



**INDIAN  
RIVER ARC**

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

VOLUME XLI, NUMBER 10

# SPURIOUS EMISSIONS

OCTOBER, 2020

## OFFICERS

### PRESIDENT

**VIRON PAYNE**  
N4VEP

### VICE-PRESIDENT

**DAVID LERRET**  
KUOR

### SECRETARY

**ERNIE HOFFMAN**  
K1CPO

### TREASURER

**LARRY HENDERSIN**  
KK4WDD

### DIRECTOR

**DAVID SLAWSON**  
K4UZM

### NEWSLETTER EDITOR

**ARMANDO DELGADO**  
KN4JN

## CLUB MINUTES

The meeting was called to order by President Viron, N4VEP. Members attended in person and via Zoom in the internet.

The minutes of the September meeting were approved.

Treasurer's Report showed \$1778.59 in the equipment fund and \$1011.39 in the general fund, for a total of \$2684.98.

Technical Committee Report, by Dave, KUOR indicated that the emergency station in the church can do NBEMS by acoustic coupling and signaling.

President's Report by Viron, N4VEP: The Indian River club received a certificate from the ARRL for being an active member club for 65 years. The certificate was presented by Jeff Beals, WA4AW, South Florida Assistant Section Manager.

The next IRARC meeting will be on November 17 at 7:00 PM at the church.

The club now has a Facebook page.

There is a SET planned for October, but no date given as yet.

New Business: Viron suggested having a Halloween Special Event Station on October 31, which is a Saturday. No one made a motion and Viron suggested that if there is future interest members would be notified during the Wednesday net or via email.

The club Christmas Party is planned for Tuesday, December 15 at the church. The club probably will order some food and members may bring food, as well. Viron suggested limiting amounts of food to serve from 8-10 people.

Winter Field Day will be on January 30-31, 2021. A motion for the club to participate was made, seconded, and approved. Viron suggested 1-2 stations be activated.

Next, Viron presented a request to budget \$500 to install antennas in the church backyard. A number of dipoles are available to the club and the money requested is for renting a 35' lift, \$350, and for antenna ropes, \$150. After a brief discussion, the motion was tabled until the November meeting.

Following the business meeting, there was a presentation by Dwaine Heroux, KM4HCN and John Crosser, KD4UBN on APRS.

Respectfully submitted for the Secretary by Armando Delgado, KN4JN

## HAPPENINGS

Military Auxiliary Radio System (MARS) volunteers will take part in the Department of Defense (DOD) Communications Exercise 20-4, starting on October 3 and concluding on October 26. The MARS focus is interoperability with ARRL and the amateur radio community Throughout October, MARS stations will operate on 60 meters, and WWV/WWVH will broadcast messages to the amateur radio community.

The International Telecommunication Union (ITU) has published the [2020 ITU Radio Regulations](#) — the international treaty governing the global use of RF spectrum and satellite orbits. The publication contains the complete texts of the Radio Regulations adopted during World Radiocommunication Conference 2019 (WRC-19), held last year in Sharm el-Sheikh,

Egypt. The Radio Regulations govern 40 radiocommunication services, and are designed to protect existing radio services while enabling the introduction of new and enhanced services.

AMSAT-OSCAR 7 (AO-7), the oldest amateur radio satellite still in operation, is nearing a return to full illumination by the sun, which should take place around September 25 and con-

tinue until around December 26. During this period, AO-7 likely will switch between modes A (2 meters up/10 meters down) and B (70 centimeters up/2 meters down) every 24 hours. Launched in 1974, AO-7 surprised the amateur satellite community by suddenly coming back to life in 2002 after being dormant for nearly 30 years and periodically re-emerging. With no

## HAPPENINGS

working batteries, AO-7 now only functions when it's receiving direct sunlight, and it shuts down when in eclipse. Built by a multinational team under AMSAT's direction, AO-7 carries a non-inverting Mode A transponder (145.850 – 950 MHz up/29.400 – 500 MHz down) and an inverting Mode B (432.180 – 120 MHz up/145.920 – 980 MHz down) linear transponder. It has beacons on 29.502 and 145.975 MHz, used in conjunction with Mode A and Mode B/C (low-power mode B), respectively. A 435.100 MHz beacon has an intermittent problem, switching between 400 mW and 10 mW.

The latest beta release of the **WSJT-X** digital software suite includes digital protocols particularly designed for communication on LF and MF bands, such as 2200 meters and 630 meters.

## ON THE AIR

**4th Annual 27 Lighthouses in the South West Desert** Nov 1-Nov 11, 0000Z-0023Z, K7LHC, Lake Havasu City, AZ. London Bridge Amateur Radio Association. 21.300 18.145 14.250 7.250. Certificate. LBARA, P.O. Box 984, Lake Havasu City, AZ 86405. [www.lbara.org](http://www.lbara.org)

**KDKA 100 Year Anniversary** Nov 1-Nov 30, 0000Z-2359Z, W8XK, K3A/D/K, Pittsburgh, PA. KDKA 100 Group. 14.260 14.030 7.260 7.030. Certificate & QSL. See website, for QSL and certificate, information. Special event stations. Celebrating 100 years of KDKA as the 1st commercial broadcast station located in Pittsburgh. Look for special event call signs K3A, K3D, K3K and W8XK. [www.qrz.com/db/w8xk](http://www.qrz.com/db/w8xk)

WSJT-X version 2.3 offers 12 different protocols: FST4, FT4, FT8, JT4, JT9, JT65, QRA64, ISCAT, MSK144, WSPR, FST4W, and Echo. The first seven are designed for making reliable contacts under weak-signal conditions and use nearly identical message structure and source encoding. The [WSJT-X 2.3 User Guide](#) and the [Release Notes](#) include additional information.

Want to know what hams live in your neighborhood? Check out [Amateur Radio License Map](#). You may have hams nearby you never knew about.

On United Nations Day, October 24, the **SAQ** Very Low Frequency transmitter in Grimeton, Sweden, will again send out a message to the whole world on 17.2 kHz CW: 14:30 GMT: Startup and tuning of the Alexander Alternator SAQ.

**USCG Auxiliary 81st Anniversary** Nov 1-Nov 8, 0800Z-0621Z, W2G, Freeport, NY. USCG Auxiliary Division 13 Station Jones Beach. 14.200 10.118 7.190 3.885. QSL. W2G, 3813 Verleye St., Seaford, NY 11783. USCG Station Jones Beach, NY - Maritime Operations from CG 45706 are possible. Please SASE Only for QSL. Via W2ANQ

**USS Cobia WWII Submarine Celebrating Veterans Day** Nov 7-Nov 8, 1400Z-2100Z, NB9QV, Manitowoc, WI. USS Cobia Amateur Radio Club. 14.240 +/- 7.240 +/- QSL. Fred Neuenfeldt, 4932 S. 10th St., Manitowoc, WI 54220-9121. Send your qsl and #10 Envelope for QSL [www.qrz.com/db/nb9qv](http://www.qrz.com/db/nb9qv)

**Veterans Day Observance** Nov 11, 1600Z-2130Z, W5KID, Baton Rouge, LA. Baton Rouge Amateur Radio Club. 14.250

15:00 GMT: Transmission of a message from SAQ on 17.2 kHz CW.

SAQ was built in the early 1920's and became operational on December 1, 1924. It is the last surviving working example of a transmitter using Anderson Alternator technology. Further details of the event at <https://alexander.n.se/saq-grimeton-transmission-on-october-24th-2020/?lang=en> Live stream <https://www.youtube.com/c/AlexanderSAQ/videos>

The first-ever [New England ARES Academy](#), originally scheduled for the ARRL New England Division Convention at the Northeast HamXposition in November, will instead take place October 13 - 31 via the Zoom conferencing platform. The presentations are available to all, and the Zoom URL will be sent to all who register via the New England ARES Academy web page.

Five basic-track classes will aim at

14.035 7.225 7.035. QSL. USS KIDD Amateur Radio Club, 305 S. River Rd., Baton Rouge, LA 70802. Operation aboard the USS KIDD (DD-661), WW II Fletcher class destroyer. [qrz.com/db/w5kid](http://qrz.com/db/w5kid)

**NRA's 149th Birthday Party** Nov 17, 1500Z-2359Z, K7GST, Paulden, AZ. Yavapai Amateur Radio Club. 21.335 14.250 14.040 7.250. Certificate. YARC, P.O. Box 11994, Prescott, AZ 86304. Certificate. E-certificate available, see website for details. [www.w7yrc.org/nrabirthday](http://www.w7yrc.org/nrabirthday)

**JAN MAYEN, JX. Erik, LA2US** will be QRV as JX2US from Olonkinbyen from October 2020 to March 2021. Activity will be in his spare time on 160, 80, 40, 30, and 20 me-

ters just getting started in ARES, and more advanced classes and workshops will target those already familiar with the basics. Hour-long classes will be held on weeknights starting at 7:30 PM EDT (2330 UTC), and 2-hour workshop sessions will be held Saturday mornings from 9:00 to 11:00 AM EDT (1300 - 1500 UTC). Attendance for all events is free.

### Tribute to Eddie van Halen

With the passing of Edward Lodewijk Van Halen, legendary guitarist of the band Van Halen, October 6th 2020, a special tribute event station will be on air as PA5150EVH between October 28th and at least until January 31st 2021, a few days after Eddie's birthday. The operator is Frank, PF1SCT, from Tilburg, The Netherlands. QSL via PF1SCT by the Bureau. Frank states that there will be a limited amount of special QSL cards; only via the Bureau. For more details and a video, see [QRZ.com](http://QRZ.com).

ters using CW and FT8 in DXpedition mode. QSL via LoTW.

**Tonga** A35GC Team will be active from Tonga, 19 October - 2 November 2020. Team - LZ1GC, LZ1PM.

**Ecuador.** The special callsign HD1X will be active between October 31st (1700 UTC) and November 3rd (1700 UTC) on various HF bands including 30/17/12m, using SSB, SSTV and the Digital modes (FT4/FT8). VHF & UHF will be activated on the FM and SSB ham Satellites. QSL via EC5R.

Dwight, VE7BV will be active again as TG9BBV from **Guatemala**, 1 - 30 November 2020. He will operate on HF Bands. QSL via home call, LOTW, eQSL.

## JS8CALL by Armando Delgado, KN4JN

Since the advent of home computers, and particularly their application to ham radio, the number of digital modes for radio communications bloomed. Over the years, multiple varieties of digital protocols came into being, many becoming popular for a time, then disappearing as other formats took their place. The internet greatly facilitated the spread of some modes, especially those developed with open-source software and provided free to all users, like Packet and PSK31.

In the last few years the predominant digital mode is FT8, developed by Joe Taylor, W1JT, of Princeton University for amateur weak signal communications. FT8 is a robust weak signal protocol that is quite effective and can wean signals out of the noise in just about any amateur band. Unfortunately, the FT8 protocol is dependent on timed transmissions that limit the amount of information transmitted in one cycle. Thus it does not lend itself to lengthy messages. Most FT8 users utilize it for brief contacts containing the minimum information for a legal QSO; that is, call sign and signal report.

In 2018, Jordan Sherer, KN4CRD, developed a new digital mode based on the FT8 platform and borrowing from the networking capacity of *fldigi* that is capable of providing keyboard to keyboard messaging using weak signal transmissions. He named the mode JS8 and the software, initially called FT8CALL, but renamed JS8CALL. In the [JS8CALL web site](#),

Julian explains his software in a video. The website also includes a link to a free download of the JS8CALL app.

JS8CALL is new to the amateur community and not many people are using it yet. In a [YouTube experiment](#), Jason, KM4ACK, using transmissions in 2m SSB, demonstrated by gradual reductions of transmitted power that JS8CALL could get through with 250 mW of output power. In YouTube also, Julian, OH8STN, has a nice presentation on the use of [JS8CALL for emergency communications](#), since it allows for networking of stations that will automatically relay messages to all members in a preset network.

The JS8CALL frequencies listed in the program are

1.842Mhz	3.578Mhz
7.078Mhz	10.130Mhz
14.078Mhz	18.104Mhz
21.078Mhz	24.922Mhz
28.078Mhz	50.318Mhz

But the user can change them and literally use any of the digital frequencies in the amateur band.

For assistance with the program, there is a user group that can provide help.

<https://groups.io/g/js8call>

### UPCOMING CONTESTS

Oct 19-23  
ARRL/LIMARC Fall School Club Roundup

Nov 7-9  
November CW Sweepstakes

Nov 21-23  
November Phone Sweepstakes

Dec 4-6  
ARRL 160-Meter Contest

Dec 12 -Dec 13  
ARRL 10-Meter Contest



### 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:

[olardeiga@aol.com](mailto:olardeiga@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
<b>WBFM</b>							
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	W4NLS	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	SCOTSMOOR 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	TSqI;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 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	TSqI; VOICE/NBEMS
444.650	CNMBRE	+5000	107.2	W4NLS	COCOA-FHP SR520	IRARC	"SARNet Cocoa Repeater"
444.750	750TI4	+5000	156.7/156.7	N4TDX	TITUSVILLE- TGO WATERTOER 230 ft.	NBARC	TSqI
444.875	875MI4	+5000	107.2	KC2UFO	MERRITT IS. COURTNEY SPRS.	K4UJZM	
444.925	925KS4	+5000	131.8/131.8	N1KSC	KENNEDY SP. CTR.-VAB	KSCARC	FM TsqI ; P25 capable
224.120	120CO2	-1600	123.0	AA4CD	COCOA Broadcast Ct.	AA4CD	
<b>DMR</b>							
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
<b>ATV</b>							
427.250	250CO4			K4ATV	COCOA BROADCAST CT.	LISATS	NTSC INPUT 439.25 See www.lisats.org
<b>PACKET STATIONS:</b>							
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
<b>BREVARD RACES/ARES SIMPLEX</b>							
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
<b>SIMPLEX</b>							
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							

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](http://www.tedcoelectronics.com)

EMAIL:  
[tedco@bellsouth.net](mailto:tedco@bellsouth.net)

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

TED - W4LR - GENERAL MGR.

DOTTIE - OFFICE MANAGER