

# **2019 VHF Super Conference**

**April 25-28, 2019**

*Joint Conference of*  
**The North East Weak Signal Group**  
**The Mt. Airy VHF Radio Club**  
**The Southeastern VHF Society**

**Hosted by the Grid Pirates Contest Group and Directive Systems and  
Engineering**

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## *Introduction*

- Welcome
- Conference Schedule
- Technical Presentations Schedule
- Contents of CD
  
- 2019 Super VHF Conference Committees
- Mt. Airy VHF Radio Club
- North East Weak Signal Group
- Southeast VHF Society
  
- Microwave Update 2019 Announcement

- Speaker and Author Biographies
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## ***Presentations***

### ***Antennas***

- The Quagi Revisited  
+ Powerpoint Slides  
by Ken Kent, KA2LIM
- Large Vertical Arrays for 6M Contesting  
by Marshall Williams, K5QE
- Feeding and Phasing LFA Antennas  
+ Powerpoint Slides  
by Al Rabassa, NW2M
- A Refresher on Antenna Properties  
by Jeff Kruth, WA3ZKR

### ***Contesting***

- Contest Automation 2020  
by Andrea Slack, K2EZ
- The Future of VHF/UHF/Microwave Contesting.  
by Tony Emanuele, K8ZR & Bill Koch, W2RMA
- Observations on FM Contesting. Preparing to win and lessons learned from losing.  
+ Powerpoint Slides  
by John Young, KM4KMU
- 2019 ARRL Contest Update  
+ Powerpoint Slides

by Bart Jahnke, W9JJ

- VHF Contesting in the Age of Digital Disruption  
+ Powerpoint Slides  
by Phil Miguez, WA3NUF

## *EME*

- Low Power, 144 MHz, EME Amateur Radio Station  
+ Powerpoint Slides  
and CALL3.TXT file for JT  
by Bill Keicher, KC1HTT
- EME: A Beginners Journey  
+ Powerpoint Slides  
by Harke Smits, PA0HRK
- EME misadventures of K4SQC and W4ZST  
+ Powerpoint Slides  
and Additional Photos  
by Bob Lear, W4ZST

## *Microwaves*

- Homebuilt 4,12 and 20 GHz Microwave Radiometers  
+ Powerpoint Slides  
by Norman Grody
- Rain Scatter, SHF and EHF  
by Tom Williams, WA1MBA
- 78 GHz Fun in the AZ Sun  
by Tony Emanuele, K8ZR
- 3D Printing Microwave Antennas  
+ Powerpoint Slides

by Glenn Robb, KS4VA

- From Hills to Home on 10 GHz  
+ Powerpoint Slides  
by Rene Barbeau, VE2UG  
10 GHz Videos and Photos
- Visualizing Microwaves  
+ Powerpoint Slides  
by Paul Wade, W1GHZ

## *Operating*

- MSK144, FT8, and Beyond  
by Joe Taylor, K1JT
- Another Look at Station Automation  
by Ray Golley, N3RG

## *Rover*

- Fifteen Rovers Large and Small  
by Wayne Overbeck, N6NB

## *Miscellaneous Technical*

- Optical communications  
by Dale Clement, AF1T
- Impedance Matching 101  
+ Powerpoint Slides  
by Ben Lowe, K4QF
- GPS Disciplined Oscillators for the VHF and up Ham  
+ Powerpoint Slides  
by Mike Cresap, W3IP

- **Grounding for Lightning Protection**  
*and*  
**Gold Embrittlement**  
**+ Additional Photos**  
by Glenn Little, WB4UIV
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## *Contributed Papers*

- **Waveguide Calculations**  
by Gerald Johnson, K0CQ
- **Using WR90 and WR62 together for 10 GHz**  
by Gerald Johnson, K0CQ
- **Trends in EME**  
by Rick Rosen, K1DS
- **AZ-EL rotor stand**  
by Rick Rosen, K1DS
- **K1DS-Homebrew Aluminum Angle Mini-Tower**  
by Rick Rosen, K1DS
- **TenTec 1208 6 meter Transverter Conversion to 28MHz IF**  
by Mike Downing, KC0Y
- **2m Weak Signal Sources**  
by Rick Campbell KK7B and Daniel Schaeffer
- **Simple New Analog-RF Weak-Signal Receivers**  
by Rick Campbell KK7B and Katlin Dahn KJ7DMF
- **Multiband Receive Converter**  
by Steve Kostro, N2CEI
- **From Spark to FT8**  
by Wayne Overbeck, N6NB

- **Using DC to DC Converters for Plus and Negative Power Supplies**  
Graham Stratford, VE3FHM
  - **432 MHz Transverter for an SDR**  
by Paul Wade, W1GHZ
  - **Modernizing Microwave Modules 432 MHz Transverter**  
by Paul Wade, W1GHZ
  - **Phase Noise Measurements of Some Synthesizers**  
by Paul Wade, W1GHZ
  - **23cm EME - Patch Feed Construction and Mounting Techniques**  
by Paul Andrews, W2HRO
  - **Dish Extension - 3m to 4m Parabola-Stress Hybrid**  
by Paul Andrews, W2HRO
  - **An Idea for a FT-817 Stable Local Oscillator for the Rover**  
by Bill Koch, W2RMA
  - **76 GHz Transverter Upgrade Using the New DB6NT MKU 76 G2 Transverter**  
by Al Ward, W5LUA
  - **Motorizing WR-10 & WR-15 Waveguide Switches**  
by Al Ward, W5LUA
  - **MDS and ERP test results from NEWS picnic 2018**
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## *Pictures*

- **NEWS Picnic 2018 Pictures**
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