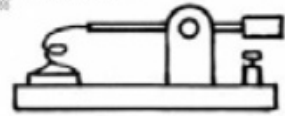


Spark-Gap Times



Published By
The Old Old Timers Club



VOLUME 53 NUMBER 1, SPARK-GAP TIMES

OOTC Inc

Phil Sager, WB4FDT, Exec. Secretary and editor

7634 Carla Rd Baltimore MD 21208

THE UNITED STATES OF AMERICA. No.
DEPARTMENT OF COMMERCE.
BUREAU OF NAVIGATION.

LICENSE TO RADIO OPERATOR, AMATEUR FIRST GRADE.

This is to certify that has been examined and shown to have a knowledge of the adjustment and operation of apparatus and of the regulations of the Radiotelegraphic Convention and the Acts of Congress in so far as they relate to interference with radio communication and impose certain duties on all grades of operators sufficient to entitle him to a license, and he is hereby licensed as required by law Radio Operator, Amateur First Grade for two years.

The candidate was examined and shown to have knowledge (excellent or good) in the following additional subjects:

- (a) general adjustment, operation and care of apparatus ³
- (b) transmitting and sound reading Continental Morse at a speed of ⁴ words a minute;
- (c) general knowledge of international regulations and Acts of Congress to regulate radio communication ⁵

..... Oath of Secrecy executed.
(Examining Officer.)
.....
(Title.) Notary Public.
Place, Date,, 191...

WILLIAM C. REDFIELD,
Secretary of Commerce.
E. T. CHAMBERLAIN,
Commissioner of Navigation.

¹ First or Second.
² Twenty or Twelve.
³ Excellent or good.
⁴ Insert speed.

1914 Radio Amateur license form

NEW domestic member \$26. (\$10 initiation + \$16 yearly sustaining fee).

NEW International member, \$28 (\$20 initiation + \$18 yearly sustaining fee).

Note that the Initiation fee is a one-time fee to new members. These fees include receiving the Spark-Gap Times via email or via the OOTC website.

Renewing USA members \$16 yearly, \$18 Canadian and foreign. These fees include receiving the Spark-Gap Times via email or via the OOTC website.

If you wish to receive the PRINT Spark Gap Times the additional fee is \$5.00 yearly for USA members, including Life Members, and \$7 yearly for Canadian and foreign members, including Life Members.

Life Membership dues: Under age 75-\$250.00. Ages 75-79-\$200. ages 80-85-\$150. 86-89-\$100. 90-94-\$50.00 95 and above—Free. Note that Life Membership dues do not include the print Spark-Gap Times. The \$5 yearly fee must still be paid for the print copy.

ELIGIBILITY REQUIREMENT. You are eligible if you had two-way wireless communication 40 (or more) years ago (eligible on Jan 1 of the 40th year) OOTC recognizes your first two-way communication by CB, Amateur, commercial or military operation. Provide proof if possible. If never ham licensed but had eligible 2-way communication, you may also join.

OOTC wishes to have extended information about each member, activities and background. This information becomes a permanent and important part of your record as a member of OOTC, making it possible for us to publish you life work and experiences. Information is saved in OOTC archives. We would a photograph. Send a biography and/or story suitable for publication in the Spark-Gap times on separate sheets of paper, or via email attachment to our Secretary.

Notice: Call letters shown were calls they used, subject to reissue since then.

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1947-1949 IRVING VERMILYA	*W1ZE
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1953-1955 IRVING VERMILYA	*W1ZE
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1969 BERT GAMBLE	W5ZC
1970-1976 RAY MEYERS	W6MLZ
Assistant LEE MANN	K6KP
1977-1978 RAY MEYERS	W6MLZ
1979-1986 A. J. GIRONDA	W2JE
1987-1991 BERT AYERS	W6CL
1992-1993 WESLEY RANGLES	W4COW

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1958 RICHARD KLEINBERGER	W2AEC
1959-1964 EARL WILLIAMS	W2EG
1965-1967 EUNICE THOMPSON	*****W1MPP
1968 T. FRANK SMITH	W5VA
1969 BERT GAMBLE	W5ZC
1970-1978 RAY MEYERS	W6MLZ
1979-1986 A. J. GIRONDA	W2JE
1987-1988 BERT AYERS	W6CL
1989-1990 WESLEY RANGLES	W4COW
1991-1993 TED HEITHECKER (SK~n-office)	W5EJ
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FROM OUR PRESIDENT

Greetings from hot, parched Southern California. I recently attended a luncheon hosted by OOTC Chapter 2, the Ralph Cabanillas Memorial Chapter. During the business meeting, the members voted to send a substantial gift to the OOTC Scholarship Fund. The gift will allow the OOTC to renew funding to a deserving student for the next three years. The scholarship not only helps students but spreads the word about our organization to future potential members.

The awarding of a scholarship is actually handled by the Foundation For Amateur Radio, whose charter is to provide support to the amateur radio community for education throughout the world.

We would like to thank the Chapter 2 membership for their generous contribution and to encourage all OOTC members to consider helping OOTC to continue providing scholarship funds.

On a different note, I'm sure all have noticed the declining propagation as the sunspot cycle begins to decline. However, there are still times of resurgence which enable DX contacts. So have heart and stay active!! I wish you all a wonderful summer ahead. 73

Troy, W6HV

From SGT, October 2003: Good reading for all!!

“Message from President Leland Smith, W5FL (SK)”

Some of our newer OOTC members may wonder how OOTC originated and the connection between OOTC and QCWA. In this message I will pass on to you some information that may be helpful.

OOTC was the brainchild of Herbert Ingalls who was born in 1893 and went to sea at age 17 as a radioman in 1910. He served in WW1 as a chief radioman in the US Navy. He was later assigned amateur radio license 1NQ by the Navy Department. In the fall of 1947, prior to the first meeting of the charter members of QCWA, Herbert contacted Irving Vermilya, W1ZE, and Roland Bourne, W1ANA, and the three drafted the first OOTC constitution. W1ZE was selected as the first President, W1ANA as the Vice-President, and Herbert Ingalls became the Secretary. Each of the 13 Co-founders of OOTC were born before 1900 and all were original spark wireless experimenters and operators several years before the government recognized radio amateurs and assigned call signs. Dr. Lee De Forest, never a licensed amateur himself, was the first honorary OOTC member and was awarded OOTC member #5H.

Many well-known radio operators have joined OOTC over the years since 1947. Our organization is unique in that every OOTC member is a perpetual member. Many are now Silent Keys, but will forever remain on our roster. We have never considered OOTC to be in competition with any other radio amateur organization. Our mission and purpose is simply stated and only those radio amateurs who first communicated by wireless 40 or more years ago and wish to be identified with other wireless Old Timers apply for membership”.

ETHEL SMITH, K4LMB, ex-W7FWB, W3MSU OOTC #1925 (SK 1997)

Editors Note: Ethel and her husband Tex, W4TE (OOTC 628) SK, were the first two hams I met, nearly a year before I became licensed. My best friend, now N4DR, was studying for his General Class license, and had joined the local Northern Virginia Radio Club. Ethel and Tex were having a club picnic over their house, and I tagged along. Ethel and Tex had a large room in their house at ground level, which sported two complete stations. I was amazed to see so much ham gear in one place, with wire antennas going everywhere and a small beam on top of the house. There was a third station in the house, a transceiver in the kitchen, so Ethel or Tex could check into the Virginia SSB and CW nets while she was making/eating dinner!

(Much of the information below is from **WorldRadio**, April, 1997 by Lou Ann Keogh, KB6HP)

“Pioneer YL operator Ethel Smith, K4LMB, died on 5 February 1997, one week before her 80th birthday. In 1996 Ethel had celebrated her 60th anniversary as an Amateur Radio operator by taking and passing her Extra Class Examination...Her introduction to radio in general came in 1922, at the age of 5. The family lived in rural Washington state “in the middle of an apple orchard in Wenatchee”, she wrote recently. “...A relatively “rich” neighbor brought a broadcast radio and “ invited all the neighbors in to listen to this new marvel....there were lots of crackles and weeps and wails of interference. On of the neighbor ladies was convinced these noises were the cries from souls in purgatory. I remember peering down the long throat of the horn speaker to see any signs of ghosts down there...”.

In 1935 Ethel's father bought the family's first radio, one that included a couple shortwave bands. There was a noise that sounded like intelligence, which were morse code, one of her schoolmates informed her. Morse code—ham radio to be exact. Not only that a boy in her school was indeed one of the “hams” who did that sort of thing. She tracked the boy down, borrowed a license manual and a Handbook from him, and “...never quite until I got my own license.” In May, 1936, at the age of 19, she passed the code and essay questions and got the call W7FWB.

Within a few months, W7FWB was actively participating in CW traffic nets, became an Official Relay Station (ORS) and eventually joined the forerunner of MARS, the Army Amateur Radio System, and soon after that was made NCS of the second AARS net for the state of Washington.

In May of 1939 Ethel responded to a notice in QST which asked how many YL operators were really out there. That response marked the beginning of YLRL, which formally adopted in constitution and bylaws in October, 1939. Ethel was designated the first President, and by 1941 YLRL (Young Ladies Radio League) had 250 members. During WWII, Ethel worked for the Signal Corps and later ended up working for the Naval Research Laboratory in Bethesda, Md. (I have been told that much of her work involved interpreting spy plane photos of German

military emplacements).

After the war, Ethel stayed in Maryland and became active again as W3MSU. She, together with Andy Anderson, W3NL and others formed the nucleus for the formation of the Foundation for Amateur Radio (FAR), which virtually all ham radio clubs in northern Virginia, DC and Maryland joined. FAR had a monthly publication, "Auto-Call", which consisted on information about Amateur Radio in the area,, publicized hamfests and other amateur activities, and each club had a column in the magazine. Ethel was the editor of Auto-Call from 1971-1975.

Ethel was on the committee for the Women's Program for the 1958 ARRL National convention being held in Washington DC, and noticed a handsome redheaded man from the FCC on a different committee. By the time the convention was over, Tex, then W3CN, and Ethel were thinking of getting married. When they did, they moved to McLean, Virginia and Ethel became K4LMB and Tex W4TE.

Ethel joined the QCWA as soon as she became eligible and in 1974 became its General Manager. She went on to be elected Secretary, Director and Vice President. She was also QCWA's columnist for Worldradio for many years. In 1982 she organized an international YLRL convention in Washington DC.

In 1996 Ethel said "Amateur Radio is still the main focus of my life. It has brought me all the good things that ever happened to me. It took me out of the pretty hopeless poverty of my youth, it gave me a challenging and rewarding career, it gave me a wonderful husband and the greatest collection of friends in the world—all over the world. I owe more to Amateur Radio than I can ever possibly repay."

New OOTC Director—Ron Fish KX1W—District 2

I was first licensed in 1972 as WN1OQT in New Haven, CT, where I was reared. I received my General Ticket (WB1BWG) two weeks after graduation from Worcester Polytechnic Institute with a BS in electrical Engineering in 1978. I upgraded to Advanced, and then to Amateur Extra (NF6D) while working in the Aerospace industry in Southern California. My current and last call was KX1W which I received in 1984 when I relocated back to New England.

I am a past president of the Northrop Radio Club and a past president of the Los Angeles Council of Amateur Radio Clubs. I am a Life member of ARRL, QCWA and OOTC, and am on the publications Committee of QCWA proofreading the QCWA Journal and webpage.

I've had a almost life-long interest in Sherlock Holmes tales written by Sir Arthur Conan Doyle, and I belong to a number of Sherlock Holmes groups worldwide. I also maintain a number of websites for various Sherlockian groups.

In 2006 I earned a Masters in Business Administration from Rensselaer Polytechnic Institute.

I am also an active Freemason, belonging to lodges to CT and NY and appendant groups such as the Scottish Rite, York Rite, and the Shrine.

SILENT KEYS

Harry Gartsman, W6ATC, Ex-W9OFZ, OOTC Life member #1559, aged 99 of Beverly Hills, CA. Harry was first licensed in 1933 as W9OFZ. He was the owner of Alvaradio Industries, which supplied electronic equipment to the military. He served as National QCWA President in the 1970's. He is known for having donated amateur radio equipment to the Government of Israel during the 1967 war. Harry was one of our longest OOTC members, having joined in 1974.

Otto E. Spokas, W4QDP, Ex-W3CYC, OOTC Life Member #4029, aged 98, of Paeonian Springs, Va. Otto was first licensed in 1933 in Philadelphia at age 16. His electronic knowledge was self taught, and he worked for a number of federal agencies including the Bureau of Printing and Engraving, the National Bureau of Standards and Technology, and the US Physics Laboratory. During WWII, he worked on the highly classified "proximity fuse" crucial to the allies success in WWII, and later worked on the development of modern computer components. He was also an active stamp collector, and enjoyed model trains.

Noel O. Kindt, W9EFL, ex-WN9EFL, OOTC #4047, aged 82, South Bend, IN. First licensed as WN9EFL in 1951, becoming one of the first Novice licensees.

Leland Callender, W4LB, ex-W1QLC, OOTC #3834, aged 88, Theodore, AL. First licensed in 1944 in Boston, MA. Retired from the Mitre Corporation.

Richard Stetson, Sr, K4DHO, OOTC #4061, aged 83, Tappahannock, VA. First licensed in 1955 as KN4DHO. Worked for the Virginia Power and Electric Company for 42 years. Served as President of the Southern Peninsula Amateur Radio Club (SPARC). Served in WWII and Korea, and was a life member of the American Legion and VFW posts.

Merrill Lowry, KJ6YK, OOTC #4329, aged 79, Anza, CA. First licensed in 1954 as K6KIW.

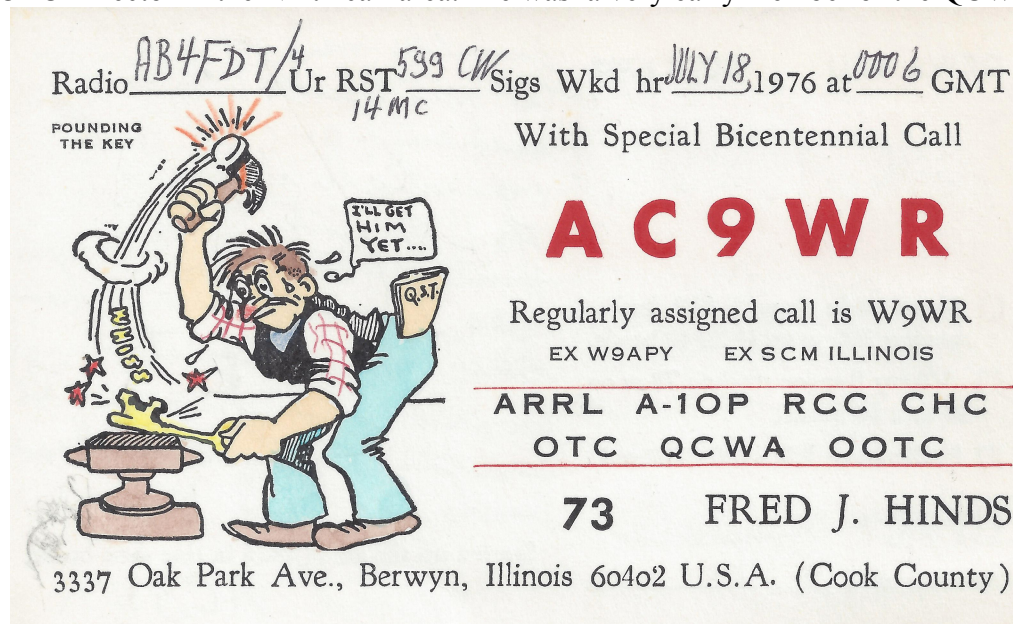
James Gorman, W6SQZ, Ex-W3YPA. Life member OOTC #3251, aged 77, Yucaipa, CA. First licensed in 1954 in Altoona as WN3YPA. He was a ham over 61 years and an OOTC member for 21. He graduated from Lehigh University in Electrical Engineering, and he and his wife Barbara enjoyed lengthy work assignments in Europe and South Korea. Gorham had also served on the City Council in Redlands, CA.

Lars E. Wahlin, W0RM, Ex-SM5BLG, aged 86, Boulder, CO. First licensed in 1949 as SM5BLG. Lars served in the Swedish Navy as a radio operator and later graduated with a degree in Physics at the Nobel Institute of Physics in Stockholm. In 1961 he moved in Boulder, CO and worked for the University of Colorado Nuclear Physics Department, He later left the University to form the Colutron Research Corporation. Lars published several papers and books on atmospheric electricity and cosmology. Lars loved to cross country sky and even took part in the famous 59 mile Swedish ski race Vasaloppet in 2004 at the age of 75.

OOTC MEMBER OF YESTERYEAR

OOTC #1088 Fred Hinds, W9WR (sk)

Fred was first licensed in 1924 as 9APY near Chicago. He was a self-employed printer. An active ham, he served as ARRL Section Communications Manager of Illinois, and for two years, served as OOTC Director in the Ninth call area. He was a very early member of the QCWA, #670.



When I worked him in 1976 he was actively collecting counties for the Worked All Counties award given by the County Hunters Club. He was using the call AC9WR, a special Bicentennial call sign. Fred became SK in 1980 at the age of 77.

OOTC Nets and meetings

It's been a while since I published a list of OOTC on-the-air nets and meetings. Please let me know when and where your OOTC group meets so we can get the info into the SGT. Meanwhile, the District Director for the 8th Region, Joe Wehner, W8KNO, advises me that the OOTC net meets on 40 meters on 7231 on Thursdays at 1:30 PM. Joe has a pretty loud signal and should be heard by most of the mid-west and east coast gang.

New Life Member: James V. Sohn, KF6NY #4660

James was first licensed in 1970 as WN6DWQ. He now lives in Lafayette, CA. In his early ham days, James knew Andy Anderson, W6QV (SK) OOTC #562. "Andy gave me my first transmitter—Arc-5 converted for 80 meters with 5 crystals!" Welcome aboard Andy!

Diary of a Marconi Wireless Operator—1920

Arthur Jacoby, W3OY OOTC #404

(This article is from the December, 1965 issue of the Spark Gap Times. Jacoby was originally licensed in 1913 in Philadelphia as 3OV at the age of 14. In 1920 he was the wireless operator aboard the SS Glen White (call—KSIE) and records his trip from Philadelphia to France and his return trip. We pick up his Diary on March 20, 1920 the first day of his return trip from France back to the USA)

“March 20—Out of the Atlantic again...good headway and nice weather

March 23—Head winds again. Ship rolling plenty due to heavy swells...

March 24—Gale winds blowing. Approaching the Azores but unable to see any land.

March 25—About 10:30 PM I intercepted a message from the SS Wathena of the Red Star line requesting assistance, having lost 2 propeller blades...We changed our course and headed for her.

March 26—steaming around all morning looking for her. Visibility very poor. Sighted the Wathena about 3:30...seas too heavy and too much swell to do anything. Heaved to for the night.

March 27-- Weather moderating....(the Wathena) shot a line over our bow and about 40 minutes later the tow wire was aboard. We then proceeded towards Ponta Delgada with the Wathena in tow. I was kept very busy at the radio.

March 30-- Arrived off Ponta Delgada 10AM with the Wathena.the two ships were lashed together and went into the harbor, which is very small. There were numerous other American ships there and most of them were lame ducks also.

March 31--- Remained aboard the ship and took some pictures. After dinner the OM (Captain) had a party in his cabin and by the time it broke up most everyone was pretty well lit up. After all the excitement was over, some of the officers began calculating their share of the salvage monies. They calculated that the radio operator's share would amount to about \$500.00. The Wathena was a US Shipping Board ship operated by the Red Star Line. The Shipping Board did not want to allow any salvage claims but merely allow for the time lost in picking up the Wathena and returning to the pickup position. As a result this claim dragged out until April, 1927(!) when I received a check for \$150.00. I had long ago given up all hope of ever receiving a cent!.

April 2---Weather kicking up again. The propeller out of the water a good bit of the time. QRN very bad, could not copy anything at night. April 8---Weather continues bad

April 10-- Heard several disabled ships. The SS Mystic being towed by the USCG Ossipee, boiler trouble and 7 feet of water in her holds. The SS Bay Head being towed by the tug Butterfield to Bermuda. The SS Quidnic wants a tow to Norfolk, out of fuel and water.

April 13—Shortly after midnight received a message ordering us to proceed to the Robins Drydock in New York. We docked in Brooklyn at the foot of 29th street on April 15.”

Dr. Mahlon Loomis, 1826-1886, Inventor of Radio?

An issue or two ago in the SGT, we had a short article about one of our earliest members, Thomas Appleby, OOTC #228. It was mentioned in the article that he was writing a book about Dr. Mahlon Loomis, an early radio experimenter from Washington DC. I had several inquiries about it. Appleby's book titled, "Dr. Mahlon Loomis—Inventor of Radio", published in 1967 and reprinted in 1971. 45 years later, this book is still the standard text on Dr. Mahlon Loomis and his experiments. The following is from the December, 1965 SGT, about Dr. Loomis.

Dr. Mahlon Loomis was born in Oppenheim, NY in 1826 and was a practicing dentist in Washington DC. In 1866 he first demonstrated his system of wireless. His experiments were conducted between two mountain tops, 18 miles apart in the Blue Ridge mountains of Virginia. His transmitting and receiving aerials were supported by means of kites and were 600 feet in the air. The sending end of the system was powered by means of atmospheric charges and a signal was originated by means of discharging the sky-wire to a ground connection. His receiver was equipped with an "indicator", a form of galvanometer, to indicate the reception of the signal.

Following his demonstrations, Dr. Loomis petitioned Congress for a grant of \$50,000 to continue and expand his work. After many months of debate and testimony, during which the "Black Friday" financial panic occurred, this petition was indefinitely postponed. Other attempts to raise some working capital were defeated by two additional catastrophes, the Great Chicago fire of 1871 and the Financial Panic of 1873, each of which brought financial ruin to prospective backers of Dr. Loomis.

Loomis was granted a US Patent in 1872 for a system of wireless, and was granted a charter of incorporation for the "Loomis Aerial Telegraph Co", in 1873. Loomis continued his experiments and his demonstrations relying on the earnings of his dental practice and an occasional lecture engagement before scientific bodies as a means of continuing his work. Because of his preoccupation with his wireless experiments, he neglected his dental business, and unable to secure financial help, left Washington and went to live with his brother in Terra Alta, West Virginia. He continued some experiments until he died in 1886.

In the field of wireless, Mahlon Loomis achieved the following "firsts":

First patent for a system of wireless.

First demonstration of wireless signaling.

First to employ a vertical antenna and ground

First to employ "spark" signaling

First to employ a kite for antenna support

First to employ balloons for antenna support

First to specify an "indicator" in his receiving system (now called a detector)

First to recognize the value of electrical agreement between his sending and his receiving system (now called "resonance").

"It is regrettable that the pioneering work of Mahlon Loomis has never been recognized to any extent by either the public or the national government. It is hoped that the neglect and omissions of the past may be corrected in the publication of this first book devoted to the life and accomplishments of

The Rules say.....

John Johnston, W3BE OOTC #3946

Q: As an amateur, could I be called upon by State or local authorities to provide public safety communications during a civil disturbance?

A. Not under any obligation brought about by your FCC amateur service license grant. If you are enrolled in a RACES civil defense organization, you might want to check with that organization as to any commitments to which you may have agreed.

Q. Under Section 97.403 *Safety of life and protection of property*, could I use my amateur station to voluntarily provide emergency communications during civil disturbances?

A. Possibly. No provision of Part 97 *prevents the use by an amateur station of any means of radio communication at its disposal to provide essential communication needs in connection with the immediate safety of human life and immediate protection of property when normal communication systems are not available*. Public safety authorities normally rely upon Part 90 radio systems. During a public disturbance, therefore, those systems would have to be unavailable in order for amateur stations to become directly involved.

Q. Could my amateur station transmit communications for an employer during a civil disturbance?

A. Only to provide essential communication needs in connection with the immediate safety of human life and immediate protection of property when normal communication systems are not available.

Q. But doesn't Section 97.113(a)(3)(i) exempt professional communicators during communication emergencies?

A. No. That rule only authorizes a station licensee or station control operator to participate on behalf of an employer in an emergency preparedness or disaster readiness test or drill. Unless the controlling

authority calls such a test or drill during a civil disturbance, amateur stations with *bona fide* amateurs or professional communicators are bound by Section 97.403 which only authorizes providing essential communication needs in connection with the immediate safety of human life and immediate protection of property during times when normal communication systems are unavailable.

Q. As a FCC-licensed amateur, am I under *any* obligation to provide public service?

A. Yes, but chances are you are already providing that public service just as long as your radio communicating activities are in full compliance with Part 97. Section 97.1 says the rules and regulations in Part 97 are designed to provide an amateur radio service having a fundamental purpose as expressed in five principles, the first of which is: (a) *Recognition and enhancement of the value of the amateur service to the public as a voluntary noncommercial communication service, particularly with respect to providing emergency communications.*

Q. But Section 97.3(a)(4) defines our amateur service as: *A radio communication service for the purpose of self-training, intercommunication and technical investigations carried out by amateurs, that is, duly authorized persons interested in radio technique solely with a personal aim and without pecuniary interest.* So, which is it?

A. Section 97.3(a)(4) is consistent with SEC. 3. [47 USC 153](2) of the Communications Act as well as No. 1.56 of the international Radio Regulations (RR) and the U.S. Code of Federal Regulations Title 47 Section 2.1(c).

The text in Section 97.1, in contrast, sets forth a promise for our regulators to satisfy, rather than for us - the regulated - to implement: As long as we comply with the rules in Part 97, our regulator's expectations for our amateur service should be achieved to its satisfaction.

Q. Why are there two purposes codified?

A. Section 97.3(a)(4) sets out the purpose of our amateur service. Section 97.1 states our regulator's desires for its rules. It came along post WWII when we lost a hotly contested argument with our

regulator over its codification. Since then, it has become the topic of countless after-dinner speeches and is the time-proven handy-dandy easily remembered reference espoused by pontificators unfamiliar with the details in the main body of our rules.

The add-on phrase *particularly with respect to providing emergency communications* in Section 97.1(a), moreover, is often cited to rationalize a makeover of our amateur service into a low-cost junior version of the Part 90 Private Land Mobile Radio Services. Those rules establish a Public Safety Radio Pool and provide for the licensing of non-federal governmental entities - including law enforcement and fire protection - as well as medical services, rescue organizations, veterinarians, persons with disabilities, disaster relief organizations, school buses, beach patrols, establishments in isolated places, communications standby facilities, and emergency repair of public communications facilities.



STATION W3BYA near Philadelphia about 1936. You can just make out his call on top of the transmitter rack, and his QSL is on the wall. You can also make out an Army Radio Station certificate (a predecessor of Army MARS) and a Wouff Hong Certificate, indicating he had been to a Division or National convention. I believe the third certificate is an ARRL Membership certificate. Some good DX QSL's are on the wall.

AMATEUR RADIO EXAMS—1914

I recently found a 1914 Department of Commerce “Radio Laws and Regulations of the United States” at a recent hamfest. Here are some of the rules relating to licensing, and examinations of radio amateurs in 1914.

“The Department recognizes that radio communication offers a wholesome form of instructive recreation for amateurs. At the same time its use for this purpose must observe strictly the rights of others to the uninterrupted use of apparatus for important public and commercial purposes. The Department will not knowingly issue a license to an amateur who does not recognize and will not obey this principle.”

Amateur first grade--”The applicant must have a sufficient knowledge of the adjustment and operation of the apparatus which he wishes to operate and the regulations of the International Convention and acts of Congress in so far as they relate to interference with other radio communications”. The applicant must be able to transmit and receive in Continental Morse at a speed sufficient to enable him to recognize distress calls or the official “keep out” signals. A speed of at least 10 wpm (5 letters to a word) must be obtained.”

Amateur second grade—The requirements for the second grade will be the same as for the first grade. The second-grade license will be issued only where an applicant can not be personally examined or until he can be examined. An examining officer or radio inspector is authorized in his discretion to waive an actual examination of an applicant for an amateur license, if the amateur for adequate reasons can not present himself for examination, but in writing can satisfy the examining officer or radio inspector that he is qualified to hold a license”.

Code Test: The code test shall consist of messages with call letters and regular preambles, conventional signals and abbreviations, and in no case consist of simple, connected reading matter. The test will be conducted by means of the omnigraph, or other automatic instrument when ever possible. Applicants must receive 10 words in consecutive order accurately and legibly written.”

“the practical and theoretical examination shall consist of seven comprehensive questions under the following headings and values:

experience-----	20%
diagram of receiving and transmitting apparatus----	10%
knowledge of transmitting apparatus-----	20
Knowledge of receiving apparatus-----	20%
Knowledge of operation and care of storage batteries--	10%
Knowledge of motors and generators-----	10%
Knowledge of international and US radio laws. -----	10%

Interestingly, there is no passing mark listed for the amateur examination. The rules do give a 75% passing grade for a first class commercial license, and 65% for a second class commercial license, but nothing is mentioned about the passing mark for amateur exams. Any amateur who failed the examination could not be reexamined within a **three month** period.

1914 copy of second grade amateur radio license

90

RADIO LAWS AND REGULATIONS.

UNITED STATES OF AMERICA.

No.

DEPARTMENT OF COMMERCE.

BUREAU OF NAVIGATION.

RADIO SERVICE.

LICENSE TO RADIO OPERATOR, AMATEUR SECOND GRADE.

This is to certify that has presented satisfactory evidence that he has a knowledge of the adjustment and operation of apparatus and of the regulations of the Radiotelegraphic Convention and the Acts of Congress, in so far as they relate to interference with radio communication and impose certain duties on all grades of operators, sufficient to entitle him to a license, and he is hereby temporarily licensed as RADIO OPERATOR, AMATEUR SECOND GRADE, for the period of eight months or until he has been duly examined.

He has also shown that he has knowledge (excellent or good) of the following additional subjects:

- (a) General adjustment, operation, and care of apparatus (Excellent or good.)
(b) Transmitting and sound reading Continental Morse at a speed of words a minute.
(c) General knowledge of international regulations and Acts of Congress to regulate radio communication (Excellent or good.)

..... Oath of secrecy executed:
(Certifying officer.)

.....
(Title.)
Place, Date, Notary Public.
WILLIAM C. REDFIELD,
Secretary of Commerce.
E. T. CHAMBERLAIN,
Commissioner of Navigation.

[Operators licenses are not valid until the following oath has been executed on the backs of the licenses.]

I, do solemnly swear that I will faithfully preserve the secrecy of all messages coming to my knowledge through my employment under this license; that this obligation is taken freely, without mental reservation or purpose of evasion; and that I will well and faithfully discharge the duties of the office: So help me God.

.....
(Signature of holder.)
Date of birth, Place of birth,
Sworn to and subscribed before me this
day of A. D., 191....

[SEAL.]

Notary Public.