

# The HIARC Bulletin

August 2019 Edition

## The Official Bulletin of the Harris-Intersil Amateur Radio Club

**Club Meetings:** Second Thursday of each month at Meemaw's Barbecue on Babcock Street between Palm Bay Road and Port Malabar Road. Supper is at 6:00 PM, business is at 7:00 PM. Our programs start at 7:30 PM. As some members have allergies, we kindly ask that you refrain from wearing fragrances if possible thanks.

**Club Station:** Building 15, Room 321. E-mail Butch for access.

**Repeaters:** K4HRS, 145.47 Mc, tone 107.2 cycles, elevation 170 feet, Melbourne

**HIARC Web Site:** [www.qsl.net/hiarc](http://www.qsl.net/hiarc). Website administrator; Jim , KC7SSW

**Officers:** President: Francis ("Butch"), WA4AQV

Treasurer: Bill WA4EMU

Secretary: Open

Repeater Chairmen: Bud W4HXP

Program Chairman: Open

Field Day Chairman: Bill WA4EMU

Sunshine Chairman: Open

Club Jester: Ken N8KH

### **Membership:**

All welcome to join.

Dues are \$12.00 per year to:

Bill WA4EMU

**Annual Events:** Annual swapfest at the October meeting. Field Day (always the fourth full weekend in June)

### **Selected Hamfests:**

- August 10, 2019 : Fort Pierce at Indian River State College, 3209 Virginia Ave, Talk in 147.645 Mc. tone 107.2 Hz. [www.pcars.org](http://www.pcars.org)
- September 14, 2019 at 9 AM. Melbourne PCARS free swapfest. Exact location: W4MLB shack site / fire training center at Electronics Drive and Hughes Road. Talk in 146.61 Mc repeater, no PL tone, map <https://www.google.com/maps/@28.1392468,-80.6690535,68m/data=!3m1!1e3>
- October 11, 2019 Melbourne Hamfest, Melbourne Auditorium.
- November 13, 2019 at 9 AM. Melbourne area, PCARS free swapfest. Exact location, W4MLB shack site / fire training center Electronics Drive and Hughes Road. Talk in probably 146.61 Mc repeater, no PL tone needed: map <https://www.google.com/maps/@28.1392468,-80.6690535,68m/data=!3m1!1e3>

### **Ham Radio Lunches:**

- Every Friday, 10:30 AM till 12:30 PM or so, Golden Corral on Palm Bay Road in Palm Bay
- Every Friday, 9:00 AM till 11:00AM or so, Umpa's Diner, 1115 N Courtenay Pkwy, Merritt Island, FL 3295, (321) 454-3422

### **July President's Message**

The HIARC ARRL 2019 Field Day was a success at Grant Community Center. We had a tribander yagi antenna on the 45 foot trailer tower. 22 hamburgers and 24 bratwursts were served. Some sporadic E contacts on 6 meters were made. Scores later in the newsletter. Digital modes like FT-8 are becoming very popular.

Officer elections were held at the July meeting. Your new officers are:

President: Francis ("Butch"), WA4AQV

Treasurer: Bill WA4EMU

Secretary: Open

Repeater Chairmen: Bud W4HXP

Program Chairman: Open

Field Day Chairman: Bill WA4EMU

Sunshine Chairman: Open

Club Jester: Ken N8KH

Dues are due for our FY 19/20 fiscal year. Still only \$12.00. If you haven't responded please mail them to our treasurer thanks:

Bill WA4EMU

The August meeting will be this Thursday August 8, 2019 at 6 PM at MeeMaws Barbecue. The program will be “Ways To Convert A Conventional Flagpole Antenna To A HF flagpole Antenna” by Butch, WA4AQV

73's

Butch WA4AQV

## HIARC 2019 Field Day Scores

Here they are. Summary:

Entry received at: 2019-07-10 20:46:02

Call Used: K4HRS    GOTA Station Call: (NONE)    ARRL/RAC Section: SFL    Class: 2A

Participants: 15    Club/Group Name: Harris-Intersil Amateur Radio Club

Power Source(s): Generator, Battery, Solar

Power Multiplier: 2X

Preliminary Total Score: 3,568

### Bonus Points:

100% emergency power	200
Media Publicity	100 - File [HIARC 2019 FD publicity announcement.doc] previously uploaded
Public location	100
Public information table	100 - File [K4HRS FD 2019 BONUS PROOFS.pdf] previously uploaded
Formal message to ARRL SM/SEC	100 - Documented by K4HRS FD Bonus Proofs.txt
W1AW Field Day message	100 - File [FD 2019 SPECIAL BULLETIN.txt] previously uploaded
Formal messages handled (12 x 10, max of 100)	100 - Documented by K4HRS FD Bonus Proofs.txt
Natural power QSOs completed	100 - Documented by K4HRS FD Bonus Proofs.txt
Educational activity	100
Safety officer	100 - Documented by K4HRS FD Bonus Proofs.txt
Social media	100
Entry submitted via web	50
Total bonus points	1,250

Score Summary: (File [K4HRS FD 2019 ALPHA SORT.xls] previously uploaded)

	CW	Digital	Phone	Total	
Total QSOs	480	81	37		
Total Points	960	162	37	1159	Claimed Score = (QSO points x power mult) = 2,318

Submitted by: William , WA4EMU

#### Band/Mode QSO Breakdown:

	CW	Digital	Phone	
QSOs Pwr(W)	QSOs Pwr(W)	QSOs Pwr(W)		
160m				
80m				
40m	91 100	43 50		
20m	308 100	38 50	32 100	
15m	81 100			
10m				
6m		4 100		
2m		1 50		
222				
432				
Other				
Satellite				
GOTA				
TOTAL	480	81	37	

## Flagpoles

The biggest US flagpole vendor is EF Eder: <https://www.ederflag.com/> . They all need converting into antennas?

## Lunar Satellite QSO

A QSO has been made through a satellite from Germany to China. What makes this event newsworthy is that the satellite is orbiting the moon.

<http://www.ARRL.org/news/historic-amateur-radio-contact-reported-via-moon-orbiting-satellite>

73,  
Ken N8KH

This might be an amateur satellite DX record as most amateur satellites have been at much lower altitudes such as low earth orbit with smaller fields of view.

## No Consensus Reached for FCC on “Symbol Rate” Issues

<http://www.ARRL.org/news/no-consensus-reached-for-fcc-on-symbol-rate-issues>

So, we are stuck with limited data FCC regulations on 420 MHz (and other bands). On 70cm, the symbol rate of a data signal cannot exceed 56 kbaud, and the bandwidth cannot exceed 100 kHz, according to 97.305(c) and 97.307(f). And yet fast-scan TV signals may be 6 MHz wide.

Ken N8KH

## **Manual Needed**

Manual needed: B&K Tube Tester, Model 600 Dyna Quik. These used to be in your corner drug store! If anyone has one of these manuals, either a spare or one that you (or I) can scan for VA6FH, or already scanned, please let me know.

Much appreciated!

73, de

Dan AI4GK

## **Possible explanation of the 11-year sunspot cycle?**

Perhaps the 11 year sunspot cycle is a result of the coupling of the very regular (11.07 year) planetary alignment of Jupiter, Earth, and Venus, along with the Raleigh-Taylor Instability. The tidal effects on the sun from the alignment of Jupiter, Earth, and Venus are quite small compared to the sun's mass. But they may set in motion the fairly well understood Raleigh-Taylor Instability where a less dense fluid is pushing a more dense fluid, and that in turn may be a cause of the 11.07 year sunspot cycle.

Some web pages on the Raleigh-Taylor instability:

[https://en.WikiPedia.org/wiki/Rayleigh%E2%80%93Taylor\\_instability](https://en.WikiPedia.org/wiki/Rayleigh%E2%80%93Taylor_instability)

[http://www.ScholarPedia.org/article/Rayleigh-Taylor\\_instability\\_and\\_mixing](http://www.ScholarPedia.org/article/Rayleigh-Taylor_instability_and_mixing)

[https://www.EncyclopediaOfMath.org/index.php/Rayleigh-Taylor\\_instability](https://www.EncyclopediaOfMath.org/index.php/Rayleigh-Taylor_instability)

<https://Computing.LLNL.gov/projects/blast/rayleigh-taylor-instability>

<http://www.PhysicsCentral.com/explore/action/mixing-physics.cfm>

And here is a video aimed at the common man about the subject:

<https://www.YouTube.com/watch?v=tBScyiYlhS4>

73,

Ken N8KH