

## INDIAN RIVER ARC

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

## SPURIOUS EMISSIONS

AUGUST, 2023

## **OFFICERS**

PRESIDENT
STEVEN LUCHUK
N4UTQ

VICE-PRESIDENT SAM THORPE KJ4VGR

SECRETARY Armando delgado Kn4jn

TREASURER
DAVID LERRET
KUOR
DIRECTOR
ROBERT SCORAH
WOAGE

NEWSLETTER EDITOR ARMANDO DELGADO KN4JN

## **CLUB MINUTES**

The meeting was called to order by President Steve Luchuk, N4UTQ at 7:15 PM. Following the Pledge of Allegiance Steve introduced visitor Dan K4FLG.

President's Report: On Saturday, August 5, the club held a Simplex Exercise. The planning is still in effect for a D-Star repeater. Steve was considering asking the Space Center Club for use of their tower; however, someone mentioned that that location has no internet access. Steve next mentioned that Robert (Ozzy) Osband, N4SCY became a Silent Key on August 6. He is credited with the change to the telephone area code to 321 in Brevard County.

Treasurer Report: The checking account has not changed from last month; it still stands at \$1472.09. The Equipment Fund is also unchanged at \$1903.05. The Treasurer Report was approved. Next, the July meeting minutes were approved. Past President Report: Viron, NAVEP mentioned that the part

NAVEP mentioned that the next QRP event will be on Saturday, August 19 starting at 10:00 AM at Kelly Park East. The activity should last until 2:00 PM.

Steve mentioned that the next

Simplex Exercise should be on Saturday, August 26, starting at 9:00 AM on 147.42 MHz with back up in the 145.37 MHz repeater. Following the exercise there might be a club gathering if the church facility is available.

Following the business meeting Steve presented a rundown of the hurricanes and tropical storms that affected Florida directly or indirectly from the year 2000 to the present. Interestingly, there were quite a number of storms, many of which faded from memory. 2000—T.S. Debby, T.S. Gordon, T.S.

Helene, T.S. Leslie. 2001—T.S. Allison, T.S Barry, T.S. Gabrielle, Hurricane Michelle. 2002—T.S. Arthur, T.S. Bertha, T.S. Edouard, T.S. Hanna, T.S. Isadore, Hurricane Lili, T.S. Kyle. 2003—T.S. Bill, T.S.Grace. 2004—T.S. Bonnie. Hurricane Char-

ley, Hurricane Frances, Hurricane Ivan, Hurricane Jeanne. 2005—T.S. Arlene, Hurricane Cindy, Hurricane Dennis, Hurricane Katrina, Hurricane Rita, T.S. Tammy,

2006—T.S. Alberto, T.S. Ernesto. 2007—Hurricane Humberto, Hurricane Noel, T.S. Olga. 2008—T.S. Fay, Hurricane Gustav,

Hurricane Wilma.

Hurricane Hanna, Hurricane Ike. 2009—T.S. Claudette, Hurricane Bill, Hurricane Ida.

2010—Hurricane Earl, Hurricane Igor, Hurricane Paula.

2011—Hurricane Irene, Hurricane Rina.

2012—T.S. Beryl, T.S. Debby, T.S. Isaac, Hurricane Sandy. 2013 T.S. Andrea, T.S. Karen. 2014—No storms hit Florida this year.

2015—T.S. Bonnie, Hurricane Patricia

2016—T.S. Colin, Hurricane Hermine, Hurricane Matthew, Hurricane Nicole.

2017—T.S. Emily, Hurricane Irma, Hurricane Nate, T.S. Phillipe. 2018—T.S. Alberto, T.S. Gordon, Hurricane Michael.

2019—No storms hit Florida this year.

2020—Hurricane Marco, Hurricane Sally, T.S. Eta. 2021—T.S. Elsa, T.S. Fred, T.S.

Mindy.

2022—Hurricane Ian, Hurricane Nicole.

Following the presentation the meeting adjourned at 8:11 PM Respectfully submitted, Armando Delgado, KN4JN Secretary

### HAPPENINGS

Bob Lucken, W3RDL is planning to offer an Amateur Extra license class in the near future. For det-

ails contact Bob

at: now.w3rdl@gmail.com

Also, there is a link to the study material for the class <u>here</u>.

The club recently obtained a conference number in Hamshackhotline.com.

Simply dial 369, wait for attendant to tell you to enter the PIN number followed by # and you are in the conference. The PIN number is 94659.

The San Max Patronal Celebration 2023 will take place on August 1 - 31. This is an annual event that radio amateurs in Mexico participate in to celebrate San Maximilian Maria Kolbe, patron saint of

radio amateurs. The special event call sign, 4A2MAX, will be activated on August 1 at 00:00 XE Central Time, and it will stay active through August 31 at 23:59 XE Central Time. All amateur radio operators are invited to participate. Official rules and additional information are available at QRZ.com, on the 4A2MAX web page.

The ARRL Board of Directors met

for their Second Meeting, July 21 - 22, 2023, and approved increasing the regular membership dues rate to \$59 a year starting January 1, 2024. Included with the new dues rate was a decision to separate the printed, mailed magazine from membership. A summary of the dues changes and related fees, effective January 1, 2024, are available on the ARRL website. Read more about the decision

SPURIOUS EMISSIONS Page 2

#### HAPPENINGS

in a Member Bulletin from ARRL President Rick Roderick, K5UR.

The International Lighthouse Lightship Weekend 2023 (ILLW) will take place on August 19 - 20. Each year ILLW attracts more than 500 lighthouse entries located in at least 40 countries. There are few rules, and it is not a usual contest type event. Participation is also free and, there are no prizes for contacting large

Route 66 On the Air Special Event on September 9 - 17.

numbers of stations.

This will be the 24th year of the event has been running. It was started by the Northern Arizona DX Association (NADXA) and is now coordinated by the Citrus Belt Amateur Radio Club (CBARC) in San Bernardino, California. Twenty-one special

event stations along the route from Santa Monica, California, to Chicago, Illinois, are expected to participate in 9 days of operating opportunities. The special event celebrates the history of the Mother Road that began in 1926, when US Highway 66 was established. It was the first major improvement to the link between the west coast and the nation's heartland. Through stories, songs, and TV shows, the highway came to symbolize the freedom of the open road, inspiring many to see America in its entirety. The demise of Route 66 began in the 1950s, as construction began on the new interstate highway system. US Route 66 was officially decommissioned in 1986, but today, small portions of the highway still exist in several states. More information on the event will be available soon at the Citrus Belt Amateur Radio Club (CBARC) website or on their Facebook page.

The New Jersey QRP Club will hold their 12th annual Skeeter Hunt on August 27, 2023. The objective is to get ORP operators out of their shacks and into the fresh air encouraging them to spread their wings and fill the airwaves with "Skeeters." While commercial equipment can be utilized, bonus points will be awarded to those who homebrewed or kit-built their own transceiver or separate transmitter/receiver. The event will be a 4-hour sprint beginning at 17:00 UTC and running until 21:00 UTC (1:00 to 5:00 PM EDT). QRP operators who wish to be designated Skeeters can request a Skeeter number by sending an email with their name, call sign, and state/province from which they will be operating to w2lj@arrl.net. You do not have to operate portable to be a Skeeter, Skeeter numbers are being issued now, and will be issued until the day before the

event. For more information and the official rules, visit the Official NJQRP Skeeter Hunt web page.

#### ON THE AIR

Texas Rangers 200th Anniversary Aug 10-Aug 25, 0810Z-0825Z, W5R, Waco, TX. Heart Of Texas DX Society, W5DXS. 28.437. Certificate & QSL. Larry Merritt, 3200 Colcord Ave., Waco, TX 76707. For full information as to Certificate & QSL requirements and band / mode operating updates please refer to the W5DXS website. http://5dxs.tripod.com w5dxs.tripod.com

Activating Port Washington, WI 1860 Lightstation Museum for International Lighthouse Lightship Weekend Special Event Station

Aug 19-Aug 20, 0000Z-2359Z, W9CQO, Cedarburg, WI. Ozaukee Radio Club & LEFROG. 7.248 14.248 21.348 28.348. QSL. Ozaukee Radio Club, W68 N 173 Evergreen Blvd, Cedarburg, WI 53012. Activating Port Washington, WI 1860 Lightstation Museum (#US 0114) on

the shore of Lake Michigan for the International Lighthouse Lightship Weekend. <a href="https://www.qrz.com/db/w9cqo">https://www.qrz.com/db/w9cqo</a>

Maiden Voyage of Nuclear Ship Savannah (1962) Aug 19, 1300Z-2100Z, K3S, Baltimore, MD. Nuclear Ship Savannah ARC. 7 14 21 28. QSL. ULIS FLEMING, 980 PATUXENT ROAD, Odenton, MD 21113. Operating from the ship. Please check the spotting networks since we may be operating anywhere on 40, 20, 15, or 10m SSB or CW. There is a special QSL for this event. qrz.com/db/k3s

V-J Day Remembrance Sep 2, 1500Z-2030Z, W5KID,

Baton Rouge, LA. Baton Rouge Amateur Radio Club. 7.040 7.250 14.040 14.250. QSL. USS Kidd Amateur Radio Club, 305 S. River Rd., Baton Rouge, LA 70802. CW, SSB, FT8 Operation aboard the USS Kidd (DD-661), a World War II Fletcher-class destroyer. www.qrz.com/db/w5kid URUGUAY, CX. Special event station CX90RCU will be QRV from August1 to 31 to celebrate the 90th anniversary of the Radio Club Uruguayo. QSL via bureau.

MYANMAR, XZ. Akio, JE2QIZ is QRV as XZ2B from Yangon until the end

of September. Activity is on 15, 12, 10, and 6 meters using CW. OSL via JH3SIF.

T22T Team will be active from **Tuvalu Islands,** IOTA OC - 015, starting mid September 2023 for about 20 Days. They will operate on 160 - 6m, CW, SSB, FT4, FT8. QSL via ClubLog OQRS.

ARRL VHF Contest The second full weekend in Septemer (September 9-11, 2023)Contest Period: Begins 1800 UTC Saturday, ends 0259 UTC Monday. Rules and details at

http://www.arrl.org/septembervhf

Claudio, HB90AU will be active from **Karpathos Island,** IOTA EU-001, 5 - 21 September 2023 as SV5/HB90AU. He will operate on 80 - 10m SSB, CW, RTTY, FT8. QSL via home call. Claudio Tiziani Via Ressiga 2A CH - 6983 MAGLIASO, SWITZER-LAND

Yan, FO/F1SMB will be active from French Polynesia, 13 August - 5 September 2023. He will operate from following Islands:
TAHITI BH52ek OC-046
13/08/23 15/08/23
MOOREA BH52cl OC-046
15/08/23 17/08/23
TAHITI BH52ek OC-046
17/08/23 20/08/23
BORA BORA BH43dl OC-067
20/08/23 23/08/23
TAHITI BH52ek OC-046
23/08/23 25/08/23

FAKARAVA BH73hn OC-066

## The New Ham's Dilemma by Armando Delgado, KN4JN

When amateurs first get licensed, be it Technician, General, or Amateur Extra class licenses, what they actually obtain is a permit to learn amateur radio. The technical information and regulations learned to pass the examinations are very different from the actual practice of amateur radio.

Most new licensees obtain a Technician license, and the great majority of them do not know Morse code, so they are limited to VHF and UHF operations. Most will purchase a cheap Chinese handheld transceiver and operate through repeaters. Handheld radios are simple to use and that facilitates the learning process. However, if the new ham wants to consider digital operations, then things get a little more complicated. Those radios are more expensive and the ham needs to choose between the different types of digital services available and the availability of local repeaters that service the respective digital platforms. Those choices will require research before committing to a specific radio or system.

Hams who get licenses with HF privileges and who want to operate HF find many more complications. For one, HF radios are a lot more expensive, so committing to a particular radio is a big investment and a big decision. The new amateur must first determine the type of operation and the bands he will use. Most modern entry-level HF radios have very similar coverage, but some offer 6m; some offer 2m and 70cm; some offer only up to 10m. He must also decide if he is going to do contesting, ragshewing or hunting DX. These operations are not mutually exclusive, but some radios perform better than others in different activities.

Then, of course, there is the matter of the antenna. To set up an antenna, the ham must know the band he is going to operate in, the radio he will use, and the mode. Most beginners will choose a wire antenna, since they are simple, inexpensive, and can be home-

brewed. Yet, if he decides to operate in multiple bands, assuming he operates only phone, a single-band antenna may not be sufficient. A tuner may allow some antennas to operate at a higher frequency, but maybe just one extra band, and setting up multiple antennas could be problematic due to the proliferation of cables, wires, and support structures.

For the beginner HF operator a multi-band wire antenna could be a winning option. He will need a tuner to get all the bands, but many modern HF rigs have a built-in tuner. However, even if the radio has no tuner, an external tuner is relatively inexpensive and most manual tuners include a balanced line input that would be important for some antenna types.

Multi-band wire antennas come in three common types. The most popular is the G5RV. This antenna consists of a horizontal dipole section, a balanced line segment, ideally about 30 ft. in length, a 4:1 balun, and a run of coax cable to the tuner or the radio, if the latter has a built-in tuner. Cutting the horizontal dipole portion of the antenna to the lowest band desired will allow the antenna to work on all the higher bands. The original design of the G5RV used a horizontal segment only 51 ft. on each side and would allow operations in 80m-10m. For hams with limited antenna space, this is a consideration.

Another multi-band wire antenna that works well is the center-fed Zepp. This antenna, like the G5RV, uses a balanced feed line. The feed line goes straight into the tuner if the tuner has a balanced line input. That connection provides an internal 4:1 balun; otherwise, a 4:1 balun will have to be connected at the end of the balanced line to provide a connection to a short piece of coax to go to the tuner or the radio.

The third type of multi-band antenna is the long wire. This type has two variations. One is the end-fed Zepp that connects one of side of a balanced line to the wire run; the other half of the balanced line remains open. The balanced line then connects to the tuner or to a Zepp.

The other variation of the long wire is just a run of wire. This antenna has very high input impedance and will require a 9:1 balun to match it to coax. Some external tuners have a long wire input port that provides the match.

Amateur radio is a complex hobby with multiple operating modes and types of operations. Most hams in time find their favorite kind of activity and do that primarily. For the beginner, however, only time and experience in the hobby will provide the knowledge to choose their favorite operation.



# **TRANSMISSIONS**

7 PM EST Slow CW: 5-15 WPM

Mon, Wed, Fri

7 PM EST Fast CW: 35-10 WPM

Tue, Thu

## FREQUENCIES:

1.8025, 3.5815, 7.0475, 14.0475, 18.0975, 21.0675, 28.0675, 50.350, 147.555



#### **Editor's Note:**

Send comments about the Newsletter or to contribute information or articles to the Editor's email address:

olardelga@aol.com.

	ATERS INCL		•				RACESBRE0008 REV B
JTPUT FREQ.			TONE/CC	CALL	LOCATION	OWNER	NOTES
WBFM	31D. NAIVIE	OFFSET	TONE/CC	CALL	LOCATION	OWNER	INOTES
	130 VB	-600	107.2	AB4AZ	VERO BEACH, INDIAN RIVER	AB4AZ	
		-600		K4OSC	St. CLOUD, OSCEOLA	K1XC	Radio Science Club, Fl Club
		-600		W2SDB	COCOA-BROADCAST CT.	IRARC	Yaesu Repeater replaced with Bridgecor
	470 ME	-600		K4HRS	MELBOURNE- RIALTO PL.	HIRAC	raesu kepeater replaced with Bridgetor
145.490	490 TI	-600		WN3DHI	TITUSVILLE SR405 & Fox lk rd.	WN3DHI	
	610 ME		None/107.2		MELBOURNE- HOLMES HOSP	PCARS	Tone Downlink only
146.625	625 MM	-600		KE4NUZ	NW of MIMS NEAR HARRISON RD.	KE4NUZ	Limited coverage
146.775	775 MM	-600		K4KSC	NW of MIMS Hog Valley , W of 195	K4KSC	Limited Coverage
	850 ME		None/107.2			PCARS	Tono Downlink Only
	880 RO	-600		W4NLX	PALM BAY- Port Malabar Rd.		Tone Downlink Only FUSION Repeater replaced with Bridgec
146.880 146.895					ROCKLEDGE- WUESTHOFF HOSP.  PALM BAY- DeGroot Library	IRARC EOC	
	895 PB		107.2/107.2		,		TSQL as of 5/2018
	910 TI	-600		K4KSC	TITUSVILLE Water Tower on south st.	TARC	
146.940	940 RO		None	K4GCC	ROCKLEDGE Carver Rd.WLRQ Tower	LISATS	
	970 TI	-600		K4KSC	TITUSVILLE-T'VILLE TOWERS	TARC	TSOL ( 5 /2040 B -     4 /2040
147.075	075 SC		107.2/107.2		SCOTTSMOOR Near US1-Aurantia Rd	EOC	TSQL as of 5/2018 Relocated 4/2019
	135 RO		107.2/107.2		ROCKLEDGE-EOC	EOC	TSql as of 5/2018
147.240	240 DE	+600		KV4EOC	DELAND	VARES	
147.255	255 PB	+600		K4DCS	Near Babcock & Palm City S City limit		
147.330	330 TI	+600		K4NBR	TITUSVILLE-PARRISH HOSP.	NBARC	
147.360	360 TI	+600		N4TDX	TITUSVILLE-PARRISH HOSP.	NBARC	DSTAR Gateway in work
442.850	850TI4	+5000	107.2/107/2	N4TDX	TITUSVILLE-PARRISH HOSP.	NBARC	TSql;FUSION/WBFM/WIRES-X
444.325	325ME4	+5000	107.2	K4DCS	MELBOURNE-TRINITY TWRS-E	PBARC	
444.375	CNLBRE	+5000	107.2		195 FDT Twr 1/2 Mile N of County Line	SARNET	"SARNet Sebastian Repeater"
444.425	425ME4	+5000	107.2	W4MLB	MELBOURNE- RIALTO PL.	PCARS	
444.525	525RO4	+5000	103.5/103.5		ROCKLEDGE-EOC	EOC	TSql; VOICE/NBEMS
444.650	CNMBRE	+5000	,	W4NLX	COCOA-FHP SR520	IRARC	"SARNet Cocoa Repeater"
444.750	750TI4		156.7/156.7		TITUSVILLE- TGO WATERTOER 230 ft	NBARC	TSql
444.875	875MI4	+5000		KC2UFO	MERRITT IS. COURTNEY SPRS.	K4UZM	104.
444.925	925KS4		131.8/131.8		KENNEDY SP. CTRVAB	KSCARC	FM Tsql; P25 capable
444.323	323K34	+3000	131.8/131.8	NIKSC	REININEDT SF. CIKVAB	KJCANC	TWTTSQL, F25 Capable
224.120	120CO2	-1600	122 0	AA4CD	COCOA Broadcast Ct.	AA4CD	
224.120	120002	-1000	123.0	AA4CD	COCOA BIOducast Ct.	AA4CD	
4D		-	<b></b>				
<u>//R</u>	150TI4	. 5000	CC1	Kalo	TITLICY/ILLE DADDICH LIOCD	KC2CM/T	DAAD EL
444.150		+5000		K2JO	TITUSVILLE-PARRISH HOSP.	KC2CWT	DMR FL
444.575	575CO4	+5000		K4DJN	COCOA BROADCAST CT.	AA4CD	DMR Brandmeister
<u>444.675</u>	675TI4	+5000	CC3	K4DJN	TITUSVILLE-T'VILLE TOWERS	AA4CD	DMR Brandmeister
<u>v</u>							
427.250	250CO4		<b></b>	K4ATV	COCOA BROADCAST CT.	LISATS	NTSC INPUT 439.25 See www.lisats.org
			<b></b>				
CKET STATIO							
	WL2KPB	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
EVARD RACES	S/ARES SIMPLEX						
146.480	•	SIMPLEX		N/A	CENTRAL REG	IRARC	CENTRAL NET SIMPLEX BACKUP
	SOUTHX	SIMPLEX		N/A	SOUTH REGION	PBARC	SOUTH NET SIMPLEX BACKUP
	MLBX	SIMPLEX		N/A	MELBOURNE REGION	PCARS	MELBOURNE REGION NET SIMPLEX BACK
146.595	NORTHX	SIMPLEX	<del> </del>	N/A	NORTH REGION	TARC	NORTH NET SIMPLEX BACKUP
147.540	EOCROX	SIMPLEX	<b>—</b>	N/A	RACES Bay	EOC	EOC VOICE/NBEMS
147.340	LUCITON	JUVIE LEX		14/ 17	TO CES Day		LOC VOICE/INDLIVIS
MDIEV		<del>                                     </del>	1	1		1	
146 E20	CALLES	CIMPLEY	<del>                                     </del>	NI/A	Station to station, any artists	1	VHE national simpley selling for a
146.520	CALL52	SIMPLEX	<del>                                     </del>	N/A	Station to station, anywhere		VHF national simplex calling freq
146.490	TAC A	SIMPLEX	<del>                                     </del>	N/A	Station to station, anywhere	L.	Standardized tactical option since 2006
	NBRX	SIMPLEX	<del>                                     </del>	N/A	NBARC -Club/Parrish Hosptial Activit	ues	Chandradia di Latinol della di Cassa
146.580	TAC B	SIMPLEX	<del> </del>	N/A	Station to station, anywhere		Standardized tactical option since 2006
147.420	TAC C	SIMPLEX	<b></b>	N/A	Station to station, anywhere		Standardized tactical option since 2006
	IRARCX	SIMPLEX	<b></b>	N/A	IRARC 'FUN NET" and CLUB ACTIVIES		
		SIMPLEX	<b></b>	N/A	Station to station, anywhere		Standardized tactical option since 2006
147.570	TAC E	SIMPLEX	<u> </u>	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
	TAC A4	SIMPLEX		N/A	Station to station, anywhere		Standardized tactical option since 2006
446.500	TAC B4	SIMPLEX	1	N/A	Station to station, anywhere		Standardized tactical option since 2006
446.500 446.600		SIMPLEX		N/A	Station to station, anywhere		Standardized tactical option since 2006
	TAC C4			<del>'</del>	, , , , , , , , , , , , , , , , , , , ,	1	
446.600	TAC C4						
446.600 446.700		rs use CTCS	S: if one free	nuency is list	l ed it is for uplink (user Tx) if two are	listed the ren	eater is set for unlink and downlink (use
446.600 446.700 Meter & 70 cm	n WBFM repeate						eater is set for uplink and downlink (use
446.600 446.700 Meter & 70 cm	n WBFM repeater gns in bold are o				Led it is for uplink (user Tx) , if two are gement and are maintained by the co		
446.600 446.700 Meter & 70 cm peater Call Si	n WBFM repeate	owned by E	Brevard Eme	rgency Mana	gement and are maintained by the co		

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 BUID

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

ISC WIRE IW DAVIS SOUND IVC 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-3 PM

TED - W4LR - GENERAL MGR.

DOTTIE - OFFICE MANAGER