



<http://www.pcars.org>

PCARS

NEWSLETTER

Platinum Coast Amateur Radio Society
W4MLB, P.O. Box 1004, Melbourne, Florida, 32902-1004
 January 2012 Volume 86 Issue 1

General Membership Meeting: Monday, JAN 8th, 2012

West Melbourne Veterans Memorial Building
2285 Minton Rd
Melbourne, FL 32904



General Membership meetings are on the second (2nd) Monday of each month at 7:15 PM.

Board of Directors meetings are on the third (3rd) Monday of each month at 7:15 PM.

January Program:
ELECTION of 2012 CLUB OFFICERS!!!!!!

2012 Platinum Coast Amateur Radio Society Club Officials



President*	Hugh Davey	K4XBC	president@pcars.org
Vice President*	<OPEN>		vicepresident@pcars.org
Secretary*	Chuck Green	AD4ES	secretary@pcars.org
Treasurer*	Eric Smitt	K9ES	treasurer@pcars.org
Custodian*	Bruce Goldblatt	K2ZEA	custodian@pcars.org
Hamfest Chair	John Lundberg	W2TX	hamfestchairman@pcars.org
Past President	Jim Hagen	NN4AA	pastpresident@pcars.org
Director*	Bruce Jarrell	KI4TJY	1stDirector@pcars.org
Director*	George Fundis	K4PX	2ndDirector@pcars.org
Director*	Curt Lochman	W4LVA	3rdDirector@pcars.org
Director*	Tim Madden	KI4TG	4thDirector@pcars.org
BEARS Liaison	Tim Madden	KI4TG	tmadden@cfl.rr.com
Club Station Manager	Curt Lochman	W4LVA	clochman@cfl.rr.com
Emergency Coordinator	<OPEN>		
License Testing Coordinator	Judy Gardner	AA9GW	AA9GW@cfl.rr.com
NewsLetter Editor	Bruce Jarrell	KI4TJY	newsletter@pcars.org
Public Information Officer	Dan Fisher	AI4GK	AI4GK@cfl.rr.com
Refreshments	June & Jim Grantham	WB4ZMX	WB4ZMX@bellsouth.net
Skywarn Coordinator	Paul Gray	N0JAA	Pgray12@cfl.rr.com
Skywarn Coordinator, Ass't	Alan Dixon	N3HOE	N3HOE@arrrl.org
Sunshine	Margaret Weatherly		Taffy2826@cfl.rr.com
W4MLB Trustee	Marv Flynn	K4YWC	K4YWC@cfl.rr.com
WebMaster	Don Winn	AF4Z	webmaster@pcars.org

Need Help Ask The Mentor

mentorhelp@pcars.org

* Elected

UPCOMING EVENTS: Elections of New Officers at JAN Membership Meeting

ORLANDO HAMCATION

Amateur Radio & Computer Show 2012

February 10, 11, & 12

At Central Florida Fairgrounds

Fri. Noon-6pm | Sat 9am-5pm | Sun 9am-2pm

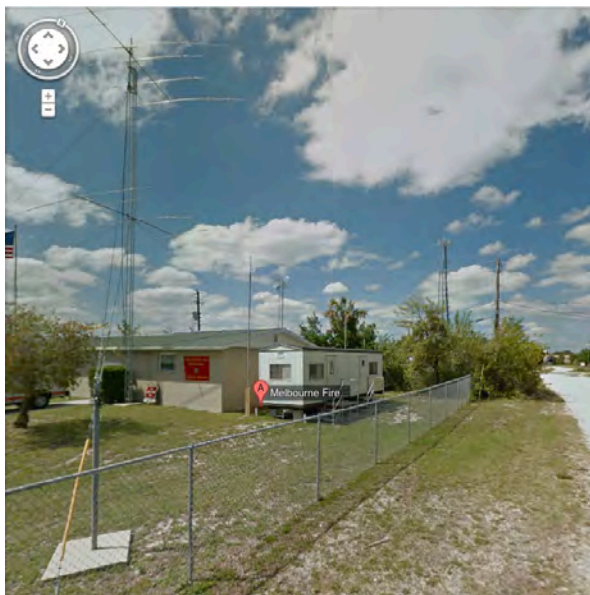
www.hamcation.com

LOCAL

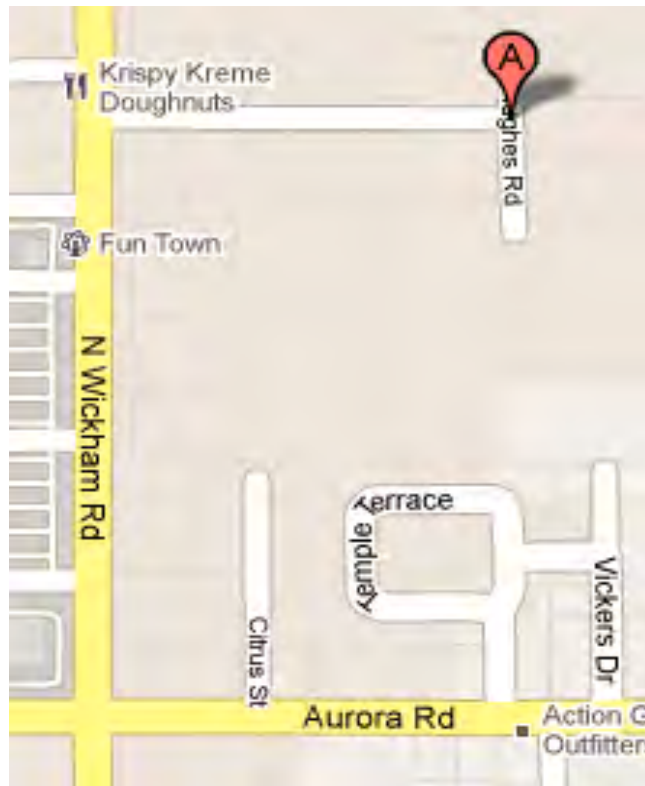
PCARS CLUB STATION



The club station is located in North Melbourne at the Fire Department Training Center. To get there take Wickham road north of Aurora Road. Going north you will pass through the traffic light at the shopping center where Harbor Freight is located. There is a Wendy’s on your right side and a Hess gas station. Turn right off Wickham onto Electronics Drive, which is right next to Wendy’s. Follow it to the end and turn right. It turns into a gravel road. The training center is on the right and the trailer located in the front is the club station.



If you “google” the club station address and go to street level this is the picture you see.



It is requested that all persons desiring to operate the club station be checked out on the equipment prior to operation. You will also need three combinations (1) to enter through the gate, (2) station door lock, and most importantly (3) the lock to gain access to the bathroom facilities in the fire department building. Questions or additional information – contact PCARS Club Station Manager: Curt Lochman, cvlochman@att.net

W4MLB VOICE REPEATERS

- 146.850/146.250 MHz
- 146.610/146.010 MHz
- 444.425/449.425 MHz T107.2

W4MLB PACKET REPEATER

- Packet Node: 145.090 MHz

"It is not the class of license that the Amateur holds but the class of the Amateur that holds the license"

D-STAR REPEATER

The 1st Brevard D-Star repeater is operational at N4LEM's location on King St., Cocoa (SR520). Frequency is 147.030 MHz digital voice and data.

SOUTH BREVARD EMERGENCY NET (SBEN)

- Every Monday at 7:00PM on 146.850 MHz
- 146.610 MHz Alternate repeater frequency. If both fail use 146.580 MHz simplex

SBEN is an emergency training net sponsored by PCARS & HIARC for all South Brevard amateurs, who are encouraged to check into the net.

SKYWARN INFO

Need information or want more information on the SKYWARN program [WebLink: [SkyWarn](#)] and how you can participant please contact:

PCARS Skywarn Coordinator: Paul Gray (N0JAA) pgray12@cfl.rr.com.

Assistant Skywarn coordinator: Alan Dixon, (N3HOE) N3HOE@arrl.org

HURRICANE INFO

[Hurricane Watch Net](#): (hwn.org). The Hurricane Watch Net frequency is 14.325 MHz.

The National Weather Service National Hurricane Center (WX4NHC) is at www.nhc.noaa.gov.

AMATEUR RADIO & COMMERCIAL LICENSE TESTING

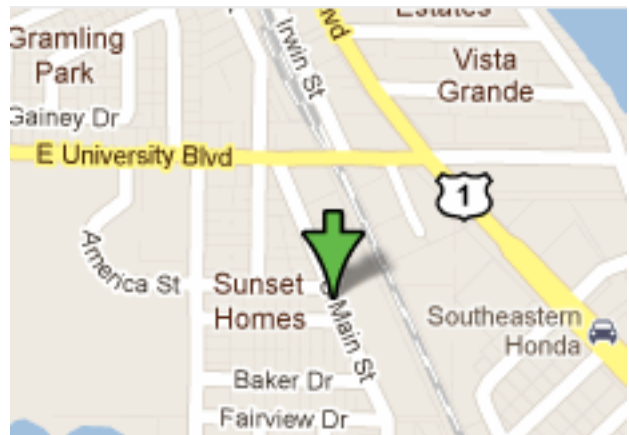
Amateur license testing is conducted the first Saturday of each month. Tests start between 9:15 AM and 9:45AM. This applies to both the ARRL and W5YI amateur sessions. Testing fee is \$15.00 and one fee covers all tests as long as candidates successfully pass the preceding element. When an

element is failed an additional fee may be required. Amateur exam walk-ins are welcome.

You need to bring the following in order to get credit for a test.

- A photocopy of your current license if already licensed.
- A copy of your CSCEs if you have one issued within the last 365 days.
- Either cash or check made payable to "ARRL-VEC" for the amount of \$15.00.
- Two forms of ID, one must be a picture ID if age 16 or older.
- You will need to know your Social Security number or your FCC Registration Number (FRN).

Commercial exams can be done by contacting Judy Gardner, AA9GW@cfl.rr.com. Fees for the Commercial elements are \$50.00 for the first element and \$25.00 for each additional element. Amateur & Commercial testing is conducted at the Chief Corner Stone Missionary Baptist Church, 3150 Main Street, Melbourne; Florida.



The change in location is temporary due to the construction at the Salvation Army building.

SALVATION ARMY BUILDING

Salvation Army Building is still undergoing **Major** renovations. Monthly General Membership meetings will be at the Veteran's Memorial Complex, 2285 Minton Road, Across from the W Melbourne Police Department.

"It is not the class of license that the Amateur holds but the class of the Amateur that holds the license"

BREVARD - AMATEUR ORGANIZATIONS

Active Brevard County Amateur Radio Clubs:

- **BEARS** - *Brevard Emergency Amateur Radio Service*
BEARS.homelinux.net
 - **CARS** – *Cocoa Amateur Radio Society*
www.cocoaars.org
 - **D-STAR** – *Brevard D-Star*
d-star-brevard.com
 - **FLECDX** – *Florida East Coast DX Club*
www.freewebs.com/fecdx/
 - **FLWSS** - *Florida Weak Signal Society*
www.flwss.net
 - **HIARC** – *Harris/Intersil Amateur Radio Club*
www.qsl.net/hiarc
 - **IRARC** - *Indian River Amateur Radio Club*
irarc.ham-radio-op.net
 - **LISATS** – *Launch Information Service and Amateur Television System*
www.lisats.org
 - **NBARC** – *North Brevard Amateur Radio Club*
northbrevardarc.org
 - **PCARS** – *Platinum Coast Amateur Radio Society*
www.pcars.org
 - **TARC** - *Titusville Amateur Radio Club*
www.titusvillearc.org
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PCARS MEMBERSHIP DUES REMINDER

Dues are \$20 per year payable in **January** of each calendar year. If you move or have email address changes you can get the Membership form at the club website at www.pcars.org. Make sure you include your email address so you may continue to receive the PCARS Newsletter.

12/31/1759 Arthur Guinness founded his famous brewery at St James Gate, Dublin.

12/31/1879 - Thomas Edison first publicly demonstrated his electric light in Menlo Park NJ.

PCARS EMERGENCY COORDINATOR POSITION OPEN

Interested in serving on the PCARS Emergency Committee, please contact Hugh Davey at hdavey@bellsouth.net or any BoD member.

“ARTICLE VII – Committees 2E: An Emergency Committee shall ensure that the corporation can provide a pool of skilled radio operators in the event of an emergency by developing appropriate plans, conducting drills, public service events, and related activities.”

PCARS Emergency Coordinator

Represent PCARS and interface with Brevard County Emergency Staff & other local Emergency organizations (BEARS, ARES, etc). Attend monthly BEARS meeting and manage the South Brevard Emergency Net (SBEN). A background in Emergency communications is helpful but not mandatory.

EMERGENCY CENTER OF ACTIVITY FREQUENCIES

The IARU Emergency Center of Activity (CoA) Frequencies are:

- On 15 meters, **21.360 MHz**
- On 17 meters, **18.160 MHz**
- On 20 meters, **14.300 MHz**
- On 40 meters, **7060 kHz**
- On 80 meters, **3760 kHz**

It should be emphasized that *any* frequency on which ongoing emergency communications is underway needs to be protected.

DVDONGLE SOFTWARE UPDATE RELEASED 1/1/12

DVTool 2.0beta5 site: <http://openstar.org/tools>

DVToolInstaller-2.0beta5.exe (for Windows)

DVTool-2.0beta5-mac.dmg (for Mac)

DVTool-2.0beta5-linux.tgz (for Linux)

“FINE BUSINESS*”

* A ham radio term for “sounds like a fun time”

Starting the 2012 New Year off right. This new monthly column will be here in the Newsletter for the “FINE BUSINESS” of our Members.

DXCC ON 160

BY W2TX – JOHN LUNDBERG

Today I officially received my 160M DXCC via a message in my LoTW account. The actual certificate should arrive via the USPS in a week or so. This is the 8th band on which I've worked 100 countries. All contacts have been on CW. 12M and 6M are in process.

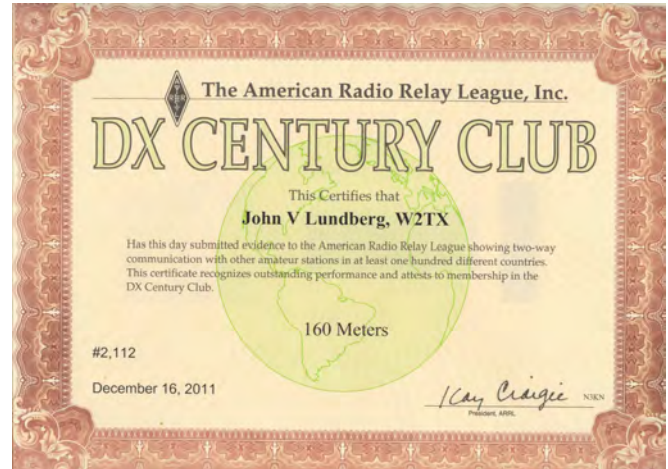
The earliest QSO that I had to submit to prove I worked 100 countries was made in May of 1995 when I lived near Rochester, NY, when my call was W0VU. My antenna was a base-loaded 30-foot vertical on a 1/4-acre suburban lot. I have a larger lot here so am able to have a 64-foot vertical, again, base-loaded. The close proximity of neighbors over the years has required almost all contacts to be made at 100 watts. Occasionally I would put the amp on to get up to 300 watts output. More than that and my neighbor's touch lamps start to go on and off and they get upset.

I have had 100 countries worked for nearly two years, but getting the QSL's has been a chore! As an example, I have many OH QSO's in the log on 160, but no QSL's to show for them until OH3XR confirmed our December 6th QSO via LoTW.

The longest distance QSO I have made on 160M was with VQ9LA last January. I needed 250 watts to work Larry that night!

The band is just starting to open up at night, now, for this winter's 160M season in Florida. Watch for low A and K numbers, and be prepared to stay

up late and work the stations into the wee hours of the morning!



[ED. Congratulations go to John Lundberg for his 160m DXCC certificate, #2112. Reprinted here for those of us who are not as accomplished and have yet to receive our first certificate. Congratulations John, that is quite an accomplishment.]

CURRENT STATUS: Mixed (351 including deleted countries/340 active countries), CW (347/339). DXCC on 160/80/40/30/20/15/10 meters; need to confirm 20 more for 12M.

Good Luck with those remaining John!

ARRL 10M CONTEST

By W2TX

On December 10th and 11th AF4Z, K4PX, K4QD, WF3C, and myself (W2TX) operated from the club station in the ARRL 10M contest. Using the club callsign, W4MLB, we entered the High Power, Mixed Mode, Multi-operator Single Transmitter category. Taking turns operating the club's TS-850S and RF-103A 1 KW amplifier, we made over 1500 contacts in just under 25 hours of

operating. In this contest, USA stations can contact both USA and DX stations. DX stations can only contact USA, Canadian, and Mexican stations.

Per the rules of the contest, CW contacts are 4 points each and Phone contacts are worth 2, so operators have to decide on-the-fly which mode to operate, depending on how fast we are making contacts. When the contest ended, we had made 933 CW contacts and 605 on phone. The CW contacts were comprised of 355 USA and 578 DX, while the Phone contacts included 380 stateside and 225 DX (CW RULES for chasing DX!).

Multipliers (for calculating our score) in this contest are USA states plus DC, plus Canadian provinces, plus Mexican states, plus DXCC countries. This was the second year that Mexican states counted for multipliers and there was more activity from XE-land this year than last. Our CW contacts included 44 USA states, 11 Canadian provinces, 3 Mexican states, and 73 DX countries. Our phone operators claimed 37 USA states, 11 Canadian provinces, 8 Mexican states, and 51 DX countries. The bulk of the multipliers in both modes came from Europe, but many contacts were made in South and Central America, JA, VK, and ZL-lands.

In recent years, which suffered from low sunspot numbers, a 10M contest effort has consisted of long periods of calling CQ, hoping for an occasional E-skip opening anywhere, and working as many Florida stations as possible via ground wave. This year, the sunspot numbers were much higher. Both Saturday and Sunday morning featured incredibly loud signals from Europe, with a few periods of distinct multi-path signals that sounded as though they had echos. Occasionally I would have to ask a DX station to QRS so that I could separate the actual CW signal from the "Echos"! Signals were so strong, and activity was so high, that rates of 110/hour were achieved on CW and 140/hour on Phone!

Our total claimed score is 1,176,196 points. Last year this score would have placed us about 5th in

the country, but this year 10M conditions were so much better that many, many more stations entered the contest. Our score is currently 27th out of 121 in the country in the high-power multi-single category (unofficially reported to date).

So, put up a 10M-ground plane antenna and work the world!

73, W2TX

10M CONTEST RESULTS

W4MLB: 1,176,196 Points, 1538 QSO's, 238 Multipliers, MSHPMix Class, SFL, W2TX, K4QD, AF4Z, WF3C, K4PX Operators 24.8 Hours

QSOs: CW: 933 Mults: 131

QSOs: SSB: 605 Mults: 107

AD4ES: (from AA4HP) AD4ES 673,992 Points 1083 QSO's, 207 Multipliers, MSHPMix, SFL, AD4ES, AA4HP, K9ES, WF3C Operators, 24 Hours

K9ES: 22,880 Points, 131 QSO's, 52 Sections, SOLPMix Class, SFL, 4 Hours

KD2JA: 244,098 Points, 426 QSO's, 191 Sections, MSHPCW Class, SFL, 10 Hours

ARRL 160M CONTEST

WX4MLB: 100 QSO's, 203 Points, 37 Sections, 7511 Score, K9ES, AD4ES, N8KH operators, M/S HP Unassisted, 5 Hours operating time.

ARRL RTTY ROUNDUP 7-8 JAN 2012

Going to miss publishing the results of this contest for this January Newsletter. Just missed the publication deadline for the newsletter.

My Ham Shack

W2TX – John Lundberg



[W2TX – Here is a picture of my shack Ten-Tec-OMNI-VI (taken 8 months ago (when I last cleaned up in there))]

In addition to John’s most recent DXCC for 160m #2112, he also holds CCQ WAZ 20M #264, 15M #150, and 10m #172; and 5_Band WAZ #1693 (all using only CW). John needs one more zone on 40M, 8 more zones on 80M, and 12 more zones on 160. “Retirement is fun, chasing these awards.”



[W2TX Deed Restricted ANTENNA FARM – Dipoles and a 64foot vertical, which is in the middle of the picture with the small white box at the bottom.]

People who may be interested in seeing some of the antennas I have used, some of which were home-brewed, can go to: <http://w2tx.wordpress.com/2010/03/>. (start at the bottom of the page and work your way up...). I am working on a similar webpage that will show some of the radio equipment for which I was involved with the design and development.

Who will share their station next month?

Space is available every month for photos and short description of our club members’ stations. Please send JPEG photo(s) and description of your station and your activities to the Newsletter Editor: Bruce/KI4TJY at newsletter@pcars.org.

JOHN STULTZ

The weather here is normal but to us who are not used to it. It is colder than cold. Yesterday when I went to the car to go the testing here it was 18 degrees. Hope all is going well for all there in Fla.

Incidentally the E-mail is aa8is@roadrunner.com John. [Ed. Stay Warm John]

Δ In my many years I have come to a conclusion that one useless man is a shame, two is a law firm and three or more is a congress. - John Adams

Δ If you don't read the newspaper you are uninformed, if you do read the newspaper you are misinformed. - Mark Twain

Δ Suppose you were an idiot. And suppose you were a member of Congress. But then I repeat myself. - Mark Twain.

Δ I contend that for a nation to try to tax itself into prosperity is like a man standing in a bucket and trying to lift himself up by the handle. - Winston Churchill

Δ A government which robs Peter to pay Paul can always depend on the support of Paul. - George Bernard Shaw

“GENERAL”

PCARS MEMBER SURVEY!!!

No January Survey Questions Submitted

If there is a topic that any PCARS member would like to questions of the membership – please forward survey questions to newsletter@pcars.org editor for inclusion in a future newsletter.

PCARS CLUB STATION REMOTE CONTROL - STATUS

There were no additional responses so it appears there is insufficient (3 people) member interest.

POINTS OF CONTACT

The following individuals have made themselves available to answer your questions or provide more information in regard to their indicated subject matter expertise.

- **AFMARS** – Bruce Jarrell/KI4TJY
KI4TJY@me.com
- **APRS** – Lynn Deffenbaugh/KJ4ERJ
KJ4ERJ@arrl.net &
<http://aprsisce.wikidot.com>
- **???**<YOUR NAME HERE> To add your name and subject area please email the Newsletter Editor. Share your knowledge & experience – because that is what Hams are supposed to do.

Everyone has their specialty - If you would like to be added to the list above, send the editor (newsletter@pcars.org) your knowledge area, name, and email address for inclusion in the next issue.

HAM FRIENDS

FRIENDS – PAUL GRAY, N0JAA, STATUS

Hello to all of my PCARS & HIARC friends!

Just a little update. I was hospitalized in mid-September for renal failure. I was placed into a drug-induced coma while my kidneys were flushed out via temporary dialysis. This failure also caused me to lose the use of my legs and left arm. I have regained partial use of my left arm and am undergoing physical and occupational therapy to regain my ability to walk.

I am still in rehab but doing better. I hope to be home in a few weeks, but I will still have a lot of outpatient and in-home rehab to go before I will be mostly independent, at least a couple more months' worth. During that time I will probably be living with my aunt and uncle before I can go back to my own home.

My time on the computer will be very limited for now until I am well.

I hope everyone had a merry Christmas and a good 2012 so far. I will try to check in now and then as my health permits.

My plan currently is to be home by January 21, either at my home or at my aunt & uncle's home, where I will continue my rehab and recovery.

Alan Dixon, N3HOE, the Southern Brevard County Skywarn Assistant Coordinator, will continue in his temporary position as acting Skywarn coordinator until such time as I am again healthy enough to resume the position.

73, Paul Gray, N0JAA, Southern Brevard County Skywarn Coordinator, currently on medical leave.

“TECH”

ADVANTAGEOUS USE OF LONG WIRE ANTENNAS

BY DENNIS I. O’QUINN, K4CXX

This article discusses the change of radiation patterns and impedance as an antenna’s length increases. A practical value is an improvised gain antenna for HF.

Introductory antenna articles discuss mostly half-wave antennas, even describing vertical quarter-wave whip antennas as a quarter-wave whip radiator and the ground plane making up the balance of a half-wave antenna. The variations that could be advantageously used are often overlooked.

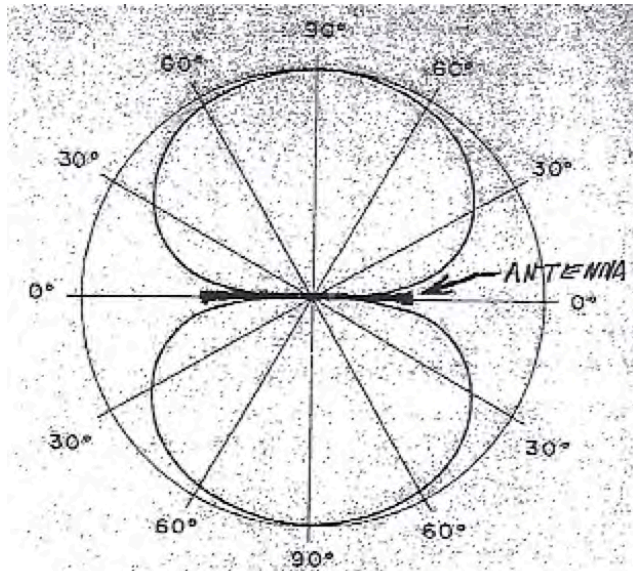


Figure 1—Radiation pattern of a half-wave dipole antenna, which runs in line between the 0° and the 0° points. (From reference.)

The wavelength, λ (lambda), of a frequency in meters is $[(300 \text{ meters})/(\text{frequency in MHz})]$ for a full wavelength. For 50 MHz operation (the lower end of the six meter band), the wavelength is $(300 \text{ m}/50 \text{ MHz}) \Rightarrow 6 \text{ meters}$ or, $[300 \text{ m} \times 3.28$

feet/meter $\Rightarrow 984$ feet, so that $\lambda = (984 \text{ ft}/ 50 \text{ MHz})] 19.84$ feet. For the six meter band, a half wavelength ($\lambda/2$) antenna is about 3 meters, or 9.9 feet, long.

Figure 1 depicts the radiation pattern of a half-wave antenna. The distance of the line from the center of the graph represents the relative strength of the signal from the antenna in that direction. The significant part of this graph is that the strongest signal is radiated broadside from the length of this antenna. That broadside direction also represents the most receptive direction for received signals. (This principle is referred to as “reciprocity”.)

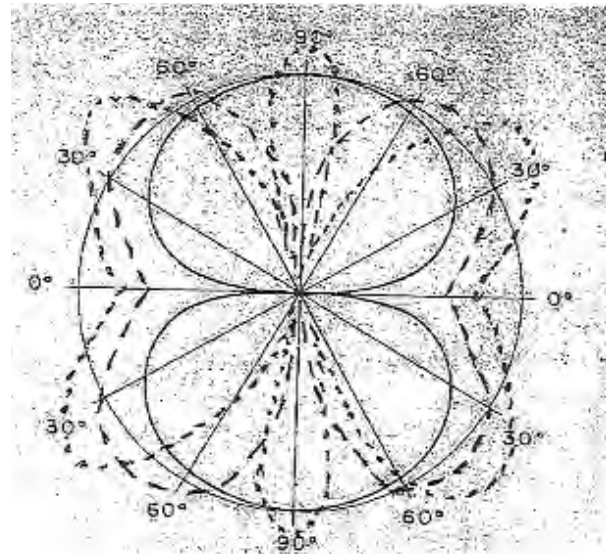


Figure 2—Radiation patterns of 1λ (dotted) and $3/2 \lambda$ (dashed) antennas superimposed on $\lambda/2$ (half-wavelength, solid line) reference dipole antenna. Note that gain increases with length, and that greater gain occurs on lobes closer(-est) to axis of antenna (along the 0°-0° line).

Figure 2 depicts the radiation patterns for a few other dipole antennas compared to the radiation pattern of the half-wave dipole antenna. The distances of the other antennas beyond those of the half-wave radiation pattern represent gain over the

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half-wave dipole. A longer antenna may significantly improve coverage in some directions while reducing it in others. As the antenna becomes longer, the increased and higher gain lobes tend to approach a cone shape around the axis of the antenna, and the radiation resistance rises.

An advantageously applied use of this knowledge took place on a trip to the volcanic Ascension Island the early 1990s that combined work and ham radio operation from a distant QTH. Ascension Island is in the southern Atlantic Ocean at 7° 56' S, 14° 25' W. (For perspective, Melbourne, FL, lies 5,180 miles away to the northwest on a bearing of 298° true.)

The island has a wind from the southeast of about 10-15 knots most of the time. A six-foot parafoil

kite, which has no rigid support rods, and 500 feet of thin coax (intended for another project) were easily packed with the 150-watt transceiver. The 7.25 wavelength coax shield, also used as the kite string, was end fed against a small ground plane, with the kite flying up to the northwest in the open over a lava field and away from power lines.

The island has a wind from the southeast of about 10-15 knots most of the time. A six-foot parafoil kite, which has no rigid support rods, and 500 feet of thin coax (intended for another project) were easily packed with the 150-watt transceiver. The 7.25 wavelength coax shield, also used as the kite string, was end fed against a small ground plane, with the kite flying up to the northwest in the open over a lava field and away from power lines.

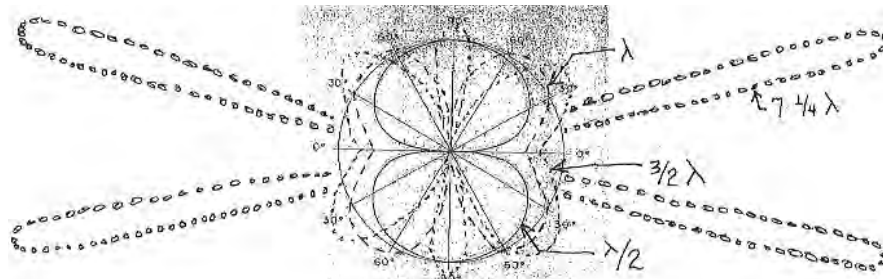
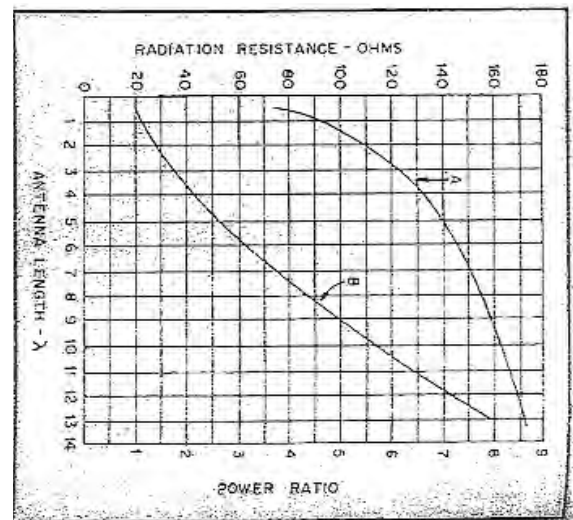


Figure 3— The major lobe of a 7.25λ long wire antenna is sketched in with the gain shown proportionally at the approximate angle.

Figure 3 shows the gain of the 7.25λ long wire antenna compared to the other examples. This long antenna gave gain around a cone shape centered on the axis of the antenna. Note that this increased gain comes at the expense of very low sensitivity at angles containing nulls. The equipment and antenna combination gave increased nighttime 20 meter band SSB coverage into the US, as well as nighttime contacts into Europe and the Far East, and some daytime coverage into South America through some minor lobes.



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Figure 4—Gain (B) from the main lobes compared to the gain of a half-wave dipole, and the radiation resistance (A) increase with the increase in length of a long wire antenna. (From reference.)

Figure 4, taken from the referenced ARRL publication, shows that portions of the US benefited from a gain of about 4 (~6 dB) over a dipole. This was the equivalent of using 600watts with a simple antenna. The increased impedance that came with the extra length was easily handled by the transceiver's impedance matching pi network.

Long wire antennas are simple, and can provide gain in general directions without difficulty. Their use does cause reduced coverage in other directions, and requires adaptation to the higher feed impedance.

Reference

The Radio Amateur's Handbook, 59th Ed. (1982) [ARRL], Ch. 20, Antennas for High Frequency. (Sketches were developed from that copyrighted material, available for affiliated club newsletters.)

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Dennis I. O'Quinn, K4CXX, was Technical Talks Chairman for the 2011 Melbourne Hamfest.

NEW HAM RADIO COMPETITION

**BY UBA, BELGIAN AMATEUR RADIO
SOCIETY**

The UBA International Prefix Hunt committee has announced new rules to this interesting new contest for 2012

This is not a contest in usual sense but a competition, which runs over the whole year and enables you to measure your achievements in prefix chasing. Even if you are not a contester you can easily participate because every QSO you make on every HF band counts for the competition.

All HF Bands (160, 80, 40, 30, 20, 17, 15, 12 and 10m)

Single Operator only (Mixed Mode, Phone SSB, AM, FM); CW; Digital modes (RTTY, PSK, etc).

Every different prefix counts as 1 point on each band, Every different prefix counts once as a multiplier, The sum of all prefixes on all bands multiplied by the number of different prefixes.

ADIF Logs are to be submitted monthly prior to the 5th of each month following to the Competition Manager.

Info: <http://www.uba.be/hf/contest-rules/rules-of-the-uba-international-prefix-hunt>

DOT-DASH-DISS: THE GENTLEMAN HACKER'S 1903 LULZ

BY PAUL MARKS

Article appeared in Christian Science Topic Guide, 27 December 2011 by Paul Marks, Magazine issue 2844.

<http://www.newscientist.com/article/mg21228440.700-dotdashdiss-the-gentleman-hackers-1903-lulz.html?full=true>

A century ago, one of the world's first hackers used Morse code insults to disrupt a public demo of Marconi's wireless telegraph

POPULAR COMMUNICATIONS ARTICLE – DEC 2011 ISSUE

“*Reginald Fessenden's joyful Noise – December 23, 1900*”. A little known fact and a very interesting and informative article on the First Radio Voice Broadcast (>50miles) over a radio transmitter from a 450-foot mast in Brant Rock, Mass. Took place a year before Marconi's Morse Code transatlantic broadcast Dec 12, 1901.

www.popular-communications.com see back issues

FIELD EXPEDIENT ANTENNAS

BY DENNIS I. O'QUINN, K4CXX

Field expedient antennas are those designed in the field, using available resources, to replace a lost or damaged antenna. This article gives two quick designs suitable for impromptu replacement of regular antennas.

Field expedient antennas differ from the normal, garden variety of homebrew antennas since they are made solely from resources on hand. Frequently they replace lost, missing, or damaged antennas.

The concepts behind these antennas are the similar to those behind the more permanent and elegantly designed masterpieces that you can purchase from many of the manufacturers. For the antenna to be worthwhile, it must receive and transmit over the frequency range needed, handle the power levels employed, and produce an antenna polarization with the necessary gain in a desired direction.

Another article in the January 2012, *PCARS Newsletter*, "Advantageous Use of Long Wire Antennas", introduced the use of antennas several wavelengths long to produce gain. The underlying concept was that if you make an antenna much longer than a half wavelength, the gain is concentrated more narrowly, and you can take advantage of that characteristic. This article extends that line of thought, and shows how this can be done in a field environment.

The first one that can be readily made is a "Vee" antenna, which resembles the letter "v". It is similar to a dipole except that the midway feed point is not in the middle of a straight line, but is at the vertex, the middle of two equally long pieces of wire that make an angle of less than 180° toward the desired direction.

Figure 1 shows the layout and antenna pattern of this antenna. It is a rather forgiving design, and the only drawback is that the impedance can be vary enough that either a pi network or antenna tuner may be required for full use.

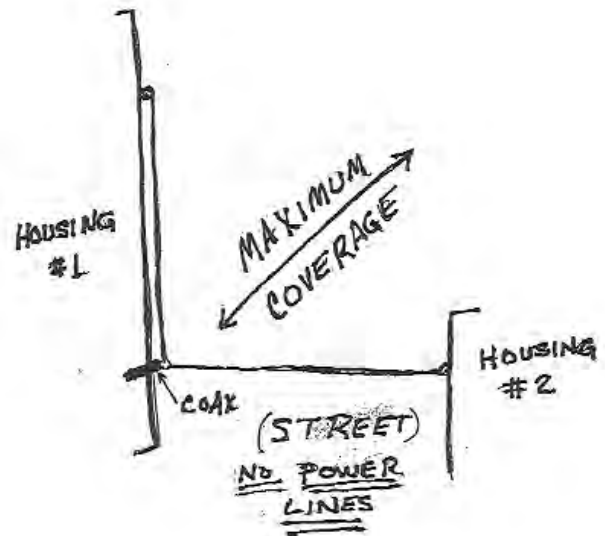


Figure 1

Shows the operational concept of a "Vee" antenna

Its primary gain is on a line centered between the two legs. I used it well on 20 meters on the second story of a two floor building while temporarily working overseas, putting the vertex just outside my room, and running one leg across the street to a location opposite my room, and the other a couple of feet away from my building alongside it to another room's window 40 or so feet away.

As pointed out in the referenced article, the gain increases with the length of the legs while the useful angular coverage width diminishes; a length of three-quarters to a few wavelengths per leg is probably optimum for most situations where the azimuth and gain aren't critical. Over the last 50 years I have successfully used variations of this antenna from 40 meters (7 MHz) through 2+ GHz. ("Tune for minimum smoke." -- Ask an old timer if this phrase isn't clear.)

The other antenna for this article is the half rhombic, although there are many other field expedient antenna designs. The half rhombic is one half of a rhombic antenna, which has four equal length sides, but not square corners, like a diamond shape. It was first taught to me at the

Army Southeast Signal School at Fort Gordon, Georgia, for use in tactical environments as a replacement or substitute for a broken VHF or UHF whip antenna, or when more gain was needed to reach a distant location.

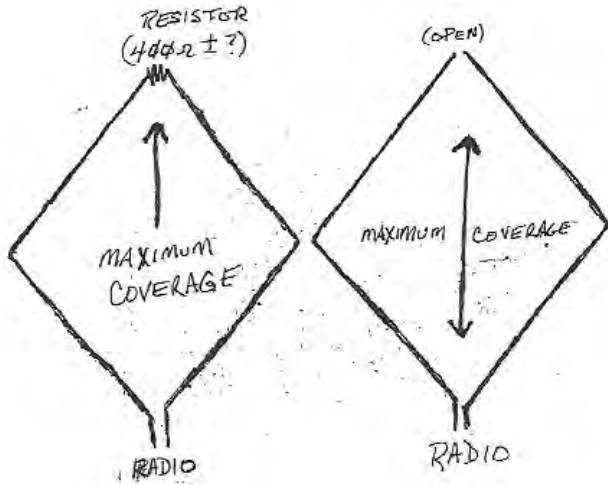


Figure 2 Shows the outline of a rhombic antenna.

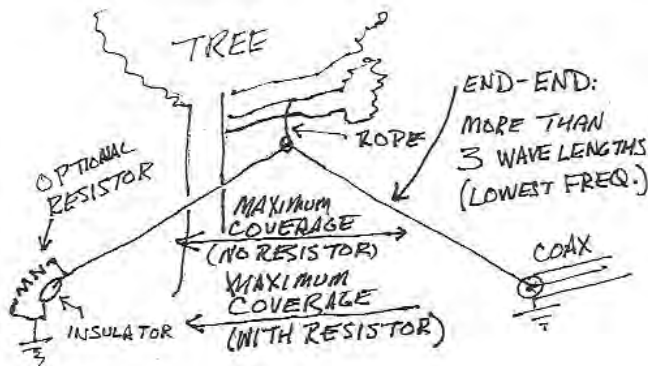


Figure 3 Shows the concept of a half-rhombic antenna. Support point should be 10-25 feet high.

The design parameters are rather loose in a tactical environment, where anything is likely an improvement over your current circumstances of no functional antenna. Given that most military tactical FM radios operate in the 30 – 88 MHz range, a 100-foot spool of wire gives you the minimum length to get started with a half-rhombic (with slightly over 1.5 wavelengths per leg at 30 MHz). The gain improves as the frequency increases (and the wavelength decreases).

Like the rhombic and vee antennas, the maximum response of the half-rhombic antenna is both in front and behind the antenna in a line running through the long direction unless the ends of the legs are terminated in a resistance of several hundred ohms. Given that this is meant as a quick replacement antenna, that luxury is not assumed, so a bidirectional pattern is assumed unless the design is deliberate, and the resistors are installed to make the response unidirectional.

If you choose to build one of these antennas for regular use, the performance can be improved by use of specific calculations. If your goal is to return to an operational status promptly, some performance may be sacrificed with these approximations while still enjoying the benefits of a better antenna than what you had.

Often unaddressed are homebrew simulations of conventional antenna designs such as the ground plane antenna or vertically installed half-wave dipole. Those are not shown here, but if you need an antenna, those are viable candidates. Just because you can't be sure the VSWR is low or that the antenna will outlast the week should not discourage you from trying to build one if you have nothing to lose.

Although the number of field expedient antennas is almost unlimited, and confined only by the ingenuity and imagination of the operator, these two are useful, flexible, and usually feasible designs; you might like to try one just for fun before you need to build one for a needed situation. Perhaps one new, extra points category someday for Field Day will be the construction of an antenna within 24 hours before starting that is used for over 12 hours; if so, you'll be ahead of the game with your newfound experience.

* Dennis I. O'Quinn, K4CXX, spent two years in Southeast Asia during the Viet Nam war working on various communications systems, including an around the clock countrywide tactical HF net and various FM nets. He is a former ARES EC for southern Brevard County.

“EXTRA”

INTERESTING WEB LINKS

HOW-TO MAKE YOU OWN PLASTIC WATERPROOF MAP

Rovers and portable operators may be interested in this Instructables "how-to" article about printing plastic maps that are waterproof and foldable. Not laminating but a process that uses sandwich and garbage bags and an ink-jet (not laser) printer. There are a number of steps involved but the process looks do-able. Also on the Instructables website is this neat collection of 24 different "radio hacks" that transform ordinary AM/FM receivers into completely different animals. You may find this thought provoking for ham radio applications, too! Might come in handy if you're a rover on field day.

<http://www.instructables.com/id/Print-Waterproof-Plastic-Maps/>

MILAN ILLINOIS NATIONAL GUARD BUILDING HOLDS SECRET MESSAGE

A short You Tube video of a news cast which explores the strange brick layout on the building.

http://www.wqad.com/news/wqad-illinois-national-guard-milan-morse-code-secret-message-12162011,0,2308380.story?hpt=us_bn6

SE DIVISION HAMFESTS

See a complete list of ARRL SE hamfests at:
www.southeastern.arrl.org/SE_hamfest_2012.htm

YAESU USA

Yaesu's Amateur Radio Division Breaks with Motorola, Changes Name to Yaesu Musen 12/28/2011

After four years under the Motorola umbrella, Yaesu has split from that company. According to Vertex Standard President and Chief Executive Officer Jun Hasegawa, effective January 1, 2012, Motorola will keep the Vertex Standard Land-Mobile Division, while the amateur, marine and air-band will be under the Yaesu Musen banner. The new company will be known as Yaesu USA here in the US.

"This reorganization will allow us to concentrate in amateur, marine and air-band business, which will better leverage and align the strengths of our entire business operation," Hasegawa said in a press release dated December 27. "We believe that there is an exciting opportunity to evolve our organization to meet the needs of the Amateur Radio, Marine equipment and air band telecommunication industries by continuing to provide specialized services and the highest quality products."

Hasegawa explained that the new company's name will be Yaesu Musen, "a name our business partners have been familiar with for over 50 years. We are delighted to bring you the legacy of trust, quality and solid customer service that has always been associated with the Yaesu Musen company name."

While Yaesu Musen will have a new Japanese address, the address and phone numbers -- as well as the US operations and sales organization -- for Yaesu USA will not change. Dennis Motschenbacher, K7BV, will remain in charge of Yaesu USA's sales division.

DIY THE MAGIC OF HAM RADIO

This is an ARRL Video of Do It Yourself Ham Radio. Extols the old time view of when every Ham was thought of and, prided themselves as, an experimenter and a do it yourselfer. Received from Hugh, K4XBC via N2YEG, NJ.

<http://www.youtube.com/embed/vlDwVhx7miQ>

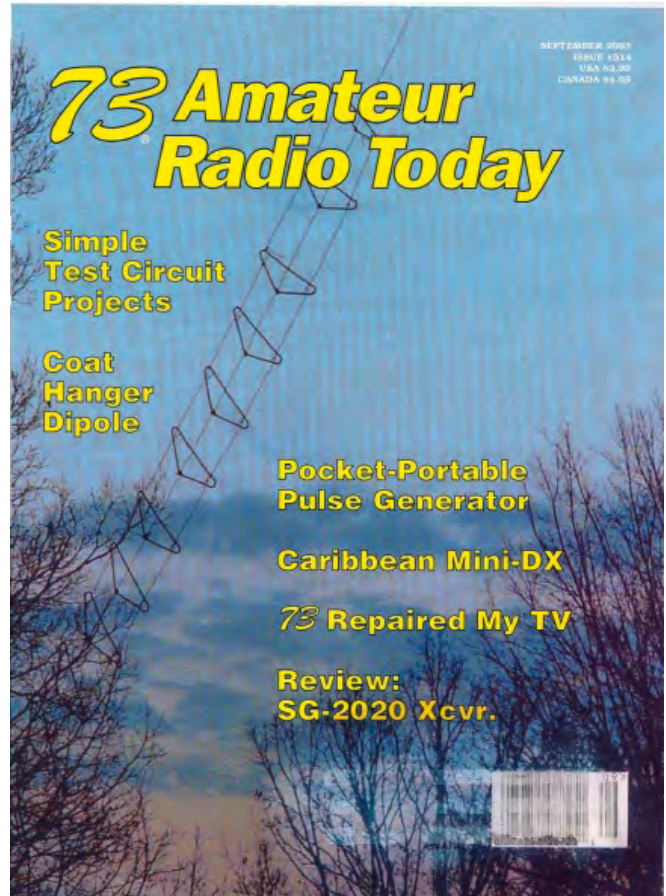
73 MAGAZINE ARCHIVED

The Internet Archive project has just published nearly every issue of defunct 73 Magazine, all the way back to January 1961.



[The Issue #1 October 1960 and was priced at 37¢]

While dominated by the editorial adventures of Wayne Green W2NSD, the magazine also featured loads of simple (sometimes too-simple) construction articles, expedition adventure writing by Gus Browning W4BPD and other, and had a loyal following for many years.



[The Final Issue #514 September 2003 priced at \$3.95]

You may read the material online or download the PDF files.

(Thanks Leigh WA5ZNU via the QRZ.com website) <http://www.archive.org/search.php?query=73MAGAZINE>

QST GOING DIGITAL!

This ARRL will be making QST digital format mid-year. Good news is NO extra cost. Members will receive both hardcopy snail mail and digital formats.

REAL TIME POWER GRID PHASE MAP

Here is a link to watch the phase of the nation's 60 Hz power grid in real time.

<http://fnetpublic.utk.edu/anglecontour.html>

In general, locations that are lagging phase are drawing power and locations that are leading are supplying power. However, there also may be fixed phase deviation due to transmission line length: a wavelength, and 360 degrees in air, at 60 hertz is 3,108 miles.

The continental United States actually has three separate power grids that are not phase locked: (1) Eastern Interconnection, (2) Western Area Coordination Committee, and (3) Texas

Watching the power grid phase during anomalies is most interesting.

Movie of power grid phase during the 2003 NY blackout:

<http://www.youtube.com/watch?v=x1MAHJ4BG04&feature=related>

Movie of power grid phase during a generator trip in S. Florida:

<http://www.youtube.com/watch?v=25fS7kS6PfQ&NR=1>

LETTER¹⁰ FROM YOUR EDITOR

Now that this Editor has published his 1st, 2nd, 3rd, 4th, 5th, 6th, 7th, 8th, and now 9th CLUB newsletter, each newsletter is hopefully better and more enjoyable for everyone. Again please it is YOUR newsletter and as such please email me anything you believe would be of benefit, relevant or of interest to your fellow hams. Write an article; sketch it out; pictures of your shack; interesting

items you find throughout the month; anything of interest; just get involved with your newsletter.

Hope that the Christmas season was a happy one for each of you and your families, be it Christmas, Hanukkah, or some other name. Now the new year is here and it is time for NEW YEAR RESOLUTIONS:

My New Years wish for all PCARS members is a hope, that each of us, gets more involved in the club. Whether it is (A) attending the monthly meeting, (B) making a presentation to the club at the monthly meeting, (C) taking a few pictures and sending in a short write up of your station for the newsletter, (D) running for a club office, (E) supporting a club event, (F) working on Field Day (never too early to start planning), (G) Assisting with Hamfest, (H) Going down to the club station and operating, (I) Writing a ham-related article for the PCARS Newsletter, (J) or whatever you enjoy doing some other members of the club probably enjoy the same activity – get involved and send your thoughts to the newsletter@pcars.org. The newsletter will publish your comments, ideas, and contact information and who knows maybe you can start a Tradition or Activity all can enjoy.

Do something just don't sit there!

[ED-KI4TJY]

As always I invite any and all interested members, new or old, to write an article about your experiences or even a short project description and submit it for publication in the club newsletter. Even an editorial (as long as it is in good taste). Remember this is **your** Newsletter so if you have suggestions about the newsletter, articles, pictures, questions, comments, and/or general information to disseminate to the membership of PCARS please email your information to the editor at newsletter@pcars.org include NEWSLETTER in the subject line. I will include everything I can. Remember PCARS newsletter is your opportunity to share your amateur radio experiences with your fellow hams.



Tedco of Melbourne, Inc.

www.TedCoElectronics.com

437 S. Babcock St.,

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APHORISM

APHORISM: A SHORT, POINTED SENTENCE THAT EXPRESSES A WISE OR CLEVER OBSERVATION OR A GENERAL TRUTH.

1. The nicest thing about the future is That it always starts tomorrow.
2. Money will buy a fine dog, but only kindness will make him wag his tail.

3. If you don't have a sense of humor, you probably don't have any sense at all.
4. Seat belts are not as confining as wheelchairs.
5. A good time to keep your mouth shut is when you're in deep water.
6. How come it takes so little time for a child who is afraid of the dark to become a teenager who wants to stay out all night?
7. Business conventions are important - because they demonstrate how many people a company can operate without.
8. Why is it that at class reunions you feel younger than everyone else looks?
9. Scratch a cat . . . And you will have a permanent job.
10. No one has more driving ambition than the teenage boy who wants to buy a car.
11. There are no new sins; the old ones just get more publicity.
12. There are worse things than getting a call for a wrong number at 4 a.m. - like, it could be the right number.
13. No one ever says "It's only a game" when their team is winning.
14. I've reached the age where 'happy hour' is a nap
15. Be careful about reading the fine print. . . . there's no way you're going to like it.
16. The trouble with bucket seats is that not everybody has the same size bucket.
17. Do you realize that, in about 40 years, we'll have thousands of old ladies running around with tattoos? (And rap music will be the Golden Oldies!)
18. Money can't buy happiness -- but somehow it's more comfortable to cry in a Cadillac than in a Yugo.
19. After 60, if you don't wake up aching in every joint, you're probably dead.
20. Always be yourself because the people that matter don't mind And the ones that mind don't matter.
21. Life isn't tied with a bow But it's still a gift.

REMEMBER... POLITICIANS AND DIAPERS SHOULD BE CHANGED OFTEN AND FOR THE SAME REASON".