

WARREN C. STOKER, HIRAM D. HARRIS '23, FACULTY ADVISORS, AND ROBERT HANER '39, PRESIDENT, IN THE RUSSELL SAGE ATTIC OFFICE, LATE 1930'S.

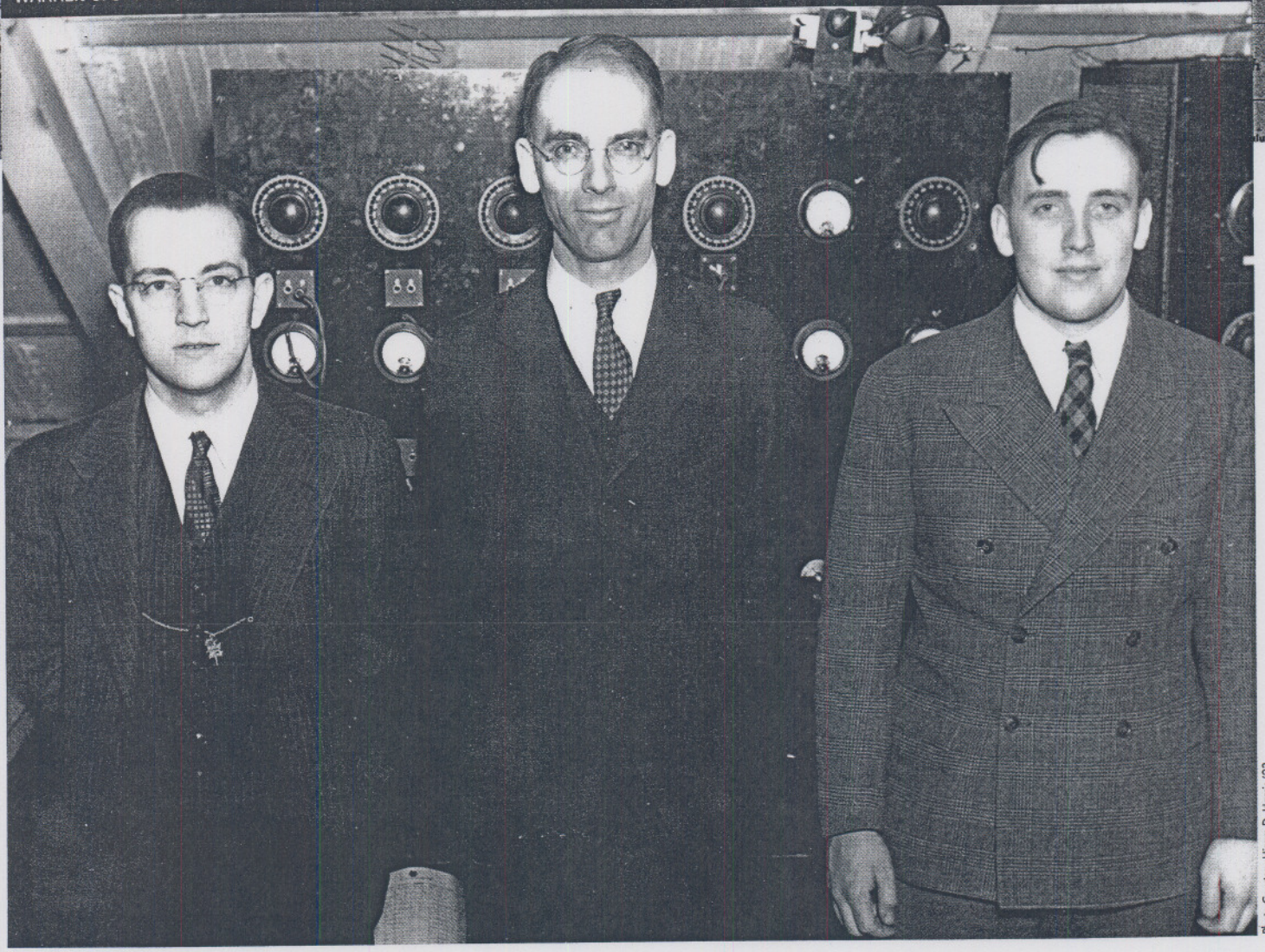


Photo Courtesy Hiram D. Harris '23

THANKS TO

# LOYAL ALUMNI

W2SZ HAM RADIO  
CELEBRATES 80 YEARS  
OF SERVICE AND  
ACHIEVEMENT

BY KATHY WESTBROOK



It's 7 p.m. (EDT) October 3, 1990. Several time zones and an ocean away, East and West Germans celebrate the hours-old reunification of their two countries. On such a night, "working DX" is the only way to go.

"CQ CQ CQ from W2SZ, W2SZ, W2SZ....CQ CQ CQ 20 meters, CQ CQ CQ 20 meters from W2SZ, W2SZ, W2SZ."

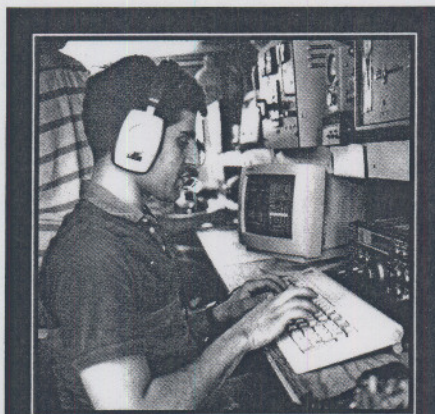
Moments later comes the hoped-for response. "W2SZ this is DL2ADS, DL2ADS, DL2ADS."

Right now, you are probably patiently awaiting the translation of this alphabet soup. Yet, believe it or not, a large segment of your fellow alumni already know that some lucky Rensselaer student is experiencing the excitement of this historic night through the eyes of a German ham radio operator (DL2 stands for a German station).

Many alumni members of Rensselaer's Amateur Radio Club probably could have shared this student's experience. Still, the oldest among them may marvel at the achievement. For they can well remember when working DX, attempting a long distance or foreign contact, required days, weeks, or even months of persistence.

Predictably, Rensselaer students' involvement with amateur radio practically coincided with the technology's birth. Numerous students were among the first members of the Troy Wireless Club, initiated in 1911 by Wendell W. King, who at the age of twelve was credited with operating Troy's first wireless station.

For more than a decade, excepting a brief hiatus in operations during a World War I government suspension of amateur radio privileges, the club prospered, meeting regularly at the Troy YMCA. Yet with RPI students comprising almost 75 percent of the club's membership, its conversion to a Rensselaer-sponsored organization seemed inevitable. But, as the students who had joined the club following World War I began graduating in 1922-23, it appeared that the club might dissolve.



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DOUGLAS SHARP PHOTO BY ROBERT FRIES '73

However, Leonard S. Inskip '22, one of these former student members, had become an instructor at the Institute upon graduation. Working with Harry R. Mimmo, a senior member of the electrical engineering faculty, Inskip re-established the club on campus. Maintaining the call sign 2SZ (the W prefix was later added in accordance with a 1928 change in federal regulations) as well as much of the YMCA equipment, the club moved into a corner of the Sage Laboratory offices of WHAZ, Rensselaer's already existing broadcast station, in December of 1924.

Since then, Rensselaer's Amateur Radio Club has been drawing both

student and alumni interest for more than sixty-five years. Granted, the club has experienced peaks and valleys in interest and participation levels. Yet, perhaps because club activities have continually evolved as the technology matured and have offered opportunities to educate as well as excite and entertain, it has endured long after many other organizations have been dissolved.

During the club's earliest years on campus, a desire to test the limits of the still new technology influenced most activities. One of the greatest challenges during the mid-1920s was to establish "DX" or long-distance contacts.

"Back then, it was unusual to make a contact more than 100 miles away," says James Youngberg '68, who while a student member of W2SZ wrote a historical account of Rensselaer's Amateur Radio Club. "But," he adds, "occasionally you could get farther away and maybe even reach overseas."

Rensselaer's ham radio operators were especially determined to establish two-way contact with one particular British station. The reason? In addition to becoming the world's DX record-holder with a contact between London and New Zealand, the London station shared the call sign 2SZ in common with the RPI club.

It took nearly a year from the first time the club heard g2SZ on the air on January 30, 1925, but at 4:40 a.m. on Dec. 6, 1925, it finally obtained a response.

"Have wanted to QSO you for years!" came the reply from g2SZ. "Heard you many times on 90 meters last year, called many times. Very pleased to get QSO [establish contact]. How is Rens. Poly?"

By the 1930s, according to Hiram D. Harris '23, another former member of the Troy YMCA Radio Club, who replaced Inskip and eventually became W2SZ's senior adviser until 1943, "the amount of air time for the students



began increasing so that they were really able to make a good many contacts. I remember one wall being simply plastered with confirmations from stations they had made contact with," he says.

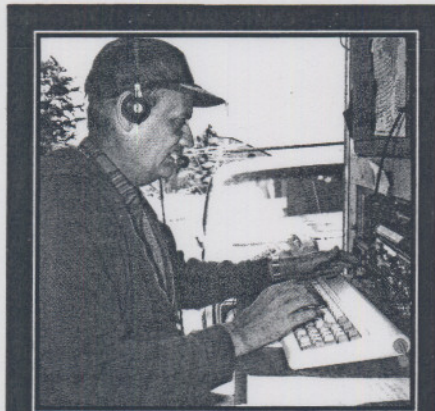
This period, Harris adds, also brought about great improvements in equipment. "Once the facilities were moved up on the campus," he says, "I think the technical atmosphere at RPI really helped in equipment improvement, particularly transmitters and receivers."

"Back then," concurs Frederick J. Norvik '40, professor emeritus of electrical, computer, and systems engineering who served as W2SZ adviser from 1945-82, "transmitters, for the most part, were built by students." The hands-on nature of amateur radio at that time, he maintains, provided a ready-made educational opportunity for students to experiment with and apply technology they were studying to club equipment.

Interest in the club remained high throughout the 1930s. But with World War II came an instant halt to almost all amateur radio activities, and unlike the immediate resumption of activity following the First World War, post-World War II interest in the club regenerated slowly.

Wayne Green '44, who served as president of the club upon returning to Rensselaer to continue his education after war service, launched WRPI in hopes of regenerating interest in radio. Although this new broadcasting station proved immensely popular, the hoped-for extension of interest to W2SZ was less impressive.

Still Green recalls participating in a few activities with the club's handful of members. Particularly memorable, says Green, were occasional post-meeting trips to Mount Greylock in Massachusetts. "We would sit in my car and attempt to make contacts from there," he says. "We would turn the antenna with strings and use an old war surplus transceiver that I brought along."



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JOE KRONE PHOTO BY ROBERT FRIES '73

In the early 1960s, the club moved to its current location, a tin "shack" on Sunset Terrace. To Youngberg, this move was greatly responsible for strengthening the club and generating new interest.

"It gave us a place to go where we could get away from the pressures of school for awhile, a place where you could be yourself," says Youngberg. "In some ways, it was almost like a fraternity or at least a rallying point for people who felt a kinship because of their strong interest in ham radio."

Yet it was the club's venture into amateur radio contests that caused the

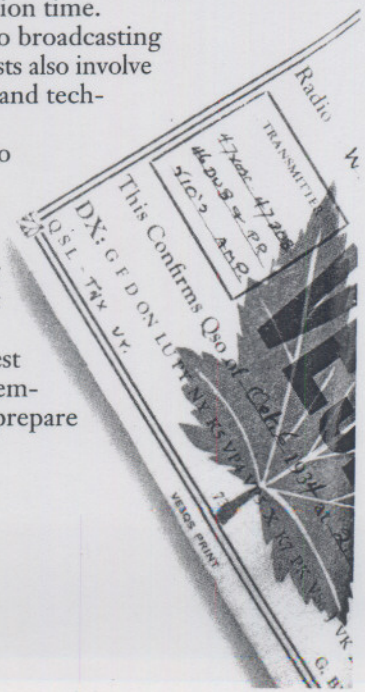
most sustaining boost in its popularity. "Around 1967 or so," Youngberg recalls, "some of the guys got into hilltopping," or broadcasting with portable equipment from a higher altitude. Interest in the larger contests, mostly sponsored by the American Radio Relay League (ARRL), evolved from these excursions.

The club first entered such a competition in 1969, broadcasting from Slide Mountain, the highest peak in New York's Catskill Mountains. The station soon was competing in ARRL contests on a regular basis, but moved to Mount Greylock in Massachusetts, where it had access to a permanent antenna erected for the Northern Berkshire Amateur Radio Club. From 1971 through 1975, says Richard Frey '68, a regular participant in the contests from the beginning, the club consistently won first place.

During these competitions, club members commence rapid transmissions attempting to make as many contacts in as many areas of the country as possible. The contest divides the nation into rectangular grids, and points are awarded for each grid in which contacts are made as well as for the number of contacts made within each grid. Stations nationwide participate, using a universal time system that guarantees that all participants receive the same amount of day and night transmission time.

In addition to broadcasting skills, the contests also involve certain physical and technical demands.

Despite access to one permanent antenna, several more of the towering structures must be assembled before the contest begins. Club members must also prepare





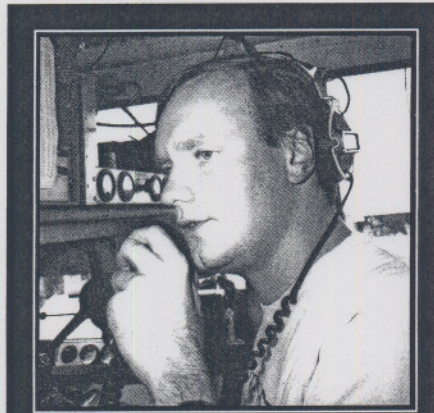
several vans full of equipment for transmitting over very-high frequency, ultra-high frequency, and microwave bands.

Though interest waned briefly in the mid-1970s, Frey determinedly took over the management of the competitions and within about five years had rebuilt a strong group of competitors. W2SZ has been consistently winning these contests for several years, and last summer, the station even shattered its own record and became the first station in the country to break 1 million points.

Although much activity revolves around the ARRL contests, the club offers a range of activities, including preparatory classes for licensing examinations. In recent years, W2SZ has also been authorized to administer the examinations.

Every year, the station participates in a nationwide Field Day that tests its emergency preparedness. The effort has paid off in numerous instances, such as the 1989 San Francisco earthquake, during which W2SZ passed about 250 messages between local residents and family and friends in the Bay Area.

Club members also worked with local grade school children in a December



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BRIAN JUSTIN PHOTO BY ROBERT FRIES '73

1990 attempt to communicate with astronauts in flight on the space shuttle Columbia as part of NASA's Space Amateur Radio

Experiment (SAREX). Although the position of Columbia's antennas prevented successful communication, the opportunity to work with and learn from the W2SZ members helped mitigate the school children's disappointment. "When we were waiting to talk to the astronauts," says sixth grader Sarah Matteo, "they really encouraged me and helped keep me from getting nervous."

Such programs have generated additional local interest in amateur radio which, as Norvick notes, brings the club "full circle. The club originated with the people of Troy, and in the last few years, it has been allowing Trojans to become associate members, which is good," he says. "It keeps the activity up."

Further advancing community interest in ham radio has been the club's recent efforts to monitor military action in the Persian Gulf. Through its new "Operation Desert Letters" program, the club is transmitting messages from local residents to relatives and friends serving in the Middle East. Although the club is capable of sending messages to Kuwait, members are heeding a Radio Society of Great Britain request to refrain from such activity. Kuwaitis caught by the Iraqis in radio contact with citizens of an allied country could be in grave danger.

All of these services have contributed to the club's longevity, but probably the greatest contribution to the club's endurance, however, is the ongoing dedication of many of its alumni. From Inskip and Harris, who helped firmly establish W2SZ on campus, to Frey, whose leadership of ARRL contests keeps the station winning as generations of students come and go, W2SZ gains an element of continuity unattainable within many other campus organizations.

