

EAARS P.O. Box 398 Solomon, AZ 85551

July 2015

4H I.S.S Contact Update

As mentioned in last months newsletter, the Vail Vaquero's 4H Club's I.S.S. contact is scheduled for week 19 of the expedition. The contact will be held at Empire High School in Vail. Because there are no US Ham Radio Operators aboard the Expedition at this time, the kids will be talking to a Russian Cosmonaut. Unfortunately, we won't have an exact date until the week before the contact. What I can tell you are the potential dates and times of the contact. I was tasked with putting them in priority. This is what I submitted to ARISS:

#1 Tue 14jul15 11:45:25 11:55:39 #2 Mon 13jul15 11:03:07 11:13:23 #3 Wed 15jul15 10:51:17 11:01:50 #4 Fri 17jul15 10:39:35 10:49:43 #5 Thu 16jul15 09:57:19 10:07:39

Once we have an exact date I will send out an email invitation to the Ham Community. For those of you that will not be able to attend the event due to work, other obligations, etc there will be a live video feed of the event set up on Google Play by Mathias (*KOWBG*). Details will be in the email invitation.

Here is a picture of the antenna that Larry, *W7LB* built for the contact. Hope to see several of you at the contact site in a few weeks.

A special thanks goes out to the following Hams that are making this all possible: Larry, *W7LB*

Mathias, *K0WBG*Carl, *KB7AZ*Mike, *K7BUM*Rick, *W1GHF*

For up to date information please check out our website.



Lani Dzicek, N3IDN

Vail Vaquero's 4H Ham Radio Leader

https://pimacounty4hhamradio.shutterfly.com/



EAARS OPEN REPEATERS

PL 141.3 UNLESS NOTED OTHERWISE

ECHOLINK: 614350 IRLP: 7787

HELIOGRAPH PEAK AT SAFFORD, AZ:

146.860, 440.700 LINKED

146.900

145.010 PACKET

JACKS PEAK AT SILVER CITY, NM:

145.210 LINKED

WEST PEAK AT FT THOMAS, AZ:

145.350 ACCESS TO LINK TO NETWORK

PINAL PEAK AT GLOBE, AZ:

145.410 LINKED

SOUTH MT AT ALPINE, AZ:

145.270 LINKED

CABALLO MT AT TORC, NM:

145.470 LINKED

GREENS PEAK AT SHOW LOW, AZ:

146.700 LINKED

LITTLE FLORIDA AT DEMING, NM:

147.060 LINKED

MULE MT AT BISBEE, AZ:

147.080 LINKED

MT. LEMMON AT TUCSON, AZ:

147.160 LINKED

GUTHRIE PEAK, AT CLIFTON, AZ:

147.280 LINKED

Don't forget the XYL net! Monday night at 7:30pm Ladies only please



2015 Officers and Staff

eaarsofficers@eaars.com to email all officers.

President Technical Adviser

Dave Wells Milt Jensen N7AM N5IA

Vice President Newsletter Editor

Dan Quaintance Steve Lane *AF7EF KY7K*

Secretary/Treasurer Net Manager

Larry Griggs Chris Buchanan N5BG N77ND

Site Trustee ARCA Rep

Joe Montierth Open *K77EM*

Net Control Operators

Rick KE7EDP Angie N7EMBBob KD7LMV Chris N7JNDKarl N7DMA

Join us every Sunday night at
Join us every Sunday night at
7pm on the EAARS Network
7pm on the EAARS Sunday
repeaters for our Sunday
Night Net.
Night Net.
Everyone is Welcome!



EAARS 2015 ARRL Field Day Exercise

Friday afternoon, June 26th, setup began at Cluff Pond 3 for the Eastern Arizona Amateur Radio Society 2015 ARRL Field Day Exercise. Dan's 20M Moxon Beam was deployed on the mesa again this year as was the 5BTV vertical. Across the road in the parking lot the 40M/80M, off bus mast, along with a folded double Zepp were deployed to provide plenty of choice in antennas.

Internet was made available thanks to the HSMM Mesh Nodes of Wendall, *W7WGW* and Dan, *AF7EF*.

Besides using the mesh nodes to Network N1MM logging for Field Day, Wendall, *W7WGW* demonstrated the use of the mesh nodes networking capability to look in on a live camera at his QTH 10.5 miles away.

This year EAARS field day exchange was K7EAR 3A AZ. N7AM Dave, K7ZOO Curt, AF7EF Dan, KG7EQN Jacob and W7MIN Gary put the club call K7EAR to use again this year with a total of 585 QSOs using CW, SSB and PSK31 during ARRL's 2015 Field Day Exercises.

Kurt, *K7Z00*, gave an instructive presentation on "Protective Cases for Emergency Equipment" of the type we use in Amateur Radio. John, *W7STH* upgraded to General Class and we gained a new Amateur in the Gila Valley when David B. Lee of Pima passed his Technician class test recieving his new call sign *KG7UUA*.

The operators would like to Thank Kennie Joe and David Lee for bringing over coffee, breakfast burros, watermelon and cherry tomatoes for breakfast Saturday and Sunday mornings and for David's help setting up. Also helping during this years activities was Dave, N7AM's significant other Luvina, Dave's Daughter Penny, KB7EDQ, Wendall, W7WGW and his brother Arvin, along with Dan, AF7EF were grandchildren Virginia (Wiedmeyer) Garcia, Tabatha Wiedmeyer, her boyfriend Matt Gonzales, Syrena Wiedmeyer



KG7EQN having fun!



Congratulations, David!

Dakota Quaintance, Caylun Quaintance and greatgrandson Titus, all skowed upto man a GOTA station. From beginning to end because of the Hot days there were many persons exposed and asking questions about Amateur Radio.

Some pictures are posted at http://fd2015.info/tiki-index.php?page=Field+Day+2015 more will be added as they come in

Dan, AF7EF

Vail Vaquero 4H ISS Crew Introductions!

Hi, this is the Vail vaqueros 4-H group. Our group focuses on Shooting sports, live stock, and other activities... One, is Ham Radio. Ham Radio is a hobby that lots of people look into.

Our 4-H group is organizing a meet up to contact the I.S.S (International Space Station). This will be a session where you get to contact the I.S.S Astronauts. If selected, everyone is welcome and other 4-H groups are also going to be invited. We will be talking to the astronauts and asking them Questions.

Here is Some information on the I.S.S.The I.S.S is 924,739 lbs and is as long as a football field and has 2 bathrooms, a gym and a 360-degree bay window, but of course there is more than that.

Here are some cool facts the International

Space Station Size & Mass:

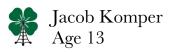
Module Length: 167 ft Truss Length: 357 ft

Solar Array Length: 239 ft

Habitable Volume: 13,696 cubic feet Pressurized Volume: 32,333cubic feet

Power Generation: 8 Solar Rays=84 kilowatts

Lines of computer code: About 2.3 million.



Have you ever wanted to communicate with the inhabitants of the laboratory in space, better known as the ISS? Now you can!

(Essential Info here!

Location: Empire High School

Time: TBD Contact:TBD)

The ISS(International Space Station) is an incredible space craft that has had humans on it since 2000. The ISS is a giant laboratory in space, being about as long as a football field, and has a

Ever wanted to talk to astronauts? Well now you can!

Location: Empire High School

Time: TBD

Contact info: TBD

Using ham radio you can talk to astronauts in the international space station (ISS). The ISS is as long as a football field. Astronauts live, study and work at the space station. It has different modules that people from certain countries live in. Astronauts live in the space station for only a certain amount of time like six months or maybe a year because zero gravity affects muscles making them weaker. If you are interested in talking live to the astronauts on the ISS you can join us and ask questions about their lives in space.



Zane Walker Age 13

See the next page for the rest of the crew!

Also part of the crew are Jake, *KG7RHJ*, featured in the June newsletter, and Sitka

volume of one and a-half Boeing 747 airliners!

The ISS was built by five space agencies, that represent fifteen nations as a cooperative effort towards understanding space and exploring it. It is truly remarkable. Even better there is a way you can communicate with them! It is called Ham Radio. If you sign up now, you can ask the people who live in the ISS some of your own questions!



Max Walker Age 13 Hi my name is Jerico Dzicek. I am 14 years old and have been involved in 4H for the last six years. Currently, I am the president of the Vail Vaquero's 4H Club and a member of the South East Ranchers 4H Club. I have participated in many projects over the years including, dog, horse, archery, photography and many other projects.

This is my first year in the Ham Radio Project. The Ham Radio Project is fun. This year we built two antennas and a transceiver. We went to several Ham Radio picnics, and took several field trips. We visited the U of A Ham Radio Club and was able to make contact with other radio operators across the country. We went to a Survival Fest and learned that the Border Patrol uses Ham Radio to communicate in remote areas. We also learned about RACES and their role in emergency communication. In March we took a hike on Mt Lemmon and did a SOTA activation. SOTA is Summits On The Air. You hike up to peaks above 9,000 ft and activate home made radio and antennas on low power. It is very cool.

We are learning all about the FCC rules and regulations and I will soon be taking my test to become a licensed ham radio operator. So far I like it!

The best part about the Ham Radio project is that we were approved to make contact with the ISS this summer and am really looking forward to talking to the astronauts. I am SUPER excited to be able to communicate with astronauts while in space!!

Please visit our website for more information on our 4H Ham Radio Project. https://

pimacounty4hhamradio.shutterfly.com/



Jerico Dzicek President Vail Vaquero's 4H Club Age 14



Jacob, Jake, and Jerico on Mt Lemmon doing SOTA



Sitka and Jerico Building a Transceiver



Max and Zane building antennas

Ham License Testing

There are four monthly VE test sessions in the **Tucson Area.**

Lighthouse YMCA / ARRL: First Thursday Contact Matt, AC7IL, veregistration@ac7il.org

Oro Valley / ARRL: First Saturday Contact licensing@tucsonhamradio.org

RST / Laurel (No Fee): Second Monday Contact Diane, *AA30F*, dzimmerman2002@gmail.com

Jacobs Park YMCA / ARRL: Third Saturday Contact Fred, K70FA, k7ofa@arrl.net

Graham / Greenlee / Cochise County Area For VE testing on request, please contact Dave, N7AM, and he will arrange it.

Technician License Class - Tucson Every Tuesday, 6:30 - 9:00pm at TMC. Contact Dan, *KC7VDA* for info. kc7vda@gmail.com

Coming Events Near and Far...

- CQWW VHF: Jul 18-19 http://www.cqww-vhf.com/
- NA QSO Party-RTTY: Jul 18-19 http://www.ncjweb.com/NAQP-Rules.pdf
- ARCA, Williams Hamfest: Jul 24-26 See flyer this issue
- NA QSO Party-CW: Aug 1-2 http://www.ncjweb.com/NAQP-Rules.pdf
- **Skeeter Hunt!: Aug 9** http://www.qsl.net/w2lj/

JULY						
sun	mon	tue	wed	thu	fri	sat
28	29	30		2	3	4
5	6	7	8	9	10	
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

Send Event and Calendar additions to newsletter@eaars.com

EAARS Badges

Club badges are now available, see: www.eaars.com/newsletter/badges.htm For ordering information. Show your club colors!







Stringin' wire

GUIDELINES FOR REPEATER USE

or

Read it! Remember it! Practice it!

The EAARS Network is a high traffic repeater system with a very large coverage area, and as such, we often need some reminders of proper operation. These guidelines are not intended to be hard and fast rules, but rather things to remember and consider when using the network or any repeater. Many of these things are common sense or common courtesy, so keep them in mind.

Coverage: The system covers several thousand square miles, in parts of three states and two countries. Remember to keep your conversations short and try not to monopolize the system. If you are close to the person you are wishing to talk to, and you are only wanting to talk with him, you might consider simplex or another repeater, if your conversation will last more than a few minutes. There is no reason to tie up multiple repeaters with extended one on one conversations when you are only a few miles apart. Remember to allow ample time between transmissions to allow for people to join the conversation. If you are not wanting to be interrupted, then the conversation might be better to have on the telephone. Remember that people everywhere can hear what you say, there is no privacy.

The system is designed to give priority to mobile operations, especially during morning and afternoon drive times. This may be the only time some people have to get on the radio, so defer to them as they travel to and from work. If you are operating from a fixed location, and have plenty of hours in the day to use the radio, then utilize the system during the slower times.

Timing: The repeater system is not instantaneous. There is a time delay from when you key the microphone to when the other parties will hear your audio. This typically is at least half a second or so. So, key the mic, give a short pause, then start your statement. If you say a single word or a short phrase, it may be clipped and not heard properly (if at all) on other repeaters in the system. There is a "beep" that occurs about a second and a half after a person unkeys. This is known as a "courtesy tone", and lets others know that you have finished. You should wait for that beep before you start talking. This second and a half delay gives time for people to break in with emergency traffic, or just to add comments or join the conversation.

The repeater system has a "hang timer" of around five seconds. That is the time delay from when you finish talking to when the repeater transmitter drops off. In normal usage, the repeater doesn't have to drop out, and you should not wait for it to drop. Wait for the second and a half, then the beep, then pick up the conversation. If you wait for the carrier to drop, it adds a lot of dead time to your usage.

The repeater also has an approximate 3 minute "time out timer", which limits the amount of time any single transmission can last. If you transmit longer than that, the timer will cut you off. The timer affects the link transmitter, so when it times out, the rest of the system will act normally. If you are timing out the repeater on a regular basis, you need to rethink your conversations. This isn't HF!

Jargon: Avoid CB style jargon and "hamisms". This isn't CB radio, so leave the "10-4s", "seventy thirds", "got your ears on", (and any other stuff that is common on CB) off the network. Likewise, there are a lot of other things that come from ham radio that aren't needed. You don't need to use Q signals or other abbreviations that are meant for CW operators. We're not sending code, so we don't need things like "QTH", "XYL", or "HI HI". Plain language rules on 2M FM, so use it! You don't sound more like a ham when you say things like "Got to QSY to the dinner table, the XYL is wanting an eyeball QSO, hi hi." Likewise, you don't need to use the word "handle" when referring to your name, and certainly don't use "personal", as that is straight from CB. Just say, "the name here is Bob" (unless of course it is something else).

Signal Quality: We use FM on two meters. That means the audio quality is going to be pretty good, if you have a decent signal into the repeater. Your signal level is how well your radio is getting into the repeater. This is usually reported by the station you are talking to by referencing the amount of noise in the background, while you are talking. A good strong signal to the repeater will be reported as "full quieting" or "no noise on your signal". A weaker signal might be reported as "readable, but has some (or a lot) of noise". A very weak signal will be reported as "barely making it", "in and out", "hard to copy", or some other report that indicates that the signal is poor. If your signal is not good, it is best to wait and continue your conversation when you get into a better location. Don't force everyone to try and decipher a barely readable signal! Unless you are in an emergency situation, or need to get some urgent message through, just relax and try again later. You may be hearing the repeater fine, but that doesn't necessarily mean that the repeater hears you as well. The repeater is fairly balanced when using a 25 to 50 watt mobile radio; if you are hearing it good, you will probably be getting into it about the same. But many people are using a 2 watt handie talkie, and that just doesn't work well unless you are pretty much line of sight to the repeater. If you're on an HT, and are getting poor reports, you might try a different location. Sometimes just a few feet will make a big difference.

Along with signal, audio quality and level are very important. If your transmit audio is too strong, or too soft, it will be hard to understand you. If you get reports of "low audio", get closer to the microphone, or speak up. Many of the newer Chinese handheld radios are coming with somewhat low audio, and you may need to speak closely, clearly, and somewhat loudly in many cases. And get an external antenna for that HT if you plan on using it much in the mobile!

Courtesy: The repeater doesn't belong to you, so you need to share it. Don't feel obligated to interject comments into every conversation going on and if you do have a comment it should be related to the current topic! Likewise, don't be surprised if someone breaks in to add some comments or information about what you're talking about. If you need to break in, give your callsign. If you say "Break" or "comment", the system is not likely to pick up fast enough so that everyone hears that single word. You may think you're being ignored, but what really happened is that they did not hear you. Your callsign takes enough time that the system will pick up, and even if they don't hear the whole call, they may pick up the last few letters and realize that someone is breaking in.

Policing the Air: If you hear someone you think is doing something wrong on the repeater, please, **DO NOT** confront or attack them. Send a message to eaarsofficers@eaars.com with date, time, calls and a brief description of the problem and the officers will investigate and deal with it. IF you think "they" are in violation then joining the conversation may also put you in violation. If it is a serious violation like "somebody taking requests and playing music on the club repeaters" then feel free to call N7AM day or night but, **PLEASE DO NOT** add to the problem by getting involved.

If you hear a new ham struggling, then explaining about the timers and waiting for the beep or pausing before they start talking, or offering general technical guidance *in a polite manner*, that's great. (That means ask for a break, identify, and offer the assistance, not scream "wait for the beep" anonymously, *that is a violation*). Elmer to your hearts content. Most of the new users will appreciate it. If they tell you they don't want to hear it then leave them alone!

Doubling: This happens when two people talk at the same time. What will happen is either that the audio will mix, and you hear both people, but can't understand either one, or you will hear some interference that makes it hard to understand either transmission. To prevent this, try to make sure it is your turn to talk, and when you turn it over, say the person's name or callsign. "Over to you, Tom," or "Go ahead, K7XXX." If you say, "Pick it up, someone", then you are asking for multiple people to transmit.

Identification: Give your callsign as mandated by the FCC, every ten minutes, or when you clear off. You don't need your call each time you transmit, if the transmissions are short. And don't overuse phonetics for your name or callsign. If your name is Mark, people probably get that. You don't have to say, "name is Mark, Mary, Adam, Roger, Kilowatt", unless the people aren't getting it right. You also don't have to say, "K7XXX for identification purposes" or "K7XXX for ID". What else would it be for?

Jammers: Occasionally there are unidentified people who will try to interfere with ongoing communications, play music, or hurl insults or profanity. **DON'T ACKNOWLEDGE THE JAMMER!** Carry on as normal, or clear off. The jammer is there to get a reaction from the users. You play into his game when you talk about him, challenge him, try to reason with him, or argue with him. **DON'T DO IT!** It is never appropriate to talk about jammers on the air. If it is recurrent or chronic, the control operators will take appropriate action. In most cases, control ops will do nothing, since it is the intent of the jammer to disrupt communications, and shutting down a repeater does just that. If you have the capability to monitor the input of the repeater, you can try that to see if you hear him. But don't announce it over the radio, just log where you were and how strong the signal was on the input channel. Jammers have existed since the advent of ham radio, over 100 years ago. So, nothing new.

Nets: The EAARS network has several nets that meet regularly, at specified times. These nets are for some specific purpose, some are for general check in, others are for traffic handling. Although the nets do not have absolute priority, it is good practice to relinquish the repeater system if you are using it when the net is ready to start. You can finish your conversation when the net is through. If you are conducting emergency or priority traffic, the net will stand by for you.

IRLP and Echolink: The system has connection to internet based amateur radio linking. Another document on the EAARS website gives instructions on how to use this, and the protocols and procedures involved. If you use these connections, remember that you are tying up a large network, so keep your conversations succinct. Be courteous to other users. If you hear someone using these connections, please be courteous to them.

Making a Contact: If you want to make a contact, simply announce your callsign and say that you are monitoring or listening. You don't need to repeat it several times. If someone wants to talk to you, they will give you a call. If you are listening to an interesting ongoing conversation, you can call one of the parties after they have cleared off. That's a good way for newer hams to meet new friends. People will almost always respond to a direct call if they have the time. If you have a new radio setup or installation, you can ask for a signal report. Usually someone will respond. But don't make a habit of it. That should be reserved for changes or new equipment. Listen first to how things run on the system, and emulate the good operators.

Topic Content: The EAARS network is an open repeater system with many users. Be respectful in your choice of topics. Controversial subjects are discouraged, as they tend to cause divisiveness. Do not engage in on air arguments with other amateurs, it serves no useful purpose. Do not let your emotions rule your words, think twice and speak once.

Support: EAARS is an open membership club, and sponsors all of the repeaters on the network. There is considerable cost involved with purchase, installation, maintenance, and ongoing services. If you use the system frequently, please join to support the system. The dues are only \$24 a year, so it shouldn't be a burden on anyone. No one will be asked to leave, or refrain from using the repeater simply because they are not a member. If you hear a new user on the system frequently, encourage them to join the club and point them to our website.

www.eaars.com

Changes and additions are in RED



2015 ARCA / WILLIAMS HAMFEST JULY 24, 25 & 26, 2015



ADVANCED NOTICE

Presented by the Amateur Radio Council of Arizona and the City of Williams

WILLIAMS RODEO GROUNDS, RODEO ROAD, WILLIAMS, AZ GATES OPEN AT NOON THURSDAY, JULY 23 FOR SET-UP. HAMFEST OPENS AT DAWN FRIDAY, JULY 24.

FREE ADMISSION!

JULY 26, 2015 - GRAND CANYON TRAIN TRIP

MEETINGS, SEMINARS, ACTIVITIES, COMMERCIAL VENDORS, HUGE SWAP, VE TESTS PRIZES

DOOR PRIZES EVERY HOUR RAFFLETICKETS

\$12 for \$20, or 3 for \$5.00

SATURDAY NIGHT BBQ DINNER AT RAILSIDE RV RANCH

RESERVATION INFORMATION available soon

SUNDAY GRAND CANYON TRAIN TRIP

Visit the ARCA Web Site www.arca-az.org

On-Line Reservation Available on Web Site Soon Or Call - 602.881.ARCA (2722)

Talk-In - 146.78 - (91.5 Pl)

August 7-9, 2015

Albuquerque Marriott Pyramid North 5151 San Francisco Rd NE Albuquerque, NM 87109

2014 Prizes (2015 is Similar)

Kenwood TM-281 Yaesu FTM-400D Yaesu FT-7900 Yaesu FT-450 Icom ID-880 Elecraft KX3 Icom 7100

Includes 1 Free Prize Ticket Hamfest Fees (Preliminary) Pre-Registration

\$5.00

At Door \$12.50 \$30.00 \$15.00 \$20,00 \$10,00 \$2.00 \$5.00 \$7.50 Saturday Contest/EMCOMM Breakfast Sunday New Ham Breakfast Saturday Evening Banquet Ham Table with Electricity Saturday BBQ Lunch RV Space Per Night Registration at Door Friday Night Moner Flea Market Table Commercial Booth Talgate Space (1) Extra Prize Ticket

Rooms at Marriott Pyramid - \$89 + Tax https://resweb.passkey.com/go/ albuqdukecityhamfest

Limited RV parking available on hotel grounds. No hook-ups available. Full service RV parks available nearby.

Ham Radio Fun For Old-Timers & Novices

New in 2015

New Venue & Better Floorplan All Activities Close Together Bigger & Better Than 2014 Tailgate Friday & Saturday New Saturday BBQ Lunch Good Equipment Auction FCC & New Rules Forum Nicer Indoor Sales Area Improved Friday Mixer Open All Day Friday Contest University

Themes

7

Building & Modifying Equipment STEM Education & Ham Radio **Emergency Communications** How to Get and Stay Active Attracting New Hams Hands-On Projects Contesting

Courtery of Amateur Radio Caravan Club 145.33 (-600 KHz, 100 Hz PL) 444.0 (+5 MHz, 100 Hz PL) Talk in Repeaters

Duke City Hamfest Albuquerque, New Mexico http://www.DukeCityBandest.org

ARRL New Mexico

Regional Hamfest Serving

New Mexico



West Texas Oklahoma Wyoming Colorado Arizona Utah

Special Guest Speakers

Nevada

Mexico

To Be Announced

ARRL Leadership

Retired FCC Enforcement Special Counsel Riley Hollingsworth (K4ZDH)

dures and how they affect Amateur radio" and "Our continuing duty to Ama-"Changes in FCC complaint proceheur radio "

To Be Announced

Contesting / EMCOMM Community

Albuquerque Duke City Hamfest

Conference

The DCHF is a great source of information on all aspects of ham radio. Multiple simultaneous activity tracks with emphasis on current topics of interest to old hams and newcomers alike. Many popular fortums will be repeated so as to minimize chances for conflicts.

HF, DX and Contesting
EMCOMM & Public Service
STEM, Education & New Hams
High Altitude BalloonSAT
AMSAT / Moonbounce EME
ARRL, ARES & RACES Forum
Builders & Makers Forums
Teachers & Educators Forums
SDR, D-STAR, FM, Repeaters
Equipment Design & Fabrication
Using Test Equipment, How to Solder
Remote Operation, Building a Station
MARRS, CAP, SOTA
Mesh Networking, Raspberry Pi

Hamfest

The DCHF provides the best opportunities to see, feel and touch the latest new equipment, antennas, publications, and accessories. Check out our expanded new equipment and flea market area for bargains on used gear, components, hidden treasures, and goodies you did not know

2014 Dealers & Manufacturers

Daryl's Electronics of El Paso RT Systems * CQ Magazine DZ Kit * Ham Radio School Wired Communications Tactical Communications QRP Works * NM-Mesh High Tech Liquidators The Original Wireman In Logis * Ham Crazy Flex Radio * Elecraft Southwest Antennas El Paso Antenna Co WB2CUK Products CAIG Laboratories Ham Radio Outlet Yaesu * Icom ARRL . OCWA

Activities

The DCHF is 3 days of ham radio fun for the learned and learning alike. Chew the rag with old and new friends, and visit our many socials, demonstrations and banquets. Bring the family and enjoy local attractions, museums, shopping Good Equipment Auction
Friday Mixer with Vendors
Saturday Contesting Breakfast
Saturday BBO Lunch
Saturday Awards Banquet
Sunday STEMNew Ham Breakfast
Near Space Balloon Project
Tech/General License Review
VE License Testing
Specialized Modes Demo
Skywam Class
Hidden Transmitter Foxhunt
Tours of Local Attractions
Tour of Old Town Albuquerque
Contests & Competitions

For More Information
Bill Ripley (KYSQ), Chairman
KYSQ@arrl.net
(505) 503-7491

Duke City Hampest Albuquerque, New Mexico http://www.DukeCityHamfest.org