K2MFF: Nearly a century of advancing the radio art at NJIT



Gareth Perry (KD2SAK), Francis Chu (KD2UWL), Pete Teklinski (WW2I), and K2MFF

New Jersey Institute of Technology



PRESENTED AT:



ABOUT K2MFF AND NJIT

- K2MFF is the call sign for the New Jersey Institute of Technology Amateur Radio Club (NJITARC) in Newark, New Jersey.
- K2MFF's club shack is located in Faculty Memorial Hall at NJIT (40.742 N, -74.179 W).
- The club's main focus is to promote amateur radio amongst the student body and greater NJIT community, advance the radio art, and provide a public service.
- Approximately 12-15 club members.

K2MFF CLUB OFFICERS

President: Francis Chu (KD2UWL) Vice President: Abdul-Quddus Adeniji (KD2QVE) Secretary: Nicholas Skific (KD2TNY) Treasurer: James Bronico (KD2THK) Faculty Advisors: Pete Teklinski (WW2I) and Dr. Gareth Perry (KD2SAK)

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To Radio:		1		UTC	MHz	RST

NJIT

- NJIT is a public, polytechnic university (R1 Doctoral Unversity) located in Newark, New Jersey.
- Opened in 1885 as the Newark Technical School.

• The famous Edward Weston was a founding investor.

• Approximately 11,500 students (8,800 undegraduates; 2,700 postgraduates)

K2MFF HISTORY

The Beginning

• The earliest record of the NJITARC is from March 1928, when it was called "the Radio Club".

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1020	KEM-LEC MER
1010	1929
FOTO CLUB	they will have some knowledge of its fundamental principles. Membership
D ^{UR} to the fact that our faculty advisor, Dr. Crane, has left us we were range of the season we choose Professor Peet as our new advisor, and under his careful guidance we prospered fairly well during the scholastic year. The officers detected for this year were as follows:	is open to any student who desires to further his knowledge in this field. For promotion of the club's activities, the College has generously con- tributed a corner of the Electrical Laboratory for use in radio experimental work. The student members have also contributed their share of essential apparatus, and, in a few cases, donations came from interested non-members. The club gians to install a broadcast receiver, a short ways receiver, and a
Mr, Corwin S, Gray	short wave transmitter. Experimental work will be carried out on various types of circuits in order to become familiar with their principles of opera- tion. For instruction of members who are unfamiliar with the radio code, an oscillator has been installed.
We have finally succeeded in completely equipping our dark room, and we are now able to develop, print and enlarge pictures of a bligh standard, The fine type of work which is accomplished size well demonstrated on Parents' Day by Measrs. Frew, Breker and Gray, who submitted many good prints and enlargements, while Mr. Leggett displayed many examples of tinted photographs. All of the snapshots for this year book were furnished by club members.	These opportunities are but a few of the plans of the Radio Club and its associated members. It is hoped that through these plans the members will not find their time wasted.
At present, the club is composed of members of the day classes only, but we hope soon to welcome the students in the twilight section.	THE CHESS CLUB
Any students desiring to use the dark room for photographic purposes may obtain permission to do so by handing his name and the time at which he wishes to note the room to one of the Foto Chlo officers. Any students interested in photography are heartily welcomed to club meetings.	THE Chees Club is unique in the College. Its chief purpose is to give relaxation to the T. E. (tired engineer). No game is so restful as chess. It removes from the mind all thoughts of sine waves, transits, thiosal- plate groups and steam turbines. It enables the man to resume his work refreshed.
THE RADIO CLUB	The Chess Club of the Newark College of Engineering has been in ex- istence several years, and each year more mei reinflichte the great advantages that a knowledge of chess affords the student. It teaches the student to study everything carefully, and not to use snap-judgment.
The common knowledge that radio communication, which includes, here international and of tectorion pictures, and second an integral part of the formation of the state is a statianed apprenary in this particular pictures in the state is a statianed apprenary in this particular pictures in the state is a statianed apprenary in this particular pictures in the state is a state is a state in the state is a state is a state is a state is a state in the state is a state in the state is a state is	Under the leadership of their able faculty advisor. Professor Baker, the methers of the due have made great invosition the dark integration grain of others. Under his direction a tournament is under way, and from this they be tour of the methers of a taux matches the taux matches and taux match
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A yearbook page which dates the origins of the club. The club operated with the goal of promoting the science of radio - it still does.

• Until 1961, the club operated under callsign W2JPK.





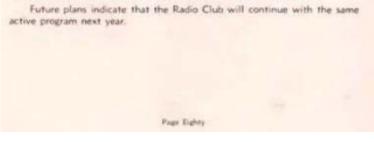
Radio Club . . . W2JPK

OFFICERS

President			Gunner Gudmundson
Vice President .	-		Walter Waldas
Secretary			S. J. Shefrin
Treasurer .			M. Belishowitz
Chief Operator			R. H. Dolbear
Assistant Operator			A. Van Poppering
Assistant Operator			G. Keng

The Radio Club operates its own short-wave station licensed by the Federal Communications Commission. Throughout the year members met and discussed the various phases of radio engineering and the operation of amateur or "ham" stations. Regular "gabfests" were part of every noontime period. Members were able to swap experiences, ideas, and material for bettering their own stations. These frequent meetings made the club one of the most active groups on the campus.

The main event of the year took place on Visitors' Day when the operators stood by their keys and transmitted radiograms to the friends and relatives of the visitors located in all parts of the United States.



A yearbook photo of the club memebers from 1938. Still in the early phases of the club, it operated its own short-wave station licensed by the FCC.

W2JPK becomes K2MFF

- In 1961, J. Sparks Remeczky (K2MFF) was killed in a motorcycle accident.
 He was popular club member and also very active with the ARRL.
- The NJITARC adopted his call sign, K2MFF, in his honor.

uscranton (iPosterSessions - an aMuze! Interactive system)



Remember "Sparks", K2MFF? He used to be on NJN in 1957. I found his old QSL in my archives. It's a "one of a kind" and I decided to restore it, although it was quite a challenge because the card was old, yollowed, and very dity. As I recall, he was killed in a motorcycle accident as a teenager. I believe a club station now uses his call as a memorial to him.



J. Sparks Remeczy's QSL card.



An article describing Remeczy's accident.



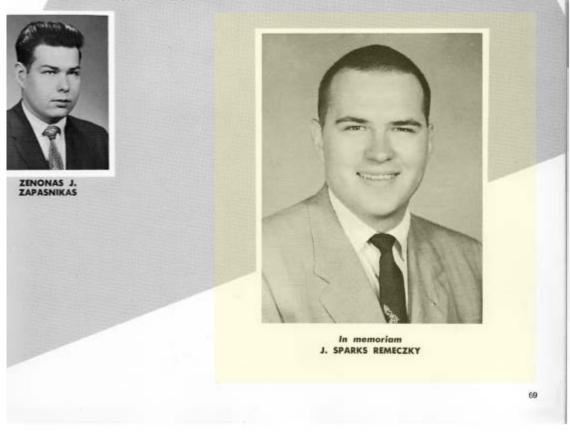
HANS WINGARTZ



JOSEPH A. ZEC



JACK YELLIN



Yearbook page, ca. 1961, honoring J. Sparks Remeczky.

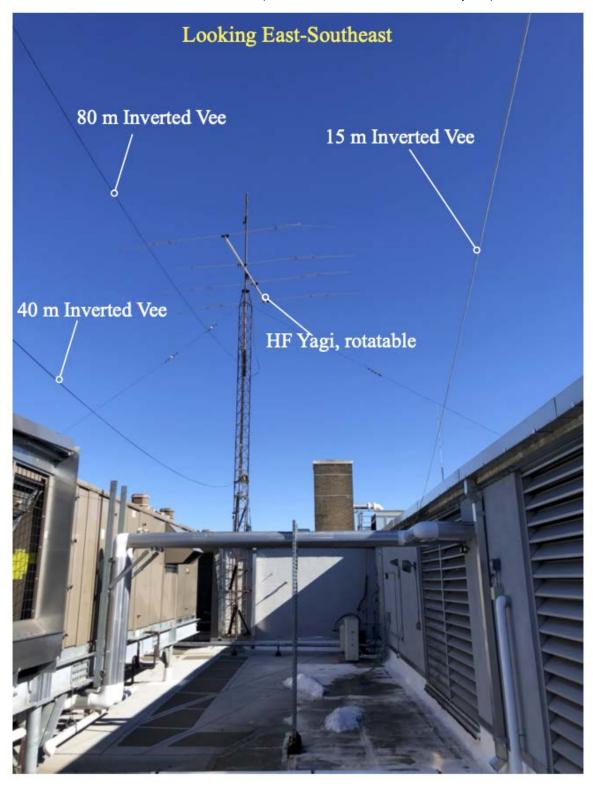
K2MFF SETUP AND SHACK

K2MFF Repeater Information

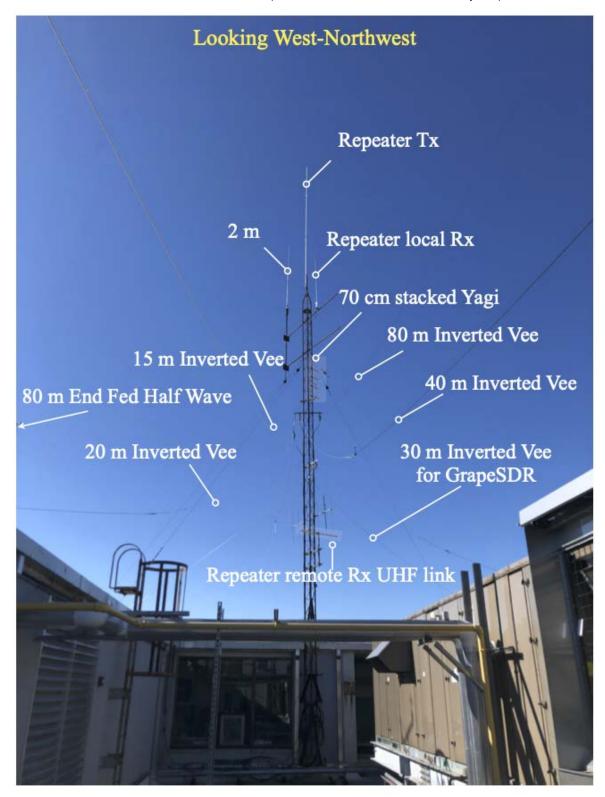
Frequency: 147.225 MHz Offset: + 0.600 MHz PL: 141.3 Hz EchoLink: K2MFF-R #807982

- The main K2MFF repeater receiver is located on top of Faculty Memorial Hall at NJIT.
- A secondary, remote receiving location is located in Montclair, NJ, west of Newark, and links to the K2MFF repeater via a line-of-sight UHF link.
- K2MFF repeater coverage encompasses a large portion of the Newark-New York city metropolis.
- The K2MFF shack contains 4 operational stations.
- Operations at UHF, VHF, and HF are available.
- All antennas on Faculty Memorial Hall roof at NJIT.

K2MFF Antennas



K2MFF antennas on the roof of Faculty Memorial Hall at NJIT.

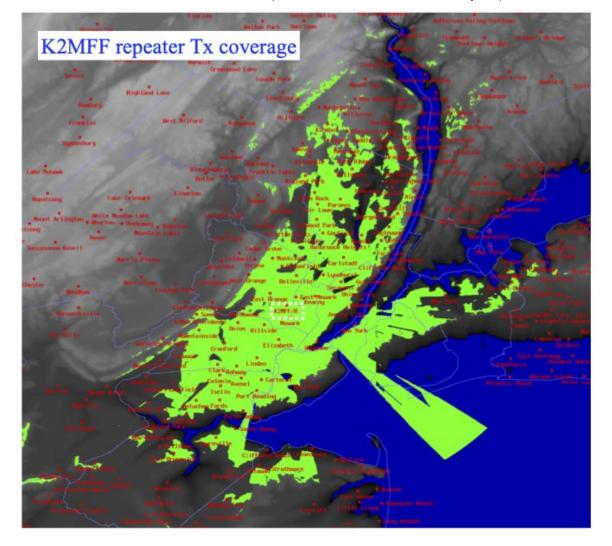


K2MFF antennas on the roof of Faculty Memorial Hall at NJIT.

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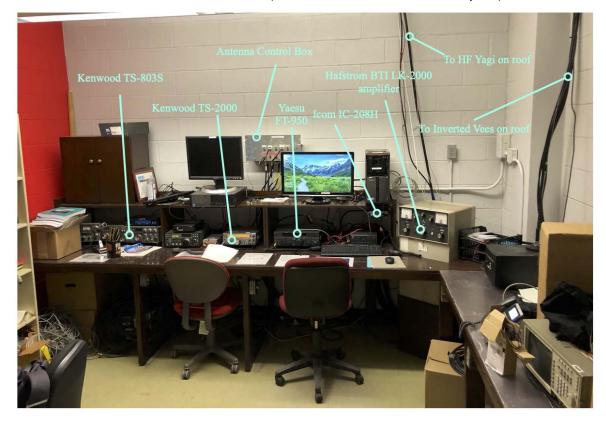
K2MFF antennas on the roof of Faculty Memorial Hall at NJIT.



Splat! radio imaging output of K2MFF's line-of-sight repeater coverage in the New Jersey-New York City area.

K2MFF Shack

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The K2MFF shack located in Faculty Memorial Hall features 3 operable stations on HF and a single VHF/UHF station.

K2MFF ACTIVITIES

Weekly Nets

- "K2MFF Highlander Net" on the K2MFF repeater, each Friday at 20:00 EST/EDT.
- "Net about nothing", each Thursday at 19:30 EST/EDT, hosted by W2SJT (Penn-Jersey Amateur Radio Club).
 - The K2MFF repeater is linked to W2SJT for this net.

Regular Testing Sessions

• K2MFF also provides testing (remote currently) multiple times per semester to allow nonlicensed people to become a licensed amateur radio operator.

Community Engagement

- K2MFF has organized a group of volunteers to provide communications support for the NYC Marathon for over 30 years.
- K2MFF is involved in on campus activities and student organization.
- K2MFF is also involved with mentorship programs and activities for young inquisitive minds, including aspirations for an ARISS (Amateur Radio on the Internatinal Space Station) event.







K2MFF and friends participating in the NYC Marathon over the years.



K2MFF members participating in ARRL Field Day 2017 activities from an NJIT parking deck. Left to right: Rachel Frissell (KD2NDK), Chris Harrsch (KD2GYD), Trevor Summerfield (KD2KYC), Nathaniel Frissell (W2NAF), and Pete Teklinski (WW2I). Source: CQ Amateur Radio Magazine (https://cq-amateur-radio.com/cq_highlights/2017-cq/2017-08cq/2017-08-cq-zero-bias.html).

HamSCI

- K2MFF and its members have participated in and contributed to the HamSCI effort.
- K2MFF recently installed a GrapeSDR receiver at NJIT, and will install the next generation of this receiver at a remote location in rural New Jersey when it becomes available.
- K2MFF will also acquire and test the HamSCI Personal Space Weather Station when it becomes available.

FUTURE DIRECTIONS

Participation with HamSCI

- HamSci has demonstrated the potential for combining amateur radio activities with compelling solar-terrestrial science efforts.
- In the near future, K2MFF acitivies may include greater integration with contemporary science projects.
 - This includes being a leader in HamSCI pursuits.
- K2MFF recently installed the HamSCI Personal Space Weather Station (PSWS) Grape SDR (version 1) at NJIT.
 - Will install Grape Version 2 at NJIT Jenny Jump site.
- K2MFF will also host at least 1 Personal Space Weather Station when it becomes available.

Integration with NJIT programs

- The K2MFF faculty advisors are exploring ways to increase NJIT undergraduate participation in K2MFF.
- K2MFF could serve as a setting for a variety of undergraduate and graduate research projects, for example.

Community Engagement

- K2MFF is an excellent venue for STEM (Science, Technology, Engineering, and Math) activities for the next generation.
- K2MFF is exploring direct engagement activities along these lines, including the ARISS initiative.

ABSTRACT

The New Jersey Institute of Technology Amateur Radio Club (NJITARC), K2MFF, has been an active part of the NJIT community for nearly a century. K2MFF has been a diligent community member, volunteering in such large-scale events as the New York City Marathon for over 30 years. Not only that, K2MFF, has been a fertile ground for developing young technical talent and advances in the radio art. Indeed, K2MFF has been a supporter and contributor to the HamSCI effort since its inception. In this presentation, we will offer a brief history of K2MFF, and discuss the current status and activities of the club. We will also offer some prognosis of the club's future directions.