



## Aggies Sweep National University College Competition

**T**exas A&M University takes **FIRST PLACE** in the University Division of the American Radio Relay League Spring School Club RoundUP defeating teams from 21 other Colleges and Universities. The Aggies doubled the score of their nearest competitor and improved over last semesters score by 35%. The team of volunteer club members worked in shifts to operate the Texas A&M University Amateur Radio Station, **W5AC**, for the allotted 24 hours during the contest week. "Given the changing radio propagation conditions throughout the day and the week, choosing when to operate and what frequencies to use were critical factors in the victory." said Vice President Kevin Saygi.

Several new members joined the club during the last two semesters and passed their license examinations. "Last semester was a warm-up" says W5AC President Yucheng Guo. "The old Aggs (former students) helped train the newly licensed hams in the ways of radio contesting." Some new members who are not yet licensed operated the station during the contest under the supervision of licensed operators to get a feel for the excitement of making new contacts in a competition environment. All the hard work paid off

This is only the second competition that A&M has entered since moving the station from the Memorial Student Center to the new Club Building near Hensel Park. "We are getting used to the new location and equipment." says Guo, "as we continue to grow the club."

## President's Letter



"W5AC has done an amazing job this academic year. Thanks to dedicated club members, we did great in School Club Round-Up taking 1st place in college category and second place overall. Shortly afterwards, we performed major maintenance on the tower and antenna, getting them ready for the contesting season coming up soon.

Our cooperation with other organizations on campus that use amateur radio is growing. We provided Volunteer Exam sessions for members of the AggieSat lab in support of their recent CubeSat launch. This is the beginning of larger membership for the club and getting us into a position to provide services and support for other amateur radio users on campus.

W5AC members helped with the Bryan/College Station Christmas parade management this year. The entire formation and step off of the parade was coordinated by Amateur Radio, and went without a hitch (as far as the

TV audience knew.)

We are heading towards more achievements by organizing more activities. We continued our Foxhunt Program shifting from Friday afternoon to a combination of alternating Thursday / Friday afternoons to allow more people to participate.

Because of our active recruitment at open house events at the MSC and class presentations, our membership is growing. Last year we had 5 Students and 6 Community members, and our present roster of 18 Students and 18 Community members. A 300% improvement.

## In This Issue

- A&M Wins The University Division
- Passing for 300...!
- New Hams Become Members
- Antenna Party
- National Fox Hunt championship team
- Christmas Parade Wrap Up
- W5AC joins forces with AggieSat

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*"W5AC has done an amazing job this semester"*

*- Yucheng Guo KG5GDV*

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**W5AC Members operating in the ARRL School Club Roundup Competition: Standing, Bob Lynch; Seated near to far, Daniel Ghan (KM4OPI), Lucas Hastings (KG5LYQ), Spencer Capps (KG5JYZ)**

## Operate > Log > Repeat until Victorious

*(Continued from page 1)*

The Aggie team shared the load this semester by having 13 club members participate compared to the 9 members who met the challenge last semester. The increase in personnel allowed for a more even distribution of shifts, and put more students in the operators chair as well.

## Antenna Repairs and Upgrades

The Force 12 antenna system performed exceedingly well, pulling in stations stateside and dx, even with the poor band conditions which prevailed during the Competition. However, since this is a new installation, there are the normal startup pains to deal with. The Tailtwister rotor failed to rotate the array beyond a 140 Degree arch for a while, then began operating a full 360 again. The pointing information was not correct, so a conversion chart was built to help the operator know where the antenna was pointed. In a pinch, everybody just looked out the window and looked up. The back of the building is lined up very closely with NE, so figuring out where the antenna was pointed is not a big problem. The repair of the rotor went on the list for the next tower repair outage.



The Tower Raise/Lower brake was also found to be inoperative. That and the failure of the raise lower motor caused some concern.

*(Continued on page #3)*

## News from Other Clubs

The Bryan Amateur Radio Club Web site is [www.BryanARC.org](http://www.BryanARC.org) Their next meeting is scheduled for 9:30 AM, April 9 at the USDA building on F&B Road. Social begins at 9:00 and there is food. W5AC members and all visitors are welcome

## ARRL News

ARRL Web Site has extensive links to the current activities involving Amateur Radio around the world. DX forecasts, stories about DXpeditions, Access to ARRL educational and training materials. Membership can be handled on the web site at [www.arrl.org](http://www.arrl.org).

## ARES/RACES

Texas A&M W5AC provides a back up communications operating center at the Shack, and is an important part of community emergency services plan.

Amateur Radio Emergency Service (ARES) is an ARRL sponsored organization that supports emergency communications planning, training and equipping local agencies.

The Texas Division of Emergency Management, Operations Section, manages and staffs the State Operations Center located at DPS headquarters in Austin. During major emergencies, the State Operations Center Management Team, state agencies and volunteer groups that make up the state Emergency Management Council and Federal liaison teams convene at the SOC to identify, mobilize, and deploy state and volunteer group resources to respond to the emergency.

When a National or State Wide emergency is declared, Emergency Management will use RACES (and ARES) to provide communications to critical areas.

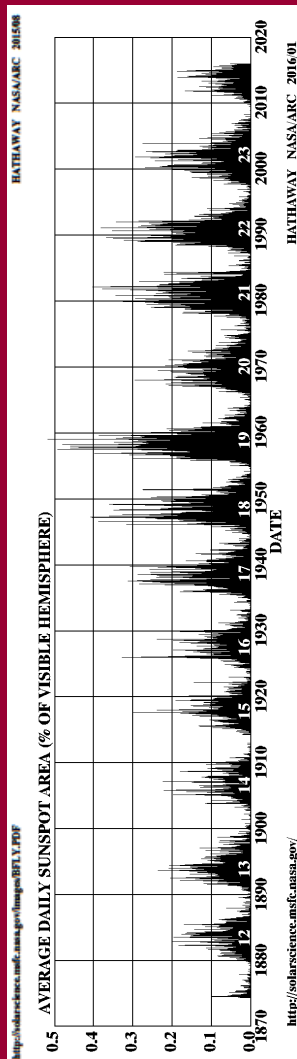
The Brazos County Community Emergency Operations Center (CEOC) houses ARES/RACES coordination personnel during an emergency and is a link directly between our community and the State Operations Center in Austin.

The DEM website is <https://www.txdps.state.tx.us/dem/Operations/index.htm>

## Space Weather

Solar Cycle Number 24 underway. The 11 year cyclic phenomena has a tremendous influence on radio propagation around our earth.

Here is a graphic showing the last few sunspot cycles. HF radio propagation is better during sunspot maximums and trails off during the time when sunspot activity is at a minimum. Cycle 24 is lower than many recent cycles going back to almost the 1920's. Poor Propagation remains the general outlook.



## Fox Hunting National Competition

W5AC members interested in locating hidden transmitters (FoxHunting) gather near Sully's statue to practice their skills and test their equipment. The schedule for these outings is changing to accommodate more participants and to allow more student to observe what is going on.



*"Tuning the radio was a challenge, but Miss REV got the hang of FoxHunting very quickly. She's a natural"*

*- Yucheng Guo...KG5GDV*

**W5AC President, Yucheng Guo briefs the newest FoxHunter...Reveille IX**

## Sixteenth USA National ARDF Championships

USA's national championships of Amateur Radio Direction Finding will return to the Lone Star state in 2016. The Sixteenth USA ARDF Championships take place in early April, sponsored by the Texas ARDF group and the Austin Orienteering Club (AOC).

Primary site of the competitions will be the Parrie Haynes C5 Youth Ranch and Equestrian Center, about ten miles southwest of Killeen, Texas. The fun gets under way on Wednesday, April 6 with optional practice courses. Thursday will be devoted to foxoring, a sport that combines RDF and classic orienteering. The sprint event takes place on Friday, followed by a catered lunch and informational meeting.

Saturday is the day of the classic two-meter ARDF competition with a catered lunch to follow and an awards banquet at the Parrie Haynes clubhouse in the evening. Then the classic 80-meter ARDF competition gets off to an early start on Sunday morning, followed by another lunch and awards ceremony, concluding in time for those who must catch evening flights home.

## Upcoming Events

- National FoxHunting Championships at
- National Parks on the Air
- Test Session at BARC meeting April 9
- Review of Operating Strategies and Tactics for next Competition
- Getting more old Aggs (former students) involved during competitions
- Water and Sewer additions to the club may require donations....(Of money...!...)



# 2016 School Club RoundUP Results

(As submitted...subject to review by competition officials)

## Category: College/University - W/VE

Call Used	School/Club	QTH	Score	Rank	CW/ RTTY/ Dig Qs	Phone Qs	US	VE	DX	Clubs	Schools
<a href="#">W5AC</a>	Texas A&M University Amateur Radio Club	TX	428,544	1	50	1016	50	6	30	19	52
<a href="#">N7ERU</a>	Eagle Amateur Radio Club, Embry-Riddle Aeronautical University	AZ	204,156	2	108	426	47	8	13	15	44
<a href="#">WD5AGO</a>	Tulsa Community Col- lege - ARC	OK	181,712	3	4	546	50	8	30	15	42
<a href="#">W9UIH</a>	Southern Illinois Uni- versity ARC	IL	127,350	4	19	412	49	5	6	14	39
<a href="#">W8EDU</a>	Case Amateur Radio Club, Case Western Re- serve University	OH	111,752	5	78	302	46	8	17	4	33
<a href="#">K8YSU</a>	Youngstown State Uni- versity	OH	57,054	6	16	225	37	3	13	2	33
<a href="#">W9YT</a>	Badger Amateur Radio Society/University of Wisconsin-Madison	WI	47,520	7	6	204	36	2	14	9	30
<a href="#">K5LSU</a>	Amateur Radio Society at La. State Univ.	LA	42,024	8	44	118	37	5	7	5	29
<a href="#">W9JWC</a>	Bradley University	IL	33,534	9	0	207	41	6	0	5	21
<a href="#">VA2QDC</a>	Dawson College	QC	25,160	10	0	148	32	2	7	2	25
<a href="#">KC2HNB</a>	Binghamton University	NY	21,896	11	0	119	29	1	1	4	29
<a href="#">W4AQL</a>	Georgia Tech Amateur Radio Club	GA	13,650	12	0	91	32	3	2	4	21
<a href="#">K7UAZ</a>	The University of Arizo- na	AZ	5,810	13	0	83	31	0	1	4	6
<a href="#">K7BYI</a>	Brigham Young Univer- sity - Idaho Amateur Radio Society	ID	5,767	14	18	43	29	2	0	1	8
<a href="#">W8SH</a>	Mich. State Univ. ARC	MI	4,794	15	0	47	22	1	0	2	15
<a href="#">W9UWP</a>	University of Wisconsin -Platteville ARC	WI	4,536	16	0	63	22	5	0	0	9
<a href="#">K4PCC</a>	Pitt Community College	NC	4,320	17	0	45	23	2	1	0	14
<a href="#">W8UPD</a>	UNIVERSITY OF AKRON	OH	4,173	18	0	39	19	1	5	1	16
<a href="#">K0ESU</a>	Emporia State Univer- sity Amateur Radio Club	KS	1,218	19	0	29	13	1	1	1	5
<a href="#">W1YK</a>	Worcester Polytechnic Institute Wireless Asso- ciation	MA	684	20	0	12	7	0	0	0	10
<a href="#">W2HJ</a>	The City College of New York	NY	560	21	0	14	11	0	2	1	5

# What Made the Difference From Last Semester ... ?

This semester, W5AC won the University/College division of the School Club RoundUP. Looking at the raw score, it is easy to see that the club improved by about 35% overall. The total score is made up of two parts. First: The number of raw contacts, Second: the Multiplier factors based on the types of contacts made. The total score is the number of contacts made multiplied by the number of multipliers.

## Multipliers

Looking at the raw score, it is easy to see that the club improved by about 35% overall. The total score is made up of two parts. First: The number

## Contact Points

W5AC contacted over 1000 stations using voice communications and another 50 using CW/RTTY or other Digital modes. The total QSO contact points were the sum of those with the CW/RTTY/and Digital mode contacts being multiplied by 2.

## Final Score

The total score is the product of the Multipliers (384) times the QSO Points (1,116) which is **428,544**. This is 35 % increase over the final score last semester of 316,117 which garnered the A&M Team second place behind the team from the University of North Dakota who racked up a score of 380,607.

Total Score Calculation			
<b>Multipliers Calculated</b>			
	Multiplier Value	Number Contacted	
Number of Schools	5	52	260
Number of Clubs	2	19	38
Number of US/VE/DX	1	86	86
<b>Total Multipliers earned</b>			<b>384</b>
<b>QSO Points Calculation</b>			
	Contact	Type Multiplier	
Phone QSO Points	1,016	1	1016
CW/RTTY/DIG Contacts	50	2	100
<b>Total QSO points</b>			<b>1,116</b>
<b>Total Score</b>			<b>428,544</b>

## Overall Competition Results

One of the purposes of the School Club Roundup is to get kids excited about the Science Technology and Engineering through an introduction to electronics through the use of Amateur Radio. To promote more interest the American Radio Relay League includes Elementary/Primary, Middle/Intermediate/Junior High, and High School categories as well as the competition among colleges and universities. There are a total of 94 entries in this years competition. Of particular interest is the single "Club/Multi-Op DX station entry which is the club station of the European Space Agency. A summary of the category winners is shown bellow. It should be noted that at the time of publication, all results are preliminary and are being reviewed by the competition sponsor staff.

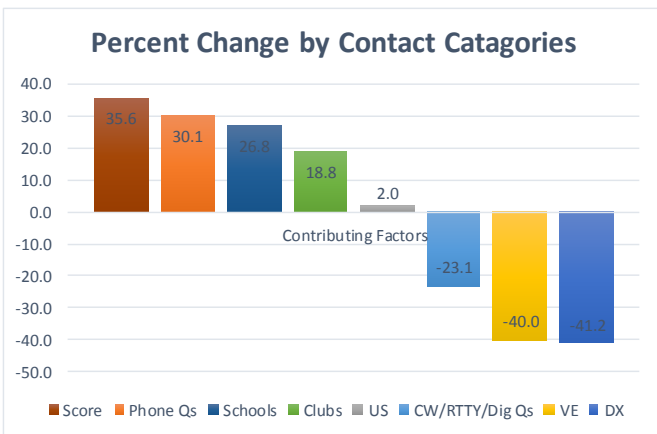
## Entries by Category

Elementary / Primary	4
Middle/Intermediate/Jr High	15
Senior High	14
College and University	21
Club/Multi-Operator	8
Club/Multi-Op Dx	1
Individual	31

Category	Call Used	School/Club	QTH	Score	Rank	CW/RTTY/Dig Qs	Phone Qs	US	VE	DX	Clubs	Schools
<b>Elementary/Primary School - W/VE</b>		D.E.A.R.S. / Dresden El. OH Amateur Radio Station	OH	102,828	1	5	408	45	6	3	11	34
	KD8NOM											
<b>Middle/Intermed/JR High School - W/VE</b>		Schofield Middle School Radio Club	SC	428,808	1	0	1051	49	10	23	18	58
	N4SMS											
<b>Senior High School - W/VE</b>		Tiger Radio Club	OK	268,793	1	0	817	47	7	13	16	46
	KF5CRF	Texas A&M University Amateur Radio Club	TX	428,544	1	50	1016	50	6	30	19	52
<b>College/University - W/VE</b>												
	W5AC											
<b>Club/Multi-Op - W/VE</b>		Duluth Children's Museum	MN	34,572	1	59	150	46	4	3	8	12
	N0DCM											
<b>Club/Multi-Op - DX</b>		Radioclub European Space Operations Centre	DX	8,099	1	0	89	28	2	4	1	11
	DLOESA											
<b>Individual - W/VE</b>												
	N3FJP		MD	7,740	1	0	45	22	1	1	4	28

The overall winner compiled a score of 428,808, knocking the A&M club out of first place by a mere 264 points. Since A&M scored multipliers of 384, this means that one more contact would have put W5AC in the overall top position. One more contact. It's almost like the 12th man didn't show up. At any rate, We offer our heartiest congratulations to the Schofield middle school, their sponsors

and advisors for racking up this most impressive performance. The QRZ listing for the school gives some indication of why they have such an effective program. They are well sponsored, have active sponsors, are active as a club and practice, practice, practice at amateur radio.



## QRZ Listing for N4SMS

*N4SMS is the club call of Schofield Middle School Radio Club in Aiken, SC. Club equipment was made possible through a grant from Savannah River Nuclear Solutions (SRNS). The club got its' start through the efforts of Schofield's then Guidance Counselor, Mr. John Felak. The club is sponsored by the North Augusta Belvedere Radio Club (K4NAB). A complete selection of books was purchased from ARRL and donated to the school Media Center for checkout by future HAMS.*

*Club meetings are held on Thursdays from 3:30 - 4:30 PM. The students are exposed to amateur radio through Echolink contacts, local 2 Meter QSOs and through HF wherever the band propagation takes us. We have also invited the German language class into the shack for Echolink QSOs with DL4LAM, Peter Maennel, who very graciously SPENDS time with the German language students. Phoenetic alphabet and Morse code are also being taught. Current Elmers for the club are Greg Godsey K5CVD, David Kjelquist WB5NHL and Kent Hufford KQ4KK. The club advisor is Mr. Tray Nelson. KK4FCI*

*We use QRZ Logbook, EQSL and LOTW. For paper QSL please SASE to the school. Thanks and 73s. The students are very excited when their individual QSL cards show up. The club recently PARTICIPATED in the School Club Roundup and had over 500 contacts and EARNED around 145000 points. This was a large increase over their last SCR.*

## Antenna and Rotor Repairs (cont.)

(Continued from page 2)

W5QZ reported that he and W5MHN swapped out the broken winch for a replacement over the holiday break and returned the original to the tower manufacturer for diagnosis. This winch was acquired at a significant discount but is the same type/model as the previous unit and will eventually be subject to the same wear and tear and as such is not a long term solution. W5QZ and tower manufacturer are continuing dialog on options. The motor is not rated for outdoor use, but was supplied with the tower as part of the delivery package.

W5QZ, KF5TYT, and W5MHN tackled the rotator replacement over the holiday break. They tilted the tower but were unable to fish the old rotor out through the central shaft of the tower while the mast was present. They did not wish to remove the antenna from

the mast so they righted the tower. After further in depth discussions KO5TER made the motion and N5TLT seconded that the club allocate no more than \$1,000 to purchase a TiltPlate mount for the antenna. The motion passed 6-1 with no abstentions. W5QZ will research and purchase the TiltPlate. Once it arrives, the club will schedule a working party to remove the antenna and rotor, ship the bad rotor back for warranty work, install the new rotor, the mast, TiltPlate and raise the tower. Additionally, while working on the tower, they noticed that the brakes/pegs that lock the tower in the raised position are sticking due to release cord design. This will also be addressed as they have the tower down for work.



On February 21st, the tower party was completed, correcting the winch and rotor problems and doing some tuning on the Force 12.

Dave (W5QZ) reported, "First two QSOs after the antenna was raised were Yucheng



# AggieSat Lab and W5AC

11 members of AggieSat Lab have obtained Technician licenses in the past year so they can operate the ground station, of whom 2 also became members of W5AC: Daniel Ghan and Lucas Hastings.

AggieSat Lab is a Texas A&M organization that designs, builds, and operates satellites. Our first satellite, AggieSat 2, was launched in 2009 from Space Shuttle Endeavour, during STS-127. Our current satellite, AggieSat 4, was launched to the International Space Station in December 2015 and was deployed in late January.

The satellite sent out strong beacons at 436.25 MHz until February 3, when it mysteriously went silent (we now believe a software bug may have been responsible). Attempts to re-establish contact have so far been unsuccessful.

(AggieSats 1 and 3 were design concepts that were never launched into space.)

Communications with AggieSat4 take place on UHF and VHF amateur frequencies (around 436 and 146 MHz). AggieSat Lab has a ground station at Riverside campus for communicating on these frequencies, complete with 3 circularly polarized Yagi antennas (2 UHF and 1 VHF), az-el rotators that can be operated remotely, and a transceiver that can also be operated remotely.



## DX Progress: Passing 300

The goal is to work 300 DX entities by the end of the Academic Year. So far, our total is 306 (293 confirmed, meaning that we have received either a QSL card or electronic confirmation through ARRL or eQSL that the contact was made, with 294 being done by the end of 2015. This is an awesome score and is a direct result of the performance of the station, operators and good fortune on the band conditions. There is a lot more operating going on now, so there are more opportunities to catch DX stations when they are on, and with our facilities, making contact with the rare ones is becoming easier. Next newsletter, a history of the clubs DX activities will be included.

## W5AC Club Officers Fall 2015

W5AC President: Yucheng Guo - KG5GDV  
president (at) w5ac.tamu.edu

W5AC Vice President: Kevin Saygi  
vice-president (at) w5ac.tamu.edu

W5AC Secretary: Marty H NAU - W5MHN  
secretary (at) w5ac.tamu.edu

W5AC Treasurer: Spencer Capps - KG5JYZ  
treasurer (at) w5ac.tamu.edu

To send a message to the above officers, e-mail clubofficers (at) w5ac.tamu.edu

## Donations are Tax Deductible...!

All donations to the Texas A&M Foundation for the W5AC radio club are Tax Deductible. Cash can be spent by the club on equipment, facilities and operating expenses. Equipment can be donated too, but once donated, the club cannot sell the equipment later. At present donated equipment must be placed in university surplus to be sold and the income from its sale goes into the university general fund., NOT TO W5AC

(<http://www.faqs.org/tax-exempt/TX/Texas-A-m-Foundation.html>)

## Contact Us

Net Every Monday Night  
8:00 PM 146.82+ 88.5

Meeting 2nd Thursday  
7:30-8:30 Floriculture Rd  
Shack location.  
(30.62972 N 96.3434 W)  
EM10tp

W5AC@tamu.edu

<http://W5AC.TAMU.EDU>

Search for "tamuarc" on  
Facebook

The Wireless brings you news from W5AC

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Texas A&M University  
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College Station, TX 77843-1236

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