The First 100 years of the Columbia University Amateur Radio Club

1906 - 1919
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The Next 100 years of the Columbia University Amateur Radio Club

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The Early Days: 1906-1919

Founding Date

Very few good records have been found for this period. Most information is based on second-hand accounts. The Columbia University Experimental Wireless Station was said to have been founded around 1906, in the basement of Chandler Hall or possibly Havemeyer Hall, the adjacent building.

In 1963, the founding date was claimed to have been in 1907 in Pulse, (the now defunct) School of Engineering and Applies Sciences student newspaper:

...The first records of an amateur radio station at Columbia indicate that, in 1907, there was a spark-gap transmitter located in the basement of Chandler hall. Later the club moved to the old engineering building, where it remained until its recent move to SWM [Seeley W. Mudd Hall -Ed]. There was a hiatus of approximately one year in the club's operation while the move to SWM was being undertaken. At present, the club has twenty-five members and it is expected that the number will increase since the club is operating again.

– Pulse v2 n11. 12/12/1963

A contemporaneous account documenting a founding date of November 23, 1908 (or earlier) was found by Gintautas Gaidamavicius, LY2YR, in which describes an aerial erected between the smokestacks of Havemeyer and University Halls and a quaint competition for domination of the sky between the radio and aeronautics afficionados.

The new organization is the "Wireless Telegraph Club of Columbia University," capital stock subscribed and fully paid by the students of Columbia. The wireless people burst out over night and took the airship navigators by surprise. "What in blazes is that?" demanded Grover Cleveland Loening, the father of the Aero Club, as he rounded the corner of the library yesterday morning and saw outlined against the foggy sky between Havemeyer and University Halls the double wires that the wireless club was stringing up....

... It is not the purpose of the Wireless Club to pry into other people's affairs, according to E. J. Simon (http://books.google.com/books?id=nD4MAQAAIAAJ&pg=PA764&ots=5qXoRUjDe&dq=E.%20J.%20Simon%2C%2009&pg=PA764&dq=E.%20J.%20Simon%2C%2009#v=onepage&q=E.%20J.%20Simon%2C%2009&f=false), '09 and A. B. Cole, '11, the originators of the club. Of course, they say, if they happen to catch a message from Mrs. Jones to Mr. Jones telling him to be sure and look after the poodle dog while she is in Europe, they will decipher it....

Prof. Michael Pupin is very much interested in the new club and so is Prof. Crocker, in whose laboratory the receiving and transmitting apparatus is to be installed. Both said yesterday that the scope of the electrical engineering department in the university would have to be enlarged shorty to admit of a course in wireless telegraphy, which, according to them, is quite as important as instruction in the construction and use of airships, for which some of the other professors on campus are agitating.

– The New York Sun. Nov. 25, 1908

Cited in the Pennsylvanian in 1909

Further evidence of the Club's early existence was found in the student newspaper of the University of Pennsylvania, called The Pennsylvanian at the time.

All crew news at Columbia University is sent from the boat house to the college by wireless telegraph, which has been installed by members of the Wireless Club.

– The Pennsylvanian, April 29, 1909
Longest-Running Rivalry Over Title to First College Ham Radio Club?

Not only is there a Yankees - Red Sox rivalry, but those guys on the Charles like to lay claim to having the first college ham radio station when we know that our Alma Mater on the Hudson Shore holds that title. The MIT Radio Society, W1MX has boldly claimed since 1958 that they were founded April 30, 1909 which makes them "America’s Oldest College Amateur Station." (QST July 1958, p. 67). This claim has continued to be perpetuated for several decades and was recently reinforced by a 2009 article (QST April 2009, p. 57-58 ). Not so! And disputed more than once, now with two letters to the editor of QST 53 years apart:

Strays

Last July the MIT radio club laid claim to being the oldest in the country. We have heard from K2LWQ, president of the Columbia University Amateur Radio Club (W2AEE), that he has documentary proof that the Columbia University Club was in existence in 1908, and that there is some evidence that it may have been formed in 1906.


K2LWQ is currently a vanity call. Presumably the 1958 holder of this callsign is a Silent Key (SK).

The Lion Roars

Are bragging rights for "America’s Oldest College Amateur Station" up for grabs? Perhaps the MIT Radio Society, W1MX, should reconsider their claim ["'Rah for Technology: America's Oldest College Amateur Radio Club Turns 100," Apr 2009, pages 57-58], given the predecessor of their modern club was established in 1909; the predecessor of Columbia University's Amateur Radio Club, W2AEE, was founded in November 1908. Gintautas Gaidamavicius, LY2YR, recently found an article in the November 24, 1908 issue of the New York Sun entitled "Wireless Club at Columbia: Disputes with the Aero Club the Monopoly of Morningside Air...."


Apparently the Harvard Wireless Club, W1AF, also makes claims to be first:

Radio Active

...Enthusiasts can be found on quite a few campuses nationally (Columbia has an FCC charter for station W2AEE), and some of them take their hobby very seriously. This year, for instance, the Harvard Wireless Club is preparing to celebrate its centennial for what it claims is the nation’s oldest collegiate amateur radio society – but not without a nervous glance over the shoulder at some other contenders for the title.

While Harvardians had long assumed the veritas of their claim for first-place status, this year MIT’s amateurs at W1MX have surfaced a nearly coincident claim, the validity of which may rely on semantics, or else the faith one puts in various faded logbooks and oral traditions. And as if that weren’t enough to ebb the Crimson tide, the Harvard hams also have discovered another claim, as yet poorly documented, for a possible first at Columbia....

– Columbia Magazine. Summer 2009

Provenance of the 2XM Call Sign

The station became 2XM in 1913 (per the Radio Act of 1912). This is documented in the July 1, 1914 edition of Radio Stations of the United States which lists 2XM as licensed to Columbia University on 600, 1845, 2220 and 2630 meters with control operator John H. Morecroft. The license is categorized as a special class of station:
such as experiment stations for the development of radio communications, technical and training school stations, and special amateur stations will be allotted by the Bureau of Navigation.

The call will consist of three items – the number of the radio district, followed by two letters of the alphabet. The first letter will be: 
X, for experiment stations; Y, technical and training schools; Z, special amateur stations....

The same document further specifies that amateur station calls are precluded from starting with the letters X,Y, or Z (ibid p.7).

2XM is not listed in the July 1913 edition so it is reasonable to assume that some time in late 1913 the 2XM call sign was issued to Columbia.

1920-1929

During World War I, Congress shut down Amateur Radio, resuming the service on October 1, 1919. Shortly thereafter, in November 1920 QST in Calls Heard on page 55, station 2PP, Newark, reports hearing 2XM. Since 2XM was an experimental, rather than Amateur license, it is not clear if the station was shut down during the war.

An article in June 1927 QST (p. 24ff) entitled "5-Meter Work at 2XM With Crystal Control" by A.H. Turner, 3AUX, describes work done 10 miles from Schenectady, NY. This would seem to contradict 2XM being in New York City, as it was listed in 1914. At the time, call signs may have been issued only annually, so it's possible that, fourteen years later, Columbia no longer held 2XM.

Around 1924, the station moved from the basement of Havemeyer (Chandler?) to the Engineering (now Mathematics) (a/k/a Armstrong) Attic.

Provenance of the W2AEE Call Sign

Rumor has it that the club call sign became W2AEE in 1933, under the Federal Radio Commission rules. The next year, the FRC was replaced by the FCC with the Communications Act of 1934. The 1928 call book lists W2AEE as belonging to Jack Alexander (per George Gadbois, W3FEY).

1930-1939

The Armstrong FM System

Major Edwin Howard Armstrong (1890-1954), inventor of the regenerative receiver, superheterodyne circuit, and FM radio, did much of his pioneering work in radio at Columbia as an undergraduate (entering in 1909), as an instructor and assistant to Michael I. Pupin and, years later, as a professor of electrical engineering. For an excellent biography, see Lawrence Lessing's Man of High Fidelity: Edwin Howard Armstrong. Also, the PBS series, Empire of the Air features Armstrong. See also, Edwin Armstrong: Pioneer of the Airwaves by Yannis Tsividis, the E. H.
Armstrong web site, the Edwin Howard Armstrong Papers at the Columbia Rare Books and Manuscripts Library, Jen Comins' Armstrong Papers blog (warning: this is a 500MB+ web page!), and the Armstrong Memorial Research Foundation.

Radio station W2XMN was built by Armstrong in Alpine, NJ in 1939 and operated for 16 years demonstrating high fidelity FM radio. You can clearly see the Alpine radio tower today sitting atop the Palisades opposite Yonkers, where Armstrong lived as a child and performed his first radio experiments. On a related note, WKCR FM, Columbia University, was one of the earliest FM broadcast radio stations.

The Columbia University Radio Club (CURC, WKCR)

See WKCR's history which describes the founding of WKCR, the Origional FM:

"The Original FM": The Columbia University Radio Club

On July 18, 1939, a 400-foot antenna tower in Alpine, New Jersey broadcast the very first FM transmission. Edwin H. Armstrong, a Columbia University professor, was the first to develop this alternative to traditional AM broadcasts. WKCR shares a history with Armstrong and his groundbreaking work, accounting for the marginally accurate phrase, "The Original FM" occasionally heard on-air. Beginning as the Columbia University Radio Club (CURC) as early as 1936, the organization was not a radio station as we know it, but rather an organization concerned with the technology of radio communications. As membership grew, however, the nascent club turned its efforts to broadcasting. Armstrong helped the students in their early efforts, donating a microphone and turntables when they designed their first makeshift studio in a dorm room (1107 John Jay, to be precise).

And see a contribution from Les Balter, W2HRT (SK) that also speaks to WKCR's founding:

I graduated 41E. In 1938 or 9 I was chief op. I hold W2HRT since 1934. The club at that time was more taken with FM promotion and demonstration than ham radio. I spent time at the Alpine tower W2XMN. I recall a specific demo trip the club made to Brooklyn Polytech. W2XMN went on the air for us and we carried our one and only FM receiver in a 6 ft. rack to Brooklyn to demo the advantages of FM. In 1939-40 Bill Hutchins 40E got the club to organize a campus radio station. At the time it was totally illegal. FCC regs permitted 5 (?) microvolts per meter radiation from a carrier wire. We put CURC (call letters used) "on the air" as a carrier current station using the power wires as conductor. We operated at about 620 kc AM. The lower the frequency, the greater distance allowed. The club assembled the console and am transmitter from scratch. I personally remember hand wiring rotary switches to make the operating console. Also remeber technical problem of coupling around power distribution transformers to get the signal to Barnard, which we did.

1940-1949

The Twelfth ARRL DX Competition

In March 2013, Tony Ricicki W2VRK, an amateur radio historian, brought to light a number of information regarding CURC in 1939-1940. In March 1940, CURC participated in the Twelfth ARRL DX Competition. Tony W2VRK sent Ed Miller KD2DDT, club president in 2013, an award given to CURC.

The award was given to Liscum Diven W2HHF (SK) and also mentions two other hams: W2IZO and W2KHA.

W2IZO is currently an unoccupied call and so is assumed to be a silent key. Tony W2VRK, from information in his 1939 callbook, indicates that W2IZO was G. L. Hesse of 107 Lewis Parkway, Yonkers NY.

W2KHA is Art Westneat Jr., currently W1AM.

Tony W2VRK provided a QSL sent from Art, then W2KHA, to Liscum W2HHF in January of 1940. Ed KD2DDT contacted Art in March 2013 to ask about his recollections from the club with the hope of filling in information about this time in the club's history:

Hello Edward, I am most pleased to hear from you, and to learn of your project. I fear that I can't be of great help to you, really.

Here I am, not far from 92 years old, living in Durham, NH, a very nice old college town. I have held a continuous license since 1936, but am QRT now. I have had a very busy active life, and my ham career included working 345 countries as a DXCC total.

In Sept. 1939, I appeared on 116th St, as a freshman, all set for a big run at the prize, fresh out of High School. I was enrolled in the general Freshman course, which included much Philosophy, Economics, broadly based reading, wonderful discussions with faculty and staff. One fabulous year, the only year of real education I was ever to get. I worked very hard academically, got a huge amount out of it, and bless Columbia even today.

Recall 1939 - 1940. Germany had invaded France, Roosevelt was dealing Lend-Lease. But we were at peace, so why worry? I worried. All around me were able and bright young men. It was clear to me what our fate, my fate, would be, and I knew what a...
Liberal Arts degree would buy me on the beaches. I hung it out for a year, and left Columbia for Purdue, which I perceived to have a much more Nuts & Bolts Engineering program. By focusing immediately on Engineering, with my Ham background, I would stand out from the average crowd. I did, and after graduation in '43, worked out the war at Columbia of all places.

So there I am as a “potential” piece of CUARC history. I was active in the Club, but there wasn’t much going on. Ham Radio was soon to shut down and we all soon dissipated. Perhaps I could remember the names of some of the members if I thought about it. I did work W2AEE once, but never got a card, as all my QSL cards but I am sure there is none of the Clubs. Try as I might, I can not think of any memory I had dealing with the Club in that year at Columbia. For people driven like me a hobby was totally secondary and I focused little on the amateur radio part of my past.

CUARC is probably one of the most distinguished college-amateur clubs in the Nation. Before I got there the members were working with Major Edward Armstrong on FM development. All that had dissipated by 1939, and no new focus had appeared. In the years since I have run across W2AEE several times, and am delighted to hear the you are leading it on. I wish you much success. I do wish I could contribute more now.

With the best of wishes for your career.

Arthur S. Westneat W1AM, now. Then W2KHA

After forwarding Art W1AM the ARRL DX Competition award listing Liscum W1HHF and himself as participants in the award, Art shared his recollection of Liscum W2HHF as well as his (Art's) personal station at the time:

Hello Ed, Thanks for the added notes.

Liscum Divum, W2HHF, is a major memory of my year at Columbia. An upper classmate, disdainful of Freshmen, and basically aloof and introspective, he did however communicate to some degree. Liscum was essentially the top DXer in the US at the time. I recall that his country-worked total was something like 150 countries, inconceivable in the 1930’s-40s. He had a complex long wire array. I did work him once from home. His QSL to me now is in the hands of Tony W2VRK, who was kind enough to give all my cards a home. I am delighted to hear that my card to him has survived.

It is remarkable to me that my activities as a youth of 18 years is attracting historical interest!!!

I had forgotten about the 1940 DX Contest. I am sure I would have joined in, My station was of low power, receiver output tubes, 50 watts ?, and my score could not have been high. You have no idea of the depth of poverty that we lived in, in the slums of Jersey City. My Father's salary in ’39, was $20 a week. All 3 of his son’s got advanced college degrees, and achieved Professional careers. In passing, it was a remarkable achievement.

Thanks for the info.

-Art W1AM

World War II

Amateur radio was shut down by the government for the duration of World War II. There appear to be no surviving club records from this period.

Post World War II - W2PEX

In June 2013, Tony Ricicki W2VRK, again provided the club with more historical information by putting Ed Miller KD2DDT, then club president, in touch with Sterling Fisher KD6Z, an alumnus from Columbia that was around right after the war ended. Sterling provided this account of what things were like back then:

Ed,

Glad to meet you! My call in 1946 was W2PEX and I lived in Tarrytown, N.Y., commuting down to Columbia daily on what was called the New York Central RR at the time. You are very welcome to add the material I sent Tony to the club's history page. I am happy to be able to contribute to it.

I guess Tony mentioned the old magazines I sent him, too. They do have an interesting provenance. There was a "Wireless Age" from September 1914, QSTs from February and March 1916 and one called "Everyday Mechanics" from December 1915.

All four originally belonged to Edwin H. Armstrong, the inventor of FM. Back in 1948 I was a Laboratory Assistant at Columbia, working toward my Masters degree in EE. Armstrong had a lab there which he seldom used. At one point, the lab overseer decided that a number of books and magazines were duplicates or unneeded and made them available to the staff. I was fortunate enough to acquire those magazines. Even then, they were ancient.

The Columbia club station, W2AEE, never got on the air while I was there. I was trustee of it for a while, though! Here's how it happened.

After WW II ended, hams were allowed back on the air in late '45 or early '46. I got my Class B ticket on May 1, 1946 and my BSEE from Columbia Engineering in June, 1946. That September I started on my Masters, working part-time as a Laboratory
Assistant. Some time after that the Dean of the Engineering School decided it would be a good idea to reactivate the radio club station, W2AEE. It would need a faculty/staff trustee, of course. Well, it turned out that I was the only one there with a ham license, so I was elected.

With great anticipation I climbed the circular staircase from the top floor of Engineering up into the attic space where W2AEE was located. Thick dust covered everything. There was no attic ceiling, just the underside of the copper roof. It was hot. There was an old receiver and some old equipment from the 30s. Nothing organized. I found a hatch in the roof and climbed outside to see what the prospects were for an antenna. Nothing. The copper roof sloped down from the spine to the gutter with an abrupt drop to the street six stories below. No pipes or housings that could be used.

I could not afford the time or effort it would take to reactivate the station, so it sat as I had found it through July 1948 at least, when I left. No faculty or students showed any interest that whole time.

So there's the story!

73,
Sterling Fisher, KD6Z

In 1946, the School of Engineering was housed in what is now the mathematics building, shown here on the right.

Sterling, also provided an account of the Columbia engineering education that was available at the time:

Ed,

A note for the "how times change" file:

When I enrolled at Columbia in 1943 you could choose between (I don't like 'among' here) Chemical Engineering, Mechanical Engineering, Electrical Engineering, and Mining Engineering, as I recall. The School of Mines had a whole building to itself.

In Electrical Engineering you had just two choices: Power and Communications. I chose Communications, of course. Even so, when they taught transmission line theory, one of the first examples they worked with was standing waves on long-distance power transmission lines at 60 Hz. (or cycles per second, as it was then). This sounds terribly primitive, I know, but it was very important in the power business then - and probably still is. for that matter. They did get around to advanced courses in mathematics, circuit design*, communications theory, electromagnetic propagation, etc. but there was no specialization beyond Power and Comm. I'll bet there are a few more choices now...

I know this sounds archaic now (that's mainly why I wrote this P.S.) but it was basic knowledge that allowed graduates to keep up with and contribute to an ever-changing field.

Sterling

*Using vacuum tubes only. Transistors weren't even invented until 1947.

1950-1959

Antennae, Ike and Gooney Boxes

An antenna history covering the 1950's in detail and containing some details back to 1906 was recently unearthed in the shack files and is the basis of much of the information above.

Fuat, N2YGN, found an ARRL Charter of Affiliation dated July 10, 1953....

In 1954-5, Vincent O'Keefe, W11DL, was involved with the club and sent us this letter in November, 1998 describing rigs of the day including Gonset Communicators, and the inauguration of Dwight D. Eisenhower as Columbia's thirteenth president.

In 1956-57, Yves "Al" Feder, W1EOX (ex-K2CUI), was Vice President of the club and later trustee. Yves has provided a lot of information about that time.

Sputnik

On October 4, 1957, Sputnik 1 was launched by the Soviet Union, and W2AEE was there (and the FBI too!)

The All-College Net
In Winter 1950, NYU's Amateur Radio Club proposed formalizing the All-College Net which by the mid-50's appeared to be going strong. A few samples from the files:

- April 27, 1953 "Comments from Columbia" (An Open Letter to the All-College Net)
- September 1, 1953 Invitation to join
- January 1, 1955 "College Net Modulator" newsletter recounting an organizational meeting hosted by Columbia

### Amateur Television

In April of 1959 a large article about the club appeared in the Columbia Daily Spectator containing a multitude of information.

The article lists the following pieces of information:

- The club telecast the Childs Cup Regatta from the Harlem River to receivers in John Jay lounge and at the finish line.
- The club is stated to have formed in 1906.
- The club was formed by Professor Michael Pupin and Edwin Armstrong.
- There is corroboration of the Sputnik story, here mentioning that the Pentagon received tapes of a recording of Sputnik by W2AEE, rather than the FBI.
- The shack was located in 700 Engineering
- The club had seven antennas at the time.
- The club had received the 'Worked All Continents' certificate by the International Amateur Radio Union.
- The club had received the 'Worked All States on 75 Meter Phone' certificate by the ARRL.

The two most incredible pieces of information are the claims that the club was founded in 1906 and that Edwin Armstrong was part of the club's founding. The claim of a 1906 founding may be true based on the Antenna History of the club dating back to that year. However, we have no corroborating evidence of Major Armstrong's involvement in the club. Although it is undisputed that the club and Armstrong were contemporaries during Armstrong's tenure at Columbia (both as a student and a professor), no definitive evidence has been found that Armstrong participated in the club's activities. Nonetheless, this article in the Columbia Daily Spectator indicates that by 1959, the club already considered, either apocryphal or not, Armstrong to have been part of her (by then already) storied history.

A PDF of the full article is mirrored on this site for archival purposes and can be found [here](#)

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### 1960-1969

#### Move to S.W. Mudd

During this time, the club moved from the old Engineering school building, now Mathematics Hall to the new building, Seeley W. Mudd Hall, where it is currently located. Given that, most files found in the shack date back to the late fifties and early sixties.

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A twenty-foot, steel communications tower is being built on the roof of Mudd Hall and will be completed in about two weeks.

The structure will enable the University amateur radio station, W2AEE, to resume "world wide communication," according to Alex Schapiro, technical director of the station.

While the base and safety railing have been constructed, the tower itself is still in low ten-foot sections on the top floor of the building. The project was begun early in May, with the aid of Professor John H. Bose, advisor to the club.

The station's facilities include two beams and several long-wire antennas which will be attached to the tower. Leads from the tower to the station's receivers and transmitters will be run through one of three conduits or pipes which currently contain television channel wires.

The major preoccupation of the club at present is the construction of a "high-power, linear amplifier which will increase our power from 140 to 1,000 watts," said Mr. Schapiro. This is being done by converting "an old transmitter that we had around, so it isn't costing us any money," he added.

"We'll be glad to have anyone in the University join us," said President Ernest Bergmann." – The Columbia Daily Spectator. 11/1/1963.

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--The Columbia Daily Spectator. 11/1/1963
DUNNING CELEBRATES RADIO CLUB EXPANSION

Last Thursday, Dean John R. Dunning made the final connection between the Radio Club’s transmitting and receiving equipment on the fourteenth floor of SWM and its new antennas atop the highest roof of the Mudd Building.

The club just recently moved into the Mudd Building from the old engineering building, now the mathematics building. A "shack" was constructed for them in the elevator lobby on the fourteenth floor of SWM, and antennas have been partially completed on the roof. Lead wires of 150 feet have been put in place to connect the antennas and the shack. In the picture adjacent to this article, the antenna nearest the top of the mast is used for the two meter ham band. The lower antenna is one section of a "tribander" beam which is for use on the 10, 15, and 20 meter bands.

These latter bands, especially the 15 and 20 meter bands, are of special interest because of their distance capabilities, under good conditions, it is expected that contacts will be made with every continent. The club hopes to install remote control rotating equipment, which would enable them to direct the antenna from their shack, in the near future.

New Transmitter Purchased

The club has just obtained a new high-powered transmitter capable of one kilowatt input power. This unit, which is almost totally automated, was obtained by the club at a nominal cost. The original cost to the United States was somewhere on the order of $50,000. The units are surplus which are being made available to educational institutions for almost no cost. To give an idea of the precision of this instrument, it tunes itself and is capable of a frequency accuracy to the nearest ten cycles per second.

Started in 1907

The first records of an amateur radio station at Columbia indicate that, in 1907, there was a spark-gap transmitter located in the basement of Chandler hall. Later the club moved to the old engineering building, where it remained until its recent move to SWM. There was a hiatus of approximately one year in the club’s operation while the move to SWM was being undertaken. At present, the club has twenty-five members and it is expected that the number will increase since the club is operating again.

Offers Code and Theory Classes

The club is presently conducting code and theory classes at 6 pm every Thursday at the shack. The purpose of these classes is to "teach all those interested in the necessary knowledge to pass the FCC license examinations," according to Ernie Bergmann, the club president. The club’s phone extension is 726 and all those interested are invited either to call or to come up to the shack.

1970-1979

The mystery of the FCC violation notice

The background of a strange letter in the files from the FCC (citing a violation of Section 97.39: Transmission of information of a non-amateur nature in behalf of a non-amateur organization) was recently explained by Wayne Mueller, W1QC: “You should have in the files a letter from the FCC citing illegal transmissions back in the late 60's or early seventies. The club was actually used during the student uprisings for some sort of 'activist' communications.”


Excerpts from the station log for May 8, 9, and 11 (the May 10 date of the FCC violation notice is not in the log) show contacts on 40 and 80
meters with (on the same frequencies of 3.930 and 7.269 MHz, likely indicating a scheduled net); W2UC, Union College, Schenectady, NY; W2D SC, New York University; WA2FJM, currently registered to John L. Breese; W1WGM, currently not registered; WB2BMM, currently registered to Ben L. Bason.

There's a log notation that states "Worked W2MJ to pass Senators message." Unfortunately, the log does not indicate who the W2AEE control operator was or more information about the content of the message.

Chess Over the Air

An over the air chess competition with Harvard was won handily with a "secret weapon."

1971 Budget

An annual report and budget request from 1971 describes club activities of the day including experiments with radio reletype (RTTY), Amateur slow- and fast-scan TV (SSTV, ATV), plans to participate in the Military Amateur Radio Service (MARS), and OSCAR satellite communications, phone patches run for several students to Israel, Brasil and Peru, and so on.

On the Cover of March 1976 QST

W2AEE made the cover of March 1976 QST with a stunning photo taken by Bob Spitzer, WB2DZL, looking downtown along our Mosley Classic 36 HF beam from our rooftop tower on the S.W. Mudd building. This cover photo was the inspiration for our 1994 QSL card.

Columbia University President McGill

In 1977, Columbia University President William J. McGill, through the help of CUARC President Joshua Mermelstein (1976-1977) and the club, obtained his Novice Class license. Here is a press release issued by the Office of Public Information on 4/14/77:

- McGill gets Amateur Radio License, Page 1
- McGill gets Amateur Radio License, Page 2

President McGill donated some equipment to the club. Notably, the Kenwood HF rig that was still in use in the late 1990's.

Growth and Rejuvenation

- Here's a publicity flyer from 1976-77.
- And here's an offer to take National Traffic System radiogram traffic, undated, but probably from the same time period.
- Here's a description of the station signed by Fearless Leader Bob Spitzer, WB2DZL, now KB1AP, also undated. Bob reports that he revitalized the club from dormancy to 20 to 30 members, including erecting the HF tower.

Josh helped to get the club rejuvenated in the mid-seventies. Joe Schachner WB2FUL was president from 1977-79 and helped freshman Wayne Mueller get licensed in Spring 1977 as WD9EAV. Wayne, now W1QC (ex-AE9B) was president from 1979-80.

Wayne reports, "There was a member in '77 and '78 who was great at building things. He built a great RTTY TU for the old green teletype we had. I wish I could remember his name." Andrew Siegel, N2CN (ex-WA2BDV), reports that the TU was built by Joe Geller, K0ZY. Joe and Andrew, while a high school student in the Science Honors Program, built an Az-El rotator for OSCAR. The club also acquired an ICOM multimode VHF rig.

1980-1989

During 1980-1983, Ray Ihly, WA2LVY, was CUARC president.

CUARC also installed radio equipment at Columbia's Arden House in 1982.
In 1984, Adam Epstein, N2DHH was president.

Doug McArthur, KH6IQD (now N0HQ) was a member of the club from 1980-1982. On May 22nd, 2015, he returned to visit and logged a bunch of contacts.

Voyager I

A report and budget request from 1981 lists the club membership at the time (showing undergrads from SEAS and CC, several graduate students, a member of the physical plant staff and two faculty. The report also describes activities including receiving SSTV images from Voyager I.

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1990-1999

Reactive

Besides fairly active general radio fun, a number of items of special interest have happened during this period:

- In May 1992, Hank Alvestad helped preserve E.H. Armstrong's legacy by donating a binder of circuit diagrams and notes from Armstrong and his staff.
- In 1993(?) a Volunteer Examiner team started running amateur radio exams on campus.
- An Emergency Operations Team, affiliated with New York City ARES (Amateur Radio Emergency Service) was formed and even activated during the December, 1994 winter storms to provide emergency communications at a Red Cross shelter.
- Several CUARC members participated in the 1993 and 1994 New York City Marathon, along with about 400 other hams.
- In the Spring of 1994, we had a Fox Hunt in Central Park. Mike, KK6SQ, was the fox and turned out to be hiding in the tower of the Castle.
- In September 1994, we ran several special events during Orientation week, including taking over 80 NTS messages at Barnard and on College Walk and we operated an HF station on College Walk.
- In February 1998, while making preparations for an Alumni antenna party spurred on by Wayne Mueller, W1QC, Alan, N2YGK, and Fuat, N2YGN, took these photos of the upper rooftop to document the condition of the current towers and feedlines:
  - HF tower in good shape. Mounted antennas include Mosley CL-36 tribander and 2 M vertical. Rotator needs repair as does rotator cable which has broken insulation. CL-36 appears to be sound.
  - VHF/UHF tower is rusty but otherwise OK. Mounted antennas include azimuth-elevation rotator holding 2m Yagi and 70cm phased Yagis and 70cm vertical. The azimuth rotator mounting bolts have dissapeared and need to be replaced. Looks like one of the 70cm Yagis is missing two elements.
  - G5RV is broken.
  - Coax/rotator cable work box is in good shape. There are 5 coax feed lines and three rotator cables into the box. Cover came off very easily and it is clean and dry inside. All 5 feeds are connected: Mosley, 2m vertical, 70cm vertical, 2m vertical Yagi, 70cm horizontal Yagi.

Thanks Rob, KA2FZI, for the loan of the digital camera and "foto rush" services 😊

See also Mike Cecere’s Spring ’94 shack report.

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2000-2009

We’re still here, limping along 😊

- In June 2005 the state of the shack is:
  - The Mosley CL-36 HF beam has died. One half of the driven element fell off.
  - The HF rotator that Wayne replaced in 1998 is still working.
  - The 160-80-40 wire antennas that Wayne installed are showing a high VSWR
  - The Kenwood TS-830 donated my Columbia President Bill McGill in 1977 is still working although it needs some cleaning.
  - The Kenwood TR-751 VHF all-mode rig looks fine.
  - We also have an old ICOM UHF rig on loan from WA2USS.
  - An APRS digipeater has been in continuous operation since the 2001 NYC Marathon.
  - The APRS digi, W2AEE, is using the 2m vertical.
  - State of the VHF tower is poor. Needs to be taken down.

- The VE team is still active doing monthly exams.
- Philosophy Hall was added to the National Register of Historic Places for E.H. Armstrong's pioneering research there.
- On June 11, 2005 the 70th Anniversary of FM was recently celebrated with a special broadcast from Alpine Tower on 42.8 Mc.

Sadly, our centennial went by in 2008 and nobody noticed. I suppose we can always go with the 2013 centennial of 2XM!
**2010-2019**

**Armstrong Papers**

A project to organize the papers of E.H. Armstrong (in the Columbia Rare Book and Manuscripts Library), championed by Mischa Schwartz, supported by the Armstrong Memorial Research Foundation, the IEEE and others, and staffed by Jen Comins, along with we hams' attempts to claim Armstrong as "one of us" as found in editorial comments accompanying a November 1933 letter from Armstrong to QST announcing his victory over Lee DeForest confirming his invention of the regenerative receiver:

...This is a subject of great interest because Armstrong, at the time of inventing the regenerative feedback circuit, was himself a 23-years-old amateur. His work is frequently pointed to as the outstanding example of the amateur's ability to contribute to the art....

**2010-2011**

There's been some renewed interest in the history of the club thanks to:

- The 75th anniversary rebroadcast of the 70th anniversary 42.8 Mc celebration.
- Gintautas Gaidamavicius, LY2YR, who found a New York Sun article about the founding of the club in 1908.
- The recent availability of searchable QST archives, which also led to some interesting insights about the club founding – and a friendly riv alry with MIT that dates back to 1958. Get over it guys. We were first.
- Letter to the Editor of QST published April, 2011, again restating our 1958 claim against the MIT Radio Society's primacy as the first college ham radio station.
- On June 7, 2011, Jen Comins and Jocelyn Wilk carted off four boxes of old files to add to the Columbia University Archives, helping to preserve the history of the club.

W2AEE joined the new College Amateur Radio Club Association in April, 2011.

The VE Team is still active as well.

**2012 - QRV 70cm to 80m**

2012 was a big year for CUARC as the club saw lots of rejuvenation.

- On January 1, 2012, Alan Crosswell, N2YGK and Ed Miller, KD2DDT installed a 2m/440 dual band antenna on the tower, getting us back on the air for VHF/UHF phone.
- Ed Miller (KD2DDT) took over as Club president and got the club recognition through the Graduate Student Activities Council.
- We've had a lot of generous donations:
  - Alan donated the Larsen Omni.
  - Monica Pedone (KV2O) donated her Yaesu FT-707 HF Rig in February.
  - Tom Raffaelli (WB2NHG) donated his Hygain Explorer 14 which we used to replace the Mosley CL-36 in September.
  - Martin Miller (KD4DDT) donated his Kenwood TS-450S HF Rig in September.
  - Anonymous friends donated the 2m trombone for the APRS digipeater.
  - New guy wires for the 30 foot tower were bought with funds donated by Alan (N2YGK) and Joe Schrabal (WA2USS).
  - From a grant from the Graduate Student Activities Council, we bought a Radiowavz G5RV making us QRV down to 80m.
  - Alan (N2YGK) installed a new exhaust fan in the shack.
  - We got a treasurer: Hy Chantz (W2HY).
  - And we got a faculty sponsor: Professor Ed Coffman.

The CUARC webpage was completely redesigned this year and now runs on a Confluence wiki.

With the G5RV and Hygain Explorer 14, and with the Yaesu FT-707 and the Kenwood TS-450S we’re now able to have 2 hams operate simultaneously on HF.

Thanks to the following hams for donating their time, talents and tools over the many Saturdays and Sundays of 2012 to make it all happen:

- Ed KD2DDT
- John KE2UN
- Alan K2ARN
- Bob N2DVO
- Dwight N2FMC
- Adam N2DHH
- Alan N2YGK
- Hy W2HY
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