MARCO's "*AETHER*" *Pronounced "Ether"*

Healthcare & Radio in One Medium

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CORONA VIRUS FIRST HAND

FIRST-HAND ACCOUNTS OF REPORTS COMING IN FROM THE CORONA PANDEMIC VICTIMS.

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March 24th, 2012…*(From Marco's Warren J. Brown, M.D., KD4GUA).* I was in my second-floor home-office when suddenly on peering out the window I see a large noisy fire truck pull up at my address...on waiting for him to move-on, he didn't. Instead two muscular firemen jumped off the truck and headed for my house!

I dashed down the stairs to find my son holding my wife Margaret in his arms...she had been ill with an upper respiratory infection and had suddenly stopped breathing.

CPR worked and she was taken by a noisey ambulance to the local hospital—admitted with NO visitors to an isolation ward. Tests showed a positive for the feared Covid-19 virus.

Four days later my son and I decided, on good advice, to get tested for the virus and we drove to a tent located close to the St. Petersburg, Florida International Airport, where masked nurses swabbed both our nostrils.

"*We will phone you the results in about seven days,"* Three days later, feeling apprehensive, with fever, I drove to the local hospital and told them I had been tested but no report and I wanted to make sure I hadn't contacted the disease. Before I realized what had happened I was admitted for observation.

My hospital stay of 8 days was not pleasant as I attempted to recover my fuzzy memory. I was isolated with single booby-trapped chairs which prevented me from changing my sitting position. If I attempted to move from chair to bed an alarm would resound through the hallways "beep, BeeP, BEep BLAST! The nurses, dressed in astronaut garb, would try pathetically try to calm my apparent fears of total isolation—I was a prisoner of one chair.

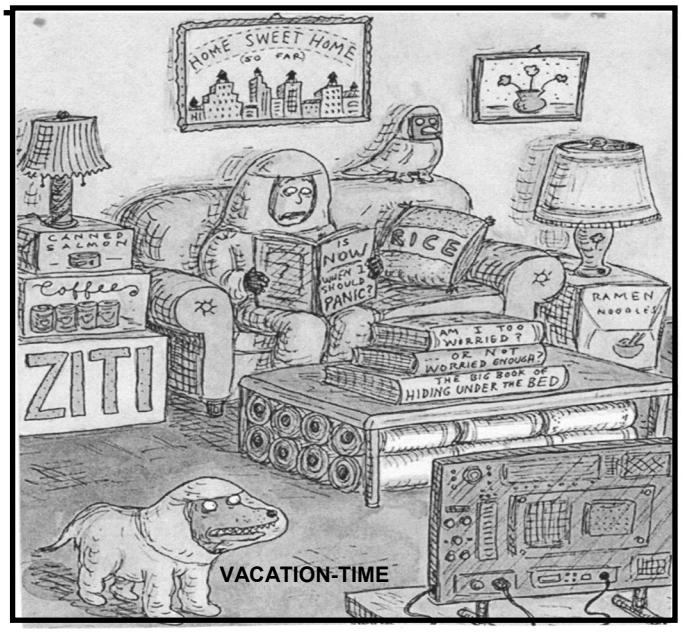
I was continuously bombarded by hallucinations—I owned a mechanical cat I was petting (*according to my daughter via telephone).* I was talking to people who weren't there and my ability to taste, smell & appetite had totally disappeared.

My condition gradually got worse and my assigned physician finally stated, "*I am afraid we will have to move him to the ICU unit* —Then suddenly, I heard a bugle call "*Retreat!" (Having been an ex-Navy bugler I recognized the call)* I could virtually see my vision brighten and a glow seemed to take over my reality. I began to curse at the non-visualized viral hordes—calling them all sorts of bad names and could feel my attitude brighten as I hastened their departure.

Apparently my actions were impressive enough to the attending physician who determined that with help from my son, I could rehab better at home and on April 7th I was allowed to visit my wife, who unknowingly was in the very next room and for me to be allowed to be quarantined at home.

They wheeled me into my wife's room and left me in a room which I remember as a dark dungeon and I was able to talk to her. She was lying

Continued on Page Two



LATE BREAKING NEWS

The new AETHER format, consisting of an internet copy followed by a mailed paper copy every other issue seems to be working out...the next edition in February will be via internet with the next printed edition in April….

The November issue of QST magazine features Jay's AA4FL, fine article *"Mini DXpeditions on a Cruise with MARCO."* It tells about MARCO's 2019 cruise ship travel to Belize, Honduras and the Grand Cayman islands. The 24 Hams and spouses embarked with all the documentation needed to hold air-time operating events on shore. Since the DXpedition and QST article we have gained 23 new MARCO members.

Executing the DX portion of the trip was a bonding experience and the publicity generated made the amateur world aware of MARCO.

Regular influenza vaccination (*see page 11)*...continues to be recommended for all people six months and older and is especially important during the COVID-19 pandemic to reduce health-care systems burden.

Our next MARCO Board Zoom meeting will be held **Saturday, Jan. 16th at 1600 UTC**. All members are invited to attend. The first digital radio (DMR) conference is in the planning stages ...if you have a specific request for a conference on a medial subject notify Jay at jay.aarfl@gmail.com.

Dues renewal time, January 1, 2021, don't be the last to send in your annual—to keep MARCO perking…….*See Page 12.*

WRITE TO US!
We welcome your comments. Email to Aether@marco-ltd.org Letters may be edited for brevity & clarity. Unedited member articles & graphics are not the opinions of MARCO-ltd.

MARCO NET SCHEDULE

DAY	EASTERN	FREQ.	NET CONTROLS
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
Wednesday	8:30 p.m. Eastern	7.22	Harry, WB9EDP

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

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.

face down gasping for air asking me personal questions such as "*Do you love me? I don't believe you! Etc*….At the same time she was *clawing* at this delusional mud-like brown material. After an unknown period I was taken back to my room and later that day discharged to home-health care.

Additional items that later came to mind include the similar feelings I had when I was "*put under*" for a heart bypass nine years ago...an hallucination that I was in a dark underground tunnel with fluid flowing in two directions and that fortunately I had chosen a small kayak-like boat that was flowing in the right direction—towards continued life ….it also reminded me of the grotesque illusions I had when I was given hypnotics for previous orthopedic surgery *(such as snakes climbing up the walls).*

The day after my discharge, April 9th, my wife expired...change of scenery was a great relief to me. During her stay she was isolated from all but the medical personal—-even the children were unable to say "*goodby."*

At home, I did a great deal of sleeping, continuing to talk to unknown *real-phony* people but this subsided after about a week….I was placed on continuous 2.5X oxygen flow via catheter and now, six weeks later, remain only partially weened from its help. (*went off all I.N. oxygen June 3).*

Summary: A short trip to hell and back. Now feel about 95% recovered thanks to help from the visiting nurses and my son. This aided by a self-help rehab of swimming backstroke with & finally without oxygen, 20 laps daily in a heated personal pool.

One thing I have noted at this point...an IgA vasculitis (*formerly called the Henoch-Schonlein purpora) a* rash appearing on my both legs apparently caused by a low platelet count which is notorious on appearing after various virus respiratory infections. I have not seen this in the literature and may be an additional complications of this un-wholesome disease.*

'Doc" Brown, KD4gua.

(*Previously incompletely reported in Jay's AETHER #122. Others experiences undergoing this virus would aid the reader with first-hand information pertaining to accurately diagnosing this condition.)

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….**Things to come (or went)???? The late Canadian Marco member Bob Morgan VE3OQM, submitted the below to MARCO in September 1999…..**Sydney, Australia, Sept 21, 1999...Half of Australia's family doctors say they would not choose their profession if they could turn back time and 3/4 say they would never advise a young person to become a family physician.

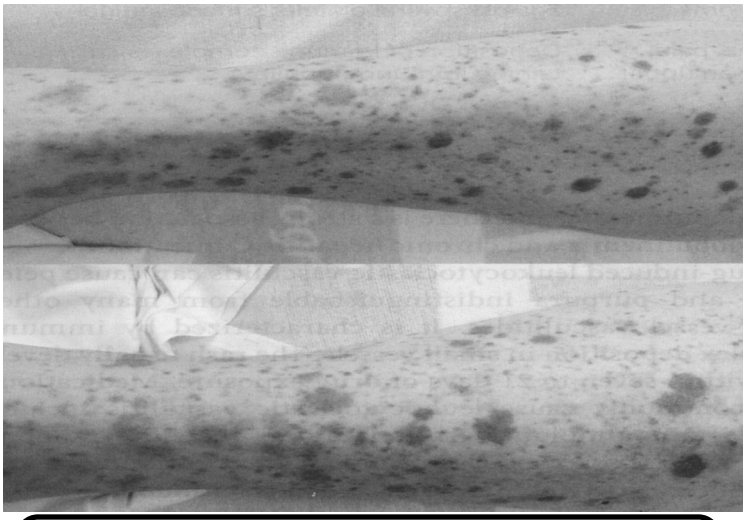
Research conducted for "*Australian Doctor*," a newspaper for medical professionals discovered wide-spread discontent among doctors.

Poor pay, long hours, growing legal pressures and constant criticism are some of the factors doctors claim are making the profession unbearable. Researchers interviewed nearly 3,000 doctors on their experiences.

Reacting to the findings, the Australian Medical Association's chairman noted family doctors earn an average of $80,000 (Canadian-1999) for a 55 –hour work week.

The survey found that less legal and bureaucratic pressure headed the wish list along with less paper work, less criticism by the media and better-after hours support.

Since then, conditions in the States have followed suit but now indicating more legal problems and more electronic paper work. But better after-hours support and less media problems. Progress slow but world-wide? Question...would you choose medicine the next time



Reddish-purple rash of IgA vasculitis (*formerly called "Henoch-Schonlein purpura)* which may appear after an upper respiratory infection. The rash usually resolves after two months without treatment.

MAJOR PANDEMICS IN HISTORY

Yellow Fever outbreak (1793)...5,000 deaths in Philadelphia out of a population of 28,500.
Typhoid Fever outbreak (1906-1907)...10,771 deaths, mostly in New York.
Spanish Flu pandemic (1918-1920)...675,000 deaths out of a U.S. population of 103 million. (50 million deaths worldwide.)
Diphtheria outbreak (1921-1925)...206,000 Americans stricken, 15,520 deaths.
Polio epidemic (1916-1955)...57,628 Americans stricken; 3,145 deaths.
Asian Flu pandemic (1957-1958)...116,000 American deaths out of a population of 171 million.
H3N2 pandemic (1968)...100,000 American deaths out of a population of 200 million.
H1N1 Swine flu pandemic (2009-2010)... Up to 18,306 American deaths out of a population of 306 million.
2018-2019 Influenza-A season... Up to 52,664 American deaths out of a population of 326 million.
2019-2-020 Influenza-A season (Oct. 2019-March 2020)...55 millions stricken out of a population of 328 million.)
COVID-19 pandemic (Dec. 2019-present)...988,469 Americans stricken, 56253 deaths through April 28, 2020 & a population of 328.2 million

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Static electricity was the first kind of electricity to be discovered. The conservation of charge states that electric charge is neither created nor destroyed. The total amount of electric charge in the universe remains constant.

HISTORY OF AMATEUR RADIO

The history of amateur radio, dates from the dawn of radio communications, with published instructions for building simple wireless sets appearing at the beginning of the 20th century. Throughout its history amateur radio enthusiasts have made significant contributions to science, engineering, industry, and social services. Research by amateur radio operators has founded new industries, built economics, empowered nations, and saved lives in times of emergency.

Amateur radio came into being , after radio waves (proved to exist by Heinrich Rudolf Hertz in 1888) were adapted into a communication system in the 1890s by the Italian inventor Guglielmo Marconi. In the late 19th century there had been amateur wired telegraphers setting up their own interconnected telegraphic systems. Following Marconi's success many people began experimenting with this new form of "*wireless telegraphy*." Information on "*Hertzian wave"* based wireless telegraphy systems (the name "*radio*" would not come into common use until several years later) was sketchy, with magazines such as the Nov. 1901 issue of *Amateur Work* showing how to build a simple system based on Hertz' early experiments. Magazines show a continued progress by amateurs including a 1904 story of two Boston, Mass. 8th graders constructing a transmitter and receiver with a range of 8 miles and a 1906 story about two Rhode Island teenagers building a wireless station in a chicken coop. In the U.S. the first commercially produced wireless telegraphy transmitter/receiver system became available to experimenters and amateurs in 1905. In 1908 students at Columbia University formed the Wireless Telegraph Club, now the Columbia Amateur Radio Club. This is the earliest recorded formation of an amateur radio club, collegiate or otherwise. In 1910, the Amateurs of Australia formed, the now the Wireless Institute of Australia.

The rapid expansion and even "*mania*" for amateur radio, with many thousands of transmitters set up by 1920, led to a wide spread problem of inadvertent and even malicious radio interference with commercial and military radio systems. Some of the problem came from amateurs using crude spark-transmitters that spread signals across a wide part of the radio spectrum. In 1912 after the RMS Titanic sank, the U.S. Congress passed the Radio Act of 1912 which restricted private stations to wavelengths of 200 meters or shorter (1500 kHz or higher). These "short wave" frequencies were generally considered useless at the time, and the number of radio hobbyists in the U.S. is estimated to have dropped by as much as 88%. Other countries followed suit and by 1913, the International Convention for the Safety of Life at Sea was convened and produced a treaty requiring shipboard radio stations to be manned 24 hours a day. The Radio Act of 1912 also marked the beginning of U.S. Federal licensing of amateur radio operators and stations. The origin of the term "Ham", as a synonym of radio amateur radio operator, was apparently a taunt by professional telegraphers

WORLD WAR I...By 1917, WW I had put a stop to amateur radio. In the U.S. , Congress ordered all amateur radio operators to cease operation and even dismantle their equipment. These restriction were lifted after WW I ended, and the amateur radio service restarted on October 1, 1919.

BETWEEN THE WARS... In 1921, a challenge was issued by American hams to their counterparts in the U.K. to receive radio contacts from across the Atlantic. Soon, many U.S. stations were beginning to be heard in the UK, shortly followed by a UK amateur being heard in the US in Dec. 1922. Nov. 27, 1923 marked the first transatlantic two-way contact between American amateur Fred Schnell and French amateur Leon Deloy. Shortly after, the first two-way contact between the UK and USA was in Dec. 1923, between London and West Hartford, Connecticut. In the following months 17 American and 13 European amateur stations were communicating. Within the next year, communications between North and South America; South America and New Zealand; North America and New Zealand; and London and New Zealand were being made.

These International Amateur contacts hoped prompt the first International Radiotelegraph Conference, held in Washington, DC in 1927-28. At the conference, standard international amateur radio bands of 80/75, 40, 20 and 10 meters and radio call sign prefixes were established by treaty.

In 1933 Robert Moore, W6DEI, began single-sideband voice experiments on 75 meter lower sideband. By 1934, there were several ham stations on the air using single-sideband.

WORLD WAR II... During the German occupation of Poland, the priest Fr. Maximilian Kolbe, SP3RN was arrested by the Germans. The Germans believed his amateur radio activities were somehow involved in espionage and he was transferred to Auschwitz on May 28, 1941. After some prisoners escaped in 1941, the Germans ordered that 10 prisoners be killed in retribution. Fr. Kolbe was martyred when he volunteered to take the place of one of the condemned men. On Oct. 10, 1982, he was canonized by Pope John Paul II as Saint Maximilian Kolbe.

Again during WW II as it had been done during the first World War, the U.S. Congress suspended all amateur radio operations. With most of the American amateur radio operators in the armed forces at this time, the US government created the War Emergency Radio Service, which would remain active through 1945. After the War the amateur radio service began operating again, with many hams converting war surplus radios, such as the ARC-5, to amateur use

POST WAR ERA... In 1947 the uppermost 300 kHz segment of the world allocation of the 10 meter band from 29,000 MHz to 30,000 MHz was taken away from amateur radio.

During the 1950s, hams helped pioneer the use of single-sideband modulation for HF voice communication and the first orbital amateur radio satellite was launched. OSCAR 1 would be the first of a series of amateur radio satellites created throughout the world.

Ham radio enthusiasts were instrumental in keeping U.S. Navy personnel stationed in Antarctica in contact with loved ones back home during the International Geophysical Year during the late 1950s.

LATE 20TH CENTURY... At the 1979 World administrative radio conference in Geneva, three new amateur radio bands were established: 30 meters, 17 meters and 12 meters. Today, these three bands are often referred to as the WARC bands.

During the Falklands War in 1982, Argentine forces seized control of the phones and radio network on the islands and had cut off communications with London. Scottish amateur radio operator Les Hamilton, GM3ITN was able to relay crucial information from fellow hams Bob McLeod and Tony Pole-Evans on the islands to British military intelligence in London, including the details of troop deployment, bombing raids, radar bases and military activities. During the 1999 NATO bombing of Yugoslavia, Yugoslav amateur radio operators exchanged information from posts in public shelters. However, owing to an informal code of conduct, radio hams usually avoid controversial subjects and political discussions.

Major contributions to communications in the field of automated message systems and packet radio were made by amateur radio operators throughout the 1980s. These computer controlled systems were used for the first time to distribute communications during disasters.

American entry-level Novice and Technician class licenses were granted CW and SSB segments on the 10 Meter Band in 1987. The frequency ranges allocated to them are still known today throughout much of the world as the Novice Sub Bands even though it is no longer possible to obtain a Novice class license in the US.

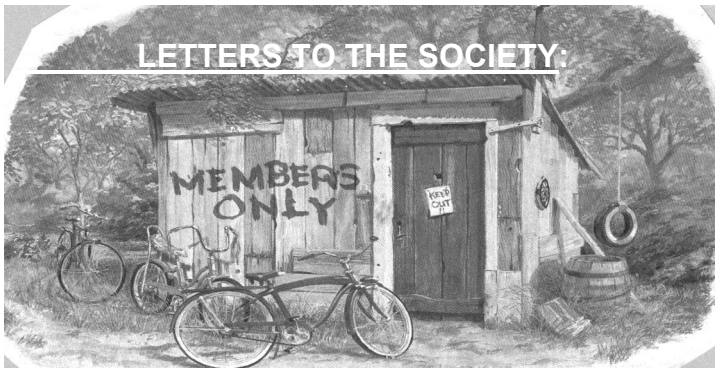
Further advances in digital communications occurred in the 1990s as Amateurs used power of PCs and sound cards to introduce such modes as PSK31 and began to incorporate Digital Signal Processing and Software-defined radio into their activities.

21ST CENTURY... For many years, amateur radio operator were required by international agreement to demonstrate Morse code proficiency in order to use frequencies below 30 MHz. In 2003 the World radio communications conference (WRC) met in Geneva and voted to allow member counties of the International Telecommunications Union to eliminate Morse code testing if they so wished. On Dec. 15, 2006, the US FCC issued a report and order eliminating all Morse code testing requirements for all US Radio License applicants, which took effect Feb. 23, 2007. The relaxing of Morse code tests has also occurred in most other countries, resulting in a boosting in the number of hams worldwide. While no longer a requirement it remains a popular communications mode.

Amateur radio emergency communications assisted in disaster relief activities for events such as the Sept. 11 attacks in 2001. Hurricane Katrina in 2005 and the Sichuan earthquake in 2008. In 2017 the Red Cross requested 50 amateur radio operators to be dispatched to Puerto Rico to provide communications service in the wake of Hurricane Maria.

Ham radio continues to be a viable force in today's world.

LETTERS TO THE SOCIETY:



From David J. Rodman, M.D., KN2M…. When I was in third grade, for some reason, I became interested in short wave radio. Amateur radio followed and I was first licensed in 1970. I have always been interested in DX and operated contests as a high school student. My undergraduate degree is in Biology. Much of my electronics knowledge was self taught until I studied for a Masters in EE prior to attending medical school in Buffalo.. I have been employed in commercial broadcasting and was Chief Engineer of an FM station prior to attending med school. Antennas have always been an interest to me. I was a member of the ARRL Biological Effects Committee when it was active in the 1980's. I have been and continue to be an ARRL Technical Advisor. My specialty contributions and knowledge are in Antennas, propagation, biological effects of RF. My station, shared with my wife Diane (N2HIW), is fully remote controllable remote controllable and is possibly the most complicated remote station anywhere in the USA or the World. I am always happy to assist anyone with antenna design and development. *(David is Asst. Clinical Professor, Dept. of Ophthalmology, SUNY/Buffalo, Office phone 716 857 8654.)*

From Chip Keister N5RTF in New Orleans…."Six times in the *Cone of Doom* this season and no hits on New Orleans. Prayers and thoughts go out to the poor people west of us, but this still feels like *Pulp Fiction* where someone unloads a pistol at you and it leaves no holes. ***There is now simpler access to Marco streaming audio and archived nets***. The new url is: www.marcoaudio.net<http://marcoaudio.net> This address will be used for all nets: CW, Sunday SSB, and the Wednesday night COVID net. This link will take you to a page with a built-in audio player, links for a variety of popular players, and a list of our archived nets going back several years. The old links still works, and can still program **http://marcoaudio.ddns.net:8011/stream** into a standard music player on computer, phone, or portable device for a direct link to the live nets only. Feel free to share these links with anyone, MARCO member or not. No login or password is required. There is no cost. There is room for 100 listeners at a time. Again no limit to downloads. Comments are appreciated. N5RTF at *mail@tkeister.net>*

Jay Garlitz <jay.aa4fl@mail.com> writes: For those of you who have been having issues downloading the Aether from our website I have attached the October edition in the university available free-of-cost format of Abode Acrobat Reader *(*https://get.adobe.com/reader/* requirements at https://helpx.adobe.com/reader/system-requirements.html). *This will allow you to view, save, and print if desired when the Aether when presented online (three editions per year). Please note that the online editions are intended to be such, in print you will miss out on the important and more detailed available content that is online based. *Using your Website hosted version, your family, friends and those interested in MARCO, may also use a tablet or smartphone to explore our online editions as well.

Jerrold E. Ziperstein, M.D. writes: The current global fatality rate is between 4 and 6% from Covid-19. Currently it is estimated that it will take about a year to lower the fatality rate to something akin to the annual fatality rate of influenza On the other hand, people have reportedly recovered from economic devastation and bankruptcy and even homelessness. This is not a disease that allows you to choose a risky choice for yourself alone. A bad choice does not just put yourself at risk but also everyone else with whom you come in contact. When you argue to take a risk for economic survival, you are playing Russian roulette with MY LIFE as well as your own. Keep your head down, stay home and stay safe until we get to the other side of this pandemic. We need financial support from the government to help, but humans who remain alive can adapt to adversity. Life is not forever but death is. Eventually humanity will gain control of this disease either by a vaccine effective treatment or development of herd immunity. Have patience until we get there and more of humanity will survive and less will die. If we understand the consequences of our actions and respond by cooperating with each other for the sake of survival, rather than competing for short-term economic benefit, and if we follow the public health rules, there will be more of us to survive and we will get thorough this sooner and with less collateral damage and long -term consequences.

NEWSENSE...Tantalizing News!

Originated by Columnist Walter Winchell

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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Does bilingualism make you smarter? Perfect fluency in a second language can make someone seem so worldly and intelligent...but does knowing more than one language really make a person smarter? A vast online study suggests that bilingualism can be handy but doesn't make you a bit more intelligent. The study enlisted 11,000 people to complete 12 on-line cognitive tests. It found almost no cognitive differences between people who speak just one language and those who said they speak at least two.

The coronal virus Test Kits in use in the USA detect viral genetic material—RNA—which can be infectious material or noninfectious fragments. Once the patient has recovered and the RNA has been cleared, the tests will be negative. If we're trying to ascertain what proportion of the population has been infected and experienced asymptomatic, mild or more serious infections, such post-infection testing yields "false negatives." Additional essential information will need to come from "serological tests" that measure antibodies in blood, which will tell us whether a person has been recently infected with SARS-CoV-2 and recovered (Note that antibodies take about 10-14 days from exposure to the virus to appear.)

The chiropractic method was founded by Daniel David Palmer, an Iowa merchant, in 1895. Two years later, Palmer established the first college of chiropractic in Davenport, Iowa. Today, the US has 14 accredited chiropractic colleges. Each offers a four-year program that lead to the degree of Doctor of Chiropractic (D.C.).

Drive-in Movies making a comeback…The high-water mark for drive-in movies came in 1958 when there were 4,063 in the U.S. Last year there were only 305….*But,* during the pandemic Americans are giving them a fresh-look! Pottstown, PA's Sunnybrook Ballroom's parking lot is now a portable drive-in—-$20/car, a pumped-up inflatable screen, a good show and no contamination from the nasty virus!

99% of Concierge Medicine doctors earn over $100,000/year seeing 6-10 patients per day! For details see page 11 or to connect for information check into *Concierge Today.com* Sounds like a utopia for lazy physicians or perhaps for bringing the recent old days back.

China leading U.S. in 5G technology...it isn't even close! China has more 5G subscribers than the U.S., not just in total units per capita. It has more 5G smartphones for sale, and at much lower prices, and it has more-widespread 5G coverage. Connections are, on average, faster than in the U.S. By year's end, China will have an estimated 690,000 5G base stations—boxes that blast 5G signals to consumers—up and running across the country, compared with 50,000 in the U.S. In China 5G phones are less expensive too: $458, on average compared with $1,079 in the U.S.

What if I don't upgrade to a 5G phone and keep my 4G phone? Today's 4G phones will keep working for a long time. Most phone apps don't need 5G speeds to work smoothly, and 4G service is still more wide-spread. Carriers can't risk losing older phone users until almost all of their subscribers have switched to the newer network technology. If history is any guide, that day is far in the future. AT&T didn't switch off its 2G network, which launched in the early 1990s until 2017. What's more, all 5G phones on the market today support both standards.

HYPERCALCEMIA

As presented on Marco Grand Rounds, July 19, 2020

Because hypercalcemia can cause few, if any, signs or symptoms, you might not know you have the disorder until routine blood tests reveal a high level of blood calcium. Blood tests can also show whether your parathyroid hormone level is high, indicating that you have hyperparathyroidism. However, extremely high levels of calcium can be life-threatening.

To determine if your hypercalcemia is caused by a disease such as cancer or sarcoidosis, you might also undergo imaging tests of your bones or lungs.

If your hypercalcemia is mild, you might choose to watch and wait, monitoring your bones and kidneys over time to be sure they remain healthy. For more severe hypercalcemia you might take medications or undergo surgery

Medications:

Calcitonin (*Miacalcin)* This hormone from salmon controls calcium levels in the blood. Mild nausea might be a side effect.

Calcimimetics. These drugs can help control overactive parathyroid glands. Cinacalcet (Sensipar) has been approved for managing hypercalcemia.

Biophophonates. I.V. osteoporosis drugs, which can quickly lower calcium levels, are often used to treat hypercalcemia due to cancer. Risks associated with this treatment include osteonecrosis of the jaw and certain types of thigh fractures**.**

Denosumab (Prolia, Xgeva). This drug is often used to treat people with cancer-caused hypercalcemia who don't respond well to bisphosphonates.

Prednisone. If your hypercalcemia is caused by high levels of vitamin D., short-term use of steroid pills such as prednisone are usually helpful.

IV fluids and diuretics. Extremely high calcium levels can be a medical emergency. You might need hospitalization for treatment with IV fluids and diuretics to promptly lower the calcium level to prevent heart rhythm problems or damage to the nervous system.

Surgical and other procedures:

Problems associated with overactive parathyroid glands often can be cured by surgery to remove the tissue that's causing the problem. In many cases, only one of a person's four parathyroid glands is affected. A special scanning test uses an injection of a small dose of radioactive material to help spot the problem site.

Symptoms: Excessive thirst and urination. Nausea & abdominal pain, decreased appetite, nausea, constipation and vomiting. Abnormal heart rhythms, twitching of the muscles, bone pain, osteoporosis and actual fractures. Memory loss and confusion can cause confusion and coma. The body uses the interaction between calcium, vitamin D and parathyroid hormone (PTH) to regulate calcium levels.

PTH helps the body control how much calcium comes into the blood stream from the intestines, kidneys and bones. Normaly, PTH increases when the calcium level falls and decreases when the calcium level rises.

Your body can also make calcitonin from the thyroid gland when your calcium level gets too high. When you have hypercalcemia, there is excess calcium in the blood and our body can't regulate your calcium level normally. There are several possible causes of this condition:

Hyperparathyroidism…. The parathyroid glands are four small glands located behind the thyroid gland in the neck. They control the production of the parathyroid hormone, which in turn regulates calcium in the blood. Hyperparathyroidism occurs when one or more of your parathyroid glands becomes overly active and releases too much PTH. This creates a calcium imbalance that the body cannot correct on its own. This is the leading cause of hypercalcemia, especially in women over 50.

Lung diseases and cancers... Granulomatous diseases , such as tuberculosis and sarcoidosis, are lung diseases that can cause vitamin D levels to rise. This causes more calcium absorption which increases the calcium level in your blood.

Medication side effects... Some medications, particularly diuretics, can produce hypercalcemia. They do this by causing severe fluid diuresis, which is a loss of body water, and an under excretion of calcium This leads to an excess concentration of calcium in the blood. Lithium excess

has similar findings.

Dietary supplements and over-the-counter medications: Taking too much vitamin D or calcium in the form of supplements can raise your calcium level. Excessive use of calcium carbonate, found in common antacids like Tums and Rolaids can also lead to high calcium levels.

Dehydration... This usually leads to mild cases of hypercalcemia.

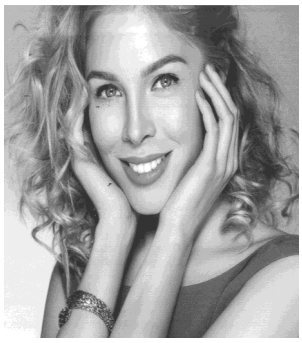
How is hypercalcemia diagnosed? Blood tests, Chest x-rays to rule out cancer; mammograms to rule out breast cancer, IVP to rule out kidney stones; MRI scans and DEXA scans to evaluate bone strength.

Treatment options… mild cases require no immediate treatment but be aware that mild cases over time can cause kidney stones and kidney damage. Moderate to severe cases will usually require a hospital workup. Calcitonin is a hormone produced in the thyroid gland that slows down bone loss; I.V. fluids lower calcium levels by hydration; Corticosteroids are anti-inflammatory and are used in the treatment of too much vitamin D; Loop diuretic medicines can help your kidneys move fluid and get rid of extra calcium especially if you have heart failure; I.V. bisphosphonates lower blood calcium levels by regulating bone calcium. Last of all, dialysis can be preformed to rid your blood of extra calcium and waste when you have damaged kidneys.

Primary hyperparathyroidism... You may need surgery to remove the abnormal parathyroid glands. If surgery isn't an option, you may receive cinacalcet (Sensipar). This lowers your calcium by decreasing PTH production. If you have osteoporosis, you may have to take bisphosphonates to lower your risk of fractures.

Cancer... The medication cinacalcet can also be used to treat high calcium levels due to parathyroid cancer.

WHERE DOES VITAMIN D ENTER THE PICTURE?



Vitamin D is necessary for building and maintaining healthy bones. That's because calcium, the primary component of bone can only be absorbed when vitamin D is present. Your body makes vitamin D when direct sunlight converts a chemical in your skin into an active form of the vitamin (calciferol).

Vitamin D isn't found in many foods, but you can get it from fortified milk, fortified cereal and fatty fish such as salmon, mackerel and sardines.

Many older adults don't get regular sun exposure and have trouble absorbing vitamin D, so taking a multivitamin with vitamin D will likely help improve bone health. The daily dose is 400 IU for children up to 12 months, 600 IU for those 1 to 70 years and 800 IU for those over 70.

Vitamin D decreases slightly, the chances of getting malignancies, multiple sclerosis, osteomalacia (*loss of bone mineral content*), psoriasis and rickets. Taking too much vitamin D can be harmful, causing G.I. upset, weakness, weight loss, confusion, disorientation, abnormal heart rhythms and kidney damage.

Avoid large doses of vitamin D if you are taking the following medicines: **Lipitor, Dovonex, Digoxin, Cardizem, Orlistat, thiazide diuretics, steroids, stimulant laxatives, barbiturates & Calan.**

****

MARCO GRAND ROUNDS STREAMING AUDIO... Here is how to access MARCO streaming audio and archived nets. The new url is : www.marcoaudio.net<http://marcoaudio.net>. This address will be used for all nets: CW, Sunday SSB, and the Wednesday night COVID net. This link will take you to a page with a built in audio player, links for a variety of popular players, and a list of our archived nets going back several years.

The old links still work, and can still program *http://marcoaudio.ddns.net:8011/stream into a standard music player on computer, phone or portable device for a direct link to the live nets only.*

PATIENTS ARE NOT JUST A NUMBER

(Excerpts from Dr. John D. Young's fine article "Ask the Doctor" which appeared in the June 2020 edition of the "Feather Sound (Florida) News.)

****

Years ago, I learned from a professor that if you listen to a patient long enough they will tell you what their real problem is and how to fix it. Listening to a patient, however, is a lost art in today's medicine. Today, it is common for the patient to listen to the doctor and do as the doctor says.

I had a male patient who over the course of a year felt so-so, but he has not felt great. I tried everything I could think of but he would still feel bad half the time. Then, he happened to tell me a story about how as a child he loved salt and could never get enough of it. Then, it hit me. I checked his labs—his sodium level was 143; the normal range being anywhere from 136 to 145. Although his level was fine, this normal range is based on a "***Bell Curve***." This means that there may be people who need higher or lower sodium levels to feel better. So, I decided to give him an I.V. of normal saline. Within minutes, he was a new man. He felt alive, he felt great, and his sodium level was 148. I ended up putting him on salt tablets and it's turned his life around. I learned my lesson that what may be so-called "*normal*," may not be normal for everyone.

The same principle applies to thyroid labs. Most doctors follow a patient with thyroid disease by following TSH levels. If the TSH is normal than a person's thyroid medicine is correctly prescribed. The problem is that the actual thyroid hormone is Free t3. My practice is filled with people who have been told their TSH levels are fine yet they still have no energy, loss of hair, dry skin, fatigue etc. In my practice, I check the Free t3 level and it is usually very low or in the low to normal range (from 2.0 to 4.2). When the t3 is low, I typically put them on actual t3 and as I get that level up anywhere from 3.5 to 4.2 or higher, their symptoms go away.

Patients are not numbers, they are people with unique genes and different metabolisms. These labs are the **Bell Curves** to set so-called "*normal*" ranges; and may be you are not in the 80% of the population to which this "*normal*" range applies to. Maybe you are in the 20% that may function best when your labs are not in the so-called "*normal*" range. If you are not feeling right, remind your doctor that you are not a number but a real, living, unique human being. You are not a number—yet!

****

LONG-TERM OUTCOMES OF CABG vs. PCI for LEFT-MAIN disease.

The last several months have witnessed publication of long-term follow-up of major trials for left main (LM) coronary artery disease revascularization. One of the trials that reported its long-term follow-up was the PRECOMBAT trial (Premier of Randomized Comparison of Bypass Surgery vs. Angioplasty Using Sirolimus-Eluting Stents in patients with left Main Coronary Artery Disease).

The PRECOMBAT trial was a prospective pen-lable randomized trial that compared percutaneous coronary intervention (PCI) with coronary artery bypass grafting (CABG) in patients with Left Main coronary artery disease. The primary endpoint was a major adverse cardiac and cerebrovascular event (a composite of deaths from any cause). Patients considered eligible were older than 18 and had received a diagnosis of stable angina, unstable angina, silent ischemia, or non-ST-segment elevation MI. All had newly diagnosed LM stenosis and had been judged to be candidate for either PCI or CABG.

In conclusion the results from the long-term follow-up of the PRECOMBAT trial must be interpreted with caution. Patients who received PCI will have significantly higher risk from bad events. Its restricted external validity makes generalizability of its conclusion quite limited among the left main population. Because ischemia-driven revascularization was significantly higher with PCI, revascularization of patients with Left Main stenosis, particularly among those who are young or otherwise good surgical candidates should be carefully reviewed with a heart team approach. **In summary: Bypass is more risky but gives better results over inserted catheters (PCI) over the long term.**

(The above was discussed on MARCO Grand Rounds of the Air ((Sundays, 14.342 MHz, 11 a.m. Eastern time)) on both June7th and 15, 2020.)

ON THE FIRING LINE…..

Reprinted from Dr. Tony Dajer's fine article "*The Learning Curve*" which appeared in the July/August edition of Discovery magazine.

The red alerts flashed from Wahan to Lombardy to Seattle, yet the first COVID-19 cases in early March in New York City prompted an official reaction that suggested the virus had traveled by asteroid, not by human daisy chain. None of the patients in our E.R. had traveled to China or been around someone diagnosed with COVID-19. There was no clamor to broaden testing, no rush to rethink the model of contagion, no clarion to immediately shut down.

Reality hit in stages, like a plane lurching through air pockets.

First lurch: Coming onto a shift in mid-March, a colleague informed me, "Yesterday we had a middle-aged guy. Looked pretty good, decent oxygen saturation of 96%, then a few hours later, crumped (rapidly declined). Crash intubation. Then another. The Italians warned us people look good, until they don't." Oxygen saturation—detected with a pulse oximeter on the finger—is the measure of oxygenated hemoglobin. The normal range is typically between 97 and 100%. The Italians discovered those oxygen levels can dictate life and death: COVID-19, unique among viruses, can slam it down to 70,60 or even 50%. A pulse ox level above 95%, though, was supposed to be good news.

Our first case, and now we can't even trust the initial pulse ox level?

Second lurch: My own first case. The ED tracker flashes: A patient in her 30s has a very rapid pulse. Chief complaint: fever and contact with a COVID patient. I hope someone else will pick her up. Someone not 63 years old and male with triple the risk of dying from this damn virus. Everyone else is tied up, though, so I click on the screen to sign myself up.

I shuffle to her isolation room. Mincingly, I don an N95 mask, cap, gown, gloves, surgical mask with face shield, and shoe covers. I slide back the glass door. She sits on the stretcher against the far wall.

"*How do you feel*?" "Achy, Some fever," she responds. "*How's your breathing*? The overhead monitor registers oxygen saturation at 95%. The danger zone starts below 90. "Not too bad," she answers, since my stomach unclenched. I ask her to face away, and then barely touch her with the stethoscope. Lung sounds will prove mostly useless in COVID patients: They tell you nothing the O2 saturation hasn't already. But I still need to test her for COVID. The swab up the nose can aerosolize the virus to spread on air currents, potentially infecting others. How do you ask a nurse to take a risk you won't? I come clean.

I'm 63 I tell Laura, trying not to sound pleading. "You?" "Forty," she answers. "Of course I'll get the swab."

Two liters of saline settle many patient's' pulses. We admit her— better the next day, she is speedily discharged.

The tsunami hits that same week. Everyone has COVID. Amid the swarm, we cling to three guideposts: Follow the pulse ox. Avoid aerosolization. Intubate early and often.

The initial protocol was to keep the oxygen saturator above 90% with nasal oxygen. Per the Italians. If the patient needed more than 5 liters of oxygen per minute you incubated. We avoided techniques like high flow nasal oxygen and CPAP machines that deliver positive air pressured by mask because they aerosolize.

None of us put much faith in fad remedies like hydroxychloroquine. COVID is about lung mechanics, not magic bullets.

Third lurch: With each shift, you hear about colleagues around the city falling ill. We've all ramped up personal protection equipment to include N95s and goggles all the time, but this virus is devious. Male and is 63 is a bad thing to be.

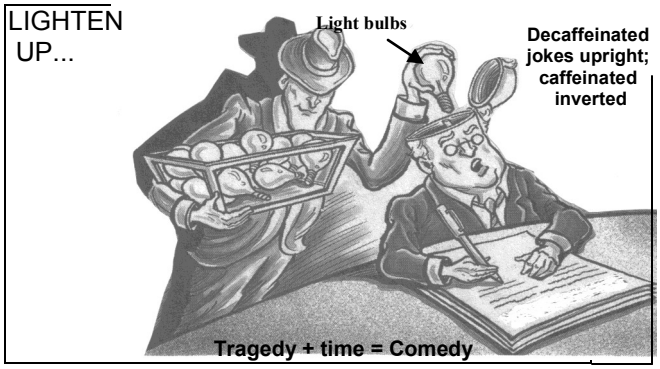
I can't help it. Each NOTIFICATION that blares on the overhead PA trips a jackhammer in my chest. It heralds another critical patient and with the them a scramble to don extra preventives. My fear breaks over like a panicked game bird. It helps that courage is all around.

The paramedics and EMTS pull the critical and the dying out of tiny apartments. They intubate, and pound on chests. It feels disrespectful to quickly stop CPR on the pulseless when they're brought in. But more resuscitation spews more virus. The critical patients who do make it to the ICU will be kept silent-intubated and sedated—and alone.

Nurses rival the medics. Doctors write orders and perform big-ticket procedures; it's the nurse who insert IVs, draw blood, adjust oxygen dials, changes soiled garments and turns patients incessantly. This is a nurses' disease. In total minutes at patient's bedsides, the difference between nurse and doctors isn't even close.

By week two, the guideposts have moved. We're starting to take the virus' measure. Follow the pulse ox: We now know there are "happy hypoxics" you can keep out of the hospital if you equip them with a home pulse oximeter; keep daily tabs on them with telemedicine and as needed arm them with portable oxygen machines. Avoid aerosolization: Actually, do what's best for the patient High-flow oxygen and CPAP machines keep some patients off ventilators. Build hoods and tents to contain the aerosolization. Intubate early: Combine high-flow oxygen with position change. You can bump them with lower O2 saturation just by rolling them onto their stomachs. Keep them turning. This evil thing will be with us for too long. We are soon seeing late complications as the virus pulls more tricks We are getting smarter and doing things right but this must be our last pandemic.

LIGHTEN UP...



The wife and I went to the store with our Coronavirus masks on… when we got home we took the masks off and suddenly I realized I had brought home the wrong wife—you must pay better attention to the people you meet these days!

****

Richmond remembers the last time...I was flying a new twin, "5000Yankee" enroute from Pennsylvania to Florida just north of Richmond, Virginia and called ATC to make a position report. **The controller in a southern accent replied, "*Oh NO, not again!*** I was puzzled by the reply until I realized what I had said, "*We (5000 Yankees) are 25 miles north of Richmond inbound."*

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Red leader to Red 2...O.K., Red 2 ease out a bit and relax.
Red 2 to Red Leader... Thanks Red Leader, but I am relaxed.
Red Leader to Red 2... Then ease back a bit and let me relax!

****

The huffy matron...waved her bill under the doctor's nose. "*Just look here"* she cried, "*you charged me twenty dollars and all you did was paint my throat."* **"Well, ma'am,"** the physician replied, **"what did you expect, wallpaper?"**

****

Band leader Harry James, *probably the world's greatest trumpet player told the world just before his death in 1983, "Tell them I went on the road to do one-nighters with Gabriel."*

****

MISTAKES...The only way to avoid mistakes is to gain experience. The only way to gain experience is to make mistakes.

##########

General Custer was the first man to wear an "Arrow Shirt."

^^

THE VAN GOGH FAMILY

Here is a listing of the lesser known members:

The Grandfather who moved to Yugoslavia—U. Gogh.
The Sister who wore a mini-skirt and danced in bars—Go Gogh.
The Obnoxious brother—Please Gogh.
His dizzy Aunt—Verti Gogh.
The Cousin who lived in Mexico—Grin Gogh.
The Cousin who moved to Illinois—Chica Gogh.
The Aunt who loved Argentine dancing—Tan Gogh.
The Cousin who ate prunes—Gotta Gogh.
The Cousin who loved tropical fruits—Mang Gogh.
The bouncy young nephew—Poe Gogh...and his niece, who's been traveling the U.S. in a van—**Winnie Bay Gogh.**

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How to improve football…. Both teams wear the same uniforms and replace player's oxygen masks with laughing gas. Every fan gets one of those referee microphones and lift the "no-flirting" rule in huddles.

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TOP COUNTRY SONGS OF 2020…"How can I miss you if you won't go away," "I still miss you baby, but my aim is getting better," "I'll marry you tomorrow but let's honeymoon tonight."

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"AETHER" printing has been performed by COLORFAST FRINTING (5 Stars), 1411 63rd Way N., Clearwater, FL. 33760 Phone: 727 531 9506

MEMORIES OF YEARS AGO IN MARCO

Our History Book

Twenty Years ago in Marco, December 2000

The late Robert Smithwick, MediShare director reports: "Soon after assuming the post of Co-Directors of MediShare, we began examining possible projects to support. In consultation with Dr. Mike Marks of the Bush Hospital Foundation (BHF), Channel Islands, U.K. we learned that the BHF was funding an extensive shipment to upgrade the Pediatric Unit of the Queen Elizabeth Central Hospital, Blantyre, Malawi, one of the two hospitals of the Malawi Medical School. Since we have been shipping supplies to the Montfort Hospital including 5 autoclaves, 4 transformers, 3 nebulizers, 4 infant ambubags among a lot of smaller things." (Bob was later replaced by Arnold Kalan in this strategic phase of MARCO.

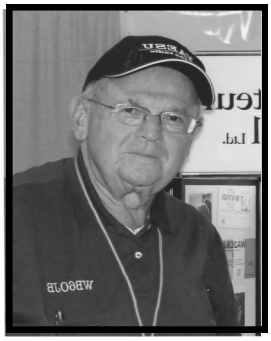
Ten Years ago in Marco, April 2010

Marco has been informed that **Sister Mary Emmanuel** has been placed in a nursing/retirement facility in Houston, TX. Sister is no longer able to read so her mail continues to come to the Monastery of the Infant Jesus. The sisters see her regularly and read her letters to her. She is grateful for your concern and would like to hear from her ham friends in Marco.

Fred Simowitz, K0FS states his son, age 41, uses C-PAP and it has solved his daytime drowsiness. He has residual large tonsils but refused surgery...instead he went on C-PAP 8 years ago and it has worked wonders. The daytime drowsiness has abated and he tolerates the apparatus very well. **Bill Otten KD9CS**, Largo, FL. Also reports good luck using C-PAP.

Four Years ago in Marco, August 2016

Harry Przekop, Batavia, IL writes: I moved from the city out near Fermilab about 5-minutes away. Doing consultations on medicine, physics and forensics. I finally am in a home, rather big one, 4 bathrooms. Finally, I have a radio room bigger than a small closet.



Jay Garlitz AA4FL, Hawthorne, FL. Writes: When asked the difference between DDS degrees and DMD degrees responded, "About half of dental school grant each type. I prefer the one the University of Florida issues—"Doctor of Dental Medicine.

MEDISHARE

Arnold Kalan, WB6OJB, Director

Any extra change? MARCO operates a "salvation program" to unfortunate hams both here and abroad.
Send donation to my address on Page 7 and sleep better tonight.
(A tax-deductible donation)

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President Bruce Small updates his comments…..

Seasons greetings from upstate New York! Warren, KD4GUA likes to tease us about our reputation for snowfall, but as of this writing (*early October)* I can report that we have seen none of it so far. Nonetheless, the weather has been awful with plenty of rain and high winds. I was set to join our local contest club in the New York QSO Party on a recent weekend but two days before the event a wind gust took down a tree limb in our yard. On its way down it navigated carefully into my 40M and 80M antennas, destroying both. Instead of operating my radio, I spent the weekend untangling wood, wire and rope and mending the breaks. Since then, every day has been blustery so the antennas are still on the ground.

MARCO got some great publicity with both the cover photograph and a nice article in the November pages of QST. Kudos to Jay AA4FL...we will need a board meeting in January.

I wish to extend a warm welcome to all our new members. It is great to have you aboard. Your active participation is what will continue to allow Marco to flourish!

Bruce KM2L

CME RANKINGS, Oct. 26, 2020

BOB CURRIER MARCO GRAND ROUNDS OF THE AIR. (Corrections to Marco)

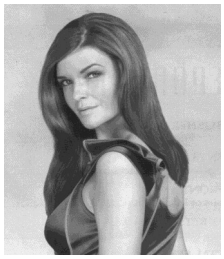
14.342, Sundays, 11 am Eastern, One Hour Cat. II CME

CALL	HRS.	NAME	QTH
KC9CS	37	Bill	Seminole, FL.
N2JBA	37	Ed	Amenia, N.Y.
WB1FFI	37	Barry	Syracuse, N.Y.
N6DMV	36	Paul	Torrance, CA
Arnold	36	Arnold	Pac. Palasades, CA
NU4DO	36	Norm	Largo, FL.
N5RTF	36	Chip	New Orleans, LA
KG4CSQ	36	Ralph	Alabama
W1RDJ	35	Doug	Cape Cod, Mass.
WB9EDP	34	Harry	Batavia, IL.
N3IM	34	Keith	Milhouse, PA.
NOARN	33	Carl	Denver, CO
KD4GUA	33	Warren	Largo, FL.
KE5SZA	33	John	Marietta, OK.
KK1Y	32	Art	Seminole, FL.
KD5BQK	32	Linda	El Paso, TX
KD5QHV	32	Bernie	El Paso, TX
N5AN	32	Bud	Lafayette, LA
KM2L	31	Bruce	Clarence, N.Y.
N4TLC	31	Jerry	Boca Raton, FL.
N2OJD	30	Mark	Sydney, Ohio
WA3QWA	30	Mark	Chesapeake, VA
KNOS	27	Dave	Virginia
N4MKT	27	Larry	The Villages, FL.
W5EXE	27	Mark	Cape Cod, Mass.
K6JW	23	Jeff	Palos Verdes, CA
W8LJZ	23	Jim	Detroit, MI
W6NJY	23	Art	Beverly Hills, CA
KC9ARN	22	Michelin	Batavia, IL.
KE8GA	20	George	N. Carolina
K4RLC	20	Bob	Raleigh, N.C.
W1JMJ	18	Ted	Massachusetts
N8CL	18	Chuck	Albany, N.Y.
K6GZ	17	Bill	Hysteria, CA
KB9CCE	17	Fred	3 Lakes. WI.
W4DAN	14	Danny	Cleveland, TN
KD4IZ	9	Jack	USA
N9YZM	9	Mike	Crystal Lake, IL.
W8ING	9	Bob	Hazzard, KY
K3IRY	8	Roy	Bedford, Mass.
AA2VG	7	Peter	Huntingrun Park, N.Y.
WA9HIR	7	Bill	Illinois
AA4FL	7	Jay	Hawthorne, FL
KEOPIE	6	Trina	Pueblo, CO.
KN2MB	6	Dave	Buffalo, N.Y.

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
2014(Year of Terrorist)	1756 (47 nets	37.36
2015	1722 (49 nets)	35.14
2016	1687 (46 nets)	36.67
2017	1536 (46 nets)	34.13
2018	1500 (43 nets)	34.88
2019	1786 (49 nets)	35.90
2020	1782 (41 nets)	43.46

Record number of stations checked-in was 58, on Sept. 26, 2020

HOME TESTING FOR SEXUAL TRANSMITTED DISEASES



Convenient home testing for V.D. is now available. You don't need to make a doctor's appointment to test yourself for STDs (*Sexual Transmitted Diseases)*. It can now be done privately at home.

A typical STD kit includes materials for collecting a sample at home and shipping it to a lab for testing.

Most STD test-kit companies offer kits for the following STDs: *Herpes I & II, Hepatitis A,B, and C. HPV, Chlamydia, Gonorrhea, Syphilis, Trichomonas's & HIV.*

Using an STD test kit is simple and usually requires no referrals or prescriptions. The process may vary slightly from one company to the next, but here's what you can expect:

After you order your kit it will be shipped to you in a discreet package and will include all the instructions, forms, and return information you'll need. Most kits will include a barcode that you enter into the site which logs you into your own portal. This typically is where you'll receive your results and communicate with the staff

Collecting your sample can be done in minutes, though the squeamish may want some company for assistance or support. The sample needed depends on the test, but the 3 most common sample types are urine vaginal swab, and finger-prick. The kit will include complete instructions as well as all the materials necessary for collecting and shipping the sample.

After you've collected your sample, you need to send it to the lab. The time it takes to receive your results varies but generally spans 3 days to 2 weeks depending on the company. Results are typically delivered via a private online portal.

Most STD test-kit companies provide healthcare professionals to answer questions, explain results, and in the case of a positive test, guide you through the next steps. The degree and availability of the medical staff varies from one company to the next, though typically the staff will include nurses or physicians who offer referrals and prescriptions.

Why get tested through a kit? Anonymity is a big factor. Some feel embarrassed to discuss their sex lives with their regular healthcare providers. By circumventing face-to-face encounters, STD kits allow people to be proactive about sexual health without the fear of being embarrassed or feeling judged.

STD test kits can also be more affordable than doctor's visits, and are likely to save you time. Those with busy schedules may find it difficult to make an appointment during working hours. STD test kits can be taken in the comfort of home within minutes, thereby eliminating the time spent traveling to a physician's' office.

Finally, an STD test kit can foster peace of mind. If worrisome symptoms appear, or you simply want to be proactive with your sexual health, you can initiate the process immediately rather than wait to make an appointment, This autonomy allows sexually active individuals to get screened whenever they want with relatively little effort, making it easier to regularly check in on your sexual health.

How accurate are STD test kits? Most companies work with CLIA-certified labs, which means that ideally, tests would be as accurate as in-person screenings. Of course, the nature of at-home test kits leaves more room for human error. Inaccuracies could arise from improperly collecting a sample, shipping or storage problems, or being tested before the incubation period of an STD. Many companies claim their tests are anywhere from 95%-98% accurate. As always, at-home kits should never replace regular medical checkups and it's a good idea to follow-up with your regular doctor.

How do I find a good STD test kit? It is important to use a reputable STD test kit company. Make sure the company will go thorough a certified lab. Make sure the company's lab meets the standards of the CLIA (Clinical Lab Improvement Amendments). A good STD test-kit company will have a medical support team on staff to answer questions and provide next steps. Qualifications and availability will differ from one company to the next: some have physicians on staff, others nurses or physicians' aides. A good company will offer a professionals staff with medical credentials. Some reputable companies are: **LetsGetChecked; NURX; EverlyWell & HealthLabs.com, myLAB, HealthTesting.**

Costs run from $119 to $350 (for *complete 10 diseases)*

INDOOR CROPS IN VERTICAL FARMS

The Covid-19 pandemic has disrupted agricultural products in and supply chains around the world. Farmers have often struggled to get their food to distant markets and sharp shifts in demand have repeatedly forced them to dump crops. Avoiding such logistical problems is one of the chief advantages of vertical farms, a new approach to agriculture that aims to grow food closer to population centers.

Over the past 10 years, hundreds of such indoor farms have sprouted , mostly in the larger cities of industrialized countries. They occupy multi-story buildings in which crops are grown in water or in misted air instead of soil, with LED lights in place of sunlight, in a controlled and largely automated environment.

Building more vertical farms in cities is especially timely because of the expected effects of the pandemic on urban office towers—lots of uninhabited vacated office space and a great need for nearby foods.

So far, vertical farms have mostly grown and sold leafy greens and herbs—the easiest food crops to grow indoors and to harvest year-round. They are competitive against conventional farms because their crops don't have to travel far and are free of pesticides and other soil contaminants.

As demand rises, however, vertical farms are poised to add a number of other crops that can be grown effectively indoors. These include root vegetables (*potatoes, radishes, carrots, celery),* vine vegetables (*green beans, tomatoes, peppers),* and bush fruits *(blueberries, blackberries, raspberries)*. Such an expansion could eventually result in a significant shift of agriculture to cities, where 60% of the world's population now lives.

Virtual farms are no longer some futuristic fantasy. Well-established, efficient hydroponic and aeroponic methods have been paired with newer technology such as higher-performance LED grow lights. Artificial intelligence now often controls the instruments that automatically deliver nutrients and provide optimal lighting for each crop.

Creating and maintaining that environment takes big startup costs for technology and ongoing costs for entry. But the efficiency of such farms allows nearly 95% of indoor seedlings to be grown to maturity and harvested. By contrast the survival rate for outdoor crops, from planting to harvest, vary from 90% in good years to 70% or less in drought or flood years.

The pandemic has sparked new demand for the industry Covid-19 has been a harbinger of longer-term problems in food security for our cities. Once answer may come from growing more of oar food just down the stree and over yonder. (**The above contains excerpts from Dickson Dispommier's fine article, "*Vertical Farms Fill a Tall Order" which appeared in the July 25 edition of the Wall Street Journal.)*

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THE END OF THE OFFICE? NOT SO FAST….

Months ago, employees went home and did something incredible: They got their work done, without missing a beat. Executives were amazed at how well their works performed remotely. Some companies even vowed to give up their physical office spaces entirely.

Now, as the work from home experiment stretches on, some cracks are starting to emerge. Projects take longer, training is tougher, hiring and integrating new employees more complicated. Some say their workers appear less connected and bosses fear that younger professionals aren't developing at the same rate as they would in offices, sitting next to colleagues and absorbing how they do their jobs.

There's sort of an emerging sense behind the scenes of executives saying, "This is not going to be sustainable." Few companies expect remote work to go away in the near term, though the evolving thinking among many CEOs reflects a significant shift from the early days of the pandemic. Life is a face-to-face business, and they don't think offices are dead!

Problems that took an hour to solve in the office seemed to stretch out for a day when works were remote. That could be a logistical nightmare.

"It was easier to go remote faster than most people would have ever imagined...that doesn't mean it's great."

Only time will tell— life is a learning process.

(A tip of the hat to Chip Cutter for excerpts from his WSJ article which appeared in the July 25 edition.)

THE PRESIDENT SAYS:

Bruce Small, M.D. KM2L

Good discussion today on Grand Rounds (July 26) today about at-home testing for STD's (Sexual Transmitted Diseases). I had a point that I wanted to make, but it is a little bit too involved for the over-the-air discussion, so I am going to inflict it on you people in writing…. ***sorry***.

The point is this: There is no reason to expect that at-home testing will perform in the same way as testing done in the office or clinic. Warren mentioned that the actual test methodology is the same, and is done in the same certified labs. He also stated that the mail order test is around 95% accurate.

Clinical tests are described in terms of their sensitivity (the percent of people with the disease who have a positive test) and specificity (the percent of people without the disease who have a negative test). Using Warren's numbers, let's set both of these to 95%. When we do a test, we are actually interested in the positive and negative predictive value. The first gives you the chance that, if you have a positive test, you actually have the disease. The second gives you the chance that if you have a negative test, you don't have the disease. The often unappreciated point is that these values depend on the population that is being tested. Warning : Here comes some arithmetic!

Let's apply Warren's test to a group of 1000 people, of whom 40% (400) have the disease we are testing for. A 95% sensitive test detects 400 x .95 = 380 true positive cases, but misses 20 who actually have the disease. A 95% specific test correctly classifies 600 x .95 = 570 people as negative, but also yields 30 false positives.

So, if you have a + test, the chance that you have the disease is (true positives)/(total positives) = 380/(380+30) =92.7% Before the testing, your odds for having the disease were 40%, so a positive test has added a lot of information. If you have a negative test, the chance that you don't have the disease is (true negatives)/(total negatives)= 570/(570+20)= 96.6%. Before the test, your odds for not having the disease were 60%, so again, a negative test has added a lot of information.

Now let's consider a different group of 1000 people, where only 6% have the disease. So, on our group of 1000 people, 60 will have the disease and 940 will not. A 95% sensitive test detects 60 x .95 = 57 true positive cases, but misses 3 who actually have the disease. A 95% specified test correctly classifies 940 x .95 = 893 people as negative, but also yields 47 false positives.

In this case, if you have a positive test, the chance that you have the disease is (true positives)/(total positives)= 57/(57+47) =54.8%. Before testing, your odds for having the disease were 10%, so a positive test has added some information, but there is still a roughly 50:50 chance that you don't actually have the disease! If you have a negative test the chances that you don't have the disease is (true negatives)/(total negatives)= 893/(893+3) = 99.7%. Before the test, your odds for not having the disease were 60%, so again, In a negative test has added a lot of information. Your chance of actually having the disease is minimal.

This logic applies t all tests, not just at-home STD testing. But, for at-home STD testing to perform identically to in-office testing, the two populations must have the same pre-test probability for having an STD. This is highly unlikely for a number of reasons. In-home testing is unaffordable for people with no insurance, poor insurance, or low incomes. The "worried well" might be more likely to order an in-home test before deciding to schedule a doctor visit. Those with active symptoms might be more likely to decide to see a doctor. Those who are seen in the office will have a history taken and undergo a physical exam. These will change the pre-test probability of disease. So, same test; different performance!

If you have stayed awake through this discussion, congratulations! If you haven't, you can thank me for the opportunity to nap.

73 Bruce KM2L

OUR EYES HAVE HAD IT!

(Exceprts from Ashelky Mateo's fine article in the Sept. Wall St. Journel)

Life has gone almost entirely virtual. Chatty workers spend an average of 9.5 hours a day looking at laptops and smartphones, It takes just two consecutive hours of staring at Zoom faces or scrolling Excel data to put you at risk for eyestrain and dryness, blurred vision and headaches.

Tiny eye muscles are no different from muscles in arms or legs...when you overuse them, they get fatigued and hurt!

Step one: Adjust the way you engage with these devices. Your phone should always be a foot from your face; your laptop about two feet. Keep screens 3 to 4 inches below your sight line as looking slightly downward is easier on the eyes.

Tweaking your environment can make a difference too. Most have escaped the harsh lighting of offices—whose fluorescents and LEDS can overtax eyes with subtle flickering and high wattage—swap standard bulbs for ones like Phillips EyeComfort LED lights that don't give off glare or emit high energy blue-light wavelengths.

The bad blue light contributes most to focusing problems...it also hinders production of melatonin, the hormone that regulates your body's sleep-wake cycle. The less shut-eye you get, the less respite for your eyes.

Attachable anti-glare filters act as a buffer against blue light, and stop ambient light from reflecting off your computer. Blue-light blocking glasses (*like Roka's ZX-2 lenses)* can nix up to 42% of harmful wavelengths.

Despite these tips, doctors still recommend the 20/20/20 rule: Every 20 minutes, take 20 seconds to look 20 feet away. That's enough time to check on the kids before your next (*healthy)* dial-in.

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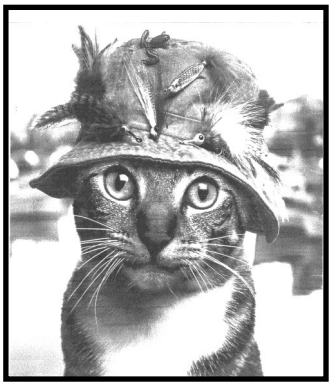
DO PETS SPREAD COVID-19 ?



Animals can catch the coronavirus, but that doesn't mean you need to keep your distance from the family pet. Disease experts say the chance of your pet catching the virus from you is tiny. Some instances of infection in domestic and farmed animals prompted a volley of inquiries to vets. But, transmission between animals is rare, unless they are in prolonged and close contact like at a zoo or farm.—an unlikely scenario for domestic pets.

The first case of an infected animal reported was in February, when a dog quarantined in Hong Kong after its owner fell sick tested positive for the virus. In March, five tigers and three lions at the Bronx Zoo were found to be infected.

Domestic cats in Spain, France, Germany, the U.K. and Russia have been confirmed infected. So have cats in Illinois and Minnesota, and a dog in New York City. In almost all these cases, pubic-health authorities concluded the animals became infected through contact with infected humans.

The CDC advises treating the household dog or cat as any other family member. Don't let them interact with people outside the household, and if someone within the household falls ill, isolate them away from others including pets. If you do contract the virus, get someone who isn't infected to care for your pet while you isolate and recover. If that isn't doable, then limit contact, however difficult it may be. Resist the urge to nuzzle, hug or kiss your pet and wear a mask as much as possible.

Keep cats and dogs socially distant from other animals as transmission rates are low unless, like people, they are in prolonged and close contact.

(Above taken from Jason Douglas's fine article which appeared in the Sept. 8, 2020 WSJ)

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ADDENDUM...Oct. 21, 2020, Marco President Bruce Small, KM2L adds the following: *Clarence, N.Y., It has been nuts around here. We had an overloaded closet shelf collapse, so I spent a couple of days doing repair work. The 80M and 40M delta loops repairs remain a work in progress,, and we have the exterminator coming over to chase critters in the attic, What fun!*

INFLUENZA VACCINATION:UPDATED 2020

The CDC has released its recommendations for routine influenza vaccination in the 2020-2021 season. Updates this year include the antigenic composition of seasonal influenza vaccines available in the U.S., the addition of two new influenza vaccines for use in people 65 and older, and new contraindications and precautions for the use of live attenuated influenza vaccine (LAIV).

Because the 2020-2021 influenza season will coincide with the coronavirus disease 2019 (COVID-19) pandemic, vaccination of people six months and older is of particular importance to reduce symptoms that could be confused with those of COVID-19 and to alleviate stress on the health care system. During the 2017-2018 season, which had an unusually long duration of widespread influenza activity and high hospitalization rates, vaccination was calculated to have prevented an estimated 7.1 million illnesses, 3.7 million medical visits, 109,000 hospitalizations, and 8,000 deaths.

Influenza vaccination is recommended for all people six months and older who do not have contraindications. Vaccination is most effective if received by the end of October, although a vaccine administered in December or later is likely still beneficial. Children six months to eight years of age who are not known to have received at least two doses of influenza vaccine at least four weeks apart before July 1, 2020, require two doses of vaccine this season and should receive the first dose when the vaccine is available, so the second dose can be administered by the end of October. For people who require only one dose this season, immunity will be best with vaccination in September or October, particularly among older adults. Influenza vaccination can be delayed in people with suspected or confirmed COVID-19 until they are no longer astutely ill.

Inactivated influenza vaccines, recombinant* influenza vaccine, and LAIV* are available for the 2020-2021 influenza season. Standard-dose and high-dose, unadjuvanted*, inactivated influenza vaccines are available in quadrivalent formulations. Adjuvanted inactivated vaccines are available in trivalent and quadrivalent formulations. Recombinant influenza vaccine and LAIV are available in quadrivalent formulations. For the 2020-2021 influenza season, all inactivated vaccines are egg based, except for Flucelvax Quadrivalent, which is cell culture based, and Flublock Quadrivalent, a recombinant vaccine. People with egg allergy can receive any vaccine, although those with a history of severe allergy to egg should be supervised in a health care setting after administration.

The composition of the 2020-2021 U.S. influenza vaccines includes updates to the influenza A(H1N1)pdm09, influenza A(H3N2) and influenza B/Victoria lineage components. These updated components are included in the trivalent and quadrivalent vaccines. Quadrivalent vaccines include an additional influenza B virus component from the B/Yamagata lineage, which is unchanged from the 2019 –2020 season.

Two new vaccines are available this season for older adults: Fluzone High-Dose Quadrivalent, which replaces the trivalent-high-dose formulation, and Fluad Quadrivalent.

LAIV may be used intranasally in children at least two years of age and in adults up to 49 years of age. LAIV should not be used in pregnant women. Newly added contraindications for the use of LAIV include anatomic and functional asplenia; active communication between the cerebrospinal fluid and oropharynx, nasopharynx, nose, ear, or other cranial cerebrospinal fluid leak; and cochlear implants.

When vaccine supply is limited, vaccination efforts should target the following groups: **adults 50 years and older; Children 6-59 months; Children up to 18 who are receiving aspirin-or salicylate-containing medications (risk of Reye syndrome after influenza infection); Immunocompromised people; Obese people with a BMI of 40 or greater; People with chronic pulmonary, vascular, renal, hepatic, neurologic, hematologic, or metabolic disorders other then uncomplicated hypertension, Pregnant women, Residents of long-term care facilities; Household contacts and caregivers of higher-risk people; Health care professionals.**

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("RECUMBINANT"...A cell or piece of genetic material found by recombination to prevent instability.)

("LAIV"...Live Attenuated Influenza Vaccine.)

("ADJUVENT".Something modifiing the action of the principle ingredient.)

CONCIERGE MEDICINE

As presented on MARCO Grand Rounds of the Air, Oct. 11, 2020.

Concierge medicine is a relationship between a patient and a doctor in which the patient pays an annual fee or retainer. This may or may not be in addition to other charges. In exchange for the retainer, doctors agree to provide enhanced care, including principally a commitment to limit patient loads to ensure adequate time and availability for each patient. While all concierge medicine practices share similarities they vary widely in their structure, payment and operation. Estimates of U.S. doctors practicing concierge range from 800 to 12,000 out of about 904,000 practicing physicians (1.2%).

There are three primary types of concierge medicine models

The Fee for Care (FFC)(20%) is an annual retainer model. The retainer fee covers most services in the doctor's office. Often, vaccinations, lab, x-rays, and other services are excluded and charge for separately on a cash basis.

The Fee for Extra Care (FFEC)(80%) is similar to the above, however, the additional services are now charged to Medicare or the patient's insurance.

The Hybrid model where doctors charge a monthly, quarterly, or annual retainer for services that Medicare and insurers do not cover. These may include: email access; phone consultations; newsletters; annual physicals; prolonged visits and comprehensive wellness plans. For all covered services, the doctor will bill Medicare and insurance for patient visits and services covered by the plans. This model allows the doctor to continue to see their non-retainer patients while billing their concierge patients a fee for the increased or "special" services. Some practices are cash-only and don't accept insurance of any kind.

Concierge physicians care for fewer patients than those otherwise, ranging from 50 patients per doctor to 1,000, compared to 3000 to 4000 that the average traditional doctor now sees every year. The annual fees average from $195 to $5,000/year. The higher priced plans generally include most "covered" services where the client is not charged additional fees for most services (labs, x-rays, etc.) Some of the other benefits of concierge are in-home visits, worldwide access to doctors and expedited emergency room care.

By 2010, most concierge physicians were between 40-59, internists, family practitioners, cardiologists & pediatricians who saw 6-10 patients/day.

Direct Primary Care practices, (DPC) is another similar in philosophy to the concierge medicine lineage, bypassing insurance and goes for a more "direct" financial relationship. DPC annual fee often includes most or all physician services. This model does NOT rely on insurance co-pays, deductibles or coinsurance fees. In other words, DPC takes a flat rate fee whereas other models usually charge an annual retainer fee.

The concierge model, originated with MD International (MD2), which was founded in 1996 in Seattle by Dr. Maron and Hall. At the time, Maron was doctor for the Seattle SuperSonics sports team, and sought to provide luxury primary care to their families. By 2010, 1/4 of all doctors operating with a concierge medicine model were affiliated with MDVIP.

In 2017, a new company named "Forwards" started by former Google and Uber employees with strong venture support began offering concierge medicine services for equivalent of $160 in 2019 per month. Common services included 24/7 phone access, same day appointments, short waiting times, preventive health and wellness services and accompaniment when seeing specialists or in the E.R.

In 2003 and 2005 several members of Congress introduced bills that would have prohibited physicians from charging retainer fees. No action was taken however.

In the Medicare Prescription Drug Act of 2003, the Congress directed the GAO to study concierge care and its impact on Medicare patients. The GAO report, published in 2005, concluded that the "small number of concierge physicians makes it unlikely that the approach has contributed to widespread access problems. It continues to monitor the trend.

The concept of concierge medicine has been accused of promoting a two-tiered health system that favors the wealthy, limits the number of physicians to care for those who cannot afford it, and burdens the middle and lower class with a higher costs of insurance. Detractors contend that while this approach is more lucrative for some doctors and makes care more convenient for his patients, it makes care less accessible for other patients who cannot afford or choose not to pay the required membership fees.

It should be noted that most concierge patients have incomes from $125,000 to $315,000 per year and usually live in big cities.

NEW FACES* for MARCO & RENEWALS, as of 11/4/20

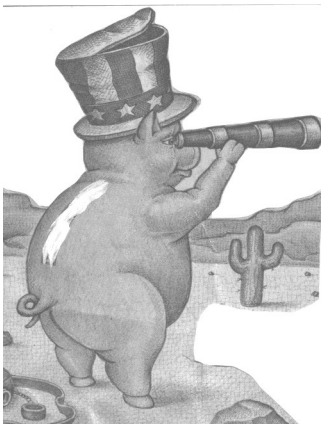
AG7PY	Gary Nelson,	NY
AA2LD	Leland Dean e	UT
KOES	Kirshenbaum	CO
KOIR	Ralph Fedor	MN
K3OF	Leon Dawson	FL
KM3S	Alan Adler	PA
K9SGS	Steve Sligar	IL
KC5BHO	Tom Durham	FL
KJ7RGX	Dan Sprague	OR
KSODR	Don Richter	KS
KG2HIX	David Craig	UK
KF7ZN	Ron Wilcox	UT
KG3I	Doug Deutsch	PA
KD9JTU	Steve Channel	IN
N20MD	Tom Diakun	NY
N2QM	Timothy Sweeney	NY
N3FJ	Bob Olszewki	PA
N9WDQ	Dennis Tuchalski	IL
NH7FR	Toby Clairmont	WA
W7SKH	Sue Rodgers	AZ
W0EO	Dick Brethold	MO
W0QPR	Debbie Brethold	MO
W4PFW	Peter Williams	VA
N60SR	Andrew Magnet	FL
VA7BSP	Richard Jones	BC

RENEWALS

KD4IZ	Jack Spitznagel	MD
KT9S	Marianne Geiger	IL
KX4CD	Gary Coates	NC

INTERESTED

WB3APJ; NQ6F; W1HMM; N3FJv, W7DOC, KG4HZC.



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*Phone:*_____

*Internet Address:*_____

*Your Birthday*_____ **(Year optional.)** *Member ARRL*__

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Jay Garlitz, Secretary,
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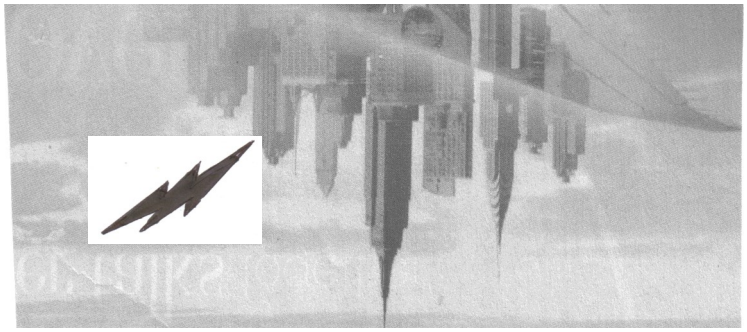

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DAY	EASTERN TIME	FREQ.	NET CONTROLS
Any Day	On the Hour	14.342	Hailing Frequency
Sunday	10:30 a.m.	14.140	N5RTF (CW-net)
Sunday	11 a.m.	14.342	KD4GUA
Wednesday	8:30 p.m.	7.22	WB9EDP

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