



World Scout Jamboree Amateur Radio Exhibit Operational Vision

NA1WJ

NA1WJ is the amateur radio call sign for the 2019 World Scout Jamboree hosted by North America at the Summit Bechtel Scout Reserve

Goals

1

Introduce the science, technology, fun, and magic of amateur radio operation to Scouts and Scout leaders from around the world.

The goals of the amateur radio station at the World Scout Jamboree are to introduce amateur radio to Scouts and Scout Leaders through hands-on participation in two-way communication with other stations across the globe. This activity will also serve as the amateur radio voice of the Jamboree.

2

Serve as the amateur radio voice of the Jamboree via two-way radio contacts within the Summit and worldwide.

In addition, other aspects of amateur radio will be underway including: amateur radio direction finding or ARDF-Foxhunting finding hidden transmitters, contacts with amateur radio satellites, and hopefully a scheduled contact with an astronaut on board the International Space Station. We also expect to launch one or two balloons with amateur radio payloads and track them as they cross the Atlantic.

The operation will be staffed by licensed amateur radio operators who are registered Scouters from around the world.

NA1WJ Amateur Radio Operations Overview



Active Involvement with Technology

Demonstration Station

Provide amateur radio demonstrations that energize Scouts in communicating with others throughout the country and around the world. Use communication modes that resonate with Scouts such as digital modes that mimic their favorite mode of communication — texting.

- Provide simple, intuitive amateur radio transceivers that Scouts can directly operate with minimal guidance — setups where they will say “I can do this at home!”
- Standardize the demonstrations to present concepts and demonstrate operation.
- Optimize operational flexibility by standardizing around the same set-up for every station.

ARDF – Foxhunting

ARDF stands for Amateur Radio Direction Finding. Foxhunting refers to using ARDF to find hidden transmitters. This activity is ideal for the high adventure focus of the Summit. It gets Scouts on a trail using amateur radio and direction finding techniques, expanding their orienteering skills, and involving them in yet another aspect of amateur radio and technology.

- Provide introductory training on the use of standard, simple, ARDF equipment and antennas in finding hidden transmitters.
- Operate an ARDF course with successive levels of challenges that provide early success yet encourage the development of skills on more challenging tasks.
- Offer walk-up availability to the training and use of the course.



Science.
Technology.
Fun.
Magic.

Communicating Around the
World via Amateur Radio

Special Events

Schedule special events that will be of keen interest to the Scouts as well as local and national media. These should include:

- International Space Station Astronaut contact.
Application required in Fall 2018 to get on the schedule.
- Around the world balloon launch with tracking via amateur radio.
- Contacts via Low-Earth-Orbit amateur radio satellites as orbital paths/timing allows.
- Activation of low power (QRP) stations at Garden Ground to demonstration portable operation.

VHF-UHF Repeaters

VHF/UHF FM repeater operation fully covers the Jamboree area via hand-held transceivers. This facilitates networking as well as emergency communication.

- VHF FM 146.700 MHz
- UHF FM 444.025 MHz
- UHF D-Star 440.8125 MHz

The Science and
Technology of Amateur
Radio Extends Around
the World and Even into
Space





Detailed planning will take place as further operating parameters are defined

Equipment

Antennas, cables, headphones, and other amateur radio equipment donated to previous Jamborees are stored onsite at the Logistics Center.

VHF-UHF repeaters are installed and operating year-round.

Amateur radio transceivers, microphones, and power supplies have been provided on a loan basis by the current Boy Scouts of America amateur radio sponsor Icom America. This arrangement is expected for the 2019 World Jamboree.

Satellite tracking antennas were provided by a staff member at previous Jamborees. This or similar equipment will need to be secured for the World Scout Jamboree.

Tents, computers, tables, chairs, electrical connections and quite a bit more will need to be supplied by Scouting bill of material requests.

Facilities

The existing facilities at the Summit Center Gateway include three telephone poles for antennas, see the green area marked GW16a above. Previous national Jamborees have incorporated one 40' x 40' tent for the demonstration station (GW16), two 20' x 20' tents for Radio Merit Badge training (GW20/19), and one 20' x 20' tent for foxhunting, staff area, and technical support (GW21). The Radio Merit Badge tents will not be needed.

Electrical power and, if evening operation is contemplated, station lighting will be required. Flooring will be needed to minimize the potential for electrical shock hazard from rain and mud.

Staffing

All staff members, save for one or two administrative greeters, will need to be licensed amateur radio operators with extensive experience in amateur radio operation and particularly in demonstrating on-the-air operation to youth.

The 2017 National Jamboree was staffed by 40 full time positions. That number included 10 allocated to the Radio Merit Badge training. To meet the needs of a similar demonstration station operation, ARDF-Foxhunting, and special events, the operation will require 30 full time staff members.

Amateur Radio — lifelong hobby and gateway into many technical vocations

