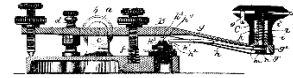




Bexar Wire

San Antonio Radio Club
W5SC



2026, No. 09

September 2026

YOU PURCHASED A NEW DUAL-BAND WALKIE TALKIE ANTENNA ON THE INTERNET...BUT DID YOU REALLY GET AN ANTENNA?

Richard Elder, WB5ACN

The INTERNET can be a great place to find useful Ham Radio Items! But it is certainly known to also harbor a lot of fakes!

For today's Amateur Radio Operator, the availability of low-cost hand-held transceivers makes for some great deals on equipment that performs well. However, there is a great proliferation of accessories that certainly look good, appear to be made by trusted vendors, sold on trusted big-name internet sites, but sadly simply "Look Good", but are of no functional value.



CASE IN POINT. NAGOYA model NA-771 "Dual Band" VHF-UHF Antennas said to cover "144 / 430 MHz" with a "gain" equal to

The next meeting, September 10, 2026, will be at 7 PM at Blanco BBQ, 13259 Blanco Rd, San Antonio, TX 78216, (210) 251-2602. Program will be about GMRS

(2.15) dB @VHF and (3.0) dB @ UHF. But what do those numbers mean? Notice that there is no "REFERENCE" stated for the "Gain Values". Are these gain numbers in dB referenced to a quarter wave antenna, or a half wave dipole, or simply ISOTROPIC? Nice looking big numbers with no reference are likely "ISOTROPIC" which is a perfect radiator which is functionally imaginary.

An antenna that is a quarter wavelength over a ground plane has a gain of one and a fraction dBi. Now that looks close to the number from the label above for the VHF gain – simply a quarter wave antenna. For the value shown for UHF, it is less than an additional 1 dB of gain due to the slightly longer physical length of the VHF element at the UHF 430 MHz frequency. A half-wave dipole would have a stated gain of 2.15 dBi.

This brings us to another point of note, the import antennas at UHF are likely specified at 430 MHz, not the common U.S.A. voice band of 440 MHz. Likely then, even at UHF 446 MHz the antenna will likely be less than unity quarter wave gain due to different design mid-band operation. So... So much for the numbers game these import antennas represent.

Now, let's look at the design of these "DUAL-BAND" antennas. To make the antenna a dual frequency band antenna that is matched to the 50 Ohm R.F. power connector of the hand-held transceiver, a matching network of capacitors and inductors is needed. For the larger dual-band base station antennas that are 4 to 15 feet in length, the matching network can both be in the base of the antenna and along the (Continued on page 5)

NUMBER	PRECEDENCE	HX	STATION OF ORIGIN	CHECK	PLACE OF ORIGIN	TIME FILED	DATE
09 R		N5IUT		San Antonio, TX			September 2026
TO							

Hello South Texas,

Mesh: The San Antonio Radio Club will be assisting in the roll out of Mesh nodes and will be looking for volunteers to help with this endeavor. Plans are still being made.

If you would like to assist, please contact me at Paul.Guido {at} Gmail.com.

GMRS: I did an informal poll at the last meeting and was surprised when about half the people at the meeting had a GMRS license.

The current leadership will gladly support these efforts. We are an educational club. We have educational content at every meeting and event we facilitate. Mesh, GMRS, and SSB on 40 meters all require a power source, a transmitter, a receiver, a method of propagation, a protocol (method of operating), they all have antennas, feedlines, and connectors. It is not how the modes are different in how we help this grow, it is in the way that is similar.

We have reached out to these communities and do what we do best, educate. We will build strong relationships with these communities and all the area clubs because together we can build a lasting future for radio activities in our area.

73

Paul Guido, N5IUT, President SARC

Bexar Wire

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The due date for articles is the **Monday** before the first **Thursday** of the month

San Antonio Radio Club

Meeting Minutes

7:00 PM August 13, 2026

Blanco BBQ, 13259 Blanco Rd., San Antonio, TX 78216

Meeting called to order at 7:01 PM/Pledge of Allegiance/Introductions

Presentations: Kelly Randal, WB5MZT: Introduction to Linear Power Supplies and Switch Mode Power Supplies. Links to YouTube videos related to these topics:

- <https://www.youtube.com/watch?v=Wlh20roJiZU&list=PLBasczMnyATw&index=4>
- <https://www.youtube.com/watch?v=MS5vd3LomWg&list=PLBasczMnyATw>
- <https://www.youtube.com/watch?v=3FyXqNcqVRM&list=PLBasczMnyATw&index=3>

Approval of Minutes of the Last Meeting

There being no additions or changes, the minutes were passed without objection by unanimous consent.

Officer Reports:

President – Paul Guido, N5IUT – AARO is looking for board members to replace resigning members. SARC is looking at reaching out to help AARO, including consideration of an equitable merge of AARO into SARC.

Vice President – Kelly Randal, WB5MZT – No report.

Secretary – Jack Bannin, N5JLB – The minutes from club meetings can be found at the w5sc.org website, in the Newsletters section.

Treasurer – Jon April, K15CSK – Club has fully moved to Randolph-Brooks FCU, closed the CreditHuman account. Exploring best options for the certificates of deposit that have matured.

Chairman of the Board Report – Bill Craft, KD2KIQ – Board has been invited to review a proposal to merge with AARO.

Web Site – Bill Craft, KD2HIQ

Activities for July Web Site

1. Posted newsletters
2. Moved domain name ownership to SARC
3. Moved web site hosting from Hostek to IONOS under SARC name
4. Set up new email accounts

Membership – Dennis Kendricks - W5AVA

As of August 5, 2026, SARC membership is as follows:

Membership Status	Number
Paid	144
Military (free)	7
Family Members	27
RF (free)	13
VE (free)	22
Total	214

[New Members since July 9, 2026 meeting.](#)

Last Name	First Name	Callsign	Location
Bathgate	James	KJ5PNN	San Antonio, TX
Cocanougher	Keigh	WH6HCU	US Military, Germany
Urshan	Shirley 'Lea'	KJ5PAZ	San Antonio, TX

Education and Training – Marvin “Marlo” Brown (KJ5BQV) & Travis Buhler (KI5TXG): No report.

Emergency Communications – JC Smith – One of the club members was deployed to respond to the recent flooding. ARES requires a technician license. No cost to join. Serves non-government. RACES requires a general class license, successful background check. In our area, ARES and RACES are a single group. Last Saturday, several members attended the Emergency Operations center meeting and practiced making radio contacts. Working with the Emergency Operations Center to add GMRS capability. Every September, a four-hour training happens at the EOC. Members are encouraged to attend. ARES meets on the 1st Tuesday of the month at the EOC at Brooks City Base, 7 PM. Located around the corner from Hanger 9. Approach the building.

POTA: No report. If someone is interested in leading this effort, contact the club president or vice president.

Fox Hunt – Steve Ortiz – KJ5HIH – No report.

Newsletter Editor – Jimmie Neff – Newsletter published August 13, 2026. Contact Jimmy Neff if you want to contribute an article for publication. Deadline is the Monday before the monthly meeting.

Field Day – Jon April: Exploring ideas to organize and help with setting up, running, and tearing down on Field Day. Volunteers will be invited to help. Jon will update as progress is made.

Finance and Review – No report.

JOTA – No report. Held in October each year.

Centennial Committee – Tom O’Brien AB5XZ – Memorabilia for the club’s centennial are available.

Radio Fiesta – Aubrey Mason. Preparing plans for 2027’s event. Certificates of Appreciation handed out to volunteers of the 2026 event.

VE Team – Benny Martinez, NU5P

SARC tests are at the Leon Valley library, unless otherwise noted.

6425 Evers Rd

Leon Valley, TX 78238

Bring your FRN from the FCC and a \$35 license fee.

8/22/26, 12-2 PM

10/24/26, 12-2 PM – At Leon Valley Fire Station

12/19/26, 12-2 PM

Silent Key Committee – Rodney Brown, AA5RB – One donation this past month: two old tube receivers.

Executive – Paul Guido is preparing a plan for the Board’s consideration related to merging AARO and SARC.

Election Committee – Paul Guido, N5IUT – No report. Elections will happen in November.

Scholarship Committee – Fundraiser tickets for sale, \$25 each, to fund two \$1000 scholarships through AARL. Maximum tickets to be sold: 400. Drawing will be at the November 12, 2026 meeting @ 7 PM. Do not need to be present to win. See Jon to purchase tickets.

Old Business (Motions carried over from previous meetings) – None.

New Business – None

Announcements

- Saturday: SADRC meeting scheduled, and Paul Guido will present on APRS.
- Lloyd Schwartz has an antenna tower for sale. \$1500 OBO.

Meeting Adjourned 8:22 PM.

So You Bought An Antenna (Continued from page 1)

length of the radiating element. For a hand-held antenna, those necessary elements are mostly in the base of the antenna, hence the “capsule” located just above the antenna connector.

If you were to X-RAY the capsule, you should see little elements in the capsule. Better yet,



buy an extra antenna and take the capsule apart by using a pipe cutter to slice the capsule into slices, to see the internal network elements.

Well, I did that, and found NOTHING inside the “capsule”! The dual band antenna was simply a length of 1956 CHEVY speedometer flex cable inside a piece of shrink tubing. But then, I had a heads up on what I would find since I put the antenna on top of my MFL 259 like analyzer and found no dip in the 2 meter band. I only saw the SWR beginning to dip as I reached the top of my analyzer range at 175 MHz.

To confirm this finding, I measured the element length at 14 inches, multiply by 4 equals 56-inch wavelength, or 1.43 meters,

or a likely operating frequency of 210 MHz. Nowhere near the 2-meter ham band. So, my wonderfully packaged VHF/UHF gain antenna is just a 14 inch piece of wire!
And so are many of yours!

I purchased a pair of "Military Like" tape measure antennas with SMA connectors for my BAOFENG talkie collection - - - and found the same lost frequency operation as soon as I put them on the antenna analyzer.



Now some antenna folks will say I did not have a representative "ground plane" under the antenna when on the analyzer. So I placed the analyzer in the center of my van roof, same results.

NAGOYA is the brand name of a real antenna company. However, there is a whole international industry that takes functional name brand products and makes cosmetic fakes of

the real products. For the Amateur radio Operator of today, I would take a phrase from President Reagan and modify its stated order. President Reagan said of the Nuclear Weapons Treaties, "TRUST, BUT VERIFY", I would reorder that phrase to "VERIFY, THEN TRUST"

So, what do you do with your fake antennas? Well, I suggest extending the length to 18-19 inches and using them only on VHF.



I took the several I have and cut them down to cover only 446 MHz, using an angle grinder, and moving the antenna tip cap down to the shortened antenna length. These work well on the UHF-only BF666 and BF888 sets of 16 channel talkies on the 446 MHz band. For Antennas from the internet: VERIFY, THEN TRUST!!

Free Online Technician Class

Don't forget the free, weekly, live, Amateur Radio Technician Class Licensing course on Zoom will begin on Thursday, Sept 3, and will run through Thursday, October 15 (7 sessions). The three-hour sessions will start at 6:30 PM Eastern Time. These are the classes that we have been holding for years sponsored by the National Electronics Museum. Please publicize this with anyone you know that you think would be interested. Those wishing to sign up should email roland.anders@comcast.net.

73,

Rol Anders, K3RA

Tom Christovich K3YH

A Remote Switcher

David W. Culler WB5SFB 1403 Hush Avenue Alexandria LA 71301

(From May 1980 73 Magazine)



(Editor's Note: I built one of these switches in 1983. I have the outside unit and somewhere lost in the garage there is the control/power supply box. I used it to switch between three wire antennas in my Virginia back yard. That yard had 80-foot trees, great for hanging dipoles) Here's David...

A remote antenna switch may be just what you need to solve your antenna switching problems, even better, how about one with no control cables? Let me explain. The idea of having a dc voltage and an rf voltage on the same antenna feedline at the same time may seem simple. A remote antenna switch with no control wires is impossible to you. But, as I learned, this can easily be accomplished and there can be many applications. By using the antenna feed line as the control cable, you can supply a low voltage to power an antenna mounted preamp or control relays mounted on an antenna.

In this article, I will describe my remote antenna switch, which uses the antenna coax feedline to carry a dc control voltage for the antenna switching relays. When I was designing my tri-band quad, I decided not to use a balun, but to feed each antenna with a separate feedline to the transmitter. This seemed to be a good idea until I added up the cost of all the coax cables! (And this was supposed to be one of those inexpensive projects.) So, again, it was back to the drawing board. The problem was how to feed three antennas with only one feedline.

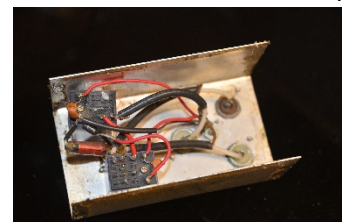
Then this was mentioned to me: Why not send 12 volts dc through the coax, mount a relay on the antenna boom, and do all the antenna switching at the antenna? I hadn't known that I could put a dc voltage on my coax and transmit at the same time, but it sounded like a good idea. That way I could connect each antenna's quarter wave matching section into the relay box and use only one run of coax down the tower to the transmitter.

After talking and reading, I saw a circuit in The Radio Amateur's Handbook that would do just what I wanted. My switch is a little different than the one described in the Handbook, but the principle is the same. The theory behind the switch is simple. See Fig. 1. A power supply is needed to provide a positive and negative 12 volts dc and is connected in the feedline between the transmitter and the antenna.



At the antenna end of the coax is the relay box with two relays that switch the three antennas. See Fig. 3. A diode is used in the relay box to act as a gate to activate the correct relay. Rf chokes are used in the power supply and relay boxes to keep the rf out of the power supply and off the relay power terminals. Disc capacitors also are used in each box to isolate the antennas and transmitter from the 12 volts dc.

The construction of each unit is very simple and straightforward. The power supply is housed in a 2" x 3" x 4" cabinet. Things will be a little cramped, but with a little care, everything will fit. The transformer is a Radio Shack no. 273-1505 117/12.6 V, 1.2 A. The full-wave bridge rectifier is an ECG 169. A pilot light is a nice feature to have so that you won't forget to turn the unit off. The capacitors are small, .01-μF discs, and the rf chokes I used were 1 mH. The relay unit is housed in a 2" x 2" x 4" metal box. The relays, the most expensive parts, are two Radio Shack 12-volt dc DPDT no. 275-206s with 3-Amp contacts (SPDT relays will work, but I couldn't locate any.) These relays are mounted in a plastic case which makes it easy to epoxy them in the metal box. When assembling the unit, seal the box to make it watertight, but put a small hole in the bottom for ventilation.



Operation: Once the project is completed, be sure to check out the unit with a dummy load to make certain that each relay does work. This might save you an extra trip up the tower. When connecting the antenna to the out puts, connect the most often used antenna to output A. That way, the unit will be off most of the time and when the unit is turned on with switch S1, switch S2 is used to select antenna B or C.

My antenna switch has performed well for over two years and makes a neat installation. My transmitter runs 100 Watts, and I have had no trouble with the relay contacts. They probably will handle more power if you are careful not to switch antennas while transmitting. Now that you have the basic concept of how this system works, you can apply it to solve your own antenna switching problems. This same unit could be used to select verticals or other antennas. In a future project, I am going to apply this same principle to power an antenna-mounted preamp. I am sure that there are many other applications using this concept, and I would be interested in hearing about them. Thanks to Cliff WB5KCQ for his technical assistance with my projects

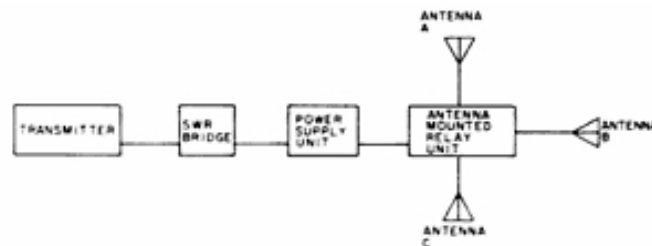


Fig. 1. Block diagram.

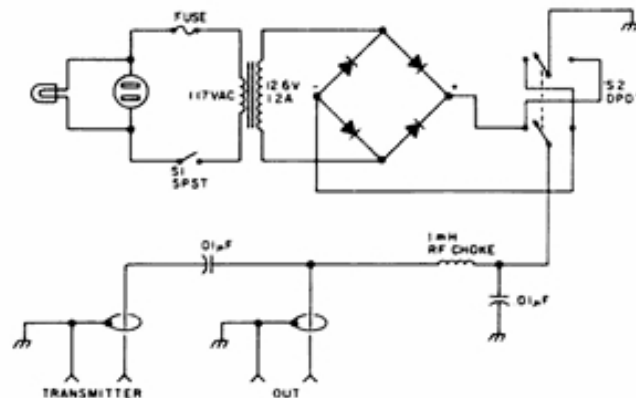


Fig. 2. Power supply.

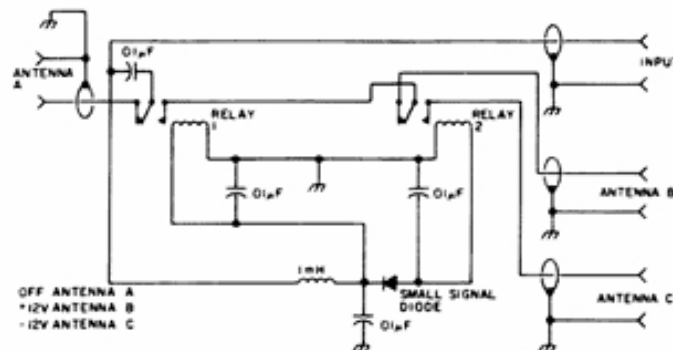


Fig. 3. Antenna-mounted relay box.



Ham Radio Operator Humor

(()



Volunteer Examiners at Work



From Bennie Martinez, NU5P, VE Coordinator

Next Testing Session: 10/24/26, 12-2 PM – At Leon Valley Fire Station

Register at HamTest@w5sc.org

Other info at W5SC.org click “Getting Started” then “Testing.”



SARC has had a Groups.io. Its name is saradioclub.

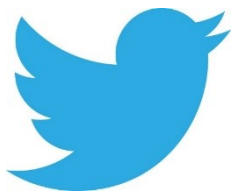
If you haven’t signed up for group.io, you should. Groups.io is our primary email messaging method to all club members. It is FREE for all members.

Several members have asked where are the notices, schedules and codes for Zoom meetings?

1. The groups.io calendar has a schedule of Zoom meetings and access codes.
2. The calendar can be accessed directly from the club web site <https://w5sc.org/events-calendar/> NOTE: it is the same groups.io calendar.

The saradioclub Group.io is being used to publicize SARC business meetings. It can be used for other things like promotion of VEC testing and classes. Members of the saradioclub Group.io can and have asked each other technical questions or sought assistance.

The saradioclub Group.io is a closed group. To become a member, go to saradioclub.groups.io. (You may need to have a Groups.io account.) You will then need to select *Apply for membership in this group*. This generates a message. SARC members can expect approval to join the saradioclub Group.io in probably less than 24 hours.



Reminder: there are two active X (Twitter) accounts for the San Antonio Radio Club. They are @SARadioClub and @ARadioFiesta.

The @SARadioClub is being used to publicize SARC meetings. It can be used for other things like promotion of VEC testing and classes.

When work again commences the @ARadioFiesta will be used.

SARC members are encouraged to follow both Twitter accounts

SARC Facebook



There is a San Antonio Radio Club – SARC (@saradioclub) Facebook Page.

The newsletter editor is making posts about SARC meetings and other activities. Any Officer, Committee Chairperson, or member who believes that they have information that should be posted to this page should contact the newsletter editor using the contact information for the newsletter editor on page 2 of this newsletter.

SARC members are encouraged to follow this Facebook Pa

SARC SLACK



There is a San Antonio Radio Club Slack team – w5sc.slack.com.

Slack teams are meant to foster communication between team members. Paul Guido, N5IUT, has established the w5sc.slack.com team for SARC. He has also established some channels. Think of the channels as topical areas.

To join send an email to Paul Guido, N5IUT, at radioteacher@gmail.com. In actuality, any team member already a part of the w5sc.slack.com can invite you, but Paul is known to be on it.

Radio Fiesta 2027

Radio Fiesta 2026 was a great success. Thanks to all the volunteers who made it possible!

Soon the planning will start for Radio Fiesta 2027. We hope to make it bigger and better

Field Day 2027

Field Day will be here sooner than you think. It will be at Shavano Park government area, close to the intersection of Military Highway and DeZavala road.

Lookout for Winter Fiels day, to be announced.

SARC Meeting Dates for 2025

September 10, 2026

October 8, 2026

November 12, 2026

December – No meeting

Meetings are normally held at Blanco BBQ, 13259 Blanco Rd, San Antonio, TX 78216 at 7:00 p. m. Room is available at 6:00 p. m. for supper

Amateur Radio License Classes

For more information, check the club web page, W5SC.org

SARC has a website:

w5sc.org

Webmaster: Bill Craft KD2HIQ
Billc851@gmail.com

License Testing Dates for 2026

SARC does all of its licensing testing as a part of ARRL Volunteer Examiner Coordinator (VEC) or- ganization so all of the Volunteer Examiners in SARC are duly authorized Volunteer Examiners of ARRL's VEC.

Register at HamTest@w5sc.org

Other info at W5SC.org click "Getting Started" then "Testing." If not otherwise noted, testing site is Leon Valley Library, 6425 Evers Rd, Leon Valley, TX 78238

Scheduled for 2026

2/21/26, 12-2 PM

4/25/26, 12-2 PM

5/30/26, 1:30-3:30 PM, at Radio Fiesta, 1400 Schertz Pkwy, Schertz, TX 78154

6/28/26, 12-2 PM, Field Day, 900 Saddle-tree Ct., Shavano Park, TX 78231

8/22/26, 12-2 PM

10/24/26, 12-2 PM – At Leon Valley Fire Station

12/19/26, 12-2 PM

Emergency Communications

If you are interested in emergency communications, contact: Ned Lee, KG5US RACES Bexar County

210-344-3481/210-391-8258

The ARES EC for Bexar County is JC Smith
N5RXS
Phone 210-849-3404