



INDIAN
RIVER ARC

P.O. BOX 237285, COCOA
FLORIDA 32923-7285

VOLUME XLV, NUMBER 11

SPURIOUS EMISSIONS

NOVEMBER, 2019

CLUB MINUTES

OFFICERS

PRESIDENT

DAVID LERRET
KU0R

VICE-PRESIDENT

VIRON PAYNE
N4VEP

SECRETARY

STEVE LUCHUCK
N4UTQ

TREASURER

LARRY HENDERSIN
KK4WDD

DIRECTOR

DAVID SLAWSON
K4UZM

NEWSLETTER EDITOR

ARMANDO DELGADO
KN4JN

President Dave KU0R began the meeting at 7:32 PM with the Pledge of Allegiance. Following the Pledge and adjustment of the projector screen, Dave called for visitors and guests and Hylan Boxer KN4ZGI gave us a through introduction then Sherrod Munday KN4BFF and his son John KN4ERS introduced themselves.

The October meeting minutes were published in the October newsletter. A motion was heard to approve the October meeting minutes. A second was heard and the October meeting minutes were approved by acclamation.

The Treasurer's report showed \$847.27 in checking and \$1778.25 in the Equipment Fund. A motion to approve the treasurer's report was heard, a second was heard and the treasurer's report was approved by acclamation.

Technical report: All repeaters are up and running and performing well. Go Kits are about the same. Here at the shack we have good HF radios and VHF radios. It would be better if we

had a vertical HF antenna and another high power tuner. Les W9BCH, our Emergency Coordinator, reported updating the clock there in the shack.

Christmas party is December 5th at the Red Lobster and the other clubs have been invited and we will simply order off the menu. Social starts around 6.

New Business: Election of officers. The term lasts two years. Nominees are: For President Viron Payne N4VEP, Vice President Dave Lerrett KU0R, Secretary Ernie Hoffman K1CPO, Treasurer Larry Henderson KK4WDD, Director Dave Slawson K4UZM.

Dave called for motion to approve the nominees, a second was heard and the nominees were elected by acclamation.

Dave called for members making a recent HF contact and Greg Ab4GO made a couple of contacts in Hawaii.

Viron showed us a video that he took on his cell phone of them taking down a hex beam antenna.

The winning 50-50 ticket was found to be in the hands of Mark KI40BT.

Following the 50-50 drawing, Dwaine KM4HCN demonstrates how he hauls a ton of equipment for a portable 2m FM station that he operates when dispatched to the hurricane shelter. He uses an UPS to power a power supply for when the shore power is available and when the shore power goes out, the UPS produces an audio alarm. When shore power goes out he shuts everything down and connects the radio to a car battery. Dwaine also explained how he has a special charger so he can help others at the shelter charge their cell phones if needed. The antenna that Dwaine uses is a fiberglass antenna mounted on a very sturdy looking tripod. Dwaine uses about 50 feet of RG8 to connect the radio to the antenna.

A motion to adjourn occurred at 8:27PM and was moved and approved.

Respectfully Submitted

Steve N4UTQ

HAPPENINGS

November will see one of the ARRL's most popular radio contest, the **November Sweepstakes**. This contest comes in two parts, CW on the weekend of November 2-4, and phone on November 16-18. The contest includes all states, all ARRL sections, and all Canadian provinces. For CW operators, it is a great opportunity to get some solid practice since the exchange is longer than in most

contests. See more details and rules [here](#).

"Antenna EnTRAPment! All about Traps" is the topic of the new (October 10) episode of the [ARRL The Doctor in](#) [In](#) podcast.

ARES INFORMATION

The Amateur Radio Emergency Service® (ARES) consists of licensed amateurs who have voluntarily registered their qualifications and equipment, with their local ARES leadership, for communications duty in the public service when disaster strikes. Every licensed amateur, regardless of membership in

ARRL or any other local or national organization is eligible to apply for membership in ARES. Training may be required or desired to participate fully in ARES. Please inquire at the local level for specific information. Because ARES is an Amateur Radio program, only licensed radio amateurs are eligible for membership. The possession of emergency-powered equipment is desirable, but is not a requirement for mem-

HAPPENINGS

bership. How to Get Involved in ARES: Fill out the [ARES Registration form](#) and submit it to your local Emergency Coordinator.

ARES Resources

· [Download the ARES Manual \[PDF\]](#)

· [ARES Field Resources Manual \[PDF\]](#)

· [ARES Standardized Training Plan Task Book \[Fillable PDF\]](#)

· [ARES Standardized Training Plan Task Book \[Word\]](#)

· [ARES Plan](#)

· [ARES Group Registration](#)

· [Emergency Communications Training](#)

[Here](#) is an interesting YouTube video on building a J-pole antenna.

TRANSIT OF MERCURY: One of the biggest astronomy events of the year will happen on Monday, Nov 11th. Mercury will pass directly in front the sun, creating a jet black circular

"sunspot" that anyone can safely observe. Find out when and how to look on [Spaceweather.com](#).

The American Legion Amateur Radio Club (**TALARC**) headquarters station, K9TAL, will anchor Veterans Day operations for special event N9V on Monday, November 11. Operation will be from 1800 to 0000 UTC on or about 7.285, 14.285, and 21.285 MHz. Certificates will be available to all sending a QSL card. More information is on the [N9V profile page](#) on QRZ.com.

CWops CWops is International in scope, membership and management. Its focus is the use of CW, whether for contesting, DXing

or ragchewing. Moreover, it supports every form of sending – if it's CW, CWops supports it!. To find CWops friends on the bands, look "on the 8's": CWops Primary Frequencies (MHz): 1.818, 3.528, 7.028, 10.118, 14.028, 18.078, 21.028, 24.908, and 28.028 Check them out [here](#). CW OPS also run the [CW academy](#), a program put on by the CW Operators' Club aimed at increasing the number of competent CW operators on the HF CW sub-bands. It addresses all levels of enthusiasts: from those aspiring to become licensed operators who want to learn and use Morse code; to veteran operators who are intent on increasing their CW skills, speed and activity.

ON THE AIR

Centennial Celebration of San Antonio Radio Club Nov 9, 1600Z-2200Z, W5SC/100, San Antonio, TX. San Antonio Radio Club. 14.260. QSL. SARC, PO Box 4263, San Antonio, TX 78265. SASE required. Club members may operate their own stations, signing "own-call/100" during 2019. Club station will operate from San Antonio Museum of Science and Technology (www.samsat.org). [www.w5sc.org](#)

Transit of Mercury 2019 Nov 11, 1100Z-1700Z, N4TAO, Rockwood, TN. Tamke-Allen Observatory . 75.250 14.180 3.780. QSL. Tamke Allen Observatory Event %

David Fields N4HBO, Roane State Community College, 701 Briar Cliff , Oak Ridge, TN 37830. Working with Roane Co ARC KE4RX and University of TN ARC AA4UT, Tamke Allen Observatory N4TAO. plans a special event station to celebrate the Transit of Mercury a rare event that occurs only about 13 times a century. [www.roanestate.edu/pages/obs/index.htm](#)

Scout Camps on the Air Nov 16, 1400Z-2000Z, W1M, Russell, MA. Western Mass Council Scouting USA. 14.290 14.060 7.190 7.030. QSL. Tom, Barker,

329 Faraway Road, Whitefield, NH 03598.

W2W – Pearl Harbor Day Commemoration Dec 1-Dec 8, 1300Z-2200Z, W2W, Baltimore, MD. Amateur Radio Club of the National Electronics Museum (ARCNEM). 14.241 14.041 7.241 7.041. Certificate & QSL. W2W - Pearl Harbor Special Event, PO Box 1693, MS 4015, Baltimore, MD 21203. Amateur Radio Club of the National Electronics Museum (ARCNEM) will operate W2W in commemoration of the anniversary of Pearl Harbor Day and the role of elec-

tronics in WWII. Primary operation will be Dec 6-Dec 8 with additional operation possible during the Dec 1-Dec 5 period, as operator availability permits. Operation on 80M (3.541, 3.841) and digital modes possible during event. Frequencies +/- according to QRM. QSL and Certificate available via SASE; details at ww-2.us.

H40KT H40TT Pigeon Island H40KT op K1ZW and H40TT op N7QT will be active from Pigeon Island, IOTA OC - 065, Temotu Province, Solomon Islands, 14 - 28 November 2019. They will operate on 160 - 10m, CW, SSB,

A Loop Antenna Design by Fred Benson, NC4FB

The following article is an antenna analysis done for Richard Akelewicz, K4END by his friend Fred Benson, NC4FB detailing an 80m loop antenna that Rich wants to build in his new house. It is published with permission from Rich.

A model of your proposed square loop antenna indicates that you can use 300 ohm ladder line. The antenna will work well [80m-6m] at 30' AGL but 40' would be better. **No go on 160m.**

Since the characteristic impedance of typical 300 ohm

ladder line is ~272 ohms, a 4:1 current balun will result in better impedance matches on all bands. I would definitely recommend a choke or coax line isolator at the ATU connection to eliminate any common mode current that may be present on the coax.

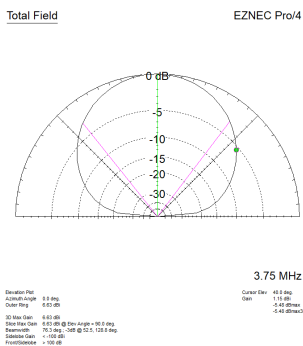
The predicted Z magnitude (Zmag) indicates that a tuner that can handle up to 10:1 SWR will tune the antenna [80m-6m].

Assumptions: The antenna exists in a horizontal plane. The antenna feed point is close to the end of a side but not across adjacent sides.

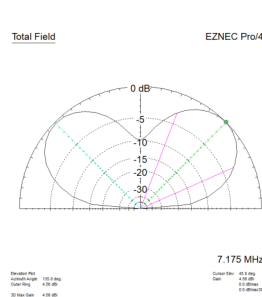
Predicted Impedance Characteristics by Band

| Band | F MHz | Rs | Xs | SWR | Zmag |
|------|--------|--------|--------|-------|--------|
| 160 | 1.800 | 1.24 | -41.80 | 68.70 | 41.82 |
| | 1.900 | 1.32 | -35.95 | 57.34 | 35.98 |
| | 2.000 | 1.42 | -30.52 | 48.29 | 30.56 |
| 80 | 3.500 | 172.80 | 42.77 | 3.69 | 178.01 |
| | 3.750 | 33.38 | -43.95 | 2.99 | 55.19 |
| | 4.000 | 14.53 | -8.26 | 3.54 | 16.71 |
| 40 | 7.000 | 6.77 | -9.54 | 7.66 | 11.70 |
| | 7.175 | 9.75 | 2.91 | 5.14 | 10.18 |
| | 7.300 | 15.64 | 14.87 | 3.51 | 21.58 |
| 20 | 14.000 | 17.33 | 26.66 | 3.79 | 31.79 |
| | 14.175 | 24.90 | 36.95 | 3.30 | 44.55 |
| | 14.350 | 40.14 | 45.52 | 2.71 | 60.69 |
| 17 | 18.068 | 37.50 | -20.52 | 1.73 | 42.75 |
| | 18.110 | 40.01 | -18.81 | 1.60 | 44.21 |
| | 18.168 | 44.01 | -17.24 | 1.47 | 47.27 |
| 15 | 21.000 | 63.26 | 65.22 | 3.08 | 90.86 |
| | 21.225 | 122.43 | 31.80 | 2.64 | 126.49 |
| | 21.450 | 91.49 | -35.33 | 2.19 | 98.07 |
| 12 | 24.800 | 13.62 | 5.90 | 3.73 | 14.84 |
| | 24.930 | 16.22 | 10.23 | 3.23 | 19.18 |
| | 24.990 | 17.87 | 12.08 | 2.98 | 21.57 |
| 10 | 28.000 | 191.89 | -34.00 | 3.97 | 194.87 |
| | 28.850 | 36.13 | -7.17 | 1.44 | 36.83 |
| | 29.700 | 84.85 | -50.94 | 2.50 | 98.97 |
| 6 | 50.000 | 144.52 | -49.55 | 3.27 | 152.77 |
| | 50.400 | 66.28 | -49.55 | 2.40 | 82.75 |
| | 51.000 | 68.94 | -7.68 | 1.41 | 69.36 |
| | 52.000 | 29.40 | -52.48 | 3.91 | 60.15 |
| | 53.000 | 14.12 | -10.63 | 3.71 | 17.67 |
| | 54.000 | 36.86 | 14.18 | 1.56 | 39.49 |

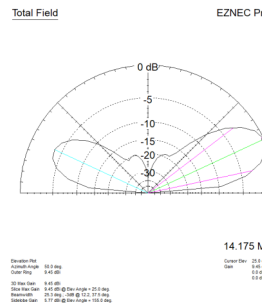
Predicted elevation radiation pattern at 3.75 MHz. Not too bad considering the WL vs. AGL. Given the predicted elevation radiation pattern, the antenna should perform adequately on 80 meters but more as a regional antenna as opposed to a DX antenna.



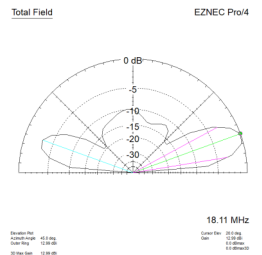
Predicted elevation radiation pattern at 7.175 MHz.



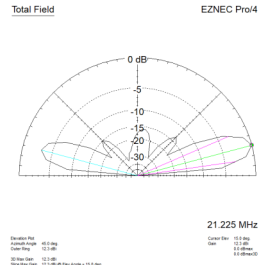
Predicted elevation radiation pattern at 14.175 MHz.



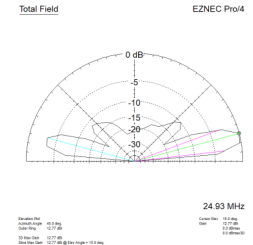
Predicted elevation radiation pattern at 18.11 MHz.



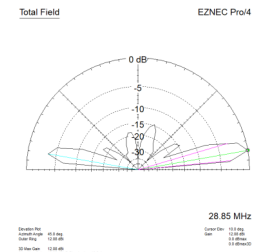
Predicted elevation radiation pattern at 21.225 MHz.



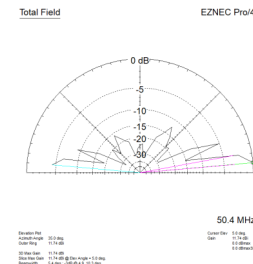
Predicted elevation radiation pattern at 24.93 MHz.



Predicted elevation radiation pattern at 28.85 MHz.



Predicted elevation radiation pattern at 50.4 MHz.



Good luck with the move and the new antenna. Let me know how it performs for you when you get it up.

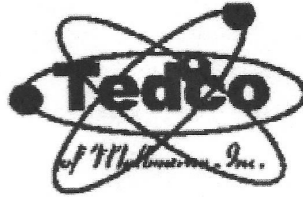
Feel free to contact me if you have questions regarding the predictions.

Fred

Fred Benson
NC4FB
<https://nc4fb.org>
919-469-0410

| ACTIVE REPEATERS INCLUDING DMR, PACKET & SIMPLEX | | | | | | | RACESBRE0008 REV B |
|--|---------------|---------|-------------|--------------|---|-------------|---|
| Repeaters & Packet are open for all licensed amateur radio operators to use. | | | | | | | |
| OUTPUT FREQ. | STD. NAME | OFFSET | TONE/CC | CALL | LOCATION | OWNER | NOTES |
| WBFM | | | | | | | |
| 145.130 | 130 VB | -600 | 107.2 | AB4AZ | VERO BEACH, INDIAN RIVER | AB4AZ | |
| 145.350 | 350 SC | -600 | 103.5 | K4OSC | St. CLOUD, OSCEOLA | K1XC | Radio Science Club, FI Club |
| 145.370 | 370 CO | -600 | 156.7 | W2SDB | COCOA-BROADCAST CT. | IRARC | Yaesu Repeater replaced with Bridgecom FM |
| 145.470 | 470 ME | -600 | 107.2 | K4HRS | MELBOURNE- RIALTO PL. | HIRAC | |
| 145.490 | 490 TI | -600 | 100.0 | WN3DHI | TITUSVILLE SR405 & Fox 1k rd. | WN3DHI | |
| 146.610 | 610 ME | -600 | None/107.2 | W4MLB | MELBOURNE- HOLMES HOSP | PCARS | Tone Downlink only |
| 146.625 | 625 MM | -600 | 100.0 | KE4NUZ | NW of MIMS NEAR HARRISON RD. | KE4NUZ | Limited coverage |
| 146.775 | 775 MM | -600 | 100.0 | K4KSC | NW of MIMS Hog Valley , W of I95 | K4KSC | |
| 146.850 | 850 ME | -600 | None/107.2 | W4MLB | PALM BAY- Port Malabar Rd. | PCARS | Tone Downlink Only |
| 146.880 | 880 RO | -600 | 107.2 | W4NLX | ROCKLEDGE- WUESTHOFF HOSP. | IRARC | FUSION Repeater replaced with Bridgecom F |
| 146.895 | 895 PB | -600 | 107.2/107.2 | K4EOC | PALM BAY- DeGroot Library | EOC | TSQl as of 5/2018 |
| 146.910 | 910 TI | -600 | 107.2 | K4KSC | TITUSVILLE Water Tower on south st | TARC | |
| 146.940 | 940 RO | -600 | None | K4GCC | ROCKLEDGE Carver Rd.WLRQ Tower | LISATS | |
| 146.970 | 970 TI | -600 | 107.2 | K4KSC | TITUSVILLE-T'VILLE TOWERS | TARC | |
| 147.075 | 075 SC | +600 | 107.2/107.2 | K4EOC | SCOTTSMOOR Near US1-Aurantia Rd | EOC | TSQl as of 5/2018 Relocated 4/2019 |
| 147.135 | 135 RO | +600 | 107.2/107.2 | K4EOC | ROCKLEDGE-EOC | EOC | Tsq l as of 5/2018 |
| 147.240 | 240 DE | +600 | 123.0 | KV4EOC | DELAND | VARES | |
| 147.255 | 255 PB | +600 | 107.2 | K4DCS | Near Babcock & Palm City S City limi | PBARC | |
| 147.330 | 330 TI | +600 | 107.2 | K4NBR | TITUSVILLE-PARRISH HOSP. | NBARC | |
| 147.360 | 360 TI | +600 | 107.2 | N4TDX | TITUSVILLE-PARRISH HOSP. | NBARC | DSTAR Gateway in work |
| 442.850 | 850T14 | +5000 | 107.2/107.2 | N4TDX | TITUSVILLE-PARRISH HOSP. | NBARC | TSq;l:FUSION/WBFM/WIRES-X |
| 444.325 | 325ME4 | +5000 | 107.2 | K4DCS | MELBOURNE-TRINITY TWRS-E | PBARC | |
| 444.375 | CNLBRE | +5000 | 107.2 | | I95 FDT Twr 1/2 Mile N of County Lin | SARNET | "SARNet Sebastian Repeater" |
| 444.425 | 425ME4 | +5000 | 107.2 | W4MLB | MELBOURNE- RIALTO PL. | PCARS | |
| 444.525 | 525RO4 | +5000 | 103.5/103.5 | K4EOC | ROCKLEDGE-EOC | EOC | TSq;l; VOICE/NBEMS |
| 444.650 | CNMBRE | +5000 | 107.2 | W4NLX | COCOA -FHP SR520 | IRARC | "SARNet Cocoa Repeater" |
| 444.750 | 750T14 | +5000 | 156.7/156.7 | N4TDX | TITUSVILLE- TGO WATERTOER 230 ft. | NBARC | TSq;l |
| 444.875 | 875MI4 | +5000 | 107.2 | KC2UFO | MERRITT IS. COURTNEY SPRS. | K4U2M | |
| 444.925 | 925KS4 | +5000 | 131.8/131.8 | N1KSC | KENNEDY SP. CTR.-VAB | KSCARC | FM Tsq;l ; P25 capable |
| 224.120 | 120CO2 | -1600 | 123.0 | AA4CD | COCOA Broadcast Ct. | AA4CD | |
| DMR | | | | | | | |
| 444.150 | 150T14 | +5000 | CC1 | K2JO | TITUSVILLE-PARRISH HOSP. | KC2CWT | DMR FL |
| 444.575 | 575CO4 | +5000 | CC3 | K4DJN | COCOA BROADCAST CT. | AA4CD | DMR Brandmeister |
| 444.675 | 675T14 | +5000 | CC3 | K4DJN | TITUSVILLE-T'VILLE TOWERS | AA4CD | DMR Brandmeister |
| ATV | | | | | | | |
| 427.250 | 250CO4 | | | K4ATV | COCOA BROADCAST CT. | LISATS | NTSC INPUT 439.25 See www.lisats.org |
| PACKET STATIONS: | | | | | | | |
| 145.090 | W12KPB | WINLINK | | W2PH-10 | PALM BAY-W2PH QTH | PBARC | WINLINK GATEWAY |
| 145.090 | 090 ME | PCARS | | W4MLB-2 | MELBOURNE-TRINITY TWRS-EAST | PCARS-K1YON | BBS W4MLB-4 EASTNET |
| 145.770 | 770 PB | SEDAN | | K4EOC-7 | PALM BAY | N2DB | http://www.fla-sedan.com |
| 145.770 | 770 TI | SEDAN | | KD4MWO-4 | TITUSVILLE | N2DB | INACTIVE NODE |
| BREVARD RACES/ARES SIMPLEX | | | | | | | |
| 146.480 | CENTX | SIMPLEX | | N/A | CENTRAL REG | IRARC | CENTRAL NET SIMPLEX BACKUP |
| 146.550 | SOUTHX | SIMPLEX | | N/A | SOUTH REGION | PBARC | SOUTH NET SIMPLEX BACKUP |
| 146.580 | MLBX | SIMPLEX | | N/A | MELBOURNE REGION | PCARS | MELBOURNE REGION NET SIMPLEX BACKUP |
| 146.595 | NORTHX | SIMPLEX | | N/A | NORTH REGION | TARC | NORTH NET SIMPLEX BACKUP |
| 147.540 | EOCROX | SIMPLEX | | N/A | RACES Bay | EOC | EOC VOICE/NBEMS |
| SIMPLEX | | | | | | | |
| 146.520 | CALL52 | SIMPLEX | | N/A | Station to station, anywhere | | VHF national simplex calling freq |
| 146.490 | TAC A | SIMPLEX | | N/A | Station to station, anywhere | | Standardized tactical option since 2006 |
| 146.560 | NBRX | SIMPLEX | | N/A | NBARC -Club/Parrish Hosptial Activities | | |
| 146.580 | TAC B | SIMPLEX | | N/A | Station to station, anywhere | | Standardized tactical option since 2006 |
| 147.420 | TAC C | SIMPLEX | | N/A | Station to station, anywhere | | Standardized tactical option since 2006 |
| 147.420 | IRARCX | SIMPLEX | | N/A | IRARC "FUN NET" and CLUB ACTIVIES | | |
| 147.450 | TAC D | SIMPLEX | | N/A | Station to station, anywhere | | Standardized tactical option since 2006 |
| 147.570 | TAC E | SIMPLEX | | N/A | Station to station, anywhere | | Standardized tactical option since 2006 |
| 446.000 | CALL46 | SIMPLEX | | N/A | Station to station, anywhere | | UHF national simplex calling freq |
| 446.500 | TAC A4 | SIMPLEX | | N/A | Station to station, anywhere | | Standardized tactical option since 2006 |
| 446.600 | TAC B4 | SIMPLEX | | N/A | Station to station, anywhere | | Standardized tactical option since 2006 |
| 446.700 | TAC C4 | SIMPLEX | | N/A | Station to station, anywhere | | Standardized tactical option since 2006 |
| 2 Meter & 70 cm WBFM repeaters use CTCSS; if one frequency is listed it is for uplink (user Tx) , if two are listed the repeater is set for uplink and downlink (user Tx a | | | | | | | |
| Repeater Call Signs in bold are owned by Brevard Emergency Management and are maintained by the county. Repeater Trustee: Ron K2RJ | | | | | | | |
| NOT ON AIR | | | | | | | |
| Standard Names in Bold are recommended for Emergency Radio in Brevard * | | | | | | | |
| PBARC= Palm Bay Amateur Radio Club (Replaces DCS for South Brevard) See Ed W2PH for more info | | | | | | | |

437 S. BABCOCK ST.
MELBOURNE, FL 32901
Ph) 321-727-2311
Fax) 321-727-2312



DISCOUNT ELECTRONICS

HAM&CB EQUIPMENT
SECURITY SYSTEMS
BATTERIES(ALL TYPES)
REPAIRS(ALL TYPES)
ANTENNAS - TOWERS
2-WAY RADIO EQUIPMENT

"SALES AND SERVICE"
TELEPHONE SERVICE
COMPUTER REPAIR
STEREOEQUIPMENT
POWER SUPPLIES
TUBE EQUIPMENT

2013 LINE LISTINGS ** THE ONLY REAL PARTS STORE LEFT IN SOUTH BREVARD **

AIM
ALINCO
ANTENNACRAFT
ANTENNA SPECIALISTS
ARRL
ASTATIC
ASTI

BEARCAT
BECKMAN (WAVETEK)
BUSSMAN FUSES
BUD

C.B.RADIO
CALRAD
CORNELL DUBILIER
CELLPHONE AMPS
CHICAGO MINIATURE
CINCH JONES
CLOVER
COBRA
CUSHCRAFT

DALBANI
DECIBEL PRODUCTS
DENNISON
DURACELL
DANTONA IND.

ECG (SEE NTE)
ELECTRONIC RESOURCES
ELECTROVOICE
EVEREADY

FANON-INTERCOMS
FLUKE (WAVETEK)

GC ELECTRONIC
GALAXY
GOLDLINE

HAM RADIO
HARADA
HITACHI
HYGAIN

ICOM RADIO

JSC WIRE
JW DAVIS SOUND
JVC PARTS

KENWOOD RADIO
KOSS
KESTER

LITTELFUSE
LOWELL

M & G
MALLORY
MACOM
MAXON
MIDLAND
MOTOROLA

NTE TRANSISTORS
NELLO TOWERS
NTE ELECTRONICS
NORMAN LAMPS

PANASONIC
PANAVISE
PHILIPS ECG (SEE NTE)
PHILMORE
PIONEER
POMONA
POWERSONIC
PRB
PROAM ANTENNAS

QUAM
QUEST

RANGER RADIO
RAYOVAC BATTERIES

RUSSELL IND.

SR COMPONENTS
SANYO BATTERIES
SHURE BROTHERS
SONY PARTS

SPECO
SWITCHCRAFT

TEI
TNR BATTERIES
TELEX - HYGAIN
TRIPPLITE
TUBES - ALL TYPES
TV ANTENNA'S

UNIDEN
UNIDILLA
UNION CARBIDE

VARCO
VALOR
VECTOR
VIDEO EQUIPMENT

W2AU BALUNS
WALDOM - MOLEX
WAHL-CLIPPER
WAVETEK (BECKMAN)
WILSON ANTENNAS
WILSON ELECTRONICS

YAESU

WEB PAGE:
www.tedcoelectronics.com

EMAIL:
tedco@bellsouth.net

Hours:
MON - FRI 9 AM - 5 PM
SATURDAY 9AM-3PM

TED - W4LR - GENERAL MGR.

DOTTIE - OFFICE MANAGER