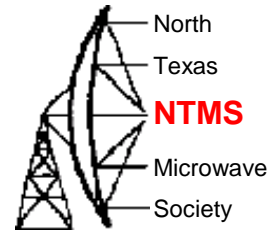
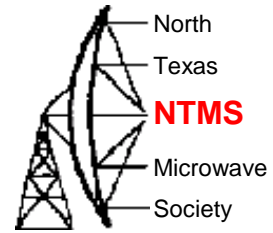


Welcome to The North Texas Microwave Society November 2nd, 2019



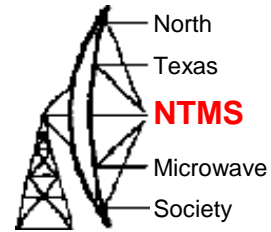
- Noon to 1PM – Bull & Swap Session
- 1PM - meeting Starts
- Introductions
- Technical Program
 - Brad Fuller WQ5S - 10 GHz Contest Report
 - Using Teamviewer for remote station operation
 - Scott Armstrong AA5AM – Universal Feed Mount for Offset Fed Dishes
 - Roger Dillon N5PGH – Using an FT-817 on FT-8
 - Bob Stricklin N5BRG - A Possible Microwave IC and Cheap Radio Telescope
 - General Discussion on dish feeds for 5/10/24 GHz
 - Other Contest Reports? Contest Discussion?
- NTMS Beacon Discussion
- Rig “show and tell” by members
- Microwave Update Conference
- Business Meeting

W5LUA ARRL Contest 2019



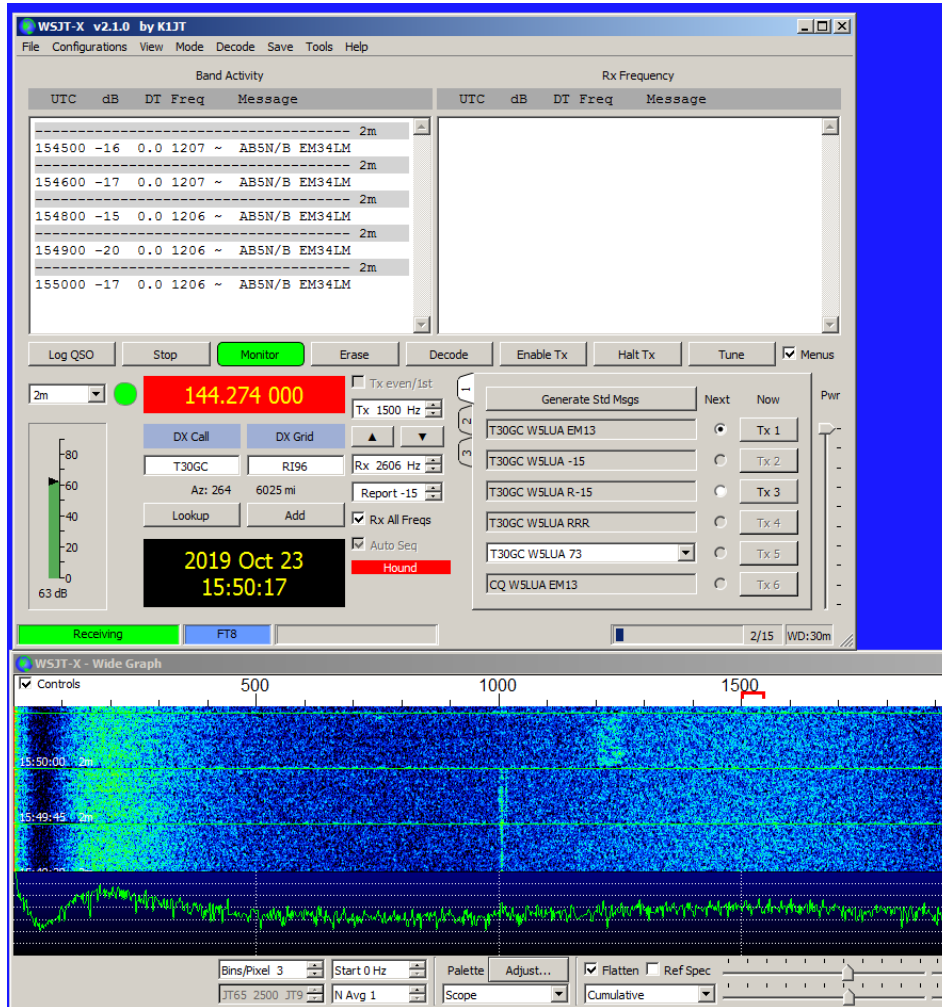
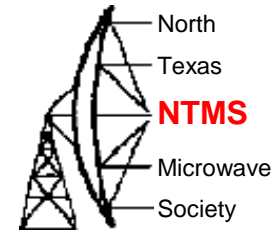
Band	QSOs	Unique Calls	Distance Points	Best DX (km)
10G	65	17	9462	619
24G	5	5	144	40
47G	3	3	72	24
75G	2	2	48	24
123G	0	0	0	0
134G	0	0	0	0
241G	0	0	0	0
Light	0	0	0	0

NTMS Beacon Discussion



North Texas Microwave Society area Beacon Status updated January 16, 2019								
Outside temp = 55F								
Please send updates to w5lua@sbcglobal.net								
Freq (MHz)	Call	Grid	Power Output	Antenna	Height above Ground	Status	GPS Locked ?	Keying
50.072.7	W5HN/B	EM13sj	.5 W	Halo	180 ft	ON THE AIR	NO	on/off
144.280.2	W5HN/B	EM13sj	1.5 W	Halo	180 ft	ON THE AIR	NO	on/off
222.060	AA5C/B	EM13se	8 W	Folded Dipole	53 ft	ON THE AIR	NO	on/off
432.370	N5PYK/B	DM93bm	50 W	Yagi towards DFW	70 ft	ON THE AIR	NO	on/off
432.380	W5HN/B	EM13kf	.8 W	Halo	280 ft	ON THE AIR	NO	on/off
903.050	W5HN/B	EM13kf	9 W	Alford Slot	280 ft	ON THE AIR	NO	on/off
1296.375	W5HN/B	EM13kf	3 W	Alford Slot	280 ft	ON THE AIR	NO	on/off
2304.366	W5HN/B	EM13kf	4 W	Alford Slot	280 ft	ON THE AIR	NO	FSK
3456.382.5	W5HN/B	EM13kf	250 mW	Alford Slot	280 ft	ON THE AIR	NO	FSK
5760.364	W5HN/B	EM13kf	158 mW	Alford Slot	280 ft	ON THE AIR	NO	FSK
10368.368	W5HN/B	EM13kf	2.5 W	Alford Slot	280 ft	ON THE AIR	NO	FSK
24192.308	AA5C/B	EM13sf	500 mW	16-slot WR42	75 ft	ON THE AIR	NO	on/off
47088.300	Under construction							

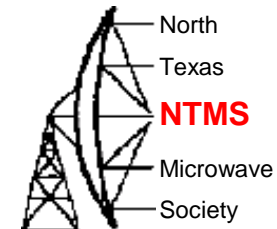
AB5N/B EM34In 144.275 MHz



3.5 watts solar powered
750 ft at West Mountain
Near Hot Springs, Ark.

IDs both CW and FT-8

Email from AB5N to AA5AM



Scott-

OK! Glad to answer these questions.

My beacon is 3.5 watts to the halo. It's is right around 700ft above 540 ft local elevation So around 1240' above MSL.

It is on our West Mountain...signal hill here in Hot Springs.

The great thing that has happened is the RFzero board from Europe. Google it. It is a signal generator, GPS timebase and runs arduino code. It generates signals up to 200 mhz. at about 200 mw out. It also has built-in proto area for the low-pass filter. The signal generator is totally unfiltered and RICH with all harmonics. Thus you can select a multiple of the set freq and filter for it- up to some really high frequencies. Then just amplify and filter again if you like. AND- it's cheap! The GPS allows the FT-8 to be in proper time sequence.

Bo, the maker- has written lots of basic programs for it already. I had him modify the beacon code for our US standards..."T"'s instead of a dead carrier. He is pushing FT-8 and another digital format for beacons. The modified code I'm using is available on his site.

I'm using 25 ft of LMR-400 and a 5W single device brick PA. It is co-located with my community FM station KUHSradio.org and my AllStar link. I've got 2500W of PV panels and 8 fork-lift batteries. Been running the station for 4 years un-interrupted on this. Everything is in the DC domain up there using buck-boost regulators. I feed 200mbs of ethernet up there on a Cambium 5.8ghz data link. Everything from the studio is on this link...as well as AllStar.

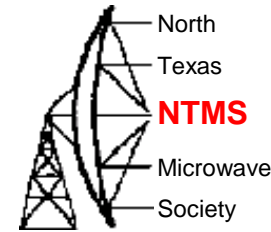
Since there is no real CW ramp timing on the RFzero device, I mentioned to BO that he might see if he can give us a 4ms rise-time on the CW to smooth out the key-clicks. He seemed receptive to the idea. If it can be done in code, he will do it.

He also makes a upscale beacon board with lots of bells and whistles. Take a look.

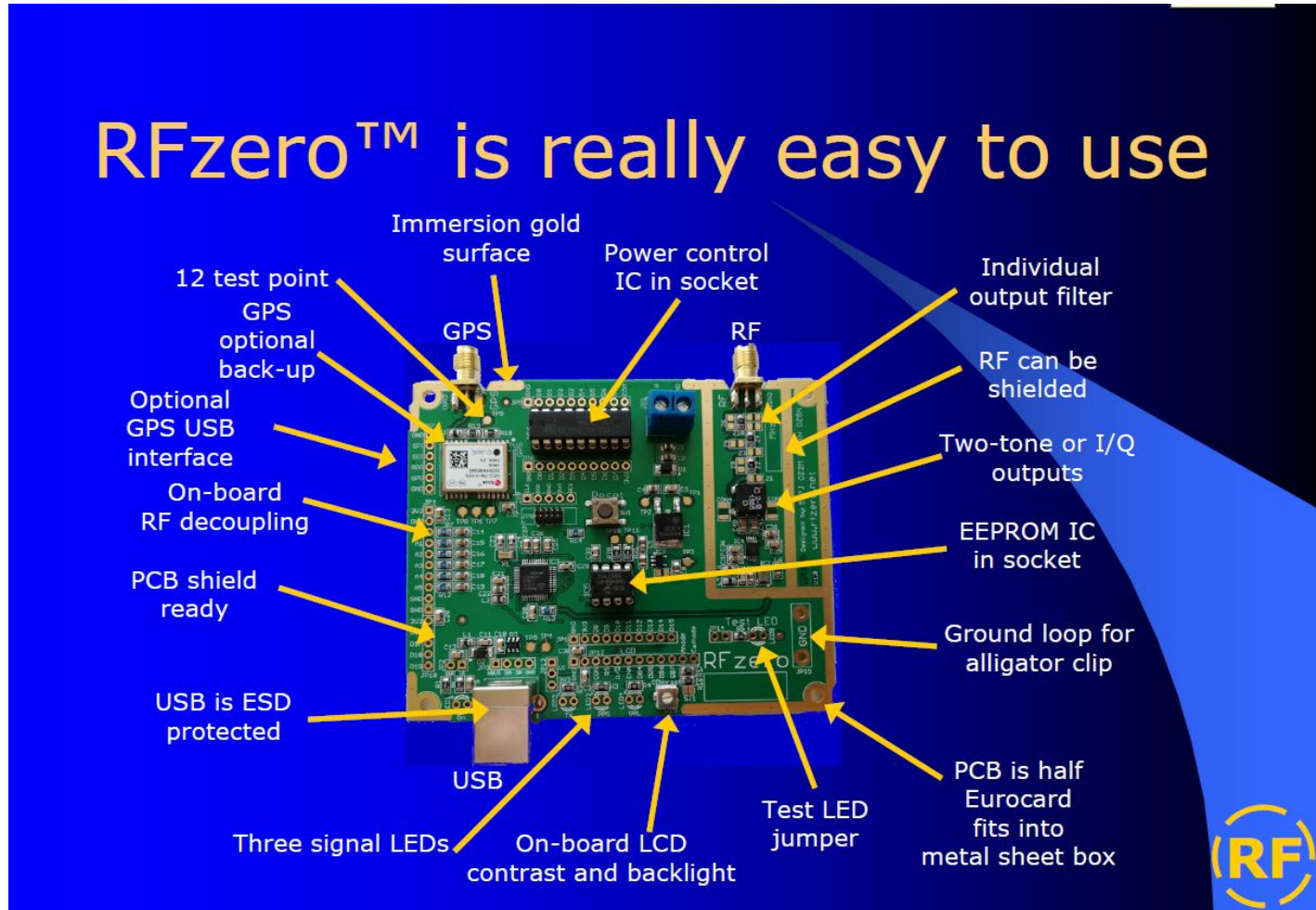
I'm getting reports from about 300 miles out on the FT-8. (with no enhancement)
My co-located AllStar link is running 90W ERP (0 ft higher) and I can't hear it over 35 miles on FM.

<https://www.rfzero.net/>

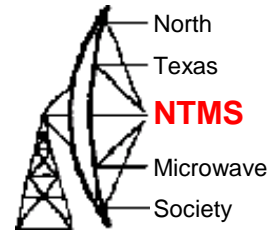
<https://www.rfzero.net/>



RFzero™ is really easy to use

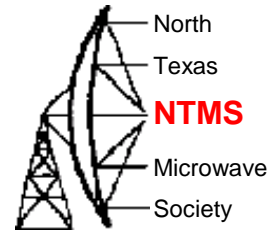


NTMS Weekly Gatherings on the Radio



- Sunday 8PM 144.260 MHz USB NET run by Ross K5ZSJ from the Carrollton area
- Monday 7:30PM 144.174 MHz FT-8
- Tuesday 7:30PM 222.174 MHz FT-8
- Wednesday 7:30PM 432.174 MHz FT-8
- Higher frequencies in the future

ARRL Spectrum Defense Fund





ARRL
The national association for
AMATEUR RADIO®

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Spectrum Defense Fund

Spectrum Defense Fund

Spectrum Defense Matters Newsletter

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Amateur Radio Direction Finding

Legislative Issues Advocacy Fund

The 2018 ARRL Spectrum Defense Fund



Protect Your Frequencies...

ARRL 2018 SPECTRUM DEFENSE FUND

Thanks to the support of ARRL members, ARRL has maintained constant vigilance and taken decisive action throughout the years, including:

- Defeating the threat that Little Leo satellites posed to the 2-meter and 70-cm bands;
- Removing high-powered international broadcasting stations from the heart of the

Learn to copy
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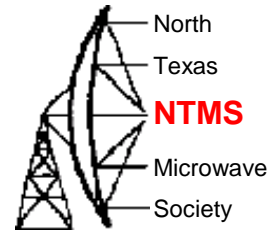


1M5B, 10-20 Meters...
\$499.95
small footprint... Big Signal!
Average 3.6 dB gain

Join ARRL

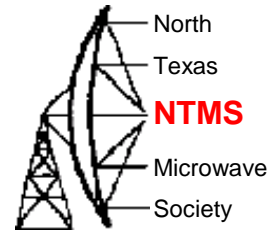
Donate Now
Help Support ARRL

Business Meeting



- Old Business ?
- New Business
 - Migrating from yahoo groups to groups.io
 - Upgrading beacons
- MUD Summary
- December Elections
- Adjourn

www.microwaveupdate.org



Microwave Update 2019

October 3-5, 2019, Dallas, Texas


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Microwave Update 2019 Dallas, Texas October 3-5, 2019



VK7MO EME Dishes

Microwave Update (MUD) is an international conference dedicated to microwave equipment design, construction, and operation. It is focused on, but not limited to, amateur radio on the microwave bands.

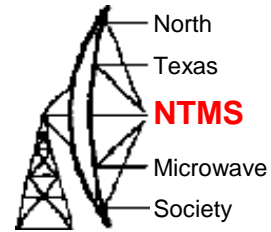
Welcome!

The North Texas Microwave Society would like to invite you to the annual Microwave Update Conference to be held October 3rd through the 5th 2019 at the Hilton Garden Inn and Conference Center in Lewisville (Dallas) Texas.

Microwave Update is the premier microwave conference of the year and was initially started by Don Hilliard W0PW (sk) back in 1985. This is the ideal conference to meet fellow microwave enthusiasts and share ideas and techniques that will help you conquer your next microwave band.

We have a full slate of speakers already set up including Rex Moncur VK7MO, Tony Emanuele K8ZR, Rick Fogle WA5TNY, Paul Wade W1GHZ, Joe Jurecka N5PYK, Doug Miller K6JEY, Greg McIntire AA5C, Steve Kostro N2CEI, Kent Britain WA5VJB, Bob Stricklin N5BRG, Barry Malowanchuk VE4MA, Tom Williams WA1MBA, Tom

MUD Committee



- Hotel Liaison - N5BRG & W5LUA
- Antenna Gain Measuring - WA5VJB
- Noise Figure - W5LUA & AD0CX (Keysight N9030B 50GHz PXA Signal Analyzer)
- Phase Noise Testing - AF8Z & KC4YOE (Rhode & Schwarz)
- Registration – WA5JAT, K5ZSJ
- Treasurer - WA5TKU
- Web Page - N5RIJ
- Proceedings - WA5VJB, W5LUA, N5BRG
- Digital Copies – N5BRG
- Audio/Visual – N5BRG, WY6K
- Photographer – W5RLG
- Prize Table – KC4YOE and others
- Publicity - Everyone
- Surplus Tours – WA5VJB & others?
- Family Program – Emily Ward, Bob & Al
- Transportation to/from DFW – N5BRG, WA5VJB and others
- Vendor Tables – W5LUA
- Hospitality Suites – Directive Systems and Down East Microwave
- MUD 2019 Shirts – KC4YOE & XYL Lesa KD5BOQ

Thanks to all that supported MUD 2019