



SPURIOUS EMISSIONS

INDIAN RIVER ARC

NOVEMBER, 2022

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

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ARMANDO DELGADO
KN4JN

HAPPENINGS

The RSGB are hosting, The Transatlantic Centenary Tests, on the HF bands to commemorate the centenary of the achievement of Amateur Transatlantic communication, during the Transatlantic Tests that were held between 1921 and 1923. The Tests will run from 1 December 2022 to 31 December 2022. In anticipation of this centenary celebration, with the assistance of Ofcom (the UK licensing authority), the RSGB have renewed five call signs

CLUB MINUTES

President Steve Luchuck, N4UTQ called the meeting to order at 7:15 PM. Following the Pledge of Allegiance, Steve introduced visitor Jack, N4TQX.

President's Report: The October 29 Simplex Exercise had 14 check-ins, including stations from Titusville and Melbourne, showing that in emergencies we should be able to carry contacts across the entire Brevard County.

The club's Christmas Party will be on December 13 at the Red Lobster on Merritt Island. The social hour will begin at 5:00 PM followed by dinner at 6:00 PM and the Poinsettia Drawing at 7:00 PM.

Equipment Committee: Dave, KUOR mentioned that the 220 MHz repeater lost the link with the 147.35 MHz repeater after the time change due a clock synchronization failure. This was corrected and the link should work again. This repeater is also having a problem with interference from the commercial station at Broadcast Court. Dave is working to try to eliminate this interference. Also, the 146.88 MHz repeater may have a power supply issue that Dave will take care of.

The church is planning to have a new roof put in and Dave will move the north antenna of the EMCOM room to the side of the building. He

plans to rent a lift to do the transfer and possibly after the antenna work, the lift could be used to check the club's antennas in the back field.

Treasurer's Report: After paying for equipment insurance of \$168.51, the checking account dropped from \$1081.62 to \$913.11. The Equipment Fund remains unchanged at \$1883.65. The Treasure's Report was approved.

Next, the meeting minutes for October were approved.

Steve proceeded to present the 2023 budget. In 2022 the club's main expenses were Liability Insurance, \$325.01, Equipment Insurance, \$168.51, Florida State Filing Fee, \$65.50, Mail Box, \$105.00. All for a total of \$664.02. Club income consisted of membership fees from 41 members, totaling \$820.00. Based on last year's expenses, Steve projects for year 2023 \$500.00 for insurance, \$200.00 for administrative fees, and \$120.00 for equipment maintenance, a total of \$820.00. Income, assuming no change in membership, should be \$820.00. The proposed budget was approved.

Following the business meeting, Steve presented a set of slides showing the changes from 1955, every 5 years, to the present in

radio equipment, automobiles and female dressing apparel for American and Hindi women. Steve showed pictures of the most significant amateur radios through the decades including such classics as the Yaesu FT100 introduced in 1960, the Swan 350 from 1965 that used TV sweep tubes, the Kenwood TS520 from 1970 and many other classic radios much priced by amateurs. The one remarkable observation of the presentation was that though radios, automobiles and American female fashions changed significantly through those years, female Hindi fashions remained relatively constant.

After the presentation Steve called on members to discuss any damage they sustained from tropical storm Nichole. Several members reported minor antenna damages. Next, Steve discussed the planned official ARRL SET that was cancelled because of hurricane Ivan. He would like to have an IRARC SET, if possible. He plans to send messages to club members so that they can relay those during the test to encourage everyone to participate.

The meeting adjourned at 7:50 PM. Respectfully submitted by Armando Delgado, KN4JN Secretary

which they held in the 1920s: G5WS, used for the 1922 tests – "the first to get across" G5AT, used for the 1923 tests G6XX, used for the 1923 tests G6ZZ, used for the first amateur tests on a moving railway train in 1924

G3DR, Scottish Highlands Call – GM3DR.

These historic call signs are being activated by RSGB members and Clubs, using G5WS, G5AT, G6XX,

G6ZZ and G3DR (England), GM5WS (Scotland), GW5WS (Wales), GU5WS (Guernsey), GD5WS (Isle of Man), GJ5WS (Jersey) and GI5WS (Northern Ireland).

The Bouvet Island dxpedition, designated 3Y0J, is scheduled for departure for the island on January 6, 2023. Bouvet Island is the 2nd most wanted location in ham radio, second only to

North Korea, where no one has gone before. There were two previous attempts to reach Bouvet Island in the past 4 years and both failed, due to ship problems.

The first expedition, in 2018, designated 3Y0Z, sailed from Chile to just south of Bouvet Island. They planned to transfer their equipment to the island using a small helicopter carried

HAPPENINGS

on the ship. Unfortunately, as they reached their destination the ship developed engine problems and the captain decided to abort the operation and return to the nearest port, which was in South Africa.

The second failed expedition departed South Africa for Bouvet Island with great expectations and much expense in 2019. This time it was an unexpected storm of hurricane strength that battered the ship just short of their destination. The ship suffered significant damage in the storm and the captain decided to abort the operation.

The current expedition was delayed due to Covid-19 travel restrictions until the present time. This expedition plans to

depart from the Falkland Islands on January 6, 2023. Once established on the island their plan is to operate until February, 2023. Of course, specific dates and times this early in the process are not possible, due to the uncertainties in this type of adventure. The group has a website where those interested can follow their progress and keep up to date on specifics: <https://www.3y0j.no/>

Past expeditions began transmissions as soon as the ship departed port, but using a different callsign than the one for the island. This group has not said if they will do that yet, but checking their web site as the departure date nears may answer that question.

The 3Y0J group plans to operate on all bands and modes of amateur radio, including the digital

modes. Working dxpeditions like this is a big challenge for any radio amateur, in any mode, but success can be rewarding, not in any material sense but as a proof of amateur skill, operating in the most grueling conditions. Wait until you try it. Success requires understanding propagation, time differentials, and skill in working pileups...and there will be pileups, along with all the annoying jerks who don't know what the word courtesy means.

This is one in a lifetime opportunity to make a unique radio contact and to test one's amateur radio skills. The website <https://clublog.org/> will register contacts with the expedition as they occur and hams can check for their call sign on the site to be assured that their contact was registered.

The ARRL Foundation Scholarship Program will award more than 100 scholarships to deserving radio amateurs pursuing higher education. Individual scholarships range from \$500 - \$25,000. All applicants must be active, FCC-licensed amateur radio operators and submit a completed online application by 12 PM Eastern Time on January 4, 2023. Active foreign amateur radio operators are eligible for the Amateur Radio Digital Communications (ARDC) scholarships.

The ARRL Foundation Scholarship Committee will review all applicants for eligibility and award decisions. Scholarship recipients will be notified in May 2023 via USPS and email. Awards are mailed directly to recipients' schools.

Additional information and a link to the application can be found at www.arrl.org/scholarship-

ON THE AIR

Inaugural NC Foothills GSSF Glock Challenge 2022

Nov 14-Nov 20, 0000Z-2359Z, N4G, Shelby, NC. Shelby Amateur Radio Club. 14.230. QSL. W4NYR - Shelby ARC, PO Box 2206, Shelby, NC 28151-2206. Welcome to our celebration of the inaugural Glock Sport Shooting Foundation (GSSF) match series being held in Cleveland Co., NC. We will be operating as N4G. (North Carolina for Glock). This is a safe, fun, family oriented event devoted to the responsible use of Glock firearms and encouraging participation in shooting sports. This opportunity will allow us to demonstrate Ham radio to non hams that will be attending this event from many areas. We will be operating from the shooting complex on the 19th and 20th. All other times will be from the shack. SASE please. To learn more visit- www.gssf.pro or www.shelbyarc.org

2022 Hammarlund Radio Hullahaloo Nov 17-Nov 18, 1200Z-2359Z, W4H, Mars Hill, NC. High Appalachian Mountain Amateur Radio Society. 14.050 14.240 7.050 7.210. QSL. HAMARS, P.O. Box 366, Mars Hill, NC 28754. Celebrating the Hammarlund Radio factory that was located in Mars Hill, NC, in the 1950s and 60s. hamars.club

W2W Pearl Harbor Day Commemoration Dec 2-Dec 12, 1300Z-2200Z, W2W, Baltimore, MD. Amateur Radio Club of the National Electronics Museum. 7.041 7.241 14.041 14.241. Certificate & QSL. K3NY, 108 Brent, Arnold, MD 21012. The 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 electronics in WWII. If the Museum station is not available, operators may operate from their home stations. Primary operation will be Dec 2-Dec 7 with addi-

tional operation possible during the Dec 8-Dec 12 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

Celebrating the 21st Amendment to the US Constitution Dec 3-Dec 6, 1200Z-0500Z, W8A, Kent, OH. Breweries On The Air. 7.24 14.24 50.175. Certificate. Thomas R Sly, WB8LCD, 1480 Lake Martin Dr, Kent, OH 44240. A good time will be had by all! www.breweriesontheair.com

ARRI November Sweepstakes phone portion will be on the third full weekend in November (**November 19-21, 2022**). Rules can be found here.

Roatan Island Honduras HQ9X Team will be active from Roatan Island, IOTA NA - 057, Honduras in CQ WW DX CW Contest, 26 - 27 November 2022.

Team - K1XM, KQ1F, SM7IUN, K1TR, W1UE. QSL for HQ9X via KQ1F, LOTW. Direct QSL: CHARLOTTE L RICHARDSON, 11 MICHIGAN DR, HUDSON, MA, 01749, USA.

Wolfs Fang Runway Antarctica Oleg, ZS1ANF will be active as ZS7ANF from Antarctica starting November 2022. He will operate on HF Bands. QSL via RK1PWA. Direct QSL: Club station, P.O. Box 73, 164744, Amderma, Arkhangelskaya obl., Russia.

ARRL 10 Meter Contest Second full weekend of December. Starts 0000 UTC Saturday; runs through 2359 UTC Sunday (December 10-11, 2022). Rules here.

The Decibel by Armando Delgado, KN4JN

Radio amateurs as a group like things simple. While doing radio projects or analyses, when it comes to mathematical calculations, hams prefer the minimal number of simple equations to get started and then perform the bulk of the work through an empirical process of trial and error. Unfortunately, there are certain radio related activities that involve concepts that require a more complex approach. A case in point is calculations relating to power changes, voltage ratios, and sound intensity.

During the early days of telegraph and telephone, engineers needed a method for calculating the power loss of signals in the lines. They used as the unit for loss *Miles of Standard Cable* (MSC). 1 MSC corresponded to the loss of power over one mile of standard telephone cable at a frequency of 795.8 Hz, which matched closely the smallest attenuation detectable to a listener. At the time, telephone cable maintained a standard wire diameter, universally applied.

In the 1920's, with the advent of radio, a different unit of measurement, not based on physical cables, became necessary. The International Advisory Committee on Long Distance Telephony in 1923 adopted a unit of measurement based on the \log_{10} of the ratio of one unit over a reference unit. This new unit of measurement was called the *bel* in honor of the inventor of the telephone, Alexander Graham Bell.

Technically, the bel unit suffers from a mathematical weakness

due to the nature of logarithms which causes the units to become fractions. To correct this deficiency, it was decided to use $1/10^{\text{th}}$ of a bel as the unit of measurement: the decibel. This required the product of the \log_{10} ratio to be multiplied by 10, thus generating non-fractional units that could be rounded up to whole numbers.

The decibel is the result of a mathematical scheme commonly used when dealing with exponential numbers. Factors that change in an exponential manner, like sound intensity perception or power changes, are not linear and produce difficulties in performing calculations. By using a logarithmic scale, those factors become linear; that is, the math goes from multiplication and division to simple addition and subtraction. The problem for the user is understanding what the results of those additions and subtractions really represent. By working with decibel units by themselves, it is possible to appreciate their significance as long as there is awareness that they represent large numbers. Thus when one says that a receiver's noise floor is -130dB , the understanding is that this is in reality a very tiny number. To compare that to say a receiver whose noise floor is -120dB , it is possible to be misled into thinking that there is little difference between the two unless one keeps in mind the real value of decibels.

It is this translation that can

create problems for the uninformed. A 10 dB difference means not just an increase of 10 units, but that the base numbers are multiplied by 10, which would be the difference between 100 and 1000.

The most common conversion discussed among amateurs is the 3 dB change, which means a doubling (or halving) of the values. For some reason, a 3 becoming a 2 confuses many people, yet a look at the formula for decibels ($\text{dB}=10 \log_{10} X_2/X_1$) will clearly show that \log_{10} of 2=0.301, multiplied by 10 and rounded up to whole numbers gives 3.

The other issue with decibels and logarithms, for that matter, is that \log_{10} of a fraction is a negative number; so -130 dB is a very tiny number, while 130 dB is a very large one.

The decibel is a unit intended to simplify certain physical analyses; yet, that simplification some times complicates the process, particularly for the beginner. Clarifying the calculations clouds the understanding.

"The older I grow the more I distrust the familiar doctrine that age brings wisdom"

H.L.Mencken



W1AW CW PRACTICE 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



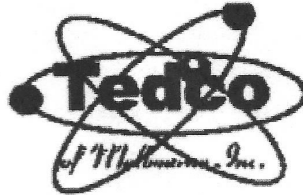
Editor's Note:

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

olardelga@aol.com.

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 lk 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	TSql 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	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		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	TSql; VOICE/NBEMS
444.650	CNMBRE	+5000	107.2	W4NLX	COCOA-FHP SR520	IRARC	"SARNet Cocoa Repeater"
444.750	750TI4	+5000	156.7/156.7	N4TDX	TITUSVILLE- TGO WATERTOER 230 ft.	NBARC	TSql
444.875	875MI4	+5000	107.2	KC2UFO	MERRITT IS. COURTNEY SPRS.	K4UJM	
444.925	925KS4	+5000	131.8/131.8	N1KSC	KENNEDY SP. CTR.-VAB	KSCARC	FM Tsql ; P25 capable
224.120	120CO2	-1600	123.0	AA4CD	COCOA Broadcast Ct.	AA4CD	
DMR							
444.150	150TI4	+5000	CC1	K2JO	TITUSVILLE-PARRISH HOSP.	KC2CWT	DMR FL
444.575	575CO4	+5000	CC3	K4DJN	COCOA BROADCAST CT.	AA4CD	DMR Brandmeister
444.675	675TI4	+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	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
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 and user Rx)							
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							

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