

Socorro Amateur Radio Association Newsletter July 2017

Meetings

The minutes for meetings are at

www.socorroara.org/sara/minutes.

The agenda for meetings is located at:

www.socorroara.org/sara/agenda/agenda.pdf

The July 2017 meeting will be at the Socorro County EOC on Neel Avenue on July 12.

SARA Repeater

SARA supports a VHF repeater located on Socorro Peak immediately west of Socorro. The repeater is "open". The auto patch is currently inoperative.

146.68 (-)

100 or 123 Hz required

123 Hz on output

SARA also supports a UHF D-STAR module 'B' operating at 444.500 MHz + 5.000

Registration instructions are at

www.socorroara.org/sara/repeaters/D_STAR_Gateway.pdf

Club Officers

President

Vice President

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Newsletter Editor

President's Corner

Thoughts on a Ham Club

©James Boswell, KA5SIW

Take a moment to think about what makes an amateur radio club. The basic idea of a club is a group of people with a common interest joining together. Looking deep into an organization, one notices that a club is composed of separate sub-groups, each pooling their special talents. This mix of talents comprises the mental assets of a club.

I think the list of sub-groups includes the ORGANIZERS, OPERATORS, TECHNICAL EXPERTS, and DOCUMENTATORS. The most important group within a club are the NEW MEMBERS! Without them, there is no growth in the club, or the hobby. I suggest that we all stop to think about the new members more. As an important part of any club, we should all try to show them a positive image, and always keep the door open to new members, encourage and help them, make them feel welcome.

One thing that is common with Hams is the thought that newer is better. We all would like one of the new wiz-bang radios but we should think carefully regarding the expense of these hobbies.

Please stop and think, what is the measure of enjoyment of the hobby. One member might operate his station for 20 hours a week using a \$200 QRP rig and a carefully matched wire antenna. Another member might sit back and declare that any radio more than two years old is not good enough for him. That same person might not operate more than a few hours per week.

I have seen the budding pride of a new ham destroyed due to a careless remark about the age or condition of their radio. This hobby seems to be moving away from their roots of building your own. Please remember that it is not what you have, or can afford to buy, that inspires a new member to be a good ham. It is the EXAMPLE you demonstrate regarding yourself and your use of equipment.

Spaceport America Cup

Ray Calkins, N0RBT

Last week, I volunteered at the inaugural Spaceport America Cup. This week-long event had collegiate teams from around the globe converging on New Mexico, flying their carefully engineered vehicles in a quest to loft an 8.8 lb payload to precisely 10,000 or 30,000 feet above ground level. Entrants came from schools across the USA, as well as many foreign countries as far away as Brazil, South Korea and Egypt. In 2016, more than 600 students competed in the event, then held in Utah, from over 50 schools located on nearly every continent. This year marks the first year it has been held in New Mexico, it is expected to return next year.

A wide range of rockets were flown at the event this year. Some were powered by commercial high power model rocket motors, some by student designed and fabricated solid rockets. Many flew on hybrid rockets, which use both a solid and liquid propellant. This year, a student team from Colorado State University even designed, fabricated and flew a liquid bipropellant rocket. Most of the rockets had on board radio telemetry and ground based tracking to aid in data and hardware recovery.

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As you can imagine, any unguided rocket achieving these altitudes can range a significant distance from the launch pad on recovery. Since recovery of the payload counted in the competition, a wide area of the desert needs to be blanketed with communication. Many of the teams had newly licensed ham operators with their ubiquitous Baofeng radios. Some had more sophisticated coms, though many relied on FRS walkie-talkies. Cell coverage is only provided by Verizon in the area. Event coordination communication was accomplished via a patchwork using a FRS backbone, backed up with a standard dedicated emergency coms system for Fire/EMS/Security. Many operations folks carried multiple radios to stay in the loop.

Very few of these engineering students were acclimated to conditions at the launch site. Heat stress and altitude was a major factor in team performance. The on-site EMS crews were kept busy during the event, though most interactions did not require transport to a medical facility.

Amateur radio operators would have a lot to offer this event in the smooth coordinating of communications. As this is a large event, located between Socorro and Las Cruces, it would offer a fair number of hams an opportunity to coordinate in a dynamic event. I look forward to seeing you out there next year!

73 and Ad Astra,

Ray
N0RBT

Links:
The event page
<https://spaceportamericacup.com/>

Organizers
<http://www.soundingrocket.org/>

The event site
<http://spaceportamerica.com/>

Letter From the Editor

Anneliese Bowman, AD6UY

This is your newsletter, Gentle Readers. If you want to contribute something please contact me. I am reachable by email at: ad6uy@powerc.net or ad6uy.anne@gmail.com I check both of those regularly. You may also text or call on my cell phone 575 418 8346.

Suggestions are welcome as is constructive criticism. I'm using software that has evolved a lot since I last used it so things are a bit rough around the edges.

Lab Night Mesh Network

William Heller, KG5NGN

Brad (KD5JNI) and I (KG5NGN) have been working on the 2.4 GHz mesh network firmware installed on early WRT54g routers. At the first Lab Night that we got together we succeeded in getting the two nodes to connect we held a brief QSO using Microsoft Chat which is very much like texting on your cell phone. During the period between Lab Nights I got two Raspberry Pi single board computers configured as mesh nodes as well and after much trial and error got my Linksys router to connect to the Raspberry Pi and form a three node mesh. Something that changed during those experiments caused a failure during the next Lab Night when we tried to make a voice connection between two routers. We have been keeping Al (AC5BX) abreast of our experiments and he had acquired his own WRT54gl and loaded it with the new firmware from the HSMM-MESH website. When he rebooted the router and accessed it on the built in web page he saw from the node description that it was running but had no neighbor node to connect to. I later brought my node down and we made a connection. I guess we will try the voice connection again the next Lab Night. If anybody else has an early WRT54g router and would like to try this exciting addition to Ham radio we would be happy to help load the firmware and get your node up. We still need to setup to do some range testing and play with directional antennas.

W6KA Field Day Pics

Bear Albrecht, W5VZB

The W6KA (Pasadena Radio Club) Field Day was held way up in the hills at the Art Center School of Design. As is often the case, the young were in short supply. I first came to the 20 meter station, around 5:30 PM, and the band was pretty dead. I eventually operated a little at the 40 meter station, which had also been in the doldrums, although as the day wore on a few signals were appearing.

There are a lot of these, so some will go in the next couple of issues.

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20 meter position



IP Phones at every position



Pickup with lots of antennas



View from afar



JPL NASA It **is** rocket science!



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