



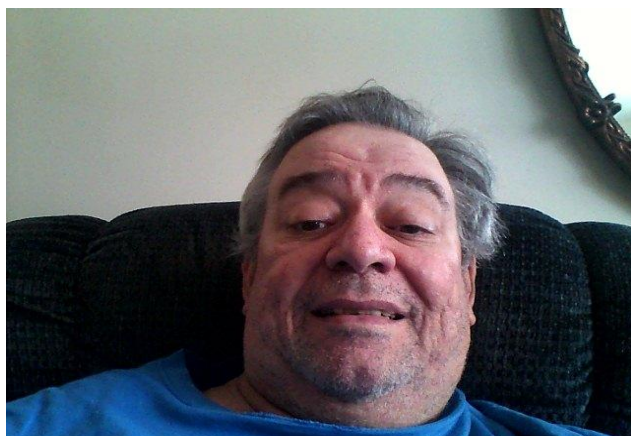
# YARC-MITTER

**PRESIDENTS  
CORNER**

**SEPT. 9TH. NEXT CLUB MEETING**

**SEPT. 2012**

**HAPPY LABOR DAY**



**WELL,SUMMER IS ALMOST GONE AND HERE COMES WINTER. I HOPE ITS JUST AS MILD AS LAST YEAR, WE CAN HOPE ANYWAY. WE HAVE A COUPLE OF BUILD ARTICLES IN THIS ISSUE, WHICH ANYONE CAN BUILD. ONE IS FOR KF2FK SPUD LAUNCHER, THE OTHER IS FOR A FAN CONTROLLER, TO TURN ON AND OFF A FAN AND A FIELD STRENGTH METER BOTH ARE EASY TO BUILD AND CAN COME IN HANDY. IF YOU HAVE QUESTIONS ABOUT THEM PLEASE LET ME KNOW. THE RETIRED GUYS AND GALS LUNCHEON IS STILL GOING STRONG AND GROWING IN ATTENDANCE, IF YOU HAVE THE TIME PLEASE JOIN US, EVERYONE IS WELCOME. HOPE TO SEE EVERYONE AT THE MEETING,SEPTEMBER 9TH,1030AM. ALL NETS RESUME SEPT.10TH.**

**73'S TO EVERYONE---JOHN---WB2AUL**

## SWAP MEET

**THE CLUB HAS FOR SALE 4—5 ELEMENT 2METER BEAMS, MADE BY MAXRAD. THESE ARE COMMERCIAL BEAMS AND HAVE NEVER BEEN USED. THE ASKING PRICE IS 50.00 EACH. FOR FURTHER INFORMATION CONTACT WB2Aul**



**JOIN RENEW THE ARRL THRU THE YARC, THE CLUB GETS \$2.00 FOR EVERY RENEWAL AND \$15.00 FOR EVERY NEW MEMBERSHIP FOR DETAILS CONTACT WB2AUL**



**NEED HELP, HELP STUDY ING FOR UP- GRADE . GET IN TOUCH JOHN, WB2AUL,HE MIGHT BE ABLE TO HELP YOU**

**STUDY AND PASS YOUR EXAM.**



## YARC NET SCHEDULE

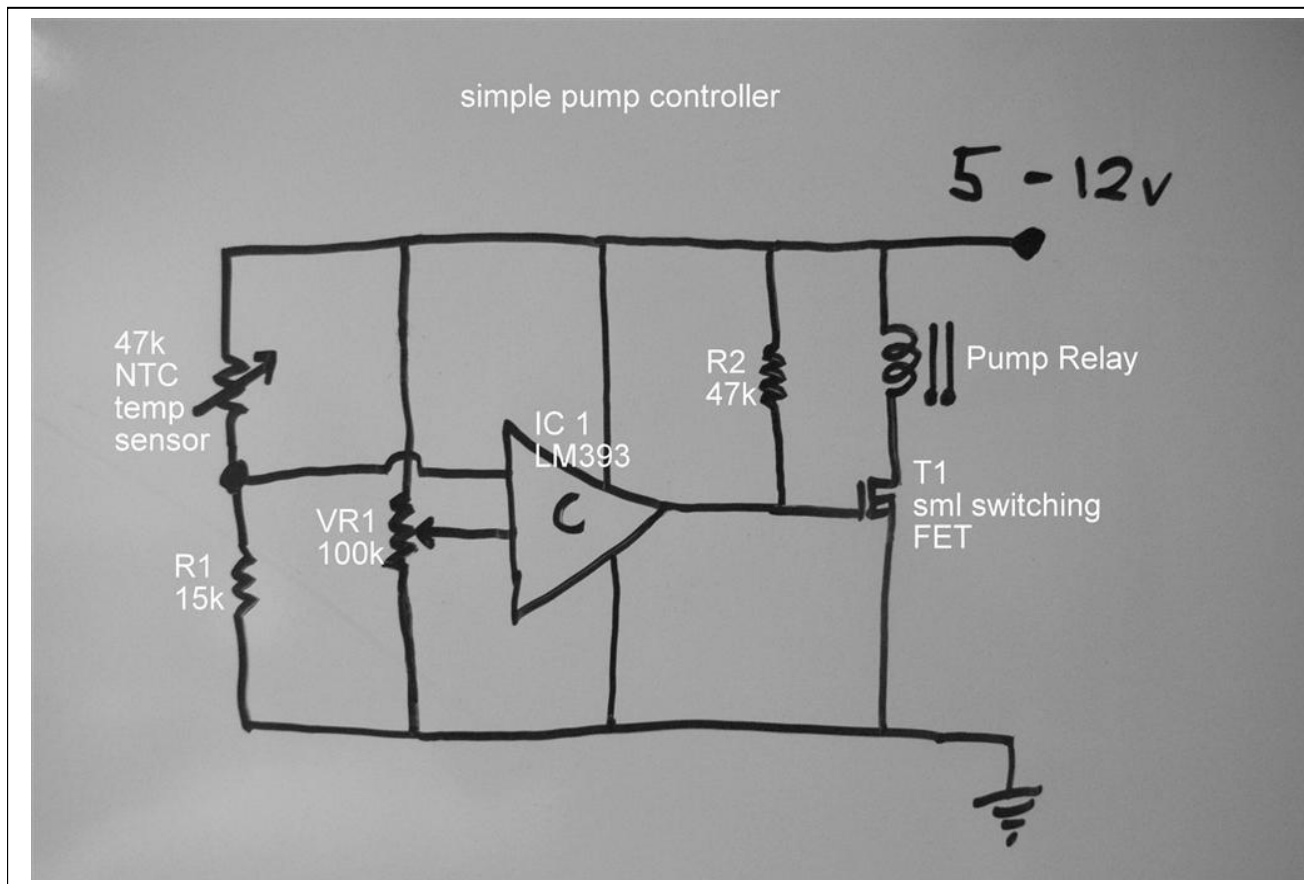
**MONDAY—730PM—INFORMATION NET\  
K2JJ MODERATOR—146.865—PL110.9**

**WEDNESDAY—800PM—TECHNICAL NET\  
WB2AUL MODERATOR---146.865—PL110.9**

**THURSDAY—800PM—JUNIOR OPS NET  
KF2FK MODERATOR—146.865—PL110.9**

**SUNDAY---700PM—10 METER NET—  
28.456MHZ—USB—WB2AUL MODERATOR**

## SIMPLE FAN CONTROLLER



**NEXT VE TESTING WILL BE HELD ON SEPT. 2ND., AT 830AM . PLEASE BRING TWO FORMS OF ID. ONE ID MUST BE A PICTURE ID. TESTING IS HELD AT THE 1ST PRECINCT ON EAST GRASSY SPRAIN ROAD IN YONKERS NY. FOR FURTHER INFO CONTACT AC2T AT 914-237-5589**



**SEPT. 2ND**

## **RETIRED GUYS/GALS LUNCHEON**

**THE NEXT MEETING OF THE RETIRED GUYS/GALS WILL BE HELD ON SEPT. 20TH THURSDAY AT MONT OLYMPOS RESTAURANT IN YONKERS. THE TIME IS 1200 PM NOON, YOU DO NOT HAVE TO BE RETIRED TO JOIN US, EVERYONE IS WELCOME ,MEMBER OR NON MEMBER ALIKE IS INVITED. FURTHER INFO CONTACT WB2AUL**

**914-969-6548**

## **KF2FK—MIKES AIR GUN,**

**IF YOU WERE AT FIELD DAY THIS YEAR YOU MAY HAVE NOTICED MIKES AIR GUN LAUNCHER FOR THE LONG WIRE ANTENNAS. IT WAS A SPUD GUN LAUNCHER WHICH HE AND HIS SON JOEY PUT TOGETHER TO SHOOT THE LONG WIRE ANTENNAS OVER THE TREE LIMBS, IT WORKED GREAT, THEY WERE ABLE TO GET THE ANTENNAS UP ABOUT 40 FEET IN THE AIR. DIRECTIONS FOR ASSEMBLY FOLLOW BELOW IN THE NEXT PAGE OF THE YARC-MITTER. MIKE REPORTS IT WAS RELATIVELY SIMPLE TO BUILD AND HE HAD FUN BUILDING AND TESTING IT WITH JOEY.**

## **ANY ARTICLES/PICTURES**

**ANY ARTICLES.PICTUES WILL BE WELCOMED TO BE PRINTED IN THE YARC-MITTER, JUST SEND THEM TO WB2AUL@YARC.ORG**

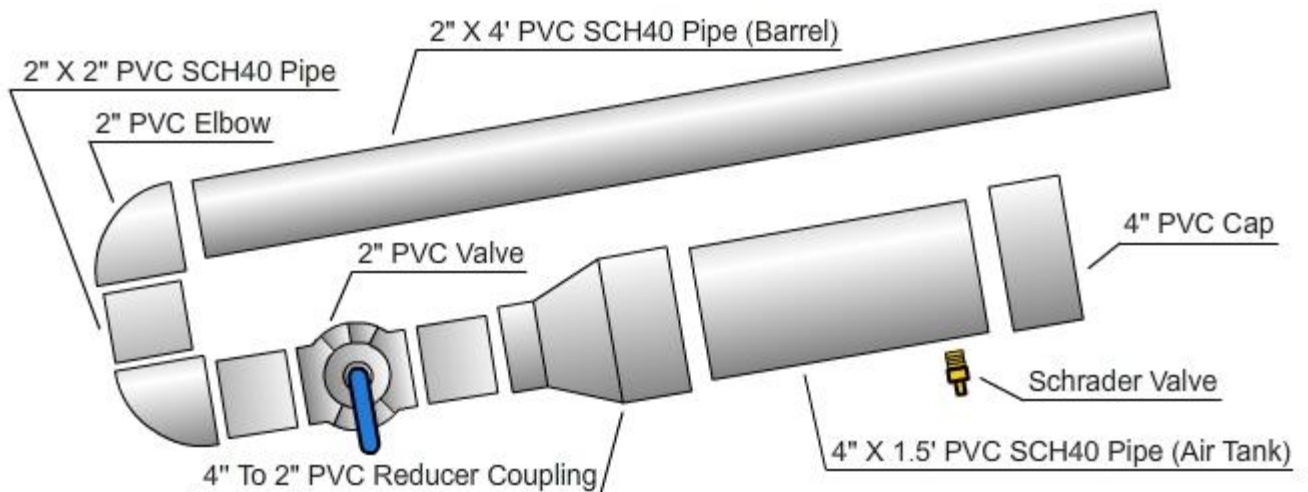
## **FOX HUNTERS**

**THE NEXT FOXHUNT , SEPTEMBER 23,2012, SUNDAY. TIBBETTS BROOK PARK,YONKERS NY, REGISTRATION 830 AM, FOX RELEASED AT 900 AM.**



# DIAGRAM/PARTS LIST SPUD GUN ANTENNA LAUNCHER

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## Materials Needed:

- 1) **2" X 4' PVC SCH40 Pipe (Barrel)**
- 2) **2" PVC Elbow x2**
- 3) **2" X 2" PVC SCH40 Pipe x3** 1) **PVC Primer And Cement**
- 4) **2" PVC Valve**
- 5) **4" To 2" PVC Reducer Coupling**
- 6) **4" X 1.5' PVC SCH40 Pipe (Air Tank)**
- 7) **Schrader Valve**
- 8) **4" PVC Cap**
- 9) **Teflon Tape**

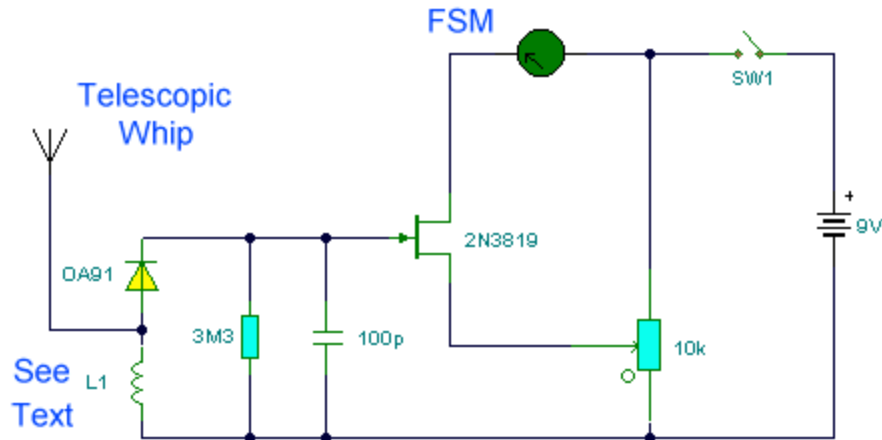
## Tools Needed:

- 10) **PVC Primer And Cement**
- 11) **Hack Saw**
- 12) **Wrench**

# FIELD STRENGTH METER

## Description

This is a wide band signal strength meter circuit which responds to small changes in RF energy, designed to be used for the VHF spectrum and will respond to AM or FM modulation or just a plain carrier wave.



## Notes

This circuit measures radio field strength by converting the signal to DC and amplifying it. This field strength meter was designed for VHF frequencies in the range 80 -110 MHz. The inductor L1 is 4 to 6 turns of 20swg wire air spaced wound on a quarter inch former or similar. Alternatively an inductor of value 0.15 - 0.35uH will suffice. Sensitivity is not as good as I would have liked, but a small 9 volt battery transmitter will deflect the meters needle from a distance of up to two feet from the FSM. Higher power transmitters give higher signal strength readings and of course from much further away. The meter used was a signal meter with FSD of 250uA. Lower FSD meters will offer greater sensitivity.

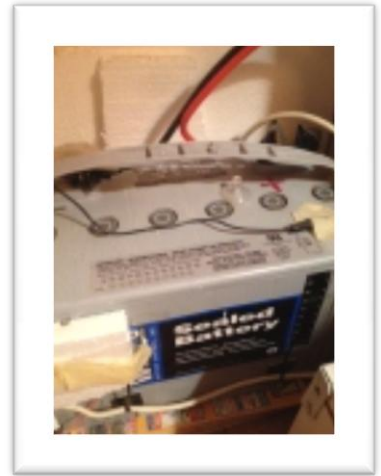
The FET used in this circuit is a general purpose 2N3819. A small telescopic whip antenna is used for signal pickup. The 10k preset resistor is used to adjust bias of the FET circuit; with no transmitter present the meter reading is zero, adjust preset if not. The RF signal, whether modulated or just a plain carrier, is rectified and converted to DC by the diode, capacitor and 3.3M resistor. This small DC voltage just enough to upset the bias of the circuit and hence cause a deflection of the meter.



**DISTRIBUTION CENTER**



**POWER MONITOR**



**SEALED BAT**



**CONNECTION**



**LOCATION KILL SWITCH**



**CONNECTION**



# **N2EHGS' POWER DISTRIBUTION STORY**

## **DC Power Distribution:**

**Most hams in the past may have had modest needs for DC power. Typically they may have a radio, connected directly to a small power supply. In recent years more gadgets have become available to hams, and so the power demands increased.**

**When I first started out all I had was a small low power radio and a small power supply, directly connected. Today, I am interested in EmCom, and powering a lot of devices besides just a low power rig. Twisting wires together at the back posts of a power supply is not good.**

**Lets look at a few things a modern ham may wish to enjoy today:**

**EmCOM: If you wish to have your station automatically and instantly switch over to battery backup, whats the best way to accomplish this? See photo. One device I use, certainly not the only way, but one i've enjoyed was the SuperPowerGate. It allows you to connect your load, battery, and pwr supply. It will automatically charge and float your batteries as well as manage switching from your power supply to the batteries if the main power fails.**

## **BackUP Power:**

**It may be a topic of another article, but if you wish to have batteries powering your station, sizing , charging them and keeping them at proper temp etc is something that must be engineered, at best a poorly designed battery system won't work or kill the batteries, at worst the batteries can**

**explode. Sizing your batteries or generator properly is important and is also a topic for another time, but suffice to say both as a ham and as a professional working in the field a large majority of times back up power is not designed /sized properly and I mean not even close.**

**See Photo , note in the photo with the battery, it may be hard to see, but the white styrofoam with the white wire is holding a temp sensor that goes into a temp controller, if the battery gets to hot or cold it will disconnect the battery , it adjusts charging according to temp, it will also alarm and email me problems. You will also note on the top a small black temp sensor which is a backup redundant saftey, and lastly in the front a cheap but effective glue on thermometer so i can see the temp directly. This is a 100amp battery and is used for my low power rig. At 1w on 2m, I can operate a really long time.**

#### **Easy Connectors:**

**Also worth mentioning is this device(RigRunner) uses Anderson PowerPoles, I won't get into the argument if those are good or bad, agin they are not the only connectors around but quite common, and used in EmCOM situations. In general I use them alot around the shack.**

#### **Accessories:**

**Hams today also have watt meters, keyers, LED-lights, mic preamps, amplified speakers, rig to pc adapters, antenna switch units, etc etc all of which use DC power 12v+.**

#### **Radios:**

**Many hams have more then one rig, perhaps a 2m and or 440 radio 20 to 50watts, drawing a fair amount of amps, as well as a HF rig, that can be easily 100watts and requiring a good 20amps or more.**

**So how do you power such a set up without requiring a rack full of supplies and a rats nest of wires? How do you distribute and protect that**



## **DC power?**

**One easy way is to use a product such as the RigRunner, MFJ also makes a similar unit, (see photos).**

**These photos of my Bronx shack, show a 100amp cable guide, and a 80amp rigrunner, along with a MFJ 40amp diso buss. It is mostly all Anderson powerpoles, and is all clearly marked on the cables. See photos, showing different styles of cable marking, printing on heat shrink, laser tabs, but you can also use a label maker . Try to avoid masking tape, it falls off and leaves gooey muck.**

**Also notice that zip lock bag tied to the cable, that is a bag of spare fuses, you don't want to fumble around for spares in the middle of an emergency or contact!**

**Most all wires are routed inside the cable conduit, the loose wires are for short term experimenting. What you don't see in the photos are dual stacked Analog Astron 75amp supplies . All wires are tied down, all Anderson connectors have plastic locks and strain relief .**

**The other side of my shack has a secondary position, mostly lower powered 2m, 220, 440,900mhz etc etc devices and meters, but as you can see I have a near duplicate power distro system, remember at DC you can't really have long runs of wires. This also affords me redundancy in case of a failure and in my case, I have so many device that demand DC power, that I ran out of plug space.**

**Having everything in front of the operating position, showing the DC power on a meter, fuses in front, and marked cables , battery and power status lights, make operating and trouble shooting a breeze!! IT also helps eliminates accidents, like crossed wires or overloading the main buss.**

**Hope you found this interesting and helpful, if you wanted to design a system like this perhaps more complex or more basic please feel free to email me and I'll be happy to help.**

**Disclaimer, I am not suggesting that the way I have my shack set up is ideal nor the way yours should be, it's just something that I found helpful and sharing it, in case anyone else can benefit. Also pay attention to your local town codes, using any significant type of UPS or battery backup might require FireDepartment notification, and emergency kill buttons. Run all AC/and DC wires according to your local laws.**

**73's= DAVE**

**REMEMBER ALL NETS RESUME SEPTEMBER  
10<sup>TH</sup>.**