

Spark-Gap Times

KEIM
K6DH

Published By

The Old Old Timers Club

PAGE 1 NUMBER 16

1 AUGUST, 1963

AUGUST. WHAT A SHORT SUMMER. IT SEEMS BUT YESTERDAY THAT YE OLDE COPPYE BOYE WAS ENJOYING SMUG SATISFACTION AT THE THOUGHT THAT ALL PROGRAMS WERE EITHER COMPLETED OR WERE WELL ON THE WAY TO BEING COMPLETED. IT IS STILL COMFORTING TO KNOW THAT OUR PUBLICATIONS ARE IN HEALTHY HEALTHY CONDITION, DUE IN LARGE MEASURE TO THE FINE COOPERATION OF SO MANY OF OUR MEMBERS. SOME OF THEM HAVE BEEN SO OUTSTANDING THAT I SHOULD LIKE TO PUBLISH THEIR NAMES BUT FOR FEAR OF EMBARRASSMENT. YOUR OFFICERS ARE MOST GRATEFUL.

YOUR ELECTION CHAIRMAN, MR. JOHN HERLAND, W2MOB HAS SUBMITTED THE SLATE OF CANDIDATES FOR THE COMING ELECTION OF OFFICERS. JOHN WAS ABLY ASSISTED BY THE FOLLOWING MEMBERS OF THE ELECTION COMMITTEE: MR. GEORGE STERLING, WIAE--MR. TOM LETTS, VE2BG--MR. ROY ARMSTRONG W5RIH--MR. TATE THETREAU, W8FX-- MR. ROBERT FENIMORE, W4TY AND MR. FRED ELSER, W6FB.

IN MOST WAYS THE TASK OF SELECTING A SLATE OF CANDIDATES FOR AN ELECTION IS A THANK-LESS ONE. TO BEGIN WITH, IT IS AN ALMOST IMPOSSIBLE TASK TO SELECT A SLATE THAT IS ENTIRELY SATISFACTORY TO ALL HANDS. IF, HOWEVER, THIS SKATE DOES NOT COME VERY CLOSE TO IT, "THE HOPE FOR SUCH, JUST AIN'T THERE." THESE GENTLEMEN WHO HAVE CONSENTED TO SERVE OOTC TO THE BEST OF THEIR ABILITY ARE ALL OUTSTANDING MEMBERS AND FRANKLY, YE OLDE COPPYE BOYE LOOKS ON THIS SLATE AS BEING AN ALL TIME GREAT. THE FOLLOWING ARE THE CANDIDATES:

FOR PRESIDENT-----MR. BERT OSBORNE, W4MF, PRESENT EDITOR OF THE BLUE BOOK
MR. ED RASER, W2ZI, HISTORIAN OF OOTC

FOR VICE PRESIDENT---MR. PERLEY B. DUNN, W6WPF, AWARDS CHAIRMAN
MR. FRED ELSER, W6FB/W6ANM

SECRETARY-TREASURER--MR. EARL C. WILLIAMS, W2EG, PRESENT SECRETARY-TREASURER. (UNOPPOSED)

THE BALLOTS HAVE BEEN PRINTED AND WILL BE MAILED OUT TO MEMBERS ON 1 SEPTEMBER. THEY SHOULD BE EXECUTED IMMEDIATELY ON RECEIPT AND RETURNED TO THE ELECTION CHAIRMAN FOR OFFICIAL COUNT AND FOR CERTIFICATION BY THE SECRETARY. ANNOUNCEMENT OF THE RESULTS WILL BE IN THE 1 DECEMBER ISSUE OF SPARK GAP TIMES.

WE CERTAINLY OWE THE ENTIRE ELECTION COMMITTEE A VOTE OF THANKS FOR THIS FINE WORK OF THEIRS. ON BEHALF OF THE MEMBERS AND THE PRESENT OFFICERS, "GENTLEMEN WE THANK YOU." IT WAS A DIFFICULT JOB WELL DONE.

AMENDMENTS

DURING HIS TERM IN OFFICE, THE CURRENT PRESIDENT HAS SEEN CAUSE FOR A FEW MODIFICATIONS TO OUR CONSTITUTION. A MENDMENTS HAVE BEEN SUBMITTED TO THE BOARD OF DIRECTORS AND WILL BE MADE AVAILABLE TO MEMBERS SOON.



J. K. CLAPP, W4AU

SOME REMINISCENCES OF EARLY AMATEUR WIRELESS
By J.K. CLAPP, W4AU

LISTEN NOW, WHILE I TELL YOU
THE SAD, SAD STORY OF LIFE---"
(FROM AN ANCIENT BALLAD,
"TONY SPIGONIO, THE TREADOR".)

THE YEAR IS 1909. FEW CARS, NO GARAGES OR FILLING STATIONS. THE LOCAL BLACKSMITH DOUBLED IN BRASS AS A MECHANIC. A FIFTY GALLON DRUM OF GASOLINE, ON A RACK BY THE FRONT DOOR, DOUBLED AS A FILLING STATION. GAS WAS DRAWN OFF INTO A TWO-QUART MEASURE MEASURE AND POURED THROUGH A FUNNEL INTO THE TANK OF THE CAR. ALL THE GROWNUPS, AND THE GANG AT THE BARBERSHOP, WERE ARGUING HEATEDLY AS TO WHETHER OR NOT SUCH A THING AS "WIRELESS" COULD BE, AND IF SO HOW DID IT WORK.

THERE WERE NO "RADIO PARTS", OR STORES SO---YOU HAD TO BUILD YOUR OWN. A BRIEF DESCRIPTION OF MY FIRST RECEIVER MAY BE OF INTEREST. IT CONSISTED OF FIVE PARTS; ANTENNA, ONE-SLIDE TUNING COIL, DETECTOR, FIXED CONDENSER (NOW CALLED A CAPACITOR) AND A SINGLE EAR PHONE.

THE ANTENNA WAS A FOUR WIRE INVERTED L, OF ALUMINUM WIRE. No. 16, WAS USED BECAUSE THAT GAVE THE MOST FEET FOR THE MONEY.

THE TUNING COIL WAS WOUND WITH "INVISIBLE BELL WIRE" ON THE CARDBOARD CASING OF A No. 6 DRY CELL, WITH A BARE TRACK FOR THE SLIDER LABOROUSLY PICKED OFF WITH A RAZOR BLADE. (AT THE TURN OF THE CENTURY, COLLEGE BOYS AND OTHER AMBITIOUS SOULS, MADE EXTRA MONEY AS "BELL HANGERS"--INSTALLING ELECTRIC DOOR BELLS. THE "INVISIBLE WIRE" WAS A No. 22 D.C.C. WHICH COULD BE HIDDEN IN THE CRACKS IN THE WOODWORK, ETC. SO THAT THE BELL WIRING WAS INVISIBLE.) THE SLIDER WAS MADE FROM A U SHAPED STRIP OF SPRING BRASS, 1/8 INCH WIDE. THE TIPS OF THE U WERE BENT DOWN NEARLY HORIZONTAL, SO AS TO BEAR ON THE UNDER SIDE OF A SQUARE BRASS ROD MOUNTED PARALLEL WITH THE COIL. THE BOTTOM OF THE U MADE CONTACT WITH THE TRACK.

THE DETECTOR WAS AN ASSEMBLY OF TWO SAFETY PINS AND A PIECE OF SILICON CRYSTAL. THE CRYSTAL WAS CLAMPED IN THE BOW OF ONE PIN AND THE PIN WAS TACKED TO A BOARD, WITH A WIRE WRAPPED AROUND THE TACK TO MAKE CONNECTIONS. THE OTHER PIN WAS OPENED WIDE, WITH THE HEAD TACKED DOWN, AGAIN WITH A WIRE UNDER THE TACK HEAD. THE POINT WAS BENT UP AND OVER SO AS TO BEAR ONTO THE SILICON CRYSTAL.

THE FIXED CONDENSER WAS ASSEMBLED IN A WOODEN PILL BOX (LONGSINCE ABSENT FROM THE AMERICAN SCENE) WITH TABS OF LEAD FOIL (FROM THE CASE WRAPPEERS OF PLUG TOBACCO, SCROUNGED FROM THE CORNER DRUG STORE,) SEPARATED BY PIECES OF PARAFFINED TISSUE PAPER. WASHER HEAD 8/32 MACHINE SCREWS, SALVAGED FROM THE CARBONS OF DRY CELLS, WERE PASSED THROUGH THE ENDS OF THE TABS AND THROUGH THE WOODEN BOX TO PROVIDE CONNECTIONS.

THE EAR PHONE WAS "LIBERATED" FROM AN APPARTMENT HOUSE INTERPHONE, AND WAS DEFUNCT, WHICH WAS TO BE EXPECTED. IT CONSISTED OF HEMISPHERICAL CAST IRON SHELL, WITH A SINGLE MAGNETIZED POLE PIECE MOUNTED IN THE BOTTOM OF THE SHELL. I COULD NOT GET THE POLE PIECE OUT OF THE SHELL, SO I REWOUND THE RECEIVER BY HAND, IN THE BOTTOM OF THE CUP.

I LISTENED MANY HOURS, BUT NEVER HEARD ANYTHING AT THIS TIME, ALTHOUGH THE RECEIVER LATER WAS PROVED OPERABLE. AS THERE WERE PROBABLY NO MORE THAN A HALF A DOZEN WIRELESS STATIONS IN THE AREA, IT IS NOT SURPRISING THAT NOTHING WAS HEARD. THIS REMINDS ME OF ONE OF THE QUESTIONS ON THE EXAMINATION FOR THE "CERTIFICATE OF SKILL" WHICH READ, "YOUR RECEIVER IS IN GOOD CONDITION, YOUR DETECTOR IS IN SENSITIVE ADJUSTMENT, YOUR 'SEND-RECEIVE' SWITCH IS IN 'RECEIVE' POSITION AND YOUR ANTENNA IS O.K. NO SIGNALS ARE HEARD. 'WHY?' 'THERE WAS NO STATION TRANSMITTING.'" WAS THE ANSWER.

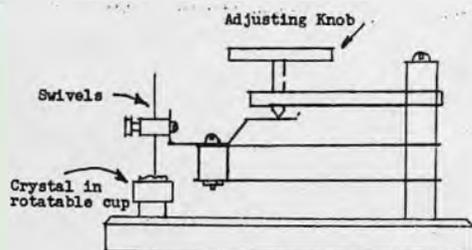
BY MID 1909 MY PAL GOT INTERESTED AND AS I HAD A RECEIVER, HE DECIDED TO BUILD A TRANSMITTER. THIS CONSISTED OF A ONE-HALF INCH SPARK COIL, A GLASS PLATE CONDENSER (4 X 5 PHOTO PLATES WITH THE EMULSION SOAKED OFF; MORE LEAD FOIL FROM THE CORNER DRUG STORE), A HELIX, A ZINC-TIPPED SPARK GAP AND ELECTROLYTIC INTERRUPTOR.

THE INTERRUPTOR WAS MADE FROM A MASON JAR, A PIECE OF $\frac{1}{4}$ INCH GLASS TUBING, A PIECE OF NO. 6 COPPER WIRE AND A STRIP OF LEAD. THE GLASS TUBING WAS HEATED IN THE FLAME OVER A GAS STOVE, AND ROTATED UNTIL THE END CLOSED UP TO A HOLE THE SIZE OF A PINHEAD. THE TUBING WAS SUSPENDED IN THE MASON JAR, WHICH WAS FILLED WITH DILUTE SULPHURIC ACID. THE COPPER WIRE WAS THEN PLACED IN THE TUBING AND A CONNECTION WAS MADE TO ONE SIDE OF THE POWER LINE. THE PIECE OF LEAD WAS HUNG DOWN ONE SIDE OF THE MASON JAR, IN THE ACID, AND WAS CONNECTED TO ONE PRIMARY TERMINAL OF THE SPARK COIL. THE OTHER PRIMARY TERMINAL WAS CONNECTED TO ONE SIDE OF THE KEY, AND FROM THE OTHER KEY TERMINAL, A CONNECTION WENT TO THE OTHER SIDE OF THE LINE.

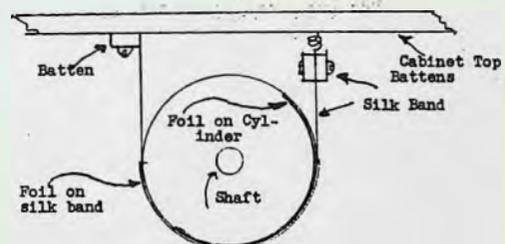
WHEN WE WERE GOING TO OPERATE, WE WOULD BE AT OUR RESPECTIVE STATIONS. MY PAL WOULD TRANSMIT AND I WOULD COPY. THEN WE WOULD HOP ON OUR BIKES AND CHANGE PLACES; AND SO ON.--TWO WAY COMMUNICATION THE HARD WAY!

BY LATE 1909 BOTH OF US HAD GOTTEN TIRED OF THE BIKE RIDING AND DECIDED WE WANTED COMPLETE STATIONS. BY THIS TIME, "MODERN ELECTRICS" HAD PENETRATED THE WILD AND WOOLY WEST, AND IDEAS BEGAN TO ARRIVE. WE COMBINED OUR STATIONS. I PUT A "HONEY" (LONG O) ON THE ONE COPY ARRIVING AT THE CORNER DRUG STORE. THAT WAS A BOYHOOD NAME FOR "PUTTING YOUR MARK", "STAMPING IT", "SPITTING IT" ETC.

MY RECEIVER NOW CONSISTED OF A TWO-SLIDE TUNING COIL, A REAL DETECTOR STAND, AND A PUSH-PULL VARIABLE CONDENSER. A BRIEF DESCRIPTION AND SKETCHES FOLLOW FOR THE DETECTOR STAND AND THE "PUSH-PULL" VARIABLE CONDENSER.



DETECTOR



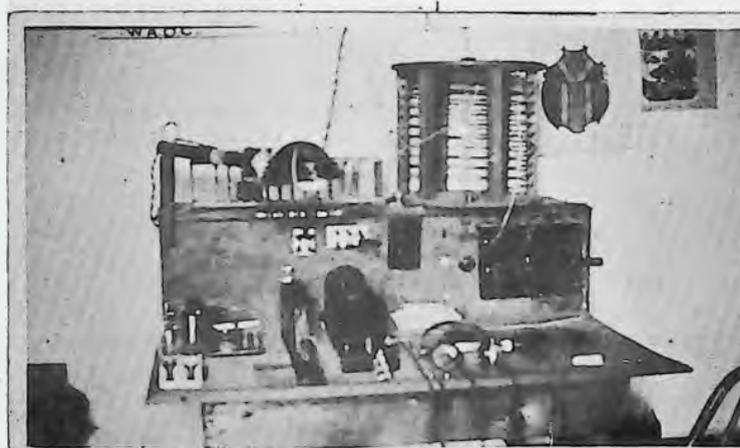
PUSH-PULL CONDENSER

A PHOTO OF THIS RIG IS AVAILABLE, BUT WHETHER IT CAN BE REPRODUCED OR NOT IS A QUESTION. THE DETECTOR WAS ASSEMBLED ACCORDING TO THE SKETCH, FROM A DESIGN OF A CHAP NAMED SMITH, WHO SIGNED "S" ON THE AIR AT THIS TIME. I SUSPECT IT IS BASED ON A COMMERCIAL DESIGN, BUT MAY NOT BE, AS WAS SKILLFUL WITH HIS HANDS. THE SPACERS WERE "LIBERATED" FROM A SCREW-MACHINE SET UP AT A TRADE SHOW. THE MACHINE SPIT THEM

FORTH, ABOUT EVERY FIVE SECONDS, INTO A HOPPER WITH A VERY NARROW THROAT. IF YOU WERE GOING TO "LIBERATE" THEM YOU HAD TO MOVE FAST, AND, NOT ONLY THAT, YOU HAD TO DO SOMETHING IN A HELL OF A HURRY, SINCE THEY CAME OFF THE MACHINE SMOKING HOT! THE STRAPS WERE $\frac{3}{8}$ INCH SPRING BRASS STRIPS. THE PIECE HOLDING THE SMALL BINDING POST, FOR THE "NEEDLE", CAT WHISKER OR WHAT, COULD BE SWUNG BACK AND FORTH; THE CUP THAT HELD THE CRYSTAL COULD ALSO BE ROTATED, MAKING IT POSSIBLE TO COVER MOST ALL OF THE SURFACE OF THE CRYSTAL. TREADJUSTING KNOB WAS ON A SCREW, THREADED THROUGH THE THICKER PART MOUNTED ON THE TOP OF THE ASSEMBLY. I MADE TWO OF THESE, AND THEY APPEAR IN LATER PHOTOS OF EQUIPMENT. (THIS LOOKS VERY MUCH LIKE THE OLD FERRON DETECTOR THAT WAS MOUNTED ON A MARBLE BASE. THE EDITOR.)

THE "PUSH-PULL" VARIABLE CONDENSER WAS MADE BY CUTTING SLOTS IN A STRIP OF WOOD ABOUT 2 INCHES WIDE AND ABOUT 2 FEET LONG. THESE WERE CUT WITH A HACKSAW, AND SPACED BY BRADS DRIVEN INTO THE ENDS OF THE STRIP (AFTER CUTTING OFF THE HEADS.) THE STRIP WAS LATER CUT IN TWO AND ONE PART WAS MOUNTED OVER THE OTHER, THE BOTTOM PART HAVING THE SLOTS ON TOP; THE TOP PART HAVING THEM UNDERNEATH. NINE RECTANGULAR PIECE OF ALUMINUM SHEET WERE THEN PUT INTO THE SLOTS, FIVE STATIONARY, AND THE INTERMEDIATE FOUR BOLTED TOGETHER SO AS TO MOVE AS A UNIT AS YOU PUSHED THEM IN AND OUT. IT WAS TWO OR THREE WEEKS BEFORE I FOUND OUT THAT IF YOU REVERSED THE CONNECTIONS THE SIGNALS WOULD NOT DISAPPEAR WHEN YOU TOOK HOLD OF THE BOLT, WHICH WAS THE "HANDLE."

A PICTURE OF RIG BELOW



ON THE SHELF (BEHIND THE LIGHT) IS A RACK OF 12 4x5 PHOTO PLATES--THE TRANSMITTING CONDENSER, WITH THE HELIX ALONGSIDE, HAVING THE SPARK GAP MOUNTED VERTICALLY INSIDE IT. ON THE "SWITCHBOARD" IS THE 3P DP "SEND-RECEIVE" SWITCH, WITH THE PUSH BUTTON FOR THE BUZZER (TO ADJUST THE CRYSTAL DETECTOR) JUST TO THE LEFT. AT THE LEFT END OF THE TABLE ARE A COUPLE OF LIGHTS AND A SOUNDER. (JUST WHAT THESE HAD TO DO WITH THIS, I DON'T REMEMBER, BUT IT MUST HAVE BEEN IMPORTANT!) NEXT IS THE PUSH-PULL VARIABLE CONDENSER, TWO SLIDE TUNING COIL, WITH THE DETECTOR STAND IN FRONT, AND THE PHONES, WITH THE KEY BEHIND THEM. THE ELECTROLYTIC INTERRUPTOR WAS ON THE FLOOR.

AT THE TOP LEFT OF THE PICTURE, JUST VISABLE, ARE THE LETTERS WAOC, WHICH I BELIEVE ARE ON THE MEMBERSHIP CERTIFICATE OF THE "WIRELESS ASSOCIATION OF COLORADO." THIS SURELY MUST HAVE BEEN ONE OF THE EARLY "CLUBS" AND BY 1910 HAD SOME TWENTY OR THIRTY MEMBERS.

BY 1912 I HAD GRADUATED TO A $1\frac{1}{2}$ KW TRANSFORMER RIG, A ROTARY GAP, A TOWER 35 FEET HIGH, AND HAD HANDLED MY FIRST "MESSAGE" FROM A STUDENT AT THE UNIVERSITY OF COLORADO. IN BOULDER, SAYING HE WOULD BE HOME FOR THE WEEKEND.

RECEPTION HAD PICKED UP ALSO, --- PH POINT HENLOPEN, CALIF), PJ (POINT JUDITH, CALIF)

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1 AUGUST, 1963

SHIPS ALONG THE WEST COAST, C4 IN MEXICO, AND NAR AT KEY WEST, FLA. FRIEND SMITH RECEIVED A PHOTO FROM AN AMATEUR IN NEWORLEANS, WHERE HE WORE A FOOTBALL HELMET WITH TWO LONG STYLE STUCK THROUGH THE HOLES IN THE EARFLAPS!

RULES AND REGS: (THE ROCKS AND SHOALS OF THE NAVY) WERE ALSO COMING INTO THE PICTURE INCLUDING THE USE OF CONTINENTAL CODE. I CAN STILL REMEMBER THE BEWILDERMENT I FELT WHEN I COPIED HEXX5 BIXX AND WONDERED WHAT THE DEVIL IS THIS? GOT OUT A CODE CARD AND READ "HELLO BILL". THE REST OF THE CODE I GOT ON THE AIR.

IN MID 1913, I MOVED FROM DENVER TO BROOKLINE, MASS. WHERE I SET UP SHOP WITH A HALF KW RIG INSTEAD OF THE JS I HAD ALWAYS PREVIOUSLY USED. DURING 1913 I GOT MY FIRST HAM TICKET, AS 10B. IN MID 1914 I GOT MY FIRST FIRST CLASS COMMERCIAL LICENSE, AFTER ATTENDING A "WIRELESS SCHOOL", SPONSORED BY MR. A. LINCOLN FILENE, AT THE FILENE STORE IN BOSTON. THE CLASSES WERE CONDUCTED BY JIMMY POWER, THEN A STUDENT AT TUFTS COLLEGE AND LATER PRESIDENT OF AMRAD.

IN THE EARLY FALL OF 1914, AFTER A TRIP TO WCC, PREVIOUSLY REPORTED IN SPARK GAP TIMES, I GOT A JOB WITH THE MARCONI WIRELESS TELEGRAPH COMPANY OF AMERICA AND WENT TO SEA ON A STUBBY LITTLE TANKER, THE S.S. WINIFRED OF THE GULF REFINING COMPANY. I WAS ON HER NEARLY A YEAR, MOST OF THE TIME IN THE GULF OF MEXICO, BUT WITH A FEW TRIPS TO JACKSONVILLE, FLA. M SAVANNAH, GA., MARCUS HOOK, PA., BAYONNE, N.J AND BEVERLY, MASS.

THE "WINIFRED", KTE, MUST HAVE BEEN ONE OF THE EARLIEST AMERICAN SHIPS TO HAVE WIRELESS, AS I FOUND LOGS BACK TO 1905 ON BOARD. THE RIG HAD ORIGINALLY BEEN UNITED WIRELESS, AND THE SWITCHBOARD, A HUGE THING OF 1½ INCH SLATE, THE "COFFIN" AND THE CONDENSER RACK OF 12 ONE-GALLON LEYDEN JARS (SEE PAGE 14, SGT No. 13) WERE STILL ON BOARD. THE VIBRATION TRANSFORMER, ANTENNA LOADING COIL AND SPARK GAP HAD BEEN REPLACED.

IN THE HOCK SHOPS OF JACKSONVILLE AND SAVANNAH THERE WERE MANY UNITED WIRELESS METERS RECEIVERS, METERS, PHONES, KEYS ETC. THAT HAD BEEN HOCKED BY UW OPS TO GET SOMETHING ON THE PAY DUE THEM WHEN UW WENT BUST.

I GOT OFF TO A BAD START WITH THE CREW, (APOLYGLOT COLLECTION OF SWEDES, NORWEGIANS DANES, POLES, GERMANS, SPANIARDS, PORTUGESE AND AMERICANS (WHEN IT CAME WORLD SERIES TIME). EVIDENTLY THE CREW WAS NOT ROOTING FOR THE BOSTON BRAVES, SO WHEN I POSTED THEIR FIRST WIN, THE GANG GAVE ME DIRTY LOOKS. WHEN I POSTED THE BRAVES AS WINNERS OF THE SECOND GAME THERE WAS MUTTERING; AND WHEN THE BRAVES WON THE THIRD GAME THERE WAS GROWLING AND ACCUSATIONS THAT I WAS RIGGING THE NEWS. WITH THE FOURTH GAME WIN FOR THE BRAVES, THE GANG GOT MAD AND CALLED OFF ALL BETS UNTIL WE GOT TO PORT AND SOME NEWSPAPERS. MY STOCK WENT BACK UP WHEN THEY FOUND THAT I HAD TOLD THE TRUTH!

THERE WERE A FEW THINGS OF INTEREST. ONE WAS COPYING WCC A FEW MILES UP THE RIVER FROM TAMPICO, MEXICO, USING A CARBORUNDUM CRYSTAL IN AN ENGLISH MARCONI Co. RECEIVER. ANOTHER WAS A TRIP UP THE HOUSTON SHIP CHANNEL, AS THE "LARGEST OCEAN GOING SHIP EVER TO GO UP THE CHANNEL", JANUARY, 1915. JUDGING BY THE WAKE, THE PROP WAS IN THE MUD MORE THAN IN THE WATER. IN SPITE OF THE "HUGE TURNING BASIN", AS IT WAS DESCRIBED IN THE PAPERS, IT WAS HARDLY LARGE ENOUGH TO TAKE THE SHIP AND IT TOOK THREE HOURS TO TURN 180 DEGREES. A THIRD WAS GETTING MIXED UP WITH A HURRICANE OFF CAPE HATTERAS. AFTER BUTT INTO IT FOR 15 HOURS, THE CAPTAIN DECIDED TO TURN AND RUN BEFORE THE STORM. HE WAITED A CHANCE FOR NEARLY AN HOUR, AND FINALLY TURNED. THE SHIP GOT ABOUT THREE-QUARTERS AROUND WHEN IT WAS HIT BY A TREMENDOUS WAVE, WHICH STOVE IN THE LIFE BOATS, SMASHED THE PILOT HOUSE AND CAPTAIN'S CABIN, AND CARRIED AWAY THE LEAD-IN TRUNK, PULLING THE LEAD-IN INSULATOR OUT OF THE DECK. IT WAS TWO DAYS BEFORE "CHIPS" AND I COULD JURY RIG A LEAD-IN INSULATOR FROM A PIECE OF EBONITE TUBE AND A POT OF PITCH. FINALLY, WE PASSED CAPE HATTERAS FOR THE THIRD TIME THAT TRIP AND MADE BAYONNE, N.J. SAFELY.

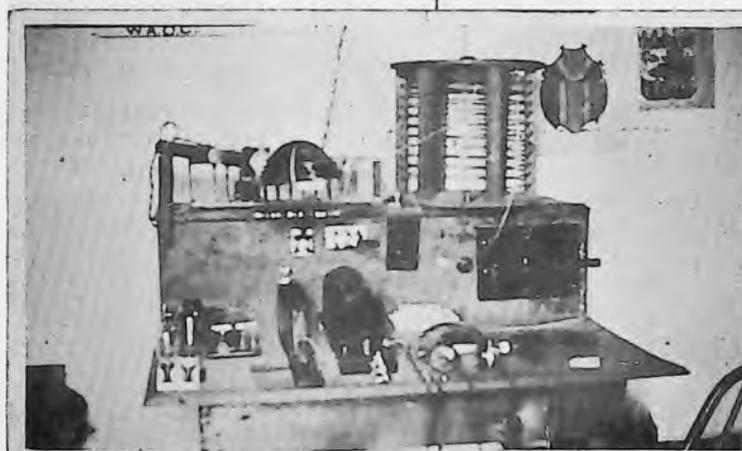
DURING THE STORM I PICKED UP MY FIRST SOS FROM THE ROYAL DUTCH MAIL PACKET "PRINZ MAURITZ". WHEN I TOOK THE POSITION TO THE CAPTAIN, HE PLOTTED IT AND SAID, "GOD HELP THEM, WE CAN'T." THE SHIP WAS LOST WITH ALL HANDS.

IN LATE SUMMER, 1915, I WAS TRANSFERRED TO THE U.S.S. MELVILLE FOR DUTY ON THE TRIAL TRIPS OFF THE VIRGINIA CAPES. AFTER THAT I WENT HOME TO RESUME HIGH SCHOOL.

NOTE FROM THE EDITOR: IN SOME MANNER I FAILED TO GET THE FOLLOWING PHOTO IN ONE OF THE EARLIER PAGES.

JOB IN BROOKLINE, MASS, 1913

THE RECEIVER WAS BASED ON THE ENGLISH MARCONI CO. "MULTIPLE TUNER" AND CONTAINED TWO ROLLING PIN VARIABLE CONDENSERS, A LOOSE COUPLER, TWO SLIDE TUNING COIL, TWO DETECTOR STANDS AND NUMEROUS SWITCHES. IT WAS ALL HOME BREW, INCLUDING THE KNOBS. THEN, TO THE RIGHT, THE ANTENNA SWITCH, PHONES AND KEY. THEN THE TRANSMITTER CONSISTING OF A $\frac{1}{2}$ KW TRANSFORMER, WITH THE ANTENNA LOADING COIL ON FRONT, LAMP BANK AND RHEOSTAT AT RIGHT, 8x10 PHOTO PLATE CONDENSER LYING FLAT ON TOP, WITH THE BASE OF THE OSCILLATION TRANSFORMER MOUNTED OVER IT. THE FIXED SPARK GAP IS JUST ABOVE THE ENVELOPE STUCK IN FRONT OF THE RIG.

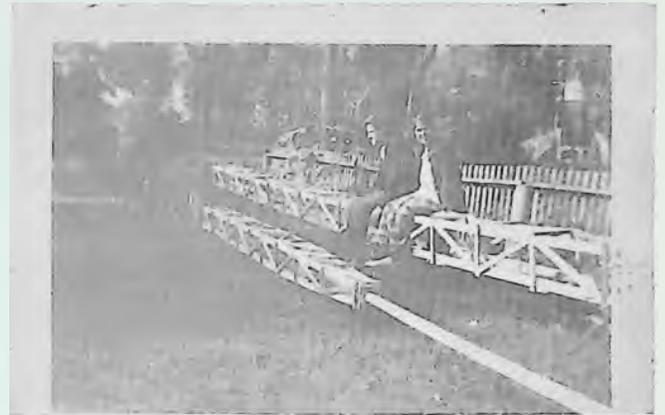


I HAD LET MY HAM TICKET LAPSE, SO WHEN I GOT BACK I WAS RELICENSED AS "ONE KEWPIE", WIQP. THAT FALL I BUILT A 104 LATTICE TOWER WITH A 16 FOOT TOPMAST. IT WAS A FOOT SQUARE WITH 2x2 CORNERS AND 1x2 SLATS. IT WAS MADE IN FIVE SECTIONS; THE FIRST TWO WERE JOINED ON THE GROUND, UPENDED AND GUYED IN PLACE. THE OTHER THREE SECTIONS WERE HOISTED BY MEANS OF AN "A" FRAME GIN POLE AND JOINED "UP IN THE AIR." THE TOPMAST WAS THEN SET IN PLACE IN THE TOP OF THE LATTICE; THE OUTRIGGERS WERE CARRIED UP AND POSITIONED AFTER.

THE PHOTOS ON THE FOLLOWING PAGE SHOWS THIS TOWER. ONE PHOTO SHOWS THE FORTY FOOT SECTION, WITH THE ENDS RAISED ON SAW HORSES, WITH MY GIRL (NOW XYL) AND HER BROTHER SITTING IN THE MIDDLE. THE TOP SECTION, WITH THE TOPMAST IN PLACE IS ON THE GROUND. THE OTHER PHOTO SHOWS THE TOWER ERECTED.

TWO ANTENNAS WERE USED WITH THIS TOWER. ONE WAS TWO-WIRE, 16 FEET APART AND 225 FT. LONG, WITH THE FAR END SUPPORTED ON A TOPMAST LASHED IN THE TOP OF A HUGE ELM TREE WHICH STOOD ON A KNOLL ACROSS THE STREET. THE SECOND WAS A SINGLE WIRE 600 FEET LONG, THE FAR END ATTACHED TO THE TOP OF A FOUR STORY BUILDING STANDING ON A HILL.

IQP TOWER



AT THIS TIME A LOT OF AMATEURS MADE LONG WAVE RECEIVERS, AND USING "BOOTLEG" AUDION BULBS, LISTENED TO THE HIGH POWER-CW STATIONS IN EUROPE, EASTERN EUROPE, PANAMA, U.S. WEST COAST AND HAWAII. THE RECEIVERS USUALLY USED "QUAKER OATS" BOXES FOR COIL FORMS, AS THESE WERE THE LARGEST CYLINDRICAL FORMS THE BOYS COULD FIND. SOMETIMES TWO WERE PUT END TO END, THEN WRAPPED WITH HEAVY PAPER, SO AS TO MAKE LONGER FORMS. I REMEMBER ASKING A FELLOW HAM WHERE HE TUNED IN POZ, NAUEN,

AND HE SAID, "I AM USING THREE FEET OF SECONDARY". AN APT DESCRIPTION.

AT 11 MINUTES OF SEVEN P.M. (EST) ONE COULD PICK UP THE EIFFEL TOWER MIDNIGHT SIGNAL; THEN AT 7:00 P.M. YOU COULD PICK UP THE NOON SIGNAL FROM PEARL HARBOR.

THIS REPRESENTS THE "HEIGHT" (NO PUN INTENDED) OF MY DAYS AS A SPARK AMATEUR. AFTER THE WAR, SPARK SETS WERE OUTLAWED AND HAMS TURNED TO SUCH THINGS AS VACUUM TUBES (OR AUDION BULBS), ELECTROLYTIC RECTIFIERS AND "REVERSED TICKLER" OSCILLATOR CIRCUITS. THOSE EARL DAYS WOULD MAKE ANOTHER INTERESTING CHAPTER IN THE HISTORY OF HAM RADIO. (TO THIS WE AGREE WHOLEHEARTEDLY, AND WHO COULD DO IT BETTER THAN OUR DISTINGUISHED MEMBER MR. JIM CLAPP?)

THANKS A LOT JIM. I AM SURE THAT I SPEAK FOR ALL HANDS WHEN I EXPRESS OUR APPRECIATION FOR THESE FINE ARTICLES. WE ONLY HOPE THAT YOU WILL BECOME A REGULAR CONTRIBUTOR. AT ANY RATE WE HOPE THAT YOU WILL CONSENT TO BE A FREQUENT CONTRIBUTOR. THE EDITOR.

AN INTERESTING LETTER FROM TOM APPLEBY W3AX

DEAR EARL:

THE THOUGHT OCCURED TO ME THAT WHILE THE REAL OLD TIMERS WILL UNDOUBTEDLY REMEMBER, THE YOUNGER ONES MAY NOT RECALL, THAT IF ANY ONE THING ACCOUNTS FOR THE INVENTION OR DISCOVERY OF WIRELESS IT WAS THE "SPARK" ACROSS A SPARK-GAP THAT SURPRISED HEINRICH HERTZ DURING HIS RESEARCHES IN 1886 WHEN HE DISCOVERED THAT IF A SPARK HAD TO SPRING ACROSS A SPARK-GAP IN DISCHARGING A CHARGED CIRCUIT CONTAINING CAPACITY AND

INDUCTANCE, IT WOULD CAUSE A HIGH FREQUENCY OSCILLATIONS TO BE PRODUCED IN THE CIRCUIT, AND ELECTROMAGNETIC WAVES TO BE RADIATED INTO SPACE. HE THUS CONFIRMED THE EARLIER THEORY OF JAMES CLARK MAXWELL THAT SUCH WAVES SHOULD EXIST IN SPACE. HERTZ DETECTED THE OSCILLATIONS BY MEANS OF A SPARK-GAP AND A REVOLVING MIRROR.

IT ALWAYS AMAZES ME HOW THOSE FELLOWS ARRIVED AT SUCH DEFINATE CONCLUSIONS WHEN THEY HAD NONE OF THE MEASURING INSTRUMENTS THAT WE USE TODAY. HERTZ ALSO FOUND THAT HIGH FREQUENCY WAVES TRAVEL SLOWER IN CONDUCTORS THAN IN SPACE MERELY BY OBSERVING THE NODES, BY MEANS OF HIS MICRO-SPARK-GAP, ALONG A PARALLEL PAIR OF CONDUCTORS AND COMPARING THEM WITH THE VISABLE NODES OF THE SAME CURRENTS IN A LONG PARTIALLY EVACUATED GLASS TUBE. FROM THE OBSERVED DIFFERENT POSITIONS OF THE NODES HE CALCULATED THE RELATIVE VELOCITIES.

BEST WISHES TO ALL HANDS,

TOM APPLEBY W3AX

A MOST INTERESTING OBSERVATION THAT MANY OF US HAD FAILED TO REMEMBER OR REALIZE THE IMPORTANCE, THANKS TOM. EEC.



VETERAN OPERATOR---Edward W. DUGAN WORKS KEY AT HIS JERSEY CITY HOME STATION, W2IY. HE STARTED RADIO HOBBY IN '09

WITH RADIO AMATEURS

ON THE AIR 54 YEARS-----

BY CARL A ERBACHER, (W2EKU)

SAVING HIS SCHOOL LUNCH MONEY TO BUY WIRE AND HARDWARE, EDWARD W. DUGAN, W2IY, PUT HIS FIRST HAM STATION ON THE AIR IN 1909. THIS WAS TWO YEARS BEFORE HE QUALIFIED FOR THE GOVERNMENT'S OPERATOR'S CERTIFICATE OF SKILL, ISSUED IN LIEU OF A LICENSE.

TO OBTAIN THE CERTIFICATE, DUGAN UNDERWENT A TWO-PART TEST. A CODE EXAMINATION PROVED HE COULD COPY 20 WORDS A MINUTE. THEN, TURNED LOOSE IN A ROOM CONTAINING SUNDRY COMPONENTS FOR A TRANSMITTER, HE SUCCESSFULLY SATISFIED THE EXAMINER THAT HE COULD ASSEMBLE A COMPLETE STATION FROM MOTOR-GENERATOR SET TO SPARK GAP AND HELIX.

NOW, AT HIS HOME, 367 WEBSTER AVE., JERSEY CITY, DUGAN OPERATES WITH TELEGRAPHY, THOUGH HE CONTEMPLATES OBTAINING GEAR TO PERMIT VOICE OPERATION WITH SINGLE SIDEBAND TRANSMISSIONS. DUGAN IS ONE OF 72 AMERICAN HAMS WHO HAVE DOCUMENTED EVIDENCE THAT THEY HELD ONE OF THE FIRST ISSUED SERIES OF LICENSES IN 1912 AND, AS ONE OF SUCH, HE QUALIFIES UNDER PRESENT REGULATIONS FOR AN EXTRA CLASS LICENSE.

EXPERIMENTS.--IT WAS THE NEWSPAPER HEADLINES OF JACK BINNS OF THE STEAMSHIP REPUBLIC AND HIS SUCCESSFUL USE OF WIRELESS TO BRING AID TO A SHIP AT SEA THAT FIRST CAUSED DUGAN TO BECOME INTERESTED IN THE "ART." A PHYSICS LAB ON THE ROOF OF DICKENSON HIGH SCHOOL, JERSEY CITY, SUPPLIED DUGAN AND OTHER INTERESTED YOUTHS WITH INSTRUCTION IN BASIC PRINCIPLES AND A PLACE TO CONDUCT EXPERIMENTS. HE WAS GRADUATED FROM THE SCHOOL IN 1913.

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EDWARD W. DUGAN

DURING THE SUMMER VACATION BEFORE GRADUATION, DUGAN APPLIED FOR AND OBTAINED A JOB AS A SKIP'S OPERATOR WITH THE OLD UNITED WIRELESS TELEGRAPH COMPANY. HIS PARENTS DISAPPROVED OF HIS LEAVING HOME SO THE YOUTH WATCHED HIS OPPORTUNITY TO LEAVE WITH A BAG CONTAINING NECESSARY CLOTHES. HE WAS THE ONLY OPERATOR ABOARD THE STEAMER EVELYN OF THE BULL INSULAR LINE, NEWLY ADDED TO THE ROSTER OF WIRELESS-EQUIPPED SHIPS AND MAKING ITS FIRST RUN TO THE CARIBBEAN PORTS. HE DISCOVERED THAT THE WIRELESS GEAR HAD BEEN PLACED ON THE SHIP BUT NOT INSTALLED AND NOT UNTIL THREE DAYS AFTER LEAVING NEW YORK WAS HE ABLE TO "SPEAK" TO A PASSING SHIP AND KNOW THE EQUIPMENT WAS WORKING.

AT ITS SCHEDULED FIRST PORT OF CALL, SAN JUAN, PUERTO RICO, THERE WAS AN OUTBREAK OF BUBONIC PLAGUE AND THE SHIP WAS NOT ALLOWED TO DOCK. READING OF THIS, DUGAN'S PARENTS WERE EVEN MORE REGRETFUL THAT HE HAD TAKEN THE JOB. SIX WEEKS AFTER SAILING, DUGAN, NOW A SEASONED "SPARKS" AND WITH PLENTY TO TELL ABOUT THE CARIBBEAN PORTS, WAS BACK HOME BASKING IN HIS PARENTS' FORGIVENESS AND PLANNING TO USE OTHER SCHOOL VACATIONS IN A LIKE MANNER.

DUGAN ATTENDED COOPER-UNION FOR SEVERAL YEARS AND IN 1917 ENLISTED IN THE NAVY. ONE OF HIS ASSIGNMENTS WAS A FIVE-MONTH PERIOD TO THE OPERATING STAFF OF THE OLS NEW YORK HERALD STATION OAX, HANDLING SHIP TRAFFIC AND SOS CALLS OCCASIONED BY ENEMY SUBMARINES OPERATING OUTSIDE THE HARBOR.

PRESENT EQUIPMENT USED BY DUGAN CONSISTS OF A HEATH DX-100 TRANSMITTER AND A DRAKE 2-B RECEIVER. IT IS QUITE DIFFERENT THAN THE FIRST STATION HE HAD WITH IT'S MODEL T AUTO SPARK COIL AND A LARGE COPPER HELIX FOR TRANSMITTER AND THE LARGE CRYSTAL DETECTOR RECEIVER. MORE IMPOSING WAS THE FOUR-WIRE ANTENNA FROM HOUSE TOP TO A 30 FOOT POLE, NECESSARY FOR THE LONG WAVELENGTHS THEN IN USE.

PRESENT QSOs ARE MADE IN THE EVENING, OFTEN WITH OTHER MEMBERS OF THE OLD OLD TIMERS CLUB, WHO ALSO GET TOGETHER EACH THURSDAY NIGHT ON 75 METERS. ONE OF THIS GROUP HEARD AND OCCASIONALLY CONTACTED BY DUGAN IS IRVING VERMILYA, CAPE COD, WHO DUGAN WORKED FOR WHEN SECOND OPERATOR OF THE SS NORTHLAND 45 YEARS AGO.

(THE ABOVE ARTICLE FROM ONE OF THE NEWSPAPERS WAS SUBMITTED BY W2EG BUT DID NOT GIVE THE NAME OF THE PAPER FOR CREDIT. THANKS TO ALL CONCERNED.)

A MAN WAS TUNING IN ON THE RADIO WHEN HE GOT A SUDDEN TWINGE OF PAIN IN HIS BACK. "I BELIEVE I'M GETTING LUMBAGO!" HE REMARKED.

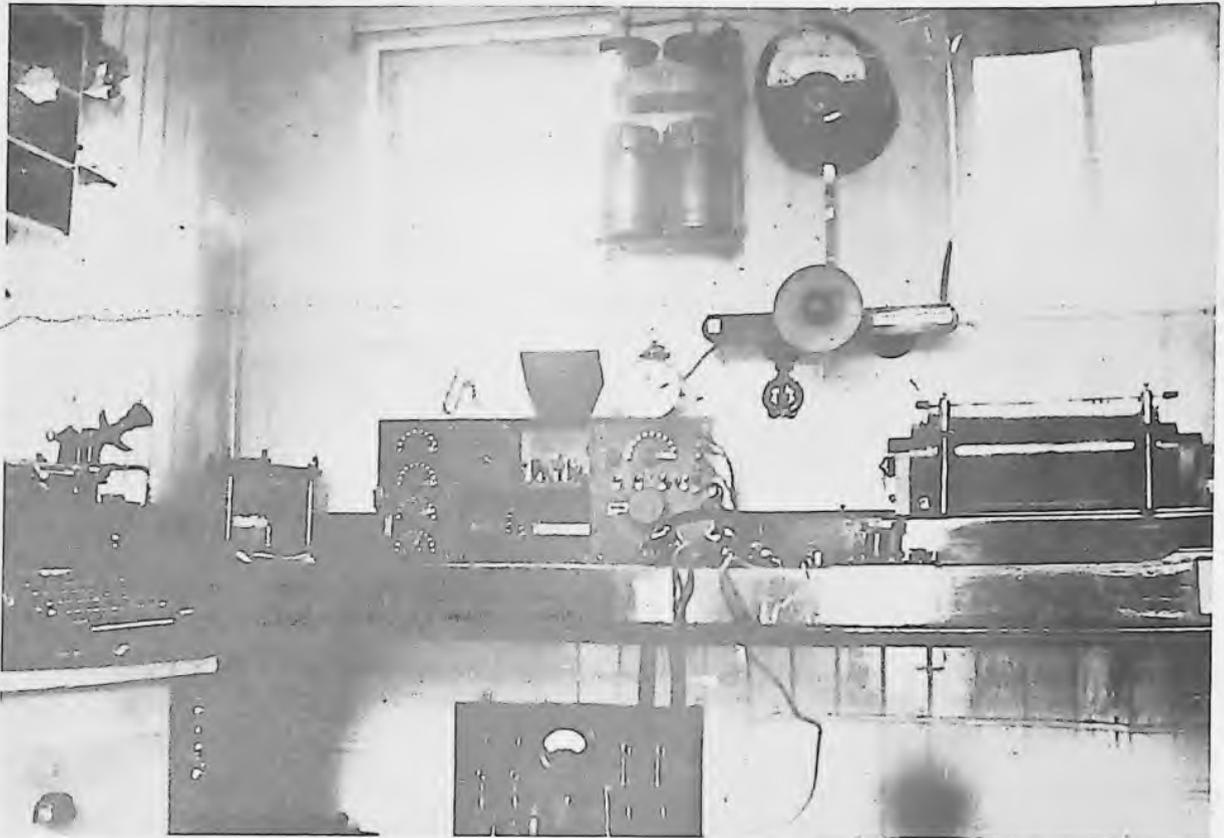
"WHAT'S THE USE? YOU WON'T UNDERSTAND A WORD THEY SAY ANYWAY," REMARKED HIS WIFE.

DEEP IN THE LOUISIANA SWAMPS, THREE MEN STOPPED TO WATCH A SMALL BOY FISHING IN A ROAD SIDE LAKE. FINALLY, ONE MAN SAID, "BOY ARE THERE ANY SNAKES IN THIS WATER?"

"NAW, SUH, THEY SURE AIN'T," REMARKED THE BOY. ---THE THREE MEN LEFT THEIR CLOTHES ON THE BANK AND HAD A REFRESHING SWIM. AFTER DRESSING ONE MAN ASKED, "HOW COME THERE AREN'T ANY SNAKES IN THIS LAKE?" ---"THE ALLIGATORS ATE 'EM." REPLIED THE BOY.

"JIMMY, YOU'VE DEFINED 'BUCCANEER' WRONG. "TOO MUCH TO PAY FOR CORN ISN'T THE RIGHT ANSWER" SAID HIS TEACHER.

A PIONEER COMMERCIAL WIRELESS TELEGRAPH STATION OF ABOUT 1910
 (PHOTO FROM THE HOWARD S. PYLE COLLECTION.)



THE FAMOUS MARCONI 12 " SPARK COIL CAN BE SEEN AT THE RIGHT AND THE CHARGING PANEL FOR IT'S BATTERY IS BELOW THE OPERATING BENCH. THE RECEIVER IN THE CENTER OF THE CUT WAS A WIRELESS SPECIALTY CO., TYPE 1P-76 WITH CRYSTAL DETECTOR. ON THE WALL ABOVE THE RECEIVER ARE THE TWO LEYDEN JARS FORMING THE ANTENNA SERIES CONDENSER USED WHEN OPERATING AT THE LOWER WAVE LENGTHS.

THE HOT-WIRE AMMETER IS TO THE RIGHT OF THE CONDENSER AND THE ANTANNA SWITCH IS BELIEVED TO HAVE BEEN OLD "GO" IN CHICAGO: DOES ANYONE HAVE ANY BETTER IDENTIFICATION?

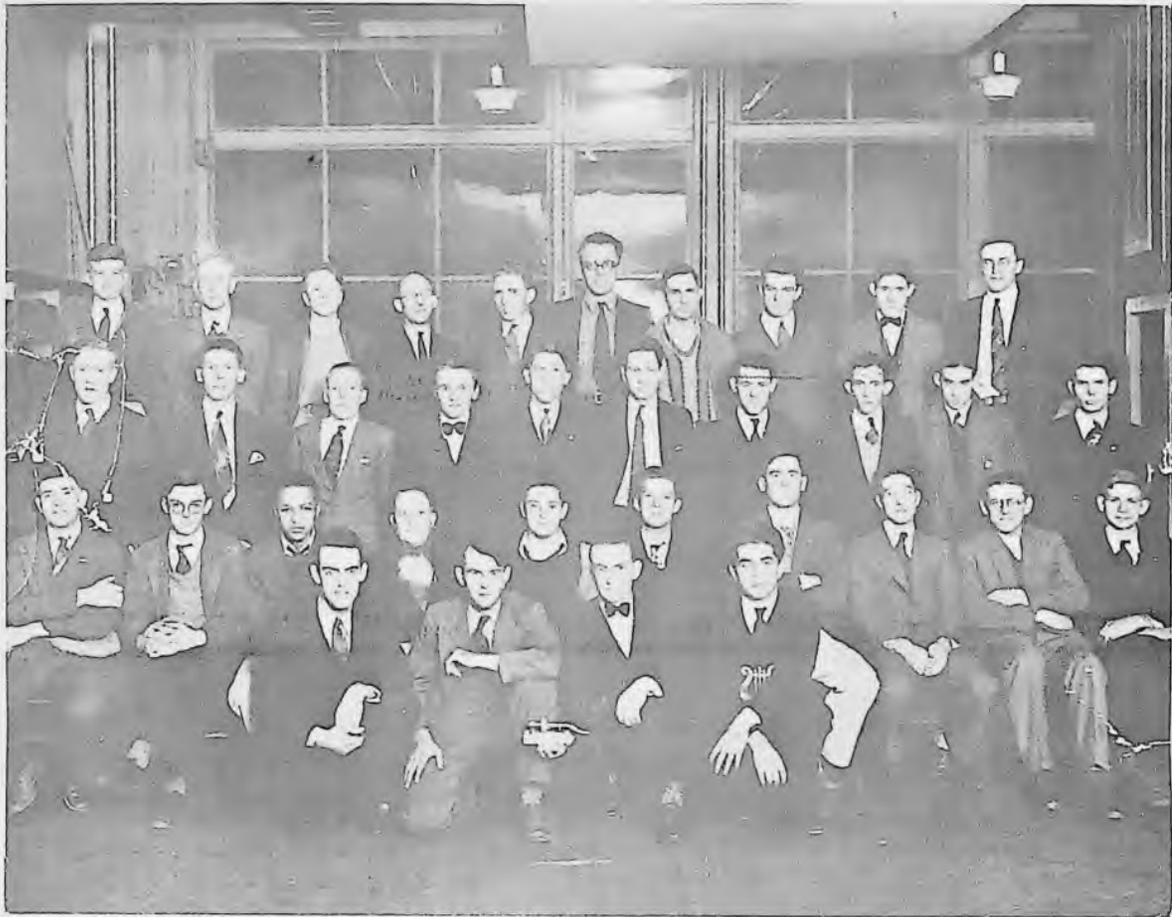
HOWARD S. PYLE W7OE

"THE TRAPS ON THIS COURSE ARE VERY ANNOYING," OBSERVED A MEMBER OF THE GOLFING FOURSOME.---THE ONE WHO WAS PUTTING RAISED HIS HEAD. "THEY CERTAINLY ARE," HE COMMENTED. "WOULD YOU MIND SHUTTING YOURS?"

DIPLOMACY IS THE ART OF SAYING "NICE DOGGY" UNTIL YOU HAVE TIME TO PICK UP A ROCK.

SIGN IN A SERVICE STATION: "WE COLLECT TAXES--FEDERAL, STATE AND LOCAL. WE ALSO SELL GASOLENE AS A SIDE LINE."

BUTTE, MONT. RADIO OPERATORS ASSOCIATION TAKEN 1926



DEAR MR. WILLIAMS:

UNDER SEPARATE COVER I AM FORWARDING, ALONG WITH MY APPLICATION FOR MEMBERSHIP IN THE OLD OLD TIMERS CLUB, A PHOTO OF THE BUTTE, MONTANA RADIO OPERATORS ASSOCIATION, TAKEN AT THE BUTTE CHAMBER OF COMMERCE IN 1926. THE PERSONS I KNOW ARE:

FRONT ROW---LEFT TO RIGHT; HENRY STURTEVANT, W7AMA, GEOFFREY WOODHOUSE, YOURS TRULY W.J. SULLIVAN AND MEL SEWALSON, DECEASED.

2ND ROW-----FIRST ON LEFT, EMMET SULLIVAN, DON'T KNOW CALL

BACK ROW----3RD FROM LEFT, RALPH COOK; 8TH ART FOSTER, W7MX DECEASED;

I WOULD LIKE TO GET THIS PICTURE PUBLISHED IN SOME NATIONAL HAM MAGAZINE TO FIND OUT WHO THE REST OF THEM ARE AND WHERE THEY ARE LOCATED. I UNDERSTAND THAT THIS CLUB WENT OUT OF EXISTENCE IN THE MIDDLE THIRTIES.

YOURS VERY TRULY,

W.J. SULLIVAN, "SULLY" W7FC
135 MENDENHALL
BOZEMAN, MONTANA.

CAN AND WILL ANY OF OUR HELP OUR NEW MEMBER IN HIS SEARCH FOR HIS FRIENDS? EDITOR.

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SUPPLEMENT TO THE ROSTER

SINCE THE 1963 ROSTER WAS PUBLISHED ON 1 JANUARY, THERE HAVE BEEN NUMEROUS ADDITIONS TO OUR MEMBERSHIP ROLL AND IT WAS DECIDED TO PUBLISH THIS SUPPLEMENT FOR THE FURTHER CONVENIENCE FOR OUR MEMBERS. THE NEXT FULL ROSTER SHOULD BE AVAILABLE ON 1 JANUARY, 1964.

CALL NO.	NAME	HANDLE	YEAR	LAST KNOWN ADDRESS
WIACP 377	GEORGE G. STARKEY	GEORGE	1922	182 HARRISON AVE. FITCHBURG, MASS.
WIEV 386	HAROLD A. HUTCHINSON	HUTCH	1922	11 GAULT PARK DR. WESTPORT, CONN.
KIGAD 370	CHARLES M. KELLEY, JR.	MIKE	1910	22 ARROWHEAD DR. IPSWICH, MASS
WIMOK 382	MYLES W. BRENNAN	MYLES	1921	296 IRENE ST. WILLIAMSANSETT, MASS.
WIMT 401	FRANKLIN K. MATEJKA	FRANK	1921	14 TAMARACK RD. READING, MASS.
WIOOO 405	JOHN E. SANBORN	BUNNY	1922	RR #1 Box 132 DENNISPORT, MASS.
W2AA 387	JOHN VAN DYKE	JOHN	1910	Box 402 CHRISTIAN AVE. STONEY BROOK, L.I. N.Y.
W2ALS 388	FRANK A. GUNTHER	FRANK	1920	10 HIGHPOINT RD. DONGAN HILLS, S.I. #4 N.Y.
W2GB 375	GEORGE G. BATTERSON	CURLEY	1912	126 WESTFALL RD. ROCHESTER 20, N.Y.
K2FP 399	OTTO F. GRAPP	OTTO	1923	2817 PFEIFFER AVE. PENNSAUKEN 5, N.J.
W2KDB 392	WILLIAM F. EGLIT	BILL	1923	LAKE PINE--MARLTON RD. 1, N.J.
W2LV 383	ROBERT M. MORRIS	BOB		22 MOUNTAIN VIEW RD. MILBURN, N.J.
W2SVR 378	HUGO L. ESTBERG	HUGO	1915	21 CURRY RD. HASTINGS-ON-HUDSON, N.Y.
WA2JYA 374	HENRY D. ROHRER	HANK	1916	636 SIBLEY TOWER BLDG. ROCHESTER 4,
K2QKS 385	E.W. BURROUGHS	ED	1920	701 W. STATE ST. TRENTON 8, N.J.
W3IU 379	SAMUEL J. THACKERAY	SAM	1908	1066 WELSH RD. PHILADELPHIA 15, PA.
W3LM 384	CHARLES Y. YEAGLEY	DOC	1921	325 SUMMER ST. ROYERSFORD, PA.
K3UIG 400	BARRY GOLDWATER	BARRY	1923	4000 CATHEDRAL, N/W WASHINGTON, D.C..
K7UGA ---	-----	-----	-----	-----
W30Y 404	ARTHUR C. JACOBY	ART	1914	136 SPRINGHOUSE RD. LANCASTER, PA.
W4BZ 398	B.W. BENNING	BEN	1913	520 OAKDALE RD. N/E ATLANTA 7, GA.
W4VI 402	W.W. WATTS	WALLY	1919	22 E. 88TH ST. NEW YORK 28, N.Y.
W5SA 403	ELMER A. VOLZER	DOC	1915	3919 SMITH AVE. S/E ALBUQUERQUE, N.M.
W6ABC 389	NEWTON R. WIMER	NEWT	1922	643 N. BUENO VISTA, BURBANK, CALIF.
K6DG 371	KNOX W. NICHOLSON	KNOX	1910	15442 AVENUE 328, VISALIA, CALIF.
K6EA 372	ARMOND O. BRATTLAND	ARMY		1135 MAGNOLIA AVE. LONG BEACH, CALIF.
K6KI 391	DEAN A. LEWIS	RL	1913	220 WILLAMETTE-BERKELEY, CALIF.
W6IAH 394	STANLEY E. HYDE	STAN	1907	444 W. VALENCIA AVE. BURBANK, CALIF
W7FC 396	Wm. J. SULLIVAN	SULLY	1923	Box 794, BOZEMAN, MONTANA
K7UGA 400	SEE K3UIG SENATOR BARRY GOLDWATER			
W8AYS 373	CHAS. J. SCOTT	CHAS.	1920	1564 MAPLE RD, CLEVELAND HTS. OHIO.
W8BF 381	J.O. BAUMGARDNER	ORRIE	1922	20470 LORAIN RD. CLEVELAND, OHIO.
W8WC 390	ALBAN A. MICHEL	MIKE-	1922	359 BENHAM RD. CINCINNATI 15, OHIO.
W8BCZ 380	J.D. HOSKINSON	JD	1922	P.O. Box 56, COPELAND, KANSAS
VE2CP 393	H.C. YOUNG	SI		10 WILLOW AVE. WESTMOUNT 6, MONTREAL, CAN.
VE7HJ 376	W.G. STUNDEN	BILL	1912	2458 NICHOL RD. R.R. 3, WHITE ROCK, B.C. CAN.



GEORGE E. STERLING WIAE

SPIES USE RADIO
BY
GEORGE E. STERLING

FORMER CHIEF, RADIO INTELLIGENCE DIVISION FCC
1940---1945

THE STORY WHICH I AM ABOUT TO NARRATE ENCOMPASSES THE OPERATIONS OF THE RADIO INTELLIGENCE DIVISION, ENGINEERING DEPARTMENT OF THE FEDERAL COMMUNICATIONS COMMISSION IMMEDIATELY PRIOR TO AND DURING WORLD WAR TWO.

DURING THE PERIOD OF NEUTRALITY WHILE THE WAR WAS BEING WAGED IN EUROPE IN 1940-41 NEW RESPONSIBILITIES WERE IMPOSED ON THE COMMISSION AND PARTICULARLY THE FIELD DIVISION WHICH WAS RESPONSIBLE FOR THE ENFORCEMENT OF RADIO RULES AND REGULATIONS AND INTERNATIONAL TREATIES AS THEY

PERTAINED TO THE TECHNICAL OPERATION OF RADIO STATIONS.

THE REPORTS OF FIFTH COLUMN ACTIVITIES BY ENEMY AGENTS IN EUROPE UTILIZING RADIO TRANSMITTERS GAVE CAUSE FOR ALARM SHOULD THEY SPREAD THEIR ACTIVITIES TO OUR HEMISPHERE. MOREOVER, IT WAS ESSENTIAL TO KEEP ALL CHANNELS OF COMMUNICATIONS FREE OF INTERFERENCE.

AT THIS TIME THE FIELD DIVISION OF THE COMMISSION HAD ONLY SEVEN MONITORING STATIONS THE OPERATIONS OF WHICH WERE CONFINED MAINLY TO FREQUENCY MEASUREMENTS AND ANALYSIS OF THE CHARACTER OF THE EMISSIONS OF THE STATIONS. NONE OF THESE STATIONS WERE EQUIPPED WITH HIGH-FREQUENCY ADCOCK DIRECTION FINDERS. NEITHER DID THEY HAVE ANY RECORDERS AND OTHER ESSENTIAL EQUIPMENT. AT LEAST THREE OF THEM WERE POORLY LOCATED WITH NO ROOM FOR EXPANSION, FOR EXAMPLE, ONE WAS ON A NAVY MUNITION SITE WHERE THERE WAS A LIMIT PLACED ON THE NUMBER AND HEIGHT OF ANTENNA. ANOTHER ON THE GROUNDS OF A WEST COAST FORT WHERE ARTILLARY PRACTICE INTERFERED WITH MONITORING AND STILL A THIRD ON A NAVY RADIO TRAINING SCHOOL LOCATION WHERE INTERFERENCE WAS BECOMING INTOLERABLE. THE FIELD OFFICES WERE NOT EQUIPPED WITH MOBILE LOOP DIRECTION FINDERS SO AS TO QUICKLY LOCATE AN ILLEGAL STATION OR A SOURCE OF INTERFERENCE.

SO, IN THE FACE OF THE ALARMING USE OF RADIO BY NAZI SPIES IN EUROPE AND OF THE SPECIAL PROBLEMS AT HOME, THE FEDERAL COMMUNICATIONS COMMISSION ACTED TO PUT THIS COUNTRY IN A STATE OF RADIO PREPAREDNESS. A PLAN WAS DRAWN UP TO MODERNIZE AND INCREASE THE NUMBER OF MONITORING STATIONS AND TO PROVIDE MOBILE UNITS WITH AT LEAST ONE STATION IN EACH OF THE STATES TO DO LOCAL INVESTIGATIONS WORK AND PINPOINT ILLEGAL STATIONS AND SOURCES OF INTERFERENCE.

THE PLAN WAS APPROVED BY THE BUREAU OF THE BUDGET AND PRESIDENT ROOSEVELT ALLOCATED \$1,600,000 FROM HIS EMERGENCY FUND TO ACCOMPLISH THE OBJECTIVE. CONGRESS LATER SUPPLEMENTED THE GRANT AND BEFORE THE WAR CAME TO AMERICA, THE MONITORING SYSTEM, IDENTIFIED AS THE NATIONAL DEFENSE OPERATIONS, THEN THE RADIO INTELLIGENCE DIVISION WITH THE SHORT TITLE RID WAS ALREADY MOBILIZED WITH TRAINED MEN AND EQUIPMENT. THE RID WAS NEITHER TOO LITTLE OR TOO LATE. THERE WAS NO PEARL HARBOR IN RADIO SURVEILLANCE.

WHEN THE WAR CAME UPON US ON DECEMBER 7, 1941, RID WAS GIVEN A FULL SHARE OF DUTIES, FAR BEYOND THAT WHICH IT EVER THOUGHT IT WOULD BE CALLED ON TO PERFORM.

FROM IT'S INCEPTION UNTIL THE WAR WAS OVER, RID INTERCEPTED HUNDREDS OF CODED MESSAGES SENT BY THE GERMAN ESPIONAGE AGENTS ALL OVER THE WORLD AND SUPPLIED THE CRYPTOGRAPHIC LABORATORIES OF OUR GOVERNMENT WITH THESE MESSAGES AT THEIR SPECIFIC REQUEST.

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--SPIES USE RADIO--

IN PERFORMING IT'S PATROL OF THE ETHER, RID LOCATED NAZI AGENTS WITH THEIR TRANSMITTERS IN THE WESTERN HEMISPHERE, AFRICA, EUROPE AND ASIA. IT SENT TRAINED RADIO INTELLIGENCE ENGINEERS TO LATIN AMERICAN REPUBLICS IN ACCORDANCE WITH A HEMISPHERE DEFENSE PLAN TO AID IN CLEANING OUT THE INFESTION OF GERMAN SPIES IN THOSE COUNTRIES. IT ALSO TRAINED REPRESENTATIVES OF LATIN AMERICAN COUNTRIES IN RADIO INTELLIGENCE TECHNIQUES AT IT'S SPECIALIZED SCHOOL AT LAUREL, MARYLAND.

WITH FUNDS FURNISHED BY THE MILITARY RID PERFORMED A HOST OF MILITARY INTELLIGENCE DUTIES ON THE MAINLAND, HAWAII AND ALASKA. IT ALSO ESTABLISHED RADIO INTELLIGENCE CENTERS IN SAN FRANCISCO AND HONOLULU WHICH WERE MANNED BY ARMY, NAVY AND RID MEN AROUND THE CLOCK.

RID ALSO WAS THE FIRST TO DETECT MANY INTRIGUING CLANDESTINE OPERATIONS IN THE PERFORMANCE OF IT'S DUTIES AS THE FOLLOWING CHAPTERS WILL REVEAL. IT MONITORED BOTH NEUTRAL AND ENEMY COMMERCIAL RADIO CIRCUITS, RECORDING THE TRANSMISSIONS ON TAPE AND THEN PRODUCING TYPEWRITTEN COPIES FOR THE BOARD OF ECONOMIC WARFARE AND THE FBI. BY THE EXAMINATION OF THIS TRAFFIC, IT WAS LEARNED WHAT THE ENEMY'S SHORTAGES WERE SO THAT WE COULD SEND OUR BUYING AGENTS INTO THE NEUTRAL COUNTRIES TO OUTBID THEM ON THE MERCHANDISE THEY WERE ENDEAVORING TO PURCHASE FOR THEIR WAR EFFORT. THIS ALSO PROVIDED A MEANS OF DETERMINING WHAT BIG NAME INDIVIDUALS WERE TRAVELING BETWEEN THE ENEMY COUNTRIES AS WELL AS TO NEUTRAL ONES.

ONE OF THE SURPRISING AND MOST GRATIFYING SERVICES PERFORMED BY RID WAS THE RESCUE SERVICE IT PERFORMED FOR MILITARY PLANES LOST IN THE BLACK-OUT OR HAVING COCK-PIE TROUBLE. IT LOCATED DISTRESSED AIRCRAFT BY PROVIDING FIXES FROM THEIR RADIO SIGNALS AND GOT THEM BACK ON A NORMAL COURSE AND TO A SAFE LANDING. IN FACT IT TRAINED AIR FORCE PERSONNEL IN THIS SERVICE AND AIDED THEM IN SETTING UP THEIR NETWORKS.

TO MEET THE REQUIREMENTS OF THE COASTAL DEFENSE COMMANDS, RID EXTENDED IT'S SURVEILLANCE TO THE COASTAL REGIONS BY MOBILE PATROL LOOKING FOR EVIDENCE OF SURREPTITIOUS COMMUNICATION WITH ENEMY SUBMARINES OPERATED BY NAZI AGENTS, PARTICULARLY THOSE THAT MIGHT BE USING BEAMED VHF FREQUENCIES THAT NORMALLY WOULD NOT BE HEARD AT FIXED SITES.

A SEPARATE BRANCH OF RID, IDENTIFIED AS NOA, MONITORED AND RECORDED WORLD WIDE HIGH FREQUENCY VOICE BROADCAST OF PRESS AND ENEMY PROPAGANDA FOR THE FOREIGN BROADCAST INTELLIGENCE SERVICE, ANOTHER AMATEUR FCC WARTIME DIVISION WHICH PUBLISHED TEXTS TRANSLATIONS AND ANALYSIS OF THE RECORDED MATERIAL FOR A VARIETY OF GOVERNMENT CONSUMERS.

RID TRAINED OSS MEN IN RADIO INTELLIGENCE TECHNIQUES AND PROCEDURES AND BUILT EQUIPMENT FOR IT'S USE. IT ALSO PATROLLED THE OUTSIDE OF THE OAK RIDGE, TENNESSEE, INSTALLATION, THE SCENE OF THE MANHATTAN PROJECT BUT WITHOUT THE PERSONNEL KNOWING WHAT ATOMIC DEVELOPMENTS WERE BEING MADE INSIDE.

SINCE THE MILITARY TRANSFERRED FUNDS TO RID TO ASSIST THEM IN MILITARY RADIO INTELLIGENCE DUTIES, IT WAS NECESSARY FOR THE DIVISION'S FACILITIES AND PROCEDURES TO BE INSPECTED BY A MILITARY OFFICERS SECURITY BOARD.

AFTER GOING OVER RID WITH A FINE TOOTH COMB, THEY REPORTED AS FOLLOWS:

CRYPTOGRAPHIC SECURITY--EXCELLENT. PHYSICAL (CRYPTOGRAPHIC SYSTEMS)--- EXCELLENT. DOCUMENTARY & INFORMATION SECURITY---EXCELLENT...QUALIFICATIONS OF PERSONNEL.. EXCELLENT (FORTUNATELY MY MILITARY EXPERIENCE IN RADIO INTELLIGENCE IN WORLD WAR I LED ME TO INSTALL THE PROPER MILITARY SECURITY IN THE ORGANIZATION AND OPERATION OF RID.)

WARTIME DEMANDS OF THE DIVISION ALSO PLACED DEMANDS ON THE DEVELOPMENT OF NEW AND IMPROVED TOOLS TO ACCOMPLISH THESE PROJECTS. FORTUNATELY RID HAD IN IT'S ROLLS MANY EXCELLENT RADIO ENGINEERS WHO LENT THEIR SKILL AND KNOW-HOW TO THESE NEW DEVELOPMENTS. AS CHIEF OF RID, I APPOINTED CHARLES ELLERT, W3LO AND A HOPKINS ENGINEERING GRADUATE AS

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TECHNICAL ADVISOR. UNDER HIS DIRECTION GREAT STUDIES WERE MADE IN THE IMPROVEMENT OF THE ADCOCK DIRECTION FINDER RESULTING IN FAR GREATER ACCURACY THAN HAD BEEN OBTAINED FROM PURCHASED EQUIPMENT. IN FACT ONE OF OUR ENGLISH COUNTERPARTS REPORTED THAT THE ACCURACY OF OF RID BEARINGS AND FIXES WERE FAR MORE ACCURATE THAN OBTAINED FROM MILITARY SOURCE.

SINCE WE HAD NEITHER ENOUGH MEN OR MONEY TO PROVIDE A CONTINUOUS SURVEILLANCE OVER ENEMY SUSPECTS WHO MIGHT BE ENGAGED IN CLANDESTINE OPERATIONS, IT BECAME NECESSARY TO DEVELOPE A RADIO RECEIVER WHICH WOULD RESPOND TO ANY SIGNAL WITHIN THE COMMUNICATION RANGE OF THE SPECTRUM AT THAT TIME, YET INSENSITIVE EXCEPT TO THE STRONGEST SIGNAL. OUT OF THIS REQUIREMENT AN APERVIDEO RECEIVER WAS DEVELOPED BY TWO RID ENGINEERS, JAMES VEATCH AND WILLIAM FELLOWS.

THIS RECEIVER WAS USED TO ADVANTAGE IN OUR MOBILE UNITS AND PROVIDING A SURVEILLANCE AT FIXED LOCATIONS SUCH AS THE JAPANESE INTERNMENT CAMP. IT PAID OFF TOO. IT WAS SUBSEQUENTLY ADOPTED BY THE NAVY AND OSS.

RID EMPLOYED FOR THE FIRST TIME IN COUNTER-ESPIONAGE OPERATIONS THE PANORAMIC RECEIVER DEVELOPED BY A DR. WALLIS IN HIS NEW YORK CITY LABORATORY.

UNDER ELLERT'S SUPERVISION, THE "SNIFFER" WAS CREATED. THIS IS A SIMPLE RECEIVING DEVICE CONTAINED IN A SMALL PACK AND WORN AROUND THE WAIST, UNDER ONE'S COAT. AN ANTENNA COULD BE TRAILED DOWN THE INSIDE OF THE OPERATOR'S PANT LEG. TO REGISTER THE SIGNAL EITHER A HEARING AID OR A METER HELD IN THE HAND WAS UTILIZED. THE SNIFFER WAS USED WHEN CASING THE CORRIDOR OF A HOTEL OR APARTMENT HOUSE OR ON THE ROOF OF A HOUSE CONTAINING MANY ANTENNAS TO PINPOINT THE LOCATION OF A TRANSMITTER.

THE NAME SNIFFER WAS GIVEN THE DEVICE BY A VERY DISTINGUISHED BRITISH ASTRONOMER, COL. F. J. M. STRATTON, WHO PROVIDED LIAISON WITH RID AND IT'S BRITISH COUNTERPART, THE BRITISH SECURITY SERVICE OF THE SIGNAL CORPS.

ALSO ON THE LIST OF RID IS THE EMPLOYMENT OF THE SELECTABLE SIDE BAND ADAPTER DEVELOPED BY JAMES McLAUGHLIN AND FITTED TO THE HALLICRAFTER SX 28 RECEIVER. THE SX 28 RECEIVER WAS THE WORK HORSE OF RID AMONG IT'S MANY OTHER TYPES. THE SELECTABLE SIDE BAND RECEIVER WAS USED TO ADVANTAGE TO ELIMINATE JAMMING WHILE RECORDING THE ENEMY'S PROPOGANDA.

THE NUCLEUS OF THE STAFF OF RID WAS TAKEN FROM THE RANKS OF THE FIELD DIVISION, RADIO LIKE RALPH RENTON AND FOREST REDFERN WHO HAD GAINED CONSIDERABLE EXPERIENCE IN LOCATING ILLEGAL RADIO STATIONS SUCH AS THE RUM RUNNERS DURING THE PROHIBITION DAYS, THE RACE TRACK TOUTS WITH TRANSMITTERS TRYING TO BEAT THE BOOKIES AND THE PRANKSTERS.

THE MONITORING OFFICERS AND RADIO OPERATORS WERE RECRUITED FROM INDUSTRY AND THE AMATEUR RANKS. IN FACT ABOUT 80% OF THE MEN IN RID, INCLUDING IT'S CHIEF WERE OR HAD BEEN AMATEURS. THEY MADE A TREMENDOUS CONTRIBUTION TO THE DEFENSE OF THEIR COUNTRY AS DID THE OTHER MEN AND WOMEN WHO SERVED IN THE "SILENT SERVICE OF RID."

MANY OF THE WOMEN OF RID STATIONED AT THE MONITORING STATIONS BECAME VERY PROFICIENT IN PRODUCING TYPEWRITTEN COPY FROM MILES OF BOHME TAPE RECORDINGS MADE FROM THE MANY HIGH FREQUENCY RADIO CIRCUITS OF THE ENEMY AND NEUTRAL COUNTRIES. THIS REQUIRED A SPECIAL SKILL SINCE THE RECORDINGS WERE MADE WITH A TYPE OF STYLUS MAKING BOTH HORIZONTAL AND VERTICAL CHARACTERS.

RID RECEIVED WONDERFUL COOPERATION FROM THE MANUFACTURERES OF RECEIVERS AND OTHER EQUIPMENT. SPECIAL MENTION IS MADE OF THE HELP RECEIVED FROM THE HALLICRAFTER ORGANIZATION WHO WENT ALL OUT TO SUPPLY US WITH RECEIVERS, THE HUDSON MOTOR COMPANY WHO COOPERATED BY MODIFYING A PRODUCTION LINE OF THEIR PASSENGER CARS AT NO ADDITIONAL COST SO THAT THEY COULD BE USED FOR UNDERCOVER WORK AND INSTALLATION OF LOOP DIRECTION FINDERS WITHOUT ATTRACTING ANY UNQUE ATTENTION AND THE DICTAPHONE COMPANY FOR RECORDERS.

SPIES USE RADIO

WHEN THE WAR WAS UNDER WAY, MOST MANUFACTURERS WERE LOADED WITH DEFENSE CONTRACTS AND NOT INTERESTED IN SMALL ORDERS. CONSEQUENTLY RID PERSUADED MR. MANUEL KANN, W3ZM OF BALTIMORE TO MANUFACTURE OUR APERVIDIO RECEIVERS AND ADCOCK DIRECTION FINDER PARTS IN THE BASEMENT OF HIS HOME AT NIGHTS AIDED BY TECHNICIANS EMPLOYED AT LOCAL BROADCASTING STATIONS WHEN THEY WERE OFF DUTY. BEFORE KANN KNEW IT HE WAS UP TO HIS NECK IN THE MANUFACTURING BUSINESS FOR THE NAVY DEPARTMENT AND OSS AS WELL AS RID. I IMAGINE HIS NEIGHBORS OFTEN WONDERED WHAT WENT ON IN HIS HOUSE WITH LIGHTS BURNING IN THE BASEMENT AND PARTICULARLY WITH MEN GOING IN AND OUT ALL HOURS OF THE NIGHT.

AS WILL BE SEEN IN THE FOLLOWING CHAPTERS IN THE MAIN, THE PERSONNEL OF A LIVELY SECONDARY STATION OR A BUSY PRIMARY ONE SUPPLIED ONLY A PORTION OF WHAT APPEARED AS AN INTRICATE PUZZLE AND FROM THE FRAGMENTARY PARTS THE FINAL PICTURE WAS ASSEMBLED AT RID HEADQUARTERS IN WASHINGTON. IN SEVERAL IMPORTANT CASES THE FIRST INFORMATION THAT LED TO THE DEVELOPMENT OF A SUBSTANTIAL CASE WAS MADE BY A SINGLE OPERATOR ON DUTY HUNDREDS OF MILES FROM THE SOURCE OF THE RADIO TRANSMITTER OF THE GERMAN ESPIONAGE SYSTEM. THE PERSON MAKING THE INTERCEPT NEVER KNEW AT THE TIME HE HAD FURNISHED THE FIRST CLUE TO A NEW STATION IN OUR HEMISPHERE OR IN AFRICA. THE RID MEN WORKING IN LATIN AMERICAN REPUBLICS AT TIMES GAINED DIRECT CONTACT WITH SPIES IN THOSE COUNTRIES BUT THROUGHOUT THE ENTIRE PERIOD OF OPERATION THE INFORMATION GAINED BY EACH INDIVIDUAL WAS HELD IN THE STRICTEST SECRECY AND MADE KNOWN ONLY TO THOSE IN AUTHORITY.

I RECALL GIVING A TALK BEFORE THE BALTIMORE SECTION OF THE INSTITUTE OF RADIO ENGINEERS RIGHT AFTER THE WAR IN WHICH I DISCLOSED SEVERAL RID CASES. SOME OF THE ENGINEERS OF THE STAFF OF THE LAUREL FINDING STATION WERE IN ATTENDANCE AND THEY CAME TO ME AT THE CONCLUSION OF MY TALK AND TOLD ME THAT THEY NEVER REALIZED THAT THEIR STATION HAD PARTICIPATED IN THE CASES UNTIL I REVEALED IT AT THE TIME.

DURING MY INSPECTION OF STATIONS DURING THE WAR, I WAS FREQUENTLY ASKED, IF AFTER THE WAR, A HISTORY OF THE ORGANIZATION AND ITS ACCOMPLISHMENTS WOULD BE FURNISHED. A PROMISE WAS MADE TO DO SO AND IT IS MY HOPE THE THE DISCLOSURES WHICH FOLLOW WILL BE MADE TO ALL THE LOYAL WOMEN AND MEN WHO SERVED SO DEVOTEDLY IN THE ORGANIZATION.

ONE THING IN PARTICULAR WHICH HIGHLIGHTED RID ACCOMPLISHMENTS WAS WHEN HOLLYWOOD DECIDED TO MAKE A MOVIE DEPICTING THE MODE OF OPERATION AND ITS RESPONSIBILITIES. AS THE FOLLOWING WHICH APPEARED IN THE AMUSEMENT SECTION OF THE NEW YORK SUN OF MARCH 11, 1944 REVEALS, IT BECAME A HISTORICAL MOVIE, THE FIRST MOVIE EVER TO BE SHOWN BY TELEVISION.

THIS WAS ANOTHER OF MANY RID'S FIRSTS.

PICTURES PLAYS AND PLAYERS

THE MOVIES VENTURE INTO TELEVISION WITH A SHORT SUBJECT, 'PATROLLING THE ETHER.'

LAST NIGHT MOVIES AND RADIO HELD A JOINT CELEBRATION. THEY WERE BOTH EXCITED ABOUT THE FIRST BROADCASTING OF A MOTION PICTURE, A METRO-GOLDWYN-MAYER TWO-REELER CALLED, "PATROLLING THE ETHER." THIS MARKED, BOTH INDUSTRIES WERE INTENT ON SAYING, THROUGH ONE SPOKESMAN OR ANOTHER, A MILESTONE IN HISTORY.

"PATROLLING THE ETHER," LIKE MOST OF METRO'S "CRIME DOES NOT PAY" SERIES IS A PRETTY GOOD PICTURE, SHOWN ON EVEN THE TINY TELEVISION SETS OF TODAY IT STILL SEEMED A PRETTY GOOD PICTURE.

METRO-GOLDWYN-MAYER AND THE NATIONAL BROADCASTING COMPANY MADE AN OCCASION OF THIS EVENT. JAMES L. FLY

CHAIRMAN OF THE FEDERAL COMMUNICATIONS COMMISSION, CAME UP FROM WASHINGTON TO APPEAR IN A TELEVISED PREFACE TO THE THE TELEVISED MOVIE. REPORTS FROM SCHENECTADY, IT TURNED OUT LATER, DECLARED MR. FLY TO BE VIDIGENIC, A RADIO TERM FOR PHOTOGENIC. HE HAS, IT WAS EXPLAINED BY NBC'S FRANK MULLEN, A NICE FACE.

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RADIO, THROUGH NBC, SUPPLIED SEVERAL REPRESENTATIVES, AMONG THEM, MR. MULLEN, CLAY MORGAN AND NILS TRAMMEL. METRO, OF COURSE WAS WELL REPRESENTED, WITH HERBERT MORGAN PRESENT FOR THE SHORT SUBJECTS DEPARTMENT. GEORGE E. STERLING, CHIEF OF THE RADIO INTELLIGENCE DIVISION OF THE FEDERAL COMMUNICATIONS COMMISSION, ARRIVED TO SEE THE BROADCAST OF THE MOVIE ABOUT HIS DEPARTMENT'S WORK. IN ADDITION THE HAYS OFFICE HAD TWO EXECUTIVES PRESENT, ARTHUR H. DEBRA, DIRECTOR OF RESEARCH, AND GLEN ALLVINE.

THERE WAS NO DOUBT ABOUT THE ENTHUSIASM. NO ONE DARED TO SAY, EVEN RADIO'S JOHN ROYAL, JUST HOW MOVIES WOULD BE SHOWN BY RADIO. NO ONE QUESTIONED THE FACT, ONCE THE WAR IS OVER, TELEVISION WOULD BE ACCEPTED NATIONALLY.

LAST NIGHT'S MOVIE WAS SHOWN ON A MODERN TELEVISION SET, WITH THE PICTURE REFLECTED INTO A MIRROR ON THE TOP OF THE MACHINE. THE PICTURE WAS CLEAR, THE SYNCHRONIZATION WAS PERFECT, THE PROJECTION SHOWN

"PATROLLING THE ETHER," A FICTIONAL VERSION OF THE RID'S MORE DRAMATIC ADVENTURES, GOES INTO MORE DETAIL. THE PRIMARY MONITORING STATIONS ARE STILL PICKING UP PEOPLE WITH A HANKERING FOR BROADCASTING TO FOREIGN LANDS, AND BROADCASTING SUSPICIOUS MESSAGES. METRO COULD NOT HAVE PICKED A BETTER PIECE FOR IT'S INITIAL TELEVISION EXPERIMENT.

WHOM DO YOU SUPPOSE GAVE TECHNICAL ASSISTANCE DURING THE FILMING OF THIS HISTORICAL MOVIE? NO OTHER THAN OUR ESTEEMED MEMBER TOM STEVENS, W6KAA, RID MONITORING OFFICER IN CHARGE OF THE LOS ANGELES AREA. I WAS PRIVILEGED TO VISIT THE SET WITH TOM AS THE SHOW WAS PUT TOGETHER.

IN THE SUCCEEDING CHAPTERS I WILL DESCRIBE SOME OF RID'S MOST INTERESTING CASES. THIS MATERIAL WAS PREPARED AS A MANUSCRIPT FOR A BOOK BUT PERHAPS IT IS NOW TOO LATE TO DO SO. I WOULD APPRECIATE COMMENTS FROM OUR MEMBERS OF OOTC ON THIS POINT. WIAE.

(COMMENT FROM THE EDITOR.) THE CHAPTERS THAT FOLLOW RECOUNTING THE ACCOMPLISHMENTS OF THE RADIO INTELLIGENCE DIVISION OF THE FCC WAS PREPARED AS A MANUSCRIPT FOR A BOOK BY GEORGE STERLING BUT NEVER PUBLISHED DESPITE INVITATIONS FROM PUBLISHERS TO DO SO. IT WAS STARTED SOON AFTER GEORGE RETIRED AS COMMISSIONER OF FCC BUT LAID DORMANT THE LAST FEW YEARS. AT THE EDITOR'S URGING GEORGE DUSTED OFF THE PART PREVIOUSLY PREPARED AND COMPLETED IT THE PAST WINTER SOJOURNING IN BALTIMORE. HE HAS MADE IT AVAILABLE FOR EXCLUSIVE PUBLICATION IF SPARK GAP TIMES AS A HISTORICAL DOCUMENT AND TRIBUTE TO THE LOYAL MEN AND WOMEN OF RID AND TO SHOW THE PART RADIO AMATEURS OF OUR COUNTRY PLAYED IN THE SILENT SERVICE OF DEFENDING OUR COUNTRY. (WE ARE INDEED GRATEFUL TO GEORGE FOR THIS MATERIAL.)

NOTE: THE AUTHOR RESERVES ALL RIGHTS TO THIS MANUSCRIPT OTHER THAN THOSE GRANTED TO THE OLD OLD TIMERS CLUB FOR PUBLICATION IN SPARK GAP TIMES. GEORGE STERLING, WIAE

ON MUCH TOO SMALL A SURFACE. TELEVISION IS PREPARED TO RECTIFY THAT FAULT. SCREENS WILL BE AT LEAST FOUR TIMES AS LARGE ONCE INDUSTRY IS ALLOWED TO GO AHEAD.

MOVIES ARE NOW WONDERING JUST WHAT TO DO ABOUT THIS DEVICE, WHETHER TO USE IT FOR TELEVISIONING PICTURES TO THEATERS OR WHETHER TO TELEVISION DIRECTLY TO HOMES.

LAST NIGHT'S PERFORMANCE SEEMED TO PROVE THAT, SHOULD HOLLYWOOD WISH, MOVIES MIGHT TAKE THEIR PLACE WITH RADIO AS HOME ENTERTAINMENT. A WATCH COMPANY (GUESS WHICH ONE?) STARTED THE PROGRAM WITH MORE THAN A MINUTE SHOWING OF A WATCH FACE, WELL IDENTIFIED, WITH THE HANDS MOVING BRISKLY. THAT LOOKS AS THOUGH ADVERTISING AT LAST HAD CAUGHT UP WITH MOTION PICTURES. IT WAS, IN LAST NIGHT'S DEMONSTRATION, UNOBJECTIONABLE.

METRO HAD SELECTED A TWENTY MINUTE MELODRAMA ABOUT THE SUCCESS OF THE RADIO INTELLIGENCE DIVISION IN CATCHING SPIES. MR. FLY, IN INTRODUCING THE MOVIE, PAID TRIBUTE TO THE DIVISION'S PROWESS.

THE RID STORY

BY

GEORGE STERLING WIAE

CHAPTER I

THE FIFTH COLUMN THREATENS

THAT ENEMY SPIES WOULD USE RADIO TO THE MAXIMUM IN THE WAR THAT WAS CREEPING UPON US WAS A FOREGONE CONCLUSION. AS THE NAZI'S SWEEPED OVER EUROPE THE AGENCIES OF THE GOVERNMENT RECEIVED MANY REPORTS OF THEIR FEATS OF ESPIONAGE. GERMAN AGENTS CARRYING INNOCENT SUIT-CASES CONTAINING COMPLETE SHORT WAVE EQUIPMENT PLOPPED DOWN IN ENGLAND BY PARACHUTE. THEY WERE LANDED IN AFRICA FROM SUBMARINES. DOZENS OF STORIES OF THE ACTIVITIES OF THE NAZI FIFTH COLUMN CAME OUT OF FRANCE. ONE REPORT STATED THAT NAZI SPIES DRESSED AS FRENCH OFFICERS AND USING POCKET SHORT WAVE SETS SENT MISLEADING INFORMATION TO THE FRENCH HIGH COMMAND. OTHER REPORTS TOLD OF CLANDESTINE RADIO ACTIVITIES IN THIS HEMISPHERE.

DURING THIS PERIOD OF NEUTRALITY ON THE PART OF OUR GOVERNMENT THOUSANDS OF AMATEURS IN THIS COUNTRY OWNED AND OPERATED SHORT WAVE TRANSMITTERS AND THOUSANDS MORE COULD BE EASILY PURCHASED ON THE OPEN MARKET. ANY COMPETENT RADIO MAN COULD CHANGE A BROADCAST RECEIVER TO A SHORT WAVE TRANSMITTER WITH EASE. IN FACT SOME JAPS DID THIS WHILE INTERNED IN A CAMP IN COLORADO. DIATHERMY MACHINES WERE A NATURAL FOR USE AS A TRANSMITTER.

IT WAS COMPARATIVELY EASY FOR AN ENEMY AGENT TO HIDE HIS TRANSMISSIONS IN THE ACTIVITIES OF 60,000 AMATEUR STATIONS OPERATING ON THE VARIOUS BANDS. IN FACT ONE GERMAN AGENT WAS SENT OVER TO THIS COUNTRY WITH INSTRUCTIONS TO DO THIS AS WE SHALL SEE LATER.

AS INDICATED PREVIOUSLY, THE FCC HAD NO WAY OF DETERMINING THAT FOREIGN SHIPS WITHIN OUR NEUTRALITY ZONE WERE MAINTAINING RADIO SILENCE AS THEY WERE REQUIRED TO SINCE THE MONITORING STATIONS HAD NO ADCOCK HIGH FREQUENCY DIRECTION FINDERS.

THESE AND OTHER FACTORS MADE THE PROBLEM OF SEALING THIS COUNTRY AGAINST AXIS SPY TRANSMISSIONS EXCEEDINGLY DIFFICULT.

IN THE MEANTIME, A FEW DAYS BEFORE THE NAZIS TOOK PARIS, AMATEUR RADIO STATIONS WERE PROHIBITED FROM COMMUNICATING WITH FOREIGN STATIONS. SUBSEQUENTLY, THE BOARD OF WAR COMMUNICATIONS, AN AGENCY ESTABLISHED TO CONTROL U.S. COMMUNICATION WITH REPRESENTATION FROM ALL INTERESTED AGENCIES OF GOVERNMENT AND INDUSTRY, ACTED TO CLOSE ALL POINT TO POINT RADIOTELEGRAPH CIRCUITS COMMUNICATING WITH FOREIGN COUNTRIES. THERE WAS ALWAYS A POSSIBILITY OF A DISLOYAL PERSON OPERATING THESE STATIONS FOR THE BENEFIT OF THE ENEMY. IN FACT ONE OPERATOR ON THE WEST COAST MADE ARRANGEMENTS WITH A PERSON HE THOUGHT WAS AN ENEMY AGENT AND ACCEPTED MONEY TO TRANSMIT MESSAGES, BUT HIS DESIGNS WERE SHRT LIVED WHEN THE FBI TOOK HIM IN.

IMMEDIATELY AFTER PEARL HARBOR, AMTEUR STATIONS WERE SILENCED.

TO APPRECIATE THE TREMENDOUS PROBLEM CONFRONTING ANY NATION IN ATTEMPTING TO COMBAT THE USE OF THIS MEDIUM OF COMMUNICATION FOR SUBVERSIVE PURPOSES, IT IS NECESSARY TO CONSIDER THE MANY METHODS AVAILABLE FOR USE BY ENEMY AGENTS WHICH REQUIRE SCIENTIFIC METHODS OF DETECTION. SUBSEQUENT TO WORLD WAR I, TREMENDOUS ADVANCES WERE MADE IN THE USE OF RADIO-TELEPHONY. TO INSURE SECRECY OF TALKING, CIRCUITS WERE DEVISED WHEREBY SPEECH IS RENDERED UNINTELLIGIBLE TO THOSE WHO LISTEN IN EXCEPT AT TERMINAL POINTS. THIS MODE OF TRANSMISSION IN COMMON PARLANCE IS REFERRED TO AS "GARBLED OR SCRAMBLED SPEECH."

INTELLIGIBILITY IS RESTORED ONLY BY MAKING USE OF COMPLICATED RECEIVING MECHANISM AND ADJUSTMENTS WHICH MUST BE AVAILABLE TO THE PARTY ENDEAVORING TO REPRODUCE THE INTERCEPTIONS IN THE LANGUAGE IN WHICH THEY ARE TRANSMITTED. IN THE MEANTIME, TELEVISION AND FACSIMILE

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TRANSMISSIONS HAVE MADE PROGRESS. HERE AGAIN ONE MUST HAVE EXACTLY THE SAME EQUIPMENT AS EMPLOYED BY THE SENDER AND RECEIVER TO REPRODUCE FAITHFULLY THE TRANSMITTED MATERIAL OR IMAGES. ANTENNAE OF SPECIAL DESIGN AND CONSTRUCTION HAVING FOR THEIR PURPOSE BEAMING OR DIRECTING THEIR TRANSMISSIONS ON A CERTAIN AREA WITH LITTLE ENERGY RADIATED OFF THE SIDES OR REAR WHICH COULD BE INTERCEPTED OR USED FOR DIRECTION FINDING PURPOSES CAME INTO COMMON USAGE ON THE PART OF COMMERCIAL RADIO COMPANIES AS WELL AS AMATEURS.

SPECULATING ON OTHER METHODS WHICH CONCEIVABLY MIGHT BE USED BY ENEMY AGENTS TO MAKE IT DIFFICULT OF INTERCEPTION AND DETERMINATION OF THE LOCATION OF THE TRANSMITTER, ONE MUST INCLUDE A MULTITUDE OF POSSIBILITIES SOME OF WHICH ARE INVOLVED AND REQUIRE THE MOST INTRICATE OF APPLICATION. NEVERTHELESS, THEY CANNOT BE DISCOUNTED AND MUST BE CONSIDERED IN ANY PLAN OF OPERATION THAT HAS FOR IT'S PURPOSE COMBATTING SUCH ACTIVITY. THE FOLLOWING SYSTEMS MAY BE PLACED IN THIS CATEGORY:

- (A) TWO TRANSMITTERS WIDELY SEPARATED, ONE OF WHICH MAKES THE DOTS AND THE OTHER THE DASHES OR WHICH TRANSMITS ALTERNATE WORDS AND THE SIGNALS FEEDING A RECEIVING SYSTEM THAT COMBINES THE TRANSMISSION INTO SOLID COPY.
- (B) TRANSMITTERS AND RECEIVERS THAT CHANGE FREQUENCY CONTINUOUSLY AT SYNCHRONIZED RATE DURING A TRANSMISSION SCHEDULE.
- (C) MOBILE TRANSMITTERS WHICH MOVE FROM ONE PLACE TO ANOTHER THEREBY MAKING LOCALIZATION BY DIRECTION FINDING AND FIELD STRENGTH MEASUREMENTS DIFFICULT.
- (D) SUPERIMPOSING SUB-AUDIBLE OR SUPER-TONIC FREQUENCIES UPON THE CARRIERS OF REGULAR BROADCASTING STATIONS. THESE FREQUENCIES BEYOND AUDIBILITY OF THE HUMAN EAR MUST BE DETECTED BY SPECIAL EQUIPMENT.
- (E) ARRANGEMENT OF BROADCAST PROGRAMS AND ANNOUNCEMENTS IN A PREARRANGED CODE. THIS WAS SUSPECTED BY THE PUBLIC AND CERTAIN GOVERNMENT OFFICIALS TO BE THE MOST GENERAL FORM EMPLOYED BY THE FIFTH COLUMNISTS TO SIGNAL SUBMARINES RELATIVE TO THE DEPARTURE AND LOCATION OF SHIPS. THE MODUS OPERANDI IS NOT NEW AND WAS EMPLOYED IN THE PROHIBITION DAYS TO ADVISE RUM RUNNERS WHEN THE COAST WAS CLEAR AND WHAT POINTS AND TIME THEY SHOULD MAKE THEIR ENTRY.
- (F) UTILIZING DIATHERMY MACHINES FOR COMMUNICATION SHOWS THAT ENERGY GENERATED IN THESE DEVICES IS RADIATED BY THE POWER MAINS AND IS POSSIBLE OF TRANSMISSION OVER THOUSANDS OF MILES.

INCLUDED IN THIS GROUP IS THE CASE WHERE THE CALL LETTERS OF AN ESTABLISHED STATION IS PIRATED BY THE OPERATORS OF A CLANDESTINE CIRCUIT IN AN ATTEMPT TO CAMOUFLAGE THEIR OPERATIONS AND MAKE THEM APPEAR AS OFFICIALLY AUTHORIZED AND REGISTERED STATIONS. THIS WAS RESORTED TO BY BOTH GERMANY AND JAPAN WHEN THEY ESTABLISHED A RADIO CIRCUIT BETWEEN BERLIN AND TOKYO WHEN THE EXCHANGE OF DIPLOMATIC COMMUNICATIONS THAT THEY DID NOT CARE TO TRANSMIT THROUGH REGULAR COMMERCIAL CHANNELS. THE DETAILS OF THIS CASE WILL BE DESCRIBED LATER.

IN CONTEMPLATING A PLAN OF COMBATTING ILLEGAL USES OF RADIO IT IS NECESSARY TO CONSIDER THE RANGE OF FREQUENCIES THAT MIGHT BE EMPLOYED AND PARTICULARLY THE ULTR-HIGH FREQUENCIES FOR SHORT DISTANCE TRANSMISSION AS FOR EXAMPLE, FROM A POINT OF VANTAGE ON SHORE TO A SHIP JUST BELOW THE HORIZON.

THE USE OF THESE FREQUENCIES WHILE CONFINING THE RELIABLE COMMUNICATION RANGE TO A DISTANCE OF THAT OF AN OPTICAL PATH OR SOMEWHAT LONGER MAKES IT EASY TO CONCEAL THEM IN SUIT CASES, OR EVEN ON ONE'S BODY. INTERCEPTION IS ACCOMPLISHED ONLY BY ESTABLISHING A LISTENING STATION WITHIN THE NARROW LIMITS OF THE BEAM AND MOREOVER A DIFFICULT RADIO GONIOMETRICAL PROBLEM PRESENTED, WHICH FORTUNATELY CAN AND WAS MET SUCCESSFULLY AS

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AS WILL BE RELATED SUBSEQUENTLY. THE BEAM OF SUCH A TRANSMITTER CAN BE COMPARED TO THAT OF THE BEAM OF A FLASHLIGHT USING A PARABOLIC REFLECTOR.

IN ADDITION TO THE TECHNICAL PROBLEMS ANTICIPATED IN ESTABLISHING A MONITORING SYSTEM ANOTHER OBSTACLE OF SERIOUS IMPORTANCE PRESENTED ITSELF. A LEGAL PROBLEM, OCCASIONED BY SECTION 605 OF THE COMMUNICATION ACT OF 1934 WHICH WAS DESIGNED TO INSURE SECRECY OF ADDRESSED COMMUNICATIONS. AT THE VERY OUTSET OF THE WAR IN GERMANY, THE COMMISSION PROCEEDED TO TAKE ACTION AGAINST A BROADCAST STATION FOR ALLEGED VIOLATION OF THIS PROVISION OF THE ACT SINCE THE STATION HAD BROADCAST AS A NEWS ITEM AN INTERCEPTED RADIOTELEGRAPH MESSAGE INTENDED FOR RECEPTION ON THE PART OF THE GERMAN MERCHANT MARINE.

THE ACTION TAKEN IN THIS CASE ESTABLISHED A PRECEDENT WHICH THE COMMISSION WAS FORCED TO ADHERE TO AS A POLICY IN ITS MONITORING OPERATIONS. THE RESTRICTION ON INTERCEPTING AND DIVULGING THE CONTENTS OF THE ADDRESSED COMMUNICATIONS PLAYED AN IMPORTANT PART IN ESPIONAGE ACTIVITIES OF THE JAPANESE CONSUL AND STAFF IN THE TERRITORY OF HAWAII PRIOR TO THE ATTACK ON PEARL HARBOR.

THE REPORT OF THE COMMISSION APPOINTED BY THE PRESIDENT TO INVESTIGATE AND REPORT THE FACTS RELATING TO THIS ATTACK INCLUDES TWO PERTINENT PARAGRAPHS WHICH READ AS FOLLOWS

"THERE WERE, PRIOR TO DECEMBER 7, 1941, JAPANESE SPIES ON THE ISLAND OF OAHU. SOME WERE JAPANESE CONSULS OR AGENTS AND OTHERS WERE PERSONS HAVING NO OPEN RELATIONS WITH THE JAPANESE FOREIGN SERVICES. THESE SPIES COLLECTED AND, THROUGH VARIOUS CHANNELS, TRANSMITTED INFORMATION TO THE JAPANESE EMPIRE RESPECTING THE MILITARY AND NAVAL ESTABLISHMENTS AND DISPOSITIONS ON THE ISLAND."

"IT WAS BELIEVED THAT THE CENTER OF JAPANESE ESPIONAGE IN HAWAII WAS THE JAPANESE CONSULATE AT HONOLULU. IT HAS BEEN DISCOVERED THAT THE JAPANESE CONSUL SENT TO AND RECEIVED FROM TOKYO IN HIS OWN AND OTHER NAMES MANY MESSAGES ON COMMERCIAL CIRCUITS. THIS ACTIVITY GREATLY INCREASED TOWARD DECEMBER 7, 1941. THE CONTENTS OF THESE MESSAGES IF IT COULD HAVE BEEN LEARNED MIGHT HAVE FURNISHED VALUABLE INFORMATION. IN VIEW OF THE PEACEFUL RELATIONS WITH JAPAN, AND THE CONSEQUENT RESTRICTION ON THE ACTIVITIES OF THE INVESTIGATING AGENCIES, THEY WERE UNABLE PRIOR TO DECEMBER 7, TO EXAMINE MESSAGES BEING TRANSMITTED THROUGH COMMERCIAL CHANNELS BY THE JAPANESE CONSUL, OR BY PERSONS ACTING FOR HIM."

IT IS INTERESTING TO NOTE THAT PRIOR TO DECEMBER 7, 1941, NOT A SINGLE AGENCY IN THE FEDERAL GOVERNMENT RESPONSIBLE FOR INTELLIGENCE ACTIVITIES, REQUESTED ASSISTANCE FROM THE MONITORING SYSTEM OF THE FEDERAL COMMUNICATIONS COMMISSION IN MAKING INTERCEPTS OF RADIO TRANSMISSIONS EMANATING FROM COMMERCIAL CIRCUITS IN THE TERRITORY OF HAWAII. AT THAT TIME RID MONITORING STATIONS WERE IN OPERATION ON THE ISLAND OF OAHU CLOSE TO THE CITY OF HONOLULU, ONE NEAR THE CITY OF HILLO ON THE ISLAND OF HAWAII AND ANOTHER ON THE ISLAND OF KAUAI. THEY WERE EQUIPPED WITH RECEIVERS, RECORDING EQUIPMENT AND DIRECTION FINDERS AND DILIGENTLY PERFORMED THEIR TASKS TO DETECT AND LOCATE ANY CLANDESTINE RADIO STATIONS.

MANY STORIES EMANATED FROM HAWAII IMMEDIATELY AFTER DECEMBER 7, RELATING TO THE OPERATION OF RADIO STATIONS BY ENEMY AGENTS AND AMATEUR STATIONS OPERATED BY SECOND GENERATION JAPANESE ALLEGING THEY WERE COMMUNICATING WITH JAPANESE NAVAL AND AIRCRAFT DURING THE ATTACK. THOROUGH INVESTIGATION REVEALED THAT THEY WERE FICTITIOUS AS WERE MANY OTHER STORIES RELATING TO ACTIVITIES OF FIFTH COLUMNISTS SUCH AS CUTTING SUGAR CANE IN A MANNER TO LEAVE A LARGE ARROW FORMATION POINTING TO MILITARY TARGETS TO AID FLYERS TO THEIR TARGETS. ALL WELL INFORMED MILITARY OFFICIALS AGREE THAT THE HAWAII INCIDENT WAS WELL PLANNED AND REHEARSED, AND WHEN THE FLYERS AND SUBMARINES CAME IN EACH KNEW THE LOCATION OF THEIR MILITARY TARGET. THIS WAS PROVED WHEN THE JAPANESE PLAN FOR THE ATTACK WAS REVEALED BEFORE A SENATE INVESTIGATING COMMITTEE COVERING THE PEARL HARBOR DISASTER. BECAUSE OF TESTIMONY

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TO THE FAMOUS WINDS MESSAGE, I WAS GIVEN AN OFFICIAL COPY OF THIS PLAN OF ATTACK.

IT WAS DEFINATELY PROVED THAT THERE WAS NO NEED FOR THE JAPS TO UTILIZE CLANDESTINE TRANSMITTERS PRIOR TO THE ATTACK SINCE ALL THE COMMERCIAL CIRCUITS WERE AVAILABLE AND WERE USED BY THEM TO GET THEIR MILITARY INFORMATION TO TOKYO.

IMMEDIATELY AFTER THE ATTACK ON HAWAII AS THE RESULT OF A REQUEST FROM THE ARMY-NAVY, AND FBI, I TOOK A GROUP OF TRAINED MEN RECRUITED FROM OUR STATIONS AND WITH A LOAD FULL OF EQUIPMENT SAILED FOR HONOLULU IN A NAVY CONVOY.

IT WAS WHILE WE WERE OFF SANTA BARBARA HEADED SOUTH TO PICK UP AN ELEMENT OF OUR CONVOY THAT A JAPANESE SUBMARINE SHELLED A REFINING PLANT NEARBY. THE CAPTAIN OF OUR SHIP SENT FOR ME EARLY IN THE MORNING AND SHOWED ME ON THE MAP HOW CLOSE THE SUB WAS TO US. HE SAID THE FIRST SHELL WAS FIRED THE MOMENT PRESIDENT ROOSEVELT WAS MAKING A SPEECH THAT NIGHT.

IN ADDITION TO OUR COUNTER ESPIONAGE OPERATIONS AND LOCATING SOURCES OF INTERFERENCE AS WELL AS PERFORMING MILITARY RADIO INTELLIGENCE CHORES FOR THE ARMY AND NAVY AT THEIR SPECIFIC REQUEST AND WITH APPROPRIATIONS FURNISHED BY THEM WE SOON LEARNED OF A NEW AND VERY IMPORTANT USE TO WHICH OUR DIRECTION FINDING NETWORKS COULD BE PUT - THE LOCATION OF LOST AND DISTRESSED AIRCRAFT BY ADCOCK RADIO BEARINGS. THIS NEW USE WAS REALLY JUST A BY-PRODUCT OF OUR NATIONWIDE SYSTEM WHICH HAD BEEN ESTABLISHED FOR ENTIRELY DIFFERENT PURPOSES. HOWEVER, IT WAS A VERY IMPORTANT BY-PRODUCT AS I SHALL RELATE SUBSEQUENTLY.

SUFFICE TO SAY NOW, THAT NO OTHER THAN OUR GOOD CLUB MEMBER RALPH BARBER, THEN MAJOR BARBER, CAME TO MY OFFICE AND REQUESTED ASSISTANCE IN PROVIDING EMERGENCY DIRECTION FINDING SERVICE TO THE EASTERN DEFENSE COMMAND IN THE MANNER IN WHICH WE HAD PROVIDED IT FOR THE WESTERN DEFENSE COMMAND AND HAWAII.

IT SEEMS RALPH HAD THE JOB OF ESCORTING HIS GENERAL TO BERMUDA BUT THE PILOT AND THE NAVIGATOR COULDN'T FIND THE ISLAND AND THEY WERE FORCED TO RETURN TO MITCHELL FIELD. THIS WAS NOT AN UNUSUAL STORY FOR US SINCE WE HAD DETERMINED IN SOME CASES THAT MILITARY AIRCRAFT WERE IN SOME CASES FLYING IN THE WRONG DIRECTION. AS GENERAL DAVIDSON TOLD ME IN HAWAII A COUPLE OF MONTHS AFTER THE ATTACK, WHEN HE SOLICITED THE SAME SERVICE FOR HIS B-17 BOMBERS FLYING FROM THE WEST COAST TO THE ISLANDS. HE HAD LOST THREE THE NIGHT BEFORE BECAUSE OF POOR NOVIATION. HE MADE THIS STARTLING BUT TRUE STATEMENT, "PRODUCTION IS GETTING AHEAD OF TRAINING." IN A SEPARATE CHAPTER, I WILL REPORT ON THIS THRILLING AND VALUABLE SERVICE RENDERED BY RID.

"ETERNAL VIGILANCE IS THE PRICE OF LIBERTY" WAS ACCEPTED AS THE ORDER OF THE DAY AND THROUGHOUT IT'S ENTIRE PERIOD OF OPERATION PERSONNEL OF THE ORGANIZATION SERVED WITH LOYALTY AND DISTINCTION AS CASE AFTER CASE WAS UNCOVERED OF THE OPERATIONS OF A WORLD WIDE RING OF AXIS ESPIONAGE AGENTS WITH RADIO TRANSMITTERS TO AID THEM IN REPORTING THE MOVEMENT OF ALLIED SHIPS, TROOPS, MUNITIONS, PRODUCTION OF FACTORIES, DISTRIBUTION AND EXTENT OF FORTIFICATIONS AND OTHER IMPORTANT MILITARY INFORMATION AND THE DEVELOPMENT OF OTHER OPERATIONS OF VAST SIGNIFICANCE TO OUR MILITARY INFORMATION AND THE DEVELOPMENT OF OTHER OPERATIONS OF GREAT VALUE TO OUR MILITARY FORCES AND THE SECURITY OF THE WESTERN HEMISPHERE AS WELL AS THE ALLIED NATIONS THROUGHOUT THE WORLD.

ON THE FOLLOWING PAGE ARE A FEW PICTURES WHICH GEORGE THOUGHT MIGHT BE OF INTEREST. THIS CHAPTER 1 IS THE FIRST OF A SERIES TO BE PUBLISHED IN SPARK GAP TIMES. THE EDITOR.

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NDA BOYS OF RID RECORDING ENEMY PROPAGANDA FOR
FCC FOREIGN BROADCASTING INTELLIGENCE SERVICE.
RECORDED MATERIAL TRANSLATED AND ANALYSED
FOR THE MILITARY AND INTELLIGENCE AGENCIES OF
OUR GOVERNMENT.

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AN RID MOBILE INTERCEPT AND DIRECTION FINDER UNIT EMPLOYED IN INVESTIGATIONS. THE MONITORING OFFICER AT THE WHEEL WAS THE LATE LEWIS MERIWEATHER.



AN INTERIOR VIEW OF AN RID PROWL CAR USED TO INTERCEPT SIGNALS AND LOCATE SOURCES OF INTERFERENCE. LOOP DOES NOT SHOW WHILE CAR IS CRUISING BUT ONLY WHEN TAKING A BEARING. NOTE SX28 RECEIVER AND DICTAPHONE RECORDER; OTHER RECEIVERS IN CAR COVERED 75 KC TO 300 M.

Spark-Gap Times

PAGE 24 NUMBER 16

1 AUGUST, 1963

26 JUNE, 1963

DEAR CLINES:

K2NP, BILL GOULD WANTED SOME INFORMATION ON A CODE AS OUTLINED ON PAGE 31 OF SPARK GAP TIMES.

THAT WAS THE OLD NAVY CODE TAKEN FROM THE WIG-WAG THEY USED FOR SIGNALING WITH A FLAG THAT WAS DROPPED TO THE LEFT AND THE RIGHT. ONE SIDE WAS DESIGNATED 1 AND THE OTHER SIDE AS 2. THEREFORE A WAS CALLED 22 AND B 212 ETC.

A COPY OF THIS CODE IS IN LEON BISHOP'S MANUAL, "THE WIRELESS OPERATOR'S POKK-ETBOOK OF INFORMATION AND DIAGRAMS."

ENJOYED THE PICTURE THAT STEVE SENT IN BUT I DO NOT THINK THAT LAWRENCE WHITE WAS THE MAN ON THE RIGHT AS I KNEW HIM VERY WELL AT THAT TIME AND HAVE A PICTURE OF HIM AND HIS WIFE TAKEN ON THE PORCH OF MCC. I COULD BE WRONG. LAST NIGHT I ASKED WIZE TO TAKE A LOOK AT THE PICTURE AGAIN AS IRVING KNEW WHITE VERY WELL.

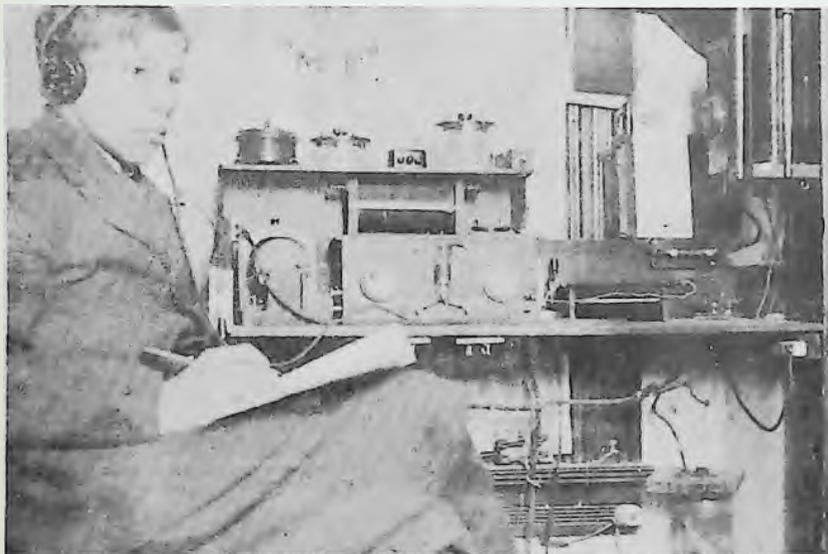
ENCLOSED FIND MY CHECK FOR \$5.00 AS A HELP FOR THE PRINTING EQUIPMENT.

73,

JOE, K4JKR (JOE MULLEN)

ACE RATCLIFF WØ ROA

YE OLDE COPPYE BOYES:



2 SLIDE 30" VERTICALLY MOUNTED LOADING COIL WAS TO GET UP TO 17,000 METERS FOR NAUEN, GERMANY, SAYBROOK ETC. ON "UNDAMPED WAVE."

THE TRANSMITTER WAS A SPARK COIL FROM AN OLD 1913 ONE CYLINDER CADILLAC, A FIXED GAP AND KEY. THE JAR BELOW WAS AN SC INTERRUPTER TO RUN THE COIL WITH VIBRATOR SCREWED DOWN TIGHT.

NOTE THE HORSE SHOE MAGNET LYING ON TOP OF THE AUDIOTRON BOX; IT WAS THOUGHT TO HELP THE ELECTRON EMISSION!

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I STILL HAVE THE 2000 OHM STROMBERG-CARLSON HEADSET, THE 43 PLATE CLAPP-EASTMAN VARIABLE AND THE TURNEY "CRYSTALOI" DETECTOR SHOWN AT TOP LEFT; AND THE NOTEBOOK LOG HANGING ON THE NAIL; ALSO MY 1916 GOVERNMENT CALL BOOK, AN E.I. CATALOGUE AND ONE FROM WM. DUCK.

LATER I HAD A 1 KW THORDARSON TRANSFORMER AND A MURDOCK ROTARY SPARK GAP WHICH I STILL HAVE TOO. WE HAD THE MADISON RADIO CLUB IN 1914 OF WHICH I WAS PRESIDENT IN 1920--MY CALL WAS SIMPLY "MB" THEN. ANY MORE INFORMATION GLADLY SUPPLIED!!!

SO WØROA "REAL OLD AMATEUR" HAS GROWN OUT OF PLUS FOURS AND THE 200 METER 3 WIRE FLAT TOP ANTENNA BUT STILL LOVES RADIO AS MUCH AS EVER. I SEE SPARK GAP TIMES NEEDS A SUBSCRIPTION DONATION SO WILL SEND CHECK TO EARL WILLIAMS AS SUGGESTED.

IN YOUR LATEST LIST OF MEMBERS THERE IS ONE SMALL ERROR IN MINE- MY ZONE IS 24 NOT 27..

73,

ACE.

JAMES K. CLAPP----W4AU/I
CARDIAC CLUB

IN A LETTER FROM OUR DISTINGUISHED MEMBER DATED JUNE 18, HE INFORMED YE OLDE COPPYE BOY THAT ON THE WAY UP TO HIS NEW HAMPSHIRE HOME HE SUFFERED A CORONARY ATTACK AND WAS DELAYED FOR SOME TIME WITH IT. JIM MENTIONED IN A LATER LETTER THAT HE WAS MOST GRATEFUL TO THE KIND PEOPLE OF STATESBORO, GA. FOR THEIR KIND CONSIDERATE TREATMENT. WE TOO JOIN JIM IN THANKING THEM. IT IS A PLEASURE TO REPORT THAT JIM HAS BEEN HAVING A MOST ENCOURAGING RECOVER AND THAT HE IS RESUMING HIS ACTIVITIES, AT MEREDITH NECK, N.H. AS USUAL. CONGRATULATION ON YOUR FINE RECOVERY JIM. ALL HANDS.

THE PREACHER WAS GOING GOOD ON THIS PARTICULAR SUNDAY. HIS TONSILS AND ADENOIDS WERE IN TUNE AND HE FELT THAT HE WAS IN RARE FORM. AFTER THE SERMON, HE WAS CURIOUS AS TO THE EFFECT THE SERMON HAD ON HIS CONGREGATION. SEEING ONE OF HIS MORE DEVOUT MEMBERS AND HER LITTLE SON STILL AWAKE HE ASKED, "SISTER MARTHA, WHAT DID YOU GET OUT OF THE SERMON THIS MORNING?" RISING TO HER FEET THE MEMBER SAID, "PREACHER I WAS JUST FILL UP TO HERE." POINTING TO HER HEAD. THUS ENCOURAGED HE SAID TO THE LITTLE BOY, "TOMMY, WHAT DID YOU THINK OF IT?" THE LITTLE BOY AROSE AND SAID, "PREACHER, I HAD A BELLY FULL TOO."

A CHURCH IN THE MIDDLE WEST SUDDENLY STOPPED BUYING FROM IT'S REGULAR OFFICE SUPPLY HOUSE. IT SEEMS THAT WHEN THEY ORDERED SMALL PENCILS TO BE USED IN PEWS FOR VISITORS TO REGISTER, THE DEALER SENT GOLF PENCILS CLEARLY MARKED: "PLAY GOLF NEXT SUNDAY."

THE GOLFER, A PROMINENT MINISTER, WAS HAVING A TERRIBLE DAY ON THE LINKS. WHEN HE WASN'T SLICING, HE WAS HOOKING. FINALLY, ON THE 13TH HOLE HE FLUBBED AN EASY TWO-FOOT PUT. HE PICKED UP THE BALL, THREW IT AS FAR AS HE COULD, CRACKED A CLUB OVER HIS KNEE AND SANK TO THE GREEN, A PICTURE OF FRUSTRATION.

"I'VE GOT TO GIVE IT UP!" HE MOANED, "I'VE JUST GOT TO GIVE IT UP!" GIVE UP GOLF?" HIS PARTNER ASKED. "NO, THE MINISTRY," SAID THE GOLFER.

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DAN MCCOY W8DG

DEAR EARL:

I AM ATTACHING A COPY OF A POEM GIVEN BY JOHN COLLYER, WHO IS CHAIRMAN OF THE EXECUTIVE COMMITTEE OF THE B.F. GOODRICH COMPANY AND WAS PRESIDENT OF THE CLASS OF 1917 AT CORNELL UNIVERSITY WHICH HAPPENS TO BE MY CLASS. THIS POEM WAS GIVEN AT THE BANQUET FOR OUR 45TH REUNION IN JUNE, 1962, AND I THOUGHT YOU WOULD LIKE TO SHARE IT WITH THE OLD TIMERS. I THOUGHT YOU WOULD GET A BIG KICK OUT OF IT JUST AS THOSE ATTENDING THE BANQUET WHEN JOHN PRESENTED IT.

CORDIALLY YOURS,

DAN.

"I'M FINE."

THERE'S NOTHING THE MATTER WITH ME,
I'M JUST AS HEALTH AS CAN BE.
I HAVE ARTHRITIS IN BOTH MY KNEES,
AND WHEN I TALK, I TALK WITH A WHEEZE.
MY PULSE IS WEAK AND MY BLOOD IS THIN,
BUT I'M AWFULLY WELL FOR THE SHAPE I'M IN.

ARCH SUPPORTS I HAVE FOR MY FEET,
OR I WOULDN'T BE ABLE TO GO ON THE STREET.
SLEEP IS DENIED ME NIGHT AFTER NIGHT,
AND EVERY MORNING I'M A SIGHT.
MY MEMORY'S FAILING, MY HEAD'S IN A SPIN,
BUT I'M AWFULLY WELL FOR THE SHAPE I'M IN.

I THINK MY LIVER IS OUT OF WHACK,
AND A TERRIBLE PAIN IS IN MY BACK.
MY HEARING'S POOR, MY SIGHT IS DIM,
MOST EVERYTHING SEEMS TO BE OUT OF TRIM.
MY DOCTOR SAYS MY DAYS ARE FEW,
FOR EVERY WEEK THERE'S SOMETHING NEW.

THE MORAL IS OF THIS TALE I HAVE SUNG,
THAT FOR SEVENTEENERS WHO ARE EVER
YOUNG,
WE WOULD RATHER SAY, "I'M FINE" WITH A
GRIN
THAN TO LET PEOPLE KNOW THE SHAPE WE'RE
IN.

MY TEETH WILL EVENTUALLY HAVE TO COME OUT,
AND MY DIET I HATE TO THINK ABOUT.
I'M OVERWEIGHT AND I CAN'T GET THIN,
MY APPETITE'S SUCH THAT IT'S BOUND TO WIN,
BUT I'M AWFULLY WELL FOR THE SHAPE I'M IN.

IN A PREVIOUS LETTER FROM DAN DATED
19 JUNE, DAN REPORTED THAT AL GUNSTON, W8GQ HAD JOINED THE RANKS OF SILENT KEYS ON MAY 1.
THIS SAD ANNOUNCEMENT IS MOST DISTRESSING TO ALL OUR MEMBERS, AND OUR DEEPEST SYMPATHY IS
SENT TO THE FAMILY AND ALL FRIENDS.

731 HOLLYWOOD DRIVE
NORTHFIELD, N.J.

DEAR EARL: W2EG

MEANT TO DROP YOU THE ENCLOSED SOME TIME AGO BUT ONE THING LED TO ANOTHER UNTIL AFTER HAVING RECEIVED SPARK GAP TIMES A FEW DAYS AGO I FELT SO SMALL THAT THAT SOME ACTION HAD TO BE TAKEN AT ONCE.

I AM NOW RETIRED AND FIND THAT MY DONATION OF \$5.00 IS THE BEST I CAN DO. I DO HOPE THE OTHER FELLOWS GET AROUND TO BACKING UP THEIR CLUB WHICH I FIND KEEPS ME IN TOUCH WITH THE OLD DAYS MORE THAN ANYTHING ELSE. 73 AND BEST OF LUCK. HOPE I CAN BE OF PHYSICAL ASSISTANCE TO THE CLUB IN THE NEAR FUTURE.

GROVER W. WIZEMANN, W2ES

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THE FOREGOING LETTER FROM GROVER WIZEMANN IS ONE OF THE NICEST WE HAVE EVER SEEN. IT CERTAINLY SPEAKS WELL OF A VERY FINE MEMBER. THANK YOU GROVER.

IN FURTHER REFERENCE TO THE ABOVE, IT SEEMS THAT THERE HAS BEEN A SLIGHT MISUNDERSTANDING IN SOME QUARTERS ABOUT THE REQUEST FOR FUNDS IN THE APRIL ISSUE OF SGT. THE EDITOR HAD THOUGHT IT WAS ABUNDANTLY CLEAR THAT THE REQUEST WAS FOR VOLUNTARY CONTRIBUTIONS ONLY. THIS WAS THE INTENT AND IT CERTAINLY NOT INTENDED TO CONVEY THE MEANING THAT THIS WAS A SUBSCRIPTION TO SPARK GAP TIMES. LET ME REPEAT, "THIS REQUEST FOR FUNDS FOR THE EQUIPMENT PURCHASE WAS FOR VOLUNTARY CONTRIBUTIONS ONLY." THERE IS NO REASON WHATEVER FOR ANY MEMBER TO FEEL EMBARRASSED IF FOR ANY REASON WHATEVER HE DID NOT WISH TO MAKE A CONTRIBUTION. THE EDITOR TAKES FULL RESPONSIBILITY FOR THE ACTION TAKEN AND THANKS ALL HANDS FOR THEIR FINE COOPERATION.

OUR TREASURER REPORTS A HEALTHY CONDITION OF THE TREASURY AND IT IS HOPED THAT THIS CONDITION WILL CONTINUE. THE COST OF OPERATION OF OUR ORGANIZATION HAS NOW BECOME RATHER GREAT WITH OUR EXPANDED MEMBERSHIP BUT BY DOING ALL POSSIBLE TO OPERATE AS ECONOMICALLY AS POSSIBLE, WE HOPE TO CONTINUE THE SERVICES THAT WERE INITIATED WITH THE ADVENT OF SGT WHICH WAS ORIGINALLY BLABBER MOUTH. YE OLDE COPPYE BOYE.

HUGO ESTBERG W2SVR

DURING THE YEARS FOLLOWING WWI, TRANSATLANTIC PASSENGER TRAVEL, BOTH TOURIST AND IMMIGRANT, WAS AT A VERY HIGH LEVEL AND ALL FOREIGN FIRST CLASS SHIPS WERE HAVING A LUCRATIVE TIME OF IT. WE HAD NOTHING MUCH TO COMPETE AND THE U.S SHIPPING BOARD DECIDED TO RECONDITION THREE SEIZED GERMAN LINERS AND PLACE THEM IN THE NORTH ATLANTIC PASSENGER SERVICE UNDER THE AMERICAN FLAG. THEY WERE THE AMERICA, THE GEORGE WASHINGTON AND THE LEVIATHON, ALL OF WHICH HAD SEEN CONSIDERABLE TROOP TRANSPORT DUTY DURING THE WAR.

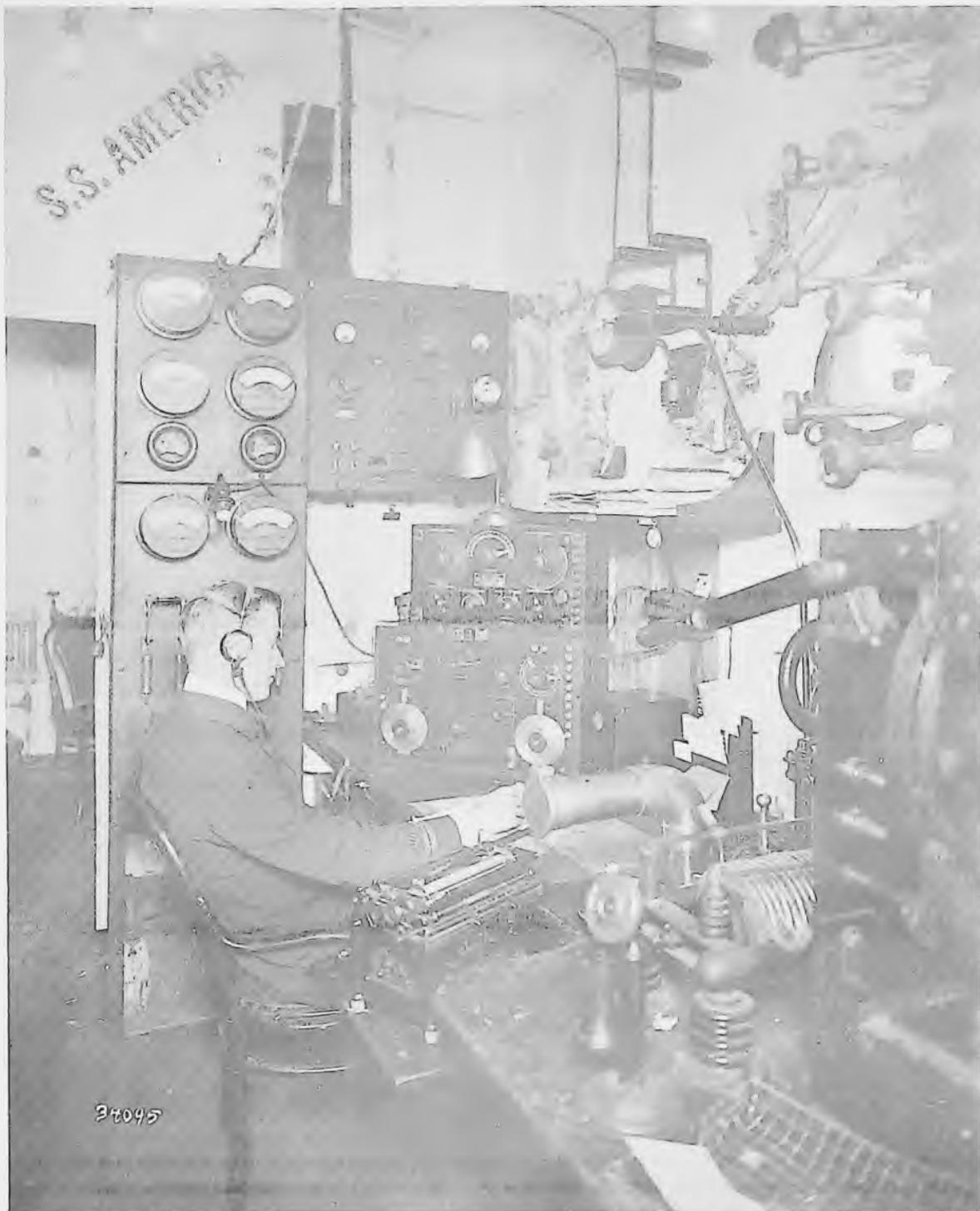
THE AMERICA WAS THE FIRST TO BE COMPLETED AND I WAS ASSIGNED TO HER AS CHIEF OPERATOR BY RCA MARINE, WITH ED. SINCLAIR AS SECOND AND TONY TAMBURINO AS THIRD.

CAME A JULY SATURDAY (1921) AND THE AMERICA EASED OUT OF HER HOBOKEN DOCK WITH THE BAND PLAYING, AMID CONFETTI AND STREAMERS AND THE LAUGHTER AND TEARS AS WE OPS. WATCHED THE SHOW I GUESS WE FELT A LITTLE AWED AND A LITTLE PROUD TO BE PART OF IT.

HOWEVER OUR FEELINGS SOON CHANGED. AS THE SHIP PROCEEDED DOWN THE HUDSON INTO THE OPEN SEA AND THE ENGINES BEGAN REVING UP, THE NOISES IN OUR RECEIVER BECAME WORSE AND WORSE. THEY WERE SO BAD THAT WE COULD HARDLY COPY WNY. HERE WE WERE, OFF ON A LONG TRIP WITH A RECEIVER THAT APPEARED USELESS.

THE NEXT DAY WE CLOSED UP SHOP AND HAD A LOOK AT THAT SE143. WE SOLDERED THE BAD CONNECTIONS, REDRESSED THE INTERMITTENTS AND GOT THE THING WORKING PRETTY GOOD; FOR WHICH I FELT VERY MUCH RELIEVED. AND AS WE FELL INTO THE USUAL SHIP'S ROUTINE, WE THOUGHT OF OTHER THINGS SUCH AS GIVING THE DISTAFF PASSENGERS THE ONCE OVER. BUT NOT FOR LONG.

ON THAT SECOND DAY OUT WE BEGAN TO REALIZE THAT WE WERE HAVING DIFFICULTY IN MAKING CONTACTS WITH OTHER STATIONS. IT WAS ONLY AFTER REPEATED CALLING AND AT COMPARATIVELY CLOSE RANGE THAT WE WERE ABLE TO RAISE ANYBODY. THE WESTON THERMAL AMMETER REGISTERED 25 AMPS., WHICH WAS NORMAL ENUF. THE 2 KW QUENCHED SPARK SOUNDED OK AND AS WE TUNED IN ON OUR RECEIVER THERE SEEMED TO BE A BROAD PEAK IN THE 600 METER AREA. THE SPARK BLANKETED MOST OF THE DIAL ANYWAY.



ON THE THIRD DAY OUT AND AS THE DISTANCES INCREASED, WE BEGAN TO REALIZE WE WERE ALONE ON THE BROAD ATLANTIC. HERE WE WERE, THE NIFTIEST AMERICAN PASSENGER SHIP AFLOAT WITH 2000 CUSTOMERS AND WE COULDN'T RAISE ANYBODY. THAT EVENING ON WATCH, AS I GAZED ON OUR EVER INCREASING PILE OF TRAFFIC, THAT I COULDN'T GET RID OF, I FELT KINDA BAFFLED AND UNHAPPY. BUT THEN THERE CAME A RAY OF HOPE.

I BEGAN PICKING UP SIGS. FROM MY OLD SHIPMATE, M.O. SMITH, WHOSE SHIP, (AS I REMEMBER IT WAS THE PRESIDENT ROOSEVELT OF THE SS LINE) WAS ON IT'S WESTWARD TREK AND WOULD PASS REASONABLY CLOSE TO US ON THE WESTWARD SHIPPING LANE. WE OPS. DECIDED TO MAKE AN ALL OUT

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DEAR OLD OLD TIMERS:

IF YOU HAVE BEEN READING THE LATEST ISSUES OF SPARK GAP TIMES, YOU ARE PROBABLY AS PROUD AS I AM THAT OUR NEWS SHEET IS NOW UNDER THE COMPLETE CONTROL OF OOTC. YOU WILL NOTE THAT WE HAD TO DIP INTO OUR TREASURY TO ACCOMPLISH THIS FACT. THESE ELEMENTS CONTRIBUTE TO THE SUBJECT WHICH THE WRITER AND OFFICERS OF OUR CLUB HAVE BEEN DISCUSSING FOR THE PAST FEW MONTHS; A MEMBERSHIP DRIVE FOR ALL THOSE BROTHER OPERATORS WHO HAVE THE NECESSARY QUALIFICATIONS. THE BENEFITS OF SUCH A DRIVE WOULD BE TWO-FOLD; THE PRESTIGE OF OUR GROUP WOULD BE CONSIDERABLY ENHANCED WITH A LARGER MEMBERSHIP, AND THE FINANCIAL HELP FROM EACH NEW MEMBER WOULD BE APPRECIATED BY OUR TREASURY AT THIS TIME.

NEW INTRODUCTION LETTERS TO OOTC WITH A BRIEF HISTORY OF THE CLUB HAVE BEEN WRITTEN OVER THE PERSONAL SIGNATURE OF OUR PRESIDENT AND WILL BE SUPPLIED TO ALL INTERESTED MEMBERS WHO WANT TO COOPERATE. THIS IS OUR PLAN; WHEN IN QSO WITH A PERSON WHO SEEMS TO HAVE THE NECESSARY REQUIREMENTS FOR MEMBERSHIP, SIMPLY GIVE HIM A SHORT DESCRIPTION OF MEMBERSHIP BENEFITS AND FOLLOW IT UP WITH AN INTRODUCTORY LETTER WITH A POSTSCRIPT AT THE END OF OF THE LETTER CONTAINING A SHORT PERSONAL MESSAGE.

IF THE PROSPECT WRITES TO OUR SECRETARY FOR AN APPLICATION BLANK, HE WILL ALSO BE SENT A COPY OF SPARK GAP TIMES. FROM MY PERSONAL EXPERIENCE, I HAVE FOUND MANY PROSPECTS WHO WOULD BE AN ADDITION TO THE CLUB; THEY HAVE HEARD OF US BUT NEEDED THAT EXTRA PUSH AND PERSONAL INVITATION TO JOIN US.

AT PRESENT, WE HAVE ABOUT FOUR HUNDRED MEMBERS. THERE MUST BE A THOUSAND ELIGIBLE AMATEURS WITH THE PROPER QUALIFICATIONS WHO WOULD BE INTERESTED IN OOTC MEMBERSHIP IF THEY WERE PROPERLY APPROACHED.

TO GET THIS MEMBERSHIP DRIVE STARTED, A CASH PRIZE OF TWENTY DOLLARS HAS BEEN OFFERED TO THE MEMBER WHO BRINGS IN THE LARGEST NUMBER OF MEMBERS BEFORE JANUARY 1, 1964. A LIST OF PROSPECTIVE MEMBERS WHO HAVE BEEN SENT THE INTRODUCTORY LETTER SHOULD BE KEPT TO COMPARE WITH THE SECRETARY'S RECORD TO AVOID CONFUSION AND DUPLICATION. A COPY OF THE INTRODUCTION LETTER WILL BE FOUND WITH THIS ISSUE OF SPARK GAP TIMES. ADDITIONAL COPIES WILL BE SUPPLIED BY THE WRITER OR SECRETARY.

REMEMBER THAT OUR BLUE BOOK OF AMATEUR WIRELESS IS THE ONLY KNOWN HISTORICAL RECORD OF AMATEUR AND EARLY COMMERCIAL RADIO OPERATION IN EXISTANCE TODAY. MANY PROSPECTIVE MEMBERS WILL BE GLAD FOR THE OPPORTUNITY TO JOIN OUR DISTINGUISHED GROUP. WE HAVE A LOT TO BE PROUD OF AND SHOULD HAVE NO TROUBLE FINDING THOSE WITH THE NECESSARY BACKGROUND WHO WOULD CONSIDER IT A PRIVILEGE TO BE ONE OF US. IF EACH MEMBER WILL DO HIS PART FOR THIS MEMBERSHIP DRIVE, I AM SURE WE WILL ALL BE PLEASED WITH THE RESULTS.

PROGRESS OF THE DRIVE WILL BE REPORTED IN FUTURE ISSUES OF SPARK GAP TIMES. FOR ANY FURTHER INFORMATION, PLEASE CONTACT ME OR THE SECRETARY

GOOD LUCK,

73,

WILLIAM J. MCKEE, JR. (BILL) W1KC
240 MORELAND STREET
WORCESTER 9, MASS.

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THANKS A MILLION

YE OLDE COPPYE BOYE THANKS ALL MEMBERS WHO HAVE HAD SUCH A BIG PART IN MAKING THIS ISSUE OF SPARK GAP TIMES POSSIBLE. WITHOUT THIS FINE COOPERATION, THE PUBLICATION OF OUR JOURNAL, WOULD NOT BE POSSIBLE. KEEP UP THE GOOD WORK FELLERS, IT WILL BE FOUND REWARDING AND WILL SERVE TO CONTINUE THE PROGRESS WE HAVE MADE.

PLEASE READ CAREFULLY THE LETTER FROM WIKC, BILL MCKEE, OUR MEMBERSHIP CHAIRMAN. IT APPEARS THAT BILL HAS STARTED THE BALL ROLLING AND A LITTLE PUSH FROM THE MEMBERSHIP WILL MAKE HIS PROJECT A SUCCESS. THE INTRODUCTORY LETTER IS FOLDED IN THIS ISSUE FOR THE USE THAT BILL MENTIONS. YOU ARE DOING YOUR FRIENDS A GOOD TURN IN FOLLOWING BILL'S PLAN.

ELSEWHERE IN THIS MAILING WILL BE FOUND A NEW ROSTER OF MEMBERS LISTING THE NEW MEMBERS ENROLLED SINCE THE LAST ROSTER. IN THIS LIST AS WITH OTHERS, WILL BE FOUND THE NAMES OF SOME OF OUR MOST DISTINGUISHED CITIZENS; BANKERS, LAWYERS, DOCTORS, EDUCATORS AND JUST ABOUT ANY PROFESSION YOU CAN THINK OF. OUR FIRST SENATOR IS LISTED IN THIS GROUP AND WE ARE HAPPY TO WELCOME THE SENATOR FROM ARIZONA, BARRY GOLDWATER, K7UGA/K3UIG, TOGETHER WITH ALL THE OTHER FINE NEW MEMBERS. WE HOPE THAT YOU WILL TAKE AN ACTIVE PART IN ALL OOTC ACTIVITIES AND THAT YOU WILL FIND THE ASSOCIATION AS ENJOYABLE AS OUR OLDER MEMBERS.

OUR SECRETARY, EARL WILLIAMS, W2EG, HAS REQUESTED THAT ALL MEMBERS FROM OUT OF THE UNITED STATES MAKE ANY NECESSARY REMITTANCES BY MONEY ORDER INSTEAD OF CHECK. EXCHANGE AND HANDLING IS SO EXPENSIVE THAT ABOUT HALF OF THE FUNDS SENT BY CHECK ARE LOST IN THE HANDLING COST AND EXCHANGE. THIS MAY BE A SLIGHT INCONVENIENCE BUT EARL WILL BE MOST APPRECIATIVE IF YOU WILL COOPERATE IN THIS RESPECT. THANKS. EEC

IN CHECKING BACK OVER THE EARLIER PAGES OF THE PRESENT ISSUE OF SPARK GAP TIMES, THE EDITOR FINDS THE FIRST PAGE A LITTLE DRAB IN APPEARANCE. THE THOUGHT HAS OCCURRED TO HIM THAT IT MIGHT BE APPRECIATED IF THE FIRST PAGE WERE TO BE DEVOTED TO A PICTURE OF SOME OF THE PERSONALITIES OF EARLY DAYS; PERHAPS MEN LIKE MARCONI, ARMSTRONG, DEFOREST ETC. POSSIBLY ALSO THE PICTURES OF OLD TIME EQUIPMENT MIGHT BE USED. THESE REPRODUCTIONS MIGHT BE MADE AS LARGE AS THE PAGE WILL PERMIT AND NOT BE PUNCHED SO THAT THEY COULD BE HUNG IN THE SHACK. ANYBODY GOT A BETTER IDEA?

SORRY TO REPORT THAT W2MDB HAD TO GO TO THE HOSPITAL ON THE 14TH FOR SOME SURGERY. HE SHOULD BE WITH US AGAIN IN A COUPLE OF WEEKS. HIS CHERRY VOICE WILL BE MISSED ON THE MORNING RAG CHEW AND THE NOON DAY NET. BE LOOKING FOR YOU JOHN, HOPE YOU HAVE A PRETTY NURSE.

THUS ENDETH ANOTHER ISSUE OF SPARK GAP TIMES. BEST WISHES FOR A GOOD SUMMER AND HOPE ALL HANDS WILL MEET ON ONE OF THE NETS.

EARL E. CLINE SR. W4PPZ
EDITOR AND YE OLDE COPPYE BOYE.

Spark-Gap Times

SPARK GAP TIMES IS PUBLISHED BI-MONTHLY BY THE OLD OLD TIMERS CLUB AT NO COST TO MEMBERS. A LIMITED NUMBER IS AVAILABLE TO NON-MEMBERS AT A COST DONATION OF \$2.00 YEARLY.

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Spark-Gap Times



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