



Amateur Radio Operations 2019 World Scout Jamboree

Version 8, June 2019

All changes from Version 7 are highlighted in red.

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Overview

This section provides the overall vision for the NA1WJ Amateur Radio Operation at the Summit in West Virginia for the 2019 World Scout Jamboree. The rest of this document goes into more detailed action planning.

History

Amateur radio has been a part of the World Scout Jamboree experience since 1947 in France and in 1957 in the United Kingdom. See more, including audio recordings at <http://jotajoti.info/historic-materials/>. The GB3SP operation was also where the concept of Jamboree on the Air, the largest annual Scouting event in the world, was born.

Here's the history of amateur radio stations at the World Scout Jamboree:

- 1947 – France: F9CQ/JAM
- 1957 – United Kingdom: GB3SP
- 1959 – Philippines: DU1PAR
- 1963 – Greece: SV1SV
- 1967 – USA: K7WSJ
- 1971 – Japan: 8J1WJ
- 1975 – Norway: LC1J
- 1983 – Canada: VE6WSJ
- 1987 – Australia: AX2SWJ
- 1991 – Korea: 6K17WJ
- 1995 – The Netherlands: PA6WSJ
- 1999 – Chile: XR3J
- 2003 – Thailand: E20AJ
- 2007 – United Kingdom: GB100J
- 2011 – Sweden: SJ22S
- 2015 – Japan: 8N23WSJ

You can find more on World Scout Jamboree amateur radio history at <http://jotajoti.info/library/world-scout-jamborees/>

The 2019 World Scout Jamboree operation at the Summit Bechtel Scout Reserve in West Virginia will take advantage of lessons learned by the K2BSA amateur radio operation during the 2013 and 2017 USA National Jamborees. It will also use the existing infrastructure including the three VHF/UHF repeaters installed by Icom America, as well as the telephone poles for installing antennas, plus the K2BSA gear stored in West Virginia, including antennas, rotators, cables, and more.

Statement of Purpose

- Introduce the science, technology, fun, and magic of amateur radio operation to Scouts and Scout leaders from around the world.
- 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 three balloons with amateur radio payloads and track them as they cross the Atlantic.

Jamboree Goals

Operate a demonstration station with a goal of introducing 3,000+ Scouts to amateur radio.

Provide an ARDF-Foxhunting course with expectations of over 100 teams completing the course.

Provide high visibility events for participants, such as a two-way contact with an astronaut on the International Space Station.

Make contacts worldwide with amateur radio and Scouting enthusiasts to allow them to participate at-a-distance in the Jamboree.

NA1WJ will also operate social media and website channels to engage a broad audience both within and outside Scouting.

Activities Overview

Now that we've established the purpose and goals, our next step is to establish key activities to support the achievement of the purpose and the fulfillment of the goals. Here's the broad range of activities that will be in operation during the Jamboree.

Demonstration Station

Provide amateur radio demonstrations that energize Scouts in communicating with others throughout North America and around the world. Use communication modes that resonate with Scouts such as PSK and FT8 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 in a tightly organized timeframe to maximize throughput.
- 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 to find 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.

SPECIAL NOTE: ARDF-Foxhunting is now a part of Living in the 21st Century — Exploring. Brian Coleman, KB0MAP, runs orienteering and geocaching. The amateur radio team will provide staffing to add ARDF-Foxhunting. Brian was already providing all the equipment for the foxhunting operation. The location will change. This was a decision by the Jamboree leadership to minimize the number of tents used in the Summit Center.

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. Our proposal to host a contact was approved by ARISS in early February 2019. Our equipment plan for a Radio Telebridge contact was accepted in March 2019. Day and time of contact won't be available until July 2019
- Around the world balloon launches with tracking via amateur radio.
- Contacts via Low-Earth-Orbit amateur radio satellites as orbital paths/timing allows.
- Evening operations from the NA1WJ station with at least two operators using the buddy system. This will allow contact via propagation paths not present in the daytime within the limited programme hours.

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. They are open to all licensed amateur radio operators in attendance at the Jamboree. Plus, via Echolink, D-Star, and DMR, access can be world-wide.

JOTA-JOTI Exhibit

The World Organization of the Scout Movement (WOSM) will be providing an exhibit that includes the JOTA-JOTI event. The exhibit will have an amateur radio station with the special event call sign W8J.

Demonstration Station

The NA1WJ demonstration station has a primary focus on introducing the fundamentals of amateur radio to the highest number of Scouts possible consistent with the goal of providing a quality experience within the overall operation of the Jamboree.

Our goals are ambitious – introduce amateur radio to 3,000+ youth over the course of eleven days. During that time there will be 81 hours of program time, see the later overview of operation hours, with an expected average of 40 demonstrations per hour.

Our thought is that the magic of amateur radio is reaching out and communicating over both short and long distances via radio. Further, that communication is optimally via voice and digital modes, with the latter in harmony with how so many of our Scouts communicate with each other, via text messaging. We will also be offering CW contacts using decoder displays provided by MFJ. FLDIGI can also be used to provide decoding.

Given this premise, along with the focus on hands-on demonstrations to 3,000 or more, our plan is to deliver a consistent, high-quality, demonstration with voice and digital modes at the core of the experience.

Approach for Youth/Jamboree participants

Make ham radio fun, using a number of methods of demonstration and learning, and provide it in a context that is relevant to the youth, while maintaining the heritage and history that made ham radio what it is today.

Station Overview

The Demonstration Station will be composed of multiple operating positions offering a variety of modes to the participants. These include:

- Six demonstration stations with 100-watt HF transceivers, computer logging software, and large screen computer displays. (IC-7300)
- Two VHF-UHF stations for demonstrations and repeater monitoring. (ID-5100)
- Two satellite communication systems for low orbit satellite communication in addition to VHF operations. (IC-9700)
- Networked computer logging and control. Frequent update of Logbook of the World and Club Log to confirm contact with other stations.
- Two HF directional antennas, 3 HF dipoles, 3 HF vertical antennas, VHF/UHF vertical antennas, VHF/UHF satellite antennas with azimuth and elevation control.
- Trailer based crank-up tower (Aluma Tower Company TM-51-35), guyed, and JK Navassa 5-band Yagi, 40-meter rotatable dipole, and 6 meter Yagi.

Each station will have the ability to host four participants at a time, plus one control operator (NA1WJ staff member / aka Guide). The goal is to give each participant about 8-10 minutes of operating time.

Operation Hours

The demonstration station will be open every available program hour. During those times, all the stations will be active providing demonstrations. We will also provide a nightly VHF/UHF net for all participants at the Jamboree and those checking in via Echolink from around the world.

 Proposed Schedule with Major Programmatic Elements					
Mon 22 July	Tue 23 July	Wed 24 July	Thurs 25 July	Fri 26 July	Sat 27 July
Arrival Day		Mt. Jack Campfire	Mt. Jack Campfire	Program Closed	Mt. Jack Campfire
Program Open 1p - 5p	Program Open 8a - 5p	Program Open 8a - 5p	Program Open 8a - 5p	Cultural Celebration Day	Program Open 8a - 5p
Welcome Event + Orientation in Base Camps	Opening Show (730p - 930p)	Base Camp Bash (F)	Base Camp Bash (A-B)	Unity Show (730p - 930p)	Base Camp Bash (C-D)
Sun 28 July	Mon 29 July	Tue 30 July	Wed 31 July	Thurs 1 Aug	Fri 2 Aug
	Mt. Jack Campfire	Mt. Jack Campfire	Mt. Jack Campfire	Mt. Jack Closed	Departure Day for NSOs
Program Open 10a - 5p	Program Open 8a - 5p	Program Open 8a - 5p	Program Open 8a - 5p	Program Open 8a - 3p	
Scout's Own Svc (830a - 930a)	Base Camp Bash (F)	Base Camp Bash (A-B)	Base Camp Bash (C-D)	Farewell Show (730p - 930p)	

Last Update: 7 Feb 2018

Total program hours of 81 across 11 days, see Appendix M for more detail. ISS contact will potentially shut down our program for roughly 4 hours. The expected average hourly visitor count for amateur radio demonstrations is 40/hour. Given this, the total possible number of demonstrations is 3,240 maximum or 3,080 with the loss of 4 hours for ISS contact.

Demonstration Flow

The general flow of the station will be standardized, and a script provided to each guide outlining points to cover while the participants are visiting the station. The outline is:

- Sign outside door that displays current operators and languages available.
- Name tags for operators with languages spoken.
- Registrars will greet all those who arrive, and break them into small groups of up to four each.

- Provide a laminated card introduction to amateur radio in their chosen language. This will be based on the standard script that the operators will use.
- Take them through the entry area, providing a brief history of amateur radio, and how it has changed and stayed current over the years. Visuals will be available.
- Provide them a short introduction to Morse code, and allow them to try it on a set of code practice oscillators with Morse sheets. Ask them to send each other's names. Outline that Morse Code (CW) is still an active part of amateur radio, but not a requirement for licensing as it was in the past.
- Stop briefly at each exhibit in the entry area, and give a brief explanation of what they see.

After passing the entry area, the participants will enter the demonstration area. Each station can accommodate four participants.

If needed, guide the group to an operator who speaks their language.

Operators while at the radio controls of each station will operate under the same basic guidelines:

- Give a brief description of the radio and modes available.
- Describe the correct procedures and topics for talking on the air.
- Allow each participant to use either voice, CW, or digital modes.
- Allow the participants to ask questions as they progress.
- Keep the time per participant to 8-10 minutes unless the participant queue is light (no one waiting).
- Log all QSOs, including participant, station call sign, control operator, time, date, mode.
- As much as possible, use JOTA/Scouting recommended frequencies. Work with the media team lead to publish operating frequencies in real time.
- Use all possible modes available as appropriate. These can include phone, PSK, RTTY, SSTV, FT8, CW, etc.
- The venue will likely be noisy. Use headphones or keep the station AF gain (volume) down as much as possible. Keep voice levels to normal talking volume.
- Adjust the microphone gain and ALC with each new participant and limit the use of compression.

Station Operation Specifics

For each specific station type, there will be variations to operating:

HF

- Keep the station on the assigned band unless a change is required to limit interference to the other stations. Confirm changes with shift supervisor before

they are made to ensure you don't blow out another transceiver that's already on the band.

- There will likely be pileups. Allow the participants rag-chew QSOs as much as possible. During demonstrations, talk time is to be emphasized over giving out QSOs.
- Discuss the general station conditions if asked (antennas, etc.).

VHF/UHF/D-STAR/Echolink

- These stations are mostly for repeater operation. Most QSOs will be with other staff or Jamboree participants, or via Echolink or D-STAR outside the Jamboree.
- These stations will be utilized during the nightly nets and during other times as needed by K2BSA staff if requested by Jamboree management. Adjust the demonstrations according to the shift supervisor.
- We've also established an Echolink conference node *JAMBO* node 832996 for use during the Jamboree and other Scouting events. Also available is the Echolink conference node *JOTA-365*.

Satellite Operation

- When ISS or other satellite windows present themselves, the VHF/UHF capable stations will be requested to cease normal demonstrations so they can accommodate these passes.
- These times are well known and will be posted. If there are questions, see the shift supervisor.
- The ISS Contact will be a scheduled event with public address audio provided so the maximum number of people can hear.
- A form of selection process (drawing, etc., to be determined) will be used for those Scouts who will be able to participate in these contacts.
- A discussion prior to and after the window will be offered to explain how these contacts work and how they are different than the ones conducted inside the venue (doppler-effect, apogee/perigee, pass prediction, why the antenna moves the entire time of the contact, etc.).

Demonstration Station Setup

- Each station will have five sets of headphones connected to a Behringer HA-400 splitter so that Scouts can listen without audio interference between stations.
- One 16 or 32 GB SDHC Card per Icom 7300 radio can be used in its front slot to store the settings configuration for that radio to allow it to be restored quickly back to a standard baseline each morning.
- One Nifty Accessories mini-manual will be provided that covers that particular radio's operation. This will make it easier for operators to get up to speed and query little used configuration changes.

Demonstration Station Layout

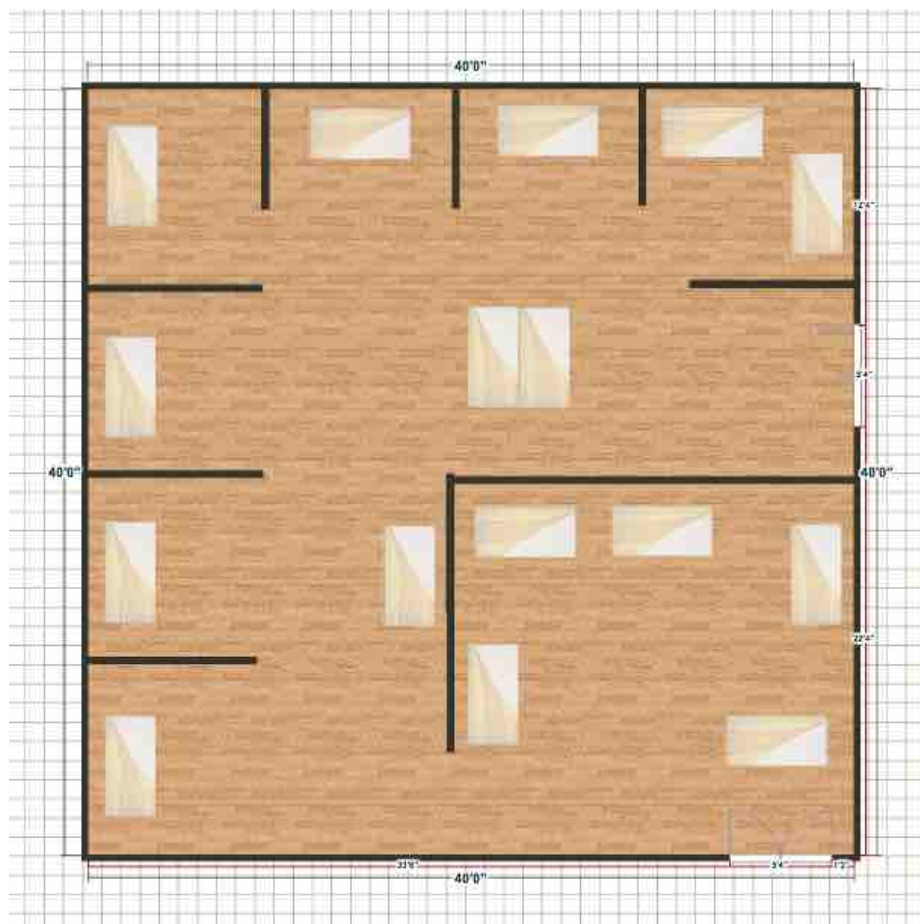
The Demonstration Station will be housed in a 40' x 40' tent. An overall layout of the full NA1WJ site can be seen in the appendices.

The floor plan shown below is a starting point for further planning and discussion. The entry point is in the lower right hand corner, exit at the right hand side.

Greeters/Registrars will be at the front door. Exhibits and displays will be in that larger area. The stations then form along the outside walls.

Please note that this is a general layout diagram with detail to be added later. Note too that the partitions shown around the entrance area will probably not be used to allow a full view of the station from the front door — enticing Scouts to enter and check it all out.

Note that one corner of the station will be shielded off using partitions to allow a staff area for daypack storage, phone and HT charging, etc.



ARDF --- Foxhunting

SPECIAL NOTE: ARDF-Foxhunting is now a part of Living in the 21st Century — Exploring. Brian Coleman, KB0MAP, runs orienteering and geocaching. The amateur radio team will provide staffing to add ARDF-Foxhunting. Brian was already providing all the equipment for the foxhunting operation. The location will change. This was a decision by the Jamboree leadership to minimize the number of tents used in the Summit Center.

The goal of the hidden transmitter hunt will be to offer the Scouts an introduction to Amateur Radio Direction Finding. It will be conducted like a practice or training session and will be very informal following the spirit of IARU ARDF competitions and rules.

Draft Rules

As in IARU rules five transmitters will be used. They will be positioned no closer than 400 meters apart, none nearer the start than about 750 meters. Teams will be encouraged to find at least 2 transmitters (controls). Finding more will be at their option and available time. The team name, time out, and time returning will be recorded. Time on the course will be limited to 60 minutes per team.

Teams will consist of at least two Scouts and not more than a patrol (8). Teams can be made up of both Leaders and Scouts.

Teams will start the course at no less than 5-minute intervals. This prevents a "follow the leader" problem. No more than 5 teams will be on the course at any given time. This is a resource limitation (receivers, antennas).

Foxes may be found in any order. We may consider starting each group toward a specific control also to prevent the "follow the leader" problem. Teams will punch their control card at each transmitter to authenticate the find.

A prominent orange and white prism (orienteering flag) is located close to each transmitter for visual identification. This is where the registration device (control punch) is located. A homing fox at the finish line transmits continuously on a separate frequency to aid competitors who might get lost.

Transmitters will transmit once every 5 minutes automatically transmitting one after another (never at the same time) on the same frequency for exactly one minute each.

This approach is subject to modification from Mike Cullen, K1NPT, and his ARDF team.

Equipment

Bryan Coleman, KB0MAP, who will be running the WSJ orienteering activities, has agreed to provide the following equipment that will completely support our operation.

- 15 — FoxOring 80 m transmitters. They are 2 x 3 x 1 black boxes with two wire antenna leads, a switch and a 9 volt battery that can be easily changed. They can be easily mounted by their Velcro attachments to a plastic "electric fence" post that go

into the ground with a push of your foot. They are numbered, like orienteering controls and we have a Summit Center specific map, if you want to set up a FoxOring course.

- 8 — R3500 Chinese 80 m receivers
- 2m transmitters with longer cycle 2 m batteries and turnstile antennas made from the Homing In website. *Need to verify quantity.
- 8 — 2 m Blue Box units. (see http://www.foxhunt.com.au/2m_sniffer/manual.htm for more info)
- 6 — Byonics transmitter units and enough materials to make 10-12 2 m Yagis as well.

Brian will also be providing orienteering quality maps of the Summit Center for our use. We will also have stand by Byonics transmitters if needed.

An ARDF Youth Training Group has been established and publishing training materials for instructors at <http://openardf.org/index.php/teaching-ardf-101/>

International Space Station

Our proposal to host an ISS contact was approved by ARISS in early February 2019. Our equipment plan for a Radio Telebridge contact was accepted in March 2019. Day and time of contact won't be available until July 2019.

We will initially plan to host the contact at the NA1WJ operations tent but will look for better locations for maximizing the audience and their perspective on the contact. Jamboree leadership has directed that the search for an improved location cannot take place until we have the day and time of the contact confirmed.

The Tillerson Leadership Center's Lecture Hall has been identified as a possible location for hosting the contact. It is being used as a Television Studio by the Communications/Media Programme and can be allocated to this use. A dedication ceremony for the building is planned for July 27, which would have priority.

Ten (10) Scouts will be selected at the Jamboree for the contact. They will need to be selected to represent a cross section of the Jamboree participants, including gender and nationality. The selected Scouts will use a list of preselected questions to ask the ISS astronaut. They won't be able to develop their own questions as the full list of questions must be provided to ARISS well in advance of the start of the Jamboree.

Twenty questions **have been** developed through an online submission process gathering the best questions and supporting promotion of our activation at the Jamboree. Scouts will need to register at the station when they arrive at the Jamboree, ideally through a demonstration. They will then be selected for the contact about 2 days before it is scheduled. At that point, permission forms will need to be completed for each Scout.

Note that an International Space Station Educational Video Downlink with an Astronaut has been scheduled for 24 July at 1 PM to 3:20 PM Eastern. Details and location are unknown at this time. April McMillan with BSA is coordinating this activity.

WV8BSA VHF-UHF Repeaters

Prior to the 2013 National Scout Jamboree, Icom America installed three repeater systems that remain in place to support Summit operations year-round as well as supporting the local community. The repeaters are co-located with the commercial two-way system and a cell phone system at the Rock Borrow site on The Summit property.

The repeaters have an Internet connection for control purposes and to facilitate EchoLink and D-Star communication around the world. This will allow Scouts and amateur radio operators anywhere in the world to log on to the repeater via the Internet and communicate with Scouts at the Jamboree. It will also allow amateur radio operators at the Jamboree to communicate via the repeater to their home repeaters.

In addition, the Summit Repeater Association has been formed by local amateur radio operators to assist with maintenance. This association has further secured the club call sign of WV8BSA for the repeaters. This is a very nice touch for this permanent installation on the Summit.

The repeaters will also be used to facilitate emergency communication where and when needed.

The frequencies and access tones are shown in the nearby table.

Repeater	Input Frequency	Output Frequency	Tone
2 m Analog	146.100 MHz	146.700 MHz	123.0 Hz
70 cm Analog	449.025 MHz	444.025 MHz	123.0 Hz
70 cm D-Star	446.8125 MHz	441.8125 MHz	Not applicable

There is also a DMR repeater onsite at the same facility. 441.875 MHz (+) cc1 as well as one off-site that has coverage within the Summit property. See the appendix for more information on D-STAR, Echolink, and DMR.

Media Staff

Bill Stearns, NE4RD, is our media maven. He will publicize the NA1WJ Operation on social media channels, news media, websites, and other available outlets. He will take photos and videos to record the activities and to be used in publicity. Media outreach will include Jamboree media as well as amateur radio, local, national, and world-wide media.

Facilities

To accomplish the goals and activities listed above, the K2BSA location will require one 40' x 40' along with substantial traffic-free areas for antennas. The tent will require walls, stable flooring (ideally plywood secured on planking or some other method to get the floors above ground level), waterproof wiring, Internet connections, grounding systems (electrical and RF), and computer networking. A diagram of the site layout is shown in Appendix A with detailed description of the facilities.

Staff

Staffing is limited to 40 full-time positions. Nearly all will be licensed radio amateurs with substantial involvement in Scouting and, in particular, experience with Radio Scouting activities such as Jamboree on the Air. A key selection criterion will be the ability to work with youth. Front desk staff and to some extent ARDF staff do not necessarily require licenses.

Staff members will be needed to build and set up the station as well as take down the station at the end of the Jamboree.

Here is our current estimate for staff members and their assignments.

Staff Position	Number
Demonstration Station Team Lead and Staff	25
Technical Support Team Lead and Staff	4 shared with Demo Team
ARDF – Foxhunting Team Lead and Staff	5
Registrars/Greeters	4
Quartermaster / QSL Manager	1
Media Staff	1
NA1WJ Lead	1

The Quartermaster will also have the QSL card responsibilities, including fulfilling requests after the Jamboree.

Here's the current International Service Team schedule:

- 18 July 2019 – Official IST arrival
- 19 July 2019 – Meet Area/Team Leads and position training
- 20 July 2019 – Position training and site set-up
- 21 July 2019 – Position training and site set-up
- 22 July 2019 – All Contingents arrive

We have also requested the following arrivals:

- 16 July — 2 key leaders (Jim Wilson and Mike Crownover).

- 17 July — 7 set up team (Tobias Senti, Bill Stearns, Donald Sonnefeld, Rick Smith, Bill Bode, Mike Cullen, Mike Sprenger).

There will also be other staff training requirements. This will be added when the information becomes available.

Organization Charts

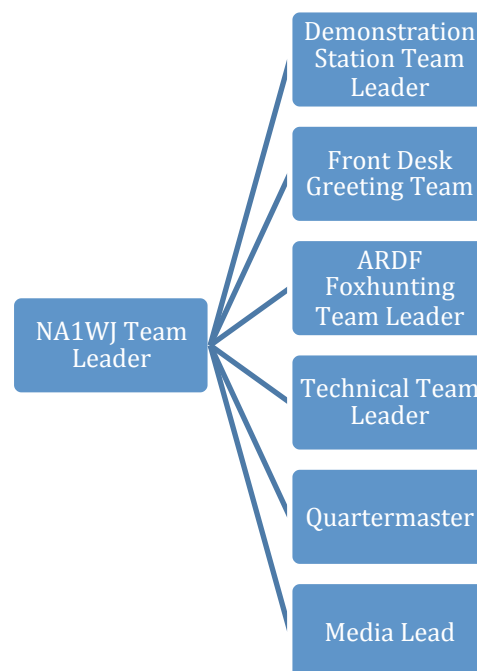
It helps to have some overall context for the World Jamboree and where amateur radio fits within that structure.

Centro Mondial is the overall top-level structure for our area. Its purpose is to expose participants to concepts and activities that help them unlock a new world. That structure looks like this:

- **Foundations, Faith, and Spirituality:** understanding how faith deepens and strengthens each life
- **The North American Dream:** understanding how the combination of character, values, and resources led to the juggernaut that is North America; plus Brownsea Island.
- **Living in the 21st Century:** looking at 5 key topics relevant to global citizens in 2025 through the lenses of jobs, hobbies, STEM, conservation, sustainability, ethics, and inclusion: transportation, food, **communications and media**, exploration, and the knowledgeable workforce; plus the Sustainability Treehouse

Within Communications & Media is the amateur radio operation.

Here's the amateur radio structure:



You can find detailed position descriptions in the appendices.

Donald Sonnefeld is also the QSL Manager who will take the logs and fulfill requests for QSL cards after the Jamboree.

Here are the team leads and their assistants:

Demonstration Station Team Lead — Remko Welling, PE1MEW, has fulfilled this role at many world Scouting events and is superbly situated to bring a world Scouting perspective to our operation.

Assistant Demonstration Station Leads — Gary Wilson, K2GW, and Bill Bode, N4WEB, both served on the 2017 USA Jamboree operation, and Bill also at the 2013 USA Jamboree. Both are very familiar with the Summit and previous amateur radio operations there.

Front Desk Greeting Team Leaders — Ilene Arends served in this area at the 2017 USA Jamboree and provided several innovative options for our operation.

ARDF Foxhunting Team Leader — Mike Cullen, K1NPT, has conducted numerous radio Scouting events in Rhode Island, including multiple ARISS contacts.

Assistant ARDF Foxhunting Team Leader — Stein Ankarstrand, LA4MIA, has competed at the national level in ARDF using 80 meters. This experience will be very valuable for our operation.

Technical Team Leader — Mike Crownover, AD5A, served at the 2017 USA Jamboree and has built a number of contest stations. He will bring both technical leadership and a rigorous approach to operations.

Quartermaster — Donald Sonnefeld, KD2FIL, based on his work as the Secretary of the K2BSA Amateur Radio Association in documenting inventory. This position, of course, will be full time at the set up and tear down. The rest of the time it will be involved with station demonstrations. He will also serve as the QSL manager.

Media Lead — Bill Stearns, NE4RD, held this position for the 2017 USA Jamboree and works throughout the year with amateur radio media.

Here's the current staff list and planned assignments:

Name	Call Sign	Primary Assignment
Jim Wilson	K5ND	Whatever
Rick Smith	N6GSE	Technical Team
Sjaak (Willem) Van Dam	PA3GVR/W4RIS	Technical Team
Robert Elsinga	PC5E	Technical Team
Mike Crownover	AD5A	Tech Team Leader
Donald Sonnefeld	KD2FIL	Quartermaster/QSL Manager
Bill Stearns	NE4RD	Media Lead
Ilene Arends	TBD	Front Desk Team Leader
Tobias Senti	N/A	Front Desk
Elinor Sparrow	N/A	Front Desk
Suraj Khanal	N/A	Front Desk
Remko Welling	PE1MEW	Demo Team Leader

Gary Wilson	K2GW	Demo Station Assistant Leader
Bill Bode	N4WEB	Demo Station Assistant Leader
Alejandro Candia	CE3JVS	Demo Station
Isabel Carreño	CE3TLE	Demo Station
Scott Hooper	HB9EAR/KTOP	Demo Station
Demi Pulas	K4BSA	Demo Station
Hannu Ratto, Banda	OH7GIG	Demo Station
Axel Limbosch	PE1NLM	Demo Station
Jeroen Limbosch	PE1PDI	Demo Station
Mike Sprenger	W4UOO	Demo Station
Kevin Ong	9M2KEV/N2KEV	Demo Station
Flavia Mendonca	PU2AMF	Demo Station -- Will not attend
Andy Dunn	VE3XAD	Demo Station
Juliane Dunn	VA3JBD	Demo Station
Tatsuo Mochiki	JH1FEL	Demo Station
Ichiro Tanemura	JG2GFX	Demo Station
Moriya Kajiki	JE3PPG/AI6VE	Demo Station
Michael Cullen	K1NPT	ARDF Team Leader
Robert Ellis	VK5LBE	ARDF
Stein Ankarstrand	LA4MIA	ARDF Assistant Team Leader
Kaize Hong (Jerry)	BU2DE	ARDF
Frank Hohman	DL5FCV	ARDF
Charles Gardner	<u>Z21LW</u>	<u>Demo Station</u>

Here's the listing of volunteers for 17-July arrival and work on station set up:

- Tobias Senti
- Bill Stearns
- Donald Sonnefeld
- Rick Smith
- Bill Bode
- Mike Cullen
- Mike Sprenger

Recruiting for staff has been closed. We've established a web page listing staff at <https://k2bsa.net/world-jamboree-staff-members/>

Radio Scouter WSJ Team

This team will be informally composed of all licensed amateur radio operators at the World Jamboree. They will be expected to have HTs with them that can tune the repeaters. They will be used to provide the other side of our demonstration QSOs in case propagation

doesn't allow outside contacts. We also hope to organize local West Virginia amateur radio operators to provide the same support to the operation. Of course, our Echolink and D-Star connections will also help.

We are also working with Icom America on a promotion campaign that will generate interest in North and South America as well as Europe in making contact in support of the World Jamboree. See Appendix P for more information on this promotion campaign.

We've established an online group for NA1WJ QSOs at <https://groups.io/g/na1wj>

Sponsors & Supporters

Amateur radio equipment is needed for all NA1WJ operations cited in this plan, from radio transceivers to antennas and support equipment, including networked computers.



Icom America is the amateur radio transceiver supplier for the Jamboree based on their previous support to Boy Scouts of America National Jamborees. They have already provided three repeaters in a permanent installation at the Summit. They will also be loaning transceivers and other gear for use in the demonstration station. The equipment has been delivered to West Virginia.



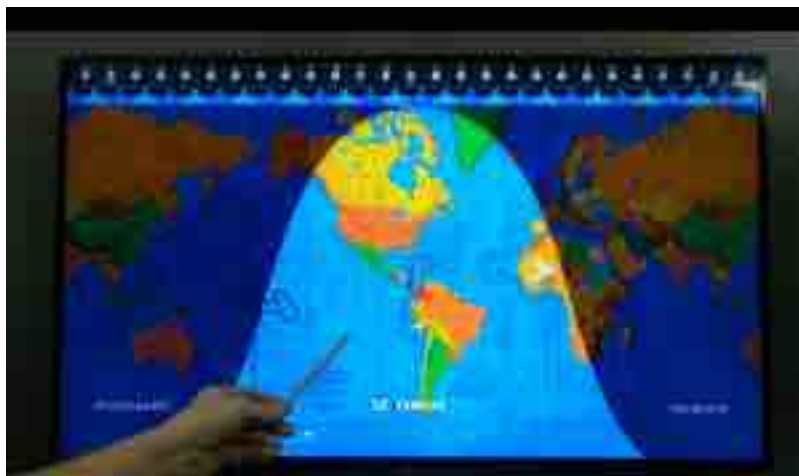
DX Engineering has already provided hex beam antennas, vertical antennas, cables, connectors, triplexers, and bandpass filters for use in the demonstration station. This was a 2017 donation.



MFJ Enterprises in 2017 provided dipole antennas, headphones, and rotator. For 2019 they are providing keys, paddles, code readers, power supplies, and additional headphones.

JK Antennas for 2019 is providing HF and 6 meter Yagis and rotatable 40 meter dipoles.





Geochron is providing a Geochron Digital 4K UND for display at the demonstration tent entrance.

The Jamboree is providing tents, tables, telephone poles, and many other supporting items.

See detailed equipment listings in the appendix.

Ken from JK Antennas expects to attend to see his equipment in operation.

Summary

This plan is in tune with the overall focus of the Bechtel Summit Reserve, a world-class high adventure venue. This plan does that with an exclusive focus on Radio Scouting — amateur radio and Scouting.

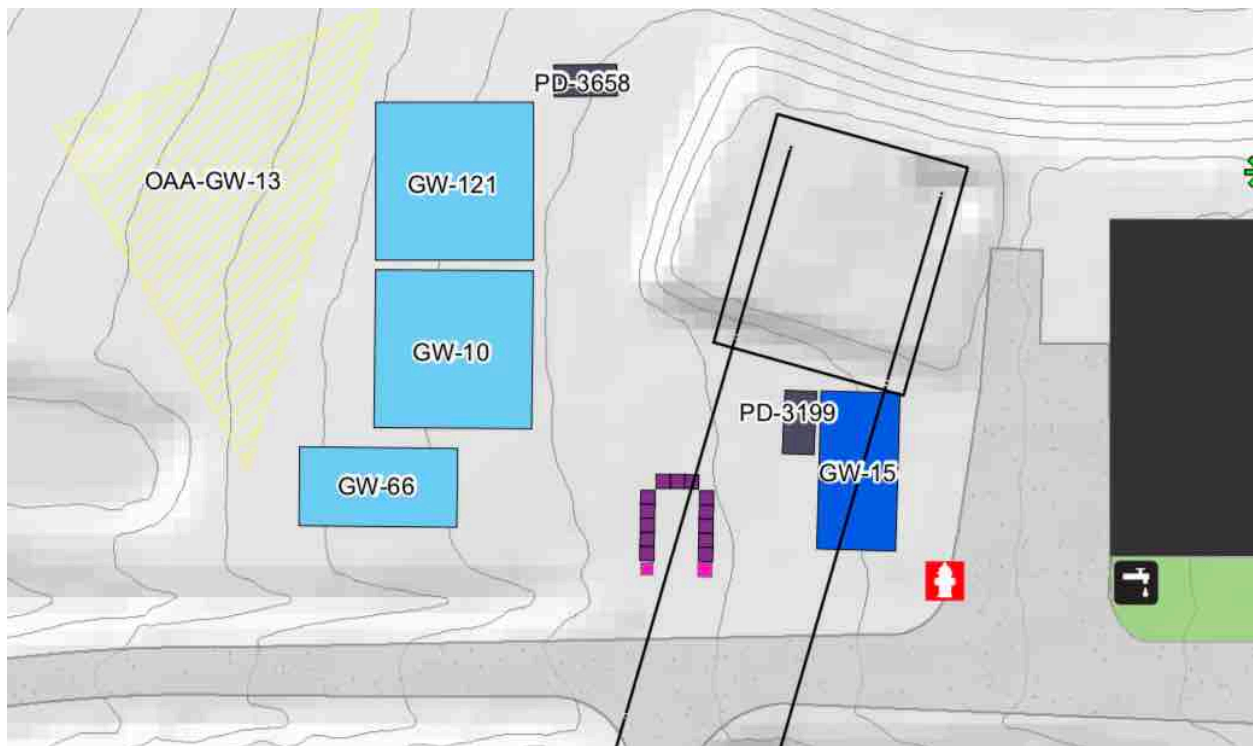
It builds a first-class experience for Scouts and Scouters as they examine amateur radio, perhaps for the first time. It's a fun, engaging, and active introduction to technology and communication.

Appendix A — Facilities Diagram

Location 37 degrees 55' 0" North, 81 degrees 7' 28" West Summit Center Gateway

One 40x40 tent, labeled GW-10. Green area, OAA-GW-13 is for antennas with 50 foot telephone poles on each of the three corners.

GW-121 is for Living in the 21st Century Communications - Media Program. The GW-66 tent is being moved to the area between GW-121 and the zipline tower.



Master Tent Index Information

Tent ID = GW-10

40x40 tent with sidewalls and lighting

BOM is WSJ2803

We also have BOM WSJ2804, originally designated NA1WJ HQ.

This is an overview of the Summit Center with NA1WJ shown in the upper center.



This is the Tillerson Leadership Center, see earlier overview for the location in relation to the NA1WJ station. The amateur radio space is expected to be in one of two spaces labeled "storage." This will house the Media operations and HQ functions.

The Lecture Hall will normally house a TV Studio, but is also a possible location for the amateur radio contact with the International Space Station.

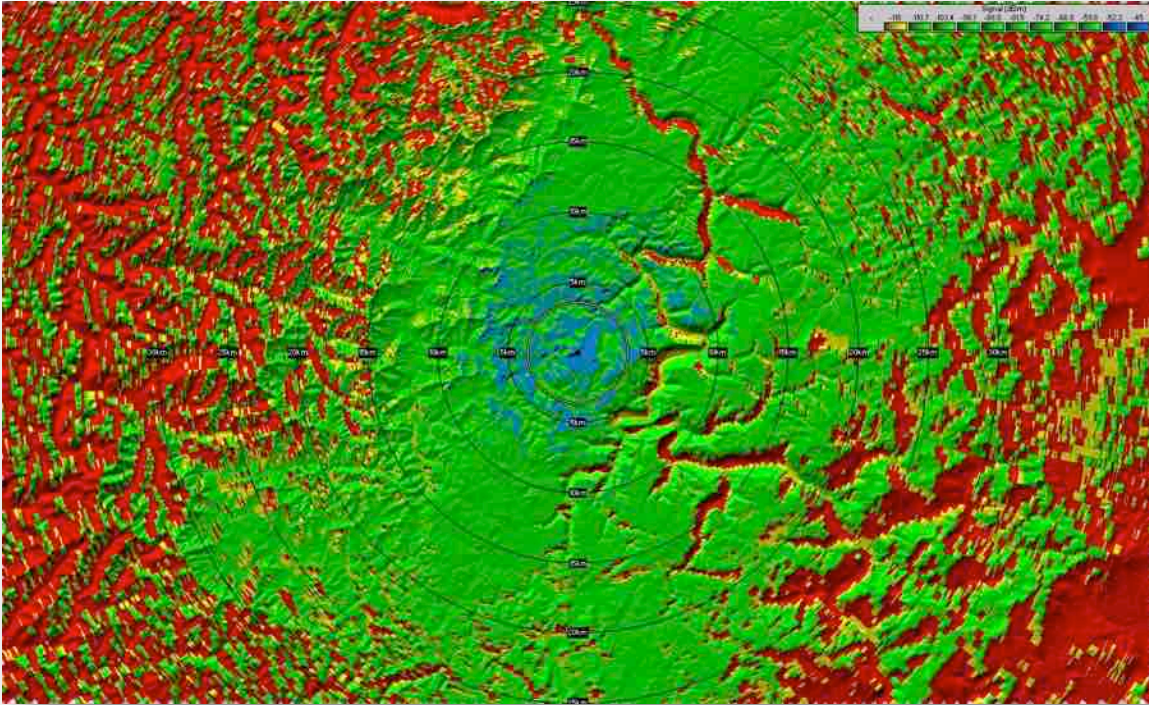


Lecture Hall — potential location for hosting the contact with the International Space Station.

Appendix B – WV8BSA Repeater Location and Coverage

Location 37 degrees 54' 9.2" North, 81 degree 7' 48" West, ground elevation 2,421 feet, tower height for amateur repeater antennas 48 feet. Rock Borrow location.

UHF talk-In prediction, maximum distance shown 30 km.



Repeater	Input Frequency	Output Frequency	Tone
2 m Analog	146.100 MHz	146.700 MHz	123.0 Hz
70 cm Analog	449.025 MHz	444.025 MHz	123.0 Hz
70 cm D-Star	446.8125 MHz	441.8125 MHz	Not applicable

These repeaters are operated by the WV8BSA Repeater Association with equipment donated and maintained by Icom America.

DMR Repeater at Rock Borrow site:

- 441.875 (+) MHz cc1
- JOTA 907 on ts 1 full time
- JOTA 9071 and 9072 on ts 2 on demand
- Dmarc north America 3 on ts 1
- Dmarc world wide 1 on ts 1
- West Virginia 3154 on ts 2

DMR Repeaters also available at Keeney Mountain at 442.875 MHz and Lick Knob at 443.875 MHz.

Here are the details on the West Virginia DMR Network:

Time Slot 1	Talk Group	Time Slot 2	Talk Group	Full or On Demand	System Notes
Local	9	WV STATE	3154	Full Time	CHAT 2 or either JOTA will override
North America	3			On Demand	5 min timer
World Wide	1			On Demand	5 min timer
Clear Time Slot	27000	Clear Time Slot 2	27000	On Demand	5 min timer
South East	3174	VA State	3151	On Demand	5 min timer
TAC 310	310	KY STATE	3121	On Demand	5 min timer
		OHIO STATE	3139	On Demand	5 min timer
DCI Bridge	3100	Ohio Guys		On Demand	5 min timer
Mid atlantic	3173	TN STATE	3147	On Demand	5 min timer
CHAT 1	27501	CHAT 2	27502	On Demand	5 min timer
Audio Test	9998			On Demand	5 min timer
JOTA	907	JOTA 1	9701	Full time on BSA	5 min timer
		JOTA 2	9702	On Demand	5 min timer

Station Information

NA1WJ registered with D-Star

NA1WJ DMR ID 3116747, also registered with Brandmeister

K2BSA registered with D-Star

K2BSA DMR ID 1148180, also registered with Brandmeister

Echolink:

- WV8BSA-R — Node 6544 — 2 meter repeater
- WV8BSA-L — Node 889773
- K2BSA-R — Node 4566

- K2BSA-L — Node 875783
- NA1WJ-R — Node 873264 — 70 cm repeater
- NA1WJ-L — Node 873275

Echolink Conference Nodes:

- JOTA-365 — Node 480809
- JAMBO — Node 832996

Frequencies at WSJ

Revision information

Date	Who	Notes
21-2-2019	Remko	Initial release for publication and usage in demoteam documents

During the World Scout Jamboree in North America Radio Scouts using Amateur Radio will be active at the Demonstration station NA1WJ. Apart from Shortwave communications NA1WJ will operate on local VHF and UHF frequencies and repeaters in both FM and Digital modes. This document will cover frequencies and usage of all VHF and UHF operations of NA1WJ.

Repeaters

NA1WJ will operate on VHF and UHF repeaters that deliver coverage on the WSJ site.

Local repeaters are installed at Rock Borrow site on The Summit property:

	Repeater	Downlink (MHz)	Uplink (MHz)	Shift	Tone (Hz)
NA1WJ	2 m Analog	146.700	146.100	- 600 kHz	123.0
WV8BSA	70 cm Analog	444.025	449.025	+ 5 MHz	123.0
WV8BSA	70 cm D-Star	441.8125	446.8125	+ 5 MHz	-
	DMR	44 <u>1</u> .8750	44 <u>6</u> .8750	+ 5 MHz	CC 1

- The D-star repeater is permanently connected to REF033A the full-time JOTA/Radio Scouting D-STAR Reflector.

Off site 2 DRM repeaters are within range of WSJ. These are:

	Repeater	Downlink (MHz)	Uplink (MHz)	Shift	Tone (Hz)
KC8AFH (1)	DMR	443.8750	447.8750	+ 5 MHz	CC 1
KC8AFH (2)	DMR	442.8750	447.8750	+ 5 MHz	CC 1

- Installed at Lick Knob. South-west of the Summit property
- Installed at Keeny mountain covers from the WV/VA state line on I-64 all the way to Beckley then the Lick Knob repeater will take you to the Summit.
- All three DMR repeaters are linked to DMR-MARC. And deliver talkgroups JOTA (907), JOTA (9701) and JOTA 2 (9702).

Simplex operations

Where NA1WJ is expected to run primary on VHF and UHF repeaters, simplex frequencies can be used for local communications. These frequencies are suggested for scouts on site.

2 M FM Simplex

147.450, 147.480, 147.510, 147.540* * Use 147.540 as Calling Channel.

Avoid 146.520, the National FM Simplex Calling Frequency, as well as 146.550, which is commonly used by mobiles and RVerS.

70 cm FM Simplex

446.000*, 445.950, 446.050, 446.100, 446.150 * Use 446.000 as Calling Channel.

D-Star Simplex

SIMPLEX Channels: 145.670*, 145.640, 145.610, 438.010. * 145.670 and 438.010 are commonly used as the National D-STAR Simplex Channels and should be used only as Calling Channels for JOTA. Always listen first to avoid interfering with another QSO.

DMR Simplex

SIMPLEX Channels: 441.0000*, 446.5000, 446.0750, 433.4500, 145.7900*, 145.5100. All simplex frequencies operate on time-slot 1 and use color code 1. (*are commonly used as the National DMR Simplex Channels and should be used only as Calling Channels.)

Linked operations

Echolink

NA1WJ can be found on Echolink conference *JAMBO* and *JOTA-365* and node 832996, K2BSA Conference Node.

The local VHF/UHF repeater WV8BSA is running as Echolink node 9877 but currently off-line (13-2-2019)

Appendix C – Position Descriptions

NA1WJ Team Leader

Role Description

<i>Job ID:</i>	<i>Organization: Amateur Radio</i>
<i>Job title: Amateur Radio Team Leader</i>	<i>Reporting to: Tim Ryan</i>
<i>Purpose: Overall manager for the NA1WJ amateur radio operation, reporting to the World Jamboree Media and Communications Exhibit Leader as part of Centro Mundial.</i>	<i>Period of Appointment: duration of the world scout Jamboree development, operation, and after action report</i>
<p><i>Main Responsibilities and Activities:</i></p> <ul style="list-style-type: none"> • Duties Prior to Jamboree: <ul style="list-style-type: none"> • Recruit key staff for each of the areas. • Pursue sponsorships and donations. • Working with staff leadership, build a comprehensive plan for Jamboree operations. • Contact radio and other vendors for use of equipment. • Prepare staff guides and other support materials. • Drive communication to staff members. • Build needs list for both equipment that will be donated and/or loaned and materials that will need to be purchased. • Meet with communication/emergency associates and coordinate efforts. • Duties at the Jamboree: <ul style="list-style-type: none"> • Interface with the Jamboree organization. • Supervise overall operation. • Hold short staff meetings daily. • Serve as a floating alternate to fill in where needed. • Work with the emergency/communications personnel to provide backup communications. • Duties after the Jamboree: <ul style="list-style-type: none"> • See that all the borrowed equipment is returned and all sponsorship agreements are fulfilled. • Prepare an after action report. • Write thank-you notes to all staff and vendors. • Prepare QSL cards for mailing (or recruit QSL manager). • Staff evaluations 	<p><i>Physical Requirements</i></p> <ul style="list-style-type: none"> • Be able to meet the physical demands of the summit—walking, etc. • Living outdoors for two weeks. •
<p><i>Supervisory Responsibilities</i></p> <ul style="list-style-type: none"> • All aspects of amateur radio operation including staff leadership and radio operations. 	

Qualifications

<p>Experience</p> <ul style="list-style-type: none"> • Have current registration in scouting with National Scout Organization • Experienced at executive management level in organizing and achieving high-level performance from staff members in a technical environment. • Experienced in all aspects of amateur radio 	<p>Skills</p> <ul style="list-style-type: none"> • Communicating with others • Motivating team members • Delegating actions to others • Responding well to crises • Responsible for all operations • Reliable in completing all tasks and meeting organizational needs • Flexible in responding to changing conditions
<p>Certifications</p> <ul style="list-style-type: none"> • Current registration in scouting by National Scouting Organization (NSO) • Be approved to serve in this position for the 2019 WSJ by the International Commissioner or designee of your NSO • Amateur Radio License 	<p>Personal Attributes</p> <ul style="list-style-type: none"> • Agree to and live by the scout oath and law • Ability to work with others in a high stress environment

Expectations and Terms

<p>Required Training:</p> <ul style="list-style-type: none"> • Maintain training required for registered scouting position as per NSO • Maintain current 2019 WSJ Youth Protection training
<p>Expectations:</p> <ul style="list-style-type: none"> • Identify meetings and/or conference calls for which individual(s) are expected to attend during planning • Attendance at any other events or prior Jamborees • When expected to be on site prior, during or after Jamboree
<p>Time off:</p> <ul style="list-style-type: none"> • None
<p>Fees and Expenses:</p> <ul style="list-style-type: none"> • Fees and expenses will follow the policy of the National Scouting Organization with which the individual is registered. NSO will determine level of reimbursement for approved expenses and may not necessarily be part of the 2019 WSJ operating budget.

NA1WJ Demonstration Station Team Leader Role Description

<i>Job ID:</i>	<i>Organization: Amateur Radio</i>
<i>Job title: Amateur Radio Demonstration Station Team Leader</i>	<i>Reporting to: Jim Wilson</i>
<i>Purpose: Key leader for the NA1WJ amateur radio demonstration station. Driven to introduce amateur radio to Scouts in a fun and highly interactive manner.</i>	<i>Period of Appointment: duration of the world scout Jamboree development, operation, and after action report</i>
<p>Main Responsibilities and Activities:</p> <ul style="list-style-type: none"> • Duties prior to Jamboree <ul style="list-style-type: none"> • Working with the Tech Team Leader, develop station layouts. • Working with the demonstration station team, build the operations plan including bands, times, antennas, etc. • Develop an operations manual for use by the demonstration staff. • Provide training for all staff members both prior to Jamboree and at the Jamboree site. • Build staffing plans with assignments for operators to shifts as well as days off. • Determine throughput of demonstrations and develop goals. Assure goals are established, measured, and met. • Duties at the Jamboree <ul style="list-style-type: none"> • Conduct installation of NA1WJ operation. • Train staff members. • Develop staff into shifts. • Active problem solving. • Tear down of Jamboree facilities, packing of equipment and shipment to next location or storage. 	<p>Physical Requirements</p> <ul style="list-style-type: none"> • Be able to meet the physical demands of the summit—walking, etc. • Living outdoors for two weeks. •
<p>Supervisory Responsibilities</p> <ul style="list-style-type: none"> • All aspects of amateur radio demonstration station operation including radio operations 	

Qualifications

<p>Experience</p> <ul style="list-style-type: none"> • Have current registration in scouting with National Scout Organization • Experienced at executive management level in organizing and achieving high-level performance from staff members in a technical environment. • Experienced in all aspects of amateur radio 	<p>Skills</p> <ul style="list-style-type: none"> • Communicating with others • Motivating team members • Delegating actions to others • Responding well to crises • Responsible for all operations • Reliable in completing all tasks and meeting organizational needs
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	<ul style="list-style-type: none"> • Flexible in responding to changing conditions
<p>Certifications</p> <ul style="list-style-type: none"> • Current registration in scouting by National Scouting Organization (NSO) • Be approved to serve in this position for the 2019 WSJ by the International Commissioner or designee of your NSO • Amateur Radio License 	<p>Personal Attributes</p> <ul style="list-style-type: none"> • Agree to and live by the scout oath and law • Driven to introduce amateur radio to Scouts through demonstrating the excitement of on-air communication and encouraging their active participation. • Supports new approaches. • Well-developed leadership skills • Dedicated team builder and team player.

Expectations and Terms

<p>Required Training:</p> <ul style="list-style-type: none"> • Maintain training required for registered scouting position as per NSO • Maintain current 2019 WSJ Youth Protection training
<p>Expectations:</p> <ul style="list-style-type: none"> • Identify meetings and/or conference calls for which individual(s) are expected to attend during planning • Attendance at any other events or prior Jamborees • When expected to be on site prior, during or after Jamboree
<p>Time off:</p> <ul style="list-style-type: none"> • Limited
<p>Fees and Expenses:</p> <ul style="list-style-type: none"> • Fees and expenses will follow the policy of the National Scouting Organization with which the individual is registered. NSO will determine level of reimbursement for approved expenses and may not necessarily be part of the 2019 WSJ operating budget.

NA1WJ Tech Team Leader

Role Description

<i>Job ID:</i>	<i>Organization: Amateur Radio</i>
<i>Job title: Amateur Radio Tech Team Leader</i>	<i>Reporting to: Jim Wilson</i>
<i>Purpose: Key technical leader for the entire Amateur radio operation. Works across all areas to determine requirements, installs and implements selected technology, and actively troubleshoots issues that occur.</i>	<i>Period of Appointment: duration of the world scout Jamboree development, operation, and after action report</i>
<p>Main Responsibilities and Activities:</p> <ul style="list-style-type: none"> • Duties prior to Jamboree <ul style="list-style-type: none"> • Prepare station design, site plan, requirements list, and antenna requirements. • Working with Demonstration Station Team Leader develop operating procedures and help prepare operations guide for use by all operators. • Working with the Station Team Leader, prepare installation plans for the entire operation. • Develop an emergency system that involves all staff members and other amateur radio operators on the Jamboree property. • Duties at the Jamboree <ul style="list-style-type: none"> • Working with fellow team leaders, install all equipment and ensure its operation throughout the Jamboree. • Monitor repeater operation and ensure trouble free operation. • Establish computer networks for logging software. • Supervise and control on site computers and software. • Upload logs in real time or at a minimum daily to Club Log and Logbook of the World. • Operate the emergency communications network in times of emergency, conduct tests to ensure it is ready for operation. • Tear down of Jamboree facilities, packing of equipment and shipment to next location or storage 	<p>Physical Requirements</p> <ul style="list-style-type: none"> • Be able to meet the physical demands of the summit—walking, etc. • Living outdoors for two weeks. •
<p>Supervisory Responsibilities</p> <ul style="list-style-type: none"> • All aspects of amateur radio station technical set up, troubleshooting, and operations 	

Qualifications

<p>Experience</p> <ul style="list-style-type: none"> • Have current registration in scouting with National 	<p>Skills</p> <ul style="list-style-type: none"> • Communicating with others
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<p>Scout Organization</p> <ul style="list-style-type: none"> Experienced at executive management level in organizing and achieving high-level performance from staff members in a technical environment. Experienced in all aspects of amateur radio 	<ul style="list-style-type: none"> Motivating team members Delegating actions to others Responding well to crises Responsible for all operations Reliable in completing all tasks and meeting organizational needs Flexible in responding to changing conditions
<p>Certifications</p> <ul style="list-style-type: none"> Current registration in scouting by National Scouting Organization (NSO) Be approved to serve in this position for the 2019 WSJ by the International Commissioner or designee of your NSO Amateur Radio License 	<p>Personal Attributes</p> <ul style="list-style-type: none"> Agree to and live by the scout oath and law Driven to introduce amateur radio to Scouts through demonstrating the excitement of on-air communication and encouraging their active participation. Supports new approaches. Well-developed leadership skills Dedicated team builder and team player.

Expectations and Terms

<p>Required Training:</p> <ul style="list-style-type: none"> Maintain training required for registered scouting position as per NSO Maintain current 2019 WSJ Youth Protection training
<p>Expectations:</p> <ul style="list-style-type: none"> Identify meetings and/or conference calls for which individual(s) are expected to attend during planning Attendance at any other events or prior Jamborees When expected to be on site prior, during or after Jamboree
<p>Time off:</p> <ul style="list-style-type: none"> Limited
<p>Fees and Expenses:</p> <ul style="list-style-type: none"> Fees and expenses will follow the policy of the National Scouting Organization with which the individual is registered. NSO will determine level of reimbursement for approved expenses and may not necessarily be part of the 2019 WSJ operating budget.

NA1WJ ARDF-Foxhunting Team Leader Role Description

<i>Job ID:</i>	<i>Organization: Amateur Radio</i>
<i>Job title: Amateur Radio ARDF-Foxhunting TEam Leader</i>	<i>Reporting to: Jim Wilson</i>
<i>Purpose: Key leader for the Amateur Radio Direction Finding (ARDF) - Foxhunting activities for the NA1WJ amateur radio operation..</i>	<i>Period of Appointment: duration of the world scout Jamboree development, operation, and after action report</i>
<p>Main Responsibilities and Activities:</p> <ul style="list-style-type: none"> • Duties prior to Jamboree <ul style="list-style-type: none"> • Prepare transmitters and receivers for ARDF operations. • Determine course requirements and possibilities within the Summit Center. • Develop training for staff members. • Work with staff members to develop training for Scouts in using the equipment and operating on the ARDF-Foxhunting course. • Determine on course Scout supervision and guidance requirements and methodology. • Duties at the Jamboree <ul style="list-style-type: none"> • Set up ARDF-Foxhunting equipment and course. • Maintain equipment with the Tech Team staff. • Work with groups of Scouts to train them on ARDF techniques and route them through the course, optimizing learning and throughput. • Make adjustments as needed to the equipment, course, and training. • Tear down of Jamboree facilities, packing of equipment and shipment to next location or storage 	<p>Physical Requirements</p> <ul style="list-style-type: none"> • Be able to meet the physical demands of the summit—walking, etc. • Living outdoors for two weeks. •
<p>Supervisory Responsibilities</p> <ul style="list-style-type: none"> • All staff members assigned to the ARDF-Foxhunting Team 	

Qualifications

<p>Experience</p> <ul style="list-style-type: none"> • Have current registration in scouting with National Scout Organization • Experienced at executive management level in organizing and achieving high-level performance from staff members in a technical environment. • Experienced in all aspects of amateur radio 	<p>Skills</p> <ul style="list-style-type: none"> • Communicating with others • Motivating team members • Delegating actions to others • Responding well to crises • Responsible for all operations • Reliable in completing all tasks and meeting organizational needs • Flexible in responding to changing conditions
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<p>Certifications</p> <ul style="list-style-type: none"> • Current registration in scouting by National Scouting Organization (NSO) • Be approved to serve in this position for the 2019 WSJ by the International Commissioner or designee of your NSO • Amateur Radio License 	<p>Personal Attributes</p> <ul style="list-style-type: none"> • Agree to and live by the scout oath and law • Driven to introduce amateur radio to Scouts through demonstrating the excitement of ARDF-Foxhunting and encouraging their active participation. • Supports new approaches. • Well-developed leadership skills • Dedicated team builder and team player.
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Expectations and Terms

<p>Required Training:</p> <ul style="list-style-type: none"> • Maintain training required for registered scouting position as per NSO • Maintain current 2019 WSJ Youth Protection training
<p>Expectations:</p> <ul style="list-style-type: none"> • Identify meetings and/or conference calls for which individual(s) are expected to attend during planning • Attendance at any other events or prior Jamborees • When expected to be on site prior, during or after Jamboree
<p>Time off:</p> <ul style="list-style-type: none"> • Limited
<p>Fees and Expenses:</p> <ul style="list-style-type: none"> • Fees and expenses will follow the policy of the National Scouting Organization with which the individual is registered. NSO will determine level of reimbursement for approved expenses and may not necessarily be part of the 2019 WSJ operating budget.

NA1WJ Media Lead

Role Description

<i>Job ID:</i>	<i>Organization: Amateur Radio</i>
<i>Job title: Amateur Radio Media Lead</i>	<i>Reporting to: Jim Wilson</i>
<i>Purpose: Key interface with various media outlets including Scouting media, amateur radio media, as well as national and world news media. Responsible for telling the NA1WJ Jamboree story in words, photos, videos, etc. to all interested audiences meeting their need for insight into the Jamboree and amateur radio experience..</i>	<i>Period of Appointment: duration of the world scout Jamboree development, operation, and after action report</i>
<p>Main Responsibilities and Activities:</p> <ul style="list-style-type: none"> • Duties prior to Jamboree <ul style="list-style-type: none"> • Ensure that all NA1WJ social media outlets are ready to handle posting of news and images. • Ensure that the website is prepared to handle posting of news, images, videos, etc. • Connect with Jamboree website and social media staff to ensure they have needed content for their operations before, during, and after the Jamboree. • Establish story contacts with Scouting, amateur radio, and national media outlets. • Connect with Jamboree media staff to facilitate timely posting of NA1WJ stories during the Jamboree. • Duties at the Jamboree <ul style="list-style-type: none"> • Working with fellow team leaders, install all equipment and ensure its operation throughout the Jamboree. • Actively engage Jamboree, Scouting, amateur radio, and national/world news media in sharing the story of NA1WJ operations. • Capture photos/videos of Jamboree operations. • Record the full NA1WJ effort and prepare an online summary. • Keep world-wide audiences informed of NA1WJ operations via social media and website. • Tear down of Jamboree facilities, packing of equipment and shipment to next location or storage 	<p>Physical Requirements</p> <ul style="list-style-type: none"> • Be able to meet the physical demands of the summit—walking, etc. • Living outdoors for two weeks. •
<p>Supervisory Responsibilities</p> <ul style="list-style-type: none"> • No direct supervision requirements. 	

Qualifications

<p>Experience</p> <ul style="list-style-type: none"> • Have current registration in scouting with National Scout Organization • Experienced in all aspects of social media, website (WordPress), and video. • Experienced in all aspects of amateur radio 	<p>Skills</p> <ul style="list-style-type: none"> • High level of communication expertise and the ability to work with all media outlets to ensure that the NA1WJ story is told to a wide variety of audiences. • Ability to operate social media channels and websites (WordPress). • Ability to operate audio recorders as well as still and motion cameras. • Proven ability to interface with media and with Scouts and Scouters to get the story. • Supports new approaches. • Well-developed leadership skills. • Dedicated team player.
<p>Certifications</p> <ul style="list-style-type: none"> • Current registration in scouting by National Scouting Organization (NSO) • Be approved to serve in this position for the 2019 WSJ by the International Commissioner or designee of your NSO • Amateur Radio License 	<p>Personal Attributes</p> <ul style="list-style-type: none"> • Agree to and live by the scout oath and law • Driven to introduce amateur radio to Scouts through demonstrating the excitement of on-air communication and encouraging their active participation. • Supports new approaches. • Well-developed leadership skills • Dedicated team builder and team player.

Expectations and Terms

<p>Required Training:</p> <ul style="list-style-type: none"> • Maintain training required for registered scouting position as per NSO • Maintain current 2019 WSJ Youth Protection training
<p>Expectations:</p> <ul style="list-style-type: none"> • Identify meetings and/or conference calls for which individual(s) are expected to attend during planning • Attendance at any other events or prior Jamborees • When expected to be on site prior, during or after Jamboree
<p>Time off:</p> <ul style="list-style-type: none"> • Limited
<p>Fees and Expenses:</p> <ul style="list-style-type: none"> • Fees and expenses will follow the policy of the National Scouting Organization with which the individual is registered. NSO will determine level of reimbursement for approved expenses and may not necessarily be part of the 2019 WSJ operating budget.

NA1WJ Staff Member Role Description

<i>Job ID:</i>	<i>Organization: Amateur Radio</i>
<i>Job title: Amateur Radio staff member</i>	<i>Reporting to: Assigned Team Leader within the Amateur Radio Operation</i>
<i>Purpose: Conducts amateur radio demonstrations and/or training in foxhunting techniques. Operates complex equipment and assists with installation, troubleshooting, and pack up. Works with team members to the benefit of the Jamboree and Scout participants.</i>	<i>Period of Appointment: duration of the world scout Jamboree development and operation</i>
Main Responsibilities and Activities: <ul style="list-style-type: none"> • Duties prior to Jamboree <ul style="list-style-type: none"> • Attend NA1WJ online meetings. • Review operations plan, contributing when appropriate. • Complete all IST requirements. • Duties at the Jamboree <ul style="list-style-type: none"> • Arrive at Jamboree on designated date. • Working with fellow team members, install all equipment and ensure its operation throughout the Jamboree. • Work all assigned shifts at the station. Arriving on time. • Conduct amateur radio demonstration of operations and/or foxhunting as needed. • Engage with Scouts and fellow team members with a pleasant disposition. • Tear down of Jamboree facilities, packing of equipment and shipment to next location or storage 	Physical Requirements <ul style="list-style-type: none"> • Be able to meet the physical demands of the summit—walking, etc. • Living outdoors for two weeks. •
Supervisory Responsibilities <ul style="list-style-type: none"> • None 	

Qualifications

Experience <ul style="list-style-type: none"> • Have current registration in scouting with National Scout Organization • Experience with Jamboree on the Air and other Radio Scouting activities. • Extensive experience working with Scouts to demonstrate amateur radio. • High degree of amateur radio operational expertise. • Some experience setting up amateur radio stations including transceivers, transmission lines, and antennas. Ability to troubleshoot problems when 	Skills <ul style="list-style-type: none"> • Reliable in completing all assigned tasks and meeting organizational needs • Flexible in responding to changing conditions
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needed. <ul style="list-style-type: none"> • Ability to take direction and report for duty on time. • Dedicated team player. 	
Certifications <ul style="list-style-type: none"> • Current registration in scouting by National Scouting Organization (NSO) • Be approved to serve in this position for the 2019 WSJ by the International Commissioner or designee of your NSO • Amateur Radio License 	Personal Attributes <ul style="list-style-type: none"> • Agree to and live by the scout oath and law • Driven to introduce amateur radio to Scouts through demonstrating the excitement of ARDF-Foxhunting and encouraging their active participation. • Supports new approaches. • Dedicated team player.

Expectations and Terms

Required Training: <ul style="list-style-type: none"> • Maintain training required for registered scouting position as per NSO • Maintain current 2019 WSJ Youth Protection training
Expectations: <ul style="list-style-type: none"> • Identify meetings and/or conference calls for which individual(s) are expected to attend during planning • Attendance at any other events or prior Jamborees • When expected to be on site prior, during or after Jamboree
Time off: <ul style="list-style-type: none"> • As available based on operational demands and the number of available staff members.
Fees and Expenses: <ul style="list-style-type: none"> • Fees and expenses will follow the policy of the National Scouting Organization with which the individual is registered. NSO will determine level of reimbursement for approved expenses and may not necessarily be part of the 2019 WSJ operating budget.

NA1WJ Registrar

Role Description

<i>Job ID:</i>	<i>Organization: Amateur Radio</i>
<i>Job title: Amateur Radio registrar</i>	<i>Reporting to: Jim Wilson</i>
<i>Purpose: The registrars will greet Scouts and guide them into the amateur radio demonstration area and/or the foxhunting area. They will cheerfully answer all questions and present a pleasant face to Scouts. They will compile the overall attendance numbers throughout the day and report the file numbers at the end of each day. They will support our operations during set up and tear down.</i>	<i>Period of Appointment: duration of the world scout Jamboree development and operation</i>
Main Responsibilities and Activities: <ul style="list-style-type: none"> • Duties prior to Jamboree <ul style="list-style-type: none"> • Attend NA1WJ online meetings. • Review operations plan, contributing when appropriate. • Complete all IST requirements. • Duties at the Jamboree <ul style="list-style-type: none"> • Arrive at Jamboree on designated date. • Working with fellow team members, help install all equipment and in particular focus on the set up of the front desk and welcoming areas. • Work all assigned shifts at the station. Arriving on time. • Greet Scouts and provide insight into the activities within the NA1WJ operation from amateur radio demonstrations to foxhunting. • Engage with Scouts and fellow team members with a pleasant disposition. • Tear down of Jamboree facilities, packing of equipment and shipment to next location or storage 	Physical Requirements <ul style="list-style-type: none"> • Be able to meet the physical demands of the summit—walking, etc. • Living outdoors for two weeks. •
Supervisory Responsibilities <ul style="list-style-type: none"> • None 	

Qualifications

Experience <ul style="list-style-type: none"> • Ideally a licensed and active amateur radio operator, but this is secondary to the duties of a registrar. • Registered and active Scouter. • Jamboree experience helpful but not necessary. • Outgoing personality that welcomes Scouts to NA1WJ. • Eagerness to learn about amateur radio and share 	Skills <ul style="list-style-type: none"> • Reliable in completing all assigned tasks and meeting organizational needs • Flexible in responding to changing conditions
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their experience with Scouts. <ul style="list-style-type: none"> • Ability to take direction and report for duty on time. • Dedicated team player. 	
Certifications <ul style="list-style-type: none"> • Current registration in scouting by National Scouting Organization (NSO) • Be approved to serve in this position for the 2019 WSJ by the International Commissioner or designee of your NSO • Amateur Radio License desired but not necessary. 	Personal Attributes <ul style="list-style-type: none"> • Agree to and live by the scout oath and law • Driven to introduce amateur radio to Scouts through demonstrating the excitement of ARDF-Foxhunting and encouraging their active participation. • Supports new approaches. • Dedicated team player.

Expectations and Terms

Required Training: <ul style="list-style-type: none"> • Maintain training required for registered scouting position as per NSO • Maintain current 2019 WSJ Youth Protection training
Expectations: <ul style="list-style-type: none"> • Identify meetings and/or conference calls for which individual(s) are expected to attend during planning • Attendance at any other events or prior Jamborees • When expected to be on site prior, during or after Jamboree
Time off: <ul style="list-style-type: none"> • As available based on operational demands and the number of available staff members.
Fees and Expenses: <ul style="list-style-type: none"> • Fees and expenses will follow the policy of the National Scouting Organization with which the individual is registered. NSO will determine level of reimbursement for approved expenses and may not necessarily be part of the 2019 WSJ operating budget.

NA1WJ Amateur Radio Quartermaster & QSL Manager

Job ID:	Organization: Amateur Radio
Job title: Amateur Radio Quartermaster & QSL Manager	Reporting to: Jim Wilson
Purpose: ensures all equipment is delivered and inventoried at the beginning of the Jamboree and all Equipment returned at the end of the jamboree.	Period of Appointment: duration of the world scout Jamboree development and operation
<p>Main Responsibilities and Activities:</p> <p>Duties prior to Jamboree</p> <ul style="list-style-type: none"> Attend NA1WJ online meetings. Review operations plan, contributing when appropriate. Complete all IST requirements. Review all Bills of Materials and existing equipment lists in preparation for Jamboree. Identifies additional items needed to be ordered. Set up QSL request systems at ClubLog. <p>Duties at the Jamboree</p> <ul style="list-style-type: none"> Arrive at Jamboree on designated date. Working with fellow team members, inventory all equipment, identify missing equipment, and pursue delivery. Follow up missing equipment and determine needed work arounds with leadership. Keep track of equipment during the Jamboree to ensure continued presence and use during the event. Tear down of Jamboree facilities, packing of equipment and shipment to next location or storage. Document full inventory, identify any missing or damaged items, and provide documentation to team leader. <p>Duties after the Jamboree</p> <ul style="list-style-type: none"> Receive QSL requests via direct mail and online systems. Compare requests to Logbook to confirm the amateur radio contact. Fulfill requests by sending QSL cards. 	<p>Physical Requirements</p> <ul style="list-style-type: none"> Be able to meet the physical demands of the summit—walking, etc. Living outdoors for two weeks.
Supervisory Responsibilities	

- None

Qualifications

<p>Experience</p> <ul style="list-style-type: none"> • Have current registration in scouting with National Scout Organization • Experience with Jamboree on the Air and other Radio Scouting activities. • Extensive experience working with Scouts to demonstrate amateur radio. • High degree of amateur radio operational expertise. • Some experience setting up amateur radio stations including transceivers, transmission lines, and antennas. Ability to troubleshoot problems when needed. • Ability to take direction and report for duty on time. • Meticulous record keeping and familiarity with logistics and bill of materials management. • Dedicated team player. 	<p>Skills</p> <ul style="list-style-type: none"> • Reliable in completing all assigned tasks and meeting organizational needs • Flexible in responding to changing conditions
<p>Certifications</p> <ul style="list-style-type: none"> • Current registration in scouting by National Scouting Organization (NSO) • Be approved to serve in this position for the 2019 WSJ by the International Commissioner or designee of your NSO • Amateur Radio License 	<p>Personal Attributes</p> <ul style="list-style-type: none"> • Agree to and live by the scout oath and law • Meticulous record keeper. • Supports new approaches. • Dedicated team player.

Expectations and Terms

<p>Required Training:</p> <ul style="list-style-type: none"> • Maintain training required for registered scouting position as per NSO • Maintain current 2019 WSJ Youth Protection training
<p>Expectations:</p> <ul style="list-style-type: none"> • Identify meetings and/or conference calls for which individual(s) are expected to attend during planning • Attendance at any other events or prior Jamborees • When expected to be on site prior, during or after Jamboree
<p>Time off:</p> <ul style="list-style-type: none"> • As available based on operational demands and the number of available staff members.
<p>Fees and Expenses:</p>

- Fees and expenses will follow the policy of the National Scouting Organization with which the individual is registered. NSO will determine level of reimbursement for approved expenses and may not necessarily be part of the 2019 WSJ operating budget.

Appendix D – Demonstration Station Planning

Need website display of current operating frequencies/log book. This can guide those interested in working the station and confirm those who have already worked NA1WJ.

To Do Items:

World Map to mark all contacts — visible from front door

Posters on amateur radio to decorate station and inform visitors. We have posters provided by ARRL ready for printing.

For each station:

- Azimuthal map from Summit to the world
- Band plan (JOTA frequencies) by band/Mode
- World prefix chart (wall style)
- CEPT countries list
- Third-Party rules
- Short QSO outline
- Q code charts
- D-Star info guide (with linking) include useful node #s
- Echolink info guide (with linking) include useful node #s
- Pad/paper
- Operator QSO sheets
- headsets/foot switch/headset amps, headphones
- Radio quick-books
- Cheat-sheet radio operators guide
- Signage (band, etc)

Special station activities:

- Nightly Net
 - Need Net Script
 - How do we do it on both repeaters simultaneously?
- Satellite passes
 - Master list of all passes during Jamboree
 - ISS pass information
- Balloon launch tracking with large screen

For Website:

- Technical details of station (pictorial)/physical layout
- Equipment in use by band/station
- After hours schedule/reach the world station

- Updated station layout
- Logbook of the World and ClubLog uploads
- Bands in use.

Entry area:

- Posters
- Videos
- Station event schedule (balloon launch, event contacts, satellite passes, etc. .. Chalk board? Someone to keep it up to date

Station area:

- Flags from ceiling
- ARRL maps/charts on partition walls

Technical:

- Close spacing interference mitigation (bandpass filters)
- Station grounding/antenna disconnect .. Quick .. automated or dedicated person. quick connect UHF fittings?
- WiFi Networking
- Centralized computer logging, or distributed N1MM logging, where each computer keeps a copy.
- Wifi printing.
- Computers ..

Misc:

- Logging .with N1MM. Operator training
- Clublog, etc for QSO tracking
- QSL'ing/QSL manager
- Entry Area visuals, etc.
- Daily staff briefing ..
 - At the end of the day.
 - What went well
 - What we need to change
 - What do we have coming for tomorrow
 - At the beginning of the day
 - Events
 - Schedule discussion
 - Band analysis for the day
 - Space weather report

Personnel:

- Go-getter recognition
- Interesting factoids
- Bios ... personal, ham, professional, other
- Training
- Everyone bring an H-T. We'll have a staff frequency

Unscheduled events:

- Weather ...
- Emergency action plan ... Scenarios need to be defined and how do we respond
 - Medical
 - Weather ... lightning, wind, tornado, severe weather
 - Electrical
 - RF
 - Mechanical equipment failure (aka, antenna/etc).
 - Other
- Camp event handling for an event that generates high on-air interest amongst encampment participants

Station build schedule after arrival

- unpack trailer and containers
- gather camp provided equipment
- build partition walls
- setup stations physically
- build antennas
- setup computer networking
- decorate station with signage
- store supplies/etc
- Milk crates (for storing personal gear during the day). One per person. Labeled
- Inventory all equipment we unpack — Quartermaster assisted by others.
- photograph station after build

Station takedown

- verify inventory on pack — Quartermaster assisted by others.
- photograph all packing
- pack, label, and prepare for shipping
- hand trucks/utility wagons for moving gear
- Identify order to take station down
- stage equipment in areas of tent for pack
- tape, zip ties, labels (zip tie type), packing labels, etc.

Appendix E – Staff Preparation Requirements

Rocket.Chat / JamboChat

It is essential that every staff member connect with the Rocket.Chat communication system and the NA1WJ Amateur Radio Chat Room. Critical communication will happen via this system. See your team leader or Jim Wilson for access instructions.

Jamboree Training

Safe From Harm Training <http://2019wsj.org/training> You must complete this training before you'll be allowed on site. Bring your certificate of completion with you to check-in.

At that same link is IST Training — which is optional but valuable.

Travel Plans — There are two systems for registration:

IST Departure/Arrival Registration

<http://events.tms.com/events/required-ist-jpt-cmt-arrival-and-departure-registration/event-summary-59de6c56e8754d959f22c4b22ab22ce3.aspx?i=7830905e-5fd4-4d10-8332-f4f010677740>

You'll need your mobile phone number and your Jamboree registration number.

Living in the 21st Century Departure Arrival Registration

https://docs.google.com/forms/d/e/1FAIpQLSekCFa2WbElwQYlsKV-h4600SsJtQma1tG9qfSG_0ZMI6Ex4A/viewform

Since that information isn't being shared with the NA1WJ team, please also complete your arrival time and departure time on our spreadsheet at this link:

https://docs.google.com/spreadsheets/d/1KG8TqXIEy44fux1DVwIPd9eCsdGXdzlJ_rRalpN8C8E/edit-gid=0

Uniform Wear

National Scout uniforms will only be needed for the opening ceremony. At all other times there is no specific requirement. There are shirts, neckers, etc. available for purchase but they are not required wear.

url <http://ist2019.corecommerce.com/living-in-the-21st-century-c108/> or to see all items available <http://target-ist.org/>

Code is **20191401**

Credentials

On check-in you'll receive an IST necker and access card/lanyard.

USA IST Tent mate request

Link to request form

https://docs.google.com/forms/d/e/1FAIpQLSdZPcxzg8JDdOT0667WN3I_ZJhOyLnZ4S8rRotkT0DNmEqTCA/viewform

All NA1WJ Staff Members

- Bring copy of ham radio license for posting in station.
- Bring one of your personal QSL cards for posting in the station.
- Bring a carabiner to use in hanging up your backpack in the station.
- Bring your HT. Programming services will be provided at the station.

Appendix F – Jamboree Staff Schedule

Here's the current International Service Team schedule:

- 18 July 2019 – Official IST arrival
- 19 July 2019 – Meet Area/Team Leads and position training
- 20 July 2019 – Position training and site set-up
- 21 July 2019 – Position training and site set-up
- 22 July 2019 – All Contingents arrive

We have also requested the following arrivals:

- 16 July — 2 key leaders (Jim Wilson and Mike Crownover)
- 17 July — 7 set up team (Tobias Senti, Bill Stearns, Donald Sonnefeld, Rick Smith, Bill Bode, Mike Cullen, Mike Sprenger)

Remko Welling has also developed a detailed scheduling system for the demonstration station operators. It can be found at this link

<https://docs.google.com/spreadsheets/d/10PwjTGTz6rz-YtoifK4BV88jymtju8lOUj3BdBsUDU/edit?usp=sharing>

Appendix G – Staff Members

Here's the current staff list and planned assignments:

Name	Call Sign	Primary Assignment
Jim Wilson	K5ND	Whatever
Rick Smith	N6GSE	Technical Team
Sjaak (Willem) Van Dam	PA3GVR/W4RIS	Technical Team
Robert Elsinga	PC5E	Technical Team
Mike Crownover	AD5A	Tech Team Leader
Donald Sonnefeld	KD2FIL	Quartermaster
Bill Stearns	NE4RD	Media Lead
Ilene Arends	TBD	Front Desk Team Leader
Tobias Senti	N/A	Front Desk
Elinor Sparrow	N/A	Front Desk
Remko Welling	PE1MEW	Demo Team Leader
Gary Wilson	K2GW	Demo Station Assistant Leader
Bill Bode	N4WEB	Demo Station Assistant Leader
Alejandro Candia	CE3JVS	Demo Station
Isabel Carreño	CE3TLE	Demo Station
Scott Hooper	HB9EAR/KTOP	Demo Station
Demi Pulas	K4BSA	Demo Station
Hannu Ratto, Banda	OH7GIG	Demo Station
Axel Limbosch	PE1NLM	Demo Station
Jeroen Limbosch	PE1PDI	Demo Station
Mike Sprenger	W4UOO	Demo Station
Kevin Ong	9M2KEV/N2KEV	Demo Station
Suraj Khanal	86HS608 ?	Front Desk
Andy Dunn	VE3XAD	Demo Station
Juliane Dunn	VA3JBD	Demo Station
Tatsuo Mochiki	JH1FEL	Demo Station
Ichiro Tanemura	JG2GFX	Demo Station
Moriya Kajiki	JE3PPG/AI6VE	Demo Station
Michael Cullen	K1NPT	ARDF Team Leader
Robert Ellis	VK5LBE	ARDF
Stein Ankarstrand	LA4MIA	ARDF Assistant Team Leader
Kaize Hong (Jerry)	BU2DE	ARDF
Frank Hohman	DL5FCV	ARDF
Charles Gardner	<u>Z21LW</u>	<u>Demo Station</u>

Staff recruiting is complete. We've established a web page listing staff at <https://k2bsa.net/world-jamboree-staff-members/>

Note that staff allocations for each IST operation are limited by country. Host nations are allowed 20%, other nations 10%. The NA1WJ operation made a special request to Jamboree leadership to expand the number of USA staff to 12 from the allowed 8 to take into account FCC control operator requirements and onsite staffing needs. That request was approved on 25 June 2018.

Appendix H – Balloon Launches

We will launch three mylar balloons with amateur radio payloads. These balloons are expected to reach 30,000 to 40,000 feet in altitude and drift with the winds. Many have traveled around the world several times. Unfortunately, we won't be able to track them for long during the Jamboree. But links will be provided on the website for follow-on tracking by Scouts after the Jamboree.

Circuit boards and balloons were purchased from Bill Brown, WB8ELK, at <http://hiwaay.net/~bbrown/> in May 2019. The amount is shown below. This includes 2 meter APRS for tracking within site of ARPS digipeaters. APRS call signs are NA1WJ -5, -6, -7, and -8.

Note that we've purchased 4 balloons and payloads. One to launch during a testing/learning activity in late June or early July by our balloon guy, Mike Cullen, K1NPT. The others for the Jamboree.

Of the Jamboree launches, we expect to launch one balloon during our set up and prep time before the Jamboree. This will not only give us experience but also allow us to demonstrate to Scouts the tracking process. Two additional balloons will be launched early in the Jamboree to gain not only time to observe their track but to also provide high interest launches early in the Jamboree to attract Scouts to our operation.

Icom America is providing sponsorship funding for this activity.

Item	Pricing	QTY	Totals	Notes
Helium				Determine how much is needed, buy at party store
SkyTracker APRS Payload	\$15 <u>3</u> .00	<u>4</u>	\$ <u>652</u> .00	2 meter APRS
Balloon		<u>4</u>	\$-	
Grand Total			\$ <u>652</u> .00	

Appendix I – Equipment Listing

Purchase/Donate/Borrow Items

Items not covered in BOM or in previous donations that need to be purchased, donated, or borrowed:

Purchased March 2019

Behringer HA400 Headphone Microamp, average price \$30, need 10

<https://www.musictri.be/Categories/Behringer/Signal-Processors/Headphone-Amplifiers/HA400/p/P0386>

SDHC Cards, 32 GB, for each IC-7300, average price \$15, need 6

Nifty Manual for IC-7300, IC-9100, ID-5100A, average price \$25, need one each to be shared.

One three foot double male ¼ inch stereo phone plug patch cable for each of the Behringer Headphone amps. Total 10.

1/4 inch to small phone plug adapters -- MFJ Headphones already have small phone plugs and adapters to 1/4 inch.

4 meter paracord and carabiner for all staff members to allow stowing daypacks along the wall of the tent.

Batteries for ARDF transmitters and receivers. Need sizes and quantity.

Electric plug-in pot for boiling water for use in drinks for staff members.

Coffee pot and coffee kit provided by Jamboree. Probably need additional coffee.

Paul Trotter, AA4ZZ, will be providing and helping set up a trailer with small tower and rotators/antennas with azimuth-elevation control for satellite contacts including the ISS.

Icom America

Model	Quantity	Notes
IC-7300 Council Loan Stations	7	Complete stations in Pelican case
IC-9700	2	Satellite contacts as well as HF and VHF/UHF
ID-5100A	2	Monitoring repeaters
SM-30 Microphone	6	In the IC-7300 Kits
PS-126 Power Supply	6	In the IC-7300 Kits
SP-5 Speakers	6	In the IC-7300 Kits

WV8BSA Repeaters installed at Rock Borrow

DX Engineering - donated 2017 and in warehouse at the Summit

Item	Order Number	Quantity
DX Engineering HEXX Beam	DXE-HEXX-5TAP-2	2
DX Engineering Control Cable	DXE-CW8	300
LBS HF Multiplexer	PB-TP500	1
Coaxial Cable RG-8X	DXE-8X	1000
Coaxial Cable Connectors PL-259 (24/pkg)	DXE-PL259CS8X-24	2
DX Engineering 4BTV Vertical System	DXE-HSR-4BTV-P1	2
17 Meter Add-On Kit	DXE-AOK-17M	2
30 Meter Add-On Kit	HSR-30-MTK	2
Low Band Systems Band Pass Filter	PB-F200-21	1
Low Band Systems Band Pass Filter	PB-F200-18	1
Low Band Systems Band Pass Filter	PB-F200-14	1
Low Band Systems Band Pass Filter	PB-F200-10	1
Low Band Systems Band Pass Filter	PB-F200-7	1
Low Band Systems Band Pass Filter	PB-F500-3-5	1

MFJ Enterprises - donated 2017 and in warehouse at the Summit

Item	Order Number	Quantity
Hy-Gain HAM IV Rotator	HyGain HAM-IV	1
Dipole antennas	MFJ-17754	3
Headphones for Demos	MFJ-392B	30

MFJ Enterprises - new donation to 2019 World Scout jamboree

Items delivered to Jim Wilson for transport to Jamboree.

2 ea MFJ-557 Straight Key with practice oscillator

2 ea MFJ-401E keyer (oscillator for iambic paddle)

4 ea MFJ-564B Iambic paddles

2 ea MFJ-461 Code Readers

4 ea MFJ-5166 Paddle to radio cables

4 ea MFJ-4125 @ 13.8 VDC X 25 amps for IC9100's

10 ea MFJ-392B headphones

JK Antennas - donation to 2019 World Scout Jamboree

Early information on the donation provided by Mike Crownover AD5A:

2 ea JK Navassa 5 <https://jkantennas.com/jk-navassa-5.html>

1 ea JK 401 Dipole <https://jkantennas.com/jk401.html>

1 ea JK 65 6m beam <https://jkantennas.com/jk65.html>

Aluma Tower Company - Loan to Jamboree

<http://www.alumatower.com/towers-telescoping-mast-systems/open-trailer-towers-tm-51-35-mobile-trailer-tower/>

To be towed from Florida to the Summit by Mike Sprenger, W4U00.

World Jamboree via Bill of Material Requests

Request submitted to World Jamboree leadership for materials and equipment.

Bill of Material Number WSJ2803

Demonstration Tent

SKU#	Description	WJ19 QTY
RENTAL - FOLDING CHAIRS	CHAIR, FOLDING	40
RENTAL - TENT	TENT, RENTAL, 40' X 40', WHITE	1
RENTAL - TENT FLOOR	Carpet, for tents, sq feet	1600
999100849	Wire System Grounding #6	200
999100847	Clamp Grounding 5/8"	8
999100850	Wire Braided Grounding #14	100
999000090	Pan Dust	1
999000080	Tape Insulated Electrical Blk	4
999100411	Knife Utility 5 Blade	2
999100410	Ties Cable Assorted 700pk	700
999100629	Monitor Flat 27"	10
IDG	Cables for monitors from Laptops	10
999100848	Rod Grounding 5/8"x8'	4
999000099	Lamp Desk Sm	10

999119000	Strip Power	12
999135000	Tape Duct Gray	8
999000048	Broom Sweep Straw	1
999162000	Easel w/ Carry Case	1
999000064	Cord Extension Outdoor 50' 16 gauge	4
999000065	Cord Extension Outdoor 100' 16 gauge	1
999000092	Liner Trash 50gal	1
999103905	Kit Office	2
999000003	Cart Garden	1
999118000	Can Trash 45gal Wheeled	2
999100265	Partition Wood 6'2"x 8'	16
FACILITIES	Telephone Pole	3
999101344	Table Folding 6'	12
999101251	TV 42" Flat Screen	4
999101399	Player DVD	2
999100835	Board Dry Erase Alum Frame 4x6	1
999159000	Tablet Chart Flip Paper	5
RENTAL TENT	TENT, RENTAL 40' x 40' WHITE	1
IDG - PRINTERS	LASER / ALL-IN-ONE Printer - including fax	1
IDG - WORKSTATION	server - 500 Gig	1
IDG - Wireless Network Hub	Wired or wireless network hub	1
IDG - LAPTOP	COMPUTER, LAPTOP	14
999000016	Cooler Water 5 gal Blu	3
999000068	Sheet Plastic 10'x100' 4ml	5
999100066	Cable HDMI 10'	4
999100882	Ladder Step Fiberglass12'	1
999157000	Board Dry Erase 24"x36"	2
999176000A	REAM PAPER COPY 8-1/2 X 11 500 SHEETS	4
K2BSA Stored Pallets from 2017 Jamboree	Antennas, cables, rotators, etc. stored from 2017	5
K2BSA Stored Items from 2017 Jamboree	Antenna poles, spools of coax cable	3

Additional change request submitted 10 December 2018 and again in March 2019 — pending confirmation:

999100030 Lights Twinhead 1000w Need 2 (use for night operations)

Rental Tent 20x20 dropped

Carpet for tent dropped

Bill of Material Number WSJ2804

Foxhunting and Support Tent

SKU#	Description	WJ19 QTY
RENTAL - FOLDING CHAIRS	CHAIR, FOLDING	20
RENTAL - TENT	TENT, RENTAL, 20' X 20', WHITE	2
RENTAL - TENT FLOOR	Carpet, for tents, sq feet	400
RENTAL - POD	PODS, CONTAINER, 8' X 16'	1
999100265	Partition Wood 6'2"x 8'	3
999118000	Can Trash 45gal Wheeled	2
999000092	Liner Trash 50gal	1
999119000	Strip Power	6
999101344	Table Folding 6'	6
999000003	Cart Garden	2
999135000	Tape Duct Gray	8
999000080	Tape Insulated Electrical Blk	4
999100411	Knife Utility 5 Blade	2
999000065	Cord Extension Outdoor 100' 16 gauge	1
999000064	Cord Extension Outdoor 50' 16 gauge	4
999101487	Punches Control 10pk	15
999101488	Marker Control	10
999100656	Compass BSA Silva Polaris	10
999101251	TV 42" Flat Screen	3
999103905	Kit Office	1
IDG - PRINTERS	LASER / ALL-IN-ONE Printer - including fax	1
IDG - WORKSTATION	server - 500 Gig	1
IDG - Wireless Hub	Wired or wireless network hub to connect laptops	1
IDG - LAPTOP	COMPUTER, LAPTOP	6
RENTAL	Tank of Helium for balloons	1
999000016	Cooler Water 5 gal Blu	3
999000027	FLAG PENNANT 105' RED & BLUE (1,500 TOTAL FEET)	1
999000059	Ties Cable 8" 100pk	1
999000060	Ties Cable 11" 100pk	1
999000068	Sheet Plastic 10'x100' 4ml	5
999000095	Rope Braided Yel 3/8x100' 1/4 x 100'	3
999100066	Cable HDMI 10'	3
999100093	Pot Coffee 30 cup	1
999100882	Ladder Step Fiberglass12'	1
999103714	Kit Coffee	1
999103715	Coffee Regular	14
999157000	Board Dry Erase 24"x36"	2

999176000A	REAM PAPER COPY 8-1/2 X 11 500 SHEETS	4
999103968	SOD STAPLES (BAG OF 300) 6" X 1" X 1"	1

Change Order submitted March 2019 to accommodate request to drop tent - confirmed May 2019.

SKU #	Item Description	Quantity	Proposed Quantity
RENTAL - TENT	Tent, Rental 20 x 20 White	1	0
RENTAL - TENT FLOOR	Carpet for tents, sq feet	400	0
999100265	Partition 6'2" x 8'	3	0
999100882	Ladder Step Fiberglass12'	1	0
999000068	Sheet Plastic 10'x100' 4ml	5	0
RENTAL - CHAIRS	CHAIR, FOLDING	20	12

Inventory K2BSA/NA1WJ Materials Stored at the Summit

All materials provided in 2017 by MFJ and DX Engineering (listed above and included in this listing).

Description	Qty
DX Engineering HEXX Beam	2
DX Engineering Control Cable	300
LBS HF Multiplexer	1
Coaxial Cable RG-8X	1000
Coaxial Cable Connectors PL-259 (24/pkg)	2
DX Engineering 4BTV Vertical System	2
17 Meter Add-On Kit	2
30 Meter Add-On Kit	2
Low Band Systems Band Pass Filter	1
Low Band Systems Band Pass Filter	1
Low Band Systems Band Pass Filter	1
Low Band Systems Band Pass Filter	1
Low Band Systems Band Pass Filter	1
Low Band Systems Band Pass Filter	1
Hy-Gain HAM IV Rotator	1
Dipole antennas	3

Headphones for Demos	30
PATCH panel	1
white boards approx 2' x 3'	3
cork board approx 2' x3'	1
white board 18" x30"	1
message boards 2' x3' for stick in letters	2
desk lamps	4
plastic tarps suitable for covering radios	14
roll 10' x 100 ' 4 mil contractor plastic	1
steel masts varying lengths 3-4 feet	4
Home made mounts w/bolts for wooden utility poles	5
box of assorted ropes	1
3 gallon Igloo water cooler	1
5 gallon Igloo water cooler	1

This is the listing of cables in storage at the Summit.

Description	ID / Type	Connector 1	Connector 2	Length (ft)	Qty
Rotator Cable	#1	Odd	Bare	110	1
Rotator Cable	#2	Round (F)	RECT (M)	102	1
Rotator Cable	#3	Bare	Bare	67	1
Rotator Cable	#4	Bare	Bare	64	1
Rotator Cable	#5	Bare	Bare	70	1
Rotator Cable	#6	RECT (F)	RECT (M)	202	1
Rotator Cable	#7	RECT (F)	RECT (M)	143	1
Rotator Cable	#8	RECT (F)	RECT (M)	67	1
Coax Cable	213	PL-259 (M)	N (M)	40	1
Coax Cable	8237	PL-259 (M)	PL-259 (M)	180	1
Coax Cable	8237	PL-259 (M)	PL-259 (M)	20	1
Coax Cable	8237	PL-259 (M)	PL-259 (M)	40	1
Coax Cable	9913	PL-259 (M)	PL-259 (M)	30	1
Coax Cable	8237	PL-259 (M)	PL-259 (M)	113	1
Coax Cable	8237	PL-259 (M)	PL-259 (M)	200	1
Coax Cable	9913	PL-259 (M)	PL-259 (M)	50	1
Coax Cable	9913	PL-259 (M)	PL-259 (M)	38	1
Coax Cable	213	PL-259 (M)	PL-259 (M)	200	1
Coax Cable	9913	PL-259 (M)	PL-259 (M)	100	1
Coax Cable	8237	PL-259 (M)	PL-259 (M)	100	1
Coax Cable	8237	PL-259 (M)	PL-259 (M)	30	1
Coax Cable	9913	PL-259 (M)	PL-259 (M)	50	1
Coax Cable	9913	PL-259 (M)	PL-259 (M)	12	1

Coax Cable	213	PL-259 (M)	PL-259 (M)	6	1
Coax Cable	9913	PL-259 (M)	PL-259 (M)	20	1
Coax Cable	9913	PL-259 (M)	PL-259 (M)	15	1
Coax Cable	9913	PL-259 (M)	PL-259 (M)	140	1
Coax Cable	9913	PL-259 (M)	PL-259 (M)	48	1

Appendix J – ARISS Contact

The ARISS education proposal for the 2019 World Jamboree was reviewed by key ARISS team members and NASA during July/August 2018. It was formally submitted to the ARISS approval process on 1 October 2018. Approval happened February 2019. Our assigned mentor is John Kludt, K4SQC. Our equipment plan was accepted in March 2019.

At this point the team that is focused on this contact include:

- Mike Sprenger, W4UOO, who has been involved in 2013 and 2017 ARISS proposals and contacts.
- Mike Cullen, K1NPT, who has proposed and operated several ARISS contacts.
- Donald Sonnefeld, KD2FIL, who has proposed and operated one ARISS Scouting contact.
- Paul Trotter, AA4ZZ, who has been involved in 2013 and 2017 ARISS proposals and contacts.
- Bill Stearns, NE4RD, who developed media promotion plans for the 2017 ARISS contact.

The contact will be a Radio Telebridge from a downlink / uplink amateur radio stations somewhere else in the world based on the limited orbits over the Summit during programme hours.

Here are excerpts from our equipment plan:

Audio Coordinator

Main Audio Point of Contact <i>Person coordinating the audio arrangements for the contact</i>	<p>Name: Mike Sprenger (W4UOO)</p> <p>Mailing address: 1513 Fox Hill Pl. Valrico FL 33596</p> <p>E-mail address: mikesprenger@gmail.com</p> <p>Landline phone #: TBD for Contact Location</p> <p>Mobile phone #: 813 503-0912</p> <p>Note: Mike Sprenger is a Broadcast/Webcast/Telephony professional hosting nearly 1000 webcasts annually for PwC LLP utilizing varying forms of Audio & Video "telebridge" technology. Approximately 10 percent of these are offsite "Events" setup in advance, tested prior, execute the event, then tear down post-event. (In other words, they do not occur from any type of "Studio") Several events have attendance (live) of more than 10,000 viewers.</p>
---------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Audio Information

Type of Phone System <i>Analog or digital</i>	Summit Bechtel Scouting Reserve has no Analog / POTS phone system infrastructure, therefore this application takes that into consideration.
Method of Connecting to Phone Line <i>Hardware manufacturer and model, etc.</i>	VoIP Approach: <p>Primary - SIP Phone on a Laptop with USB Sound Card</p> <p>Network: WiFi (vast network from Sponsor AT&T)</p> <p>Secondary - Mobile Phone with Audio Interface</p> <p>Network: AT&T GSM (vast network from Sponsor AT&T)</p>
Briefly describe how audio will be distributed between the PA system, phone line, and any other connections.	Sound System: <p>Sound system will consist of :</p> <p>2-4 Meyer Sound Labs UPA-1C Speaker Systems</p> <p>Allen-Heath Mixer</p> <p>Mix-minus audio to be sent to the Phone line</p> <p>Phone Receive Audio will be sent to the loudspeaker system</p> <p>Local Microphone(s) will be sent to the sound system.</p> <p>We can use DSP digital signal processing to provide excellent echo cancelling capabilities from any source, whether SIP from Polycom Soundstructure or the Soft Phone or Mobile Phone with JK Audio interface.</p>

Backup Options for Audio links to the Radio Telebridge:

Option B: Wired / VoIP Approach

Option B: This option would use a hardware interface (we are proposing to bring and use a Polycom Soundstructure C8) to register as a SIP telephone client with the VoIP telephony system at the Summit. We would accomplish this approach by coordinating with the telecom personnel at the Summit to exchange configuration details to register the Soundstructure to the Summit phone System using (SIP). This approach would be able to provide the highest quality digital telephony audio depending on the codecs available from the VoIP telephony system at the Summit. One of the significant advantages to the C8 Soundstructure is that it has built in Digital Signal Processing platform which provides

excellent echo cancelling capabilities. This option would require a physical network (ethernet) connection to the Summit Bechtel Network, and is not capable of using WiFi for network access. This approach would be backed up by another Soundstructure C8 DSP or a Crestron Avia processor. The nearest wired network connection is likely available at the nearby Scott Visitor center, needed make this approach viable.

Option C - using available Wireless Technologies:

Background:

With AT&T being (one of) the top Sponsors for the Jamboree, a technology emphasis was fulfilled in 2013 with highly capable GSM Wireless network by AT&T AND a highly capable infrastructure of WiFi towers enable Scouts and Leaders to use wireless everywhere at the Summit Bechtel Scout Reserve.

Approach C1 - "Primary" Using two Laptops laptops each with a SIP Soft phone installed and connected to external sound card to the sound system. A professional sound card could be used to provide connectivity to the sound system. This would be the part that leverages the WiFi network which is available everywhere on the Summit. This would provide reasonable quality audio for the event.

Approach C2 - "Backup" AT&T - Using a Mobile Phone (cell phone) with broadcast quality sound system connection. JK Audio offers professional quality interface that would bring reasonable quality audio from a mobile phone to the sound system, some versions would be bluetooth, others are hardwired. Most logical option is the bluetooth "daptor3" from JK audio.

Approach C3 - "Backup" Verizon - Using a Mobile Phone (cell phone) with broadcast quality sound system connection. JK Audio offers several professional quality interfaces that would bring reasonable quality audio from the mobile phone to the sound system, some versions would be bluetooth, others are hardwired. Most logical option is the bluetooth "daptor3" from JK audio.

Discussion:

Given the availability of the GSM (AT&T), CDMA (Verizon) and WiFi networks everywhere on the campus, using the wireless approach provides a solution in the case that we cannot obtain the needed wired network/telephony resources from the Summit Telecom team to enable a SIP telephone device via a wired network connection.

We diversify our approach in that we're using WiFi for approach "C1" and we're using a Cell Carrier AT&T for approach "C2", and Wireless Carrier Verizon for approach "C3" such that if theres a summit wide outage in WiFi, we have the statistical odds that, one of the three should work.

Disadvantage of both is that wireless / cellular could be inferior to a wired connection with higher quality codecs and hardware.

Advantage is that the majority of the control is in the K2BSA team's hands (assuming wireless network availability)

Equipment Purchase Needed:

Purchase required for a JK audio mobile telephone sound system interface for Approach C2/C3.
Cost - approximately \$400 for each JK Audio 'Daptor3' <http://www.jkaudio.com/daptor3.htm>

JK Audio supports ***HD Voice:** While standard phone calls have a narrow bandwidth of 300 Hz to 3.4 kHz, HD Voice calls offer 50 Hz to 7 kHz bandwidth. The additional 1.5 octaves on the low end gives voice a more natural sound, while the additional upper octave dramatically improves speech clarity and intelligibility.

***Wireless HD Calls:** To take advantage of this extended bandwidth, both phones on the call must support HD Voice, and both phones must be on the same carrier, in coverage areas that support HD Voice.

24th World Jamboree Story

Here is the 24th World Jamboree Story that will be shared with the astronaut and others working on this contact:

The 24th World Scout Jamboree is hosted by the North American team of Canada, Mexico, and USA. It is an event of the World Organization of the Scout Movement. 40,000 Scouts are expected to be in attendance from 160 countries. Scouts are ages 14 to 17, male and female, all races and nationalities. Official languages are English, French, and Spanish, but many other languages will be spoken at the event, reflecting the worldwide diversity of Scouting.

Amateur radio has been in operation at World Scout Jamborees since GB3SP in 1957 in the United Kingdom. From this effort grew Jamboree on the Air, now the largest annual Scouting event in the world with nearly 2 million Scouts participating. Subsequent World Jamborees provided amateur radio operations and most of the recent events also hosted an ARISS Contact. This track record demonstrates Scouting's ever present focus on science, technology, engineering, and math as well as the magic of making two-way contacts at a distance — even in space with an astronaut on the International Space Station.

The site of the World Scout Jamboree is the Summit Bechtel Scout Reserve in West Virginia, USA. This is also where the USA National Jamborees are held. Most recently Astronaut Luca Parmitano conducted an ARISS contact during the 2013 Jamboree. We send a special note to Astronaut Drew Morgan, an assistant Scoutmaster, for his encouragement during our proposal.

Appendix K – Electrical and Internet Requirements

Demonstration Station — GW16

Electrical Requirements ---

[Six 20 amp outlet boxes (four plugs each) have been designated]

Adding up all the equipment across 10 stations looks like 80 amperes at 120 VAC

Internet Requirements ---

Internet connections required for 10 stations for spotting networks, logging, and instruction/demonstration.

Foxhunting and Support Tents — GW21, GW20

Electrical Requirements ---

[Two 20 amp outlet boxes have been designated]

Adding up all the equipment looks like 20 amperes at 120 VAC

Internet Requirements ---

Internet connections required for 2 stations for spotting networks, logging, and instruction/demonstration.

Appendix L — WSJ Program Needs Declaration

Submitted to IT on 21 April 2018

Contact: Jim Wilson, phone 682-217-4030, jim.wilson@k2bsa.net

Jamboree Program Area: Centro Mondial (Andrew Miller)

Specific Program Area: Amateur Radio

Program Activity Physical Location: GW16 and GW21

What Type of data/network access do you need: WiFi Data, Other Radio Frequency, Ethernet with guaranteed bandwidth of at least 5 MB symmetrical

Describe: Ethernet to support streaming video events and online outreach. Wi-Fi for connecting internal stations to each other and central processing of data. Radio frequency for all amateur radio contacts.

Specific Network Type and Bandwidth: Ethernet with guaranteed bandwidth of at least 5 MB symmetrical.

Describe the theme and method of the overall program activity/event that will require data/network access: Video streaming of live amateur radio contacts including video of Scouts communicating with an astronaut on the International Space Station. Information on all amateur radio contacts will upload to a central logbook on the Internet. Information on stations available for contact will be downloaded from the Internet continuously. An operations plan can be found here <https://www.k2bsa.net/na1wj-world-jamboree-operations-plan/> Amateur radio frequency use will cover 3.5 MHz to 437 MHz.

Estimated number of participants: Ten active amateur radio stations with 5 Scouts at each station.

Duration of activity for average participant: 20 minutes

Dates and times of activity: From set up to teardown.

What size tent: 40x40 and 20x20

Will this activity require everyone to use an app or access the Internet in some other fashion? Internet browser for web-based tools, desktop computer internet access.

Will participants use BOM requested equipment or will they use personal phones: Jamboree BOM-requested equipment and Sponsor supplied amateur radios.

Appendix M — Program Hours and Demonstration Estimates

These are the calculations used to determine expected number of amateur radio demonstrations during the Jamboree based on what was achieved at the 2017 USA National Scout Jamboree at the identical location

2017 National Jamboree -- K2BSA				
Date	Number	Hours	Average/hour	Notes
19-Jul	143	5	28.6	
20-Jul	354	9	39.3	
21-Jul	378	9	42.0	
22-Jul	353	8	44.1	
23-Jul	267	5	53.4	Sunday services in morning
24-Jul	101	3	33.7	President Visit
25-Jul	276	9	30.7	
26-Jul	247	9	27.4	
27-Jul	338	8	42.3	
Total	2457	65	37.8	


Average 38/hour, peak 53/hour, and low 27/hour

World Jamboree 2019 -- Days and Hours		
Date	Hours	Notes
22-Jul	4	
23-Jul	9	
24-Jul	9	
25-Jul	9	
26-Jul	0	Program closed for Cultural Celebration Day
27-Jul	9	
28-Jul	7	Sunday morning open
29-Jul	9	
30-Jul	9	
31-Jul	9	
1-Aug	7	Close all program at 3 PM
Total	81	

With an average of 38 per hour, this should get us close to 3,078 if all goes well and we have a similar number of stations operational.


Appendix N — Program Hazard Analyses

This is a copy of the Program Hazard Analyses for the amateur radio operation that were completed at the request of the Jamboree.



2019 WORLD SCOUT JAMBOREE

Program Hazard Analysis



Group Area (check one): Program X Operations Logistics Administration

Subgroup (e.g., Adventure, Puma & Mt. Jack, Contingent Support, Sustainability & Maint) (write in) Amateur Radio Demonstration Station

Specific Program or Activity (what will your staff do?) Amateur radio demonstrations that allow Scouts to communicate with others around the world.

This requires electrical power, radio transceivers, computers, antennas, and licensed amateur radio operators.

Please review the PHA instruction page before completing the below items.

TASK/HAZARD DESCRIPTION	POTENTIAL INJURY or ACCIDENT	CONTROLS, PROCEDURES and/or PERSONAL PROTECTION
Weather — rain, lightning, wind	Electrocution	Lightning protection devices, station grounding, cease operations.
Electrical	Shock hazard	Proper installation, care during installation, cease operations in unsafe conditions.
Radio Frequency	Burns from high power radio frequency energy	Establish a safe perimeter around antenna installations.
Installation of antennas on top of telephone poles	Falling	Bucket truck to install antennas on telephone poles. Utilize proper fall protection equipment.
Fire	Burns	Evacuation plans, fire extinguishers, training for rapid response.

Use additional sheet(s) if necessary

This form completed by: Jim Wilson

Name

jim.wilson@k2bsa.net

email address

04/25/2018

Date Prepared (MM/DD/YYYY)

Safety Is No Accident - It Must Be Planned

Page of



2019 WORLD SCOUT JAMBOREE

Program Hazard Analysis



Group Area (check one): Program X Operations _____ Logistics _____ Administration _____

Subgroup (e.g., Adventure, Puma & Mt. Jack, Contingent Support, Sustainability & Maint) (write in) Amateur Radio ARDF-Foxhunting

Specific Program or Activity (what will your staff do?) Amateur Radio Direction Finding (ARDF) or Foxhunting uses receivers and directional antennas to find hidden transmitters laid out over an outdoor course similar to orienteering using radio direction finding.

Please review the PHA instruction page before completing the below items.

TASK/HAZARD DESCRIPTION	POTENTIAL INJURY or ACCIDENT	CONTROLS, PROCEDURES and/or PERSONAL PROTECTION
Weather — rain, lightning, wind	Electrocution	Close event due to extreme weather problems
Wildlife	Snake bites, animal bites, insect bites	Present precautions to Scouts. Ensure first aid kits are available. Provide training and phone numbers for medical assistance.
Terrain	Hazards such as mine shafts, thick woods, streams, uneven ground, falls	Route the course around such hazards. Train Scouts on handling terrain issues.
Equipment	Rigid antennas could cause a hazard to self and others when running	Provide flexible antennas that do not cause a hazard.

Use additional sheet(s) if necessary

This form completed by: Jim Wilson

Name:

jim.wilson@k2bsa.net

email address

04/25/2018

Date Prepared (MM/DD/YYYY)

Safety Is No Accident - It Must Be Planned

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Appendix O – Scout Suggested Operating Frequencies

HF SSB Voice

Band	WOSM Calling Frequencies	Suggested Band Segment for US Stations	Notes
80 m	3.940 & 3.690(1)	3.920 – 3.940 3.670 – 3.690 (1)	(1) Extra segment
40 m	7.190 & 7.090 (2)	7.180 – 7.200 7.270 – 7.290	(2) 7.090 not available in Region 2
20 m	14.290	14.270 – 14.290 14.320 – 14.340	
17 m	18.140	18.140 – 18.150	
15 m	21.360	21.360 – 21.400	
12 m	24.960	24.960 – 24.980	
10 m	28.390 (3)	28.350 – 28.400 (3)	(3) Includes Novices & Techs
6 m	50.160	50.160 – 50.200	

HF CW

Band	WOSM Calling Frequencies	Suggested Band Segment for US Stations	Notes
80 m	3.570 (3)	3.560 – 3.570 (3)	(3) Includes Novices & Techs
40 m	7.030 (3)	7.030 – 7.040 (3)	(3) Includes Novices & Techs
20 m	14.060	14.050 – 14.060	
17 m	18.080	18.070 – 18.080	
15 m	21.140 (3)	21.130 – 21.140 (3)	(3) Includes Novices & Techs

12 m	24.910	24.900 – 24.910	
10 m	28.180 (3)	28.170 – 28.180 (3)	(3) Includes Novices & Techs
6 m	50.160	50.150 – 50.160	

HF PSK-31

<http://bpsk31.com>

Call CQ JOTA. The chart below shows the commonly used frequencies for PSK-31.

Band	Frequency	Notes
80 m	3.580	
40 m	7.080 (4)	(4) Region 2 (USA). 7.040 to 7.060 for Regions 1 & 3
30 m	10.142	
20 m	14.070 (5)	(5) Most activity for JOTA will be on 20 m
17 m	18.100	
15 m	21.080 (6)	(6) Most activity can be found at 21.070
12 m	24.920	
10 m	28.120	

2 Meter FM Simplex

147.450, 147.480, 147.510, 147.540* * Use 147.540 as Calling Channel. Always listen first to avoid interfering with another QSO or auxiliary or control link. Avoid 146.520, the National FM Simplex Calling Frequency, as well as 146.550, which is commonly used by mobiles and RVers.

70 CM FM Simplex

446.000*, 445.950, 446.050, 446.100, 446.150 * Use 446.000 as Calling Channel. Always listen first to avoid interfering with another QSO or auxiliary or control link.

D-STAR

<http://www.dstarinfo.com>

REF033A has been allocated as a full-time JOTA/Radio Scouting D-STAR Reflector. After contact is established, stations should disconnect from REF033A and connect to one or other repeater or migrate to an unused Reflector.

SIMPLEX Channels: 145.670*, 145.640, 145.610, 438.010. * 145.670 and 438.010 are commonly used as the National D-STAR Simplex Channels and should be used only as Calling Channels for JOTA. Always listen first to avoid interfering with another QSO.

DMR

<http://www.dmr-marc.net>

All wide area talkgroups are permitted for use for JOTA for establishing contacts. After contact is established, stations should utilize as few resources as possible. For international, national, and regional QSO's, stations should move their transmissions to one of the DMR-MARC UA talkgroups or to the DCI TAC-310 talkgroup.

For intrastate contacts, stations may use their area's statewide talkgroup (if applicable). The use of your repeater's local talkgroup (if applicable) is always permitted. A full list of repeaters and their available talkgroups can be found at <http://www.dmr-marc.net/repeaters.html>.

SIMPLEX Channels: 441.0000*, 446.5000, 446.0750, 433.4500, 145.7900*, 145.5100. All simplex frequencies operate on time-slot 1 and use color code 1. (*are commonly used as the National DMR Simplex Channels and should be used only as Calling Channels for JOTA. Always listen first to avoid interfering with another QSO.) This is TG99.

DMR-BRANDMEISTER

The 907 Talk Group has been established so youth can talk worldwide with each other under the correct supervision as outlined in each country's amateur radio rules for Digital Networks and letting non Amateurs use your equipment on air. (Each Country does differ so do read your rules). The Talk Group is for Scouting, Girl Guides, Youth Groups, Schools and related youth activities.

BrandMeister DMR has set up a World Wide Talk group called 907 JOTA. TG 907 & Reflector 4907 (Open 365 days a year) 907 is only one talk group. Under your Amateur License you can use all Talk groups on BrandMeister. You might wish to talk to regions/countries away from 907.

What you will need to access TG 907 on Brandmeister-DMR: You will need a DMR radio. 907 added to you radio as a channel 907 or assess via reflector 4907. You will also need a Repeater or DV device linked to the Brandmeister network

Ham radio rules apply for making initial contact. It's a good idea to establish contact and move your QSO off to another Talk Group. If TG 907 isn't busy, it's OK to stay there.

The two links below cover all Talk Groups & Reflectors world wide.

Talk Groups <https://brandmeister.network/?page=talkgroups>

Reflectors <http://registry.dstar.su/dmr/reflector.db>

Facebook Group — BrandMeister

907 <https://www.facebook.com/groups/1644270179235342/>

* Please note that currently three unique DMR systems exist world-wide: DMR+, DMR-MARC and Brandmeister.

EchoLink

<http://www.echolink.org>

Software or apps available for Windows, Mac, iPhone/iPad, and Android. Dedicated Conference Node *JOTA-365* (node 480809). When contact is made on a Conference Node, it is recommended the two parties establish direct contact with each other to free up the Conference Node.

APRS

144.39

<http://aprs.org>

<http://aprs.org/cqsrvr.html>

<http://www.aprs-is.net/CQSrvr.aspx>

CQSRVR: CQ JOTA

CQSRVR: CQ SCOUTS (other times of the year)

Appendix P — HT Programming Assistance

Gary Wilson, K2GW, and Rick Smith, N6GSE, will be working together to provide hand-held programming services for staff members and all those at the Jamboree would require assistance to get the Jamboree repeaters set up on their HTs.

Rick will be bringing along small laptops with CHIRP installed as well as a number of programming cables. He will also have RT Systems software and cables for Yaesu VX-8R and Icom IC-51 and ID-51 Plus. Jim Wilson will bring cables for the ID-31A. Other staff members are encouraged to bring their own cables that might help this effort.

Gary has produced a spreadsheet that lists the full capability of CHIRP software that can be found at this link

[https://www.dropbox.com/s/1hq4y811f2cvy52/W2ZQ Chirp Capability.xlsx?dl=0](https://www.dropbox.com/s/1hq4y811f2cvy52/W2ZQ%20Chirp%20Capability.xlsx?dl=0)

Appendix Q — QSL Card, Patch, and Coin Design

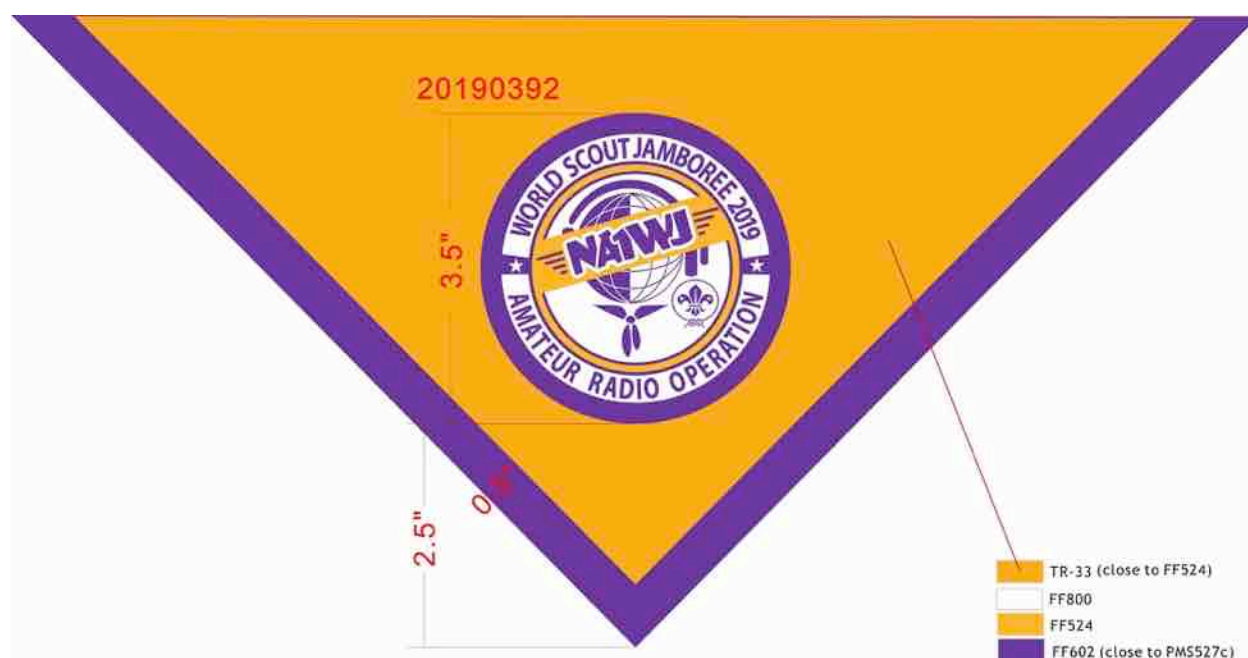
Here's the final design for the front of the QSL card.



We've developed a patch design so that each staff member will receive 10 patches.



A private donor will also be providing neckerchiefs for all staff members:





We've also prepared a design of a 1.75" ceramic coin that will be provided to all Scouts that complete the amateur radio demonstration.

Arc Text: 151F6D
 Purple: 622599
 Yellow: FFB81C



Rim Text: RADIO SCOUTING • 37° 55' N 81° 08' W • EM97kv •

Icom America World Jamboree Promotion Campaign

Coins for Scouts, 1.75" ceramic coins with NA1WJ images (5,000) for Scouts who go through the demonstration station and ARDF-Foxhunting.

Patches for Operators, embroidered patches, 10 per operator.

QSL Cards

Demo Cards, used by Scouts to record their contacts and take with them.

Calendar Sheet marked with key Jamboree dates and frequencies. To be handed out a ham shows to encourage contacts.

Magnets marked with dates and frequencies. Handouts at ham shows.

Advertising in QST magazine's June 2019 issue to support a World Jamboree article. The QST article has been accepted for publication by the ARRL.

Here are the designs.

Magnet for handout at Hamvention and other Hamfests



Handout Calendar Sheet for Hamvention and other Hamfests



Coordinate Your Calendar and Your Rig's Dial

Daytime, when your QSOs are needed for Scout demonstrations, watch for 40, 20, 17, and 15 meters.

Evenings should work well on 80 and 40 meters.

Starting points for SSB include:

80 meters	3.940 MHz
40 meters	7.190 MHz
20 meters	14.290 MHz
17 meters	18.140 MHz
15 meters	21.360 MHz
12 meters	24.960 MHz
10 meters	28.390 MHz
6 meters	50.160 MHz

CW, PSK, and FT8 operations are also expected.
Watch for real time updates on social media and our website:

Website: www.NA1WJ.net
Facebook: [K2BSA.Scouting](https://www.facebook.com/K2BSA.Scouting)
Twitter: [NA1WJ_Scouting](https://twitter.com/NA1WJ_Scouting)

Also check out our group at na1wj+subscribe@groups.io

There is also access via VOIP channels including:
Echolink Conference Node "JAMBO"
D-Star Reflector REF033A







Don't miss out on a once in a lifetime chance to work NA1WJ at the World Scout Jamboree held at the Summit Bechtel Scout Reserve in West Virginia.

The World Scout Jamboree is held every four years, most recently in Japan in 2015 with 8N23WSJ and Sweden in 2011 with SJ22S. Scouts from nearly 160 nations attend and participate in many life-changing experiences.

This is your chance to work the Scouts and help the NA1WJ station introduce amateur radio to thousands of Scouts.

Key Dates:
 18 to 21 July — Early set up and some on the air contacts.
 22 July to 1 August — Program Activities including getting Scouts on the air.

Program Times:
 Typically 8 AM to 5 PM Eastern Time.
 Operations will be around the clock for QSOs.

July 2019

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
14	15	16	17	18	19	20
				NA1WJ Jamboree Setup and Testing		
21	22	23	24	25	26	27
Final Testing	NA1WJ Program Activities and Scouts on the Air					
28	29	30	31	Continued NA1WJ Scouts on the Air		

IC-7300



ID-5100A





Demo Card for use in station handed to each Scout involved in a demonstration. (folds in the middle and fits in a pocket.

37° 53' N 81° 06' W

NA1WJ

For active participation in an activity at
Amateur Radio Station NA1WJ
at the Summit Bechtel Scout Reserve

is awarded this certificate as a record of achievement.

NA1WJ.NET

34th WORLD SCOUT JAMBOREE SCOUT MONTANA

powered by **ICOM**

Date	Time UTC		Frequency (MHz)	Mode	Station Called/Worked	Report		Remarks
	Start	Finish				Sent	Rec'd	

NA1WJ CONTACT LOG

NA1WJ Control Operator _____ Date _____

37° 53' N 81° 06' W

NA1WJ.NET

Appendix R — Potential Visitors

ARRL — Bill Morine, N2COP, Vice Director Roanoke Division; Bud Hippisley, W2RU, Director Roanoke Division. Pending scheduling.

Icom America — Will Jourdain, AA4WJ, attending Jamboree July 23 to 25 as VIP

Paul Trotter, AA4ZZ - for delivery and pickup of satellite antenna trailer.

Hector Garcia, XE2K - for tower and antenna installation.

Appendix S — Online Task Listing

We've established an online task listing so that everyone can find it and contribute with additional items and to mark completions. Here's the link:

https://docs.google.com/spreadsheets/d/1oAaEtQFhzEVvEuom-EHzlye_wv5c2azE2kmh4mZlTpM/edit?usp=sharing

Appendix T — Open Items

W8J - JOTA-JOTI Exhibit Station - equipment provided by Icom/MFJ via NA1WJ operation. Call sign reserved for maximum 15 days - 19 July to 2 August 2019. They must provide their own laptop, if desired.

Bucket Truck from AEEL, Beckley, phone 304-255-7438 — Leon is the guy that does the work. Requested for 19 July to Bob Scott. Take down for August 2 or 3.

This has been confirmed by Summit and Jamboree leadership.

Paul Trotter, AA4ZZ, is bringing a trailer with satellite antennas. Need to secure access for 18 July.

Mike Sprenger, W4UOO, is bringing alumina tower on a trailer. Also 6 meter yagi and the necessary technology for the ARISS contact. He is scheduled and has access approved.

Appendix U – Guest Operations Policy

Objective

To allow for visiting amateur radio operators to operate the station who would like to have the experience of operating a World Jamboree station and where possible contact family members, Scouts, etc. It is not meant to supplement the existing staff of operators nor conduct demonstrations for Scouts. This policy also addresses those individuals without licenses who may wish to operate the station under supervision.

Applicable USA FCC Regulations

ARRL Control Operator FAQ at <http://www.arrl.org/regulatory-faqs>

The NA1WJ License Control Operator is Donald Kunst, W3LNE, trustee for the NA1WSJ Radio Association, which holds the license. Appointed control operators will be on site and part of the Jamboree IST assigned to the amateur radio operation. They will be appointed by the NA1WJ Team Leader and supervised by the Demonstration Station Team Leader. At least one control operator will be on duty at all times. They will need to hold an FCC issued Amateur Radio Extra Class license. [FCC regulations 97.103(b) and 97.105] They will take all action necessary to ensure proper operation.

Any licensed amateur radio operator can operate the station under the supervision of the control operator. This includes all FCC issued licenses and those who hold licenses in countries with reciprocal operating privileges in the USA. This includes all those countries with multilateral operating agreements with the USA, CEPT, or IARP. The list of countries can be found at <http://www.arrl.org/reciprocal-permit> More details on Operation in the US by Foreign Amateurs can be found at <http://www.arrl.org/foreign-licenses-operating-in-u-s>

Those who do not hold an amateur radio license must be supervised at all times by the control operator and they must communicate only with those countries that have third-party agreements with the USA [FCC regulations 97.115(a) and (b)] The latest listing of third-party agreements is at <http://www.arrl.org/third-party-operating-agreements>. Note that this same rule applies to all unlicensed Scouts and others using a station microphone during a demonstration.

Guest Operations Process

Front Desk process for licensed operators:

- Validate amateur radio license and identity.
- Document on-site contact information: text, email, etc.
- Determine whether operation will be with NA1WJ call sign or individual's own call sign.
- Determine desired operating days/times.
- Notify potential guest operator that this is a courtesy and not a commitment. Operations will be dependent on availability and other station priorities.
- Add to Guest Operator Schedule for sharing with station leadership.

Demonstration Station Leadership procedures:

- Determine current availability of station based on critical assignments.
- With guest operator, review operating procedures and requirements including third-party traffic regulations.
- Assign to station and directly observe operations to ensure compliance with procedures.
- Closely monitor operation during guest operator time in the station.

Front Desk process for unlicensed operators:

- Determine whether ongoing station demonstrations cannot address the individual's request.
- Document on-site contact information: text, email, etc.
- Determine desired operating days/times.
- Notify potential guest operator that this is a courtesy and not a commitment. Operations will be dependent on availability and other station priorities.
- Add to Guest Operator Schedule for sharing with station leadership.

Demonstration Station Leadership procedures:

- Assign an NA1WJ operator to work directly with the individual to operate the station and allow them time to communicate.
- As with all station demonstrations, ensure compliance with third-party traffic regulations.
- Control operator will monitor operation as with any other station in the tent.

Appendix V – Shipping Address for Donations, Loans, etc.

Arrival on 1 June 2019 to facilitate packing and delivery to NA1WJ operation.

Ship to:

Arnold Logistics Center

92 Logistics Center Way

Mt. Hope WV 25880

K2BSA Amateur Radio - NA1WJ

B.O.M. -- WSJ2803

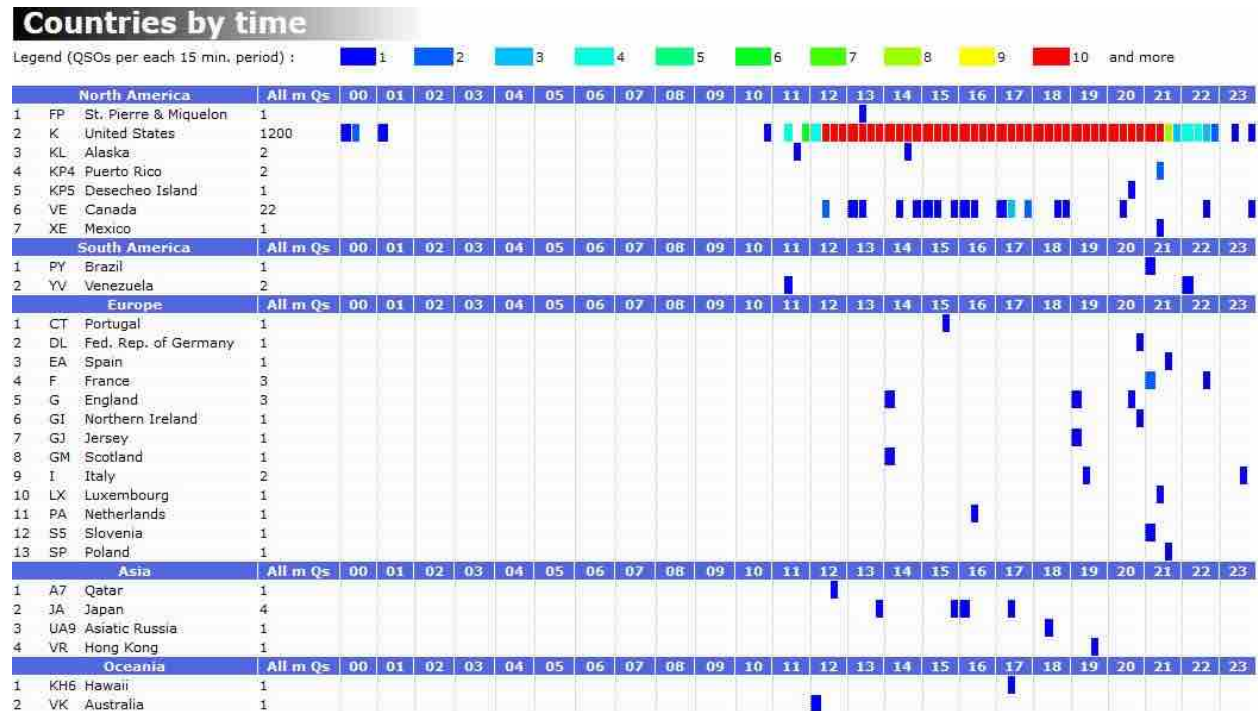
Point of Contact: Jim Wilson, 682-217-4030

Appendix W – Evening Operations

We will be able to operate at night with our staff, Scouts not expected. Security has been notified. We will need a schedule for staff coverage. We will need a minimum of two ops at all times. This is the buddy system and it will also help should Scouts show up unexpectedly. Meals will have to be taken within the existing IST arrangements. We cannot have them delivered, etc. Water and toilets are available nearby.

Appendix X – 2017 Logbook Analysis

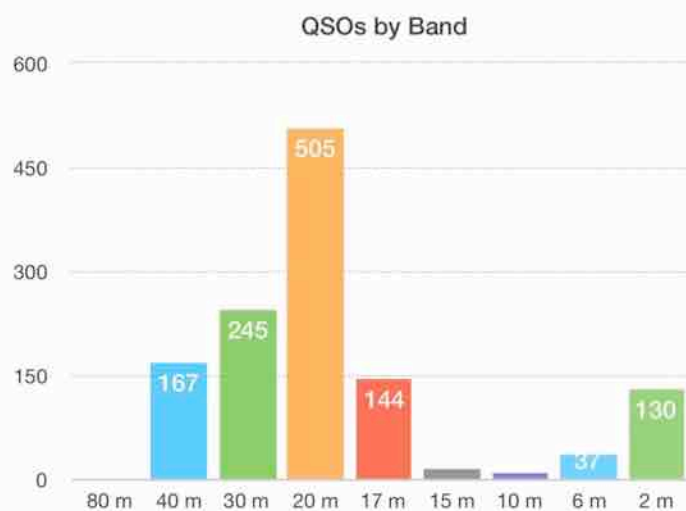
Kevin Ong, 9M2KEV, conducted an analysis of the K2BSA USA Jamboree operation from July 2017 in the same location with close to the same equipment. This is a reasonable projection of the type of propagation we should expect for 2019 although we'll add some excellent JK yagis and operate in the evening.



Countries																				
#	Cont.	Country	Distance, km	QSOs																Bands
				CW	DIG	SSB	160	80	40	20	15	10	30	17	6	2	All	%		
1	AS	A7 Qatar	0			1											1	1	0.1	1
2	EU	CT Portugal	0			1											1	1	0.1	1
3	EU	DL Fed. Rep. of Germany	0		1								1					1	0.1	1
4	EU	EA Spain	0		1								1					1	0.1	1
5	EU	F France	0		3								3					3	0.2	1
6	NA	FP St. Pierre & Miquelon	0			1				1								1	0.1	1
7	EU	G England	0		1	2							1	1			1	3	0.2	3
8	EU	GI Northern Ireland	0			1				1								1	0.1	1
9	EU	GJ Jersey	0			1								1				1	0.1	1
10	EU	GM Scotland	0			1											1	1	0.1	1
11	EU	I Italy	0		1	1				1				1				2	0.2	2
12	AS	JA Japan	0			4	2										2	4	0.3	2
13	NA	K United States	0	119	204	875	4	2	163	490	14	9	227	135	37	119	1200	95.3	10	
14	OC	KH6 Hawaii	0			1				1								1	0.1	1
15	NA	KL Alaska	0			2											2	2	0.2	1
16	NA	KP4 Puerto Rico	0	2										2				2	0.2	1
17	NA	KP5 Desecheo Island	0			1				1								1	0.1	1
18	EU	LX Luxembourg	0		1								1					1	0.1	1
19	EU	PA Netherlands	0			1											1	1	0.1	1
20	SA	PY Brazil	0			1								1				1	0.1	1
21	EU	S5 Slovenia	0			1				1								1	0.1	1
22	EU	SP Poland	0		1								1					1	0.1	1
23	AS	UA9 Asiatic Russia	0			1			1									1	0.1	1
24	NA	VE Canada	0	2	6	14			3	9			6	3		1	22	1.7	5	
25	OC	VK Australia	0		1								1					1	0.1	1
26	AS	VR Hong Kong	0			1											1	1	0.1	1
27	NA	XE Mexico	0	1											1			1	0.1	1
28	SA	YV Venezuela	0	1	1								2					2	0.2	1

This is the number of QSOs by band in 2017.

2017 USA National Jamboree K2BSA	
BAND	TOTAL QSO
80 m	2
40 m	167
30 m	245
20 m	505
17 m	144
15 m	14
10 m	9
6 m	37
2 m	130



Appendix Y — Jamboree Guidebook Entry

Here's the first draft entry for amateur radio in the Jamboree Guidebook. We expect to see the full draft of all entries followed by further editing.

Area: Amateur Radio NA1WJ

Location: Gateway 10 — near the Summit Center zip line northern terminus — look for the antennas.

Operating Hours: Open all programme hours

Activities: Given the right conditions, amateur radio can span the globe, connecting the World Scout Jamboree to those who cannot join us. Stop by and help us make it happen.

We'll have ten amateur radio stations on the air talking to other stations around the world. Our primary purpose will be to get you in front of the microphone so that you can participate in the science, technology, fun, and magic of amateur radio.

We'll also be using amateur radio direction finding to locate hidden transmitters. You'll be shown how to use a directional antenna and then set out on a course over the Summit Center to find these transmitters.

We've further planned a few special events. These include using amateur radio satellites to communicate with other stations, launching three balloons with amateur radio payloads that we'll be able to track as they cross the Atlantic Ocean, and we have a planned contact with an astronaut on the International Space Station — stay tuned for the exact day and time.

Want to talk to an astronaut on the ISS? Stop by early and get in the drawing to be one of 15 Scouts selected.

Quote / Tagline: The Science and Technology of Amateur Radio Extends Around the World and Even into Space — Stop By and Be A Part of It

IST Information: All licensed amateur radio operators with privileges to operate in the USA should bring their VHF-UHF handie-talkies and make use of the available FM, D-Star and DMR repeaters. We will also hold a nightly net. See this page <https://k2bsa.net/wv8bsa-repeaters/> for more information on frequencies. See this page <http://www.arrl.org/foreign-licenses-operating-in-u-s> for information on operating in the USA.

Appendix Z — Other Station Schedules

Here we can keep track of other station operations that are expected during the Jamboree. Also review Scout Camps on the Air at <http://scota.us/calendar.php>

K5PSR and K5K at Philmont — D-Star, Echolink, and HF

GB100GP at Gilwell Park — As many of you will be aware, 2019 marks the centenary of Gilwell Park belonging to The Scouts. In commemoration of this, OFCOM have granted the use of a special callsign at Gilwell Park – GB100GP – for the whole of 2019.

It is intended that we will activate this callsign at all the major events this year – Fun Days, Gilwell 24, JOTA-JOTI and Scarefest. We may also, infrastructure permitting, be able to use it during Gilwell Reunion for demonstrations.

In addition to the above, there will be a special 4 day activation of the callsign, from July **25th to July 28th, to cover the actual anniversary itself** – July 26th, the day that Gilwell Park was officially opened as a Scouts site. For further information about the history and origins of Gilwell Park, do refer to Scout Factsheet FS145001 – The Origins of The Wood Badge, available at <https://members.scouts.org.uk/factsheets/FS145001.pdf>

From Malcolm GM3TAL and the team at KARS

The KARS group at the Fordell Firs Scottish Scout HQ campsite will be using special call GB0FFS for the duration of the WSJ. We plan to operate from GM during the "opening hours" at WSJ and, hopefully, after hours as well, probably on 7 MHz. We plan to use IC7300 + ACOM 1000 to 3 ele yagi for 20.15, 10 metres and a phased pair of delta loops for 40 metres beaming at West Virginia. We should also manage 80 m at night using a dipole.

Our shack is being refurbished and we now have an access ramp, kitchen and bathroom. So should provide some comfort for visitors and operators. All we need is good conditions for HF propagation!!

Leave a message on this blog if you'd like to try for a QSO - as well as WSJ we hope to be in a position to work other Scout stations in Canada, USA and Mexico. It would be good to hear from you!

And, of course, from Scout stations anywhere else in the world - we cannot guarantee QSOs but we shall try!!

From NA1WJ groups.io

From Loek Geertsen — Netherlands Jamborette

Is it possible to make a sked between your Jamboree station **NA1WJ** and our Jamborette station **PA13HJ**?

Our international scouting camp is from July 28 to August 6, 2019 and our amateur radio station will be QRV every day during the camp, plus a few days before and after.

See: <https://www.qrz.com/lookup/pa13hj>

Our daily program with the scouts is from 08:00-10:30 and 12:00-14:30 UTC. But PA13HJ will also be QRV during the whole day long. And even longer depending on radio conditions.

Previous camps the staff asked for radio contact with the world jamboree station. This time that question has already been asked.

We are also QRV during the Summer camp radio meeting on Wednesday 31 July 2019 during the European round at 6:30 pm UTC at 3690 kHz ± QRM.

We know that there is a time difference between Europe and North America. But look forward to at least 1 QSO. HI

-

Loek Geertsen ----- <mailto:swl.ham@xs4all.nl>

Cluster leader Technology

<https://www.haarlemjamborette.nl/>

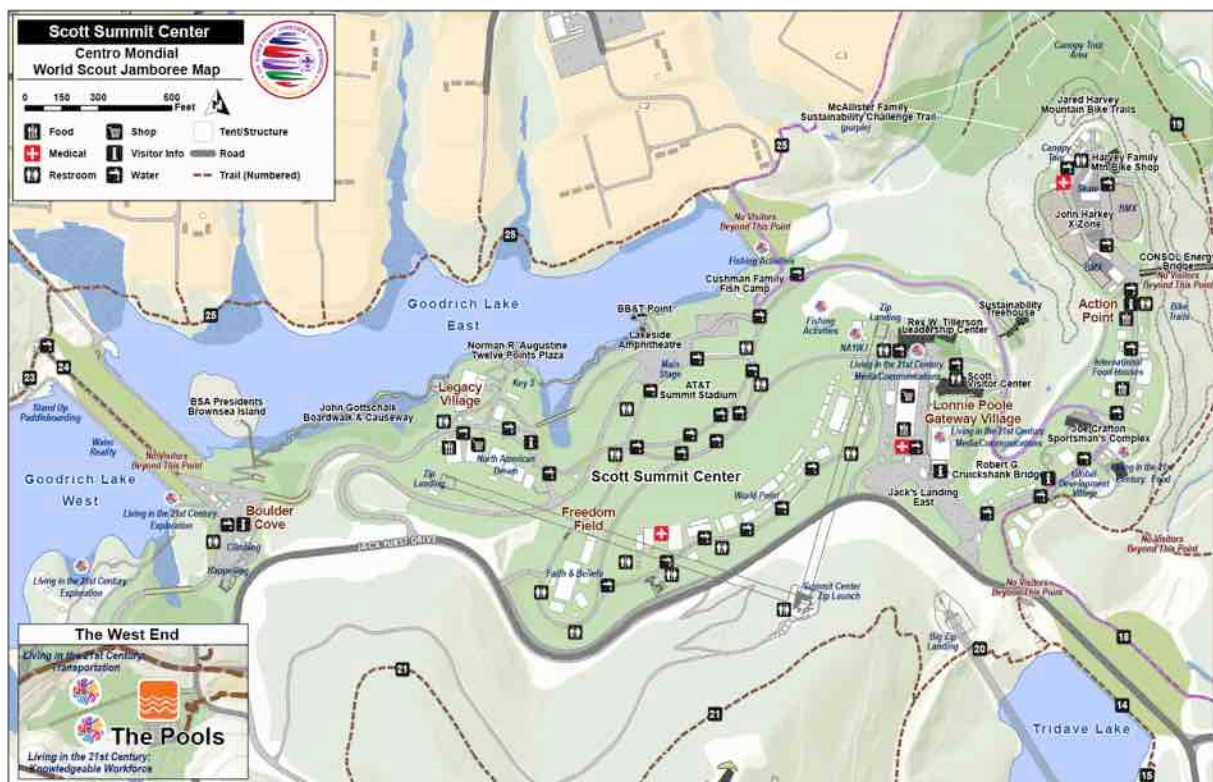
Appendix AA — Station Location

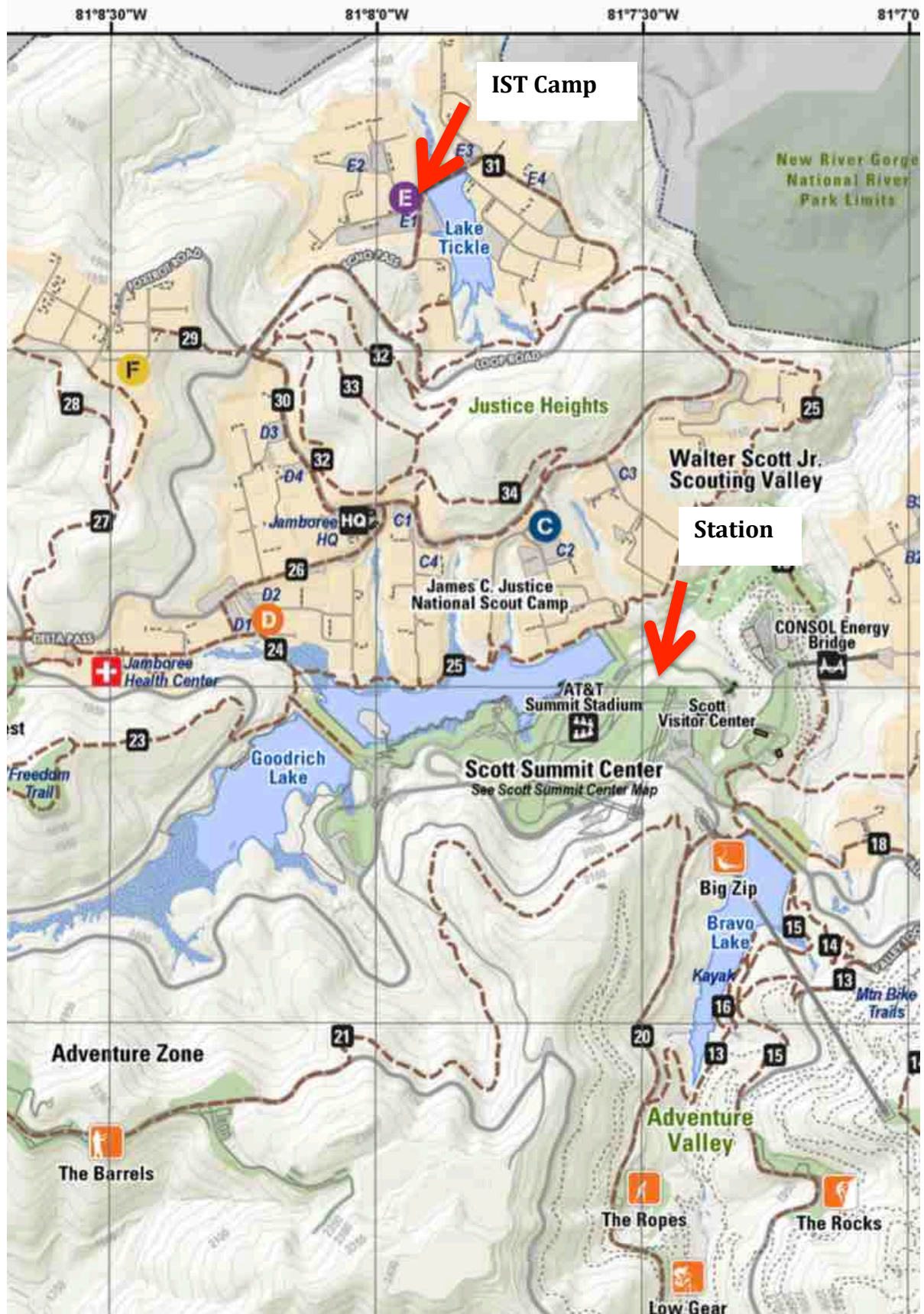
The station is located in the Summit Center Gateway — Tent GW-10

The IST Camp is in Echo.

Note that the Living in the 21st Century leadership is planning on having a welcome tent in the IST staff area. This will allow you to find your tent, drop off your gear, and head to the welcome tent where they can direct you on finding your work location.

An alternative is just go to the Summit Center, the Scott Visitor Center, the Stadium, or the Tillerson Leadership Center. Once at any of those locations — look for the telephone poles and antennas.





Appendix AB — Plan for Monthly Meeting for Demonstration Station Team Member

Purpose

The team members of the NA1WJ demonstration station at the 19th World Scout Jamboree are international and from countries all over the world. These team members are scouts that might know each other from previous World Scout Jamborees or from JOTA-JOTI but for many of them it will be the first time they will work together at the 19th WSJ.

In preparation to the WSJ a small (core)team will do planning and preparations for the demonstration station. This includes periodic meetings in which they have contact and get to know each other. These preparation activities aid in shaping the team. We want to offer all team members of the demonstration team the opportunity to get to know the team and its members so they form a team before they even have started at the WSJ.

In preparation to the WSJ we want to offer the demonstration team members of NA1WJ to get to know each other in advance to the period in which we will operate NA1WSJ.

How

- Starting February we will organise monthly meetups for NA1WJ team members. All team members are welcome.
- For the meetups we will use Zoom (<https://zoom.us/pricing>) This platform is a universal and accessible for free. It will solve the issue of different systems that are not interoperable (Skype and Skype for business for example).
- Meetups take maximal 40 minutes (Limitation of Zoom free). But can be restarted when required. It is good to limit the time so it fits more easily within someone's calendar and to keep efficiency of the meetup high.
- The meetup will be held in the weekend to allow all members to participate. Because of time zone differences it might be difficult to satisfy all member requirements. Therefore we will have to experience what constraints are in place. Based on this we might have to adapt the schedule or plan extra meetups. The last is not preferred.
- During the meetup we will have
 - short announcements from the core/leadership team
 - team member introductions
 - Discussions on topics
 - Free formate exchange of experiences and ideas.

- Meetup will be hosted by one of the demoteam core team members (Gary, Bill or Remko) who will also be the chairman of the meeting.

Planning

Time

Because of time zones Meetups will be during the weekend and at such time that the majority of the team members can attend. Figures 1 shows global time zones.

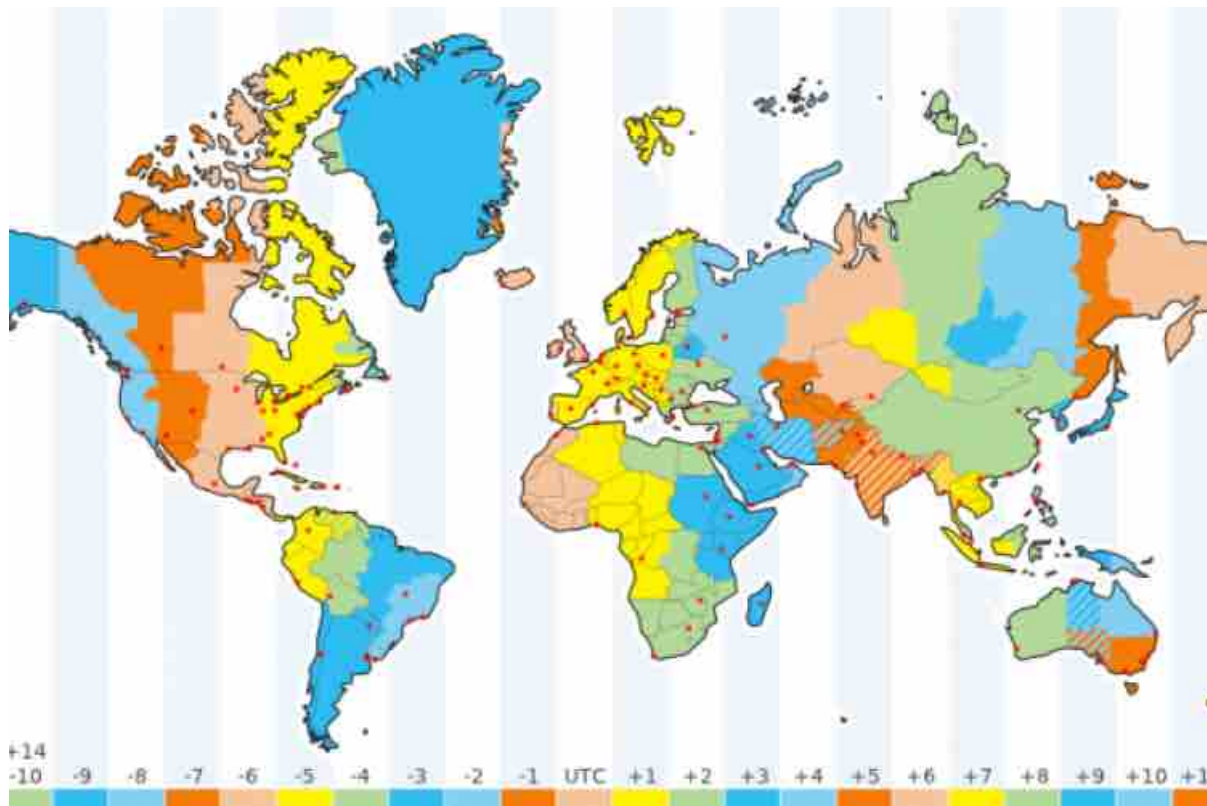


Figure 1: Time Zones

Using the member list of January 2019, the countries represented are estimated and represented in table 1. Using the estimated time zone it is possible to calculate the optimum time for the meetup. There are two options estimated. The first option is at 14:00 UTC. At this time all members can attend between 8:00 and 24:00 local time. no-one has to get out of bed or stay up. The second option is 18:00 UTC. at this time only asian members vae stay up during the night.

Table 1: Countries represented by team members of NA1WJ demonstration team.

Country	Count	Zone	+/-	14:00	18:00
Brazil	1	04:00	-	10:00	14:00
Canada	3	05:00	-	09:00	13:00
Chile	2	03:00	-	11:00	15:00
Finland	1	01:00		15:00	19:00
Germany	1	01:00		15:00	19:00
India	1	05:00		19:00	23:00
Japan	3	09:00		23:00	03:00
Liechtenstein	1	01:00		15:00	19:00
Malaysia	1	07:00		21:00	01:00
Namibia	1	03:00		17:00	21:00
Netherlands	5	01:00		15:00	19:00
Norway	1	01:00		15:00	19:00
Sudan	1	03:00		17:00	21:00
Switzerland	1	01:00		15:00	19:00
Taiwan	1	08:00		22:00	02:00
Tanzania	1	03:00		17:00	21:00
Tunisia	1	01:00		15:00	19:00

Turkey	1	02:00		16:00	20:00
United Kingdom	2	00:00		14:00	18:00
USA	11	06:00	-	08:00	12:00
Zimbabwe	1	03:00		17:00	21:00

Using the estimations presented in table 1 it is proposed to have the meetup at 14:00 UTC.

Dates

The following dates are proposed

23-2-2019
23-3-2019
13-4-2019
18-5-2019
8-6-2019
22-6-2019
13-7-2019

Process

All team members are invited prior to the meetup using either a calendar appointment or using Doodle (<https://doodle.com>). A calendar appointment should do but Doodle will allow the participants to mark their planned presence.

After the initial announcement participants will receive a notice for applying for a Zoom account.

Prior to the meetup participants will receive a link to attend the Meetup at zoom.

Each Meetup will be hosted by a chairman. The chairman will be team member of the Demoteam organisation team. These are Bill Gary or Remko.

The Meetup will have a variable agenda depending on the topics that need to be discussed. Topics can be proposed by all team members.

A example agenda is given:

1. Opening, welcome by chairman
2. Announcements,
3. Introduction of team members of NA1WJ demoteam (5 minutes per person).
everybody can introduce himself once, not every meetup again
4. Discussion, Q&A.
5. Closing of session (estimate is 1 hour)

Appendix AC — NA1WJ Amateur Radio Introduction Outline

This introduction is a starting point for the briefing provided to Scouts as they enter the demonstration station. Updated June 2019.

- What is NA1WJ?

- This Amateur Radio Station is designed to tell the world about the importance of Scouting!
- You will get the chance to talk on the air!

- What's Next?

- You will be assigned to one of our radio stations.
- The operator there will try to find a distant radio station to talk to.
- He will show you how to use the transmit button and speak clearly into the microphone.
- You will then have a short conversation with the distant station that may include:
 - What you like about Scouting
 - What you are doing at the Jamboree
 - What the weather is like at his location
 - What he likes about Amateur Radio
 - Other topics that interest you.

- Additional Activities:

- ARDF – Amateur Radio Direction Finding: Similar to geocaching or orienteering: Location: Living in the 21st Century - Exploring
- Satellite Balloon launches: Follow the balloon as it travels the world.
- International Space Station Contact: Talking to Astronauts via Amateur Radio.

Appendix AD — NA1WJ Phone Script

Give a brief intro to the radio position ... Explain the components the participants can see

Show how to use the PTT ... Especially the PTT lock

Explain how close to hold it to their mouth

Use only first names, avoid ages, or other identifying information, like where you live, phone #, email addresses, etc. But mentioning what country they are from is fine.

Speak loudly and clearly and avoid jargon. Talk like you are talking to a person in front of you.

Indicate when are you done talking and are giving the person on the other end a chance to talk. Use something like, “back to you <name>”, etc. No need to say the callsign, etc.

Give a list of possible things to talk about. The items should NOT BE yes/no answers. E.g.:

- Where are you located ... QTH?
- What is the weather?
- What made you interested in HAM radio?
- Describe your own experiences at the Jamboree. What are your favorite things?
- Describe your Scouting experiences you find the most memorable
- Describe your future career/job goals, any desires for higher education, etc.
- What kind of radio system are you using? The one at the Jamboree is ...
- Note any signal characteristics, like static, flutter, muddiness, shrill, etc. How strong is the signal (look at the meter .. this is an ‘S’ scale, the higher the stronger the signal. S9 is as high as practical on the meter.

Remind the youth they will receive a certificate after they complete their contact.

Be sure to complete the contact card for the youth as they complete contacts.

If they are interested to further find out about Ham Radio, and want to operate more, after 7-8 p each night we will be open till they close the Summit Center. Be sure to notify your SM and SPL of your intentions so they don’t worry if you return late or after dark.

Appendix AE — Operating Desktop Help Sheet

This is being translated into several languages. Each translated document will include the script side-by-side in English with the translation and be available at every operating location. Here is the Español version for reference.

Amateur Radio Phonetics and Q Codes (Spanish)

Amateur Radio Phonetics			Amateur Radio Q-Codes	
Código fonético internacional			Código Q de Radio aficionados	
<u>A</u> lfa	<u>J</u> uliett	<u>S</u> ierra	QRM	Are you being interfered with? ¿Tiene usted interferencia? I am being interfered with. Tengo interferencia
<u>B</u> ravo	<u>K</u> ilo	<u>T</u> ango	QRN	Are you troubled by static? ¿Tiene ruido de estática? I am troubled by static. Estoy con ruido de estática
<u>C</u> harlie	<u>L</u> ima	<u>U</u> niform	QSB	Is my signal fading? ¿Está variando la intensidad de m señal? Your signal is fading. La intensidad de mi señal está variando
<u>D</u> elta	<u>M</u> ike	<u>V</u> ictor	QSL	Can you acknowledge receipt? ¿Ha recibido mi mensaje? I am acknowledging receipt. Confirmo mensaje recibido
<u>E</u> cho	<u>N</u> ovember	<u>W</u> hiskey	QSO	Can you communicate with...? ¿Puede comunicarse con...? I can communicate with... Me puedo comunicar con...
<u>F</u> oxtrot	<u>O</u> scar	<u>X</u> -ray	QTH	What is your location? ¿Cual es tu localización? My location is... Mi localización es...
<u>G</u> olf	<u>P</u> apa	<u>Y</u> ankee	CQ	Looking for contacts Llamado a otras estaciones
<u>H</u> otel	<u>Q</u> uebec	<u>Z</u> ulu	73	Best regards Saludos
<u>I</u> ndia	<u>R</u> omeo		5 9	A good signal Una buena señal

This is November Alfa 1 Whiskey Juliett

Esta es November Alfa 1 Whiskey Juliett

You are 5 9 at the World Scout Jamboree in West Virginia.
Llegas con una señal de 5 9 al Jamboree Scout Mundial en Virginia del Oeste.

My name is _____ and I am a Scout from _____.
Mi nombre es _____ Y soy scout de _____.
(First Name Only) (Solo tu primer nombre) (Your Country) (Tu país)

Questions to ask the other station:

Preguntas para hacerle a la otra estación:

Things to tell the other station

Cosas para decirle a la otra estación

Where do you live? ¿Donde vives?	Your name. (FIRST NAME ONLY) Tu nombre. (Solo primer nombre)
What is the weather there today? ¿Como está el tiempo hoy?	Your age. Tu edad.
What ham radio activities do you engage in? ¿A qué area de la radioafición te dedicas?	Where we are. - <i>The World Scout Jamboree in West Virginia USA</i> Dónde estamos- El Jamboree Scout Mundial en Virginia Occidental, EE.UU
What are your favorite sports teams? ¿Cuales son tus equipos deportivos favoritos?	The country or state you came from. El país o estado del que vienes.
Were or are you involved in Scouts? In what capacity? ¿Estuviste o estás relacionado con scouts?, ¿Qué tanto?	The things you've done here at the World Jamboree. Las cosas que has hecho aquí en el Jamboree Mundial.
What is your favorite thing to do outside of ham radio? ¿Qué es lo que más te gusta hacer aparte de la radio afición?	The sports you like to do. Los deportes que te gusta practicar.
Do you have any pets? What kind? ¿Tienes alguna mascota?, ¿Qué tipo?	Other hobbies that you do. Otras aficiones que tengas.
What is your favorite food? ¿Cuál es tu comida favorita?	The pets that you have. Las mascotas que tienes.
What do you like for entertainment? ¿Qué tipo de entretenimiento o espectáculo te gusta?	What you want to do as a career. La carrera profesional que quieres seguir.
Are you a member of a ham radio club? ¿Eres miembro de algún Radio Club?	The kind of music you listen to. El tipo de música que escuchas.
Have you lived in any other states or countries? ¿Has vivido en otros estados o países?	Your least favorite thing in school. Lo que menos te gusta de la escuela.
What outdoor activities do you like? ¿Qué actividades al aire libre te gustan?	The camps have you been to. Los campamentos en que has participado
Do you have any children? Grandchildren? ¿Tienes hijos? ¿Nietos ?	Places you visited while traveling to the Jamboree. Lugares que visitaste mientras viajabas al Jamboree

Appendix AF — Demonstration Station Training Outline

This document describes the outline of the training activities that have to be followed by the NA1WJ demonstration team members. The current outline can be found online at <https://docs.google.com/document/d/1JX0mro2yHuWEnQHffje0Kg6i80-ML4nmsNVn6poG6jU/edit>

The purpose of the training is to learn the objectives of the demonstration station and get familiar with the workflow and equipment installed.

Because of the size of the team (>30 staff) and the limited space in the tent staff will be divided into groups. These groups will visit the stations at which various parts of the training will be given. The groups will rotate like a carousel over the training stations.

Planned topics for the Demonstration station training are:

- Introduction and outline of the Demonstration station
- Entrance and welcome (Ilene?)
- Introduction to Amateur Radio and the Demonstration Station.
- N1MM logging
- Icom ICx
- Icom ICy
- Icom ICz
- Digital modes
- VHF/UHF/D-Star/DMR operations
- ..

Implementation plan

Time scheduling

The Demonstration station training has a duration of half a day. Preferably in the afternoon (13:00 to 17:00 hours)

The total group is divided into 4 subgroups of approximately 7 persons.

A session at a training station takes about 30 minutes.

Initial planning:

0:00 Start training (Whole group)
0:30 session 1 in subgroups
1:00 session 2 in subgroups
1:30 session 3 in subgroups
2:00 session 4 in subgroups
2:30 Wrap-up training
3:00 Individual time for operators to exercise on training topics.

4:00 End of training.

Training sessions

Pre-Jamboree Demo Team training agenda

Demonstration training (1-2 hours)

- Intro to the station
- Intro area to station flow
- Topics to discuss with the youth while taking to the station
- Introduce them to the station
- Radio Etiquette
- Topics to discuss while on the air
- Radio jargon (q'codes, greetings, etc)
- The QSL card/QSO form

Use of the station equipment (2-3 hours)

- 7300
- 7610
- ID-5100
- 9700
- Rotors
- Station Band rules
- N1MM logging
- ClubLog uploads
- LoTW uploads

Other activities (1 hour)

- Be familiar with satellite station schedule
- Be familiar with ARDF activity and location
- Be familiar with Balloon Launch schedule and location
- Transition if breaks needed
- Night-time ops

One-off Station Events/Safety (1 hour)

- Weather
- Electrical/RF Safety
- Stadium Shows
- Medical issue

Appendix AG — Excerpts from FCC Rules Part 97 on Third Party Restrictions for NA1WJ

Italics are K2GW's interpretations.

FCC Definition

(47) Third party communications. A message from the control operator (first party) of an amateur station to another amateur station control operator (second party) on behalf of another person (third party).

Thus, at NA1WJ, the amateur radio operator (no matter what home country they are licensed from) is the First Party, the distant station operator is the Second Party, and the Scout is a Third Party.

§97.115 Third party communications.

(a) An amateur station may transmit messages for a third party to:

(1) Any station within the jurisdiction of the United States.

(2) Any station within the jurisdiction of any foreign government when transmitting emergency or disaster relief communications and any station within the jurisdiction of any foreign government whose administration has made arrangements with the United States to allow amateur stations to be used for transmitting international communications on behalf of third parties. No station shall transmit messages for a third party to any station within the jurisdiction of any foreign government whose administration has not made such an arrangement.

(I've attached the current list of approved countries at the end)

This prohibition does not apply to a message for any third party who is eligible to be a control operator of the station.

(Thus it doesn't apply to the foreign licensed hams operating at NA1WJ, just the unlicensed Scouts sitting next to us)

(b) The third party may participate in stating the message where:

(1) The control operator is present at the control point and is continuously monitoring and supervising the third party's participation; and

(2) The third party is not a prior amateur service licensee whose license was revoked or not renewed after hearing and re-licensing has not taken place; suspended for less than the balance of the license term and the suspension is still in effect; suspended for the balance of the license term and re-licensing has not taken place; or surrendered for cancellation following notice of revocation, suspension or monetary forfeiture proceedings. The third party may not be the subject of a cease and desist order which relates to amateur service operation and which is still in effect.

(c) No station may transmit third party communications while being automatically controlled except a station transmitting a RTTY or data emission.

(d) At the end of an exchange of international third party communications, the station must also transmit in the station identification procedure the call sign of the station with which a third party message was exchanged.

[54 FR 25857, June 20, 1989; 54 FR 39535, Sept. 27, 1989, as amended at 71 FR 25982, May 3, 2006; 71 FR 66462, Nov. 15, 2006]

§97.117 International communications.

Transmissions to a different country, where permitted, shall be limited to communications incidental to the purposes of the amateur service and to remarks of a personal character.

[71 FR 25982, May 3, 2006]

So a Scout sitting next to an ham radio operator at NA1WJ can only talk to the below listed countries with which the US has a formal Third Party agreement. The ham operator himself can talk to licensed operators in any country.

US Amateurs May Handle Third-Party Traffic With:

V2	Antigua/Barbuda
LO-LW	Argentina
VK	Australia
V3	Belize
CP	Bolivia
E7	Bosnia-Herzegovina
PP-PY	Brazil
VE, VO, VY	Canada
CA-CE	Chile
HJ-HK	Colombia
D6	Comoros (Federal Islamic Republic of)
TI, TE	Costa Rica
CM, CO	Cuba
HI	Dominican Republic
J7	Dominica
HC-HD	Ecuador
YS	El Salvador
C5	Gambia, The
9G	Ghana
J3	Grenada
TG	Guatemala
8R	Guyana
HH	Haiti

HQ-HR	Honduras
4X, 4Z	Israel
6Y	Jamaica
JY	Jordan
EL	Liberia
V7	Marshall Islands
XA-XI	Mexico
V6	Micronesia, Federated States of
YN	Nicaragua
HO-HP	Panama
ZP	Paraguay
OA-OC	Peru
DU-DZ	Philippines
VR6	Pitcairn Island*
V4	St. Kitts/Nevis
J6	St. Lucia
J8	St. Vincent and the Grenadines
9L	Sierra Leone
ZR-ZU	South Africa
3DA	Swaziland
9Y-9Z	Trinidad/Tobago
TA-TC	Turkey
GB	United Kingdom
CV-CX	Uruguay
YV-YY	Venezuela
4U1ITU	ITU - Geneva
4U1VIC	VIC - Vienna

Notes:

* Since 1970, there has been an informal agreement between the United Kingdom and the US, permitting Pitcairn and US amateurs to exchange messages concerning medical emergencies, urgent need for equipment or supplies, and private or personal matters of island residents.

Appendix AH — Suggested Questions to Ask on the Air

This is being provided to those outside the Jamboree to help them better engage the Scouts during the QSO.

It's available online at <https://k2bsa.net/on-air-questions-to-ask-scouts/>

Note: The intent with this list is to ask questions that elicit responses that are more than a simple “yes/no” or simple one or two sentence response. The goal is to carry on a conversation that is both engaging and enlightening, which helps them to overcome any stigma they may have being “on-the-air”, and at the same time enlighten them and possibly learn more about the hobby at the same time.

- Where do you live, and what is your favorite thing about your hometown?
- What are your favorite things to do when not in school, and why?
- How long have you been in Scouting, and what rank are you now? What was the most memorable thing you have done in scouting, so far?
- What are your favorite sports teams, and do you participate in any sports? What position do you play?
- How long have you been in Scouting, and what is your favorite activity? Do you do any of that activity outside of Scouting and if so, why?
- Do you have any pets? What kind? Do you take care of them, or do your parents? What was the most interesting thing your pet did (does)?
- What things at the Jamboree have you done so far? Do have a favorite yet, and if so what?
- What is your favorite subject in school? Do you hope to go to university to further study that subject?
- Do you have a subject in school you don't like? Why?
- Have you ever talked with someone from another country? If so, from where and what was the most interesting you talked about?
- Is this your first experience with Ham Radio, and why did you go to the NA1WJ station? Was it curiosity, or something else? If not your first experience with Ham Radio, what interested in you to doing it again?
- Did you know you are talking with someone over ____ kilometer/miles from where you are located? Do you have any idea how that can happen without the internet? Can you guess how?
- Have you ever heard of Samuel Morse, or Marconi? Do you know what contributions they made to Ham Radio? Have you asked the operators at the NA1WJ station to teach you?
- Have the operators at your location explained the antennas/radios to you? Can to tell me about them?
- Has the operator explained to the Q codes ham radio operators use? Can you carry on a conversation using as many of those as possible? Let's try.
- What is the weather like at the Jamboree?

- What other activities/events have you participated in beside the Jamboree? If so, which ones did you like the most/look forward to and why?
- Have you met a lot of people from other countries and who was the most interesting? Why?
- Do you know other languages beside your native one? If you know that language, talk with them in it.
- What is the most interesting thing about your native country, and why?
- Are there places in the US or other countries you have been fascinated with, and if you were given the choice, would you visit them again, and why?

Appendix AI — Current Thoughts on Station Plans

From Mike Crownover, AD5A, technical team leader.

Unfortunately, band conditions will likely limit us to 20m and 17m during the day with some possibility for some local 40m/80m QSO's and if there are any 6m openings that would provide some entertainment. If 17m is not open, then 20m bears the load for the run station, if you will.

I will bring with me my Inrad Filters for 14.010 and 14.080 with 20kHz bandwidth. This should help us with FT-8 and CW on the same band. Will have to adjust power on FT-8 to not interfere with SSB.

JK Antennas is now proposing a tribander, (20-15-10) for Station 1 and a 17m/12m for the second station. I have asked if he could build a 20/17 for station 2. If he can't then we can always put up a dipole to run FT-8 on 20 meters.

Looking at this makes me wonder if we really need 6 operating positions. Station 5 will likely be vacant during the day and Stations 4 and 6 may or may not be busy. I guess it's better to have it and not need it than to need and not have it. However if we have staffing issues we easily get by with 4 stations by combining the 80m/40m station and the 30m/6m stations, just switching antennas based on band openings.

Station 1	20m/15m SSB, CW, FT8 (primarily SSB, more flexibility here if 17m is open)
Station 2	20m/17m primarily FT-8, SSB, CW
Station 3	40m Local during the day, DX at night, all modes (Experience says the local presence is hit and miss during the day)
Station 4	80m Local during the day, DX at night, all modes (Same as 40m)
Station 5	30m CW (The primary CW station for day/night operation)
Station 6	6m FT-8, SSB, CW

12m/10m will be of little use to us this time around.

Appendix AJ — NOVUS info for NA1WJ

NOVUS Request — Amateur Radio

Touchpoints:

1. Amateur Radio Demonstrations — Get on the air with other stations. [Check in point is after the demonstrations at the exit to our tent.]
2. Amateur Radio Direction Finding — Use amateur radio receivers and directional antennas to find hidden transmitters. [Check in point is at the ARDF-Foxhunting course.]
3. Balloon launches and tracking with amateur radio transmitters using GPS, two launches. [Check in point is in launch area, probably near the stadium.]
4. Amateur radio conversation with an astronaut on the International Space Station. [Expected to be in the large lobby of the Tillerson Leadership Center.]

Number of Touchpoints = 4

Ranking of Touchpoints:

- Amateur Radio Demonstrations — 1
- Amateur Radio Direction Finding — 3
- Balloon launches and tracking with amateur radio transmitters using GPS, two launches — 3
- Amateur radio conversation with an astronaut on the International Space Station. — 3

Potential Logos

Amateur Radio Demonstrations



ARDF-Foxhunting



Appendix AK — Emergency Disconnect Procedures

- Emergency procedures will go into effect either by declaration of the ranking staff member in the NA1WJ tent or by a warning signal given by Jamboree Staff
- Once the emergency is declared these steps should occur at each station
 - The antenna, which will be labelled with band and station number, is disconnected from the radio at the antenna port on the back of the radio by the station operator
 - Technical team member will make any disconnections, if any, from any antenna switches or triplexers in use.
 - The log is saved, and the computer is shut down
 - Once shut down the computer is then unplugged from its external power source to prevent damage to the radio via the USB port
- When the all-clear is given the following steps should be followed
 - The station operator may reconnect the antenna, and only the antenna, that they disconnected when the emergency was declared
 - The operator may not key the radio until given the all clear by a Technical Team member
 - The station operator should reconnect the computer to its external power source and reboot the required software
 - The technical team will reconnect any antenna switches and/or triplexers in use .
- Operations may commence only after clearance is given by a Technical Team member that all antennas and radios have been properly reconnected.

Note: There will be a color code and labeling system developed for the installation to take as much mystery out of this as possible, however, the burden will be on the Technical team to ensure all is ready for operations to commence.

Appendix AL — QSL Request Information

All logbooks will be posted to ClubLog at least daily and from there all contacts will be synchronized with Logbook of the World.

Via Club Log we've provided a method for requesting direct QSL cards primarily for non-USA stations. Requests are \$2 USD for direct cards.

If you are a USA contact, send your QSL along with a Self Addressed Stamped Envelope (SASE) to our QSL Manager, Donald Sonnefeld, KD2FIL, 169 Chestnut Hill Ln S, Amherst, NY 14221.

You can find the logbook online at <https://k2bsa.net/na1wj-logbook-qsl-request/>

You can also find the link to ClubLog for online QSL requests.

Appendix AM — ISS Astronaut Question List

This listing of questions was developed via an online web form with promotion provided by the social media outlets of World JOTA-JOTI, K2BSA Amateur Radio Association, and NA1WJ Twitter accounts.

This was followed by online voting to rank the questions. The top 20 questions were selected and provided to ARISS in early June.

1. What do you think is the most important thing you believe young people should do in Scouting to help them in their future careers such as being an astronaut or working in the sciences?
2. Here at the World Jamboree we like to trade items with scouts from around the world as a way to bond and remember our new friendships. Do you ever trade patches or parts of your uniforms with your international crew members?
3. What is the single prettiest place or region on Earth to see from space?
4. Do you bring something special with you so when you get back, so you can say, "This has been in space!" ?
5. What food do you miss the most that you can't have in space?
6. What if the ISS lost communication with Earth?
7. What kind of emergency drills or practice do you do aboard the ISS, and how often?
8. Do you need to drink more or less water in space than you do on earth?
9. How do the plants orientate themselves to grow in space ?
10. Is biological cell division the same in space as on Earth ?
11. How did it feel to see Earth from space for the first time?
12. A part of the Scout Law is A Scout is Reverent. Have you had a memorable moment during your time on the ISS that has led to you showing reverence?
13. Have you been on a space walk yet? If so, what is it like walking outside the ISS?
14. Of all the professions available, why did you choose to become an astronaut?
15. If there was one thing you wish you could have learned when you were younger in an organization such as the Scouts, or at school, to help you perform tasks in space, what would it be?
16. Are there any bugs or animals on the ISS now and if so, what is their purpose?

- 17. What is the single most important quality that you possess that you think got you into the space program?
- 18. With everyone, and many things, floating in microgravity, how do you keep the space station clean?
- 19. Do you have regular sleep and work schedules?
- 20. What are the best and worst aspects about living on board the ISS?

Appendix AN — Radio Scouting Meeting at NA1WJ

During large scouting gatherings it happens often that Scouts with similar interest gather at a meeting with like-minded. During the 24th World Scout Jamboree Radio Scouts are invited to meet at NA1WJ demonstration station for the HAM reception.

The purpose of the HAM reception is to meet new Radio Scouting friends and renew friendships. The reception is the moment for dignitaries to make announcements to a group of persons that is interested in Radio Scouting. At the reception the situation is there to enjoy a drink or have a refreshment.

HAM meetings have been held in England, Sweden, and Japan as well as every year at HAM Radio in Friederichshafen.



Group photo of Radio Scouting meeting at HAM Radio. Some of the attendants will be at NA1WJ.

Who

All scouts attending the WSJ that have a amateur radio licence are invited to the reception.

When

The reception will be held at the end of the day before the end of the WSJ. Options are either start at (1) 16:00 to 17:00 hours or (2) 17:00 to 18:00 hours. Option 1 is within the opening hours of the station, option 2 is outside opening hours of activities and allows visitors to join while not having their job suffering from visiting the reception.

Promotion

Promotion will be in three primary ways. (1) Through the word of mouth. Visitors to the demonstration station are made aware at the reception of NA1WJ and in contact with the

operators. (2) through posters at the demonstration station announcing and inviting HAMS to meet at the reception. (3) During the daily nets on V- and UHF repeaters.

Additional promotion can be on on social media and the NA1WJ website.

Timing

The schedule for Radio Scouting Meeting is Monday, 29 July, beginning at 17:00 local.

17:00 Start reception. All visitors are offered a drink (if we can find some) and are allowed to visit the station

17:10 Welcome by the chairman of NA1WJ (Jim Wilson) and a toast

17:20 Informal moment for all participants to the meeting.

18:00 end of meeting.

Appendix AO — Inside Station Banner and Large Poster

These were created for use inside the station with the Jamboree providing outside banners for the station.

Banner — 4 feet tall and 8 feet wide. Suspended from the side for full view when looking into the station.



Poster — 3 feet tall and 4 feet wide for use in providing information while the Scouts are waiting in line for time at a demonstration station.

Amateur Radio in Scouting

NA1WJ — North America 1st World Jamboree — Amateur Radio Station

Jamboree on the Air

JOTA-JOTI — Largest Scouting Event in the World
1.8 Million Scouts — 150 Countries
Third Weekend in October

Introduces amateur radio in the process of meeting the goals of providing a fun and educational Scouting experience and promoting a sense of belonging to a worldwide Scout Movement.




World Scout Jamboree 2019

- NA1WJ at the Summit in West Virginia
- Demonstration Station
- ARDF — Foxhunting Courses
- ISS Contact
- Balloon Launches



Technology. Fun. Magic.

Sponsors






ARISS — International Space Station

- Talk with an Astronaut on the Space Station



ARDF — Foxhunting

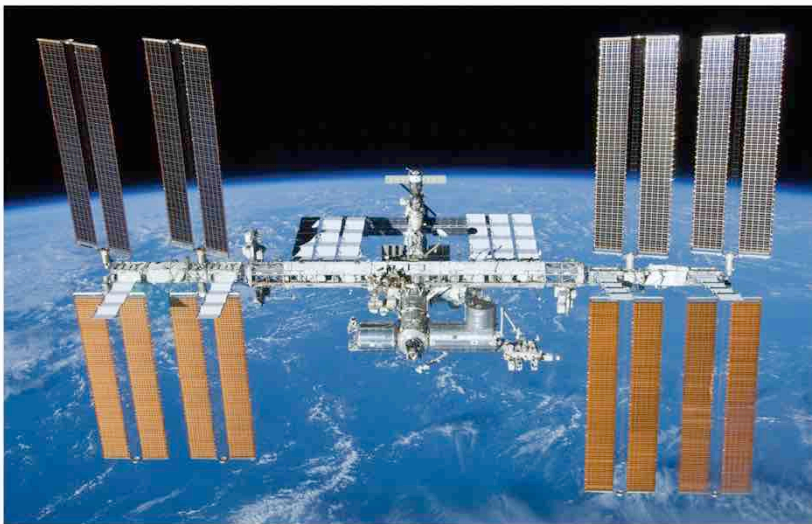
Find Hidden Transmitters Using a Directional Antenna



Poster for use in promoting the ISS Contact



International Space Station Talk with an Astronaut Enter Drawing Here



In addition several 12 inch x 18 inch posters provided by ARRL and RSGB are being printed for use within the station.

Appendix AP — Promotion in Amateur Radio Magazine

June 2019 QST Article



This event happens every 4 years, with 2019 marking the 24th World Jamboree.

Jim Wilson, K5ND

Taking place from July 22 to August 1, 2019, the World Scout Jamboree will be held at The Summit Bechtel Scout Reserve in West Virginia. Nearly 45,000 Scouts from over 160 countries will gather in the mountains to learn about other countries and cultures, to make new friends, and even to experience adventures like rock climbing and ziplining.

Demonstration Station NA1WJ

Hosted by a team of North American Scouting organizations, including Scouts Canada, Asociación de Scouts de México, and Boy Scouts of America, the demonstration station will use the call sign NA1WJ and will be on the air using 10 operating locations on HF, VHF, UHF, satellites, D-STAR, and Echolink.

Additionally, we'll be running Amateur Radio Direction Finding (ARDF) using 80 meters and 2 meters. Though it will mainly have simple courses meant to introduce newcomers to this aspect of the hobby, it will be open to all levels of experienced foxhunters.

We're also planning an ARISS contact with an astronaut on the International Space Station (pending successful scheduling), as well as contacts with LEO satellites. Plus, we'll be launching three Pico balloons with WSPR payloads that are expected to drift over the Atlantic during the Jamboree and perhaps around the world long after the Jamboree is over. We'll provide information on the launches and tracking from our website and social media. You can learn about our operation at na1wj.net and <https://groups.io/g/na1wj>, or via the real-time updates on our Facebook and Twitter pages.

NA1WJ Equipment

Stations are equipped with the Icom IC-7300, IC-9700, and ID-5100A, along with hex-beams, Yagis, verticals, and dipoles. But propagation is expected to be challenging.

The station will be staffed approximately 18 hours each day and operating using SSB, CW, and digital modes. Working the world will be a challenge, as we will only have 100 W, but we will be using directional antennas to enhance our signal as much as possible.



NA1WJ Staff

Of the 9,000 adult Scouts on the Jamboree's International Service Team (IST), 40 staff members have been allocated for the Amateur Radio team. All are active dedicated Scouting volunteers and nearly all of them are licensed operators from their home countries, which include the US, Australia, Canada, Chile, Finland, Germany, Liechtenstein, Malaysia, Nepal, the Netherlands, Norway, Taiwan, Japan, Switzerland, and the United Kingdom.

Thank You to Our Supporters

The NA1WJ World Scout Jamboree operation is powered by Icom America radios and repeaters; MFJ rotators, antennas, and headphones; DX Engineering antennas, cables, triplexers, and filters; JK Antennas Yagis; a portable Aluma Tower; GeoChron Digital 4K UHD, and the K2BSA Amateur Radio Association.



How You Can Help

We'll have one staff member operating each station, along with four or more Scouts listening in and getting on the microphone. We need you on the other side, engaging in questions about Scouting and the Jamboree, and commenting on your own experiences in Scouting.

Single stations will work great, but there is a great opportunity to get more Scouts on the air and talking to the NA1WJ station by scheduling a Scout summer camp, Radio Merit Badge Workshop, or a campout to match the days/times of the World Jamboree. For example, the Philmont Amateur Radio Association, K5PSR, will be using Amateur Radio to connect local Scouts on the Philmont Scout Ranch to those at the World Scout Jamboree.

Mark your calendars for July 22 to August 1, 2019, and help us introduce Amateur Radio to the next generation of hams across the globe.

Jim Wilson, K5ND, is a retired communications and publishing executive, serving in those capacities with Boy Scouts of America for more than 2 decades. He is a Scouting volunteer in all things related to Amateur Radio at the national and international levels. He can be reached at k5nd@arri.net.



www.arri.org QST June 2019 73

NA1WJ: Das World Scout Jamboree funkt !

Bill Stearns NE4RD, Vizepräsident K2BSA (Übersetzung: Remko Welling PE1MEW)

Am 22. Juli - 2. August 2019 findet das 24. World Scout Jamboree (Welpfadfinder-Treffen) in den Bergen von West Virginia statt. Das Pfadfinder-Lagergelände beim Summit Bechtel Reserve wird 45'000 Pfadfinder und Pfadfinderinnen beherbergen, die von über 160 Ländern anreisen werden, um Abenteuer zu erleben, mehr über andere Länder und Kulturen kennen zu lernen und neue Freundschaften zu schliessen.

Das World Scout Jamboree findet alle vier Jahre statt, erstmals wurde es 1920 in London durchgeführt. Seitdem waren etliche nationale Pfadfinder-Organisationen von Australien über Dänemark bis zu den Philippinen Gastgeber, um nur einige von ihnen zu nennen.

Geschichte des Amateurfunks am World Scout Jamboree (WSJ)

Im Jahr 1957, dem 50. Jahrestag der Pfadfinderbewegung, war Grossbritannien Gastgeber des World Scout Jamboree. Mit GB3SP war erstmals eine Amateurfunkstation an einem World Scout Jamboree in der Luft.

1967 fand das World Scout Jamboree erstmals in den USA statt, im Farragut State Park in Idaho. Dort war man erneut on air, mit dem Call K7WSJ. Seither waren die Pfadfinder regelmässig on air an den Welpfadfindertreffen: Japan 1971 mit 8J1WJ, Norwegen 1975 mit LC1J, Canada 1983 mit VE6WSJ, Australien 1987 mit AX25-WJ, Süd Korea 1991 (das 17. WSJ) mit 6K17WJ, Niederlande 1995 mit PA6WSJ, Chile 1999 mit XR3J, Thailand 2003 mit E2ØAJ, United Kingdom 2007 mit GB1ØØJ (100 Jahre Pfadfinderbewegung), Schweden 2011 (das 22. WSJ) mit SJ22S, und Japan 2015 mit 8N23WSJ.

Dieses Jahr: NA1WJ in West Virginia

Diesen Sommer werden wir in West Virginia das Rufzeichen NA1WJ verwenden, welches für das erste nordamerikanische World Jamboree steht. Gastgeber sind die drei nordamerikanischen Pfadfinder-Landesverbände *Scouts Canada*, *Asociación de Scouts de México* und *Boy Scouts of America*.

Während des Jamboree werden wir mit zehn Stationen in der Luft sein - auf allen Kurzwellenbändern, VHF, UHF, D-Star, Echolink und Satellitenverbindungen. Unser Ziel ist es, den Ama-

teurfunk möglichst vielen Teilnehmenden präsentieren zu können. Wir rechnen damit, mit gegen 3'000 Pfadfinder und Pfadfinderinnen an unseren Stationen begrüßen zu können. Zusätzlich zu unserer Amateurfunk-Vorzeigestation werden wir Fuchsjagden auf 80 und 2 Meter anbieten.

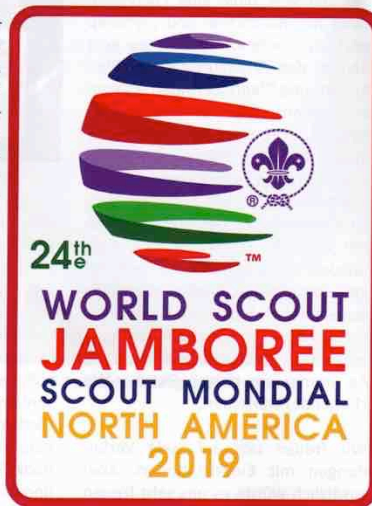
ARISS und Pico-Ballone

Des Weiteren ist ein ARISS-Kontakt mit einem Astronauten auf der internationalen Weltraumstation ISS geplant. Zudem starten wir drei Pico-Ballone mit einer WSPR-Last, die während des Jamboree über dem Atlantik schweben werden und vielleicht rund noch um die Welt reisen, wenn das Jamboree schon längst vorbei ist. Über Start und Tracking der Ballone werden wir auf unserer Webseite sowie über Social Media informieren.

Das Team von NA1WJ

Das Internationale Staff Team (IST) besteht aus über 9'000 erwachsenen Pfadfindern, die aus der ganzen Welt anreisen und sämtliche Angebote am Welpfadfindertreffen sicherstellen - von der Verpflegungsinfrastruktur bis zu den Sport- und Freizeitangeboten.

Das Amateurfunk-Team hat rund 35 Personen rekrutiert. Alle sind engagierte ehrenamtliche Pfadfinder und fast alle von ihnen sind lizenzierte Funkamateure in ihren Heimatländern. Aktuell haben wir Mitglieder aus Australien, Brasilien, Chile, Deutschland, Finnland, Grossbritannien, Kanada, Liechtenstein, Malaysia, Nepal, Niederlande, Norwegen, Schweiz, Taiwan und USA - und es werden weitere erwartet.



Die Ausrüstung von NA1WJ

Für unsere Stationen werden wir unter anderem IC-7300, IC-9700, und ID-5100A zusammen mit Hex-Beams, Yagis, Vertikalantennen und Dipolantennen benutzen. Die Sonne meint es leider nicht gut mit uns; die Ausbreitungsbedingungen werden dieses Jahr anspruchsvoll sein.

NA1WJ wird täglich während ungefähr 18 Stunden besetzt sein;

bei genügend Personal werden wir auch einzelne Nachtschichten vorsehen. Zum Einsatz kommen diverse Betriebsarten, so auch SSB, CW sowie digitale Betriebsarten um das Maximum bei den vorliegenden Ausbreitungsbedingungen rauszuholen und möglichst viele QSO mit Pfadfindern und Freunden weltweit zu ermöglichen. Dabei möchten wir den Amateurfunk möglichst vielen Pfadfinderinnen und Pfadfindern näher bringen. Jedoch wird es eine Herausforderung sein, weltweit gehört zu werden, da wir auf 100W

HF Activity

beschränkt sind. Aber mit der Verwendung von Richtantennen und optimiertem Signal werden wir unser Bestes geben.

Wir brauchen deine Unterstützung

Bitte unterstütze uns. Schalte deine Funkstation ein und arbeite das Rufzeichen NA1WJ. Dabei soll es nicht das Ziel sein, bloss eine Kurzverbindung mit Rufzeichen und Signalrapport zu machen, sondern es geht darum, den Amateurfunk den Pfadfindern und Pfadfinderinnen als Kommunikationsmittel für interessante Gespräche zu präsentieren. An jeder Station wird ein OM zusammen mit vier oder mehr Lagerteilnehmern am Mikrofon sitzen. Wir brauchen dich als Gesprächspartner auf der anderen Seite, der Fragen zur Pfadfinder-tätigkeit und zum Jamboree stellt und ggf. von eigenen Pfadfindererlebnissen erzählt. Dies ist übrigens dieselbe Art von Kontakten, die wir uns auch am jährlichen JOTA (Jamboree on the Air, immer am dritten Oktober-Wochenende) wünschen.

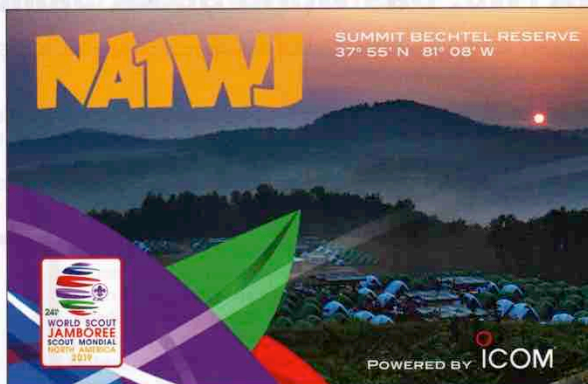
Wir freuen uns auf viele Verbindungen mit Einzelstationen. Aber zusätzlich würde es uns sehr freuen, wenn auch hier in Europa die Sommer-Pfadfinderlager on air gehen würden und NA1WJ zu arbeiten versuchen. Oder plant ein Pfadfinder-Weekend während der Zeit des Jamborees und geht on air.

Zeitplan und Frequenzen

NA1WJ wird vom 22. Juli bis zum 2. August voll in Betrieb sein; erste QSO werden vermutlich ab dem 18. Juli erfolgen. Das Tagesprogramm für Pfadfinderinnen und Pfadfinder am World Scout Jamboree dauert jeweils von 8 - 17 Uhr Lokalzeit (USA Eastern Daylight Time), also von 12:00 bis 21:00 UTC. In den Stunden danach wird die Station von Freiwilligen weiter betrieben und ermöglicht weitere Verbindungen mit NA1WJ.

Die Pfadfinder treffen sich auf Kurzwelle auf den vereinbarten Pfadfinder-Frequenzen. So wird auch NA1WJ dort oder in unmittelbarer Nähe anzutreffen sein (Textbox):

Auf D-Star sind wir auf dem Reflector REF033A. Auf DMR sind wir auf



den JOTA-Sprechgruppen TG907, TG9071 und TG 9072 anzutreffen. Im Echolink nutzen wir den Conference Node *JAMBO*

Detaillierte Infos

Du kannst alles über unseren Betrieb auf www.na1wj.net erfahren. Ausserdem werden wir in den sozialen Medien aktuelle Infos und Updates bereitstellen. Besuch uns auf Facebook, Twitter und Groups. Alle Links findest du auf unserer Webseite.

Wir hoffen, es bereitet dir Freude den Pfadfindern und Pfadfinderinnen den Amateurfunk vorstellen zu dürfen. Zudem wirst du für jedes QSO eine QSL-Karte zugeschickt bekommen. Wir danken für deine Unterstützung.

Bist du bereit? Markiere den Zeitraum vom **22. Juli bis zum 1. August** in deiner Agenda und hilf uns, den Amateurfunk der nächsten Generation von Funkamateurrinnen und Funkamateuren rund um den Globus vorzustellen.

QRGs von NA1WJ

80 m-Band	3.940 MHz
40 m-Band	7.190 MHz
20 m-Band	14.290 MHz
17 m-Band	18.140 MHz
15 m-Band	21.360 MHz
12 m-Band	24.960 MHz
10 m-Band	28.390 MHz
6 m-Band	50.160 MHz

Das Jamboree on the Air (JOTA), der jährliche Radio-Scouting-Anlass jeweils am dritten Wochenende im Oktober, startete als Ergebnis des 1957 World Scout Jamboree im Vereinigten Königreich. Les Mitchell, G3BHK (sk) spürte, dass wir kein einziges Jahr verpassen sollten, Pfadfinderinnen und Pfadfinder via Amateurfunk weltweit zu verbinden. So entwickelte sich die Idee, Amateurfunk verstärkt in der Kommunikation zwischen Pfadfindern einzusetzen, um einen Austausch zwischen Ländern, Kulturen und Technologien zu fördern. Am JOTA und am Jamboree on the Internet (JOTI) nehmen inzwischen jedes Jahr Millionen von Pfadfinderinnen und Pfadfindern teil.

Das NA1WJ World Scout Jamboree Projekt wird unterstützt durch Icom America radios and repeaters; MFJ rotators, antennas, and headphones; DX Engineering: antennas, cables, triplexers, and filters; JK Antennas Yagis; a portable Aluma Tower, GeoChron Digital 4K UHD und die K2BSA Amateur Radio Association. Besten Dank an unsere Unterstützer!