University of Michigan Amateur Radio Club: W8UM & W8AXZ

W8UM Student Officers; 2022 - 2023

President:	Kim Zwolshen	KE8QKU
V-President:	Kaleo Roberts	KE8TBP
Social Media:	**Vacant**	
Website:	**Vacant**	

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 1021 & ZOOM
October 20, 2022	ROOM 1021 & ZOOM
November 17, 2022	ROOM 1021 & ZOOM
December 15, 2022	ZOOM
January 19, 2023	ZOOM
February 16, 2023	ZOOM
March 16, 2023	ZOOM
April – August	**Summer Break – No Mtgs.**

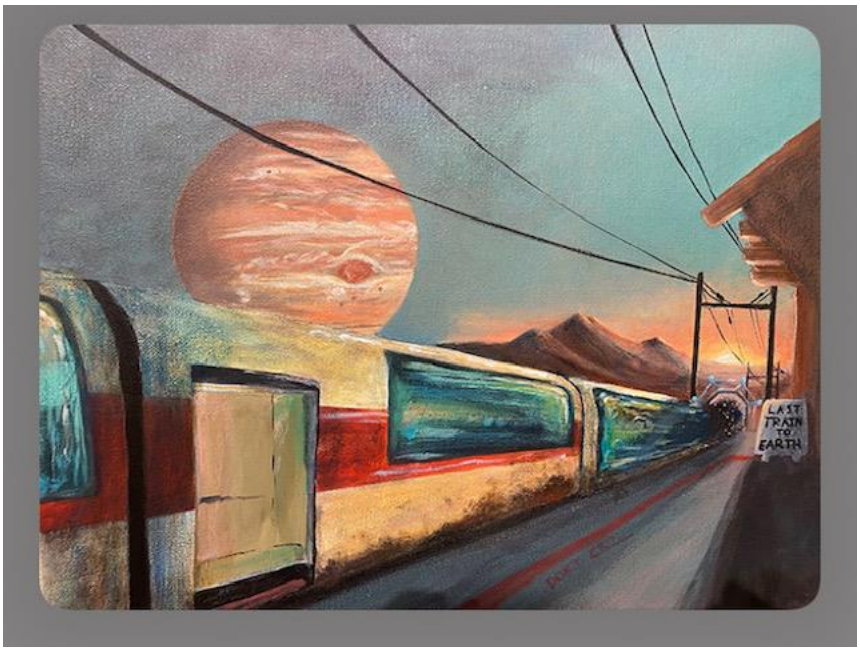
Officer Nominations: February Meeting
Club Officer Elections: March Meeting

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 TBD
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, 2022
ARRL Field Day	Saturday, June 24-25, 2022
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, September 15, 2022



Meeting Time: 6:30 pm (Local Time / Eastern Time Zone)
Room 1012 EECS Bldg.

PIZZA will be provided!

Link toJoin ID: 8906493338

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

Artwork Titled "The Train" by W8UM President, Kimbery Zwolshen, was selected to travel to the International Space Station on a SpaceX flight June 14, 2022.

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

Guest Speaker: **Kaleo Roberts, KE8TBP**

Topic: **Software Defined Radio**

University of Michigan Amateur Radio Club: W8UM & W8AXZ

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

Treasurer's Report:

Balance (04/13/2022):	$	7271.39
Revenues (equip. sales):	$	0.00
Donations (Item 5a):	$	125.00
Less Expenses: (Item 5b):	$	186.94
Balance (09/01/2022):	$	7209.45

Station Manager's Report:

EECS Location:

Radio's:	TS-590/FT-1000D/IC-910/IC-746/APRS/FT-8800
Antenna's:	
Tower:	SteppIR (6-40M), 2M Yagi, 70cm Yagi, Discone
Wires:	80M, Barker & Williamson (6-160M)
Verticals:	10-20M, 10-40M, 2M (APRS)
Satellite:	Circular Polarized Yagi; 2M & 70cm
Field Day:	3-Element SteppIR & 3-Element Mosley w/ 40M
	Circular Polarized 2M & 70cm Satellite Yagi
Tower Cam:	EECS Tower Cams: operational
Towers:	40' tilt-over Tower (in storage)
Trailer Tower:	35' Tower w/ 3-L SteppIR, Controller & Rotor
Weiser Hall:	145.23 repeater w/ EchoLink operational
Mich. Union Roof:	20' Tower & antennas removed August, 2019

4. Prior Business / News:
   a. ARRL Test Sessions; 2nd Saturday of each month. Contact ARROW Comm.,
   b. Volunteers wanted for positions at W8UM: Website, Social Media…
   c. Open Shack Nights / SWL Open House: anyone interest in leading / organizing / scheduling?
   d. Peach Malmisanoountain Observatory Restoration: update / interest list created
   e. Any interest in initiating a SDR Research Participation Group?
   f. Any interest in taking the lead on a MOTUS Research Group (UHF Bird Tracking Program)?
   g. **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=**
   h. 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. Larry Rogers
      2. John Palmisano
      3. Jack Wakefield

   b. Club Purchases / Expenses: **$186.94**

1.	Pizza / Beverages	$ 0.00	
2.	WinterFest Registration	$ 0.00	
3.	Collins S-Line Feet Set	$ 24.99	
4.	URIxB Interface; DMK Engineering	$ 84.95	
5.	URI Cable (FT-8800; EchoLink)	$ 77.00	
6.	DX Engineering; coax, polyphasers…	$ 492.52 *	
7.	XX Towers; parking permit	$ 20.00 *	
8.	Hazardous Gas Shutdown	$ 471.06 *	
9.	XX Towers; New Hampshire	$8700.00 *	* Paid from Insurance Claim dated 12/2021

c. Equipment Donors:

1. Steve Sostrom
2. Ovide Pomerleau
3. Rosalyn Barclay
4. Jack Burchfield (Ten Tec Founder)
5. Trisha Murray
6. Richard Bird
7. Kathy Crosby-Moore
8. Beth Kern (daughter of Jack Burchfield) & Ed Burchfield
9. Larry Phipps; Owner of Telepost, Inc.
10. Henry Horldt

d. Donated Equipment / Radios Received:

DeWalt 12v Cordless Drill w/ batteries
Superior Electric Variac
Radio Shack HTX 202 VHF Transceivers (2)
Realistic Pro-43 Scanner; s/n 076350
Uniden BC 796D Bearcat Scanner; s/n 320Z44-000481
Lafayetter SWR Meter
Assorted Cables & Extension Cord
Realistic Sound Meter
Alliance Antenna Rotor Controller (x2)
Electro-Voice FM Radio Receiver
HeathKit Audio Generator
HP Spectrum Analyzer (2/2)
Ten Tec 580 Delta Transceiver
Ten Tec Argonaut VI Model 539 QRP Transceiver
Ten Tec Delta 580 Mobile Radio
Ten Tec Delta II Transceiver (2/2)
Ten Tec Diskettes (x4)
Ten Tec Eagle Model 559 Transceiver; s/n 3051271340
Ten Tec HT 2591 2M FM Handheld (1/2)
Ten Tec HT Battery Charger
Ten Tec Instruction Manuals
Ten Tec Keyer, Model 605
Ten Tec Keyer, Model 607
Ten Tec Keyer, Model 670 (2/2)
Ten Tec Power Supply, Model 210
Ten Tec Power Supply, Model 960
Ten Tec Power Supply, Model 979
Ten Tec RF Speech Processor, Model 71
Ten Tec Titan Amplifier Model 425D (1/2)
Tektronix 2445A Oscilloscope
Astron AS-35 power supply; s/n 201080053
ICOM SM-20 desk microphone
Ten-Tec Scout Transceiver w/ 10, 15, 17, 20, 40 & 80M
Astatic desk microphone, s/n E-1
Heathkit SWR/Power Meter, Model AM-2
Heathkit Balun Set
MFJ HF/VHF antenna analyzer, Model MFJ-259B
Realistic DX-160 Receiver; s/n 416068
Drake R8 Receiver s/n 2B12900102
ICOM IC-706 Transceiver s/n 06132 (new in box)
Comet CF-530 Duplexer
Microdonta 12-vdc Power Supply
Realistic Pro 2054 Scanner; s/n C002007
TALM Weather scanner
Yaesu VX-7R HT
Amateur Radio Monopoly Game
Electro-Voice Horn
HP 85678 Spectrum Analyzer (1/2)
Standard Signal Generator, Model 1001-A
Ten Tec Antenna Tuner, Model 229 s/n 229-0036
Ten Tec Argonaut Model 509 Transceiver
Ten Tec Delta II Transceiver (1/2)
Ten Tec Delta SP 325 Receiver
Ten Tec Dummy Load, Model 239 (300W)
Ten Tec Hand Microphones (2)
Ten Tec HT 2591 2M FM Handheld (2/2)
Ten Tec Hercules II Model 420, s/n 81A10119
Ten Tec Keyer KR-5A
Ten Tec Keyer, Model 606
Ten Tec Keyer, Model 670 (1/2)
Ten Tec Power Divider, Model 5022 s/n 5022
Ten Tec Power Supply, Model 425S; 240 VAC
Ten Tec Power Supply, Model 963 (25A). s/n 206050037
Ten Tec QRP Radio 20/40M
Ten Tec Speech Processor, Model 234
Ten Tec Titan Amplifier Model 425D (2/2)
Wilfred Shaw UM Campus Sketches (x7)
ICOM-746 Transceiver, s/n 08771
Ten-Tec Model 937 power supply
Ten-Tec desk microphone
Vibroplex Bug, s/n 212439
Heathkit Tube Checker, Model TC-3
Heathkit hybrid phone patch, Model HD-19
MFJ headphoneMFJ Versa-Tuner, Model MFJ-949

Ten-Tec Donation was received from Mr. Jack Burchfield and his Family. Mr. Burchfield was an UMich Alum and Co-Founder of Ten-Tec. These radios were his personal radios used at his home. TenTec was originally called Tennessee Technology but at the urging of Mrs. Albert Kahn the name was shortened to Ten Tec. Photos show W8UM Faculty Advisor Prof. Mortazawi, Prof. Beth Kern (daughter of Jack Burchfield) and Prof. Gary Kern. Not shown is Ed Burchfield.



6. **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:
   http://umarc.eecs.umich.edu/index.php/support-your-favorite-u-m-student-club/pay-dues-online/

7. **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. Collins KWM2; spurious oscillations in the IF / RF stages (Completed 4/2022)
      ii. Tube replacement & Neutrilization (Completed 04/2022)
      iii. Danish Sailor RT 144C Marine VHF Radio (Completed 4/2022)
      iv. 05/04/2022; RF Dip Meter testing of Crystal Radio sets
      v. Yaesu FT-1000D does not key the SB-220 amplifier, repaired 8-10-2022
      vi. LP-100A meter service completed by Telepost Inc., (07/2022)
      vii. Dismantling of the Damaged SteppIR antenna (09/03-09/14/2022)
      viii. Next Project; Testing of the Ten-Tec Orion



   b. Palstar HF Auto-Tuner arrived. 03/2022. Tested & placed in-line 08/2022
   c. Prep-Work for Urban-Beam Antenna Installation;
      i. Cable Pull for the SteppIR SDA 2000 Controller
      ii. Remove vert. antennas from roof to lower SteppIR (5/30/22)
   d. SteppIR Urban Beam (6-40M) to replace the original 4-L SteppIR
      i. Antenna arrived 04/18/2022.
      ii. Coax & motor cables pulled on 4-23-2022. Assistance from KE8QKU, KE8TBP, KE8PTU, KE8SWM, KB8OIS, AC8TO, N4IYL, K8EV
      iii. Phase 1: Inventory of antenna parts
      iv. Phase 2: Urban-Beam build begins on 5/18/2022 (Boom & Element Housing Units)
      v. Phase 3: Wiring harness and motors test (5/23/2022)
      vi. Phase 4: Elements build (6/01/2022) & (6/03/2022)
      vii. Phase 5: Final assembly and roof testing (6/9/2022)
      Assistance: K8EV, N4IYL, K5AW, KE8SWM & KB8OIS



viii. Antenna Installed by XX Towers 07/19/2022. Thanks to the following for their assistance: Paula & Dan, KB8OIS, KB5AW, K8QKY, KE8TBP, AC8TO & his students, KB8RCO, and KE8SWM

e. Please contact W8UM.Radio.Restoration.Group@umich.edu for "exact" dates / times of future restoration meetings and projects.

f. W8UM has both a Hickok & EICO tube testers available for use & over 1200 tubes, assorted radio knobs & capacitors available to Members

10. **Items For Sale**: Scanners ($20/ea), Electro-Voice FM receiver ($60) and a external speaker ($10) are available to members.






11. **Name Change**: The University of Michigan Amateur Radio Club (UMARC) will now be known as the "Amateur Radio Club (at the University of Michigan)". With over 1500 student clubs on campus, UMARC always appeared near the bottom of the clubs list. This name change accurately describes the club and places it near the top of list where it may be viewed more frequently by students.



12. **W8UM History Project:** Claude Shannon "Father of Information Theory". 1936 UM Alum and W8AXZ club member during 1932-1936 that also included John Kraus (antenna theory), Mel & Gail Ivory (Ivory Camera & Photo) and Roy Purchase (Purchase Camera & Radio) as members. Shannon's statue is at the west entrance to EECS.

13. W8UM was asked to submit photos for the upcoming ARRL 2023 Calendar

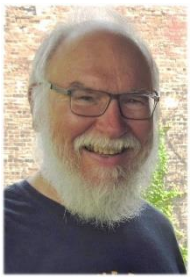
14. **W8UM has open positons for students**; Treasurer, WebMaster, Social Media. Contact Kim of Kaleo for info.

15. Fox Hunt is in the planning stages for a weekend in September / October. TBD

16. **Festifall 2022**: Hosted by Kaleo (KE8TBP) and Don (AC8TO). 15 new students expressed interest and joined W8UM! Many students inquired about building radios and several mentioned a parent is an amateur radio operator.

17. KE8AQW (past-W8UM presient) review of the COMPACTenna 2M/440 antenna appeared in the July, 2022 issue of QST

18. **W8UM Past-President: Lawrence John Koziel**

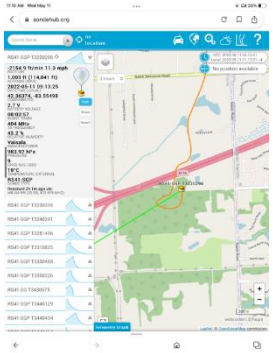
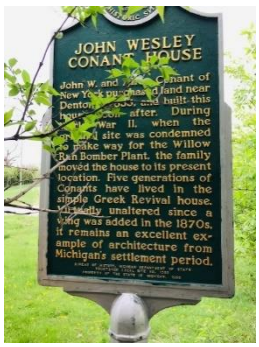


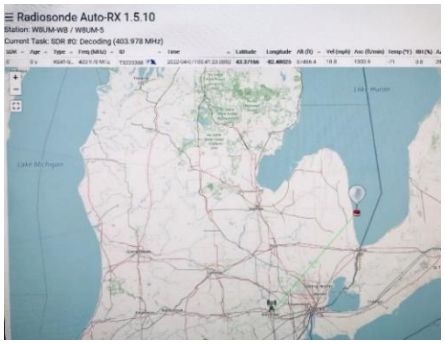
On the morning of 8/11/22, Lawrence (Larry, K8MU) Koziel, of Roseville died at the age of 70. Larry was born to Boleslaus and Virginia Koziel. Larry graduated from DeLalSalle High School in 1969 and attended University of Michigan where he studied electrical engineering. He developed an interest in amateur radio during high school. While attending The University of Michigan, he joined the W8UM U of M Amateur Radio Club, became a lifetime member of AMSAT and ARRL. He was also involved with ARROW in Ann Arbor, Livonia and Hazel Parks ARC, and ARRIS. He also developed a passion for bicycling. He was involved with riding groups Biking Belle Isle, Baroudeur, and Hub ride. Larry's work brought him to all parts of the world. He especially enjoyed traveling to Asia. He spent many years traveling to Japan. He learned to speak Japanese fluently. He also enjoyed teaching English to Japanese immigrants. Larry was preceded in death by his parents, Boleslaus and Virginia Koziel, his sisters Cheryl Koziel and Rita Gleason, a nephew Douglas Gleason. He is survived by his brother Martin (Anna) Koziel, sister Dorothy Koziel, niece Sylvia Gleason, and nephew William Gleason. Services for Larry will be held at Kaul Funeral Home on Gratiot in Roseville. Fond memories and expressions of sympathy may be shared at www.kaul-fh.net for the Koziel family.

19. **Faculty Interest in W8UM**. Seven university faculty members have joined W8UM this summer. Among them are the University Carillonist, past BBC Radio engineer, museum curator and several faculty in the performing arts and art & design departments. (List Below)

a. Medical Center; Emeritus Professor of Anesthesiology
b. Kelsy Museum Curator
c. School of Information; Professor of Information
d. School of Theatre Music & Dance (STMD)
    i. Assoc Professor of Performing Arts Technology
    ii. Assoc Professor of Music
e. Penny STAMPS
    i. Assoc Professor of Art & Design
    ii. Professor of Arts & Design

20. **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. HAB Tracking manuscript in final preparation for submission
    c. National Weather Service Radiosonde telemetry tracking continues
    d. A second NWS Radiosonde was retrieved by W8UM (KE8AQW photo) at a historical home site near M-14 & Napier Rds.; (5/11/22). (Several more radiosondes have been recovered since).



21. **2022 W8UM ARRL Field Day – Washtenaw County Fairgrounds. 2A w/ GOTA;** 199 total SSB Contacts including 20 GOTA contacts. Steady stream of visitors throughout the day that included a State of Michigan Representative and ARRL Michingan Section President, Les Butler.





22. **Amateur Radio Digital Communications Grant**: W8UM was a recipient of an ARDC Grant of $5026.00. Monies will be used for the following projects;
    a Repairs to the 10M Cross-Band Repeater in Weiser Hall
    b. Outlet installation for the Ameritron AL-82 / Ten-Tec Titan amplifiers
    c. Digitizing historical articles relating to the development of wireless telegraphy at the Univ. of Michigan
    e. Improvements to the high-altitude balloon antenna array

ARDC'S Mission
The mission of Amateur Radio Digital Communications (ARDC) is to support, promote, and enhance digital communication and broader communication science and technology, to promote Amateur Radio, scientific research, experimentation, education, development, open access, and innovation in information and communication technology.

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About ARDC

Amateur Radio Digital Communications (ARDC) is a California-based foundation with roots in amateur radio and the technology of internet communication. The organization got its start by managing allocations of the AMPRnet address space, which is designated to licensed amateur radio operators worldwide. Additionally, ARDC makes grants to projects and organizations that follow amateur radio's practice and tradition of technical experimentation in both amateur radio and digital communication science. Such experimentation has led to broad advances for the benefit of the general public – such as the mobile phone and wireless internet technology. ARDC envisions a world where all such technology is available through open source hardware and software, and where anyone has the ability to innovate upon it. Learn more about ARDC at ampr.org.

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

24. **Shack Orientation & Access Key:**
    a. Christian Sandvig
    b. Dave Learned

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

		Past Speakers; 2021-2022
Sept.	Kaleo Roberts, KE8TBP	Fred Lloyd, AA7BQ
Oct.	John Ackerman, N8UR	Bob Heil, K9EID
Nov.	TBA	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 Kopmanis

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

    08/28/2022 Stuart Carlson, W8SRC
    09/04/2022 Dan Romanchick, KB6NU
    09/11/2022 Pat Seitzer, WA4DSR

27. **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.

28. **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.



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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.**

29. Attendance (March, 2022): Attendance: 14 ZOOM: 14 In-Person: 0 Students: 3

30. Open Discussions / Comments / Audience Announcements:

31. Monthly Presentation: Described Above.

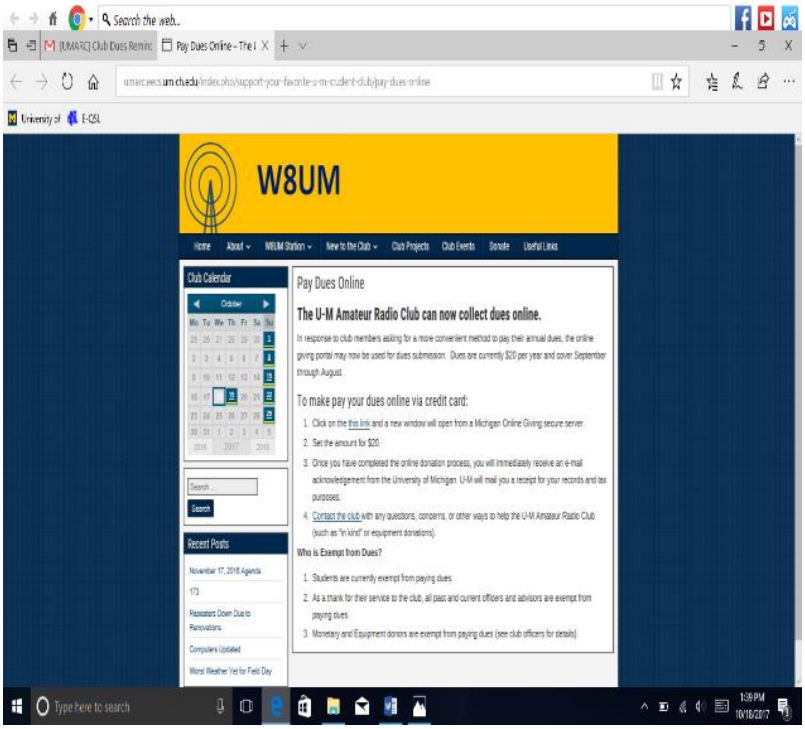
University of Michigan Amateur Radio Club: W8UM & W8AXZ

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W8UM President or Designee

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

http://umarc.eecs.umich.edu/index.php/support-your-favorite-u-m-student-club/pay-dues-online/a



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

Electrical Engineering & Computer Science Building

Address: 1301 Beal Ave.

ZIP: 48109



University of Michigan Amateur Radio Club: W8UM & W8AXZ

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.