is a refresher:*" The MediShare radio donation to the Sri Lanka hospital is finally underway. 8 Motorola radios will be operated from a base station rather than from a repeater for security reasons. Sri Lanka, the island south of India, formerly called Ceylon, is in the midst of a political and military misunderstanding and the inhabitants are in need of such help from Marco. On the air we were having trouble with the "Russian Woodpecker." **Bob Morgan VE3OQM** and his cat **Bowser** continued to entertain Marco members with Bob's column, "News from Canada."

**Five years ago in Marco**

**February, 2013.**

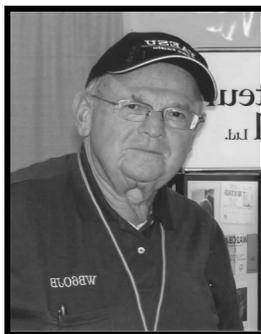
Plans for the April Annual meeting in Myrtle Beach are progressing according to President **Dr. Mary Favaro**... The question arose of whether a tomato is a fruit or a vegetable. **Bob Morgan VE3OQM** called it a "berry." **Jeff Wolf K6JW** stated it technically was a fruit but, for the record "I've never put it in a fruit salad, thus, I must be wise." **Arnold Kalan WB6OJB** also called the tomato a "berry" and was accused of spending too much time at Los Angeles' Knotts Berry Farm." **Charley Krim** went on to say, he had never been to Knotts Berry Farm but for taxing purposes the USDA and tax authorities classify the tomato as a vegetable. Eggplants and most cucurbits (cucumbers, melons, pumpkins and other edible gourds) fall under the same classification. **The real answer is:** The tomato botanically a fruit but it was called a "vegetable" by the Supreme Court in 1883, so that import taxes on tomatoes could be carried out.

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**Man vs. Woman:** To be happy with a man you must understand him a lot and love him a little. To be happy with a woman you must love her a lot and not try to understand her at all. A woman always has the last word in any argument. Anything a man says after that is the beginning of a new argument. A man is a person who will pay two dollars for a one dollar item he wants; a woman will pay one dollar for a two dollar item that she doesn't want. Women live longer than men because women aren't married to women. A successful man is one who makes more money than his wife can spend; A successful woman is one who can find such a man. A woman worries about the future until she gets a husband; A man never worries about the future until he gets a wife. A woman will always cherish the memory of the man who wanted to marry her. A man cherishes the memory of the women who he didn't marry.

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**MediShare News**

**Arnold Kalan, WB6OJB, Director**



Arnold wishes to remind all MARCO members that dues for 2018 are due on January 1, 2018. Take this opportunity to send a donation to Marco's **MEDISHARE INTERNATIONAL**, Marco's way of helping the less fortunate worldwide.

Arnold notes there is a donation to the less fortunate Ham-Medicals awaiting action—action which will probably be discussed

at the annual meeting in Orlando.

**FINAL CME RANKINGS, 2017**

**BOB CURRIER MARCO GRAND ROUNDS OF**

**THE AIR.** (Corrections to Marco)

14.342, Sundays, 11 am Eastern, One Hour Cat. II CME

CALL	HRS.	NAME	QTH
KD4GUA	45	Warren	Largo, FL.
N5AN	44	Bud	Lafayette, LA
KC9CS	42	Bill	Largo, FL
N5RTF	41	Chip	New Orleans, LA
N2JBA	41	Ed	Amenia, NY
NU4DO	40	Norm	Largo, FL
N4TSC	39	Jerry	Boca Raton, FL
WB9EDP	38	Harry	Batavia, IL.
W4DAN	37	Danny	Cleveland, TN
KK1Y	37	Art	Seminole, FL
KN0S	37	Dave	Virginia
WB6OJB	36	Arnold	Pac.Pal., CA
N9RIV	36	Bill	Danville, IL
K9QA	35	Rich	Knox, IN.
WB1FFI	33	Barry	Syracuse, NY
KM2L	32	Bruce	Clarence, NY
N6DMV	32	Paul	Torrance, CA
N2OJD	31	Mark	Sydney, Ohio
KE5SZA	31	John	Marietta, OK
KE8GA	30	George	N. Carolina
K6JW	30	Jeff	Palos Verdes, CA
WA3QWA	29	Mark	Chesapeake, VA
W0RPH	29	Tom	Denver, CO
W8LJZ	29	Jim	Detroit, MI
NOARN	28	Carl	Denver, CO.
W6NJY	26	Art	Beverly Hills, CA
WOUNZ	25	Paul	Warsaw, MO
WB2MXJ	25	Joe	St. Metairie, LA
WA1EXE	25	Mark	Cape Cod., Mass.
N9GOC	25	Pat	Champaign, IL.
K4RLC	23	Bob	Raleigh, NC
N8CL	22	Chuck	Albany, NY
N4MKT	19	Larry	The Villages, FL.
K0FS	18	Fred	St. Louis, MO
WA1HGY	17	Ted	Mass.
W1RDJ	17	Doug	Cape Cod, Mass.
KD5QHV	17	Bernie	El Paso, TX
K3IK	16	Ian	Shavertown, PA
W6BPP	16	Susan	Colorado
K9YZN	15	Mike	Crystal Lake, IL
N9HIR	13	Bill	Berwyn, IL
KC9ARP	12	Michelin	Batavia, IL
KB5BQK	10	Linda	El Paso, TX
W4MEA	9	Max	Tennessee
K1WDR	7	Wayne	Parish, FL
W3PAT	7	Marvin	Prosperity, SC
A1iN	7	Gonzo	Myrland
AE4BX	6	Mary	Myrtle Beach, SC
N4DOV	5	David	Ft. Lauderdale, FL

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	1602 (44 nets)	36.41
2013*	1400 (44 nets) (New Freq)	31.82 (Year of Terrorist)
2014	1756 (47 nets)	37.36
2015	1722 (49 nets)	35.14
2016	1687 (46 nets)	36.67
2017	1536 (46 nets)	34.13

Record number of stations checked-in was 51, on Feb. 24, 2013

## LET'S TALK ABOUT YOUR ELEVATED PSA

One of our listeners on MARCO Grand Rounds wrote: "My doctor recently had me tested with a blood test called a 4K. Thankfully results were excellent, but I do not remember this being discussed on the net before and the internet information on this is limited. Any urologists in MARCO that could weigh in with opinions please advise."

The 4Kscore is a simple blood (plasma) test that provides men with an accurate and personalized measure of their risk for aggressive, potentially lethal, prostate cancer. (A Gleason score is from the pathology report of a prostate biopsy not a blood test.) The 4Kscore test is used after an elevated PSA or clinical findings suspicious for prostate cancer, to help patients and doctors make informed decisions about the need for a prostate biopsy. (On Grand Rounds, 31 Dec., we learned that this test has been available for at least the past 12 months and consists of 4 bio-markers, Total PSA, Free PSA, Intangible PSA & human

Kallikrein related peptidase.) We also learned that most men die WITH the disease & not FROM it. If you get back a NEG. 4Kscore you have near zero chance of prostate cancer for ten years.

The test categorizes your risk of aggressive prostate cancer metastasis for up to 20 years.

The 4Kscore test is NOT indicated in men with: Previous diagnosis of prostate cancer. Digital Rectal Exam (DRE) performed in the previous 96 hours before phlebotomy. 5-alpha reductase inhibitor medication within previous 6 months. Prostate procedure within the past 6 months. Men younger than 40 or older than 80 years of age.

Prostate cancer screening is commonly done by using a Prostatic Specific Antigen (PSA) blood test and/or a digital rectal exam. If prostate cancer is suspected a prostate biopsy may be performed.

There are some challenges with current prostate cancer detection methods.

**PSA does NOT distinguish between indolent (non-life-threatening) and aggressive (potentially lethal) forms of prostate cancer.**

About 75% of men undergoing a prostate biopsy are found to have no cancer or the indolent form of prostate cancer, while enduring the pain and possible complications associated with the biopsy procedure.

Many men not found to have aggressive prostate cancer by biopsy will in fact have aggressive prostate cancer.

**Do you need a 4Kscore test?** If you have an abnormal PSA test result and/or DRE; An inconclusive MRI. Any clinical findings suspicious for aggressive prostate cancer.

**What does your 4kscore test results mean? Low Risk:** Your probability of having aggressive, potentially lethal cancer is very low. Your doctor may wish to continue monitoring you. **Elevated Risk:** Your doctor will evaluate the 4Kscore test results in conjunction with additional clinical information and discuss with you the appropriate next steps.

**How much does a 4Kscore test cost?** Coverage for all lab tests depends on your particular insurance company. For those who do not have insurance, or who choose to pay out-of-pocket, Gen Path offers the 4Kscore test at an affordable price. (late information received indicates a price of about \$400/test.) Ask your doctor's office staff for more information or call BioReference 800-229 5227 or contact them on the net at [www.BIOREFERENCE.COM](http://www.BIOREFERENCE.COM)

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**ACUPUNCTURE**...(related to lecture of Jan. 13, Marco Grand Rounds) ...Paul Lukas N6DMV writes: While working at the Siemens biomed service a very nervous German associate was so addicted to smoking that he often had 3 cigarettes placed at different locations emitting smoke...one morning he came in smiling and no cigarettes. We asked him, "What happened?" Smilingly, he said he had seen a Chinese acupuncturist and received several needle jolts. From that point on, he did not smoke and stayed calm.

**Here is how I quit smoking:** I was addicted to 3 packs/daily...one morning everything came out of me & I decided to do something. I stamped on the cigarettes, matches too, stood in the middle of the room and received a huge slap on my face, almost fell over, with nobody in the room. I clicked my heels in military fashion and threw out all the smoking paraphernalia ..since then I haven't smoked a single cigarette and haven't let anyone smoke in my house. (What do you call that? Shock therapy?—certainly NOT acupuncture.)

## 9

## GREETINGS FROM YOUR PRESIDENT

Richard Lochner, M.D., K9QA, President of Marco

Time is winding down quickly; just a few days after you read this the torch will pass to AA4FL Jay. Seems like it was just yesterday we met in Dayton and I became President-Elect. How fast the time has passed. Marcia began watching the weather in Orlando as soon as the place was announced. Although this year seems to be a little cooler than usual and there has been some snow, Warren quickly announced that today, January 7, 2018, there is a temperature of 70 degrees. Bring it on. And here in Indiana we are emerging from a deep freeze with -28 wind chills/ Gotta love Indiana to live here.

We look forward to being with you in Orlando for the Annual Meeting and HamCation. We went to Portland, OR by sleeper last year and liked it so much we will be traveling that way again. Passing through DC and on to Orlando and back in a week. Relaxing at TSA! Too many things to do and too little time to do it, this will be a busy time in Orlando.

I probably wouldn't be here if my Residency Director hadn't related success to 20 WPM code and hired me in 2000 at 54. He too is a Ham in every sense of the word. And I hope to see him and his bride in or around Orlando in the week we are there. They are a great couple and I hope you can meet them at our meeting. He is never at a loss for words. He changed the direction of my life and I continue to practice at 71. I guess I should say Marcia had a lot to do with it too. Tell you more when we see you. By the way, he is a member of MARCO.

I have sent Warren another picture for the Aether. I looked great until I started medicine. And the color went fast. This is my Residency picture. You know, the one that practices have in the waiting room to introduce staff to patients. What a change from then to now.

Change is good and Jay will take the helm. I know you will be in good hands. Never expect the same way of doing things but expect to be challenged and allowed to grow.

See you on the radio,

Rich, K9QA

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## A MARINE'S CONSCIOUS

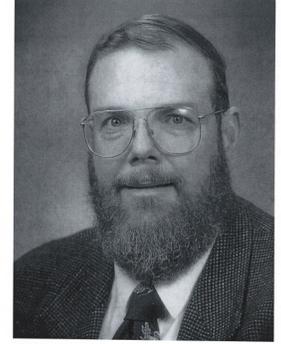
By Marine Capt. Timothy Kudo, Iraq & Afghanistan 2009-2011

When I joined the Marine Corps, I knew I would kill people I was trained to do it in a number of ways, from pulling a trigger to ordering a bomb strike. As I got close to deploying to war in 2009, my lethal abilities were refined, but my ethical understanding of killing was not.

I held two seemingly contradictory beliefs. Killing is always wrong but in war, it is necessary. How could something be both immoral and necessary? I didn't have time to resolve this question before deploying and in the first few months, I fell right into killing without thinking twice. We were simply too busy to worry about the morality of what we were doing.

Many veterans are unable to reconcile such actions in war with the biblical commandment, "Thou shalt not kill." When they come home from an environment where killing is not only accepted but is a measure of success, the transition to one where killing is wrong can be incomprehensible. This can have devastating effects. The question, "Did you kill anyone?" isn't easy to answer. *Capt. Kudo summarizes, when they are out to kill you, you must kill them first.* Pilots usually rationalize by saying, "I shot a plane down, not a fellow human," or "I bombed a factory not the workers."

How many of us have thought about how the infantryman going into France on D-Day felt...an 18-21 year suddenly realizing it is either he or me! And then later trying to rationalize his behavior under that almost unthinkable situation. Think about it.



# BLADDER CANCER & TREATMENT

As presented on MARCO Grand Rounds of the Air, Oct. 29, 2017

10

Bladder cancer is the 6th most prevalent malignancy in the U.S. and causes more than 16,000 deaths annually. The most common clinical presentation is asymptomatic hematuria, which should prompt evaluation with cystoscopy, renal function testing, and upper urinary tract imaging in adults 35 years and older and in those with irritative voiding symptoms, risk factors for bladder cancer, or gross hematuria at any age. TUR of the bladder tumor allows for diagnosis, staging and primary treatment. Non-muscle-invasive disease is treated with transurethral resection, most often followed by intravesical Bacilli Calmette-Guerin (BCG) or intravesical chemotherapy. Bladder cancer that invades the muscle layer is typically treated with radical cystectomy and neoadjuvant chemotherapy because of higher rates of progression and recurrence. No major organization recommends screening asymptomatic adults for bladder cancer.

About 90% of affected patients are older than 55 with a mean age of 73. Men are three to four times more likely than women to develop the disease, with a lifetime risk of 1 in 26 for men and 1 in 88 for women. Bladder cancer affects whites about 2X more often than Blacks or Hispanics, but it is more likely to be diagnosed at an advanced stage in Blacks. As the incidence of the disease has decreased, bladder cancer-related mortality has decreased for women but remains unchanged for men.

**Risk factors** include male sex, older age, white race, occupational exposure to certain chemicals, pelvic radiation, use of medications such as cyclophosphamide, chronic bladder infection/irritation, family history and cigarette smoking. Studies have also suggested additional associations including diabetes mellitus, obesity and human papillomavirus. Use of Actos for more than one year is independently associated with a slightly increased risk of bladder cancer. Consuming large amounts of processed red meat may also slightly increase risk.

**Clinical Presentation...**Painless hematuria is the most common symptom. Patients with advanced disease may present with symptoms related to metastatic involvement. The most common sites for metastasis include the lymph nodes, bone, lung, liver and peritoneum. Px findings are often unremarkable.

**Upper urinary tract imaging...**Multiphase CT urography with and without I.V. contrast and excretory imaging should be included in the initial workup. Magnetic resonance urography and ultrasonography are alternative imaging options for patients with contraindications to CT urography, such as pregnancy, contrast allergy or renal insufficiency. Renal ultrasound may be considered in addition to CT urography for patients who have suspected renal parenchymal disease. If metastases is suspected, chest radiography and imaging of the abdomen and pelvis with CT or MRI should be obtained.

**Initial treatment...**Management of bladder cancer depends on the pathologic extent of disease and on subsequent staging according to the tumor-node-metastasis classification system. Non-muscle-invasion is most often treated with TURBT followed by single-dose I.V. immunotherapy with bacilli Calmette-Guerin (BCG) or intravesical chemo in tumors with greater risk of progression or recurrence. CT or MRI is often used to evaluate invasion beyond the bladder. Because of the increased risk of progression, bladder tumors that invade the muscle are typically treated by radical cystectomy with extended lymphadenectomy, preceded by cisplatin based neoadjuvant chemo. Bladder preservation is an option in certain patients usually followed by chemo and radiation.

**Non-Muscle-Invasive bladder cancer...**About 70% to 80% of bladder cancers present as non-muscle-invasive tumors. Of these, 60 to 70% are confined to the bladder mucosa (stage Ta) 20 to 30% demonstrate invasion to the subepithelial connective tissue (stage T1), and about 10% present as carcinoma in-situ. The primary treatment for non-muscle-invasive bladder cancer is TURBT, usually followed by immediate instillation of BCG or intravesical chemo (mitomycin C, epirubicin (Ellence), or doxorubicin (Adriamycin.) The decision to install BCG and/or chemo is based on the risk of cancer progression or recurrence. A risk calculator is available at <http://www.eortc.be/tools/bladdercalculator>.

For low-risk tumors (low grade Ta), TURBT with immediate instillation of chemo is recommended as compete therapy. Patients with high risk non-muscle-invasive tumors (high-grade Ta and T1) have about a 50% chance of recurrence with muscle-invasive disease if treated with TURBT alone,

and rare therefore typically treated with TURBT and intravesical BCG (preferred) or mitomycin C. In patients with high-grade Ta or T1 tumors, 10-year recurrence-free survival after TURBT and BCG is about 80%.

About 1/2 of patients with non-muscle-invasive carcinoma in situ will progress to muscle-invasive disease without treatment.

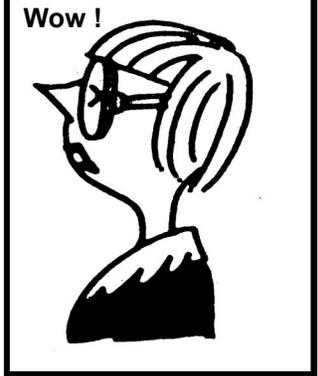
**Muscle-invasive bladder cancer...**Radical cystectomy with bilateral pelvic lymphadenectomy and cisplatin-based neoadjuvant chemo are strongly recommended for all with respectable nonmetastatic muscle-invasive bladder cancer. 5-year survival rates with cystectomy alone are only about 50%; neoadjuvant chemo can improve survival especially in patients at high risk of progression, those with nodal involvement, high-grade tumors or transmural or vascular invasion.

When used in conjunction with cystectomy, cisplatin based Rx demonstrated an absolute 5-year survival benefit of 5% to 8%. Segmental (partial) cystectomy and neoadjuvant cisplatin based chemo may be appropriate for select patients. Extensive lymph node dissection is associated with overall survival. Compared with open surgery, a laparoscopic approach is associated with similar recurrence and survival rates.

Bladder reconstruction may involve continent reservoir or ileal conduit urinary diversion depending on tumor characteristics and patient preferences. However, neither approach has evidence of improvement in long-term outcomes.

Overall survival for patients with muscle-invasive bladder cancer is 66% at five years after radical cystectomy and extensive lymph node dissection and 50 to 60% with bladder preservation therapy.

**Prognosis...**Survival rates vary for different types of bladder cancer, with 5-year rates ranging from 96% for carcinoma in situ to 5% with distant metastases.



## Follow-up for Bladder Cancer

<u>Tumor state</u>	<u>Follow-up</u>
Low-grade Ta in T1 or high-Ta	Cystoscopy at 3 months, then at creasing intervals. Cystoscopy and urine cytology every 3 to 6 months for 2 years, then at increasing intervals. Consider imaging of the upper tract Every 1-2 years. Consider testing for urinary tumor markers for urothelial CA. Maintain BCG immunotherapy if previously used.
T2 or greater (muscle-invasive Disease)	Urine cytology with creatinine and electrolyte levels as indicated. Imaging of chest, abdomen and pelvis with tomography or MRI 6-12 mos for 2-3 years, then annually. After bladder sparing surgery: Urine cytology, creatinine and electrolytes, liver function tests every 3-6 mos for 2 years then as indicated. Imaging as above. Cysto & urine cytology with or without selected mapping biopsy every 3-6 mos for 2 years, then as appropriate. Consider urethral wash cytology every 6 to 12 months. After cystectomy and continent reservoir urinary diversion, vitamin B12 level annually.

**WHY AN "X" IS A KISS...**Our custom of putting X's at the end of letters to symbolize kisses grew out of medieval legal practices. In order to indicate good faith and honesty, the sign of St. Andrew—a cross—was placed after the signature on all important documents. Thereafter, contracts were not considered binding until each signer added St. Andrew's crosses after his name. Then he was required to kiss the document to guarantee performance of his obligations. The cross was drawn hurriedly, and often it was tilted and looked much like the letter "X."

Tardive dyskinesia (TD) (meaning “delayed” & abnormal movement) is a disorder that results in involuntary, repetitive body movements. This may include grimacing, sticking out of the tongue or smacking of the lips. There may be rapid jerking movements or slow writhing movements. In about 20%, decreased functioning results along with bradykinesia, rigidity and pill rolling tremor commonly termed extra pyramidal syndromes. This is a fascinating subject!



**TD occurs as a result of long-term use of narcoleptic medications (antipsychotics to treat schizophrenia & bipolar disorders, although it has been found in 40% of schizophrenics who have NOT, taken drugs) and medications used for gastrointestinal problems.**

Having too much Dopamine in the wrong places can make you psychotic and cause euphoria, aggressiveness and intense sexual feelings along with high blood pressure and feelings of reward.

**Dopamine Receptor Blocking Agents —DRBAs, block dopamine receptors lower Dopamine which is usually high in Schizophrenia and it is thought that the use of these drugs cause breakdown products that cause TD. However further research is needed to investigate the role of dopamine in TD.**

The name Tardive Dyskinesia first came into use in 1964 with the early use of first generation neuroleptics (or typical antipsychotics or major tranquilizers) such as phenothiazine drugs (**Thorazine** or chlorpromazine, **Dridol**, **Haldol**, **Stelazine**, **Mellaril**, **Prolixin**, **Loxapin** ((**Loxitane**)), **Pimozide** ((used to treat Tourette syndrome)), **Navane** and **Sparine**.) These symptoms are similar to Huntington’s disease, cerebral palsy, dystonia and Tourette’s syndrome. However, TD existed before the development of these new agents. People with schizophrenia are *especially venerable* to the development of TDs after exposure to conventional neuroleptics.

Because of the adverse effects of the major tranquilizers, (Thorazine etc.) second-generation, or atypical antipsychotic agents were introduced beginning in the 1970s with clozapine (**Clozaril**), Olanzapine (**Zyprexa**) and Quetiapine (**Seroquel**), all members of the benzodiazepine family.

Other dopamine antagonists and anti-emetics can cause TD, such as metoclopramide (**Reglan 10 mg tablet**) used to treat delayed gastric emptying and reflux and promethazine used to treat G.I. disorders, nausea and restlessness.

An increased risk of TD has been associated with smoking. Elderly patients are also at a heightened risk for developing TD, as are females and those with organic brain injuries or diabetes mellitus and those with the negative symptoms of schizophrenia. TD is also more common in those that experience acute neurological side effects from antipsychotic drug treatment. Racial discrepancies in TD rate also with African Americans having higher rates of TD after exposure to antipsychotics and certain genetic risk factors for TD have also been identified.

Increasingly, atypical antipsychotics are being used for a growing range of indications such as major depression, anxiety, and insomnia. Potential adverse effects of the atypical antipsychotic agents can be more harmful than the first-line treatment agents for these newer indications.

**Prevention:** Use the lowest effective dose of a neuroleptic (or **antipsychotic**) for the shortest time. T.D. may persist for months and years after withdrawal of the intimidating drug.

**Diagnosis:** The AIMS Examination (*Abnormal Involuntary Movement Scale, 1970*) The test is not meant to tell whether there is an absence or presence of TD. It just scales to level of symptoms indicated by the actions observed, in involuntary movements. The levels range from none to severe. Tracking the AIMS consistently can help track severity of TD over time.

**Treatment:** Besides the old-fashioned drugs, newer ones have ar-

rived: Valbenazine, (**Ingrezza**), Amantadine (**Symmetrel**), Clonazepam (**Klonopin**), Tetrabenzine (**Xenazine**), the later being the only one approved. Tetrabenzine, which is a dopamine depleting drug is sometimes used to treat chorea associated with Huntington’s disease. A-Methyldopa, Ginkgobiloba, Melatonin, Vit. E, B6 and Reserpine have been tried with limited success along with donepezil, baclofen, premipexole, Clonidine, Even Botox injections are used for minor focal dystonia but not in more advanced cases. zBenzodiazepines are an effective first treatment for TD but tolerance usually develops which requires ever increasing doses. The most popular benzo is clonazepam (**Klonopin**).

Notice there are multiple choices of drugs available and it seems like only certain people will respond to certain drugs. Recently, deutetrabenzine (**Austedo**) has been used but has potential adverse affects such as depression and suicidal thoughts. It should not be taken if there are liver problems, taking a MAOI within 14 days, reserpine (**Serpalan**, **Renese**) within 20 days or are taking Valbenazine (**Ingrezza**). It can also cause prolonged QT intervals on ECG.

**Epidemiology:** T.D. most commonly occurs in patients with psychiatric conditions who have been treated with antipsychotic medications for many years. The average prevalence rate is around 30% after 5 years drug treatment and 57% by 15 years and 68% by 25 years. You can get TD if you take an antipsychotic drug, usually for 3 months or more but there have been rare cases after a single dose of an antipsychotic medicine.

**Dopamine**, is a brain neurotransmitter that is derived from L-Dopa which is used to send signals to other nerve cells. The brain includes several distinct dopamine pathways, one of which plays a major role in reward-motivated behavior. Most types of rewards increase the levels of dopamine in the brain, and many addictive drugs increase dopamine neuronal activity. Other brain dopamine pathways are involved in motor control and in controlling the release of various hormones. These pathways and cell groups form a dopamine system which is neuromodulatory.

Outside the CNS, dopamine functions primarily as a local chemical messenger. In blood vessels, it inhibits nor-epinephrine release and acts as a vasodilator; in the kidneys it increases sodium excretion and urine output; in the pancreas, it reduces insulin production; in the digestive system, it reduces gastrointestinal motility and protects intestinal mucosa; and in the immune system, it reduces the activity of lymphocytes. With the exception of the blood vessels, dopamine in each of these peripheral systems is synthesized locally and exerts its effects near the cells that release it.

Some important diseases of the nervous system are associated with dysfunctions of the dopamine system, and some of the key medications used to treat them work by altering the effects of dopamine. Parkinson’s disease, a degenerative condition with low Dopamine levels causing tremor and motor impairment is a prime example. In other words, when you have too little of it, your movements can become jerky and out of control.

In rare cases, drugs including lithium, selective serotonin & Norepinephrine reuptake inhibitors (SNRIs) such as **Luvox**, **Lexapro**, **Celexa**, **Paxil**, **Prozac**, **Zoloft**, **Luvox**, and selective serotonin & norepinephrine reuptake inhibitors (SNRIx) such as **Effexor** & **Cymbalta** have reportedly caused TD according to recent reports.

**WHY COVERED BRIDGES?** Bridges were covered during the early days because some horses feared crossing water—with the bridge covered, it was like entering a barn. The bridges also provided shelter during bad weather.

\*\*\*\*\*  
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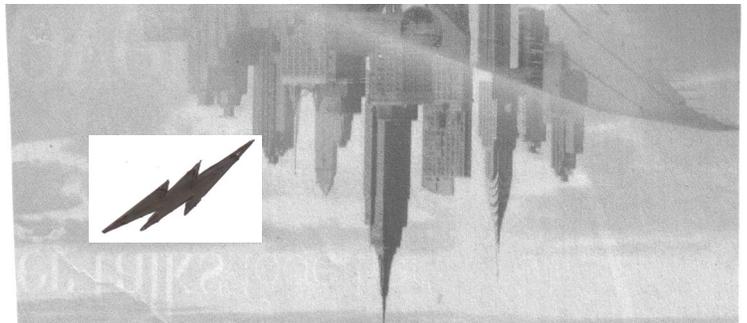
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