



Saturdays: HF Operation Demo & Introduction: Join Carl (N2VQO) in the Radio Room for a demonstration and hands-on instruction of HF operation using the ICOM 7300. The session is geared towards Technicians upgrading to General Operations but is open to all interested in HF operation. Check the calendar to confirm Carl's availability.

Third Saturday of the Month 12pm: License Testing: It's easy to get started in Amateur Radio! A straightforward multiple-choice exam will test your basic understanding of the fundamentals of radio and FCC rules! Preregister with David Morrill. VE Coordinator Phone: 623-680-5011 cell or email: N7TWT@cox.net

Monday Jan 5 Noon: Working Satellites with Ham Radio: This class is for Hams (Technician class or higher) interested in working satellites for the first time. You will learn the basic principles of amateur radio satellite operation, how to select the appropriate equipment for a basic satellite station, and how to use resources with smart phone apps and online software to predict satellite passes. You'll also learn how to compensate for the Doppler effect on satellite signals, successfully receive signals and make contacts on FM satellites, and log and confirm satellite contacts.

SUNDAY Jan 11 Noon: Mastering FT-8 for DX & Awards: Learn how to use the weak-signal benefits of FT-8 to hunt hard-to-get DX stations. You'll also see how to effectively use GridTracker with FT-8 to achieve various QRZ and LoTW awards, like DXCC and WAS, plus see how GridTracker makes logging FT-8 contacts effortless. This new course will combine concepts from both Basic and Advanced FT-8, while focusing on hacks to add to your DX country count. Taught by Frank K7SD with over 100 QSL countries on FT-8.

Monday Jan 12 Noon: Portable Antenna Systems in the Field: Would you like a portable, compact and versatile antenna system for your EMMCOMM go-kit? Or maybe you enjoy POTA or SOTA? Or perhaps you would just like to know more about portable systems like the Buddipole. If so, a portable antenna system might be the antenna system for you! These high performing antennas can be mounted on a tripod, tabletop, balcony and more!

This class first explores Buddipole purchase options, parts and the multitude of add on options for what is truly the Swiss Army Knife of antennas. We will examine the antenna configurations possible with the Buddipole and similar antennas, including Vertical, Horizontal Dipole, Yagi, Vertical Dipole "L" and Vee. Some antenna theory relating to antenna configuration will help to understand the strength and weaknesses of these configurations. Once the best configuration for the field application is determined, a discussion will follow about final assembly, antenna tuning and radial configuration requirements. Some low-level discussion about antenna concepts such as SWR and resonance will round out the class with that perfect tune in its operational environment. This is a 3-hour class.

NEW!! Monday Jan 19 Noon: Making Contacts with Fusion & Wires X: Learn how to get the most out of your Yaesu Fusion Radio! We will learn the difference between Fusion, Wires X, and YSF. You'll learn how to use the C4FM mode on your Yaesu radio on a repeater or with a HotSpot.

NEW Jan 24 10am-4pm: HAM RADIO LIVE Event: You are invited to participate or simply observe a radio contest. WINTER FIELD DAY will give you a taste of radio contesting and the discipline involved in other contesting. Held outdoors, the preparedness exercise leading up to the the event is a study in being prepared for an emergency. This is a 6 hour event on Saturday Jan. 24 . Mark your calendar and drop by, or please let us know if you want to operate one of the two stations! Location will be Beardsley Park, Cabana #9 in Sun City West.



WVHS Events

RETURNING!! Jan 26 Noon: Raspberry Pi: The Raspberry Pi class is an introduction to the Pi. We cover general information and general uses for the Pi. Recommended components (hardware and software) are discussed. Some Ham-related applications are detailed. After the general coverage we set up a new RPi and install some software applications.

Monday Feb 2 Noon: Antenna Solutions for HOAs: A course focusing on small lot solutions for antennas for HOA-restricted situations. For HF, VHF/UHF, and Satellite antennas. Commercial and DIY solutions discussed.

Monday Feb 9 Noon: Introduction to DMR: Do you have a new DMR radio and you want to take advantage of all that extra capability? This class will help you get started on DMR Brandmeister. Although we will not cover specific radios, we can help you make sense of the radio you have. Or maybe you just want to see what DMR is all about and you haven't purchased a DMR radio yet!

NEW!! SUNDAY Feb 15 Noon: Winlink: Learn how you can use Winlink to send and receive emails including attachments using ham radio frequencies (UHF, VHF, or HF). It can function with or without internet and is particularly helpful during disasters when conventional communication lines fail.

NEW!! Feb 16 Noon: Workshop - NanoVNA Practical Testing: This class is a continuation of the NanoVNA-101 class lecture and is intended for those who have attended the NanoVNA-101 class or have experience with the NanoVNA. This is a practical hands-on class where participants will perform the following, using the NanoVNA:

- **Antennas:** Perform an antenna sweep and align to a specific frequency. Impedance, Resonant Frequency, SWR and return loss will be measured, documented and interpreted.
- **Coax:** Coax will be swept to determine length, impedance, Loss will be measured. Documented results will be evaluated for serviceability.
- **Baluns:** Perform a BALUN sweep to determine impedance and SWR. Documented results will be evaluated for serviceability.
- **Filter Sweep:** A bandpass filter will be swept to check alignment (Pass Frequency), Impedance, SWR, Insertion Loss and Out of Band Rejection. Documented results will be evaluated for filter performance.
- **Manual Tuner:** A manual tuner will be used to achieve resonance and low SWR on an external antenna. Impedance, Resonant Frequency, SWR and Return Loss will be measured, documented and interpreted.

Prerequisite – NanoVNA-101 or NanoVNA Proficiency. Class is 3 hours. Please bring your NanoVNA. Limit of 4 Students – sign up early!..(Observers welcome)

NEW!! SUNDAY Feb 22 Noon: How to Get Started in 3D Printing: Ever wanted to dive into 3D printing? Learn the essentials of 3D printing in this beginner-friendly course. Students explore how 3D printers work and how to prepare digital models for printing. This class will show you a printer and basic parts you need to complete a project. We'll talk about how to get started designing and printing your own projects!

NEW!! Monday Feb 23 Noon: Test and Measurement 101 - Multimeters & Voltmeters: Exploring the use of multimeters and voltmeters to measure various components and simple circuits, the group will measure continuity, resistance, voltage, and current. We also take a brief look at capacitors, diodes, and transistors. Along the way we will discuss math formulas (mainly related to Ohms Law) to help determine expected results of measurements. The math involves simple algebra concepts. Measurement exercises include measuring and calculating component values for series and parallel circuits and determining power requirements. Limit 5 Students.