W8UM

THE UNIVERSITY OF MICHIGAN
AMATEUR RADIO CLUB

by

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&

Professor Brown

Professor Brown is the trustee of the W8UM amateur radio station. He holds a "General Class" license and is presently working for his "Extra Class" license. He operated a ham station in high school and this interest in radio led him into electrical engineering. During World War II he was a radar counter measure officer on a Naval ship. Professor Brown teaches courses in electronic circuits and communications.
Did you ever notice students climbing steel towers on top of the East Engineering Building or on the top of the twelve-story Physics and Astronomy Building last spring? They were probably members of the University of Michigan Amateur Radio Club working on new antenna systems to improve the club's signal in distant parts of the world. The result of this “high rise” activity was dramatically successful, and the club ran up the fourth highest score in the world in the American Radio Relay League's DX Contest (DX is an abbreviation signifying “long distance” radio communication). Running three separate one kilowatt stations, the club exchanged information with over 2200 stations in approximately one hundred different countries.

Radio amateurs are fascinated by a scientific hobby which does not directly furnish them any financial gain. In fact they are forbidden by law to broadcast to the general public or to accept fees for messages sent. They operate for the fun of it. The thrill of talking half way around the world, the pleasure of helping someone get in touch with home, the confidence gained in building a new electronic circuit and seeing it work for the first time—these are their rewards.

The University of Michigan Amateur Radio Club operates the amateur station W8UM in room 4524A of the East Engineering Building, a part of the Electrical Engineering Department. It has a membership of about fifty students from all parts of the University. Most club members have passed the rather stiff examinations given by the Federal Communications Commission on radio theory and on the international Morse code, and they hold licenses for their own stations at home. Only licensed “hams” are permitted to operate W8UM, but the club also holds instructional classes for its junior members in order to help them obtain their all important license or “ticket.” The United States has a reciprocal licensing agreement with a number of other governments, and in cases where this agreement exists, foreign students are able to operate W8UM when they

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are licensed at home. For example, Rabindranath Ram-
persad, an engineering student from Trinidad, is a full
club member. The club is especially interested in help-
ing foreign students in communicating with their fam-
ilies and in stimulating possible interest in the hobby,
for many developing nations in Africa and Asia have
almost no amateur stations.

The club is quite well equipped. It is capable of run-
ning one kilowatt, the maximum power allowable under
the regulations of the Federal Communications Com-
mision, on each of the five major amateur bands (80
meters, 40 meters, 20 meters, 15 meters, and 10 meters).
Communication with other amateurs anywhere in the
world is possible in three modes. Single Sideband ab-
 abbreviated SSB is probably the most popular of these. A
fairly recent advance as far as amateur radio is concerned,
this highly efficient method of modulation has virtually
replaced amplitude modulation, the older voice mode.
CW or communication with international Morse code
is also used extensively. Experienced amateurs can carry
on a conversation using CW at rates approaching fifty
words per minute. The third mode, radioteletype or
RTTY, is less extensively used, but excellent equipment
is on hand in the club room. The roof of the East En-
engineering Building provides support for a superior an-
tenna system including parasitic beam arrays on 10, 15,
20, and 40 meters and a simple dipole on 80 meters.

One might wonder what there is to do in "ham" radio.
Beside just sitting down and talking to someone, the
amateur can engage in many interesting activities. Some
gain a great deal of personal satisfaction out of helping
many of the foreign students here at the University of
Michigan keep in touch with their loved ones in their
native countries. This is particularly true of the South
and Central American countries where the United States
holds many reciprocal third party traffic agreements.
Other club members enjoy putting the station's equip-
ment and antennas to difficult tests by entering contests
in which they communicate with as many people in as
many different states or countries as possible. Still others
keep W8UM active in the extensive National Traffic
System—a telegraph-like system in which short messages
are sent on behalf of third parties to locations anywhere
in the United States or Canada. There are also members
whose real interests are experimental. They keep the
station's equipment and antennas in first rate working
order. They also design and build new equipment for
the club. At the present time for example, one group
of club members is working on a unit to improve the
station's RTTY capabilities while another group is in
the process of building a new final amplifier.

The club members come from all over the University
and from all over the country. There are even several
foreign members. Hams in general are found in all walks
of life and in all age groups from twelve to eighty. They
have a variety of interests, but all are members of the
hobby chiefly because it's fun and interesting. They enjoy
the thrill of talking to friends back home or to friends
whom they have never really met in far away places such
as Soviet Russia, Australia, or India.