

W2KGY Insider

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W2KGY is an ARRL Affiliated Club by Mr. Roy Spells, KC2NDQ

Resolution of Affiliation:

It shall be the policy of the League to affiliate with itself organized, non-commercial Amateur Radio groups or societies of kindred aims and purposes with a view to forming a homogeneous organization for unity of action in matters affecting amateur welfare.

-ARRL Articles of Association

Recently the USMA Amateur Radio Club (ARC) was accepted and approved as a school/youth club in the the National Association for Amateur Radio Relay League, Inc., (ARRL).

We received a charter and were openly welcomed by ARRL and other affiliated clubs. Affiliation now provides members with mentoring assistance, technical training advancements, leadership training opportunities, and the ability to participate in various amateur radio community events. In addition it is a great avenue for cadets to interact with youngsters in the community who desire to know more about cadet life and United States Military Academy life.

The airways provide new and lasting friendships from all over the world. We greatly appreciate our new affiliation and thank ARRL for the prestigious recognition. Our new ARRL affiliation will be a moral booster for the members of USMA ARC as we reach out to the community and particularly tomorrow's young leaders.

We are honored.



First Cadets Earn New Patch by Dr. John Rogers, KC2PCX



Newly issued club patch with the station call sign W2KGY.

Five cadet members of the Cadet Amateur Radio Club were the first to earn the privilege of wearing the new W2KGY patch on their jackets. Patches are administered by the USMA Directorate of Club Activities to show pride in extracurricular activities.

Cadets Wiley Grant (KC2PCV), Andrew Miller (KC2NPD), Shawn Mosley (KC2NPB), Matt

Sherburne (KF4WZB) and Andrew Thompson (KC2PCW) were awarded their patches for satisfying criteria established by club officers.

Cadet members wishing to wear the patch participate in a newly established point system where points are awarded for activities such as making radio contacts, passing FCC license exams, or supporting Boy Scout activities.

Scoutmaster's Council Invitational Camporee by LTC Tim Schmoyer, W2JIG

Cadet Shawn Mosley (KC2NPB), took the lead supporting the Scoutmaster's Camporee at Camp Natural Bridge and Lake Frederick in May 2006. He organized the club to provide a solid communications link between Camp Natural Bridge and Lake Frederick.

With the help of Cadets Wiley Grant (KC2PCV), Steve Kuhni, Andrew Miller (KC2NPD), Jaidee Moore (KB9YAZ), Andrew Thompson (KC2PCW) and LTC Tim Schmoyer (W2JIG) the club set up Kenwood TM-D700 radios, each with a portable dual-band antenna and tripod, at Camp Natural Bridge and

at Lake Frederick. Handheld radios (HTs) were also used to coordinate and manage movement between the two sites.

Despite initial power supply wiring issues (Fuses, anyone?), both systems were on the air when needed; providing important voice communications between the two locations throughout the night.

Next year we plan to integrate these systems with the Scoutmaster's computers to send data files over the air. We also plan to incorporate our repeater site and DOIM's interoperability hub at Building 1210.



Top: CDT Andrew Thompson (KC2PCW) manning Lake Frederick radio. Bottom (Left to Right): CDTs Shawn Mosley (KC2NPB), Jaidee Moore (KB9YAZ), Wiley Grant (KC2PCV) and Andrew Thompson (KC2PCW) taking a chow break at Camp Natural Bridge.

Where are they now? by LTC Tim Schmoyer, W2JIG, and CPT Stephen Hamilton, KJ5HY



One of the great opportunities you have as a member of the USMA Amateur Radio Club is to talk to other amateur radio operators currently deployed around the world. The US Army Amateur Radio Society provides a list of deployed hams regularly. Before USAARS, knowing the call sign, frequency and time a deployed servicemember would be on the air was nearly impossible.

Captain Stephen Hamilton (KJ5HY, USMA 1998) tells about such a chance meeting. He is a former

USMA ARC CIC, currently a graduate student at Auburn University, a future EE&CS faculty member and, hopefully, USMA ARC OIC.

"In 1996, I was operating the Cadet Amateur Radio Club station at West Point on 20 meters under the call sign W2KGY. After a few CQs, I got a response from a station with an American call sign, but they said they were in Ecuador. I was immediately interested, so I asked them what they were doing. They said they were in the Army on

a DMZ, and were basically passing some time talking on the radio. It was a memorable contact, since I was able to talk to active duty soldiers on the radio from West Point where I was training to be one. A few years later, we had a faculty member join the club, then Captain Tim Schmoyer. He was talking to me one day about operating in Ecuador, and then I realized that I had talked to his unit on the air, during that mission, before we met at West Point!"

Scouts Take to the Air Waves by Scout Alex Smith



Above: W2KGY provided patches to the scouts for wear on their right pocket during the event.

Below: CDTs Andrew Thompson (KC2PCW) and Matt Sherburne (KF4WZB) act as control operators for the scouts on HF and VHF.



*"Calling all Scouts!
Calling all Scouts!
W2KGY is on the air!"*

These were the words heard Sunday, October 23, as Boy Scouts from West Point's Troop 23, as guests of the USMA Cadet Radio Club, broadcast from the radio shack high atop Bartlett Hall during the 2006 Jamboree On The Air (JOTA). JOTA is an annual event during which Scouts meet other Scouts through amateur radio contacts.

During JOTA, Scouts engage in QSOs—which are "conversations" in the short-hand code of ham radio operators—with other Boy Scouts, Girl Scouts, Cub Scouts, and Brownies all over the world. The purpose is to meet each other, exchange ideas, learn from each other, and gain a mutual understanding. Though the intent was to

try to make international contacts, the High Frequency (HF) and Very High Frequency (VHF) radios used by the club are dependent upon atmospheric propagation conditions in the ionosphere. Sunday, they were able to talk to Scouts from Arkansas, Alabama, Montana, Texas, and of course, New York.

The Cadet Radio Club, organized in the 1920s when radio was the latest technology, was led during the event by LTC Tim Schmoyer from the Department of Electrical Engineering and Computer Science, LTC Dennis Yates from Department of Military Instruction, and Dr. John Rogers from the Department of Civil and Mechanical Engineering. Cadet members of the Radio Club on hand for instruction and assistance were Matt Sherburne from

Burke, Virginia; Wiley Grant from Muncie, Indiana; Richard Kubu from Brookville, Maryland; and Andrew Thompson from Eagle Grove, Iowa.

In addition to using proper radio call signs and procedures, the Scouts learned about safety precautions around electrical equipment and radio antennas. Some Scouts even strapped on the appropriate safety gear and climbed the radio antenna mast on top of Bartlett Hall! During the Wednesday Scout meeting just before JOTA, the Scouts also received instruction on communicating on the spectrum of radio frequencies and some fundamentals of electronic circuits. The nineteen Scouts who attended both sessions received a commemorative JOTA patch and also earned the Radio Merit Badge.

W2KGY visits the Mt. Beacon Hamfest by CDT Wiley Grant, KC2PCV



CDT Wiley Grant (KC2PCV) buys a rubber duck for his Yaesu HT.

Cadets and officers from W2KGY were in attendance at the Mt. Beacon Ham fest last spring. The rainy weather did little to dampen the spirits of the fest which was high in attendance. The cadet's browsed through many different

items with some making purchases. The OIC also found himself doing a little shopping, buying a new power supply for his home.

Shopping wasn't the only activity that the cadets participated in though.

The cadets listened to several stories from vendors and other prominent members of the community. The cadet's enjoyed this chance to get outside the walls of the academy and represent USMA at the Ham fest.

Repeater Relocation/Rebuild by LTC Tim Schmoyer, W2JIG

Beginning last year, W2KGY started coordinating with the Directorate of Public Works (DPW), Directorate of Information Management (DOIM) and the Upper New York Repeater Council (UNYREPCO) to move the W2KGY repeater station to Building 1210 across from the Water Treatment Plant near Redoubt #4. The move was triggered by a DPW plan to build a new water tower where the old W2KGY repeater shack had been located.

The repeater stack consists of a S-COM 7K repeater controller, a Motorola Mitrek radio for the 70 centimeter band (420-450MHz), and two GE Mastr II radios: one for the 2 meter (144-148MHz) band and another for the 1.25 meter (222-225 MHz) band. Duplexers are

used with each radio to limit the number of antennas required to just two, a 2m & 70cm dual-band antenna and a second 1.25m antenna. The damaged Diamond X700HNA dual-band antenna was replaced this year with a Diamond X510NA antenna.

Mr. Bob McKay and Mr. Frank Blackmon from the Department of Electrical Engineering and Computer Science Engineering Support Group provided invaluable assistance recovering the club's repeater antennas and radio equipment from the old location and relocating everything to the new location. Mr. Ryan Currie and Mr. Jon Conlon from DOIM were instrumental in providing the club with access to the new location. Further, Mr. Conlon provided

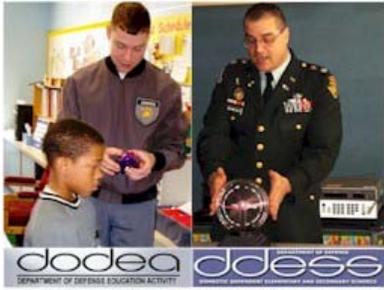
liaison with the Air Force National Guard's 213th Engineering Installation Squadron to assist installing the repeater antennas on the tower at our new location and running cable from the repeater cage to the antennas.

Special thanks go to Mr. Bob Isby from UNYREPCO for his untiring efforts to coordinate the club's repeater frequencies so we can get back on the air and to LTC Ron Dodge at the Information Technology and Operations Center for - once again - providing the needed financial support to buy new coaxial cable to put the repeaters back on line.



*Top: The old repeater shack and tower.
Above: Relocated repeater equipment.
Left: Secure cage in Bldg. 1210
Right: New tower waiting to be rigged.*

“Elementary, Watson! Science” by LTC Tim Schmoyer, W2JIG



Above Left: CDT Matt Sherburne (KF4WZB) holding the Weasel.
Above Right: LTC Tim Schmoyer (W2JIG) with a plasma globe.

CDT Matt Sherburne (KF4WZB) and LTC Tim Schmoyer (W2JIG) were invited to give a science lesson to Mr. Ricci's and Ms. Tierney's 4th Grade classes at West Point Elementary School.

The students had been studying electricity for several weeks and had built their own projects.

After both classes combined in Mr. Ricci's classroom, students were encouraged to ask and answer questions about demonstrations that applied electricity in different ways.

A Wimshurst machine was used to demonstrate electrostatics. Electro-magnetism (transformer)

was demonstrated using a plasma globe and Jacob's Ladder.

The OWI Weasel robot kit was used to demonstrate electromechanics and radio was demonstrated using a signal generator and Kenwood TH-F6A handheld radio.

Learning can be fun!!

Club Fair Night by LTC Tim Schmoyer, W2JIG



CDT Shawn Mosely (KF4WZB) and Mr. Roy Spells (KC2NDQ).

Setting up the W2KGY table for the Club Fair Night this August was a breeze.

The club divided up into four teams. The “Radio Display Team” consisting of LTC Dennis Yates (AB2TE) and CDT Shawn Mosley (KC2NPB). The

“Computer Display Team” with LTC Tim Schmoyer (W2JIG) and CDT Wiley Grant (KC2PCV). The Occupation Power Team including Dr. John Rogers (KC2PCX) and CDT Jaidee Moore (KB9YAZ). Finally, the “Poster Team” with Mr. Roy Spells (KC2NDQ), CDT Trevor

Kenney (KC2POJ) and CDT Steve Kuhni.

Mr. Spells, LTC Yates, CDT Mosley and CDT Grant then manned the table recruiting new members all night!

That was our best table, ever!

OIC Ragchew

Did you know? by LTC Tim Schmoyer, W2JIG

The first amateur radio station at West Point, NY, was founded in **1926** by William Holmes Wenstrom with the call letters **2CX**. Wenstrom was then a Lieutenant in the Signal Corps and an instructor in the English Department.

Wenstrom went on to publish several articles including, “Historical Review of Ultra-Short-Wave Progress” in the 1932 *Proceedings of the Institute of Radio Engineers*, “Radiometeorography as Applied to Unmanned Balloons” in the 1934

Monthly Weather Review, and “On Pilot Balloons and Sources of Light for High Altitude Upper-Wind Observations” in the 1937 *Monthly Weather Review*.

Wenstrom also authored a book in 1942 titled Weather and the Ocean of Air.

Right: Cutout of LT W.H. Wenstrom from the 1928 Howitzer Yearbook English Department photo.



CIC Ragchew

New members by CDT Matt Sherburne, KF4WZB



The club welcomes the following cadets to its membership:

Trevor Kenney (KC2POJ), '08, G-3

Rowland Kalisa, '10, H-1

Matthew McClary, '10, G-1

There are several other cadets interested, and we hope to see them get their license and operate the radios.

VEC Ragchew

W2KGY Licenses New Hams by LTC Dennis Yates, AB2TE



The Cadet Amateur Radio Club conducts Volunteer Exam Sessions two times each year – one Spring and one Fall session.

These VE sessions help make it easier for cadets to earn their licenses, since they are conducted right here on West Point under the supervision of the Club's Volunteer Exam Coordinator, LTC Dennis Yates (AB2TE). May cadets have earned their Technician Class licenses over the past three years, including

some Firsties who have branched into the US Army's Signal Corps. Over the last 12 months, three Club members or Officers have earned a license, upgraded, or passed the next Exam Element.

Cadet Trevor Kenney passed his Technician's test (Element 2) last April, earning him the call sign KC2POJ.

LTC Tim Schmoyer, the club's OIC, passed his Element 3 exam during

the same session. He only needs to take and pass the Morse Code test (Element 1) to qualify as a new General Class Ham. He also recently switched call signs from KC2FQS and is now known as W2JIG.

Finally, Matt Sherburne (KF4WZB), the club CIC, passed his Element 4 this past November, making him the first cadet to hold an Extra Class "ticket" in recent memory.

Congratulations to all!

Team Ragchew

Tower and Equipment by CDT Andrew Thompson, KC2PCW



This year has been a busy one for the USMA Amateur Radio Club. Throughout the year, the club has been purchasing and upgrading equipment in an effort to expand our capabilities and replace broken equipment. These

Left: CDT Wiley Grant (KC2PCV) climbs Bartlett Hall tower supervised by MAJ Todd Brick (KC2NPA).

acquisitions include two new Yaesu rotators for our satellite and 40 Meter arrays.

In addition to the tower time accrued by installing these new rotators, LTC Tim Schmoyer (W2JIG) helped several boy scouts get their first taste of tower safety and technique. The scouts learned the basics of mounting and climbing

the tower, as well as how arrays and rotators are installed or replaced. Members of the troop then got a chance to put this knowledge into practice by gearing up and climbing the Bartlett Hall tower. In the end it has been a busy and exciting year for the club as we continue to implement the best equipment possible.

Contests

School Club Roundup by CDT Wiley Grant, KC2PCV



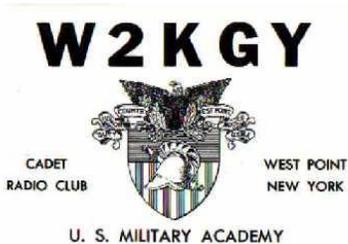
Left to Right:
Dr. John Rogers (KC2PCX),
Mr. Roy Spells (KC2NDQ),
CDT Wiley Grant (KC2PCV)
and CDT Nathan Weiser.

Coffee, Pizza, soda pop, and of course radios; some of the ingredients the cadet's used in this past years school club roundup. The worldwide competition focuses itself on the schools and colleges across the globe, challenging the contestants to contact as many as they can in a week long period. Contestants can only operate at total of 120 hours during the week of contest. During this time

they attempt to speak with as many other contestants as possible with bonus points for schools and colleges. The cadets of W2KGY made many contacts during their time on the radio. Cadets made contact with schools and colleges across the country and also many individual contacts. There were also several contacts with other countries. Some notable countries were Portugal, Morocco, Brazil, and England. After

the contest ended, the contestants that contacted W2KGY sent out their QSL cards to signify their contact with the military academy. Cadets responded with the clubs own cards. The results of the competition have not yet been received, but the score that was sent in by the club was higher than average. All in all, the cadets enjoyed their chance to compete and talk with HAMS all over the world.

ARRL 10-Meter Contest by Matt Sherburne, KF4WZB



Cadet Matt Sherburne (KF4WZB) competed in the international 10-meter contest this December. Using the IC-781 HF Rig with 1KW of RF power on the Tri-band (10, 15, 20-meter) Yagi, he made 57 contacts -- across 20 different states from CA to CT -- in 1 hour and 36

minutes of operation. He has submitted his log to ARRL claiming 2352 points.

At the end of the contest, he and Steve Fraasch (K0SF, USMA 1983) enjoyed a ragchew.

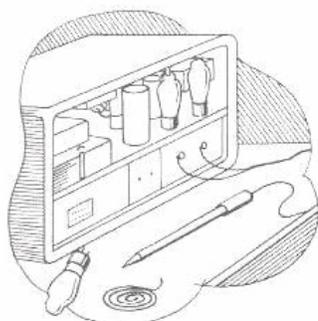
While at USMA, Fraasch installed the Bartlett Hall

tower and a 160-meter long wire (personally asked the Dean, BG Smith, if he could tie the other end of the wire to Taylor Hall). He got DCA to buy the Ten-Tac radio and also operated the Collins radio equipment.

On the Horizon

Upcoming Events by CDT Matt Sherburne, KF4WZB

Radio Club



The club will be focusing on four things this next semester: FCC Exam preparation classes, competitions (School Club Roundup), installation of new parts for the shack, and the Boy Scout Camporee at Lake Frederick. Preparation classes will boost the confidence and interest of

those wanting to earn their Technician Class license and we'll invite "Elmers" from surrounding Ham clubs to augment the teaching. Competitions, especially School Club Roundup, give our club and West Point high visibility to the public. We still have several new parts in the shack to

install. Information will be put out as to when these parts (mainly rotators and antenna switches) are going to be installed. The Boy Scout Camporee provides our club with the important job of securing communications between Camp Natural Bridge and Lake Frederick during the check-in of over 70 troops.