



The SKYHOOK



HOLIDAY CITY AMATEUR RADIO CLUB

www.hcarc.us

May 2022

Toms River, NJ

Our President's Message

As this newsletter arrives, the winter weather has receded, and the warmer weather of spring and summer is arriving. A great time to inspect and repair (if necessary) antenna structures and transmission lines. Possibly a good time to install and experiment with that new antenna you read about in QST. All the repairs or installations will require the use of coax cabling and connectors. Additionally, why not consider making customized cables in your shack to eliminate the excess cable being either rolled up and lying on the floor or stuffed behind your equipment. Our May meeting is going to feature a demonstration on installing PL259 connectors. The demonstration will use the "old school" method of installation which does not require any special crimping tools. This procedure was used by the Navy and has proven to be a quick and reliable method.

VE News

This month we had three candidates for our monthly VE session. Two of the candidates were taking the General class test and both passed. The third candidate took the Technician test which he passed and then asked to take the General class test. He passed that as well.

Our next VE session will be held on Wednesday, May 11th at the Holiday City South Clubhouse located at 139 Santiago Blvd. The start time is 7:00 PM. Contact Larry Puccio Liaison at 732 349-2950 for an appointment.

OUR NEXT REGULAR MEETING:

Thursday May 5th at 7:00 PM
Holiday City South Clubhouse A
Santiago Drive at Mule Road
Toms River, NJ

Holiday City Amateur Radio Club

Toms River, New Jersey

Web Site www.hcarc.us

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CLUB COMMITTEES

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<i>VE Sessions:</i>	Larry	K2QDY	732-349-2950
<i>Membership:</i>	John	KQ4WR	732-350-1162

Membership is open to all interested persons. Ham license is not required. Dues are \$25.00 per year, payable Jan 1st. Members joining during the year will have the dues prorated. Family membership \$30.00 per family.
Meetings are normally held on the first Thursday of every month except December,,at 7:00 pm.
Location: Meeting Room #1 in Holiday City South Clubhouse
Directions: From either Route 37 W or Davenport Road, take Mule Road to Santiago Drive. Turn into the parking lot from Santiago Drive and park near the pool. Enter the building that's nearest the street intersection.

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Ocean County ARES® News May 2022

Since this month's ARES meeting falls on the same day that I normally release the monthly ARES News, I can't really comment on the meeting. Instead, I'm going to present another ham radio project that I recently completed. For years I wanted to build or at least experiment with a 12 VDC generator for emergency radio use. One website that I've had my eye on for years is TheEpicenter.com

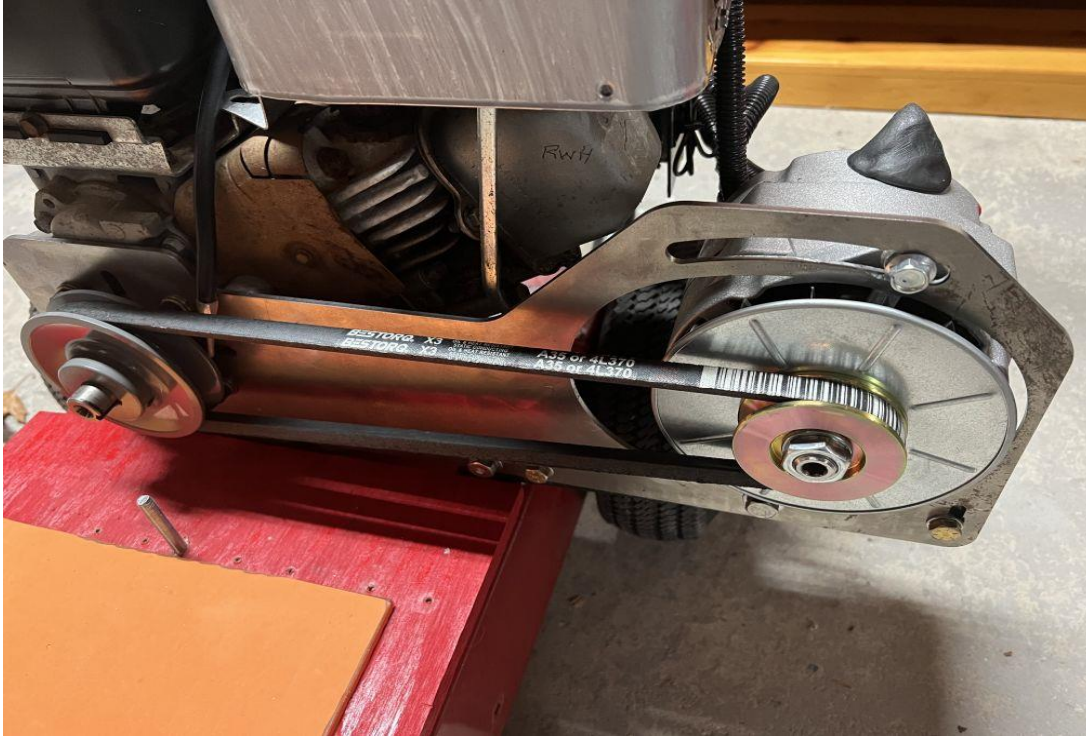
There is a lot of guidance on that site for building your own vertical or horizontal shaft generator using an automobile alternator and a small gasoline engine. I thought about using my Karcher power washer engine should the washer section fail, but after a repair many years ago, the unit just keeps running. I mentioned my project to K2MDW and as it turns out he had a pressure washer engine and frame that he was going to throw out. Mike was also nice enough to overhaul the engine and that was much appreciated. A picture of the engine and frame as I received it is below.



The Epicenter sells an adapter plate to mount a Delco 10Si or 12Si alternator to most gas engines in the horsepower range of 5 to 8 HP. Pictured below is the plate.



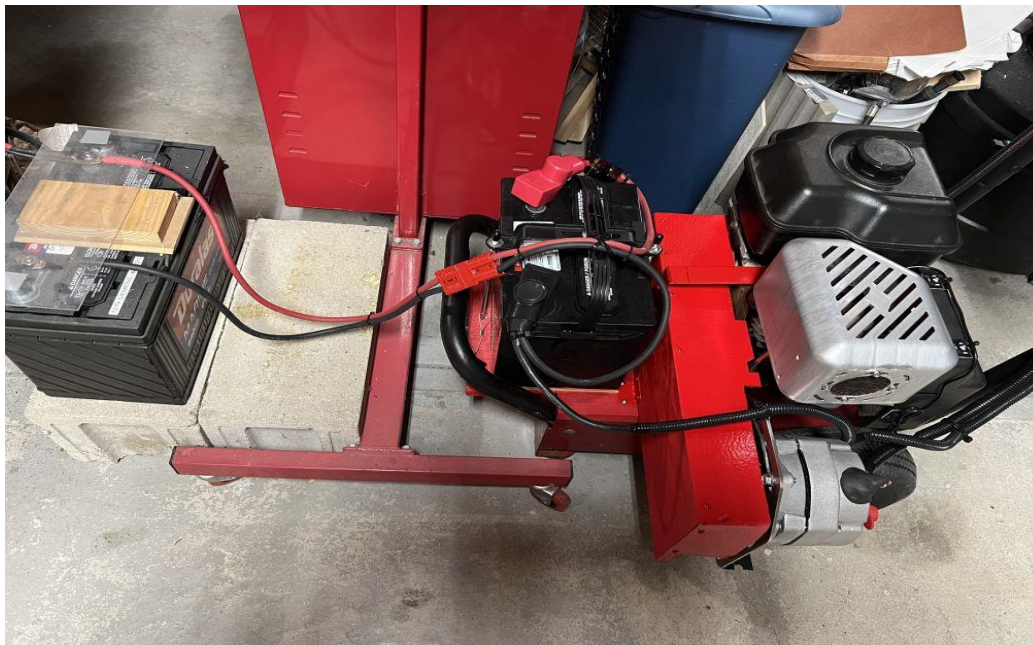
The engine is a Briggs and Stratton 5.5 HP model with a keyed $\frac{3}{4}$ inch shaft. At first I thought the shaft turned CW, but later I learned it was CCW. A Delco alternator will generate in either direction, but the cooling fan works best when turned CW. A bidirectional fan was made for the Corvair automobile, which had its alternator turn CCW. I wound up purchasing a new 10Si equivalent alternator from Amazon, manufactured by DB Electrical and is rated at 72 amps output. The stock fan had to be removed along with the pulley. A bidirectional fan and pulley made for a half inch wide drive belt was installed. The pulley for the engine is a cast iron, keyed four inch pulley. The four inch drive pulley along with the 2.6 inch alternator pulley gives the best mechanical advantage without stalling the engine.



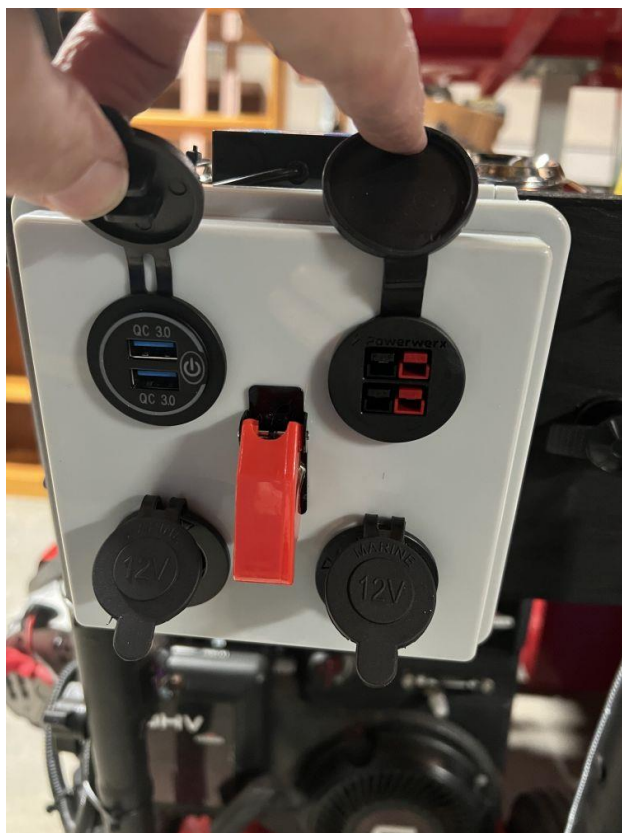
It is important to fabricate and install a belt guard to prevent anyone or anything from being caught in the drive system. See the guard below



One of my objectives in building the generator was to be able to dock it to my deep discharge battery in my garage, which feeds backup power to my shack. This would enable the generator battery to be maintained at peak level at all times and also supplement my shack backup battery. I used 60 amp Power Pole equivalent connectors to join the two together. I use the same connector on my 9000 watt house generator to start it. I don't leave the battery on the house generator because I find they are hard to maintain. The picture below shows the two docked.

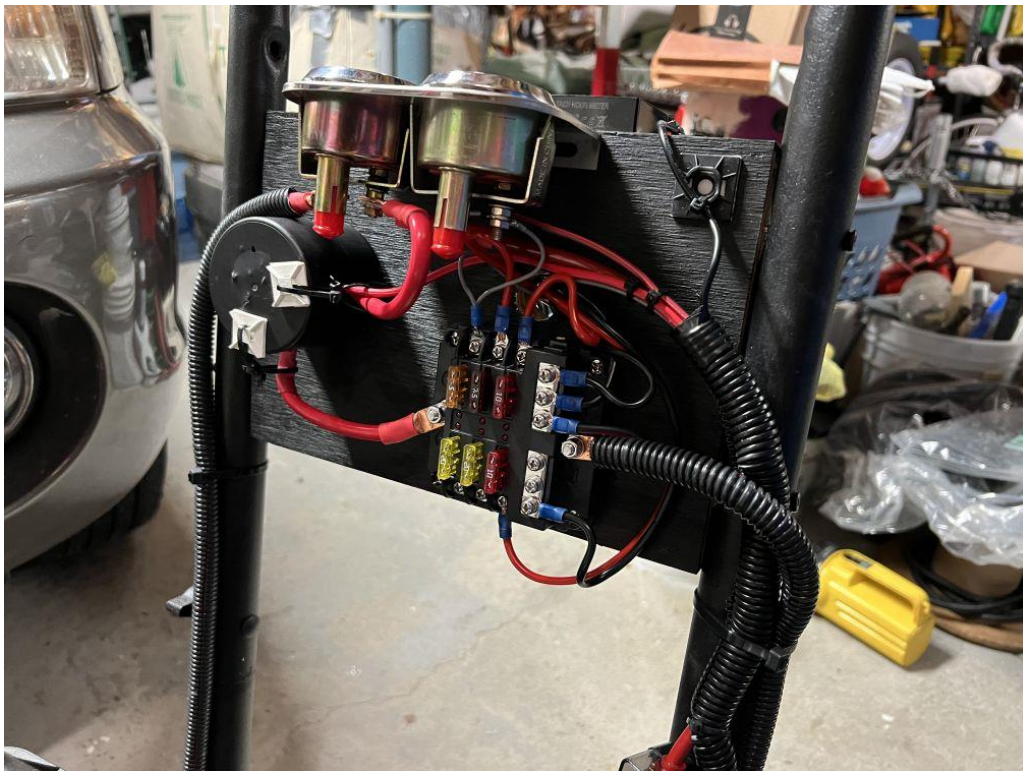


I wanted instruments to be able to monitor voltage and current to the battery and I used Bosh two inch gauges. I also wanted Power Pole outlets, cigar plug outlets and USB outlets.





I also included a tachometer and time run meter. It senses the spark via a wire wrapped around the spark plug cable. The red toggle switch in the center allows the engine to be started with no load. As soon as the engine starts, you flip the red switch up to start the alternator output. The large DC switch on the right disconnects power to the instruments and outputs. All wiring is fully fused along with 100 amp links in the main power cables.



Finally, a Group 24 deep discharge marine battery was chosen because it fit perfectly on the chassis and matched the shack backup battery. I also had to install two inner tubes in the pneumatic tires since they kept going flat.



I found that if the engine is turning at approximately 2000 RPM the alternator is turning at 2700 RPM. According to the vendor test records, 2700 RPM is good for about 65 amps output. So far the unit has been load tested to 60 amps with no stalling.

Good luck if you wish to built one! My unit is always available for inspection for anyone who wants to examine it up close.

73 de WX2NJ

Bob Murdock

Ocean County Amateur Radio Emergency Service® EC

Annual Armed Forces Day Cross-Band Exercise Set for May 14.

The 2022 running of the Armed Forces Day (AFD) Cross-Band exercise will be held on May 14, 1300 – 2200 UTC. A complete list of participating stations, modes, frequencies, times, and other details will be announced on April 1. The event is open to all radio amateurs. Armed Forces Day is May 21, but the AFD Cross-band military-amateur radio event traditionally takes place 1 week earlier, in order to avoid conflicting with Dayton Hamvention®. During the exercise, radio amateurs listen for stations on military operating frequencies and transmit on frequencies in adjacent amateur bands.

Military and amateur stations have taken part in this event for more than 50 years. It's an exercise scenario, designed to include ham radio and government radio operators alike.

Per previous announcements: "The AFD Cross-band Test is a unique opportunity to test two-way communications between military communicators and radio stations in the Amateur Radio Service, as authorized in 47 CFR 97.111. These tests provide opportunities and challenges for radio operators to demonstrate individual technical skills in a tightly controlled exercise scenario that does not impact any public or private communications."

Military stations in various locations will transmit on selected military frequencies and announce the specific ham band frequencies they are monitoring.

An AFD message will be transmitted utilizing the Military Standard (MIL-STD) serial PSK waveform (M110), followed by MIL-STD Wide Shift FSK (850 Hz RTTY), as described in MIL-STD 188-110A/B. The AFD message will also be sent in CW and RTTY. Full details will be released on April 1.

Russ Young, WA2VQV Reports:

DATE	UTC	MODE	BAND	FREQ	CALLSIGN	ENTITY	GRID	DIST	DIR
4/23/2022	2343Z	CW	12M	24891	TX5N	RAIVAVAE IS.-AUSTRALS OC-114	BG66ed	6364	WS
4/24/2022	1800Z	CW	12M	24892	OM3KFO	TOPOLCANY SLOVAK REPUBLIC	JN98bn	4420	NE
4/24/2022	2020Z	CW	15M	21020	II4WRTC	EMILIA-ROMAGNA , ITALY	JN54pk	4274	NE
4/24/2022	2036Z	CW	17M	18088	JW0X	SVALBARD	JQ78wo	3612	NNE
4/25/2022	1305Z	CW	12M	24894	II2WRTC	LOMBARDIA, ITALY	JN62ks	4400	NE
4/25/2022	1625Z	CW	12M	24895	HB0/HB9LCW	LIECHTENSTEIN	JN47sd	4115	NE
4/25/2022	2150Z	CW	20m	14008	LZ2HR	ILIA BLASKOVO,BULGARIA	KN33mf	4980	NE

Larry Puccio K2QDY Worked:

4/24/2022 22:31	14.007	CW	9A/UW1GZ	Croatia
4/24/2022 21:43	14.014	CW	LZ3AN	Bulgaria
4/24/2022 17:42	28.435	SSB	PP2DX	Brazil
4/24/2022 17:34	28.026	CW	4C2C	Mexico
4/24/2022 17:28	28.512	SSB	NP2J	US Virgin Is.
4/24/2022 17:17	28.430	SSB	XE3PGM	Mexico
4/24/2022 16:59	28.025	CW	KP4JRS	Puerto Rico
4/19/2022 23:58	7.017	CW	SP9GMI	Poland
4/19/2022 22:51	14.009	CW	YU6DX	Serbia
4/19/2022 22:39	14.042	CW	VY2XU	Canada
4/19/2022 22:20	14.033	CW	NP4AW	Puerto Rico
4/19/2022 22:13	14.017	CW	LZ1ZF	Bulgaria
4/19/2022 19:02	28.409	SSB	PT9SS	Brazil
4/19/2022 18:23	14.026	CW	PA50PKZ	Netherlands
4/18/2022 17:27	14.026	CW	EH4WRD	Spain
4/12/2022 18:21	28.455	SSB	CT2KNA	Portugal
4/9/2022 21:54	14.008	CW	HA7GN	Hungary
4/9/2022 21:51	14.020	CW	LZ2HR	Bulgaria
4/9/2022 21:48	14.029	CW	YT2ISM	Serbia
4/9/2022 17:22	14.016	CW	M0PKD	England
3/18/2022 17:16	28.026	CW	ZS1ANF	South Africa
3/17/2022 17:07	28.026	CW	IZ8JAI	Italy
3/17/2022 16:33	28.012	CW	ZS1ANF	South Africa
3/17/2022 16:21	28.015	CW	OT4A	Belgium
3/16/2022 22:03	14.008	CW	IS0ZOD	Sardinia
3/16/2022 21:48	14.014	CW	VK3CWB	Australia
3/11/2022 16:46	14.024	CW	IK0IXI	Italy
3/6/2022 18:14	14.207	SSB	OM5ZW	Slovak Republic
3/6/2022 18:12	14.203	SSB	OT7J	Belgium
3/6/2022 18:08	14.289	SSB	IO0A	Italy