## HAVE AVAILABLE:

- 1.2SZ license to L.S. Inskip, dated 9/29/23
- 2. Letter to H.R. Mimno from Dept. of Commerce, referring to change of license, 12/2/24
- 3.3 copies, form 762, Discription of apparatus, Dept. of Commerse not filled out
- 4.7 copies, form 763, Secrecy of Messages False Signals, Dept. of Commerce
- 5.2SZ license to RPIRC, HD Harris, operator, dated 3/12/26
- 6.2SZ license to RPIRC, HD Harris, operator, dated 5/10/28
- 7. W2SZ license to RPIRC, HD harris, operator, dated 11/28/29
- 8.3 copies, 2SZ QSL; 3 copies, 2CDC QSL
- 9. Instruction book Hammarlund Comet "Pro" series receiver
- 10. Instruction Manual #1 "Pro" Standard Model
- 1. 2SZ licensed to Leonard S. Inskip. Station description: Plate (not transformer indicates tube oscillator) input, 330W; Antenna, fan type, 130' high, 20' long, with 4 horizontal wires and 3 wires in vertical part; Normal operating frequency, 1705 1500 kc. (wavelengths 176 200 meters noted).
  - 2. Answer to request to change call letters 2SZ from L.S. Inskip to RPIRC. Notes that little would be accomplished, save advertise the fact that licensee is a club. Arthur T. Boteheller, US Supervisor of Radio, requests that Inskip remain in charge of station, since principal operator must accept full charge and responsibility for station's activities, whether or not he is present. Notes that short wave bands currently in use are 75-80, 40-43, 20-22, and 4-5 meters. Bands may be assigned only to stations which are prepared to use them,; applications should be made accordingly, noting schematic and all values of inductance and capacitance.
  - 3. Amateur Applicant's Description of Apparatus: I. General Description of station; II. Power Supply; III. Antenna; General Information; Sketch of Antenna.

- 4. Notice. Department of Commerce, Bureau of Navigation, Radio Service. Secrecy of Signals False Signals. Excerpts from Radio Act of Aug. 13, 1912. To be posted.
- 5. 2SZ licensed to RPIRC, HDH op, at Sage Lab. CW apparatus, 150 W. Antenna, T-type, 30' above ground, 20' long, single vertical, single horizontal wire. "Authorized to use any or all wavelengths assigned for amateur use. The wavelength authorized in this license may be changed whenever in the opinion of the Secretary of Commerce such change is necessary."
- 6. 2SZ licensed by Federal Radio Commission to RPIRC, HDH op, persuant to Radio Act of 1927. Equipment: VT \* CW,ICW,phone. 50 W on: .7477-.7496M:401-400Mc; 4.69-5.35M:64-56Mc; 18.7-21.4M:16-14Mc; 37.5-42.8M:8-7Mc; 75-85.7M: 4-3.5Mc; 150-200M:2-1.5Mc; 9.99-10.71M: 30-28Mc. Phone on 150-175, 84.5-85.7, and 4.69-5.35M only.
- 7. W2SZ licensed to RPIRC, HDHop, Station description is "Vacuum Tube." Much less strict now. Lists bands (freq.) for general communications, phone, and television operation.
- 8. 2SZ and (W)2CDC QSL's same style, list RPI "Radio Family" 2XAP, 2SZ, 2CDC, and WHAZ. ARRL affiliation, ORS, and ROWH noted. Receivers listed are "Low Loss, Paragon RA10, Grebe CR13, Honeycomb, and Superheterodyne.
- 9. Cover picture, general schematic, features rundown.
- 10. Details and pictures for Hammarlund Standard Model Comet "Pro." Calibration charts.

M& PISO ORIGINAL LOGI (MAR '33)

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MIR PISO ORIGINAL LOG (MAR 183)

YMCA club predated World War I

Harris entered RPI as frosh in 1919; club only recently reactivated after war.

Club had room in rear left-hand corner of 2nd floor, just below dormitory area.

Equipment consisted of 1kw rotary spark and homebrew receiver.

When protests grew too loud and conditions became adverse, the gap was muffled. Most activity was at night, both because of conditions and because the blinking lights and noise from the gap were less troublesome after people were asleep.

A decremeter is an instrument used to measure the damping of a wave and hence it s bandwidth The decremeter used was borrowed from the institute.

E.M. Williams was chief operator and president in 1922 (time questionable)

During Harris' junior (sen?) year the antenna was lost in the wind. It fell across a few alleys and the TPD ordered it removed. The members got word of the occurrance just before class time and rushed down to restring it. Later they pleaded to be excused for the lost classes.

Harris established a DX record by QSO ing 9AAW in Chicago. (Club record or what?)

Harris graduated in 1923 and worked with GE for a year. During this time a slump in activity and a need for extra space on the part of the YMCA forced the club to disband.

In Sept., 1924, Harris returned to teach. He, as junior professor, and Harry R. Mimno, as senior professor, reorganized the club up on the hill with equipment inherited from the club.

L.S. Inskip, one of the original operators, was replaced as instructor by Harris.

About the time of the move up the hill, spark was out and tube oscillators were coming in.

WHAZ

Gift of George W. Roebling; installation completed in August 1922.
Inskip put WHAZ on 200M ham band.
The station was used for a two-way DX BCB Qso with a station in Calgary, Alberta.
Originally, the station was powered be a MG set, but as receivers became better, commutator noise became unbearable. The Willard storage battery cleaned up by selling batteries to stations. Ours: Fil. supply was about 2'X2'X3' and plate supply was 900 3"dia, 10"high cells.

We often used WHAZ's MG. (Ever get our own?)

The club station was first located in the room adjacent to WHAZ. The attic was finished (floor, etc.) in 1927 and we moved up there shortly afterward.

Transmitters in the twenties consisted of three 2'X2'X3' racks, housing rigs for 80,40, and 5M.

Originally, the Institute held two calls, 2SZ and 2CDC. With the tightening of the radio regulations in the Radio Act of 1927 (?), it was established that institutions could not hold calls, per se, and that a person could hold only one call. 2CDC was given up in deference to the more desireable 2SZ. Prof Harris became trustee and assumed 2CDC as his own call.

When the Institute held both calls, 2SZ was used as the club call and 2CDC was used as a call for faculty operations.

The 5M rig had a type 210 with its base removed.

Done Interview 1 - 3.

QST, April 1921, p. 47.

Picture:

Receiver occupies prominent spot on table, note variometers. To left of receiver is antenna changeover switch. In left foreground is gap and Thordardson transformer.

During early 20's (to approx. 1927), power was 40 cycle, two phase. This explains the "peculiar warble." It seems that Westinghouse was the first major company to exploit AC and standardized on 3 phase, 60 cycle power. GE, which even then had a stranglehold on the Capital District, couldn't see using the standard set by their competitor and provided the district with 2 phase 40 cycle power. People moving to the area who had 60 cycle equipment, such as battery chargers, provided a booming business for the early radio and electric companies. When the change-over to 60 cycles came, GE provided very equitable allowances for the existing 40 cycle equipment in the area.

Roland B. Bourne, W1ANA, class of 1918(?), was an instructor in Harris' frosh year. He Left the Institute and later became the president of the Maxim Silencer Company. Mr. Bourne is now curator of the ARRL museum.

RB Bourne W1ANA 27 Sulgrave Avenue West Hartford, Conn. Advisors:
Harry Mimno
Hiram D. Harris W2CDC '24-'3
Warren Stoker W2GTH
Frederick J. Norvik

1930's

The five meter rig was first used for serious thesis work in the thirties.

Partly because of interest in weather observations and their use in the rapidly expanding air travel, and partly because the weather bureau lacked money, the Institute, in conjunction with N.Y.U. and the Albany weather bureau, set up a high level station on Whiteface Mountain. The project was started by K. White and Colwin; Stoker, of the club, and White (now dean of the school of engineering) were most involved in the project. The only other high level observatory was on Mount Washington. Five meter communication links were used. The antenna system at the 'tute was a series of dipoles with reflectors aimed at the mountain (WHTFCE). Sometimes when propagation was sporadic, relays took place between the mountains in order to get the data down to the Institute. When received at the Institute, data was relayed to Albany airport and N.Y.U. Walt Knoop sometimes subbed for operators on Whiteface during vacations.

DONE

districts most worked included 1, 2, 3, 8, 9. Remember that western New York was once part of the eight district.

12/13/24 "He was using a one tube receiver."

Who is 1ARY?

12/19/24 2AIF "Sed he remembered the old 2SZ at the YM..."

Did we have phone facilities in 1924? re: 12/19, "Tried fone but nd es note R.A.C."

12/20/24 worked 1QR. Same as the 1QR I know?

12/19/24 worked 5WI.

12/20/24 werked 40U. (HRD)

As of end of 1924, 29 messages had been sent. Since log starts in early December, this probably only represents a month's work.

Weather almost always noted as first entry in log

1/9/25 "Ithink wave is too high tonite."

\_\_\_\_1/10/25 "Sed my wave was about 160 meters."

1/10/25 Msg#30 to Washington, D.C.

Must have had an experimental phone set-up. every once in a while is a mention of trying it.

1/17/25 Numerous 6's and 7's were "very loud on loudspeaker some were boisterous. Rec'd on 75-80 meters."

1/17/25 Msg#37 passed to c4BB.

1/30/25 Hrd f8GO and f8UU. Tested with KET. Worked g5SZ

1/31/25 Fruitful night for the SWL. No QSO's seem to have resulted, though. Call hrd: 6AKW, 6ARB, 5AJM, g2JF, g2KF, m1X, g2SZ, g2NM, c4DQ, 7GS, 5DW, 6IH, 6FH.

"These stations wrked in daylight on Feb. 6, 1925." 8BKH (low power this end), 3BTA (note like a power leak)

2/7/25 worked 7KU, m1X, g2NB, 6QI - all nite QSO's

2/7/25 worked nØZN. What is nØZN?

By 2/13/25 club active in looking for DX. Transatlantics not uncommon; daylight stateside DX normal but not too much daytime activity.

2/28/25 QSO's with 1KL and 1ANX provided info on an earthquake - apparently in New England.

Note in log dated 1/16/33 says 2SZ heard by c5HB in Vancouver, B.C. on 80 meters. 2/28/25

3/6/25 Evidence that shack must be located in or near WHAZ. "QRM from music in studio."

What is a chopper?

3/10/25 comment about 40 cycle note. Are we still spark?

3/14/25 Possible three way between u2SZ, g2SZ, and 1MK (ARRL). Correction: u2SZ, nd.

3/20/25 "... about 10 audible stations on the air."

3/22/25 hrd b3AD and q2LC

3/28/25 "tube blew also short in high voltage supply?"

\_5/2/25 freq- 40meters

5/8/25 "Believe I heard z4DM or z4ZA am not sure yet." QTR dawn

9/27/25 Copied g2SZ working z1AX

10/4/25 "Set has been radiating .6A; 150 mils., all night but no answer to calls."

10/10/25 Rec'd reports on Springfield RPI game from 1AWW.

10/12/25 dawn worked 8CAU, University of Cincinatti for first time. Many times to follow

10/12/25 comments on skip distance shortening at sunrise.

10/17/25 Who is 8SZ? why tests with him? Blind transmission to his call for reportson RPI St Lawrence game.

10/17/25 a2YI hrd. New country?

10/17/25 QSO with 6KB who uses 7 watts

10/24/25 called n1SP

10/31/25 "Got play by play of Clarkson RPI game from 8UF."

11/1/25 called a3BD

11/16/25 hrd nz2AC 35meters 52 on cond dial backlash?

11/22/25 workedf8GM

12/6/25 First contact with g2SZ: "g2SZ says !Have wanted QSO u for years! Hrd u on 90 meters last year called many times... vy pleased to get QSO BT How is Rens Poly?!" Called later.

As of end of 1925, 69 messages had been sent.

1/10/26 "Mighty poor night on 40M!"
"Foreign stations QRK abour R-4."

1/14/26 Hrd 2CLL: N.Y.U.

-2/20/26 Worked 5YD, Miss. A&M. Many comments

3/6/26 Australia and Brazil called. Signals consistant until dawn.

3/27/26 Hrd 6BUC Radio Club of Hawaii testing; Signals R-5.

3/27/26 Worked first Australian a7CW

4/3/26 "Signals start in at 9th district, no 1,2,3,4,5th district stations at this time." Must have been good morning: called f8JN, z2AC, (who later hooked up), bz1AW, a4AN. Workeda3BD, BD comment, "Never heard WHAZ. No don't often listen on BC waves."

6/15/26 Bassett and Neff

9/17/26 Carred pr4AJ

10/1/26 Palmer and Rowe pull all-nighter, work z3XB and numerous stateside. Cld hu6BUC.

10/16/26 Connected with 1AGA for tansmission of Rensselaer - Worcester football game.

10/22/26 Ant current .96A up from .6A by re-

10/29/26 Prof Harris sdjusted TX at this time.

10/29/26 "Have been bothered by power leak. It goes and comes, mostly comes."

10/30/26 8UF provides play by play of Clark-son game.

11/5/26 Worked hu1GD, Honolulu

12/3/26 Worked KCDL SW of Panama, headed for Far East. Using UX 210.

12/10/26 Worked k4UAB, Oberbayern, Germany

12/17/26 Called sm1P Dutch East Indies(?)

Traffic for 1926: S14

9/23/27 Transmitter readjusted by Harris. 20 meter coils. Larger grid leak put in.

10/7/27 "About 5:00pm DX started to roll in, all locals getting vy QSS and 'echoy.' "
Hrd oa3VE, sb2AJ, fo9AA, "sigs vy funny."

10/22/27 Sanders and Smith: allnighter

10/23/27 "Air quite dead... Found out that Northern Lights had been active all night." 11/5/27

11/5/27 worked for flood relief

11/5/27 WPI \* RPI game

11/6/27 worked eg2NH on 40 meters

11/13/27 Evidence of school spirit arises in QSO with 1AMZ, a soph at Union.

12/10/27 "Cleaned up station - Using my own receiver - on 40 meter band - King Kappa Delta Tau?

12/17/27 key click filter

1/15/28 Sanders' dorm room noted as Hunt #3

2/9/28 Comment about storage battery going dead. When did MG set arrive?

2/13/28 worked ei1CR

3/3/28 worked oz1AR

3/10/28 New TPTG in operation. 0.4A in ant. 600V @125 ma.

3/21/28 TPTG 0.51A: 800V @ 100ma

3/24/28 TPTG "now working OK" 0.55A: 800V @ 50ma Ant is at about  $30^{\circ}$  not 90° Report of fairly clear keying.

3/30/28 worked 5ATM who used chemical half wave rectifier.

3/31/28 "Can't hr a stn on 20 meters now."
Later hrd ef8FR, xed8J, ne8AE, ef8FC, oh6XK, ef8ER. Later in day: oz3AZ, ng5FL. Later (4/1/28) ef8DU, ek4AF, eo8B, nrCTO, dz2AE, nu3CJ. 4/14/28 "Put ant on voltage loop of ant coil, FB." "Keying relay stuck." Hrd ef8BJ: 23M

Band used noted after 3/26/28

4/20/28 "Ed's an optomist. Starts evening with a CQ. HI... Optomism and ham radio don't agree.

4/21/28 worked ef8XD 40M

10/20/28 Capital letter prefixes first noted in log

Traffic seems to be dwindling.

What did I just say? Traffic is very heavy now.

2/20/29 hrd Hamilton College

Not too much DX

All operations on 40+ meters

10/12/29 W8BEL supplies p/p Clarkson game

\_\_10/2/29 CCNY - RPI game; interesting comments

10/2/29 slightly leading statements about status of transmitter

11/3/29 2 amps in ant-cpse system

11/5/29 worked Princeton, W3DH

Williams Letter Pont

January, 1922, Albany Knickerbocker Press wrote article about Troy YMCA Radio Club, including photos. RPI participants in group picture were: Prof. H.D. Harris, Iden M. Kerney - president, Leonard S. Inskip - VP, J.D. McKnight - Sec., H.A. Gibson - librarian, Wm. A. Gunn - Photog., H.R. Mimno, B.H. Carmer, R.W. Van Ness, M.H. Williams.

The only connection between old Troy High and the RPI club was that I was instrumental in forming both and operated each station.

Ileft Troy in late 1921, going to work for RCAat Riverhead, NY. My co-worker was Roland Bourne. Roland was an instructor in the EE Dept while I was an underclassman. Bourne not active in the club.

The receiving equipment at old 2SZ was mine and I took it to Riverhead with me, where we used it at the 2BML-2EH station, which was one of the most successful stations to get across in the famous Transatlantic tests.

Three old members in the Troy area: Al Page, pres. of Trojan Electronics, Chas. Everingham, and Bill DuBois.

Fall, 1919, membership to 50. Large number of RPI undergraduates.

Mark R. Strausberger '20 Chief Engr. .21 Warren K. Eglof? H.R. Mimno 121 '21 Pres. Iden M. Kerney 122 Chas. Everingham 122 Si Carmen 122 B.H. Carmer '22 V. Pres. L.S. Inskip 122 Albert Page ·22 Chief Op M. Williams '23 Librarian R.A. Gibson H.D. Harris 123 J.D. MacKnight 123 Sec. R.W. Van Ness .24

Antenna from Gas CO. on 2nd St. to YMCA. 4 wire T, 115 ft high, 100 ft long.

3/4 kw spark and vacuum tube receiver

2SZ - J.D. MacKnight trustee

Activities: code practice and instruction, open nights for public with music broadcasts from Union College Radio Station and news and time from NAA.

## More names:

William A. DuBois W2ANM Dr. F.M. Sulzman (dec.) William A. Gunn, photog. (dec.) Sam Weiss Wendell King (dec.)