





St. Louis Amateur Television Society

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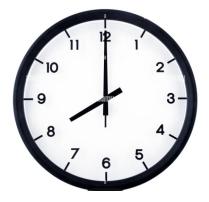
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NEW NET TIME

Wednesday Night Net

<u>8:00 p.m.</u>

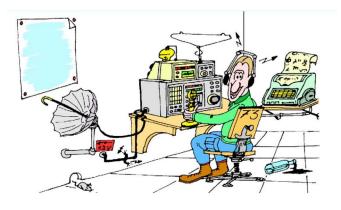
Using the ATV repeater and 2 meter 144.340 MHz



ON THE NEWS FRONT



NET CONTROLLER FOR MARCH



MEL KØPFX

FROM THE PRESIDENT'S DESK



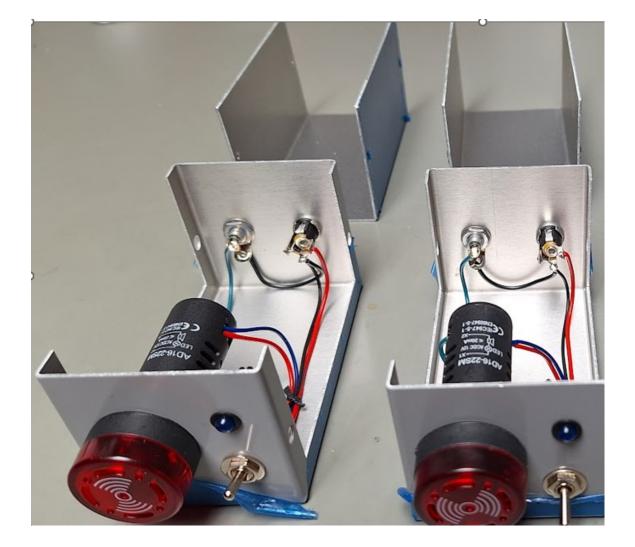
Noise Floor at the SLATS Repeater

Still looking for the cause of the interference into the input of the repeater. It is intermittent and finding the source has not been successful. However, I am pretty sure it is a "local" noise problem since I am unable see or detect it form my QTH only a few miles away. Earle says he has an antenna that we can use on my spec analyzer which might help us find the culprit. Here are a couple of shots of the repeater's receiver overlay showing the noise floor. You may check your local noise when the repeater is not in use. Just push the green button on the remote 2x and monitor the Signal Strength readings. The lower the "Signal Strength:" number is the better... the higher the "minus" number for Signal Strength dBm:" the better you'll be able to decode/receive. If you want to check the noise at the repeater, use the internet connection. If the overlay is not displayed then use the *TouchTone* command on .34 to turn it on. The noise level will change over time. So, watch it for a while. Note: if you can not "connect" to the repeater's receiver (i.e. VLC will not "play") then bring up the repeater for couple minutes, shut it down and try VLC again. Repeater receiver should then display the overlay or allow you to turn it on.

9	ò		° E			
				Transmission Mode:	8K	
	Transmission Mode:	8K		Frequency Offset:	0	
	Frequency Offset:			Signal Quality:	0	
	Signal Quality:				96	
	Signal Strength:			Signal Strength dBm:	-51	
	Signal Strength dBm:	-88		SNR:	0	
Î	SNR:		0	RSSI:	19	
	RSSI:					
This is the "normal" noise floor. The lowest (good!) I have recorded is -91dBm and strength of 3. Here is an example of very high noise floor and few users can work the repeater when it is the high Although it does not happen very often, it will at the worst times usually during the net_ @						

...On the bench this week

As you may be aware, I wrote an article on how to build a "Valid Signal Monitor Alarm" several years ago. The article is on our web site and may be found here: <u>https://slatsatn.net/valid-signal-alarm-project/</u> Recently, I found a bargain on 3 BUD boxes which were about the right size for the alarm. I spent a few hours on them this week and here is an "in process" picture. Next month, I will show them completed along with my new Epson label machine which should make them look "pretty good" for a home brew project. The "blue" plastic you see is a protective covering over the "painted" version of the BUD CU-2103-B. This covering allows you to use a Magic Marker to locate where the holes need to be drilled while protecting it from scratches during the build process. I found the "alarm module" level can vary in loudness. If too loud, then the alarm itself can be tamed down by removing the red cab and putting a



Father's Day gift for the shack.

Here is a picture of the sign my daughter gave me this year. It has three "brightness" settings. The picture was shot with it set on the lowest setting. The highest setting will light up the entire shack in a blue haze! It has a couple ways to mount it. On the wall or hang it from a chain which is what I did here. Not sure who made or sold it. But if your interested in one, I'll find out. It is approximately 16 in wide by 4 in high and comes with a 2amp supply with push button control switch. So far, I have not found it is spewing out any RFI!



"Digital" modes Wattmeter

A small and handy watt meter that claims to measure "digital" signals (giving DMR as an example) was found to measure DVB-T closer to what the actual RF "heating" power of our Class A amps. There are number of these watt meters on eBay, AliExpress, US Banggood and other sites with pricing varying accordingly. For measurement, they call it "Burst Sampling" looking at the leading edge for sampling. Good for 120 watts and frequency range of 80 to 999MHz which is FB for our 70cm ATV frequencies. It has a back light and will retain the readings for a while after making the measurement. That feature is nice. If you find it of interest, look up further description on AliExpress (~\$70). Here is a picture of it making a measurement of "10w average" power as measured on a Bird 43. Note the "PP" (peak power). At this moment in time it is 17+ watts. The "91" is the percentage of battery power remaining. The back light can be turned on/off extending the battery life. A common 5v "C" USB wall wart may be used for charging. It will measure analog AM/FM/CW signals as well.





CLICK HERE: https://www.teepublic.com/

SLATS CLUB TEE-SHIRTS



FRONT OF T-SHIRT



BACK OF T-SHIRT



HOODIE

St. Louis Amateur Television Society T-Shirt

Slats T-Shirt Designed and Sold by LEUART

SLATS is an enthusiastic group of ham radio operators in the St. Louis metro area. They broadcast in High Def TV across the area. Share the Fun!

Color: Asphalt



CLICK HERE: https://www.teepublic.com/t-shirt/58184022-st-louis-amateur-

SLATS

ITEMS FOR SALE OR GIVE AWAY

Marconi 6970 RF Power Meter

Sell an item Name Mel Whitten Call Sign KOPFX Phone (optional) +13147391108 Email slats@melwhitten.com Brief Description of item Marconi 6970 RF Power Meter Details, price, condition, etc. The 6970 RF Power Meter is a microcontroller controlled RF power meter that combines the high accuracy and fast, intuitive operation of a quality bench power meter with battery powered portability. The unit can be used to measure RF and

microwave power from -70 dBm (0.1 nW) to +44 dBm (25 W) over a wide range of frequencies using the IFR 6910, 6920 and 6930 series of power sensors. Equipped with (1) 6912 Sensor 30KHz – 4.2GHz and 6900 series Sensor Manual. In good working condition \$200 + shipping (NEW LOWER PRICE)



LINKS:

SOLAR UPDATE



The K7RA Solar Update (arrl.org)

SLATS REPEATER DVB-T WØATN

Technical Summary

Coordinates: 38.72126N -90.46454W, Grid Square: EM48sr What3Words

Elevation: 671 ft AMSL, 80 foot tower

Transmitter: 426.000 MHz Vertical polarization, DVB-T Modulation 16 QAM @ 4Mhz

Bandwidth, Video PID 641, Audio PID 642, HiDes HV100 with DCI BP Filter in output line. **Output Power:** 426.000 MHz: (DVB-T) 15 Watts

Receiver: HI Des HV110, 440.000 MHz, DVB-T, 4 MHz bandwidth, 16 QAM modulation

2meter Transceiver: 144.340 MHz for F1 audio input control of touch tones, ICOM-8000,

Diamond 3.5db vertical at approx. 45 ft.

Coordination: Missouri Repeater Council (MRC) 2016

Sponsor: SLATS – St. Louis Amateur Television Society

Popular off the shelf equipment for High Definition receiving and transmitting is available at the HiDes Company and on eBay

Ham Radio Quick Links:

<u>Amateur Television Network</u> <u>https://www.atn-tv.com/</u>

ATN Repeater video streaming https://www.atn-tv.com/events/streaming

> ATN on YouTube https://www.youtube.com/ AmateurTelevisionNetwork

ATN on Whereby.com https://whereby.com/atn1

TAPR - Tomorrow's Ham Radio

https://tapr.org

DIGITAL ATV

Digital Amateur Television D-ATV <u>https://www.dxzone.com/catalog/</u> Operating Modes/Digital ATV/

<u>YouTube Videos</u>

Dave Casler KEØOG - YouTube

Videos <u>https://www.youtube.com/</u> channel/UCaBtYooQdmNzq63eID8RaLQ

Solar Index & Propagation Made Easy

The SmokinApe

https://www.youtube.com/user/ TheSmokinApe