



# THE TARA NEWS

Affiliate of the American Radio Relay League

Volume 14 © Issue 12

December 2003



## TARA Holiday Celebration December 16th, 7:00 pm

This is a friendly reminder that we have the TARA Holiday Party coming up on December 16, starting at 7:00 PM at the Green Island Municipal Center. This is a special meeting and it will replace our normally business meeting. Okay, what do we need? We mainly need as many of you as possible to attend the party. Heck, you know darn well the bigger the party, the better! So, let's see if we can't break all the records for attendance, with this next party.

## SKYWARN Recognition Day

The fifth annual SKYWARN Recognition Day (SRD) will take place this year on Saturday, December 6, 2003. This is the day that Amateur Radio operators visit National Weather Service (NWS) offices and contact other operators around the world. The purpose of the event is to recognize Amateur Radio operators for the vital public service they perform during times of severe weather, and to strengthen the bond between radio amateurs and their local National Weather Service office. The event is co-sponsored by the American Radio Relay League and the National Weather Service.

Traditionally, hams have assisted the National Weather Service during times of severe weather by providing real-time reports of severe events and storm evolution. "You simply can't put a price tag on it", says Scott Mentzer (N0QE), organizer of the event and Meteorologist-In-Charge at the NWS office in Goodland, Kansas. "The assistance that radio amateurs provide to the NWS throughout the year is invaluable".

SKYWARN Recognition Day this year will be held from 0000 UTC to 2400 UTC on December 6, 2003. Scott Mentzer, the creator and promoter of the event, strives to involve more NWS offices and Amateur Radio operators each year. In 2002, participants logged nearly 23,000 QSOs during the 24-hour event. Last year nearly 70 countries were contacted. To learn more about this year's event, check out the NOAA Web site: <http://hamradio.noaa.gov/>. This site includes a link to a list of participating National Weather Service offices and their call signs.

Next, we need some volunteers to bring along a few "hot or cold" side dishes to make the crowd happy. Also, a nice selection of tempting desserts and treats are a must for any Holiday Party, could you help in that department? If you're not quite sure what to bring, you can always give Karen Smith, KB2UUC a call at home just about any day/night at 273-6594. I know she'll be more than glad to hear from you and it really helps her out. PLEASE...if nothing else let her know if you're going to bring something along.

Another thing you could do and it would help us out tremendously is to let us know well in advance if you're attending. As you might guess it's hard as heck trying to figure out how many might be attending the party. And, with the cost of things we'd sure like to make sure we don't purchase too much goodies. After all, Karen has to answer to "high authorities," like our Treasurer - Nick Demos, NW2D! (only kidding St.Nick!) On the other hand -- we certainly want to make sure we have enough food on hand for everyone. We've never had anyone go hungry at any of our events and we certainly don't want to start that now. So, please do your part and drop Karen or myself a quick note and give us the number of family/friends you'll be bringing to the party. Remember, everyone is welcome to this party, it's NOT just for TARA members!

Oh yes...volunteers! We are in need of at least 6 or 8 volunteers to assist with setting up the meeting hall at around 6:00 PM on the night of the party. Then we'll need the same amount of volunteers to tear things down and clean the hall up before we leave. If you could manage to help us in any way with this request we'd greatly appreciate it. I look forward to seeing you on the 16th of December. Happy Holiday's

**NV2U - "Mr. Bill"**



*More than a Club*



*We're a Family*



# "Frank Fallon Triumphs" Hudson Division Directorship

Frank Fallon, N2FF, retained his seat as Director of the League's Hudson Division, defeating Vice Director Steve Mendelsohn, W2ML, 1933 to 1470. Ballots were counted November 21 at ARRL Headquarters. The Hudson Division's was the sole contested seat in the current director-vice director election cycle.

During his tenure as Hudson Division Director, Fallon has been a member of all standing committees and now sits on the Administration and Finance Committee. In addition, Fallon has served on the ARRL Executive Committee for four years and is on the ARRL Foundation Board.

Joyce Birmingham, KA2ANF, was the lone candidate for the vice director's seat that Mendelsohn vacated to run for the division's top spot.

Three-year terms of office elected candidates begin at noon on January 1.

# International Space Station Marks Five Years in Space

From ARRL Headquarters -Newington, CT      November 21, 2003

The International Space Station has been in space five years and has had Amateur Radio and a permanent crew onboard for three years as of this month. Since attaining orbit, the ISS has grown from a lone, uninhabited module into a continuously staffed, house-sized research facility.

The Amateur Radio on the International Space Station (ARISS) program has been a part of the ISS since November 2000. The US, Russia, Canada, Japan and Europe have cooperated in making the ISS a reality as well as with making ARISS a success.

The ARISS initial station gear went into space in September 2000. A month later, the FCC granted vanity call signs NA1SS and NN1SS to the International Space Station Amateur Radio Club for US ARISS operations. Russia has issued the call signs RZ3DZR and RS0ISS for ISS use.

The capabilities of NA1SS also are slated to expand in the near future. Already on board is a Kenwood TM-D700E VHF/UHF transceiver. The unit will mean a significant boost to the power output of the ARISS initial station gear--from 5 W to 25 W. Additional gear, including SSTV hardware, tentatively is set for transport in January.

# TARA RTTY Mêlée December 6, 2003

I hope all of you are getting ready for the next running of the TARA RTTY Melee (Formally call TARA Rtty Sprint). This contest is coming up this coming weekend (Dec 6th@ 00:00UTC) and let's just hope the band condition favor us.

We're still receiving a few requests about this contest. It seems a few of the links out there are outdated or pointing towards the wrong address. I ask everyone on these news groups to PLEASE look at the Official Rules & Regulations on our "New" Four Seasons Contesting & Awards web pages at:  
[http://www.n2ty.org/seasons/tara\\_melee\\_rules.html](http://www.n2ty.org/seasons/tara_melee_rules.html)

Again, if you haven't looked at this web address please do so now. You will notice that this contest is now a full 24 hour contest, with 16 hours of operation for each participant. Also, we allow and encourage the use of the DX Clusters, when permitted by the rules.

As far as SCORE SUBMISSION, it couldn't be much easier. All you have to do is go to our web site at:  
[http://www.n2ty.org/seasons/tara\\_melee\\_score.html](http://www.n2ty.org/seasons/tara_melee_score.html) and submit your score. No logs to submit, no special forms, everything is handled on-line and FAST!

We also encourage all of you to look over the news on our web site for the TARA Tour'ney at:  
[http://www.n2ty.org/seasons/tara\\_tourney.html](http://www.n2ty.org/seasons/tara_tourney.html) . This is a special award that will be presented each year to the King / Queen of Digital Communication. Everyone that participates in the TARA RTTY Melee will earn points toward this award. Scores from all 4 of our digital contests will go towards this award and you can follow the scores on-line at:  
[http://www.n2ty.org/seasons/tara\\_tourney\\_results.html](http://www.n2ty.org/seasons/tara_tourney_results.html)

If you have ANY additional questions please feel free to drop me a message at: [ny2u@n2ty.org](mailto:ny2u@n2ty.org)

I Thank You for reading this message and hope to see you in the Melee this coming weekend.

73 de NY2U Bill Eddy  
===== TARA CONTEST ANNOUNCEMENT =====  
TARA RTTY Mêlée--(Formally TARA RTTY Sprint)  
RTTY ONLY! Sponsored by the Troy Amateur Radio Assn,  
0000Z - 2400Z Dec 6, 2003  
Submit scores before Dec 31 via on-line submission form at  
[http://www.n2ty.org/seasons/tara\\_melee\\_score.html](http://www.n2ty.org/seasons/tara_melee_score.html) .  
For more info e-mail to Bill Eddy, [ny2u@n2ty.org](mailto:ny2u@n2ty.org) .



# UO-14 Satellite Reaches The End of the Trail

UO-14 has officially ended its long run as an Amateur Radio satellite, although it continues to transmit telemetry and respond to commands from Earth. The Mission Control Centre at the Surrey Satellite Technology Ltd (SSTL) Center for Satellite Engineering Research announced this week that the venerable and popular bird "has reached the end of its mission after nearly 14 years in orbit." Launched in 1990, UoSAT-OSCAR-14 pioneered the PACSAT communication concept as the first 9.6 kbps Amateur Radio data communications satellite, although it became best known in recent years as an FM "easy sat."

"Since launch, UO-14 has completed over 72,000 orbits and as many charge/discharge cycles of its on-board NiCd battery," said AMSAT-UK Chairman Martin Sweeting, G3YJO. "However recently one of the battery cells has become exhausted and can no longer support continuous operation of the repeater." Sweeting said UO-14's transmitter shuts down shortly after it is commanded "on" due to undervoltage, so the microsatellite's mission has been terminated.

"Thank you UO-14 for your long service!" Sweeting concluded.

AMSAT-NA Board Member Bruce Paige, KK5DO, an enthusiastic UO-14 user, called the AMSAT-UK announcement "sad news." He said the loss of UO-14 leaves amateurs with SO-41 and SO-50 as the only two LEO FM voice satellites. He noted, however, that the planned 2004 launch of OSCAR-ECHO would help to fill the void. OSCAR-ECHO is set to launch next March 31.

The popular and heavily used FM satellite's repeater quit working in August, but hope remained within the amateur satellite community that UO-14 somehow could be revived. Ground controller Chris Jackson, G7UPN, at one point was able to reset the satellite, but he later determined that UO-14 had suffered a primary power system failure that was causing the spacecraft to shut down during some eclipses.

During its active lifetime, UO-14 served several roles. After some 18 months as a PACSAT, UO-14 was switched to non-amateur frequencies for humanitarian use by Volunteers In Technical Assistance, which used it for messaging into Africa. After the store-and-forward communications computer proved no longer able to perform that task, UO-14 was turned back to amateur use as a single-channel FM voice repeater.

UO-14 again served a humanitarian role in early 2001 when hams assisting with earthquake relief operations in the Indian State of Gujarat took advantage of the satellite to provide communication from the stricken region.

The beauty of UO-14 was that it required minimal gear to make contacts--typically 5 W and modest antennas would do the trick. Operators with dualband handheld transceivers and "rubber duckie" antennas often could make QSOs via UO-14.

# Frank's Funnies

By: Francis X. Ryan - KC2JRE

You Know You're Having A Bad Day When.....

- \* Nothing you own is actually paid for.
- \* Your twin sister forgets your birthday.
- \* Everyone avoids you the morning after the company office party.
- \* You get to work and find a "60 Minutes" news team waiting in your office.
- \* Your new lover calls to tell you "Last night was terrific!" And then you remember that you were home by yourself last night.
- \* You call your wife and tell her that you would like to eat out tonight and when you get home there is a sandwich on the front porch.
- \* The restaurant check has been on the table for ten minutes...and no one has touched it.
- \* Your mother approves of the person you are dating.
- \* You have to borrow from your VISA to pay off your MASTERCARD.
- \* Your kids start treating you the same way you treated your parents.
- \* The gypsy fortune teller offers to refund your money.
- \* Your 4\_year\_old tells you that it's "almost impossible" to flush a grapefruit down the toilet.

## Seasons Greetings to all of Our Readers



# Australian Communications Authority

## Drops Morse Code Requirement

Media Release No. 51 - 17 November 2003

ACA to end Morse code proficiency requirement for amateur radio operators Australia's amateur radio operators will no longer have to be skilled in Morse code from next year.

The Australian Communications Authority (ACA) announced today that it would discontinue the requirement for amateur radio operators to be proficient in Morse code from 1 January 2004.

The decision follows an extensive review of the amateur radio service which the ACA launched in August with the release of a discussion paper A Review of Amateur Service Regulation. The paper outlined current regulatory arrangements for the service, as well as proposing options for the future.

ACA Acting Chairman Dr Bob Horton said the ACA had received more than 1400 written submissions commenting on the issues set out in the paper and from public meetings arranged for amateur operators throughout Australia.

He said the decision to remove the Morse code proficiency requirement was made after considering public comments at the meetings and analysis of submissions.

"This extensive public consultation proved invaluable with more than 700 of Australia's 14,000 licensed amateur operators attending to discuss the options in the discussion paper and to seek clarification on particular issues," Dr Horton said.

"There was widespread support for the removal of the Morse code proficiency requirement at the meetings and throughout the submissions.

"The ACA has therefore decided to make interim changes to legislative instruments which, from the date of effect, will

### ***Holiday Greetings to all our TARA Friends and Family!!!***

Our 12 th Annual Christmas Party Banquet will be on December 16th at 7:00 p.m. We would like everyone to come share the Christmas Spirit with us!

We will have plenty of good food and lot's of fun!  
If you would like to make a "Special" dish or a yummy dessert....or a super salad, please call me and let me know, so that we don't have a lot of one item coming.



**Happy Holidays!**

*Karen*

**KB2UUC**

**273-6594**



immediately allow access to privileges previously available only to those who satisfied Morse code proficiency requirements. "Those changes will take effect on 1 January next year."

Dr. Horton said the ACA would amend the amateur radio licence conditions specified in the Radiocommunications Licence Conditions (Amateur Licence) Determination No. 1 of 1997 to reflect this decision. The amendments will give: holders of Intermediate and Limited Amateur licences access to the same frequency bands as Unrestricted Amateur licensees; and holders of the Novice Limited Amateur licence access to the same frequency bands as Novice licensees.

The ACA also recognized that there was considerable concern in the amateur community about the 'no interference' proposal in the discussion paper.

"The ACA will carefully consider the views of the amateur community as it examines regulatory arrangements in this area. We remain committed to balancing the needs of the amateur community with those of the wider community," he said. "The ACA expects to announce more decisions about new regulatory arrangements for the amateur service before the end of the year. The amateur community will continue to be kept fully informed about the progress of the review and the implementation of new arrangements."

Information about the review of amateur service regulation is available. The Australian Communications Authority is a government regulator of telecommunications and radio communications

For more information contact: Source - Australian Communications Agency - [http://www.aca.gov.au/aca\\_hom...-51.htm](http://www.aca.gov.au/aca_hom...-51.htm)

### ***Breakfast with "Santa" ....***

On Sunday, December 14th. the Colonie Elks Club will be hosting a Breakfast with "Santa"..all you can eat!!

Santa will be there for the kids and will be passing out toys while Mom and Dad enjoy a breakfast buffet of scrambled eggs, bacon, sausage, home made corned beef hash, pancakes, toast, onions and peppers, coffee, milk and juice.....and much more!

The Colonie Elks is located on Rt. 155 just west of Delatore Rd. in Latham. Breakfast hours are from 8:30 AM until 12:00 p.m.

**Hope to see you there!!**

**Karen - KB2UUC**

# **The Night Before Christmas**

## **Ham Radio Style**

'Twas the night before Christmas, when all through the town,  
The snowstorm was raging, the phone lines were down;  
The wind it did howl, the tree limbs did crack,  
I hope that St. Nick isn't forced to turn back.  
The wife making cookies, the kids making noise,  
While away in the shack, by my rig I was poised.  
The finals were glowing, the mike gain was set,  
I was chasing DX to see what I could get.  
The bands were all empty, the frequencies clear,  
Except one lone station that sounded quite near.  
He was calling CQ and my interest did pique,  
When he ended transmission with the words,  
"Old St. Nick".

I answered back quickly, I used great dispatch,  
If this were St. Nicholas, good God, what a catch!  
We exchanged information, it was really quite graphic,  
Then he came back and said,  
"I've emergency traffic!"

His reindeer were tired, his elves in a grump,  
If he didn't land soon, then his sleigh he would dump.

I thought very carefully, I thought very hard,  
Then I gave him directions to my snow covered yard.

As he flew past my window, his hair like a mane,  
He reined in his chargers and called them by name:

"Whoa, Anode! Whoa, Cathode! Whoa, Zener! Whoa, Diode!  
Stop, Heater! Stop, Grid leak! Stop, Bias! Stop, Triode!  
You're flying too low! you're flying too fast!  
Look out, you dumb reindeer, his antenna mast!"

So into the backyard the reindeer did drop,  
St. Nick, the elves, and the sleigh went kerplow!  
Then at the back door, I heard this loud knocking,  
"Open up in there, or I won't fill your stocking!"  
As I turned off the light and was leaving the shack,  
Into the house Saint Nicholas came from the back--  
His two-meter rig held to his hip with a strap,  
"Hams do it in the shack" on the front of his cap.  
The sack that he carried made his aged brow furrow,  
And he handed me a card that read,  
"QSL Via Bureau".

His clothes were all sooty, from his shoes to his vest;  
I felt like a novice taking his test.

His fingers were calloused and from what I could tell,  
This came from a straight key that I'll bet he used well.

I offered him coffee, I offered him smokes,  
I tried easing the tension by telling ham jokes.

Then he nodded his head and raised up his thumb,  
He smiled like an Elmer, did I ever feel dumb.

He grabbed up his sack and went straight for the tree,  
And placed in it a large present for me.

When he finished his work, he stood up, took a bow,  
Then out the back door to his team he did plow.

But I heard him exclaim as he flew o'er the land,  
"Beware the FCC, friend, we were both out of band!"  
Merry Christmas from my house to yours!

**Author Unknown**

[http://home1.gte.net/longrj2/humor/nb\\_hams.html](http://home1.gte.net/longrj2/humor/nb_hams.html)



## **News from Our Friends to the South**

### **RVWARS "Goodie Fest"**

### **"WD2K" Callsign returns to the air**

It's time for our annual Holiday "Goodie Fest!" So named by silent key, Dave WD2K several years ago. Don't miss this one..

The December 15th meeting of RVWARS will be held at the John L. Edwards Elementary School in Hudson at 7:00 pm. The annual tradition of goodies, cookies, cakes, doughnuts and other sweets) will continue. Members are asked to bring samples of their baking efforts to share. The Rip Van Winkle Brass Quintet will supply holiday music for our enjoyment. Ann, WA2KCU, plays tuba in the quintet which is directed by Steve Gitto, Chatham.

Holiday music will be provided by the Rip Van Winkle Brass Quintet. Bring a friend! The meeting will be at 7:00 pm on Monday, December 15, 2003 at the John L. Edwards Elementary School, State and 4th Streets in Hudson, NY

We are pleased to announce that RVWARS has been issued Dave Watrous's call, WD2K, as a club callsign to be used at Field Day and other special events.

Our thanks to Stan WA2UET for your efforts in securing the callsign. Thanks also to Dave's family for letting us honor Dave's memory in this manner.

Dave Clapper WA2FTI  
President, RVWARS

# Let's Go T - Hunting

by Joseph D. Moell - K0OV

Copyright ©1992 and 2001

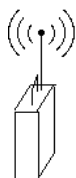
Visit the Homing In Web site: <http://www.homingin.com>

VHF/UHF enthusiasts often install yagi's and quads at their home stations. Many take them out on camping trips and use them on public service events. But did you know that some enjoy flying the freeways and beating the back roads with one hand on the steering wheel and the other on a rotating antenna mast?

Perhaps you have seen these hams on weekends, intently driving and turning their beams. What are they doing? They are competing in hidden transmitter hunts.

If you've never experienced one of these mobile radio direction finding (RDF) contests, you have missed some of the greatest excitement a ham can have. While there are several names for it such as "fox-hunting" and "bunny chasing," in southern California this sport is almost always referred to as "T-hunting."

Transmitter hunting seems to be one of the best kept secrets in ham radio, even though dozens of hams here consider themselves to be regular hunters. They range in age from the teens to the eighties. Besides keeping the coordinated two-meter hunt frequency (146.565 MHz FM) hopping, hunters love to hash over their exploits by the hour on their favorite repeaters.



The idea is simple: One or two hams take a transmitter, antenna, and some sort of distinctive audio source to an carefully selected spot, then make continuous or intermittent transmissions. Usually they remain stationary, though mobile "bunnies" are popular with some groups. Sometimes there are more than one "T" to be found. Surplus ammunition cans are often used as hidden transmitter enclosures. The hunters, as individuals or in teams, do their best to home in on the hidden station(s) with their mobile and portable RDF gear.

## Fun, But Beneficial

T-hunters think their events are more fun than any other ham contest. You get to meet and socialize with your competitors both before and after the event. Usually, you'll find out your score and how well you placed before you go home. You may encounter your competitors along the way, with opportunities to try to "psych them out" or misdirect them. (Hence the southern California maxim: "Never trust anything said by a T-hunter or hider.")

"Techies" like the thrill of finding the hidden T with gear they made themselves. They relentlessly work to improve their setups. Mystery lovers and dyed-in-the-wool contesters love the challenge, because very hunt is a fresh start to a new adventure. Your past performances are forgotten. It's just your team and your equipment against today's hider and the other hunters.

At some point, every ham will find knowledge of RDF techniques useful, because it simplifies such chores as finding a neighborhood source of power line interference or TV cable leakage. T-hunters here frequently are called upon to track down sources of "spurs," intermodulation and noise that can plague amateur (and sometimes commercial) repeaters.

RDF plays an important part in Amateur Radio self-policing. In many areas of the country, including southern California, there are standing agreements between Local Interference Committees and district FCC offices, permitting volunteer ham RDFers to gather evidence leading to prosecution in serious cases of malicious interference.

You have up to a dozen competitive hunt opportunities to choose from every month in Los Angeles, Orange, Riverside and Santa Barbara Counties. They are all different in some way, such as time or mileage scoring, day or night start, single or multiple transmitters, intermittent or continuous signal, wide or narrow boundaries. (Or perhaps there are no boundaries at all!)

Most hunts are on two meters with FM signals, but there are occasional FM hunts on the 50, 223, 440 and 1200 MHz bands. There have even been hunts for Amateur Television transmissions on 434 MHz.

## Winning Isn't Easy

There are many ways to score mobile T-hunts. Due to traffic problems, "First-In-Wins" hunts are less common than "Low-Mileage-Wins" hunts in southern California. Odometer calibration differences are resolved by requesting hunters to obtain an odometer correction factor by driving a standardized course in advance of the hunt. This correction factor is called the [Crenshaw Factor](#) because the course runs along Crenshaw Boulevard for approximately 9 miles.

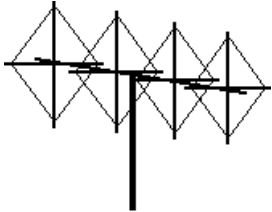
T-hunters have become very sophisticated at finding dastardly hiding places. With the right combination of location and antenna, they make it difficult for hunters to get reliable bearings. Like a ventriloquist, a good hider can make the signal appear to be coming from some other location. With careful planning (and a little luck), the signal's characteristics can cause the hunters to approach the transmitter from the most difficult direction, with impassable roads or other obstructions, even though the T may be easily accessible via other routes. Perhaps the hider will camouflage the setup so well that the hunters won't find the transmitter unless they literally trip over it.

The most challenging of all southern California 2-meter RDF events are the All Day Hunts. Despite their difficulty, many enthusiasts like them best of all. The name is a misnomer, because these marathons often last the entire weekend. The transmitter(s) can be anywhere in the continental USA. The hunt starts in Rancho Palos Verdes. Hiding spots have included locations near Yosemite National Park (California), Las Vegas (Nevada), Yuma (Arizona), and St. George (Utah). The record path distance for a two-meter hidden transmitter signal to be heard at the starting point was set on the St. George hunt, well over 300 miles! Not every T-hunt is this arduous, of course. Several clubs have sponsored hunts just for Beginners, to get things started. Hiders make brief transmissions on a repeater, encouraging hunters to come out and find them. After a while, they give clues to narrow the search area. The idea is to give every participant a good first-time experience, including a storytelling session at a restaurant after the hunt

# T-Hunting - Great Fun - Learning Experience

While some hunters prefer to go it alone, most have more success by teaming up. The driver concentrates on handling the vehicle, while the DFER turns the beam and reads the meters. The DFER also handles maps and plotting, unless there is a third team member for that task.

## Inexpensive Beams Work Fine



Strung wire 4-element diamond quad

In the Los Angeles basin, most hunters use some sort of beam antenna. Three to five element quads are most popular. Usually they are built in "diamond" form with a PVC pipe or wood boom and elements made of thin wire strung on fiberglass spreaders.

Variations include the "stiff wire" version, which is much more tree-resistant. (It can get mashed, but is easily re-shaped and returned to service, as compared to "strung-wire" quads which more readily suffer wire breakage.)

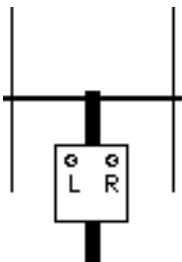
Yagis are second to quads in popularity. Commercial models work fine, provided that the mast is attached at a good balance point. Occasionally you will see some other kind of gain antenna, such as a "ZL special." Small-diameter loops are seldom used for RDF above 54 MHz because of their bi-directional pattern and low sensitivity.

No matter which gain antenna is used, it is important that the mounting system allow for quickly changing polarization. Hiders can use any wave polarization on most hunts, so hunters must attempt to determine the correct polarization and hunt with it. Hunting a horizontal signal with a vertically polarized beam, for example, causes the direct signal to be attenuated. Reflections and scattered

relative to the direct signal when the wrong polarization is chosen.

Hunters need sensitive mobile RDF setups for events like the All-Day hunts. They achieve it with their long beams, plus GaAsFET preamps, noise-quieting meters, and SSB receivers (even though the hider is transmitting FM).

## Homing Sets Sniff Well

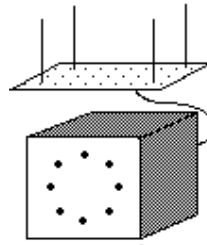


Another type of RDF instrument, called the homing or dual-antenna RDF, has its place in the arsenal of the well-equipped hunter. These units have a pair of vertical antennas, a switching circuit, and a direction sensor with some sort of left-right indicator, such as a meter or a pair of LEDs. They are easy to use: When the indicator says LEFT, turn the unit left; when it indicates RIGHT, turn right. There is a sharply defined crossover at which the unit points toward the signal source direction.

There are two types of dual antenna sets. One type is called a switched-pattern set and requires a receiver with AM detection. It is used mostly on the aircraft band. More popular with hams is the phase-front detector or Time-Difference-of-Arrival (TDOA) set. It is designed to work with any narrow band FM receiver that covers the frequency of interest. While they could be used in vehicles, these dual-antenna sets are used mostly for on-foot RDF. They are excellent for closing in at the end of a hunt ("sniffing") and for wilderness search/rescue work. Be sure to build or buy one with left-right indicators.

## Dopplers Have Their Place

An ideal RDF system would not require constant manual antenna turning. It would take directional readings hundreds of times per second, and continue to indicate the bearing after the signal leaves the air. Doppler type RDF sets, though far from ideal, fulfill all these wishes. The typical four-whip antenna system can be mounted without drilling holes in the vehicle.



Doppler readouts usually feature a ring of at least 16 LEDs, and may also include a three-digit display in degrees relative to the vehicle. In the clear, a well-installed doppler has about +/-5 degree bearing accuracy. Accuracy is degraded by multipath, just like it is with the homing RDF, but "eyeball averaging" while the vehicle is moving helps counteract this problem.

While popular in places such as Cincinnati and the San Francisco Bay area, doppler RDF installations have not caught on among most southern California competitive T-hunters due to their lower sensitivity compared to beam setups. Vertically polarized doppler antennas are at an extreme disadvantage if the hider transmits horizontal polarization, especially if the signal is weak & non-direct.

On the other hand, dopplers are a popular choice of jammer hunters, who are usually tracking strong vertically polarized signals. They like the rapid indication update rate and the ability to quickly get bearings on short-duration signals. Occasionally, you may see RDFers using both a beam and a doppler set on the same vehicle.

## How To Learn More

While commercial RDF equipment is available, the majority of southern California T-hunters prefer to build their own gear. All you need to get started is a directional antenna, an attenuator to knock down strong nearby signals, and a receiver with S-meter. You may have it all right now! If so, it will only take a bit of installation work on the family car to get you going.

For equipment information, installation ideas, and hunting techniques, read [TRANSMITTER HUNTING---Radio Direction Finding Simplified](#) by KØOV and WB6UZZ, published by Tab Books (#2701). This book is available at many electronics and ham radio stores. It is also available by mail from ARRL Bookstore and [from the authors](#).

For a new ham radio adventure, try going out on a hidden transmitter hunt. Be prepared for some pleasant surprises. Remember, every time you set out on a hunt, you never know where you'll end up, and you never know what you will find.

**TARA OFFICERS: 1 YEAR TERMS**

President: Bill Eddy, NY2U.....273-9248  
Vice President: Karen Smith, KB2UUC...273-6594  
Secretary: Marilyn Davis, KB2JZI.....272-0112  
Treasurer: Nick Demos, NW2D.....383-3983

**TARA DIRECTORS - 2 YEAR TERMS**

Ken Davis, KB2KFV.....(02-04).....272-0112  
Mac Smith, KB2SPM.....(02-04).....273-6594  
David Fritts KC2IBF.....(03-05).....765-5147  
Roy Warner N2OWC.....(03-05).....283-8485  
Randy Stein, KA2TJZ.....(03-05).....498-7838

**REPEATER MANAGER:**

Roy Warner, N2OWC.....283-8485

**REPEATER TECHNICAL ADVISORS:**

John Pritt, N1JP.....753-6231  
Dave Edwards, W2GBO.....235-6801  
Robert Isby, N2LUD.....283-3230

**MEMBERSHIP COMMITTEE:**

**REFRESHMENT COMMITTEE:**

Karen Smith, KB2UUC.....273-6594

**NOTICE: THE EDITOR AND STAFF OF THIS NEWSLETTER WILL NOT ASSUME ANY RESPONSIBILITY FOR THE CONTENTS, ACCURACY, OR READABILITY OF THIS PUBLICATION. HOWEVER, BY READING THIS NOTICE, IT BECOMES THE RESONSIBLTY OF THE READER TO HELP PROMOTE GOOD OPERATING PROCEDURES AND PRACTICES ON THE AIRWAVE'S**

# ***THE TARA NEWS***

Troy Amateur Radio Association, Inc.

**P.O. Box 1292**

**Troy, New York, 12181-1292**



Visit us on the Internet

At <http://www.n2ty.org/>

## **TARA Christmas Party**

**Tuesday, December 16, 2003**

**7:00 p.m.**

**Green Island Municipal Center**

**Intersection of**

**George St. & Hudson Ave.**

**Green Island, New York**

**Ample Parking**

**Parking Lot on Hudson Ave.**

**RDF COMMITTEE:**

Craig Wood, N2UID..... 370-5224

**EQUIPMENT MANAGERS:**

Roy Warner, N2OWC.....283-8485  
Craig Wood, N2UID..... 370-5224

**TARA WEBMASTERS:**

Bill Eddy, NY2U.....273-9248

**TARA HF CONTESTING:**

Bill Eddy, NY2U.....273-9248

**TARA VHF/UHF CONTESTING:**

**PUBLIC SERVICE EVENTS:**

Karen Smith, KB2UUC..... 273-6594  
Mac Smith, KB2SPM.....273-6594  
Robert Jones, WB2SWA.....273-3072

**EDUCATIONAL DEPARTMENT:**

Ken Davis, KB2KFV..... 272-0112

**TARA HISTORIAN:**

Karen Smith, KB2UUC 273-6594

**N2TY-BBS NODE**

**DEPARTMENT:**

Ray Szlasa, N2VLY... .. 233-9308  
John LaBarr, KB2UKV 284-2096

**N2TY-BBS SYSOP:**

Tim Roske, AA2WQ ...489-4346

**ATVET(ALB/TROY)VE TEAM:**

Gerry Murray, WA2IWW 482-8700

**FIELD DAY 2003 CHAIRMEN:**

Bill Eddy, NY2U..... 273-9248  
Randy Stein, KA2TJZ... 498-7838  
Steve Kopecky, KF2WA 674-4150  
Nick Demos, NW2D ... 383-3983

**VHF/UHF EQUIP. CHAIRMAN**

Hollins Meaux, N2YQW. 465-7678

**NEWSLETTER DEPT:**

Editor-in-Chief: Perry White  
Editor: Ken"Chief"Davis, KB2KFV  
Co-Editor:Marilyn Davis KB2JZI  
Co-Editor:Karen Smith KB2UUC  
Design/Layout: Ken Davis, KB2KFV

PLEASE SEND ELECTRONIC CORRESPONDENCE TO E-MAIL

[KB2KFV@aol.com](mailto:KB2KFV@aol.com) or

[KB2JZI@aol.com](mailto:KB2JZI@aol.com) or

[www: http://www.n2ty.org](http://www.n2ty.org)

# **Troy's Full Service Repeaters**

**145.170/R**

**444.225/R**