Finger Lakes

Chapter #29

Founded March 29, 1966

July

2020

Newsletter

Chapter Information

President	Frank Wiethuechter-K2RSY	3635 Rockefeller Rd	Moravia, NY 13118	315-289-5802
Vice President	Ron Panetta-WB2WGH	7913 Walking Stick Way	Liverpool, NY 13090	315-451-4681
Treas./Sec.	Gary Kimball-WB2SER	6931 Canton Street	Warners, NY 13164	315-638-1022
Newsletter	Ron Panetta-WB2WGH	7913 Walking Stick Way	Liverpool, NY 13090	315-451-4681

Newsletter Archive: https://www.qcwa.org/chapter029.htm

June Meeting

Friday June 26th marked the second month of Chapter 29 meetings online on the Zoom platform. A total of 17 members and guests joined in for virtual eyeball QSOs, coffee, snacks (at home), and a brief business meeting. Those attending were: Ron WB2WGH, Gary WB2SER, Barry WB1FFI, Keith N2GSL, Walt N2IK, Frank W2XF, Fred W2LGA, Jerry NK2C, Frank K2RSY, Doug N2JOM, Bob WA2LBG, Tim N2VZD, Rita KC2GFT, Amir K9CHP, Charlie K2IWQ, Harold KE2FV, and Ron N2DMP. The Zoom portal opened at around 10:00AM, courtesy of Ron WB2WGH, and chat time continued until the business meeting started at 11:30.

Chapter President Frank K2RSY greeted those attending with a wish for continued good health and hopes for a brighter future when we can again meet in person. A quick check of the treasury showed no change since last month, with $478.86 in the till.

Two new Silent Keys were noted since last month. Leonard Capucelli AA2HV of Solvay passed on June 22nd, and Robert Raide W2ZM of Penn Yan, formerly of Syracuse, on June 23rd. Both will be missed by the amateur community.

Ron WB2WGH noted that the LARC socially distant VE test sessions held on June 20th were very successful, with several new Technicians passing, and the addition of around 7 new Amateur Extra licensees who got in under the wire with the old tests. New test material for the Extra will take effect on July 1st. Another socially distant VE session is planned for July. Reservations are required and attendance is limited at each session. Contact Al May WA2KFV for information and reservations. The LARC Picnic will be held at the Clay Town Park Pavilion on Saturday July 25th starting at noon. Attendees should bring all of their own food, drinks, and supplies; and practice social distancing.

Bob WA2LBG mentioned that the Fulton Amateur Radio Club will be running Field Day operations from individual stations. And this year's recipient of their Tom Cantine Memorial Scholarship was Maria Covey K2MJC.

Jerry NK2C reminded us that there will likely be a Zoom meeting of the Radio Amateurs of Greater Syracuse (RAGS) on the second Thursday of July, and there will definitely be a newsletter. Usually, there is neither in July or August.

Ron announced that the next QCWA meeting on July 31st would be a picnic at the Town of Clay Park Pavilion on Wetzel Road in Liverpool. Those wishing to attend should bring their own drinks and food and any needed paper plates and utensils. The

use of the grilles is not permitted at this time, and social distancing and face mask wearing is required where possible. There are several fast food restaurants nearby, as well as The Brooklyn Pickle Deli, for those who wish to partake. QCWA members and regular meeting attendees will be notified of any change or cancellation of this event.

Discussion of the upcoming Field Day participation followed, with several members planning to operate from home, many with generator and / or battery power, and some with temporary antennas. Submission of logs to the ARRL should be made including the name of the club that the operator wishes to credit with their point total, if any. Operators must operate using their own calls, and not a club call. Details are on the ARRL website.

Walt N2IK mentioned that all public service activity for this summer has been canceled, mostly because the events have been converted to online fund raisers due to Covid-19. A brief discussion of the future home for QCWA meetings included suggestions of the Finally Ours Restaurant on Route 175 between Onondaga Hill and Marcellus, and a new IHOP that is under construction on Route 31 near the Great Northern Mall. Completion is expected in the fall.

The next hamfest that has not canceled is the Batavia Hamfest at the Alexander Firemens Field on July 18th. If it does take place, it will be the first since the Pandemic forced cancellations starting in March.

With that, Frank closed the meeting with the hope that things will return to normal, and wished all good health.

Birthdays

July
10th - Fred Cole - N2NRV
12th - David Robinson - KB2HBA
18th - Frank Decker - W2XF
21st - Ron Panetta - WB2WGH
28th - Tim Colson - N2VZD

August
1st - Moe Clayton - WA2ICB
2nd - Mike Lang - W2ANL
12th - Joseph Molinaro - W2FUU

September
4th - Gary Kimball - WB2SER
26th - James Murphy - WA2MUX

July Face to Face Meeting/Picnic

The July meeting (**July 31**) will be a face to face meeting at the Clay Town Park pavilion on Wetzel Road adjacent to the YMCA. This is the same pavilion where LARC has held its summer picnic in recent years. Come rain or shine. Based on current social distancing guidelines we're limited to 25 people and masks are required. We have the pavilion reserved from 10AM until 2PM.

Logistics are as follows:

- Alcohol is not permitted. A complete list of park rules is located at https://www.townofclay.org/recreation/parks-green-areas
- The Chapter will **not** be providing any food, drink, plates, utensils, etc. It is the responsibility of all attendees to bring their own food and/or drink.
- No 50/50 this month.
- There are picnic tables in the pavilion which should accommodate the group. Feel free to bring a folding chair just in case.
- There are plenty of food services in the area that can provide breakfast and/or lunch. Besides the usual fast food restaurants (McDonalds, Burger King, Wendy's, etc.) there are plenty of other food services in Liverpool, North Syracuse, Mattydale and

surrounding areas. There is also a new Brooklyn Pickle at 7175 Buckley Road just south of Taft Road adjacent to the Medical Center. I did contact them, they open at 10AM, will take phone order the day before and have them ready for pickup at 10AM when they open. Their web site is at https://www.brooklynpickle.com/ and phone number is (315)671-2185. This is not an endorsement for Brooklyn Pickle as I rarely frequent the establishment. Having said that, I do plan to get my lunch from there.

General Electric

Computers & Syracuse

I would like to thank Steve Auyer, N2TKX, for the following article on GE computers and Syracuse.. For me, it brinks back many memories. When I was hired by GE in 1974, my first assignment was a multiyear project to develop a FORTRAN program to generate test vectors for asynchronous logic. I was hired by GE's Electronics Laboratory (Electronics Park, Building 3) which had a GE 115 remote data entry station which then routed the programs to a GE 635 computer (one in Court Street and the other in French Road, Utica). Steve used the term "fairly small computer" in describing the GE 115. I might point out that small computer occupied a room about twice the size of my kitchen. Thanks Steve for the trip back through memory lane.

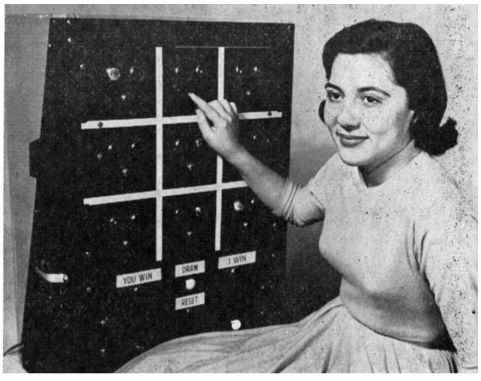
General Electric, Computers, and Syracuse

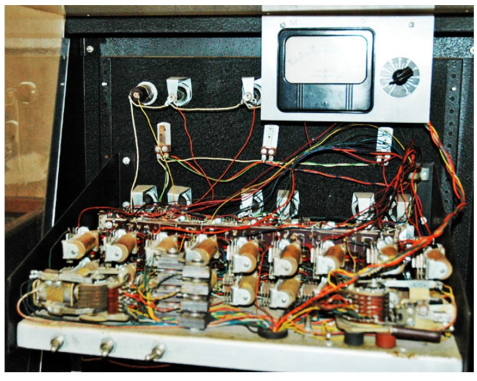
A short history of General Electric's digital computer business and how it all began in Syracuse.

1954 – *"Automatic Punch Press developed by scientists at General Electric's Electronics Laboratory at Syracuse, N. Y., is controlled by an electronic brain. The machine is a by-product of development work done by G-E scientists on an automatic component assembly system, under a U. S. Signal Corps contract. Directions are fed to the punch press by an electronic digital computer, which "reads" information on size, number and location of holes to be punched from a perforated card. G. E. describes the machine as a forerunner to an automatic assembly machine in the system being developed for the Signal Corps, and said techniques employed to make it automatic may also be applied to machines for drilling, riveting, stapling, electrical testing, and others. Checking operation of the electronic brain, and punching accuracy, are John Ruppert (left) and Frank Rives, of the G-E Electronics Laboratory."* This was designed before transistors became generally available so it used, you guessed it – vacuum tubes – over 100 of them!

1955 – The Stanford Research Institute in Menlo Park, CA received a contract from the Bank of America to develop a computer that would automate the processing of checks. The Stanford machine was known as ER-MA – Electronic Recording Machine Accounting. While the Stanford machine did work, it used 8,200 vacuum tubes, 34,000 diodes and occupied 4,100 square feet of floor space. GE was awarded a contract to replace the vacuum tubes with transistors and build 32 of the machines. In 1956 the Industrial Computer Section was established at Electronics Park in Syracuse and in 1957 GE made the decision to pursue digital computers as a major product line - the Industrial Computer Section was renamed the GE Computer Department and moved to Phoenix, AZ.

1957 - The GE Electronics Laboratory in Syracuse demonstrated an "unbeatable" Tic-Tac-Toe Machine. "*NO CAN DO – Yola Di Battista finds electronic wizardry too tough a foe as she tries to beat the unbeatable tic-tac-toe machine devised by General Electric engineers here. Yola works in the Cathode Ray Tube Department, Bldg. 6. The tic-tac-toe machine was created by GE engineers Bert Liner, Bob Thor and Bob Hill."* The machine was truly a marvel of design – since its' logic basically consisted of a number of hardwired latching and stepping relays. By the way, Jeff Houck-N2LYR now has this unit and is trying to get it functioning again.





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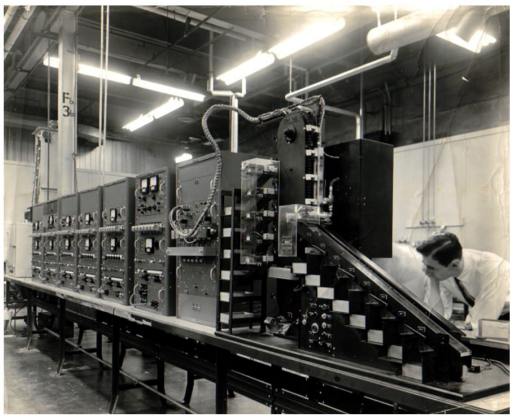
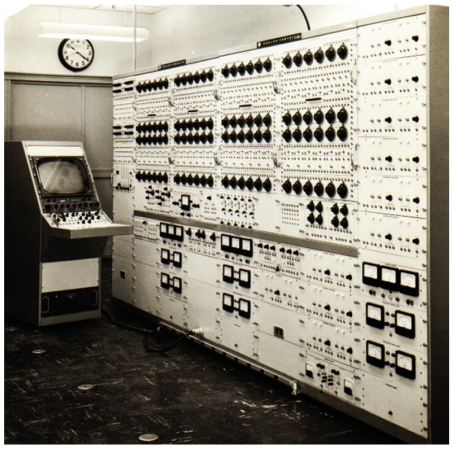
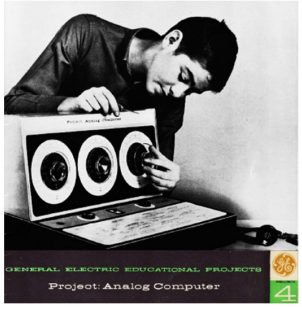
1957 - GE's Semiconductor Product group was also located in Syracuse and was advertising the benefits of replacing vacuum tubes with transistors - "*Some airborne computers using transistors use less than 100 watts, A similar type vacuum tube computer would use 3,000 watts...but would do only half as much work.*" What GE's ads didn't mention was that process control of transistor manufacturing at the time left something to be desired and transistors from a single production lot could have widely varying performance characteristics. A young engineer, Louis Agresti-W2OPF, was assigned the problem and developed a "Transistor Sorter" where transistors coming off the production line were run through an automatic tester that would drop each transistor into 1 of 8 different trays depending upon that unit's operating characteristics. The transistors in a particular tray were then marked with the part number appropriate for their characteristics.

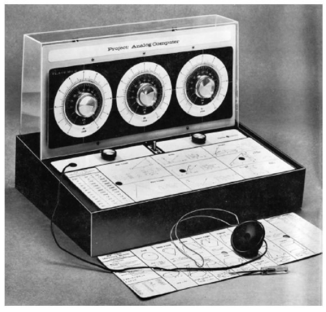


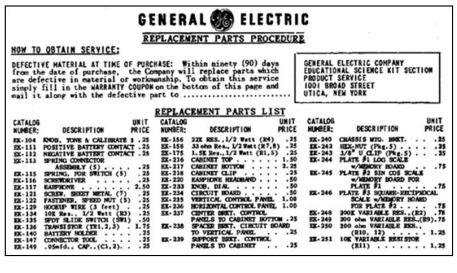


1961 – Of course, not everything was digital. GE's Heavy Military Equipment Department (HMED) maintained an Analog Computer Laboratory in Syracuse. This facility was very useful in modeling the time-varying performance of an item – quite often a large radar antenna. The equations describing the antenna were programmed into the computer which could then predict how fast and accurately the antenna would respond to a command to change position.

1961 - GE's Radio Receiver Department in Utica produced a number of educational kits, one of them being the EF-140 Analog Computer Kit. Although quite a bit simpler than the HMED analog computer, it could expose students to analog computer technology. It was also a lot cheaper at $29.95! Of course, as simulation programs were developed that ran on digital computers, large analog computers slowly faded from the scene.






GENERAL ELECTRIC
REPLACEMENT PARTS PROCEDURE

HOW TO OBTAIN SERVICE:

DEFECTIVE MATERIAL AT TIME OF PURCHASE: Within ninety (90) days from the date of purchase, the Company will replace parts which are defective in material or workmanship. To obtain this service simply fill in the WARRANTY COUPON on the bottom of this page and mail it along with the defective part to .....

GENERAL ELECTRIC COMPANY
EDUCATIONAL SCIENCE KIT SECTION
PRODUCT SERVICE
1001 BROAD STREET
UTICA, NEW YORK

REPLACEMENT PARTS LIST

CATALOG NUMBER	DESCRIPTION	UNIT PRICE
EK-104	KNOB, TONE & CALIBRATE ‡	.25
EK-111	POSITIVE BATTERY CONTACT	.25
EK-112	NEGATIVE BATTERY CONTACT	.25
EK-113	SPRING CONNECTOR	.50
EK-115	SPRING, FOR SWITCH (S)	.25
EK-116	SCREWDRIVER	.25
EK-117	EARPHONE	2.50
EK-121	SCREW, SHEET METAL (T)	.25
EK-122	FASTENER, SPEED NUT (S)	.25
EK-129	HOOKUP WIRE (3 feet)	.25
EK-134	10K Res., 1/2 Watt (R3)	.25
EK-135	SPOT SLIDE SWITCH (SW1)	.50
EK-136	TRANSISTOR (TR1,2,3)	1.75
EK-140	BATTERY HOLDER	.25
EK-147	CONNECTOR TOOL	.25
EK-149	.05mfd., CAP.,(C1,3)	.25
EK-156	22K RES., 1/2 Watt (R4)	.25
EK-158	33 ohm Res., 1/2 Watt (R7,8)	.25
EK-175	1.5K Res., 1/2 Watt (R1,5)	.25
EK-216	CABINET TOP	1.50
EK-217	CABINET BOTTOM	2.25
EK-218	CABINET CLIP	.25
EK-220	EARPHONE HEADBAND	.50
EK-233	KNOB, DIAL	.50
EK-234	CIRCUIT BOARD	.50
EK-235	VERTICAL CONTROL PANEL	1.00
EK-236	HORIZONTAL CONTROL PANEL	1.00
EK-237	CENTER SHIT, CONTROL PANELS TO CABINET BOTTOM	.25
EK-238	SPACER SHIT, CIRCUIT BOARD TO VERTICAL PANEL	.25
EK-239	SUPPORT SHIT, CONTROL PANELS TO CABINET	.25
EK-240	CHASSIS MTG. BRKT.	.25
EK-241	SEX-NUT (Fig.4)	.25
EK-242	1/4" U CLIP (Fig.5)	.25
EK-244	PLATE F1 LOG SCALE w/MEMORY BOARD	.75
EK-245	PLATE F2 SIN COS SCALE w/MEMORY BOARD FOR PLATE F1	.75
EK-246	PLATE F3 SQUARE-RECIPROCAL SCALE w/MEMORY BOARD FOR PLATE F2	.75
EK-248	200K VARIABLE RES.,(R2)	.75
EK-249	300 ohm VARIABLE RES.(R9)	.75
EK-250	300 ohm VARIABLE RES., (R10, 12)	1.25
EK-251	10K VARIABLE RESISTOR (R11)	1.25

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1963 – Before you could do anything useful with a computer you had to get your program and data into the computer. The process in Syracuse was that if you were an engineer you would write a program in FORTRAN (FORmula TRANslator) which would then be key-punched on hundreds to thousands of tabulating cards. A fairly small computer such as a GE-115 or GE-225 would read the cards and transfer the data to magnetic tape. The magnetic tape could then be mounted on one of a number of tape drives connected to a large computer such as the GE-635 which would read the program cards, compile the program and load it into memory, then read the data cards, perform the required calculations and print out the result. Pitfalls in the process were dropping a deck of cards, or having one card misread which would abort the run - spilling coffee on a tray of cards wasn't a frequent happening, but was a real disaster! Or a simple programming error could generated hundreds of pages of printed gibberish instead of the expected results.

1965 - GE had continued to develop digital computing technology in Syracuse and apply it to military programs – one of the most successful being the guidance system developed for the ATLAS Intercontinental Ballistic Missile. In 1965 these efforts were consolidated in the Special Information Products Department in Syracuse. In 1968 SIPD was renamed the Large Systems Department – which to the consternation of upper GE management began to be referred to as LSD – remember that this was the 60's. In 1968 LSD was moved to Phoenix, AZ, combined with the GE Computer Department, and renamed the GE Information Systems Group.

1962-1968 - Computers use what is called an "Operating System" which is basically the software that ran the computer. Think of an operating system as something like the driver of a car - the driver controls what the car is doing at any moment (hopefully), and the car does all the work. Computer manufacturers give their operating systems descriptive names - one of IBM's early operating systems, back when computers used magnetic tape for storage, was "**TOS**" - **T**ape **O**perating **S**ystem. Later, when high-speed disk drives replaced the slower tape drives, IBM changed the name to "**DOS**" - **D**isk **O**perating **S**ystem. GE was a little more inventive, naming the 1962 version of their operating system **GE**COS for "**GE**neral **C**omprehensive **O**perating **S**ystem." Notice how they snuck "**GE**" into the name. As it turned out, **GE**COS turned out to offer a unique feature that gave GE a competitive advantage in later years.

1968 - In the early 1960's computers ran in what was called the "batch" mode. That is, there would be a series of programs queued up to be run and when one program finished the next-in-line program would be loaded and run. The problem with this approach was that you could have a massive computer - tons of memory, lots of processing power, lots of storage devices - and since it could only run one program at a time it might be running a program that used lots of memory but almost no processing power, or a program that spent a lot of time reading/writing data to a storage device, but used little memory or processing power. This was a pretty inefficient use

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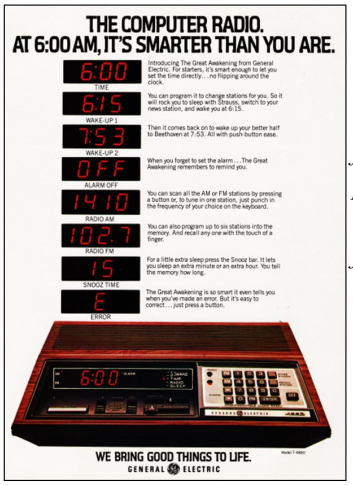
of a very expensive machine. In 1968 GE introduced the third version of it's operating system - GECOS III. GECOS III was the first operating system that allowed a computer to simultaneously operate in three modes: Time Sharing, Batch and Remote Batch. GECOS III allowed all the resources of the computer to be fully utilized all the time - swapping programs in and out of memory to do this. So a GE computer running GECOS III was more efficient - effectively reducing the cost of running any particular job since the operating cost of the computer would now be spread over more jobs. GE offered the only computer with this multi-tasking operating system.

1969 – In addition to selling computers, GE began operating a number of "Computer Mega Centers (CMCs)" around the country that would provide remote computing services – Time-Sharing. For institutions that required computing power but didn't have the resources to support the large staff associated with a computer of their own, they could purchase a number of data terminals and use high-speed lines to access the computing power of GE's CMCs.

1970 – It became obvious in the late 1960's that there were too many firms manufacturing computers – some of them went out of business, others merged with other computer firms. In its GE-600 family running GECOS III, GE had a technical advantage over other computer manufacturers. However there was one big problem - IBM. GE and the other computer manufacturers simply didn't have enough market share to effectively compete with IBM. So General Electric decided to sell it's computer business to Honeywell. Of course, Honeywell renamed the GE computers that they were now selling under the Honeywell brand - the GE 635 was now the Honeywell 6000. 6000 sounds a lot more powerful than 635!

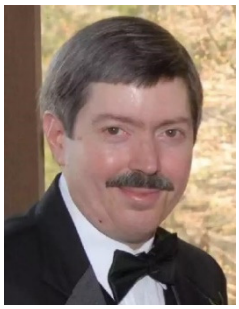
1973 – Although now out of the commercial computer market, GE continued to design and produce specialized computers for military and space applications. This advertisement from GE's Aircraft Equipment Division in Utica is an example. Eventually even this market faded away as the Department of Defense, tired of having to support many types of computers manufactured by various firms, fostered the development of a line of AN/UYK-xx standard military computers in the 1970's and 1980's.



1977 – GE continued to use computers in their commercial products, however, as this advertisement from Utica's Radio Receiver Department shows: "*Type a few numbers on the keyboard and a microprocessor inside this GE clock radio provides: delayed alarms, two wake-up times. pushbutton tuning, instant station recall, programmable snooze times – even a battery backup in case of power failure. The GE model 7-4880 is $116.95*" GE might have tried to pack too many programmable features into this radio as there were a number of product returns from users who "*…couldn't figure out how get the dang thing to work…"* The 1979 price of $116.95 equates to $413.02 today – for a radio that was difficult to use. Sales were low and GE employees could purchase unsold 7-4880's at the Employee's Store in Syracuse at the discount price of $24.99.

Silent Keys

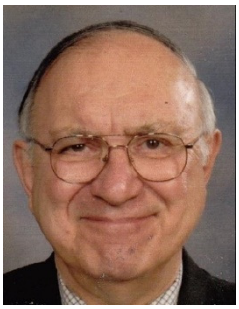
Leonard Capucilli, AA2HV



Leonard L. Capucilli June 22, 2020 Leonard L. Capucilli, 65, of Solvay, passed away Monday, June 22nd at home. He was born in Syracuse to the late Leonard and Rose Mary (Sgroi) Capucilli in 1954. Len was a longtime lane man and trained AMF mechanic at Solvay Recreation Alley's and a former part time Town of Geddes Policeman. He was also a skilled amateur radio operator. He is survived by his wife, the former Mary Ellen Hermann; 3 children, Leonard R. Capucilli, of Solvay, Angela R. (Mike) Smith, of Grand Rapids, MI and Robert H. (Gina) Capucilli, of Plattekill, NY; 5 grandchildren, Tyler, Duke, Ella, Andrew and Veda; his sister, Phyllis (George) Eustis, 2 aunts, 5 nephews, a niece and several cousins. A Mass of Christian Burial will be celebrated 10:00 am Saturday at St. Ann's Church, 4461 Onondaga Blvd, Syracuse. Family and friends may call from 9:00 to 10:00 am at church prior to Mass. Private burial will follow in Greenlawn Memorial Park, Warners. Current NYSDOH guidelines will be followed. BAGOZZI TWINS FUNERAL HOME has care of arrangements. In lieu of flowers, donations may be made in his memory to the Humane Association of CNY, 4915 W. Taft Rd, Liverpool, NY 13088. Please share online tributes and memories at www.bagozzitwins.com.

Published in Syracuse Post Standard froW2m Jun. 24 to Jun. 25, 2020.

Thomas Ordon, W2OLH



Thomas J.F. Ordon July 10, 2020 Thomas J.F. Ordon, 83 of Skaneateles, passed at Auburn Community Hospital on July 10th, after a brief illness. Thomas was a devoted husband to Helen B. Ordon who passed away in 2016. He leaves behind a loving family. Surviving are his children Christina M. Ordon of Auburn NY and Gregory T. Ordon of Cicero NY, brother David Ordon of Esperance, NY He also has grandchildren who he absolutely adored and cherished, April Ordon, Daniel & Wesley Templeton. Thomas was a gifted Professional Engineer, working for National Grid for over 30 years, and also shared his knowledge as an adjunct professor at Bryant & Stratton, and OCC. He Graduated from High School in 1954 as Valedictorian of St. Mary's Institute in Amsterdam, NY, and graduated in 1958 from Union College with a BA in Science. He was very involved in his hobby of Amateur Radio (W20LH) and would go to many ham fests and meets. Always willing to share his knowledge and talk to anybody about anything. Tom was devoted catholic and was a member of St. Mary's of the Lake Church in Skaneateles, NY. Above everything else he was very devoted to family and cherished times he would get to spend with them. Calling hour will be held on Friday, July 17th from 8:30 to 9:30am at Robert D. Gray Funeral Home, Skaneateles. There will be a limited amount of people in the building at 1 time and masks must be worn at all times. A mass of Christian burial will be at 10am at St. Mary's of the Lake Church. Limited seating and masks at church as well. Thomas will be buried at St. Mary's Cemetery, Skaneateles. In lieu of flowers, memorial donations may be made to the Alzheimer's

Association. To send condolences, visit robertdgrayfuneralhome.com

Published in Syracuse Post Standard from Jul. 10 to Jul. 12, 2020.

Robert J. Raide, W2ZM

PENN YAN - Robert J. Raide, age 76, of Penn Yan, N.Y. passed away on Thursday (June 18, 2020) at FF Thompson Hospital in Canandaigua, N.Y.

A private memorial for his family will be held at St. Mark's Episcopal Church in Penn Yan.

Robert was born in Syracuse, N.Y. on February 9, 1944, the son of the late Joseph and Ann (Lukacz) Raide. He was self-employed and owned and operated Raide Canvas Company in Syracuse. He also owned and operated the former WOZO (currently WYFL) radio station in Penn Yan, as well as WCDO radio in Sydney, N.Y. He was the Vice President of Galaxy Communications Inc., Syracuse, N.Y.

Robert is survived by his wife, Linda J. (DeLong) of Penn Yan; son, Michael (Kimberly) Raide of Frederick, Md.; daughter, Melissa (Michael Dillon) Raide of N.H.; sisters Helen Bigsby of Syracuse, Lorraine (Thomas) Wennogle of Ohio, Janice Rosenberg of Ariz., and Joyce Raide of O; as well as a niece and several nephews.

Robert was an active amateur radio enthusiast, call sign W2ZM, since the age of 12. His interest in bench rest shooting led him to being National Champion twice. Other interests included both drag racing and flat bottom boat racing.

Memories of Robert may be shared with his family and friends at townsendwoodzinger.com

To Plant Memorial Trees in memory, please visit our Sympathy Store.

Published in Finger Lakes Times from Jun. 23 to Jun. 30, 2020.

1st = first week of month, 2nd = second week of month, …, Last = last week of month

August 2020

Sun	Mon	Tue	Wed	Thu	Fri	Sat
• 7p—RAGS Net, 3.922 LSB	• 7p—Fireside Chat Net, 146.67R • 8:30p WiresX Tech Net 147.39R	• 5:30p—CW Net, 146.67R • 7p—QCWA 6M Net, 53.05R	• 7p—Swap Net, 147.00R		• 7p—220 Net, 224.12	• 9a—CW Net, 146.67R • 7:30p—SSTV Net, 146.67R • 9p—Int WiresX 147.39R
						1 • Ithaca Ham-fest • ARRL 222 & Up
2 • ARRL 222 & Up	*3* • 6:30p—LARC Board	*4*	*5*	*6*	*7*	*8*
9	*10*	*11* • AWA Conven-tion	*12* • AWA Conven-tion	*13* • AWA Conven-tion	*14* • AWA Conven-tion	*15* • ARRL 10GHz & Up • Saratoga County ARA Hamfest • AWA Conven-
16 • ARRL 10GHz & Up • ARRL RTTY Rookie Roundup	*17*	*18*	*19*	*20*	*21*	*22*
23	*24*	*25*	*26*	*27*	*28* • 11:30a—QCWA Luncheon, TBD (last)	*29* • Roc City Net Hamfest
30	*31*					