

# **NEWPORT COUNTY RADIO CLUB**

## **AN OUTLINE OF ITS HISTORY**

by: IVAN S. COGGESHALL, D. Eng

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By Ivan S. Coggeshall, D. Eng.  
"Coggie" - KA1AVG

**The Newport County Radio Club (NCRC)** is about one-half Radio, half Club, but 100% Amateur Radio. Over the years since 1945 it has been well larded with prestigious members who have attained professional prominence, inside and outside radio; but it has been the hobby which has brought them together, postmen, if you will, out for a stroll on their day-off.

**A Clubby Club.** Of its four evening meetings a month, two are devoted to club business. Sandwiched in, the other two gatherings bring forth the distilled wisdom of members bearing the scars of battle. They are the 'whom!' of the saying- "It's not what you know but whom you know." And what they give out, I have found, is not necessarily all radio, but what else and whom-else they know.

What a place for a neophyte We have lead electricians-by- trade in our midst; certified public accountants, police captains, teachers, merchants, artists, telegraphers, fishermen, computer programmers, engineering consultants, podiatrists, aviators, undertakers, manufacturers, photographers, school men, born-leaders, movie-projectors, real-estate agents, admirals, electronic sales- men, aviation mechanics, professional engineers, authors, aeronautical radio technicians, corporate officers, lecturers and sailors. They came from Government and they came from the private sector. A, young aspirant, tumbled vigorously in that amalgam, is almost bound to acquire a certain patina.

**A Serious Hobby.** What sets a radio club apart from other clubs is the art itself. Not everyone can master it., stand Federal Communications Commission (FCC) examination, and get a license to operate a station on the air. But having done so, the Novice's equipment becomes a powerful bond, over the air networks, with the fellows the amateur sees at meetings-people who can answer his technical questions, help him learn or perfect Morse code, capture higher FCC grades, cash in on his investment in time and money; and best of all, reach out to become "a citizen of the world." Amateurs can mature fast !

In what other hobby does one hold the Globe in his hands, and encircle it with the speed of light? See its hemispheres en- shrouded in darkness, bathed in light? Explore the turbulence of its atmosphere, the electromagnetic boundaries of its skies? Lay down a signal and establish two-way talk, all but instantaneously, with any continent or island, town or city, on the face of the earth? Test the comradeship of another person, be it under a familiar or an alien flag, who speaks the same or a foreign tongue? There are editors, publicists, statesmen, who lack this facility!

## **Part I - NCRC'S PLAYTHINGS**

Let's stand back a space and look at our Club's place in all this: NCRC's playthings NCRC's people, NCRC's doings.

**Pre-Club Radio History.** The history of the Club is not an ancient one, for it goes back to 1945, when the amateur rigs which, for the most part, were sealed against use in World War II, were again released for action.

Back of that date, radio amateurism, which began as a "wireless" hobby, had a long stint in Newport as elsewhere. The record of the "spark" days here, beginning around 1905, was documented in a manuscript book of 110 pages, sponsored by NCRC in 1977, now on file in the Newport Historical Society library, entitled: "Amateur Wireless Watch over Atlantic Sea-Lanes-Newport, 1908-191

During World War 1 (1917-1918) amateur stations were first sealed. Many amateurs performed as radio operators in the armed ser- vices in that war. Vacuum tubes, especially as receiver elements, were introduced on a wide scale; they became the backbone of the radiotelephone broadcasting boom of the 1920s, in which amateurs had a collateral heyday, building receivers for broadcast listeners.

The 1930's were also great times: for extension of the frequency bands upward to six-meters, the replacement of spark- by tube- transmitters; the evolution of new classes of modulation; and the gradual taming of antennas, which theretofore had largely been cut- and-try. Direction-finding, experimental television, and elemental radar preceded World War 11.

**Between the World Wars.** Newport amateurs had banded together on many occasions, but their fraternities had failed to grow or to last. By contrast, some in Boston, New York, on the West Coast, and elsewhere had thrived upon an interchange With commercial radio-so much so that a lot of the boys, like Armstrong and Espenschied, had become the stalwarts of commercial and radio amateurism alike. Amateurs scored "firsts" Transatlantic short-wave CW (continuous waves, Morse-key interrupted), in 1921, was outstanding among several breakthroughs. From the beginning, amateurs had been the backbone of the radio engineering societies in New York and Boston. Our sister club, the Providence Radio Association, dates its founding to 1919 and its charter from the American Radio Relay League (ARRL) from 1921.

NCRC now has members who recall vividly the pre- world War 11 years in radio; a lot of them cherish licenses and tickets that go back to those days. Some even remember going back onto 200 meters at the close of World War 1. They recall the still, earlier days of ARRL (founded 1914). its purchase of "QST" magazine in 1919, and the first copy of its Handbook in 1925. By 1924 amateurs had been allotted frequencies in the 160, 80, 40, 20, and 5-meter bands. Gradually these were exploited for use around the calendar and sun-spot cycle and under favorable conditions, around the world.

Amateur equipment was typically of the home-made or assembled variety, "built from scratch." up through the 1920's broadcasting boom. When manufacturers began making finished, a-c powered receivers the market where the money was), a small number, led in popularity by Hallicrafters, offered the first complete A-M, CW receivers to amateurs. A great many were sold during the 15 years before WW-11. Other manufacturers made tubes and transmitter components especially for amateurs during those years: out of them amateurs built their own rigs. Radio telephony was not, at that time, used by amateurs.

**World War 11**, which began December 7. 1941, was anticipated by an FCC Order of July 1941, re-shuffling amateur bands to clear 3650- 3950 kilocycles for national defense training. With the Japanese bombing of Pearl Harbor, there came an immediate blackout of amateur activity, which, to all practical purposes, lasted until after V-J Day in August 1945. But although transmitter sets were sealed (receivers never were), some amateurs, country-wide, were issued Certificates of Registration of their transmitting equipment for use in connection with a branch of Civil Defense (CD) known as War Emergency Radio Service (WERS). The certificates act forth the power permitted, type of emission, and station location and ownership. In Newport, Fred Evans' papers covered radiophone equipment at his home and at Civil Defense headquarters here, By the and of the war, drills, for the most part, were carried out on 120 Mz (21-meters). Some equipment used was "GI." that is, of Government issue, in the form of transceivers-a new departure for amateurs. Ready to go in 1945 these sets were first to hit the amateur bands upon resumption of amateur activity.

During the war our technology had, undergone enormous expansions much of which was not disclosed until war's end in 1945. At that time it poured forth in an avalanche. Radio had been inextric- ably combined with aviation. The workable bands had been pushed down into the regions of centimeters and microwaves, capable of chain-relaying in lines-of-sight. In the midst of the tumult NCRC was born.

**NCRC Arrives.** So, from the viewpoint of radio technology, NCRC itself, never went through the pangs of birth or infancy; but, to borrow a metaphor from the Greek mytholog, like Athena apreng full-blown from the head of Zeus. its founders were accomplished hams of long experience; most of them builders of their own transmitter-rigs, and quite at home spinning their receiver dials in the full complement of amateur bands.

The trends of the past were accelerated in the post-world War 11 years, as NCRC and its station WISYE reached their strides. Store bought American-made receivers in the 6-meter bands and those of longer wavelengths became common, soon to be designed for SSB (single sideband, suppressed carrier) working, with stable beat-frequency oscillators and now-plentiful crystals. Receivers for 6-meter and later, 2-meter bands were being built by members and brought in for

show-and-tell sessions. (As late as 1957, in October, there was a demonstration of commercially available SSB receivers, the BT-32 and the HT-33.)

From its earliest years, the Club had as a fixture its Shack Committee, under which rigs were built of components, and outputs fed to antennas of the roof of Seaman's Institute. By pre-arrangement, any licensed Club member was allowed to operate WISYE in accordance with FCC Regulations. A Minute of February 13, 1956, admonishes Novices "to bring their own crystals."

If amateurs needed to adopt an icon, it would be a hot soldering iron and a hook-up to steer her by. As it was our mainstay in the days we built from scratch, so it is (except for the rich, who can buy rigs off the shelf) in these days of kits. The kit has been a boon to do-it-yourselfers, saving expense and disbursing insight, from testing the components to assembling, wiring, turning the switch on, to de-bugging and operating. Eureka!

**The Decade 1945-1955.** If NCRC's approximately 40-year life be divided into four decades (with extremely fuzzy boundaries because de- developments often take seven to ten years or more from invention to wide application), the first decade was one of ionosphere exploitation- in which the hams were aided by the availability, for the first time, of transceivers. Pocket radios in the broadcast band were common, some with printed circuits. Military radar had directed attention to "the pulse," in a burst of power. Commercial television, utilizing pulse techniques, Synchronization, F-M sub-carrier analog sound, was growing up alongside, furnishing mental stimulus. Most of the fun was in DX-ing, collecting QSL cards of verification, spiced by two-way records of WAS , WAC (worked all states and continents), and by the collective efforts of Field Days, with emphasis on portable power supplies, and stamina under strain.

**The Decade 1955-1965.** The second decade was marked by interest in A3 (phone) emissions , now vying with CW and even monopolizing attention when related to mobile radio in members' cars. Phone patches were made from base stations. The big breakthrough alongside was the emergence of the solid state science and arts: such products as diodes, transistors, Zener-diodes, and binary-computer hardware based on flip-flops and ferrous-oxide hardware. Much new knowledge was put to work in the design of steerable antennas of high gain, suited and tailored to the several amateur bands; to transmission feed-lines and matching of antennas and transmitters. Commercial microwave re- repeaters were demonstrating circuit stability's comparable to multi-pair cables for long distance working; dangled in front of amateurs, the dishes, horns, and related "plumbing" pulled them towards bands beyond UHF and VHF (ultra and very-high frequencies.) Simultaneously, amateurs were experimenting with tropospheric over-the-horizon ' transmissions, bounce against meteorites; and the finding and use of "ducts" for setting up long-distance records. A lot of emphasis was being placed by everybody in spectrum utilization and allocations, in time-sharing and multiplexing, seeking greater efficiency.

Amateurs have turned a deaf ear to popular Hi-Fi (high-fidelity sound systems), established in this decade, probably because they have been prohibited from transmitting music. Decipherable speech, including Donald Duck, has sufficed.

**The Decade 1965-1975.** Dominating the third decade was space-electronics- : the satellite art, telemetry, communication over solar-system and celestial distances. This was the age of OSCAR (Orbiting satellite- lite Carrying Amateur Radio). Many an amateur went into the business of building dish-antennas and low-noise amplifiers. This was the age of E-M-E experiments (earth-moon-earth Moon-Bounce). NCRC interest ran to both of them. (Integrated Circuits) got their share of attention, along with the substrate semiconductor art, and micro- miniaturization. Software programmers got their start in this decade. The cognoscenti owned sophisticated (for the age) hand-held computers, and engaged themselves in ultrasonics and medical electronics. The transistor family took over, from vacuum tubes, increasingly heavy loads, and were used in transmitters and power-supplies. Two-meters nudged out six-meters in popular appeal and was found to be well adapted to being boosted through ideally-located repeater-transmitter for general use. NCRC got into the act late in 1974 by establishing WRIAFY in Portsmouth (changed to WISYE/R in 1979) on 147.96/.36 MHZ (2-meters).

**The Decade 1975-1985,** the one we're in and two years away from its end. The digital mode is rapidly replacing the analog, for many applications- . In the amateur's instrumentation, the binary counter is replacing the dial, displaying on our ham-radio panels LEDs (Light- Emitting Diodes), and to six significant figures, the frequencies to which we tune. Scanners comb the spectrum in our behalf. Micro- processors have the world by the tail as adjuncts to computers. In amateur work they are finding things to do, from directing an antenna to a latitude-longitude target on the opposite side of the globe; to discovering

the momentarily-open binds from inputs of half-a-dozen variables; to keeping the Field Day logo; from scheduling a person's Thursday afternoon, to keeping him financially solvent.

This decade finds us sending and receiving Morse by computer, Baudot code by frequency-shift keying (FSK) by tape; Radio-Teletype (RTTY) by keyboard; or ASCII (American Standard Code for Information Interchange), sometimes incorporating the safeguards of error-deletion- and correction- or the still higher speeds of computer read-out peripherals. Sometimes these esoteric transmissions are being made to occur on 3-centimeter wave-bands and shorter, like the lettered band of SHF and EHF (Super-High and Extremely-High-Frequencies. Here the amateur finds himself in a Labyrinth of oscillating cavities, ducts, and pipes. Lasers and cryogenics beckon. The comparatively solid ground of facsimile and slow-scan television seems strangely anticlimactic.

A phenomenon of the 1970's was the rapid inroad of radio sets of Japanese manufacture upon the American market. A broadening of the total market by the intrusion of Citizens Band (CB) radio was-a - factor. But amateur radio transceivers were not alone: automobiles, AM-FM broadcast receivers, Hi-Fi assemblies, electronic games, and computers and microprocessors from Japan were widely sold in the United States because of technical superiority, lasting quality, and, initially, low prices. The result has been a sharing of ours and other markets by Japanese and U.S. domestic and export manufacturers.

## Part II - NCRC People

**The Pioneers.** The nucleus of NCRC was a group of amateurs, composed of **Ludlow Mahan WIBVI, Fred Evans WIJFF, "Duke" Campbell, John Olson, Dwight Hambly WIOIK, Harry Andrews WIOUR, Gerald Feinberg WITXL, John F. Donnelly WIMMX, John C. Hoyle WITXP, Merrill Randall WIJBD, Don Schwartz W6RIO** and some others. With the unsealing of their transmitters at the close of World War II, August 14, 1945, most of them were on the air and had held several meetings at Evans' home. They participated in a 10-meter rag-chewing net on 29.5 MHZ.

At the outset, Evans recalls, the fact of the Club's formation and a schedule of meetings were run in the newspapers, and within a short time the roster had reached 75.

**"Abe" Mahan** was an Alderman's son and one of the first- licensed hams on the Island. Campbell and Olson were naval officers at the War College; Campbell personally obtained WISYE's license at FCC in Washington. Hambly and Mahan were Board members of Seaman's Institute which became NCRC's home. Feinberg was a podiatrist an SWL (short-wave listener), who built his own receivers, and was knowledgeable about Bylaws and parliamentary law. Harry Andrews was owner of Andrews Express and the first trustee of the Club's station. **"Red" Randall** was a Navy chief who advanced money for kits, for WISYE's rig. **Don Schwartz** was head of Western Electric's technical staff aboard Navy ships. John Hoyle was a-working electrician with Scannevin and Potter. **Fred E. Evans WIJFF**, hence "Jeff" Evans, deserves a separate paragraph, for he was the instigator of the Club's formation in 1945; in the first half of 1983 is as active as anyone in the Club (now Corresponding Secretary); and has occupied all its offices over the years, some of them, including president, several times. He is the only Club member to have held ARRL national office: Vice Director, New England Division, 1978-1980. Fred was a member of the firm of **Schumaker & Evans**, retailers and services of broadcast radio equip- equipment. They had premises in the Coggeshall Building at the northeast corner of Thames Street and Washington Square from 1934 to 1950, sub- sequently on Duke Street; and from 1952-1962 at Touro and Spring Streets. The nature of Jeff's business and stock of parts had much to do with solving technical problems faced by Club members. In 1962 Fred went to work for Raytheon in Portsmouth. This historian, in the absence of Club Minutes and other records of the period 1945-1955 inclusive, which were destroyed by sea- water's entering the basement of Seaman's Institute during Hurricane Carol of 1954, has been lucky to have Fred's lively memory to draw upon, in reconstructing the formative years of NCRC's history; no one else now living can match Jeff's memory of the past.

**The Reverend Archie Burdick** deserves listing among NCRC's founding fathers. Though he was not a licensed ham, he befriended the Club in many ways, the most valuable being the hospitality of Seaman's Institute on the harbor, as

our headquarters, a place to meet, the location of station WISYE and its roof antennas. Archie also acted as the perennial installing official for successive slates of new officers of the Club. Archie died in 1981, in Institute service. He was succeeded by Dwight Hambly, Junior, son of charter member W1OIK.

**NCRC Leadership.** It was a reasonable expectation of this historian to tabulate the names of all the Club's presidents, from 1945 to 1983, but because of destruction of the earlier records, only those from 1955-on can be cited:

**NCRC PAST PRESIDENTS**

**January to June**

**July to December**

1955	?	William F. Murphy, Jr.
1956	John C. Hoyle W1TXF	Lt. Jack Dougherty W2LHB
1957	Lt. John Dougherty W2LHB	John F. Donnelly W1MMX
1958	Fred E. Evans W1JFF	Dr. Gerald Feinberg W1TXL
1959	John Aldrich W1WLG	Arthur Sweet WN1ETM
1960	Lt. Estelle Hopf K1CUY	Arthur sweet WN1ETM
1961	Ellen Ackerman K1OUI	Robert Grundner K1RPC
1962	John Aldrich W1WLG	Dr. Gerald Feinberg W1TXL
1963	Dr. Gerald Feinberg W1TXL	William Beltz K1 PTV
1964	John Aldrich W1WLG	Joseph Medeiros WA1AGO
1965	Fred E. Evans W1JFF	Dr. Gerald Feinberg W1TXYL
1966	Joseph Silveira WA1CSO	Joseph Silveira WA1CSO
1967	Robert Barlow WA1AUL	Robert Barlow WA1AUL
1968	Joseph Silveira WA1CSO	Joseph Silveira WA1CSO
1969	James Haggerty WA1FFL	James Haggerty WA1FFL
1970	Sandy Fried WB2HPW	Sandy Fried WB2HFW
1971	John Aldrich W1WLG	John Aldrich W1WLG
1972	Ernest Jordan W1GAM	Ernest Jordan W1GAM
1973	Frank Roberts WASFXE	Frank Roberts WASFXE
1974	James F. Bartrum W1 PDL	James F. Bartrum W1PDL
1975	Michael Anderson K5FPW	Michael Anderson K5FPW
1976	Michael Anderson K5FPW	Jeffrey Kashinsky WA1RHH
1977	Jeffrey Kashinsky WA1RHH	John Farrow K1JF
1978	Jack Farrow; Bill Beltz K1PTV	Gary Paquette WA1VTZ
1979	George Wilkinson W1AXO	George Wilkinson W1AXO
1980	Dr. Robert G. Allen N5BGR	Dr. Robert G. Allen N5BGR
1981	William Shaw WA4MMP	Fred E. Evans W1JFF
1982	Norman Anderson WA1OSL	Norman R. Anderson WA1OSL
1983	Mary Jameson WB1GVH	

A Minute of December 10, 1956, notes: "Lieut. John Dougherty USN; first time in Club's history, a president has been elected to two consecutive 6-month terms."

The tabulated list of residents includes representatives of various towns in Newport County, thus appropriately underscoring the Club's coverage of its territory: for example, in addition to Newporters, **Bartrum and Beltz of Middletown, Hoyle and Wilkinson of Portsmouth, and Grundner** of Jamestown. Tiverton and Little Compton have contributed other officers and chairmen of key committees. The Naval establishment has been well represented-in fact the Bylaw establishing 6-months

instead of annual terms was adopted to permit military personnel to serve as Club officers though assigned to Newport for only a limited time. The names of three women will be found among the presidents: **Ackerman, the wife of a Navy Lieutenant; Hopf, a Navy "Wave;" and Jameson**, a Certified Public Accountant.

It would have been nice if the Minutes had permitted the construction of similar tables of other officers and committee chairmen, but they didn't. Presidents have no monopoly of services rendered the Club, though their leadership has been vital, and their nomination-and-election a recognition of their attributes.

### **Part III - NCRC's DOINGS**

The Club's official activities are recorded in the Minutes of its business meetings, at which the attendance has been, representatively, 15 to 30 members. The actions taken may conveniently be separated into internal routine matters "all in the family," and external relations, or "outreach operations."

**ALL-IN-THE-FAMILY.** Internal routine actions are centered around the Bylaws, which specify such things as membership, meetings, dues, and corporate matters. The Bylaws were enacted upon the Club's formation and have been changed very little over the years. Shortly after the Club's repeater was authorized in late 1974, there was a movement to change Bylaws in accommodation to the repeater activity, but it was defeated.

**License Requirements.** Amateur licenses to transmit were first issued after examination by the U. S. Bureau of Navigation, Department of Commerce; a present member of NCRC has one, issued at the Newport Post Office, dated March 28, 1914. Other members held commercial. radio tickets similarly issued. The Federal Radio Commission was established about 1925 and took over the licensing in turn to be replaced by FCC in 1934. The present FCC machinery therefore antedated NCRC by many years; there have been changes in names and definitions of the grades, and the addition of Novice, Technician, and Amateur Extra classes. But there were always requirements for demonstration of code skill. and a knowledge of apparatus, circuits, and applicable law and regulations.

Most licenses have been obtained by candidates' going to Boston to be grilled by FCC. But wherever permitted under the rules, for example in relation to the blind and handicapped, the examinations have been given by NCRC under specified conditions. The same applies to examinations for the Novice license. in helping candidates prepare to pass exams, members have given a lot of help, in addition to that provided in classes.

Gifted members have volunteered many hours of class instruction in code and theory, procuring the latest texts and sample examination questions. Regrettably the Minutes are not always complete in recording names and successes.

**Membership-** While only licensed amateurs may enjoy full membership in NCRC. The Bylaws also admit Associate and Honorary Members. It is not unusual for one to be voted in as an Associate while he is working for a license, looking forward to becoming a full Member. Membership turnover has been high, throughout the life of the Club. Typically, at each semi-monthly business meeting the names of a couple of applicants will be up for consideration-on an annual basis, say, 50 a year, or 1,900 during the 38-year history of the - Club. Since the membership roll has remained substantially the same from year to year ( 60, 75, 85, 100), the Club has a correspondingly large number of alumni. Many have become such by moving out of town: members from the Navy establishment here regularly "get orders." Natives or visitors who stay here sometimes find that their interest in amateur radio is not a life-long affair; others yield to the cares of raising a family or earning a living and abandon their hobby. A surprising number of former Club members, later, here or in various parts of the world "show up on the air" and recall vividly the "good old days" when they were active in NCRC.

Many instances are on record of members' lending a helping hand to other members. Over the years such help has been common in the erection of antennas, which is no one-mar? job. Some members have lent others their spare rigs, receivers, transmitters, power supplies, or antennas, in order to get them on the air without delay. At Club meetings there have been trouble-shooting sessions galore. Evidence abounds of members' helping others in real adversity. A 1957 Minute notes "**Doc**" **Feinberg's** having thanked members for setting up his rig in his bedroom during a recent illness. In 1981 the Club set up a "Perry Mason Fund," to buy special equipment for a hospitalized invalid who otherwise would have been

unable to manipulate the controls of the transceiver mounted on his bed. And, al- most "of course." our Club does what others do in sending out "get well" and sympathy cards and messages to members or friends in dis- tress. Peculiar to our craft is noting the. "SKs' -the Silent Keys- of the departed, sometimes signalized with one name on an otherwise blank page in the minutes. (The letters SK, run together, is our equivalent of the old Morse "30" -the end, no more, good-bye.)

NCRC has its quota of YLs and )CYLs (young ladies and wives). While not organized as an Auxiliary, some of them have done valiant service in enabling participants of grueling-Field Days to be fed. The moral support of all of them has been appreciated as their spouses indulged their radio bobby, whether gregariously or clamped between headphones. There have been cases in the Club where husband and wife have been equally qualified in radio. Social. events, too, appealing equally to members and spouses or YLs have been almost-annual affairs.

**Meetings.** Apart from business, our business meetings as well as our informal-ones have been productive of educational and entertainment values in the form of lectures, demonstrations, slide presentations, and movies. It has been our pleasure to have officers and members of other clubs join us at such meetings. Navy people particularly, who have traveled widely have reported on the use of radio in far points of the globe. occasionally we have replaced or supplemented a regular meeting in favor of an inspection trip to a nearby radio or allied facility.

The practice of serving refreshments after business meetings was discontinued after Seaman's Institute installed its lunch counter.

Only amateur radio has the "rag-chews" of 'net-meetings held on the air. The essentials of establishing a net is a purpose, a frequency, a time-schedule, and a person in charge called Net Control. A roll-call is often the first and last piece of specified business. The rest comes naturally, with Net Control acting, when necessary, as moderator. "Word gets around" on these nets. A member may typically owe allegiance to half-a-dozen, of which NCRC may be only one, the others being Red Cross, Dartmouth, Bell Labs, woof-hongs, or what have you. But in a way, NCRC Net roll calls kick off an informal meeting of interested members of the Club

**Dues and Expenses.** Dues in the Club have always been modest, starting with \$2 a year, raised to \$3 in 1957 (under age 17, \$1); upped to \$4 in 1967; increased to \$6 in March 1979. There is no record of any assessments having been levied as such, but the hat has been passed to alleviate distress and for other worthy causes from time to time. Fines of . 25 a meeting have been imposed on members who fail to wear identification badges at meetings (February, 1974). Rather urgent pleas, with satisfactory results, were made for contributions to pay for (1975) and to maintain (1982) the repeater. Repeater support is looked upon as a function of the users, Club members and non-members alike; but since such support has been found to be inadequate, or uncollectible, the Club as a whole and some of its individuals have made up the deficiency.

Dues and donations combined do not cover all costs of belonging. A subscription to QST each year is to be considered: to maintain ARPL affiliation, 51% of Club members must belong. (At one time,, says Evans, we were a 100% club.) Costs of cassettes, books, and other training materials, plus a trip or two to Boston for examination, must be borne, though they are substantially non-recurring. Prices of social events are modest but de rigueur. By far the largest item of expense is depreciation of the amateur's radio equipment itself. If constant use is made of repeater WISYE/R, an annual contribution towards its upkeep is expected. The Club has done what it feels it can to raise money "painlessly." By the terms of sale at ips equipment auctions, it gets a cut of the transactions. A popular gimmick until recent years was the raffle, but the law establishing the Rhode Island Lottery stepped in to prevent raffles.

**Corporate Matters.** Incorporation papers, requiring renewal with the state every five years, are safeguarded. Learning from experience in losing records, it was voted in 1956 that incorporation papers be kept in a safe.

The Minutes reveal the following relating to Club property: Feb. 13, 1956 - The Club has a Viking Ranger transmitter and antenna. Novices may use the rig, in accordance with the terms of their licenses.

July 29, 1956 - WISYE station license is renewed.

Feb. 25, 1957 - Contributions are being solicited for a new receiver. Oct. 14, 1963 - **Norman Anderson** (unlicensed member) contributes parts for construction purposes.  
Dec. 23, 1963 - Club's 2-meter rig is to be mounted in a cabinet.  
Mar. 13, 1967 - Oscar Anderson (Norman's father) is building a cabinet to house Club's equipment. (Still in use in 1983.),  
Apr. 22, 1968 - Club is purchasing an NC-200 rig with power supply. Jan. 27, 1969 - Club is building its own 6-meter rig.  
Dec. 2, 1974 - Club contributes \$100 as start-up fund for a repeater.  
Feb. 23 1976 - Repeater WA1AFY is nearly ready for service.

**Purveyor of Information.** The Club emphasizes Safety First. "Hands- On" instruction" by experienced participants has been found to be best, and a willingly provided Club service, in the handling of antenna structures and in exposures to high-voltage in equipment.

Club meetings afford a chance to share "CQ", 'Radio, and allied magazines. The ARRL Handbook and recent issues of "QST" are kept handy for reference to articles and ads, so that members may leave their copies at home. A Call Book is available; also the training material held for class instruction. occasionally books change hands, and there is much oral-information swapping. Code and theory classes, still held, reach back to the Club's beginnings. We here sing the virtues of the instructors, a long line of whom have devoted hours to their tasks. The worth-while reward of seeing their students get their licenses has been the pay-off.

In February 1975, NCRC re-dubbed its members' newsletter "**Modulator.**" and began circulating it to similar radio clubs in this vicinity. it has been found that Modulator adds to members' pride in their Club, as well as serving its primary purpose of disseminating pertinent news. Some members have authored reports of experiments and experiences; a beginning has been made in presenting thumbnail biographies of members. The Modulator is now in it's ninth year.

**Social Events.** On an annual basis, the big one is the banquet-of recent years the Christmas Party, held at inns and restaurants of choice. In attendance, the banquet is our August meeting of the year, with invited ARRL guests. Summer beach parties (for example, a clambake, 1961; a picnic at Second Beach, 1962) and picnics at Miantonomi Park were characteristic of earlier days of the Club. An attempt at revival was made in 1981 at Butts Hill scenic overlook in Portsmouth, but with poor attendance.

We have already alluded to YL and XYL participation in social events.

**Individuals' Pursuits.** Up to this point in "All in the Family," we have been looking at the Club as a whole. Now we focus on individual members, from whose accomplishments the Club derives reflected glory.

Several of our members have been connected professionally ' in engineering or management with communication or manufacturing companies in or allied with radio; and I may mention Raytheon, Western Electric, Western Union, and the Bell System. one member is instructing at the University of Rhode Island; several are students there. one has lectured at Harvard. Some know from the inside such outfits as the Antique Wireless Association, the Veteran Wireless Operators Association, the Old Old Timers Club, the Morse Telegraph Club. One served as U. S. Department of State delegate to a plenary session of United National committee CCIR, which allocates the international radio spectrum. You can find active-duty naval officers in our midst, and Chiefs like **Bill Beltz KIPTV**, who had a distinguished record in cryptography and in "pounding brass" under fire.

In 1966 **Fred Evans** got a certificate for "first-day reception of signals from National Bureau of Standards' station WWV in Fort Collins, Colorado, upon consummation of the move of its base of operations from the District of Columbia and Maryland.

"DX" (distance-seeking) fans predominate among contestants for peer recognition; but some members go in for records based on the number of messages they relay on the NTS (National Traffic System) nets. Technicians and others lavish loving care over our repeater, as an agency of public service, as well as a Club convenience to work 200 of the 319 countries in the world. Just the other day I worked No. 320. There have been deleted countries, so I am still 12 away from

a clean sweep

Our Minutes show that for a number of years NCRC was awarding certificates (of encouragement) to Novices who promptly worked all There have been several Field Day stalwarts who have gone "on their own" to set records like WAS (worked all states) and WAC (worked all continents) several times over, numbered by the bands. **Art Westneat, W1AM**, ex-NCRC now living in Newmarket N.H., wrote us on November 26, 1979: "Once I thought it would be great fun to try ten counties in Rhode Island. Anent which, the writer cannot resist this Hi from his friend **Marshall Killen, VE3KK** of Waterloo, Ontario, who in-1981 won the Florida Skip Award for working various counties in that state: "I found a mobile station up at St. Augustine who was starting to cover all 67 counties in two days. I stayed with him until I got 30. This gave me the multiplier I needed from Ontario to win the event over all other competitors in U. S./ Canada, including Florida. Pretty sneaky, wot?"

**OPERATIONS OUTREACH.** This category of NCRC Doings has to do with the Club's external relations. Our institution has not operated in a vacuum: the very nature of global radio has projected the Club's interests beyond the boundaries of county, state, and nation. We have also rubbed elbows with many Newport County organizations.

**ARRL and FCC.** Contacts with Newington, Washington and Boston have already been pretty well covered. ARRL keeps us informed of FCC's proposed changes in rule-making, and whatever we do is ordinarily through ARRL, although in some cases we have petitioned FCC directly.

**Red Cross.** Our collaboration with American Red Cross and its units in Newport County and throughout Rhode Island has been extensive, through the intermix of personnel, and through joint participation in emergencies and simulated-emergency drills. The Club's collective expertise has been put at Red Cross' disposal; in turn, their owned radio equipment has been put to work in joint amateur concerns.

**Civil Disasters.** State-sponsored and national Civil Defense (CD), later Defense Civil Preparedness Agency (DCPA, under U. S. Department of Defense) have been with us since 1945, with shifting emphasis as' public concern has waxed and waned over the possibility and probability of enemy att-ack on the United States. our early involvement with WERS has been referred to (page 3). **Fred Carr** and others aligned themselves with FCC's Radio Amateur Civil Emergency Service (RACES); ARRL directly sponsors emergency nets and operations under its Amateur Radio Emergency Service (ARES), administered by the Section Communication manager (SCM) and his appointed Section Emergency Coordinators (SECE) and local Emergency Coordinators (EC's)'- through drills and simulated disasters they prepare themselves to handle "'live" tactical situations like accidents, lost persons fires, wrecks, tornadoes and local flooding - all requiring action In minutes on such facilities an F-M repeaters; also to accept traffic loads of sustained high density for a period of days, over the established 80/75, 40 and 10-meter CW message networks of ARRL's National Traffic System (NTS). NCRC's auxiliary-power repeater is adapted to sustained operation during emergencies, both to service local trouble and to feed traffic to and out of the NTS nets.

In all emergency situations, Red Cross and DCPA and ARES -alike NCRC members are prepared to face the difficulties encountered when both telephone and power lines are down. The auto-powered mobile transceivers of its members are ready for this role so long as gasoline can be pumped. The Club owns a portable power plant and is in a position to borrow others.

**Field Days,** held nationally in June under ARRL, have seen NCRC'.s participation since 1956 and probably before that. one objective is to prepare for disasters. The locate for our outings was traditionally the stone tower on the hill at Miantonomi Park until it became unavailable. In 1971 Goat Island was chosen as site, and again in 1972 and 1973. In 1974 the event was moved to St. George's School field, where it has normally remained, but in 1976 Field Day was skipped on account of our preoccupation with the Tall Ships event of the Bicentennial. In 1981 NCRC joined the Raytheon and Fall River clubs in holding Field Day aboard WWII vintage-man-of-war moored in Battleship Cove, Fall River: a battleship, a destroyer, and a submarine.

Field Trips. From time to time inspection trips have been made of radio manufacturing plants and broadcasting facilities in the area

**Public Posture.** In dealing with others the Club has tried to keep itself above reproach in matters of policing (after Field

Days) and housekeeping (after meetings). FCC Regulations well cover the matter of spurious emissions, and the seriousness of offenses. We treat the matter of avoidance also as a facet of our public relations. A fixture of the Club has been its standing committees to deal with allegations of radio-frequency interference (RFI), and since around the 1950s, television interference (TVI). Such committees have helped some members indeed to clean up spurious emissions, but more frequently to cope with the built-in deficiencies of Broadcast and TV receivers.

TVI was a subject of correspondence between NCRC's TVI Committee and FCC Boston in February 1959. The Engineer-in-Charge recommended that the Club publicize the attitude of FCC: namely. that amateurs should assist those complaining to obtain relief by the use of requisite high-pass filters, shielding, and wave traps, in collaboration with the manufacturers of the defective sets. Currently, a new twist is being given to interference I this time to and from amateur bands and cable television distribution systems.

From time to time, and specifically at Little Compton in 1981, the Club has publicly defended it's members' rights to erect sightly and safe antennas against claims of contending citizens that they are per se offensive in a neighborhood of homes. Usually antenna height is at issue. We have successfully advocated heights adequate for employment in storms to maintain outside communication, given that power lines and telephones were out of commission.

**Other Clubs.** We have had frequent contacts, through respective memberships with sister radio clubs in this area, among which we may mention Portsmouth (Raytheon Sub-Sig, 1978), Fall River, Dartmouth, East Bay, Bristol, Barrington, Providence, East Providence, Pawtucket, Apple Valley, Coventry, Cranston, North Kingstown, and Hope Valley. Our members have used the Hope Valley repeater. All these clubs have supported each other's activities, auctions, and hamfests.

As early as 1953 there was a movement afoot to set up a state- wide federation of radio clubs. Similar efforts have been made since then but there have been no lasting results. Some of our members have visited the New England Museum of Wireless and Steam, at East Greenwich, R.I.

We had a most enjoyable exchange of radio signals and correspondence in July 1976, with Newport's sister-city of Shimoda, Japan, and its radio club. This was part of an inter-municipal get-together, in which the getting together was done mostly by the two radio clubs and by **Mayor Donnelly**, who journeyed to Japan.

Our equipment auctions have attracted attendance from Connecticut and Massachusetts as well as from Rhode Island clubs. Although we have never held a Ham Fest, our members have attended several in nearby states. In 1956 several of our members made a VHF safari to New Hampshire.

**U. S. Navy.** References to the Navy and Its officers will be found above, in pages 6 to 9. The Club's relations with the local establishment-'War College', North East Training Center (NETC), and Navy Underwater Systems Center (NUSC)-have been close and cordial. our Minutes show that in 1969 an amateur club WB2HPW was established on Coaster& Harbor Island, that it was encouraged by NCRC and joined our networks; also that in 1970. Its president served two terms as NCRC president.

On numerous occasions NETC has cooperated with NCRC and the Red Cross. An example was their furnishing power for Amateur radio at Piers I and 2, Middletown, at the Tall Ships and Bicentennial events of 1976. For a number of years they furnished and transported an engine-powered generator for Field Days. At one time an Admiral, was an NCRC member; several of their officers have occupied NCRC offices, including a Captain as president. In December 1958, **Commander Les C. Marlow W4CVO/W6PSD**, an NCRC member, participated in a Navy mission to South America to test the feasibility of the SSB mode of operation, subsequently adopted on a wide scale by the Navy.

**U. S. Army.** The Army Amateur radio System (AARS) had its heyday in the 1930's and was succeeded, during NCRC's early years, by the Military Affiliate Radio Systems (MARS), serving Army, Navy, Marine Corp, and Air Force personnel in the United States and overseas. It's networks are outside the amateur bands, but its operators include NCRC and other amateurs. This club also contains veterans of the Navy's pre- and post-WW-II organization, the Naval Communication Reserve.

**Seaman's Institute.** For its grants of cooperation, meeting quarters, training facilities and roof-space for antenna, NCRC has nothing more to offer than eternal gratitude.

**Tall Ships** A special relationship, built upon visits of the Tall Ships to view Newport Harbor developed between our Club and the American Sail Training Association (ASTA), during the Bicentennial celebration of 1976 and the overseas sailing contests of 1982. Special reports

are in the Club's files relating to these multi-faceted events. As it was noted in the Modulator, in relation to the 1982 event, from Venezuela to Newport to Portugal, it involved three organizations three continents, three languages two months, five time zones eight Tall Ships, and 12 amateur CW-radio operators-an achievement in coordination

During the Bicentennial event, **Jim Sturtevant WA1JST** of Ports mouth sailed as an amateur under the radio officer aboard Massachusetts maritime Academy's U. S. Training Vessel "Bay State." Using the ship's call sign WA1WVO (Jim was in frequent contact on 40 meters

SSB with nine NCRC hams, plus W1SYE.. An interesting sidelight of the Tall Ship& is the lack of space to hang an efficient antenna among the soaring masts and spurs without interfering with the ship- handling. In Portsmouth, **Paul Skitzki W1FX**, a member of both NCRC and

Raytheon Sub-Sig club, made phone patches from WA1JST's mike to impress the Skipper, as well as to connect the fleet with it's Control in Newport Harbor.

**Still More Outreach.** The Club has fostered pleasant relations with the people of the County. our files include letters from the Mayor of Newport and the head of the Chamber of Commerce, thanking us for aid in events important to the city at the time; from the Police Department for services rendered during the Jazz Festivals. our annual participation on the air during such public events as the Marathons, Talkathon (Crop Walk), Save-the-Bay (1978), and Battle of Rhode Island (1978, thereafter called Siege Day), have not gone un- noticed.

We have given books on amateur radio (1974) to the public libraries in Newport, Middletown, and Portsmouth,, and currently (1983) are updating this ARRL material.

The Club has been favored with the friendship and cooperation of employees of the Newport Daily News, the Providence Journal, the local A-M radio station WADK Newport, and the newer F-M station WOTB Middletown, in running notices of and articles about special events, and the holding of our training classes in code and theory these have attracted local residents and transients among ships in the harbor. NCRC is unabashed in beating the bushes for new members. To this purpose we encourage members to make frequent contacts with high schools, Boys Clubs, the YMCA, and Scouting.

The one organization with which NCRC has not been able to reach an accommodation has been the "CBers" (Citizens' Band radio). In 1961 the Engineer-in-Charge of FCC Boston came to Newport City Hall to address Civil Defense people in behalf of both groups of radio enthusiasts, enumerating the defense and disaster services each had to offer. Civil Defense, since then has been able to tap benefits, as predicted, but from separate, not concerted action.

While ARRL, in 1967, suggested that the two groups might get together, by January 1975 had concluded that, without proper organization and membership standards, citizens would not be able to police the content of their transmissions nor occupancy of their spectrum space; and to that extent threatened the separate rights of amateurs.

In general, though, it may be said that the two groups have been able "to live and let live." There have been rivalries for allotment of spectrum space, resulting in some not too important shuffling. Manufacturers furnished CBers with equipment containing some features good enough to duplicate in amateur offerings. The Good Buddies are still driving with one eye on the rear-view mirror, and the CB-era' technical war is more with the police than the amateur bands. NCRC has been gratified to find a few fugitives from 11-meters knocking at our door for salvation.

## IN CONCLUSION

Thanks to SSB transmission, we come to the end of this Outline on page 17 instead of page 35, the lower 1945-1955 kHz sideband having been compressed to vestigial. The fact that it is an Outline, not a History, has nothing to do with the mode of propagation, but is the haggled price paid for producing the job in a hurry-with a smattering of names and call-sines instead of the biographical sketches of flesh- and-blood people who make History come alive.

Scores of persons have labored long and hard for the Club, in and out of office. Some have received plaques; the names of some are honored by special pages in the minutes; some have been made Honorary Members; for others the simple record of their achievements have been made and then lost. Unsung heroes among us have labored without visible credit other than the satisfaction of having attempted something constructive and having succeeded. Their works live on in those whom they have benefitted.

Presenting the story of the Club is useful only because it suggests a probable continuation of NCRC's demonstrated past. That is, a recital of its past to one who is contemplating joining the Club, is empty of challenge but for the likelihood that its momentum augurs "more of the same" in years to come.

At his inauguration as president on May, 22, 1978, **Gary Paquette WAIVTZ** said that one of our chief objectives is "to encourage members to utilize their hobby and go forward into the world. A whole world of friends is waiting for us."

Gary's optimism is echoed in **Art Westneat's** recital of June 10, 1979, showing that it can happen here:

"I first put a signal on the air 44 years ago. Amateur radio has brightened my life, provided adventure, stimulus, learning, and a career. From the impetus of ham radio I have gained a life focus, earned a good living, and educated my children. It has supplied unending fun, and a real joy that has made life worth living."