North Star Radio Convention
Hosting the 2024 ARRL Minnesota State Convention

	Room 1 - Auditorium Left	Room 2 - Auditorium Right	Room 3 - H175	Room 4 - H195	Room 5 - H191	Lounge
9:00 - 10:00	**QRP Contesting and DXing** *ND0C - Randy Shirbroun* Address and dispel the myths of contesting at the five-watt level.	**Digital Fundamentals** *KE0VDC - Steve Horejsi* Explore the history of digital communication protocols in the amateur radio space. Hands on demo will show you how to configure the CAT command and audio/DAC aspect of various protocols.		**EMCOMM** *NY9D - Erik Westgard*	**Creating Circuit Boards for Mere Mortals (Non-Engineers)** *W5LNA - Kevin Welna* Learn how to use the free CAD program, Easy EDA, to design a printed circuit board that can be sent off to a PCB fabricator for manufacturing.	**CW Demonstration** *WA0MJD - Duane Wyatt* Hands-on session that will expose you to CW/Morse Code.
10:00 - 11:00	**Alternate Power for Amateur Radio with LiFePo4 Batteries** *W0DHZ - Dale Henninger* Explore the benefits and advantages of this new battery technology.			**CoCo 6 Meter Antenna Design** *K8OS - JB Anderson* Learn about the Coaxial-Collinear (Co-Co) antenna.		
11:00 - Noon	**ARRL Forum / Door Prize Drawing - Main Auditorium**					
Noon - 1:00	**Lunch - Cafeteria**					
1:00 - 2:00	**Map Resources for POTA Activators** *KD0OIX - Dwight Moore* How to use map resources to find accessible places to activate.	**Get on the Air with a Limited Budget** *WF0B - Bill Franzen* If you only had $100, how would you get on the air?	**EZNec Antenna Modeling and Analysis** *KE0VDC - Steve Horejsi* Learn about the free EZNec antenna modeling package and how to model almost any antenna.	**YJ0VK Vanatu DXpedition Report** *K0BBC - Matt Holden* Learn about the March 2024 adventure to the South Pacific Islands and the suitcase-sized activation.	**True Open Source Pi Asterisk Repeater Controller** *N0BYH - Tim Arimond* Learn about how the Twin City FM Club built their repeater controller on a Raspberry Pi.	**AMSAT / Youth Lounge**
2:00 - 3:00	**Getting Started with POTA** *W0DHZ - Dale Henninger* How to get started as a POTA hunter and activator.	**Amateur Satellite Communication** *K0JM - Mark Johns* Explore the different types of amateur radio satellites currently in orbit and what it takes to track them, hear them, and make contacts.	**Cheap 2 Meter Yagi Build** *KE0QXV - Paul Curtiss* Build an inexpensive 2 meter Yagi antenna. All parts included. Pre-registration required for parts kit. Open for others to observe.	**Intro to Logging and Contesting** *AE0EE - Bill Mitchell* Explore the basic operation of N1MM+ Logger, how to use the DX spotting cluster, and how to configure them for success.	**ARRL Awards and Field Checking Programs** *W0VTT - Mike Cizek* A look at the four ARRL operating awards: DXCC, VUCC, WAC, and WAS.	**Youth Lounge** **8:00 am - 4:00 pm** *KE0WPA - Kylee Shirbroun* Multiple youth-friendly activities including obtaining a license, learning morse code, digital operations, satellite operations, Summits on the Air, Parks On The Air, and Youth on the Air. Games, hands-on activities, and drawings for prizes from our sponsors.
3:00 - 4:00	**DXing with a Tech Ticket** *W0ZQ - Jon Platt* What is DXing and how can you maximize your HF privileges as a Technician to work DX.			**A Tour of Amateur Radio Digital Modes** *WG0A - Brent Petit* An overview of many amateur radio digital modes such as RTTY, AX.25, and VarAC.	**Contest Management - A Behind the Scenes Look** *AC0W - Bill Lippert* What happens after you submit your contest log? A behind the scenes look at contest management.	