OLD OLD TIMERS CLUB
SPARK GAP TIMES, SEPTEMBER 2020 VOL 2

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. All members are usually billed in February.

If you wish to receive the PRINT Spark Gap Times the additional fee is $6.00 yearly for USA members, including Life Members, and $7 yearly for Canadian and foreign members, including Life Members.

Life Membership dues: Under age 70-$250.00. Ages 70-89 $150.00. 90 and above—Free. Note that Life Membership dues do not include the print Spark-Gap Times. The $6 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 Amateur, commercial, CB 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 your life work and experiences. Information is saved in OOTC archives. We would appreciate 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

The OOTC, which started in 1947. is solely interested in the history of radio, particularly Amateur Radio, and anyone has had experience with two way wireless communication 40 or more years ago is welcome to join and contribute their communication stories to the organization. We have had more than 4700 members over the past 70 years.

OOTC PRESIDENT: Skip Amis, N5CFM #4598
3301 Gwendolyn Lane, Edmond, OK 73034 N5CFM@live.com

Vice President: Fritz Tender, WD8E, #4567
1010 Blacks Rd SE, Hebron OH 43025 WD8E@arrl.net

Treasurer: Joseph Wehner, W8KNO, #4030
11924 Alpha Rd, Hiram, OH 44234 PH: 330-569-7718

Exec Secretary: Phil Sager, WB4FDT #4497
7634 Carla Rd, Baltimore MD 21208 PH: 443-854-3130
PhilWB4FDT@hotmail.com

DIRECTORS

DIST. 1: VACANT

DIST. 2: Ronald E. Fish KX1W #4581, PO BOX 4, Circleville NY 10919
ronf404@aol.com

DIST. 3: Peter Young K3IN, 12434 Creagerstown Rd, Thurmont, MD 21788
Phyoung@comcast.net

DIST:4 VACANT

DIST. 5: "Skip" Amis, N5CFM, #4598, 3301 Gwendolyn Lane, Edmond, OK 73034 n5cfm@live.com

DIST. 6: Troy Wideman Jr, W6HV, 230 Fremont, Redlands, CA 92373
W6HV@ARRL.net

DIST. 7: Doug Tabor N6UA, 1133 Verlan Way, Cheyenne, WY 82009
dtabor52@gmail.com

DIST. 8: Joseph Wehner, W8KNO, 11924 Alpha Rd., Hiram, OH 44234-9774
jlw_usna62@yahoo.com

DIST. 9: Gene Santoski, K9UTQ, 1220 18th Street South, Wisconsin Rapids, WI 54494 k9utq@solarus.net

ELIZABETH ZANDONINI W3CDQ
OOTC #700

Elizabeth Zandonini, W3CDQ
1898 - 1989

Elizabeth Zandonini, "Liz", often referred to as "the Grand Dame of Amateur Radio", passed away in 1989 at the age of 90. She was the second woman to join OOTC, in 1966, (the first being Eunice Thompson, W1MPP OOTC #168). Early in WWI, she took a National Radio course, hoping to do her part in the war effort and become a ship operator. She got her commercial license in 1917 but never went to sea, instead she taught code and electronics to hospitalized veterans at Fort Meade and other army hospitals. In 1922 she got her ham radio license as 3CDQ. The first rig she built was a 5 watt VT2 Hartley. Over the years she designed and built much of her own equipment. She was always fascinated about how circuits worked.

In 1921 she went to work at the National Bureau of Standards where she worked for 44 years. Some of her early work involved the Central Radio Propagation Laboratory where she worked on the original WWV station. In later years one of her jobs was working on a museum of the Bureau. Other talents included speaking Italian, German, French, and Spanish and she was able to to make scientific translations for the Bureau.

Liz was very active ham. She was a strict CW operator, active on 40 and 20

meters, and only used a straight key! She never operated voice. She maintained a constant flow of "pen pal" correspondence with hams throughout the world, became an avid traveler, and attended many ARRL National Conventions. She was extremely active in the Washington DC area, joining several ham clubs, QCWA, and was a past national president of the Young Ladies Radio League (YLRL). My wife and I got to know Liz from the Washington Area YLRL local chapter meetings which we often drove her to. She would tell us about the old "Governors to President Relays" and how she was a member of the group which would deliver the messages relayed by Amateurs to several Presidents of the United States at the White House!

3CDQ in 1924

TWO MEN NAMED YAGI

Yardley Beers W0JF (SK)

(edited by WB4FDT, with additions, from the Old Timer's Bulletin, September 1982)

"In the CQ CW DX Contest of 1981, I was delighted to work JH1WIX because I knew from something I had read he was one of the greatest DX'ers of all time, perhaps best known for his activity in the 1930's as J2GX. I sent him a QSL saying I remembered him as J2GX, and I got one right back which enclosed his autobiography from News Sheet 358, June 1979, of the First Class CW operators club.

Amateurs in Japan are now very numerous...but in the 1930's, it was difficult to get an amateur license, and Japanese contacts were scarce. In April, 1926 the ARRL

established their first achievement award—Worked All Continents (WAC). It was very hard to make contacts from Asia for the award. Those who made WAC became known as a "Wacker."

In September, 1934 QST, page 47, stated that a very large number of the applicants (up to 80%), submitted QSL's from J2WX for Asia. Yagi remained active till his passing in 1991. His other calls through the years were JI2B, AJ4ZZ, and J1DO. Your editor remembers Yagi well, for Yagi would constantly troll through the 15-meter Novice band giving new hundreds of new Novices their first DX contact, or their first Asian or Japanese QSO.

Some Novices got Yagi (first name, Taroh) mixed up as the inventor of the Yagi antenna, but he had nothing to do with the invention. It was invented by Yagi Shuji and Uda Shintaro at Tokohu University. The proper name is Yagi-Uda antenna.

ARTHUR GODFREY MEETS THE EXPERT

By Howard Lorenson, W7BI (SK)

I have some doubts about the full truth of this story, first published in the March 1980 edition of the Old Timers Bulletin. But it rings true. Godfrey did serve in the US Navy as a radio operator on Destroyers from 1920-24, and joined the Coast Guard from 1927-30. While in the Coast Guard he attended the Radio Material School at the Naval Research Laboratory in Annapolis, graduating in 1929. (It was shortly after graduating, that he appeared in a local talent show in Baltimore and landed his first brief radio program).

"When the Naval Reseach laboratory was established in 1923, the U.S. Navy simultaneously established its Radio Material School at the same location. Here promising Naval radiomen would receive their instruction in radio theory in the morning and spend the afternoon in the laboratory helping the engineers with building, testing and operating the new radio equipment.

The Coast Guard was entitled for a few slots in each class at the school. In 1927, the Coast Guard selected a officer named Author Godfrey." the story goes that Godfrey arrived a few days early and reported to the Commander of the Radio Material School. Since classes would not start for a few days, the Commander suggested Arthur spend his time looking around and getting acquainted with the engineers, and suggested Arthur go to the base of one of the 300 foot towers where he would find a small wooden building

called the “field house”. Here the staff was working on a new high-powered short wave transmitter and would tell him all about its operation.

When Author arrived at the “field house” the only man there was sweeping the floor. He had an old cap and sweater and smoking a corn cob pipe. In those days, the lab had one janitor and his duties were confined to the main building, so the engineers were expected to keep the “field house” clean. When the man finished sweeping, he greeted Author with , “I guess they sent you out here to see the new transmitter”. Author nodded in agreement. The man then proceeded to describe the equipment as the newest master-oscillator power-amplifier type design using screen grid tubes in the amplifier stages, and incidently these tubes didn't require neutralization like trioders would.

The man continued explaining that the oscillator stage ran continuously and the amplifier stage was keyed to avoid “chirp” associated with keyed oscillators. He explained the frequency was maintained to a very high accuracy by the use of the new quartz crystals which were temperature controlled.

The antenna system was a phased array suspended between two of the 300-foot towers. At the end of an hour, the man finished his description and Arthur went back to the Commander's office. The Commander asked Arthur if they had shown him the transmitter. Arthur replied “Yes, but I don't know what in the heck I'm doing here. I just had an hour technical description of the Navy's newest development by the janitor! Hell, he knows more about radio than I ever will.”

The Commander laughed and asked Arthur to describe the janitor,. Arthur described the corn cob pipe, and the old cap and sweater. The Commander said, “Son, you have just had a lecture from the Navy's Chief Scientist, Dr. A. Hoyt Taylor, not the janitor!”.

Editors note: Dr. A. Hoyt Taylor pioneered in shortwave communication. Under his guidance as Chief of the Radio Division of the US Naval Research Laboratories, our Navy developed early shortwave receivers and transmitters, and made the N.R.L. an outstanding research organization.

OOTC SSB NET ON 7231 kHz

A reminder that the OOTC SSB net meets thursdays on 7.231 at 1:30 PM EST. NCS is OOTC Treasurer W8KNO.

MORSE CODE VS CONTINENTAL CODE—WHY THE DIFFERENCE?

Most hams know there are two different codes, “Morse Code”, usually called “American Morse, and “Continental Code”. If you asked any ham which code he was using, most would say “Morse Code” or sometimes “American Morse”. The answer is wrong!. Now wait-a -minute! Didn't Morse invent the code that we hams used to struggle with to get our license? Why is it called “Morse”?.

Actually Francis Bacon in 1605 is credited devised a dot and dash alphabet. Other codes were developed long before Morse and could have been used for telegraphy. Samuel Morse actually came up with several different codes. The first was using numbers to represent words. This was obviously too long and in 1838 devised a second code using alphabet dots and dashes. Six years later, he devised the code again, changing several letters, and it is this third version which called “American Morse”, and is used, and still being used today by landline telegraphers in the United States and Canada.

So if landline telegraphers are using the “American Morse”, why are hams using a different one? Well in Europe, there was a problem. Some of the letters in the third version of American Morse were unusual. For example a long DAH was the letter L. The letter “O” was two spaced dits (like two E's). “Y” was two spaced pairs of 2 dits. In Europe they were using a visual “needle Telegraph” where a needle swung between right and left positions to indicate dits and dahs. American Morse simply did not work with the needle telegraph.

A new code was adopted in Europe Called the “Continental Code” it used 14 of the American Morse letters, and changed the other 12. The Continental Code was adopted as the world-wide standard at the Telegraph Conference in Berlin in 1851. This is the code we hams use today.

However, American landline telegraphers refused to abandon American morse. There were a number of reasons for this. 1) the telegraph was appearing in nearly every hamlet and there were already thousands of operators who would have to be retrained. 2) The United States generally did not use the “needle telegraph” used in Europe. 3) American Morse transmits information somewhat faster then continental code since spaced dits are faster than dahs.

So why did the early “hams” use “Continental Code” instead of following their landline brothers using American Morse? The major reason was that American Morse is a landline system and SWL's can't learn it by listening to it on the air. Marconi, a European, used the Continental Code, and so his company land stations would also use Continental code, and thus the earliest radio communications were in Continental Code, heard by SWL's. . Early ship radiomen were going from port to port using the international Continental code, so Continental code became king.

Lastly, a number of countries have used their own codes to accommodate their particular characters. The Chinese have over 6000 separate ideographs in their written communication, and they use arabic numerals assigned to different chinese characters used to represent words. Gee, This sounds like the first code Morse developed!! So we have come full circle.

THE HISTORY OF VANITY EXTRA CLASS CALL SIGNS

When I worked for the FCC in the 1970's, there was a standing joke among Commission employees that not a single Amateur Radio licensee was happy with his or her call sign. We received more mail about call signs then any other subject. Amateurs wanted 1 by 2 letter calls, others wanted 1x3 letters calls. Others wanted the call of a deceased family member. Clubs wanted shorter calls. Amateurs wrote their Congressman and Senators about call signs, and their representatives could not understand why the FCC would not issue the calls their constitutents wanted. But the FCC remained firm—hams were stuck with the calls they received.

However, there are always exceptions...For example, amateurs who had a 1x2 letter call –such as W3AA—at some point in their amateur career, could request a two-letter call. When the FCC started to issue 2x3 calls-such as WB4AAA-amateurs who moved outside their call sign areas and were required to apply for a new call. If they had a 1x3 call in their previous call area, they could request a 1x3 call in their new area. Note that there were no official FCC rules for this, it was simply done informally.

There was one FCC rule that dealt with two letter calls. There was a rule that said that if the applicant could show that they were licensed prior to April 6, 1917, (the date the US declared war on Germany and its allies) the FCC would award the applicant an Extra Class license and a two letter call sign. This was in recognition of the applicant's being a pioneer ham. The last applicant for this FCC Rule was in 1976, and the FCC did away with this rule shortly thereafter.

Another exception was military ham stations. The FCC did award 1x2 and 1X3 call signs to military ham stations, such as KC4USA and K4CG.

Beginning in the 1950's a few FCC personnel did receive 1x2 calls. While this was not against the rules per se, it was frowned upon. In the early 1970's more Commission employees were receiving special calls. About 1975 the Commission sent a letter to these employees asking these calls to be returned, however, with the beginning of new rules in 1977, the question became moot.

Finally, in 1968 with the announcement of the beginning of Incentive Licensing, the FCC released 1x2 call signs to hams with an Extra Class license, licensed for 25 years and paid a $20 fee. The 1x2 calls were issued sequentially and hams had no input into which calls they would receive. Beginning in 1968 the first 1x2 call signs were issued.

This rule was later motified so that beginning in July, 1977, the FCC allowed any Extra Class license to request a two letter call <u>of their choice</u>. The FCC called this a "vanity" call sign. This was done in three "gates", depending on how long the licensee had a Extra Class call, with the longest group being the first gate to request a call, then the second gate with fewer years, and the most recent Extra Class licensees would be in the third gate. The first group started in July 1977 and the third gate would finish in 1980. After this time, any Extra Class licensee, regardless of years licensed could request a 1x2 call sign. However, often several hams wanted the same call sign, so amateurs usually applied with three choices of the call(s) they wanted.

One important note: In 1975 the FCC admended Part 97 and added the additional letter "N" for all FCC call sign blocks. The FCC also permitted new 1x1 (W3A), and new 2x1 calls (AA1A, KA1A, and NA1A blocks) and some 2x2 calls (only the AA1AA-AK1AA block) as Extra Class callsigns. These calls, called Group A, could also be requested. (Note that 1x1 calls can only be requested on a short temporary basis by several amateur groups). Also note that Extra Class licensees could request non-Extra Class license calls, if they wished.

However, even with the call signs there were still many complaints. Hams wanted their former call signs, or those of their parents or relatives. They had to compete with other hams or wanted the same call sign. Others wanted former call signs for their club stations.

In 1995 a ham in Texas was successful in getting his congressman to introduce legislation to grant vanity call signs for a fee. The Commission now changed its rules for its Vanity Call Sign System on May 31, 1996. Amateurs could request any call sign in their class, so if you held an Extra license, you could get a two letter call (or a call from any of the 4 classes).

The exception was for a call sign request of a previous holder. Any previous holder could request their previous call regardless of their license class. This was also true for Club stations, or calls of former family or relatives. Note that call signs requested could be from any region. The difficulty now is that when a ham passes away, and you want their particular call, you have to wait 2 years to see if the call is requested by 1) a previous owner or 2) by a family

member. Nothing comes easy...

THE HISTORY OF LICENSE FEES

Here's a short history of Amateur Radio license fees by N2EY from QRZ.com. Note these are federal licensee fees, NOT VE test fees.

Amateur licensing had no licensing fees until until early 1964. But that doesn't mean the Federal Government didn't try. In 1933 the Federal Radio Commission, predecessor of the FCC, proposed a $5 fee for three years. The proposal was opposed an not enacted.

In 1954 the FCC proposed a fee of $3 for amateur radio licenses for a 5-year term. This proposal was strongly opposed and not enacted.

In the early 1960's the FCC again opposed fees for amateur licenses, and this time the proposal was enacted despite strong opposition. Beginning in March, 1964 the following fees were enacted:

New or renewed license:	$4
Modified license:	$2
Special callsign:	$20

Novice and RACES licenses remained free.

On August 1, 1970 the FCC raised the 1964 fees to as follows:

New or renewed licenses:	$9.
Modified license:	$4.
Special callsign:	$20.

Novice and RACES licenses remained free.

In 1975 the FCC LOWERED license fees.

New or renewed license	$4
Modified license:	$3
Duplicated license:	$2
Special callsign:	$25.

Finally, effective January 1, 1977 the FCC dropped all fees for amateur licenses. From then until now all amateur licenses have been free. As mentioned before, VE testing fees are set for the VEC and go to pay the costs of conducting the examinations. The FCC does set a maximum fee, but VE's can set fees lower or waive them entirely. In any case, the FCC gets no money from the VEC's.

Modern vanity call fees have varied over time—Someone else can write that history..

OUR LAST SPARK GAP OPERATOR—Bob Shrader, W6BNB, OOTC #3007, SK 2012

Its hard to believe that a mere 8 years ago, there was still a living Spark Gap operator, Bob Shrader, W6BNB, SK 2012, appears, at least in my records, to be the last living american operator who used a Spark Gap commercially.

I suppose Bob had some advantages in being the last living spark-gap american operator. First, he lived to be 99 years old. Secondly, most hams would think that "King Spark" was banned by 1925, but according to Bob, who operated 2-kw spark rigs aboard steamship lines in the Far East for 3 years between 1933-6, many ships were still using spark!

The following in a short article written by Bob for the SGT in January, 2001;

"I operated 2-kW spark rigs for about 3 years back in 1933-6 on the old Dollar line ships that made the around-the-world and Trans-Pacific runs. These old rigs were great for general call type transmissions, such as noon time reports, because one did not have to worry about other receivers possibly being tuned to a zero beat and missing the reports!

I have used these old spark rigs and made very satisfactory contacts from as far as the China Coast of the Philippines to the West Coast shore stations many times during darkness of 600 meters (500kc). Their old 110-V dc xmt/rcv relays would operate with 30 wpm bugs quite nicely , although they made quite a rattle when in operation. These were usually be just tests to see if we could clear the stations. We normally would use our kilowatt Gammatron oscillator type MF/HF for traffic handling.

I remember once sending my QTP (ship entering dock) message to the operator at the Columbo, Ceylon (Sri Lanka) just by keying my regenerative detector while in oscillation. He wouldn't believe our ship was entering his port because of the weak signal, so I opened up the spark set and then he believed me. His ears are probably still ringing.

Those old days, when almost all of the ships in the Far East areas only had spark transmitters, were a real jumble of buzzing signals, particularly in the early evening. We usually felt that we could only work the to level of the spark signals, although sometimes the second layer down could be deciphered".

1921 ARRL TRANS-CONTINENTAL RELAY

It is a cold wintry morning with the temperature 4 above zero. The Time: 4 a.m. January 18, 1921. For several days amateurs throughout the country have been listening to the preparations for the famous Trans-Continental Relay. The time had arrived. 1AW had sent out a QST earlier announcing the time and all amateurs stations had pulled the big switch.

At exactly 4:13:45 a.m. A message, written by ARRL Hiram Percy Maxim, was sent

from 1AW with Fred Schnell at the Key. The message read: "6JD-what time did you start msg. Maxim." The message was picked up by 9ZN (Chicago) and relayed to 5ZA (New Mexico), then to 6JD (California). 6JD replied: "1AW-started ur msg at 1:10 a.m. The reply as then reelayed by and the reply was acknowledged by 1AW at 4:20:15. The total time to send and receive the reply across the United States was 6 and ½ minutes!. A vivid description of this famous event in amateur radio history is on page 12, of the March 1921 QST.

January 18, 2021 will be the 100th anniversary of the Trans-Continental Relay, and I'm sure the ARRL and possibly other groups will try to re-enact the relay, so stay tuned...

SILENT KEYS

#3377 Albrecht Englert, DL1SX, 96, Germany. Radio operastor 1942, licensed in 1993. See Fall 2017 Spark Gap Times, P.13.

#3536 Don Christensen, W8WOJ, 94, Midland, MI. Licensed 1941 as W8WOJ.

#3608 Rudolph Ca;dwell Jr., K8GWU, 78, Ballard, WV. Licensed in 1957 as KN8GWU.

#3724 Walter Henderson, K4GDC, 95, Elon College, NC. Licensed 1946 as W6VDZ. Life member OOTC.

#3745 Hugh Graham W6HG, 97, Upland, CA Licensed in 1946 as W6VDZ. Life member OOTC.

#3772 Bill Carrfoll, NU5C, 89, North Little Rock, AR. First 2-way 1948 Licensed AC5BG in 1995.

#4072 George Ring, W3NU, 98, Brookfield, OH, licensed as WN8JFT in 1963. Also W8VNU

#4242 Roger Nolan, G3KWK, 93, Ridditch, UK, first 2-way 1950, licensed 1953. Life member OOTC.

#4254 Mark Moynahan, K3EE, 92, Rockville, MD. Licensed KL7OO in 1948 Also W2ALJ and W3BEH. He enlisted in the Army Signal Corps in 1945 and later worked for RCA and the National Security Agency (NSA).

#4293 Harold Hyman, K3EC, 92, Acton, MA. First licensed in 1952 as G3IZQ, also WA8VNU.
#4402 Ken Holden, AA6YT, 92, Chico, CA. Licensed in 1945 as W8YEN.

#4636 Chris Ramsay, N4YE, Annandale, VA. Licensed in 1964 at age 12. WB4IIT 1966-77, Worked for US Customs. Past President of several clubs including QCWA Vic Clark Chapter. #91.