

One of two amateur radio special events stations at EAA AirVenture, this is page 1 of 4 of the W9W QSO card!



Xenia Weather Amateur Radio Net XWARN (W8XRN)

Aug 2019

147.1650+ (123.0) (Analog Only) 443.1000+ (123.0) (Analog + System Fusion)

Meetings: 2nd Monday, 7:30PM, Greene Memorial Hospital (<u>1141 N Monroe Dr, Xenia, OH</u>) Herman Menapace Auditorium

President's Message

Happy August! It is hard to believe the summer is going by so fast. In a few short weeks, kids will be back to school. I would like to talk soon about the possibility of starting up a student version of the club. To continue our theme of mentoring the next generation. Good Elmers will be needed for this endeavor.

Speaking of helping as Hams, please consider coming out for the next event. Abi-Khan Horse Challenge is August 17th and 18th (see p. 3). They are sorely in need of volunteers.

See everyone at the next meeting, August 12th.

73,

Elizabeth Klinc KE8FMJ

Club Contacts

- Liz Klinc, KE8FMJ
 <u>President@xwarn.net</u>
- Vice President, Bob Baker, N8ADO Vicepresident@xwarn.net
- Secretary, Jason Bowman secretary@xwarn.net
- Treasurer, Steve Mackey, N8ILR
 <u>Treasurer(@xwarn.net</u>
- Repeater Guru, Jim Simpson, WB8QZZ
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- Web Master Josh Long, W8KDL webpresence@xwarn.net
- Membership, Phil Verret, KA8ZKR membership@xwarn.net
- XWARN Trailer / Public Service, Mike Crawford, KC8GLE <u>trailer@xwarn.net</u> or <u>publicservice@xwarn.net</u>
- Newsletter, Jason Bowman, WG8B
 <u>newsletter@xwarn.net</u>

Whiskey 9er Warbirds, W9W.

July 22-29, 1500Z-1500Z, W9W, Oshkosh, WI. EAA Warbirds of America. 28.425 21.235 14.250 7.225. QSL. Ed Finnegan - K9ECF, 69 Mohawk, Cary, IL 60013. The EAA AirVenture Oshkosh 2018, July 24 – 30, featured many historic aviation achievements, legendary pilots, and ground-breaking aviation innovations. The week long series of highlights was the 65th annual Experimental Aircraft Association (EAA) fly-in convention held at the Wittman Regional Airport in Oshkosh, Wisconsin. The fly-in drew approximately 601,000 attendees, which was 2% above the record setting 2017 event. There were more than 10,000 aircraft, almost 3,000 showplanes of which were 377 Warbirds, and visitors registered from 69 nations. During the fly-in, the airport's control tower was the busiest in the world with 19,588 aircraft operations in an 11-day period, which averaged approximately 134 takeoffs/landings per hour! The W9W special event station operated from the EAA Warbirds of America area at Wittman Airport. As one operator said, "We are in the middle of Warbird Alley, at the end of T-34 row with T-6, T-28, and B25s in front of me, and P-51 Mustangs behind me." In addition to those classic warbirds, we also had the Aero Vodochody L-39, MiG 17, Spitfire, Grumman F6F Hellcat, and hundreds more in the Warbirds area. Many of those aircraft flew in the daily airshow.

Sponsors: Warbirds of America Icom America Comet Antennas (NCG) Heil Sound RadioWavz US Tower Operators: N9JA – Ray Novak N9NMH – Matt Bauman K7GSB – Gary "Beetle" Bailey KC9JI – Jack Harrington Photo Credits: Ray Novak Dan Vanevenhoven ARRL

Page 2 of 4 of the W9W QSO card from EAA AirVenture

<u>File</u> Form <u>T</u> emplate	Config AutoSend	ARQ	<u>H</u> elp			
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August Program

The program for the August 12 XWARN meeting will be regarding flmsg ("Fast Light Message program"). flmsg is part of the Fldigi program suite that is used to send information digitally over ordinary voice channels. flmsg is being used by many ARES and other EmComm groups, including the ARES groups in our district, due to its simplicity and ease of use to send accurate information. The program includes a collection of templates that create digital forms that are easy to fill out and then are sent with the touch of a button. This capability wowed the audience at the last statewide ARES conference. Come see what it is all about.

Looking to Volunteer?



Abi Khan 2018

We have three events coming up needing a relatively large number of volunteers — Abi Khan Horse Challenge, Kettering Holiday at Home 5K and Parade, and the Air Force Marathon.

Abi-Khan Horse Challenge. Saturday, Aug 17 - Sunday, Aug 18. In and around Caesar Creek State Park. Need volunteers to help track horses. Bob Baker has a personal conflict and is seeking someone to coordinate the Saturday portion. You can also take on the Sunday version if you wish. He will help with this and will return for the Sunday portion. Volunteers at stations further north are usually done before noon. Stations closer to the start and net control will be there until at least 4 if not 5PM. Sunday has just two distances and four checkpoints to cover. The start sequence is the same as Saturday, but everything will wrap up by 11:00 or so. Contact Bob Baker (n8ado@arrl.net) to volunteer or for more information.

Kettering Holiday at Home 5K and Parade. Monday, Sep 2, 0700 - 1230 with optional breakfast at 0530. All operators are welcome to ride along or walk the route as one of the last units in the parade. Register <u>here</u> (http://bit.ly/31ib3ZA). Leave the assignment field blank if you have no preference. Contact Shawna Collins with questions via <u>email</u> (sjcollins@woh.rr.com).

Air Force Marathon. Sep 21. Finally, we still need many more volunteers for the Air Force Marathon. Volunteer registration closes Aug 31, so do not put it off. Here's the information from Phil KA8ZKR: Approximately 70 amateur radio operators are needed to support the USAF Marathon providing the marathon staff with emergency and logistic communications. According to Brandon Hough, the USAF Marathon Race Director, the senior base leaders rely on the communication skills of our amateur radios operators and use them as a vital resource. Contact <u>Phil Verret</u> (ka8zkr@arrl.net) if you have any questions or concerns.

Young's Dairy Charity Bike Tour

This year's Young's Dairy Charity Bike Ride was held on Saturday July 20 and Sunday, July 21. The forecast was for very high heat indices, so planning was made to be able to provide for "sagging" the riders forward on the course using trucks and vans. This preparation paid off as there were no medical runs to deal with heat induced problems.

25 volunteers from XWARN, Kenton ARC, and DARA came out to support the ride. The

XWARN Mission

The mission of the Xenia Weather Amateur Radio Net (XWARN) amateur radio club is to conduct weather spotting nets during severe weather and other communication services for the City Of Xenia and all other Greene County communities.

In this capacity, we are set up to provide communication services as required to the Greene County Ohio Public Service Agencies and other local government entities. The communications services provided to the supported agencies may be for emergency purposes or to simply enhance their communications abilities. On an as needed basis XWARN provides similar services to various government entities of our surrounding counties.

Additionally, XWARN provides communications support to various community organizations in support of marathons, 5K runs, 10K runs, bicycle events, etc. to provide health and safety assistance to the participants and sponsors of said events.

In support of these goals, XWARN operates and maintains amateur radio repeaters and other equipment in Greene County.

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Field Day — Part Two

Editor's Note: In July's newsletter, I provided a little information, mostly pictures, regarding Field Day. Bob Baker made a presentation during the July meeting and has since written up a report. Any pictures previously published have not been included for space except for one, which was of an unidentified operator.

Once again, DARA and XWARN joined forces for ARRL Field Day. Continuing the theme from Hamvention, "Mentoring the Next Generation", we recruited a number of youth to join in the fun and learn a bit about radio.





Samantha Klinc particularly enjoyed working 40 SSB and put quite a few contacts into the log. She went home with a newfound enthusiasm and hopes to get her license, soon

We had stations set up in the DARA Van, under the XWARN Communications Support Trailer awning, and as the mosquitoes came out and 80 meters came alive. we added a station in N8ADO's camper.

The wire dipole

for 80 meters was only up about 45 feet, but it performed well and allowed us to work almost 200 contacts on 80 SSB. The point total for 80 SSB was edged out by the 99 contacts logged by the FT-8 team since digital contacts count double. With a significant number of contacts on 40 SSB and a few on 20 SSB, we had a pretty good showing, this year. The results are listed, below, and the score would have put us in the top third of our

class last year.

We made a concerted effort to chase bonus points this year and that boosted our claimed score. There were a number of additional bonuses available, so, just wait until next year...

We had a good crew for set-up and KC8GLE assembled a great team for food preparation. The picnic was enjoyed by quite a group. We kept a guest book and managed to sign in (are you ready for this?) 73 guests. Really!

A special recognition goes to the clean-up crew who came back on Sunday to help put the toys away: Jim Simpson KF8J, Jim Beller KC8OKU, Mike Nibert KD8FOF, Phil Verret KA8ZKR, Elizabeth Klinc KE8FMJ, Eric Klinc KE8LPK, Rick Brooks KD8DGA, Bob Baker N8ADO.





Field Day Scores

Entry received at: 2019-06-30 22:45:16 UTC Submitted by: Robert Baker, N8ADO E-mail: n8ado@arrl.net Call Used: W8BI GOTA Station Call: W8XRN ARRL/RAC Section: OH Class: 3F Participants: 73 Club/Group Name: XWARN & DARA Power Source(s): Generator Power Multiplier: 2X Preliminary Total Score: 2,226

Continued on page 14 ...

W9ZL Special Event Station and the ARRL booth at EAA AirVenture



EAA AirVenture

Every July for one week, 600,000+ people and 10,000+ aircraft descend on a tiny little town in Wisconsin call Oshkosh to attend the Experimental Aircraft Association's (EAA) <u>AirVenture</u> (http://bit.ly/2YLcemp). It's not really an airshow. It's really a fly-in, a gathering much like Hamvention, with forums, four large hangars full of vendors, many different kinds of aircraft type clubs including a very large warbirds section, an area just for kids called KidVenture, and car and airplane camping throughout the airport property including along the runways!

AirVenture, obviously drawing from a much large pool of enthusiasts, is a much larger event than Hamvention. In terms of people, it's about 20x larger. In recent years, the town of Oshkosh, which has about 60,000 residents, has grown to over 600,000 for that one-week period.

The local Fox Cities Amateur Radio Club (FCARC) (http:// bit.ly/2YjgVEO)used to support AirVenture but doesn't anymore as support requirements outgrew what they could provide a long time ago. Even when they were supporting the event, my understanding is that they were only supporting one small aspect of the event. Now all communications are via commercial band radios, land lines, and probably cell phones. More on cell phones later in the newsletter.

Special event station W9ZL, staffed primarily by the Fox Cities Amateur Radio Club (FCARC), is over at KidVenture outside of the main AirVenture event. Since 2018, ARRL has had a booth in the 4-hangar vendor area in the middle of AirVenture. And, this year, there was a second special event station—W9W a.k.a. Whiskey Niner Warbirds — being run by iCOM.

FCARC sets up in a historic flight line building brought from another airport. If memory serves me correctly, they were on 40m, 20m, 6m, and the local VHF repeaters. Not being an HF guy, they tell me 40m was really bad but were able to make a few contacts, 20m had the most contacts usually in North America to the tune of about 200 per day – when I was there listening they were talking with some folks on Prince Edward Island – and 6m was really bad but made at least one sporadic contact in Texas.

W9W was set up outside of an RV parked over in the Warbirds section. They had a similar story about the bands being bad. But I got a really cool QSO card by trekking all the way over there. It was a very long walk. The QSO card is a 4-pager, and (Continued on page 8)

Minutes: July 8, 2019

Meeting was opened by Liz at 1932

Cracker Barrel

Don needs help with antenna repair due to tornado damage. Don and Phil will help.

Send Don link to solar panels.

EAA AirVenture Special Event Station Jul 22-28.

Minutes

Motions: Jim Simpson, Jim Beller. Pass? Yes (unanimous)

Members / Guests present: 18 / 0

Treasurer's Report.

We have money. Contact the Treasurer or Secretary for the report.

Motions: Jim S, Jim B. Pass? Yes (unanimous)

Public Service

Jul 20-21 Young's Dairy Charity Bike Tour. Up to Ada on Saturday, come back Sunday. Need as many operators as we can get. Get a hold of Mike Crawford.

Maker Faire??? Might still happen even though bankrupt.

Committee Reports

Membership. Total: 56, Life: 9, Paid members: 47

Ed Collins not on membership list?

Secretary. Nothing to report

Trailer. Mast having issues. Not enough umpf with the new compressor. Probably needs new seals. Someone forgot to put wood step back in and driver ran over it. New step should be ready this week.

Repeater. Both up and running. Power supply on 440 was changed. Nigel recommended we link VHF and UHF repeaters since traffic is low. About \$1500 to do it. The ensuing discussion indicated concern that we still don't have simulcast capability and that we should concentrate on that first.

Website. Some people are continuing to have issues with the reflector.

Facebook. Liz posted some events.

Newsletter. Thanks to those that have contributed information recently.

Mesh. Nothing to report

Old Business

Still need to look into Paypal issue.

Club shirts. Jim S has not talked with the T-shirt person. Reminder that we want to look into kid's sizes.

New Business

Weather net. Information on what info to pass on GCARES website. Form a committee to form new guidelines and maybe a script. Bob will collect names. Create a technical doc to be read outside the heat of battle, e.g. storm desense as happened during the Memorial Day tornados. Need weather net liaison. Need to monitor 2 freqs at same time. Need more people than just Janese to run the weather net. Liz could help with liaison during day but have to get EchoLink back up.

Over the holidays did 13 colonies event. First time for digital/ DMR.

Presentation

Bob Baker presented pictures and results from Field Day.

Janese, and Fred motioned to adjourn. Motion passed at 2040.

Jasan C. Born

Jason Bowman

WG8B

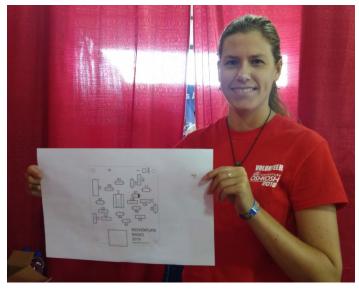
Secretary

AM Radio Kit for Kids at EAA KidVenture



In EAA KidVenture is a hangar where kids can develop their future Airframe and Powerplant (A&P) mechanic's skills. If I'm not mistaken, they can earn FAA credit for their A&P license if they want! They have various stations such as carving your own propeller, riveting, airfoil rib building, making simple electrical circuits and using a multimeter, etc.

One of the new stations this year is building an AM radio that can tune in the tower frequency at Oshkosh. From Kirsten Zima, whose family runs the booth, "We have been volunteering at Kidventure for about 10 years. First starting with a helicopter simulator booth for several years before separating to various booths and areas in Kidventure. My father suggested



the radio booth station last year and we all thought it'd be neat if kids could listen to the control towers with a radio. After getting approval, Levi started working on the idea in February 2019 with RF/electrical support from our father and software support (programs for schematic, layout and board fabrication) from me. He reduced the size of the reference AM radio, it's antenna (which was initially several feet long) and increased the range. Once we got a working circuit that could detect the control tower's transmissions, we moved on to making it as kid friendly with our limited time. We just hoped that kids and adults alike would enjoy the booth and idea."

When I talked with Levi, he told me the reference design is from an aviation project for short range communications. When I asked him what short range meant, he said 10-15ft! Unfortunately, I didn't ask what sort of aviation band use cases would only require 10-15ft. The only thing I can think of is some sort of parasitic payload that you don't want to tie into the aircraft's systems so that you don't affect airworthiness. Even small changes require a logbook entry and signoff by an A&P with more extensive modifications sometimes requiring approval by an Inspection Authority (IA) and one of the FAA's Flight Standards District Offices (FSDOs).

The first time I stopped at the booth earlier in the week, the volunteers were only soldering three (3) of the components – the trimmer capacitor, the inductor, and the integrated circuit — due to the time and complexity involved with novices at soldering. Kirsten sent me a note after AirVenture saying they increased the number of pre-soldered parts to include a diode

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(Continued from page 5)

you can see it scattered throughout this newsletter.

ARRL is a relative newbie to AirVenture first renting some space in the main vendor area in 2018. They logged about 600 amateurs coming through in 2018. I'm not sure how to get the numbers for this year except to go next year and ask! By the way, I was not impressed with the ARRL booth. They were just kind of existing not really setup to bring new people into amateur radio. If they are going to continue being at AirVenture, they really need to figure out how to bring in the aviation enthusiasts there. I have a few ideas, but that will have to be for a future newsletter.

KidVenture had an electronics project — an AM radio receiver that could tune to the tower frequency — for the first time this year. More on that elsewhere in the newsletter.

There's lots to do up in Wisconsin in the summer. If you want an interesting vacation and like volunteering, FCARC is always looking for volunteers to help run the special event station. The AM radios kit station could also use additional volunteers. Not sure if EAA provides them or FCARC does, but a note on the FCARC website says that a 4-hr volunteer time slot gets you a daily wristband into AirVenture. Even if you aren't into airplanes that much, it's a once-in-a-lifetime experience. Be looking for announcements on FCARC's <u>website</u> (http:// bit.ly/2YjgVEO) starting in February or March.

Jason Bowman



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Rhetoric \rightarrow Data \rightarrow Impact

In the July 2019 newsletter, I made some statements regarding the need to provide good data rather than just making rhetoric when touting the benefits of amateur radio. I wanted to expand on that a little bit and provide an example.

A very long time ago, I was a cadet in the Civil Air Patrol. I don't understand how Google can know that, but a <u>story</u> (http://bit.ly/2OKIFig) on CAP recently appeared in a list of recommended stories for me. One of the paragraphs caught my eye:

"CAP aircrews flew nearly 90,000hrs in 2018, conducting search and rescue, disaster relief, air defense, counterdrug, and numerous other critical missions. CAP was involved in 1,012 search and rescue missions and was credited by the Air Force Rescue Coordination Center with saving 158 lives — the highest number in CAP's modern-day history."

Rhetoric is, "CAP saves lives" or "Amateur Radio saves lives". Great sound bites, but they don't convince me of anything.

Better than rhetoric is data. For CAP, it might be number

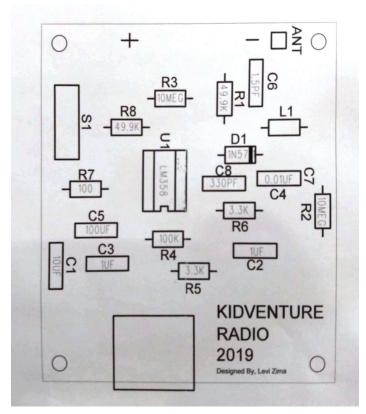
of hours flown or drug operations interdicted. For amateur radio, it might be number of messages passed or hours volunteered. But, as John Wooden of UCLA basketball fame once said,

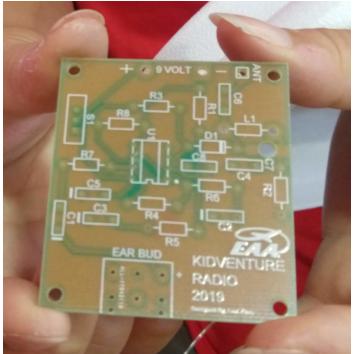
Never mistake activity with achievement

At the end of the day, it isn't how many missions flown or volunteered hours that matters. What matters is the *impact*. For CAP, that's lives saved, and they provide a number directly from the served agency!

Like I do in may day job with the Air Force, I challenge XWARN and amateur radio in general to come up with metrics that matter. This probably means working closely with served agencies to define these metrics. Not only will defining meaningful metrics help direct limited resources more appropriately and effectively, it will also help defend amateur radio against increasing pressures to take bandwidth away.

Jason Bowman





(Continued from page 7)

and two additional capacitors -10000pF and 1.5pF - to help the reduce backlog of kids wanting to build the radio. These were the parts taking the longest to install and solder.

Levi told me they will make improvements for next year's kit to include adding an amplifier to improve the range of reception from a fraction of a mile to over several miles. Also, both Kirsten and Levi mentioned the radio, most definitely an AM radio, will pick up FM. Both Levi and Kirsten explained it to me, but not being someone who understands radio internals very well, it went in one ear and out the other. All I remember Levi saying is that it has a wide-open front end. So I asked Kirsten if she could explain it over an email. She said, "The AM radio can slope detect FM. A point on the FM slope modulates back and forth which creates a sinusoidal type wave that the radio can read."

Finally, I asked Kirsten if the radios are for sale as kits, and she said they are. In the Beavercreek robotics club that XWARN supports, Vault 6936, we have no lack of small electronics projects to train kids on but no radio projects. So I think I'm going to buy a handful of kits, maybe more, to keep around for any of the kids wanting a go.

Jason Bowman





- 1. Volunteers solder on the more time consuming components
- 2. Kids then walk over to a nicely organized parts table to grab all of the necessary components



3. Kids and volunteers then solder the components onto the PCB

4. Final radio

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EAA AirVenture — A Hamvention and Amateur Radio Perspective

We all know the stats for Hamvention. For 3 days, 25,000+ people descend on Xenia, a city with a population of ~25,000, with an estimated economic impact of \$20M. For <u>AirVenture</u> (http://bit.ly/2yCnCTd), about 650,000+ people descend on the city of Oshkosh, a city with a population of ~60,0000, with an estimated economic impact of \$170M. AirVenture has over 850 exhibitors.

One of the first things I noticed about these numbers is that AirVenture has 20x the attendance but only 8.5x the economic impact. I wonder what goes into the estimates for economic impact. I can assure you that aviation is a much more expensive hobby than amateur radio, and some of the AirBnB's near Oshkosh were going for over \$1000 per night!

So where does Oshkosh put all of these people? Well, they don't. Yes, there are a few hotels in Oshkosh itself, but not nearly enough for 600+K people! Instead, a lot of people just camp right on the airport property, and EAA allows camping starting 1 month prior to AirVenture! This year there were over 12,000 campsites, and that grows every year! Wisconsin is also known for its numerous campgrounds within easy driving distance. Appleton, just north of Oshkosh, is probably booked solid, too. You have to drive at least to Green Bay, about 1 hour north, to find a hotel if you book late. The University of Wisconsin in Madison opens one of its dorms for a week just for AirVenture attendees. I believe Madison is about a 90-minute drive. Also, the airports at Appleton (north) and Fond du Lac (south) have aircraft camping with bussing to Oshkosh.

Like Hamvention, AirVenture has numerous workshops and forums. In fact, that's probably why a lot of people go. It's really a fly-in not an airshow. This year there were over 1,500 individual forums and workshops!

In terms of volunteers, AirVenture draws volunteers from a large pool in the region, mostly non-profits looking for a donation. At least that was the case for one parking attendant I talked to a couple of years ago. For 2019, there were 5,500 volunteers with over 250,000 volunteer hours. That's an average of 45 hours per volunteer! Volunteers help with parking both cars and airplanes, ticket sales, security, souvenir sales, food vending, driving buses and other people movers – carts with benches pulled by tractors – and helping with KidVenture. This doesn't even count the employees that are drawn from EAA itself.

With 600+K visitors and 5+K volunteers in a town of 60K, how

does everyone communicate? Amazingly well!

Cell phone companies have taken great pains to ensure both good cell phone and data connectivity. That many people would overwhelm the normal cell phone tower network in Oshkosh as you can imagine. The way they have done it is to install very short, not more than 30ft or so, but permanent cell phone towers around the airport property. I also discovered on the 2nd part of my vacation down in Charleston, SC, that the city of Mt Pleasant also uses this approach. Furthermore, some of these short cell phone towers only have antennas in certain sectors. This cell phone tower array design controls what cell phones that can connect effectively dividing the event into micro cells. Leaving antennas out of certain sectors mostly prevents outside cell phones, e.g. cell phones on the nearby highway, from connecting.



So here's a perfect example of, if you plan to get slammed by cell phones at large events or in emergencies, they can function as advertised. Tying this back to something Jim Simpson said back in our June meeting about the Memorial Day tornados being the first time he remembers cell phone service going down, I'm not overly concerned especially as we move to 5G, which will use smaller but more numerous micro or pico cells. First, the loss of cell service didn't extend beyond a nuisance level — loss of cell service was very localized. Second, the more cells, the more robust cell phone service will be to storm or earthquake damage and be better able to control the number of phones connecting simultaneously. And, remember, if a tornado can take out a cell phone tower, it can most assuredly take out an amateur radio repeater site, too! Defense in depth.



While amateur radio stopped being able to support AirVenture a long time ago, there is no lack of radios at AirVenture. They are just Part 90 radios. Lots of digital up in the UHF business band but also some analog voice. The PA system, which used to be analog somewhere near 455MHz, probably got moved to digital on another frequency. The FCC made a huge spectrum change to these types of systems recently. It's a shame because I used to be able to tune into it with my amateur radio HT and listen from the shade :-)

How do 600+K people move around? As big as the event is, a lot of people just walk the miles and miles of showline and forums. But there are people movers in the form of school buses outside of the gates to get people to the parking lots, KidVenture, and some other places, and tractors that pull carts with seats on them inside the gates.

Finally, in an email, I promised a little discussion on how federal agencies work in exceptional circumstances. For AirVenture, it's how you get 1000+ aircraft per 8-hour day into and out of what amounts to a general aviation airport. O'Hare, a major metropolitan airport, only manages about 2500 over a 24-hour period. For Amateur Radio, it's how you get PACTOR 4 on the air after hurricanes when 47 CFR 97 clearly forbids it.

I don't know where it is in 14 CFR or 47 CFR, but usually there's a regulation that allows for waivers for just about anything. Furthermore, most regulatory agencies can draw upon a catchall rule that allows the Administrator of each federal agency to make special issuances that effectively bypass the regulations. So how do you get 1000+ aircraft into and out of Oshkosh each day? It starts with everyone, both pilots and air traffic controllers, understanding the 30-page Notice to Airman (NOTAM) inside and out. Typical NOTAMs only run about 1 paragraph! Controllers just don't jump into this uninitiated. The selection process is competitive for the Great Lakes region, and their first year is mostly just observing and helping the more experienced controllers. For pilots, it involves flying an arrival procedure that reads more like an instrument arrival procedure for big airports, but it's all visual. Finally, the usual spacing and landing requirements have been waived. Where a landing would usually be waived off if the preceding aircraft hasn't cleared the runway, during AirVenture you land 3 aircraft at the same time on the same runway!

Jason Bowman

ICOM				
Confirming WG BL	QSO with 3	Day 23	Month	Year 2019
UTC 19:03	MHz	RST	Ma - Ey	ode 2-Way
Operator RAY, N95A				
www.warbirds-ea		PSE O	TKSO I	EYEBALL

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Field Day Scores

	cw		Digital		Phone	
Band	QSOs	Power (W)	QSOs	Power (W)	QSOs	Power (W)
160m			1	100		
80m			5	100	196	100
40m			7	100	172	100
20m			69	100	17	100
15m			12	100		
10m			4	100		
6m			1	100		
2m						
222						
432						
Other						
Satellite						
GOTA						
Total	0		99		390	

Total: 588

Claimed Score = (QSO points x power mult) = 1,176

Bonus

Bonus	Points
100% emergency power	300
Public location	100
Public information table	100
Site visit by invited elected official	100
Site visit by invited served agency	100
Educational activity	100
Youth participation (6 x 20, max of 100)	100
Social media	100
Entry submitted via web	50
Total bonus points	1050

GOTA

Name	Call	QSOs	Bonus Points
Lilly Elliott	KE8JNS	2	0
Jim Elliott	N3FID	3	0

Young's Dairy Charity Bike Tour



(Continued from page 3)

support provided was quite good and we were able to provide quick response to riders whose bikes has experienced mechanical problems. Late Sunday afternoon, we did have a rider take a spill while trying to avoid a collision, but his injuries were not life-threatening.

Most of us had fun with this challenging event and most of the hams enjoyed the Saturday night dinner at Viva Maria.

(Bob BakerN8ADO)

Club Call: W8XRN

XWARN P.O. Box 562 Xenia, Ohio 45385

Email: info@xwarn.net Website: XWARN.NET

«FNAME» «LNAME» - «CALL»
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«CITY» «STATE» «ZIP»

Wavelengths

Wavelengths is published monthly by the Xenia Weather Amateur Radio Net. Our meetings are currently held on the 2nd Monday of each month at <u>7:30 pm</u> at the Greene Memorial Hospital Auditorium. You can find additional information about our organization at www.xwarn.net . We welcome new and experienced Amateur operators and those interest in becoming an Amateur operator to attend our meetings.

