University of Michigan Amateur Radio Club: W8UM & W8AXZ

W8UM Student Officers; 2022 - 2023

President:	Kim Zwolshen	KE8QKU
V-President:	Kaleo Roberts	KE8TBP
Publicists:	Maggie Li	KI5YMO
	Mick Gordinier	KE8VWA
Website:	Justin Hyun	

W8UM Trustee: Mark Travaglini, WD8DPA
W8AXZ Trustee: Michael Fluegemann, KE8AQW
Faculty Advisor: Amir Mortazawi, PhD., AC8YB

W8UM Meeting Dates

September 02, 2022	Student Open House
September 15, 2022	ROOM 1012 & ZOOM
October 20, 2022	ROOM 1012 & ZOOM
November 17, 2022	ROOM 1012 & ZOOM
December 15, 2022	ROOM 1012 & ZOOM
January 19, 2023	ROOM 1012 & ZOOM
February 16, 2023	ROOM 1012 & ZOOM
March 16, 2023	ROOM 1012 & ZOOM
April – August	**Summer Break – No Mtgs.**

Officer Nominations: February Meeting
Club Officer Elections: March Meeting

W8UM Club Events & Dates

Northfest	Monday, September 2, 2022
Festifall	Tuesday, August 30, 2022
ECE Open House	Monday, September (5-7:30 pm)
KB6NU 1-Day Class	Saturday, October 8, 2022
Collegiate QSO	Saturday, October 1, 2022
ARRL School Club	Week of October 17-21, 2022
ARRL CW Sweeps	November 5-7, 2022
ARRL Phone Sweeps	November 19-21, 2022
KB6NU 1-Day Class	Saturday, January TBD, 2023
NA QSO Party (CW)	January 14, 2023 2nd Full wknd in January
NA QSO Party (SSB)	January 22, 2022 3rd Full wknd in January
(North America Collegiate Championship)	
Winter Field Day	Last Weekend in January 28, 2023
ARRL School Club	Week of February 13-17, 2023
Mi QSO Party	April 3, 2023
ARRL Field Day	Saturday, June 24-25, 2023
One Helluva Ride	Saturday, July xx, 2023

W8UM Sunday Night Net (8 pm Ann Arbor time): 145.23 MHz, PL 100 Hz (-.600 MHz) or via EchoLink Node 301158 (W8UM-R)

Amateur Radio Club **Virtual & In-Person** Meeting Agenda for:

Thursday, March 16, 2023

LAST Club Meeting until September

Meeting Time: 6:30 pm
(Local Time / Eastern Time Zone)

Room 1012 EECS Bldg.

PIZZA will be provided!

Link: https://umich.zoom.us/j/8906493338

Link to Join ID: 8906493338



Several W8UM Members had the opportunity to speak with Journalists from the UM Knight-Wallace Program. The program focused on Weather & Emergency Communications following a natural disaster.

Facebook: https://facebook.com/groups/329930310446470
Website: https://umarc.eecs.umich.edu
Slack: amateurradioclubw8um.slack.com
QRZ.com: W8UM
QRZ.com: W8AXZ
e-mail: W8UMBoard@umich.edu

Guest Speaker: Kim Zwolshen & Kaleo Roberts

Topic: Antenna Building in Preparation for Fox Hunt

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1. **President's Welcome**
2. Treasurer's Report
3. Station Manager's Report

Treasurer's Report:

Balance (02/05/2022):	$	8791.06
Revenues (equip. sales):	$	11.26
Donations (Item 5a):	$	15.00
Less Expenses: (Item 5b):	$	41.72
Balance (03/05/2022):	$	8775.60

W8UM Repeaters

Weiser Hall: 145.230 MHz w/ EchoLink
29.640 MHz (in-progress)
444.075 MHz PL 82.5

Station Manager's Report:

EECS Location:

Radio's:	Kenwood TS-590 / Yaesu FT-1000D / TenTec IC-746 / IC-910 / APRS / FT-8800
Main Tower:	SteppIR (6-40M), 2M Yagi, 70cm Yagi, Discone
	Wires: 80M, Barker & Williamson (6-160M)
	Verticals: 10-20M, 10-40M, 2M (APRS), 10M
	Tower Cams: operational
Satellite Tower:	RH Circular Polarized Yagi; 2M & 70cm
Trailer Tower:	35' Tower w/ 3-L SteppIR, Controller & Rotor
Storage:	40' tilt-over Tower / 3-Element Mosley w/ 40M

4. Prior Business / News:
   a. ARRL Test Sessions; 2nd Saturday of each month. Contact ARROW Comm.,
   b. Open Shack Nights / SWL Open House: anyone interest in leading / organizing / scheduling?
   c. Peach Mountain Observatory Restoration: update / interest list created
   d. Any interest in taking the lead on a MOTUS Research Group (UHF Bird Tracking Program)?
   e. **W8UM WSPR Beacon**: Beacon is on the air; 10-40M. View weak signal (0.02w) band propagation from Ann Arbor**.** **http://wspr.rocks/?action=fetch&balloons=hide&rxCall=&txCall=W8UM&count=500&mode=All&band=all&hours=4&unique=false&advanced=**
   f. W1AW / ARRL Headquarters: if visiting Connecticut and wish to operate from W1AW, please contact Bob, NQ1R@arrl.net, to arrange.

5. W8UM / W8AXZ Contributions / Expenses / Donations:
   a. Generous Monetary Contributions / Financial Support Received:
      1. Jason DeBord

   b. Club Purchases / Expenses: **$ 41.72**
      1. Pizza / Beverages $ 41.72
      2. Festifall / WinterFest Registration $
      3. R&L; Rotor Control wire
      4. R&L; 2M/440 vertical antenna

   c. Equipment Donors:
      1.

   d. Donated Equipment / Radios Received:
      1.

5. **Support W8UM / W8AXZ Activities**: Food, Radio Repairs, Upgrades, Purchases, Tower & Antenna Maintenance
   Financial Support / Donations Accepted from all (non-students) individuals with an amateur radio call sign.
   Students are Free.
   Credit Cards & Payroll Deduction accepted via the W8UM website below:
   https://umarc.eecs.umich.edu/index.php/support-your-favorite-u-m-student-club/donate-online/

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6. **Covid-19: Student Organizations Rules for In-Person Events / W8UM Shack.** **EFF 05/2022:** The following safety measures apply for all in-person gatherings, activities, events, programs, practices, rehearsals, competitions, and/or meetings hosted by recognized student organizations (RSOs).
   - **Indoor campus events must adhere to UMich Public Safety Rules.**
   - **All Masking & Social distancing have been eliminated.**
   - ~~**Must download & complete the ResponsiBLUE Screening App and obtain a "Passed" for entry on campus.**~~
   - **Must be Vaccinated & Boosted**

8. **Scholarships available to UMich Students:**
   - **a.** ARRL Scholarship: Link: **www.arrl.org/scholarship-application**
   - **b.** Foundation for Amateur Radio (FAR): Link: **https://www.farweb.org**
   - **c.** Amateur Radio Digital Communications (ARDC): Link: **https://www/ampr.org/giving/**
   - d. Ford Motor Company Heritage Scholarship: Link: **https://www.fhnus.org/heritage-scholarship-michigan**

9. **W8UM Radio Repair & Restoration Group:**
   a. **Current Projects**;
      i. Testing of TenTec Amplifiers; Titan 425D and a prototype 6M (12/20/2022)
      ii. 6M Amplifier tested to 45w Drive / 1000w Out (1/12/2023)
      iii. Titan 425D failed testing (1/15/2023)
      iv. TenTec power supply repaired (failed resistor; 2/8/2023)
      v. Further testing and repairs to the Titan 425D Amplifier. (03/07/2023). Amp tested to 600W/20W Drive
      vi. Work to begin on repairs to the Titan Band Selector & Relays switches
      vii. RR&Group Article accepted for publication in QST.

   b. Please contact W8UM.Radio.Restoration.Group@umich.edu for "exact" dates / times of future restoration meetings and projects.
   c. W8UM has both a Hickok & EICO tube testers available for use & over 1200 tubes, assorted radio knobs & capacitors available to Members

10. **Science Olympiad Report:** W8UM had 4 student members and Dr. Mortazawi (**AC8YB**) who volunteered at the Science Olympiad. Three volunteered with the WiFi antenna competition, while the fourth was assigned to Disease Detectives, an epidemiology exam. Jack (**KE8SWM**), Kim (**KE8QKU**), and Kaleo (**KE8TBP**) helped with the WiFi lab, and Oleksii (**KE8RFR**) helped with Disease Detectives. The WiFi lab was a competition for student teams to try and build the best antenna for transmitting WiFi across a room. Unfortunately, the room provided by the competition organizers only allowed a maximum distance of 5 meters. Additionally, there were some initial hiccups working with the equipment that was provided to run the competition. It was awesome to see each student team, though, come and set up the antenna that they had built. There were many different kinds of designs from simple wire dipoles to helix antennas, Yagi's, and cans. Jack inspected each design to make sure it met the specifications of the competition and scored a design report that each team handed in on their antenna. Kim helped to conduct the testing of each antenna to see how it performed in the competition. Kaleo noted the performance of each antenna on an official score-card and also helped to distribute a written test at the beginning which each team had to take. Oleksii proctored 50 minute epidemiology exams for the Disease Detectives students and also graded the exams.

11. **FREE Fold-Over Section of a Rohn 45G Tower, 58' : Contact Bill (Pinckney, MI) bill.bathgate@defiltersllc.com**

12. **Is there W8UM Interest: in exploring the possible purchase of a Flex Radio?**

13. **Michigan QSO Party. April 3, 2023. Annual competition against the MSU radio club. Members Needed to Participate in this contest.**

14. **HamSci Solar Eclipse 10/14/2023 & 4/8/2024 radio participation. https://hamsci.org/about-hamsci**

15. **ARRL Hamvention May 19-21, 2023: The Collegiate Amateur Radio Program (CARP) is looking for volunteers to man the ARRL Booth during Hamvention. All EXPENSES will be paid by the ARRL. You must be a student, aged 21 or older. Contact W8UM for further info.**

16. **FIELD DAY 2023: Approval has been received for the use of the Washtenaw County Fairgrounds on Ann Arbor-Saline Road for Field Day 2023 (weather permitting)**
    a. W8UM will have 3-4 stations on the air for your use. Participation is open to everyone.
    b. Setup will begin shortly after 8:00 am on Saturday
    c. Teardown will begin just after 9:00 pm on the same day. Note, this is a 1-day only participation in Field Day
    d. Dr. Pat Seitzer (Astronomy) will have on display a telescope, with sun filters, to view the Sun
    e. More info as we near the June date

17. **W8UM History Project:** The second classroom lecture on Morse's Telegraph at the University of Michigan (1848).
    Article is attached.

18. **High-Altitude Balloon Tracking Program**:
    a. Aerospace HAB launch & tracking to occur during the final weeks of each semester. Contact W8UM for additional info. W8UM.APRS.Balloon.Tracking.Group@umich.edu
    b. Ameritron Selector Box arrived (12/20/2022)
    c. Inquiries received from news organizations and an independent writer about the Chinese high-altitude balloons; 02/2023

19. **Amateur Radio Digital Communications Grant Update (ARDC)**;
    a Repairs to the 10M Cross-Band Repeater;
        i. Antenna building; 220, 440, 28 MHz antennas
        ii. Weiser Hall: 10M antenna installation completed (11/02/2022)
        iii. Weiser Hall: Hardline installation completed (11/2022)
        iv. Weiser Hall: 220 MHz & 440 MHz installation completed (12/02/2022)
        v. EECS Bldg: 29 MHz antenna install completed (12/2022)
        vi. EECS Bldg: Combiner & 220MHz yagi on back-order (01/2023)
        vii. Combiner & 220 MHz Yagi (arrived, 01/12/2022)
        viii. Arcom Controller (arrived, 01/18/2022)
        ix. Programming repeater controller; 02/2023
        x. Repeater Controller programming completed (02/22/2023)

    b. 208 VAC / 30A Outlet installation for Ameritron AL-82 / Ten-Tec Titan amplifiers
        i. Work Request submitted (10/05/2022)
        ii. Site review & estimate completed 10/18/2022; $2177.00
        iii. ECE request for Grant funds submitted (10/28/2022)
        iv. Installation completed (12/02/2022)
        v. Project Completed; 12/2022

    c. Digitizing historical articles relating to the development of wireless telegraphy at the Univ. of Michigan
        i. Meeting with the School of Information
        ii. Organization of Files begun (01/12/2022)
        iii. Document scanning begun; 1/21/2023
        iv. Project Completed (2/2023). Approximately 7,000 pages scanned.

    d. Improvements to the high-altitude balloon antenna array;
        i. Selector Box ordered (10/15/2022)
        ii. Antenna selector box arrived 12/20/2022
        Iii. Coax & control cables to be ordered (03/2023)
        iv. Vertical antenna ordered (6M/2M/440; 03/2023)

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20. W8U**M Shack Access**: If interested in obtaining a "Shack Access Code", that provides you with unlimited room access, please contact W8UM at W8UMBoard@umich.edu

21. **Shack Orientation & Access Key:**
    1. Rajiv Govindjee

22. **W8UM / W8AXZ Invited Speakers for the 2022-2023 school year:**

		Past Speakers; 2021-2022
Sept.	Kaleo Roberts, KE8TBP	Fred Lloyd, AA7BQ
Oct.	John Ackermann, N8UR	Bob Heil, K9EID
Nov.	Kim Zwolshen & Kaleo Roberts	Kristen McIntyre, K6WX
Dec.	Tony Milluzzi, KD8RTT	ICOM Corp.
Jan.	Kristina Collins, KD8OXT	Bob Bruninga, WB4APR SK / Lynn Deffenbaugh
Feb.	Fred Lloyd, AA7BQ	Tony England, W0ORE
Mar.	TBA	University Lowbrow Astronomer Jeff Koopmanis

23. **W8UM Sunday Night Net; Control Ops:**

    02/19/2023 Dan Romanchik, KB6NU
    02/26/2023 Pat Seitzer, WA4DSR
    03/05/2023 Pat Seitzer, WA4DSR
    03/12/2023 Pat Seitzer, WA4DSR

24. **Members / Alumni:** If you plan to visit Ann Arbor and would like to tour or operate from W8UM please contact W8UM in advance at W8UMBoard@umich.edu to arrange.

25. **UMich ARC Sunday Night Net 8pm local time**: if outside of Ann Arbor, sign-on to EchoLink using the Android, i-Phone or computer apps. Net is open to ALL licensed individuals.



iPhone screenshot

Download the FREE EchoLink app to connect to the W8UM repeater (145.230 MHz).

1. Call-sign verification may take minutes to several days
2. Search for W8UM and save to Favorites
3. Press Connect
4. Tap Transmit, on your iphone/android, to talk & Tap the screen to stop TX
5. Disconnect from the W8UM Repeater by tapping END
6. **Follow the same process to connect to repeaters throughout the world.**

Commented [MC1]: anchikd

26. Attendance (February, 2023): Attendance: **23** ZOOM: 13 In-Person: 10 Students: 6

27. Open Discussions / Comments / Audience Announcements:

28. Monthly Presentation: Described Above.

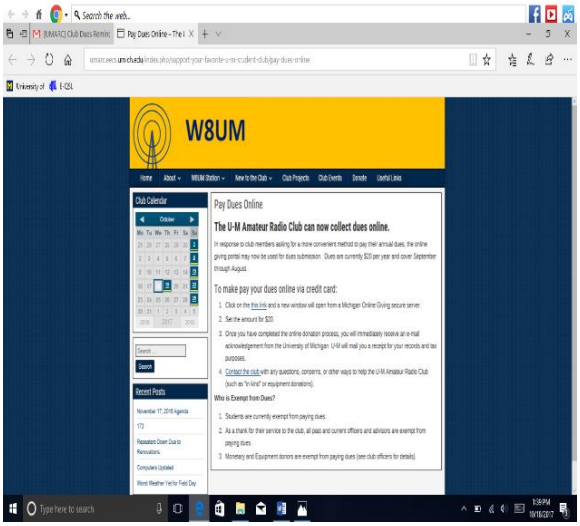
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W8UM President or Designee

To make a monetary donation to support W8UM, please use the link below.

https://umarc.eecs.umich.edu/index.php/support-your-favorite-u-m-student-club/donate-online/



W8UM Meeting Location: Room 1012 **First Floor Classroom**

Electrical Engineering & Computer Science Building

Address: 1301 Beal Ave.

ZIP: 48109



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Engineering Campus Visitor & Employee Parking Lots

Hayward Street: Lot NC 20

FREE to Visitors after 5 pm weekdays & weekends or anytime with a UM Parking Pass.
FREE to Retiree's after 3:30 pm with Retiree Parking Pass
*** **Barrier Free Access** thru the DOW Bldg into the 3rd Floor EECS Bldg.

Hayward Street: Lot NC 48

FREE to Visitors after 5 pm weekdays & weekends or anytime with a UM Parking Pass.
VISITOR parking is $1.80 / hour (coin or credit card) before 5 pm
FREE to Retiree's after 3:30 pm with Retiree Parking Pass
*** NOT Barrier Free Access to EECS

Murfin Street / Walgreen Drama Center: Lot NC 27

FREE to Visitors after 8 pm weekdays & Sunday only or anytime with a UM Parking
VISITOR parking is $1.80 / hour (coin or credit card) before 8 pm
FREE to Alumni / Retiree's after 3:30 pm with Retiree Parking Pass
*** **Barrier Free Access** thru the courtyard to the EECS Bldg.

Beal Street: Lot NC 60 **GATED Parking Lot**

FREE to Visitors after 5 pm weekdays & weekends or anytime with UM Parking Pass
FREE to Alumni / Retiree's after 3:30 pm with Retiree Parking Pass
*** **Barrier Free Access** along the East Side of EECS Bldg.