

S P A R K S



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Controlled by VE3CRK
 VE3CRK
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 (uncompressed)

DAY RALPH
 454 HOLCAN AVENUE
 OSHAWA

VE3CRK
 L1G5X6

WOMEN
 THURSDAY
 8:00 PM
 NIGHT

NEXT MEETING Tuesday 8:00 p.m. April 12 ROOM 2041 Durham College

Our Guest Speaker will be Alan S. Bryant who will describe his impressions of DX operation from the other end of the circuit. He was involved in the Greenland operation and will be able to give us a first-hand report on what it's like to deal with the average ham on a dx trail. He will be introduced by Walter, VE3DYE.

The next meeting after this one, will NOT be held in the College as it will be in the form of a tour of the Andrew Murray Plant in Whitby. The time meeting is tentatively scheduled end of this time. Ray (Urbie Ray) VE3UB will be speaking on the operation of Single Side Band.

DATE & PLACE

Mac, JING has worked 25 WSH members and will be presented with the club award for this accomplishment. If you haven't participated yet, start now and look for them. Harry, JCG has joined the computer group and has his new Motorola 68000 working. Mike, QEV has his micro and putting RTTY with Baudot code and is now working on the interface. It will receive. This is a bit of a task as the computer works in ASCII code. Bob, JNN says that Marty has left his shack - anyone else want to invite him into their QTH? There are several new converted CB rigs working on the 10 meter band and WWS had his on the 10 meter WSR met. HMC and a couple of others are also city-tailed up for 28.600. These were what were being cleared by Radio Shack stores - as you know, the new 40 channel is a well-documented fact but on the air as of April 1. What a great B-D. Here's a new TR-10CW transmitter and BVAC remote VFO one. We think very well and he is knocking off DX like you wouldn't believe, to be a popular expression.

EXECUTIVE & OFFICERS 1977

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GET WELL CARDS	Ted Brant	VE3ADD	668-3561
EDITOR	Bernie Sandbrook	VE3ATI	655-4156

<u>NETS</u>	WEDNESDAYS	8.00 p.m.	7,050	cw practice	Control	VE3GND
	THURSDAYS	7.30 p.m.	OSH	Rptr Net	"	VE3AEX
	SUNDAYS	10.00 a.m.	28,600		"	VE3GOU
	NIGHTLY	9.00 p.m.	14,160	Whiskey & bagpipe *		-----

* (above not controlled - cw encouragead)

NEXT MEETING Tuesday 8.00 p.m. April 12 ROOM C243 Durham College

Our Guest Speaker will be Allan S. Bryant who will describe his impressions of DX operation from the other end of the circuit. He was involved in the Guatemalan operation and will be able to give us a first-hand report on what it's like to deal with the average ham on a dx basis. He will be introduced by Walter, VE3DYE.

The next meeting after this one, will NOT be held in the College as it will be in the form of a tour of the Andrew Antenna plant in Whitby. The June meeting is tentatively scheduled and as of this time Ray (Uncle Ray) VE3UR will be speaking on the operation of Single Sideband.

BITS N PIECES

Mac, 3IKG has worked over 25 NSR members and will be presented with the club award for this accomplishment. If you haven't participated yet, start now and look for them. Harry, 3QG has joined the computer group and has his new Motorola 6800D2 working. Mike, 3FIV has his micro out-putting RTTY with Baudot code and is now working on the interfacing so it will receive. This is a bit of a trick as the computer works in ASCII code. Bob, 3HNH says that Murphy has left his shack - anyone else want to invite him into their QTH? There are several new converted CB rigs working on the 10 meter band and HNH had his on the 10 meter NSR net. HMG and a couple of others are also crystallized up for 28,600. These were the ones that were being cleared by Radio Shack stores - as you know, the new 40 channel rigs were authorized to be put on the air as of April 1 - what a date! Bob, HNH's new Tr-4CW transceiver and RV4C remote VFO are working very well and he is knocking off DX like you wouldn't believe, to use a popular expression.

THE LAWS OF MURPHY

(mathematics)

- 3-4 In any given computation, the figure that is most obviously correct will be the source of error.
- 3-5 A decimal will always be misplaced.
- 3-6 In a complex calculation, one factor from the numerator will always move into the denominator.

Did you know that the word calculate comes from the Latin word calculus, (pebble) or stone. Does that mean that the people who throw stones are calculating? The word tally comes from the Latin word talea which means cutting. Is a stone cutter a talea calculus or a calculus talea? The early mathematicians counted stones in piles of ten, hence our decimal system. The metric system will enable us to get back to basics and use our fingers and toes again - progress.

REMINDER

The ARRL 1977 NATIONAL CONVENTION JUNE 3, 4 and 5. Register now! Hosted by the Scarborough Amateur Radio Club with assistance from other local clubs. Flyers will be available at the meeting.

DUES

The dues have increased from \$5.00 for regular members to \$8.00. still a bargain!. Associate members will be \$5.00 and Family members at \$3.00. If you haven't paid up for '77, contact John, 3FGL at 655-4269 or mail yours in right away - you may still get in under the wire!

COMING EVENTS

The CJ Banquet - as usual at the Town & Country, 145 Mutual st. Toronto. April 16 at 7.00 pm, tickets \$10.00. For tickets, write to Ed. Charlesworth, VE3FSI, 955 Birchwood Cres., Burlington, Ont. L7T 2H6

4th ANNUAL JAMBOREE CONVENTION Charlottetown, P.E.I.
June 30, July 1-213, 1977 sponsored by the Holiday Island G.R.S. Club and held at Dunollie Trailer Park, Route 19, 10 miles from Charlottetown. Registration \$2.00 per person . This notice is especially for those Ham members who are also active on GRS and have lots of money. Hi! Information bulletin will be at the meeting.

NSR FIELD DAY June 24, 25 ??? Location Eric 3HMG's QTH 3.5 miles east of Hwy 115 due east from Taunton Road. More later.

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STOLEN EQUIPMENT

Art Gee, VE3DHQ has asked us to keep a lookout for the following gear which was stolen from his car on Wednesday, February 9th in a parking garage near Kipling & Eglinton aves., West Toronto.

MIDLAND INTERNATIONAL Model 13-500 VHF Transceiver

The colour is black and serial nr. is #30300961 - it is crystallised up for 52/52, 94/94, DRW, TOR, RPT, MHZ, MOT, LSR and TTY rpters.

It has a square meter and Heath TT pad, 12 channel selector and Art thinks it may be the only one of it's kind in the province. If you have any knowledge of it, contact Art at 233-0445 or 491-7391 or the Metro police No. 22 Division

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The S.F.A.R.C. meetings will now be held in the basement of the Town of Pickering Public Library just south of Strouds market on Rougemount Drive and #2 Highway. Their recent meeting of March 4 featured Jim Steen talking about and demonstrating his Morse-a-letter unit. For info write South Pickering A.R.C. Box 353, Pickering, LiV 2R6. (re meetings, dues etc.)

Gary, 3EPY has PL-259 Co-axial connectors. They were on sale at the store for \$1.50 a pair (\$1.39 plus tax) They are handpicked and he will bring some along at the next meeting - there is a limited quantity.

The Club wishes to thank Mac, 3IKG who brought his new TS-520, Bob, 3HMG for showing the TR-#CW and R4-VC; also Mike, 3FIV and Bernie, 3ati who demonstrated the new MK-6800D2 Microcomputers at the March meeting. New gear is always welcomed at the meeting and if there is no time during the meeting, there is generally a break when the members can drool over your new acquisition.

Harry, 3QG is interested in someone who can take on the tower painting contract up on the hill. See him for details. There has been no tower maintenance since installation in 1968. He will supply the paint.

The historical insert was kindly supplied by Ed, 3AZV and duplicated by our friendly duplicator.

CORRECTION

Keith Scott VE3GDE in the Roster should be VE3GDF

Jenkins' 1925 television manual *Vision by Radio — Radio Photographs — Radio Photograms*, "Messages were sent alternately from one station to the other station, by dot-and-dash interruption of a buzzer spark circuit; while reception was attained by deflecting a galvanometer needle at the station which was at the moment receiving."

These experiments were repeated in 1866. This same year Loomis also sent wireless messages through water, between two ships stationed two miles apart in Chesapeake Bay. In October 1868 observers from both the Smithsonian Institution and the United States Congress watched a repeat of the 1865 tests.

"I can as easily," Loomis informed his guests, "telegraph across the Pacific from near San Francisco to Tokyo without wire or cable."

Later this same year, 1868, Loomis obtained the financial backing of a group of Boston investors but they were wiped out in the "Black Friday" bank panic. A party of New York City investors met the same fate.

Three years later Loomis interested a cartel of Chicago businessmen who offered to build and equip an experimental radio station in the Sierra Mountains of California. Unfortunately, the

Chicago Fire of October 1871 incinerated this plan.

On January 15, 1869, Sen. Charles Sumner of Massachusetts introduced the "Loomis Aerial Telegraph Bill" into the United States Congress. The purpose of this bill was to establish the "Loomis Aerial Telegraph Company" and to award the dentist \$50,000 for further experimentation. A speech by Rep. (later Sen.) Omar Dwight Conger of Michigan stated that Loomis had discovered a variety of "electrical vibrations and waves" — nearly two decades before radio waves were "officially" discovered!

The bill was attacked by congressmen who described Loomis as a "dreamer" and his ideas as "moonshine" and "airy nonsense." Senator Sumner, Representative Conger and Rep. John Armor Bingham of Ohio, however, continued to press for the bill and it eventually passed in 1873. This was a year after the Loomis method had been granted United States Patent No. 129,971. When the bill was finally signed into law by Pres. Ulysses S. Grant the financial appropriation had been deleted.

All Loomis could do was try to sell stock in the Loomis Aerial Telegraph Company. Unfortunately, as Jenkins wrote, "Nobody would buy the stock." Web-

ster's Biographical Dictionary says the company failed because Loomis "lacked funds to pursue experiments further."

Even so, Loomis persevered and in 1878 obtained two of Alexander Graham Bell's recently invented telephones. With these he carried on radio-telephone conversations with a co-worker 20 miles away, "the connections being aerial only."

Three years later, in 1881, Loomis invented and patented a collapsible valise. The funds received from this invention he poured back into the development of his radio system. And when this money ran out Dr. Loomis retired to the Terra Alta, W.Va., home of his brother Judge George Loomis.

"George," Dr. Loomis told his brother, "I know that I am regarded as a crank, perhaps a fool by some, and as to the latter, possibly I am But the time will come when this discovery will be regarded as of more consequence to mankind than was Columbus' discovery of a new world. I have not only discovered a new world but the means of invading it . . . with the 'invisible chariots of the Almighty' Others will reap the benefit Monuments will be built to their memory I ask but a rosebush to mark my

grave, affording a brief resting place for passing songbirds."

Mahlon Loomis died in October 1886 at the age of 60. In the last weeks of his life he uttered a striking prophecy:

"The continents of the earth will some day be linked by wireless communication and this will eventually bring about a universal language and the brotherhood of man."

Loomis is not completely forgotten. His young cousin Mary Texanna Loomis, in the early 20th Century, founded the Loomis Radio College in Washington, D.C. and her classic textbook *Radio — Theory and Operating*, issued by the Loomis Publishing Company, champions Mahlon Loomis' pivotal role in radio history.

Dr. James Harris Rogers, who had been Loomis' teen-aged assistant in the early 1870's, later became famous himself as an inventor of devices for multiplex telegraphy and underwater radio transmissions. Rogers wrote in 1920, "It was my pleasure to know Dr. Loomis in the early days when he was trying to convince a skeptical world of his new and wonderful discovery Time has vindicated this great pioneer in the art of wireless communications."

"The time will come when this discovery will be regarded as of more consequence to mankind than was Columbus' discovery of a new world."

GUGLIELMO Marconi, often called the "father of radio broadcasting," carried out a series of wireless telegraphy experiments at Bologna, Italy, in 1895, when he was only 21 years old. In 1901 Marconi transmitted the first radio signals ever to be

tronomer Nathan Loomis, was born in 1826 in Oppenheim, Fulton County, N.Y. He first taught school but later practiced dentistry in Ohio, New York, Massachusetts and Pennsylvania, as well as in Washington, D.C.

In 1854 Loomis patented a ce-

RADIO THIRTY YEARS BEFORE MARCONI

By George Wagner

sent across the Atlantic Ocean.

In the 1950's the late Frank Edwards proved that Nathan Stubblefield, a Kentucky farmer, had broadcast radio signals as early as the summer of 1885. Edwards related Stubblefield's story in "Stubblefield's Voice in the Wind" in *FATE* Magazine in June 1957. I myself have examined one of the Stubblefield broadcasting instruments.

What is not generally known, however, is that a Washington, D.C., dentist broadcast radio messages in 1865 — nine years before Marconi was born and 20 years before Stubblefield's experiments.

Dr. Mahlon Loomis, son of as-

tronic procedure for manufacturing dental plates from kaolin clay. "Loomis False Teeth Plates" were commercially produced into the 1920's. Queen Victoria of England awarded Loomis a medal and declared the plates were "of great service to mankind."

Dr. Loomis' real interest, however, was electricity. In 1852 he attended lectures on electrical science at Boston's Lowell Institute. He studied the writings of such pioneer electricians as Ampere, Lovering and Poggendorf and experimented with running electric currents to plant roots in an effort to induce faster growth.

In 1859 Loomis sent kites aloft

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to extract electrical currents from the upper atmosphere. The cloth of these kites was interwoven with fine copper mesh and the kites were tethered with copper wires. In this manner he obtained sufficient current to power a telegraph line.

"On September 2, 1859," Loomis recorded, "communications were sent over the wire between South Braintree and Fall River stations in Massachusetts, a distance of 40 miles, with the aid of the celestial battery only."

Loomis intended "to dispense with all artificial batteries (and) use the free electricity of the atmosphere, cooperating with that of the earth, to supply the electrical dynamic force or current for telegraphing and for other useful purposes, such as light, heat, and motive power . . . I believe that this . . . electrical element may be so utilized as to answer all purposes of heat, light, and mechanical force or motion."

Furthermore, Loomis insisted, such power would permit "direct communication to and from . . . other planets . . . with as great facility as we now have from city to city." This statement far antedated Nikola Tesla's 1902 monograph "Electrical Communication with the Planets" which said basically the same thing.

Loomis was not overly im-

FATE

pressed with telegraphy by wire. He believed telegraph messages could be sent *without wires* . . . by means of radio broadcasting. According to the book *Dr. Mahlon Loomis — Inventor — World's First "Wireless" Communicator, 1865*, written by veteran radio engineer Joe Rice, the inventor intended to "set up 'disturbances' in the atmosphere, (which) would cause electric waves to travel through the atmosphere and the ground, thus establishing wireless telegraph communication between two distant points."

In early 1865 Loomis constructed two "oscillating circuits." Contemporary drawings and descriptions indicate each unit consisted of a sparking coil, galvanometer, ground wire, and a telegraph key, with two Leyden jars serving as a capacitor. An "aerial" (Loomis invented the word) was sent into the air by means of a long copper wire attached to one of the copper-mesh kites. The device used no power source other than the natural static currents of the upper atmosphere.

In May 1865, a few weeks after the end of the Civil War, Loomis placed one of these units atop Catoclin Spur, Va., and the other approximately 15 miles away on Bear Den Mountain.

According to Charles Francis