**The HIARC Bulletin**

July 2021 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 5:30 PM, business is at 6:30 PM. Prizes at 7:00 PM. Our programs start at 7:15 PM. Meeting ends by 8:00 PM. As some members have allergies, we kindly ask that you refrain from wearing fragrances 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. Works good, repeater has sensitive receiver.

**HIARC Web Site:** <www.qsl.net/hiarc>. Website administrator; Jim , KC7SSW

**Officers:** President: Francis (“Butch”), WA4AQV

Treasurer: Pat KA4ZEC

Secretary: Open

Repeater Chairmen: Clyde KD8AN has been keeping it going

Program Chairman: Open

Field Day Chairman: Open

Sunshine Chairman: Open

Club Jester: Ken N8KH

**Membership:**

$12.00 per year. You can join at the meetings through our Treasurer Pat KA4ZEC. Annual dues are due this month.

**Annual Events:** Annual swapfest at the October meeting.

**Selected Hamfests:**

* September 19, 2021: PCARS Quarterly Tailgate at the Melbourne Fire Department Training Center, 1980 Hughes Road, Melbourne FL. Starts about 9 AM lasts till about 11 AM. Friendly get together. Usually lunch after at TBD location. Talk in and going to lunch discussion is on the 146.61 MHz repeater no tone.
* October 8 and 9. Melbourne Hamfest. [www.pcars.org](http://www.pcars.org)

**Ham Radio Lunches:**

* Every Friday, 11:00 AM till 1:00 PM or so, Golden Corral on Palm Bay Road in Palm Bay. Around 12 people recently and growing.
* Once a month, the Saturday after the PCARS meeting, Sarno Restaurant and Pizzaria, 11:00 AM. This is at the corner of Sarno Road and Croton Road.

**Thursday July 8 HIARC Meeting**

Our next HIARC meeting is this Thursday July 8 in the Babcock Street Meemaws Barbecue Banquet Room.

Agenda:

* Supper at 5:30 PM
* Business meeting at 6:30 PM
* Prize drawing at 6:50 PM
* Program at 7:10 PM: “What Is The Best Whip Height For Two Meter FM Mobile” with slides and data.
* Vacate room at 7:50 PM

**Annual HIARC Officer Elections**

Annual officer elections were held at the June HIARC Meeting. Here are the curent officers for 2021 – 2022.

President: Butch WA4AQV

Secretary: open

Treasurer: Pat KA4ZEC

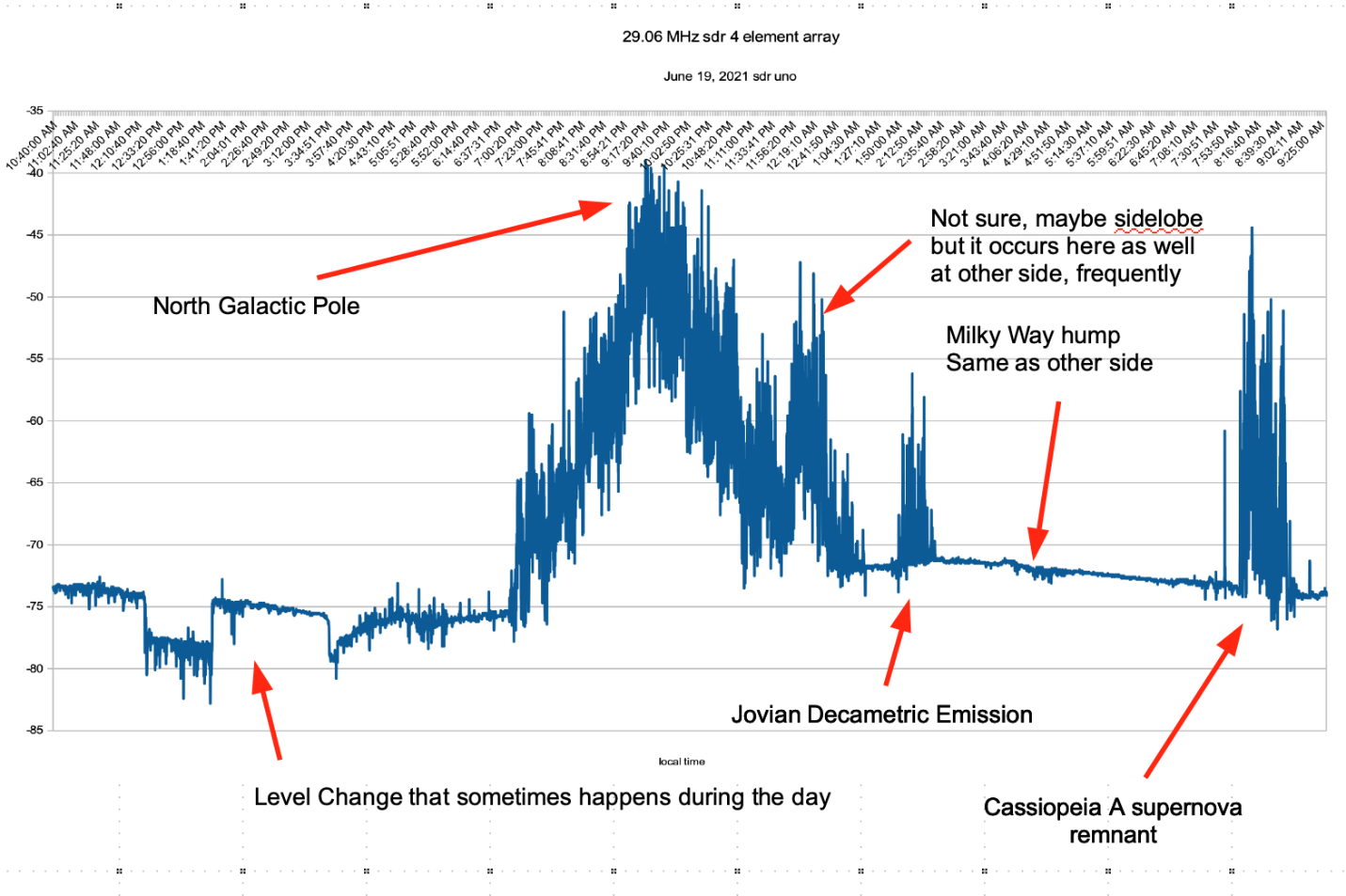
Repeater Chairman: open

Jester: Ken N8KH

FCC Reaffirms Nearly $3 Million Fine for Marketing Unauthorized Drone Transmitters <http://www.ARRL.org/news/view/fcc-reaffirms-nearly-3-million-fine-for-marketing-unauthorized-drone-transmitters>

**Radio Astronomy Observation By Amateur Radio**

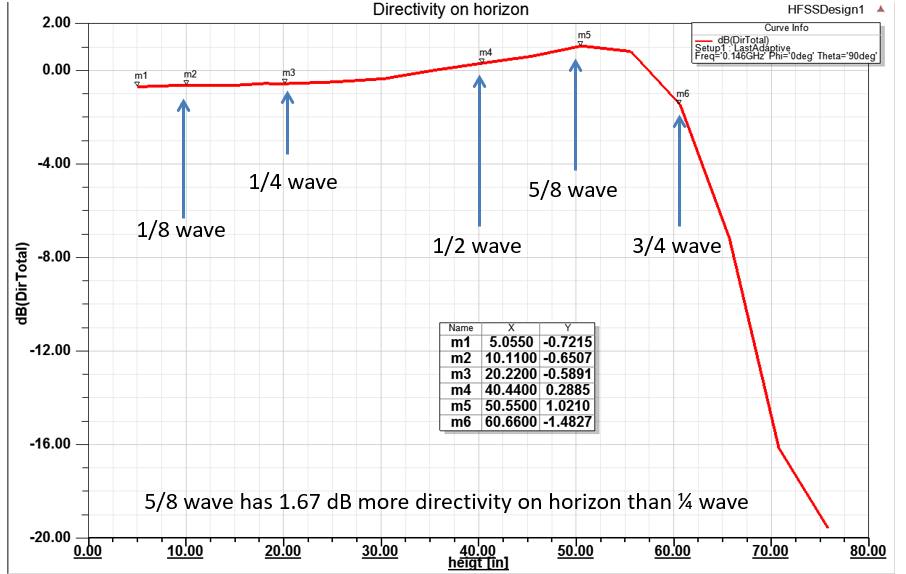
KB0KJH Kevin did a radio astronomy transit measurement at 29.06 Mhz with a 4 element array pointed upward. In a tranit meaurement one just records the signal strength as the earth motion scans the antenna beam across the sky. Here is the result:



The Milky Way Galaxy RF radiation was noticeable as well as the radio star Cassiopeia. Jupiter puts out RF emissions in the upper HF spectrum and Kevin picked them up! Good work.

**Best Whip For Two Meter Mobile**

We always wonder about ¼ wave, ½ wave or 5/8 wave whip lengths for two meter mobile. Here is a plot of directivity on the horizon for a low VSWR whip of varying height on a 6 foot diameter circular car roof:



Yes car roofs are not circular but 3 feet of ground plane radius is somewhat representative of a car roof radius. As can be seen the ground plane has significant effects. There are a lot of other factors which will be discussed at the meeting!