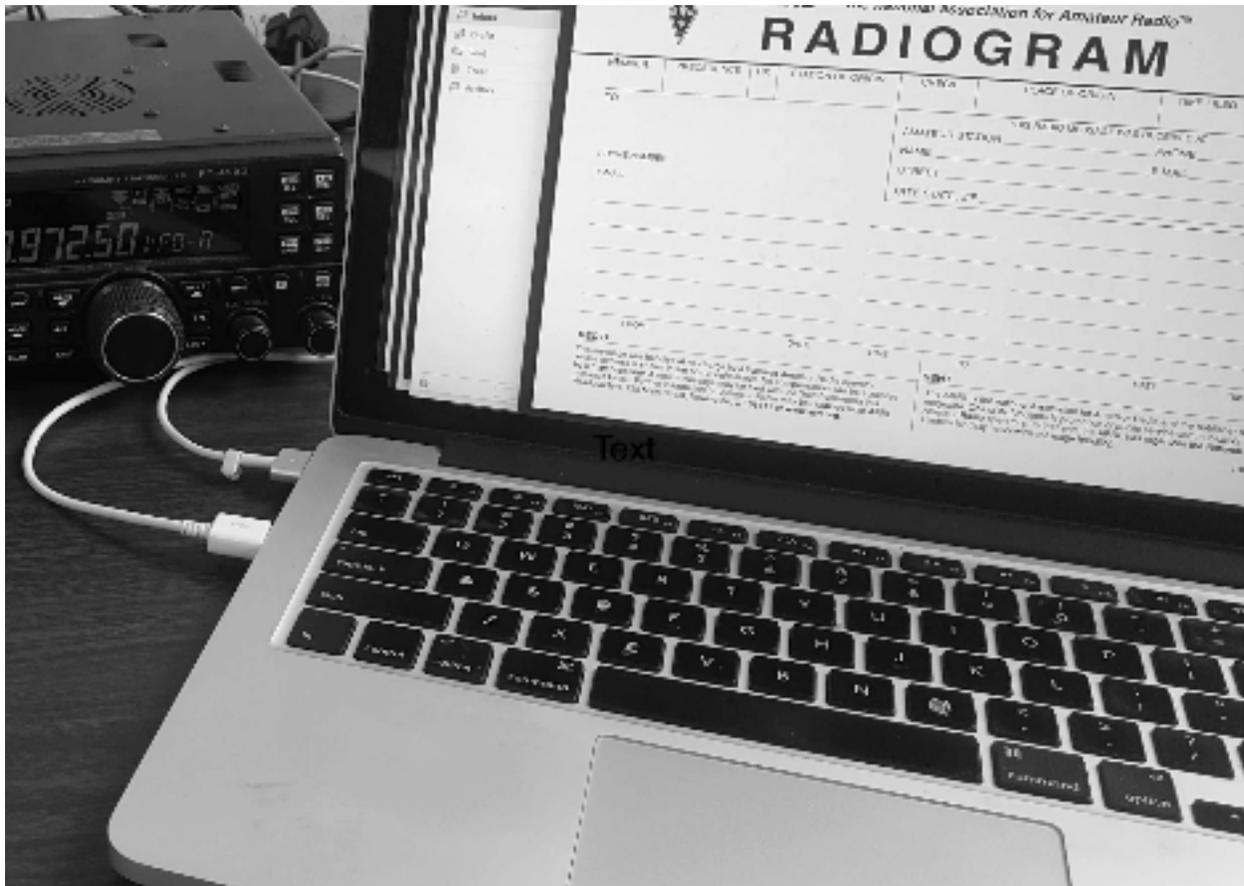# Annual Report
2019

WELCOME TO THE ANNUAL REPORT of the Central Ohio Traffic Net (COTN). We provide this as a record of our activity in calendar year 2019 for those who are interested, including agencies and organizations we serve, partner organizations, and our own membership. Please direct questions and comments to COTN's 2019 net manager.

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Introduction

The Central Ohio Traffic Net (COTN) is an unincorporated association of amateur radio operators in Central Ohio. When messages need to get through—especially when regular communication methods are unavailable—COTN provides an outlet to a highly-resilient international system of message relay circuits.

The American Radio Relay League (ARRL) is a not-for-profit organization formed in 1914 for the purpose of advancing amateur radio in the United States.[1] Among the services ARRL provides is administration of the National Traffic System (NTS), a program to accept and to deliver messages from others, including the general public.[2] Those messages, Radiograms, are relayed via amateur radio stations all over the country.

NTS and its cousin, the Amateur Radio Emergency Service (ARES),[3] are administered by ARRL through its Field Organization. The Field Organization breaks the United States and its territories into 71 sections.[4] A single section, the Ohio Section, covers the state of Ohio.[5]

COTN meets daily and in special sessions to relay radiograms (traffic) within the Central Ohio area. When traffic cannot be delivered locally, the traffic is sent via a station acting as a liaison between COTN and another net that covers greater territory, such as the whole state of Ohio. In addition, liaison stations link NTS and other traffic-handling services including Radio Relay International (RRI)[6] and Military Auxiliary Radio Service (MARS).[7,8] Liaison stations also bring traffic from higher-level nets down to COTN for local delivery.[9]

Thus, COTN is a part of the Ohio Section of the National Traffic System.

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[1] http://www.arrl.org/about-arrl
[2] http://www.arrl.org/NTS
[3] http://www.arrl.org/ARES
[4] http://www.arrl.org/field-organization
[5] http://www.arrl-ohio.org/
[6] http://radio-relay.org/
[7] http://www.netcom.army.mil/mars/
[8] https://afmars-msn.org/joinmars.php
[9] http://www.arrl.org/chapter-nine-nts-traffic-routing

Mission

COTN's mission is defined in Article 2 of the Bylaws, namely,

> *to relay traffic in the public interest during both normal times and communication emergencies and to train net members to accomplish this objective.*

COTN serves central Ohio, including the counties of Delaware, Fairfield, Franklin, Licking, Madison, Pickaway, Union, and others. COTN has a memorandum of understanding with Franklin County Emergency Management & Homeland Security (FCEM&HS), and regularly provides service to that organization and the programs that support it.

Governance

COTN is governed by ARRL's Public Service Communications Manual[10] and in particular its Section II on NTS, and its Appendix B, "NTS Methods and Practices Guidelines" (MPG).[11] In addition, COTN is governed by its own Articles of Association,[12] Bylaws,[13] and its own Standard Operating Procedure (SOP) informed by these documents and others published by ARRL and RRI.

Personnel

COTN is made up of its roster membership, who annually elect a net manager for a term of one year. The net manager then appoints an assistant net manager, an advisory board, and other officers to represent COTN, to support its operations, and to train operators.

The officers and advisory board of 2019 took their positions by their election and appointment according to our bylaws.

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[10] http://www.arrl.org/public-service-communications-manual
[11] http://www.arrl.org/appendix-b-nts-methods-and-practices-guidelines
[12] https://www.cotn.us/articles-of-association
[13] https://www.cotn.us/by-laws

Net Manager	Matthew Curtin, KD8TTE
Assistant Net Manager, Operations Officer	Alicia Ward, W9ARD
Personnel Officer	Troy McDonald, KE8DWX
Training Officer	Russ Ward, W8ARD
Finance Officer	Tony Sirianni, KD8OEE
Liaison Officer	Mike Myers, W8SGM
Advisory Board	Tony Fabro, N8RRB, Howard Luxhoj, KD8TVB, Mike Myers, W8SGM

Nets are conducted by our radio operators. Our net reports track the stations acting as *net control* and *section net liaison.*

Net Control Stations

Each session of COTN is a formal *net* called where stations meet at the same time and same frequency. Net control calls for stations to join the net, keeps track of the traffic *listed*—to be handed to another station on frequency, and directs which stations are to exchange traffic.

In 2019, we had a total of fourteen stations acting as net control for at least one session.

AB8MW	AD8CM	K3AUX	KD8KBX	KD8TTE
KD8TVB	KE8JJX	N8RRB	W8ARD	W8KWG
W8SGM	W8SSG (former KE8EEO)	W9ARD	WA3EZN	

Section Net Liaison Stations

Traditionally, COTN maintained liaison to other traffic nets of the ARRL Ohio Section, such as Ohio Single Sideband Net (OSSBN),[14] Buckeye Net (BN),[15] and Ohio Slow Net (OSN). Today, we also move traffic to independent nets including the 75 Meter Interstate Sideband Net[16] as well as Hit and Bounce Net (HBN).[17] Whenever a station acts as a liaison to another traffic net, whether technically an Ohio Section net or not, we record that station as a Section Net Liaison.

COTN had twelve such liaison stations in 2019.

AB8MW	AD8CM	KD8KBX	KD8TTE
KD8UUB	W5UHQ	W8ARD	W8KWG
W8OMR	W8SSG (former KE8EEO)	W9ARD	WA3EZN

Stations on the Roster

Net control and liaison stations have no work to do without the critical relay stations that bring traffic to the net and the other stations there to take traffic from the net. Our longstanding reporting does not include every station that checks into the net but we do have a roster that is maintained throughout the year.

Stations on the roster at any point in 2019 follow. We have four club stations supporting our connections to agencies or groups we support to aid in routing traffic to those stations, as well as the individual station members.

Callsign	Name	City	County	Quadrant
W8SGT	Ohio EMA	Columbus	Frankin	
W8THV	Franklin County EMA	Columbus	Franklin	
K8DDG	Franklin County ARES	Columbus	Franklin	
W8OMR	Ohio Military Reserve	Columbus	Franklin	

[14] https://ossbn.org/
[15] https://buckeyenetweb.wordpress.com/
[16] https://www.qsl.net/75misbn/
[17] http://hitandbounce.net/

KD8TTE	Matthew Curtin	Bexley	Franklin	NE
KD8KBX	Stan Sutton	Columbus	Franklin	NW
N8RRB	Tony Fabro	Hilliard	Franklin	NW
KD8EEK	John Fick	Pleasantville	Fairfield	O
AB8MW	Mike Walker	Columbus	Franklin	SE
K3AUX	Tim Reid	Columbus	Franklin	NE
KE8DWX	Troy McDonald	Columbus	Franklin	NW
W8ARD	Russell Ward	Columbus	Franklin	NE
KE8ANW	Brian Burley	Worthington	Franklin	NW
WA3EZN	David M. Maynard	Hilliard	Franklin	NW
KD8UUB	Christopher Tracy	Caledonia	Marion	O
KE8JJX	Josh Vittie	Worthington	Franklin	NE
N8YRF	Gene Moore	Marysville	Union	O
KD8KYE	Tim Bartsch	Westerville	Delaware	O
N0UFO	Becky Mayse	Kenton	Hardin	O
W8SSG	Justin Bogar	Orient	Pickaway	O
W9ARD	Alicia Ward	Columbus	Franklin	NE
KB8YMK	Ken George	Dublin	Franklin	NW
W8SGM	Michael Myers	Pickerington	Fairfield	O
W8KWG	Gayle Adams	Upper Arlington	Franklin	NW
KD8TVB	Howard Luxhoj	Upper Arlington	Franklin	NW
AD8CM	Marcel Casavant	Grandview Heights	Franklin	NW
KD8SYP	Robert Cupples	Reynoldsburg	Licking	O
W8RV	Kenneth Coleman	Columbus	Franklin	NW
W8RIH	Thomas Miller	Columbus	Franklin	NW
KV8Z	Christopher Daniels	Columbus	Franklin	NE

Operations

COTN conducts a net session for traffic handling daily at 7:15 P.M., and as needed. Net operations can be summarized with some quick statistics for the entire year.

Sessions Held	394
Checkins	4,493
Minutes of Net Operation	7,908
Messages Handled	1,093

Review of Performance

Behind the totals is a more complete story. Our daily net operation ensures that an outlet is available every day of the year including weekends and holidays for messages to get into the area from further away or to be taken from this area to its destination. With three designated repeater systems and a specified simplex operating frequency, COTN is resilient to technical problems and overload.

In addition to the daily scheduled nets, special sessions were called to support operational needs, e.g., an unusual amount of traffic, or to address traffic with particular urgency. Routine and Welfare traffic can usually wait for a regularly-scheduled net before movement. Emergency traffic demands immediate attention, and Priority is usually also inappropriate to idle.

In those cases, a station may call on a frequency "watched" by COTN operators to list traffic outside of a regularly-scheduled session. This can happen at any time, day or night, on any day. Hence, we had 394 sessions reported in a year with 365 days, and here we present the minimum, maximum, and average for key statistics on session performance.

	Minimum	Maximum	Average
Stations in Net	2	24	11.4
Messages Passed	0	40	2.8
Minutes in Service	4	122	20.1

Field Day

ARRL Field Day is a 24-hour radio event that is typically the largest event of the year in radio. In 2019, over 36,000 participants made 1.1 million contacts during the event.

FCEM&HS AUXCOMM station W8THV was in operation this year, turning the event into an exercise, where the AUXCOMM function was staffed by reaching out to supporting organizations for resources to establish and operate the station. Response included Franklin County Ohio Amateur Radio Emergency Service, Ohio Military Reserve, and COTN.

Field Day Team W8THV North Garage Operating Position, With Solar Power, at Franklin County Emergency Management & Homeland Security.
(June 22, 2019. Photo: C. Matthew Curtin)

Simulated Emergency Test / BLACK SWAN 19

ARRL encourages public service radio organizations to participate in an annual test of their capabilities in a simulated emergency, the Simulated Emergency Test (SET). In 2019, as with 2018 and 2017, COTN participated with the rest of the ARRL Ohio Section in a larger communications exercise known as BLACK SWAN.

The BLACK SWAN 19 scenario was a set of severe weather events driven by a hurricane from the Gulf of Mexico, roughly corresponding with the events triggered by Hurricane Opal (1995). With power and communications lines compromised, use of line-of-sight VHF and NVIS HF became important tools for responding agencies.

Building on 2018's "watch schedule" concept,[18] COTN scheduled hour-long periods of operation where a net control station was assigned. The net control station would call the net up as usual and after moving all traffic, net control would switch the net's mode of

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[18] See *COTN Annual Report 2018* for a more description of the SET operation. www.cotn.us/reports

operation from directed to *free*. Any station remained free to join or to leave the net. Stations could join the net and list traffic, and be sure that a net control station would be present, and if no outlet could be found for the traffic, net control could take the traffic, allowing the station to leave the net and return to its other operating frequency, trusting net control to move the traffic as soon as an outlet became available. The net would be terminated after fifty-nine minutes and the next net control station would call up the next session.

The design proved itself valuable, allowing for ongoing contact with the State of Ohio Emergency Operations Center and Ohio Military Reserve Tactical Operations Center, both of which benefited from having the VHF circuit for movement of traffic in addition to HF circuits in use. During the SET weekend of October 5–6, COTN held twenty-eight sessions, with 186 stations joining those nets, moving 122 messages,[19] for a total operating period of twenty-five hours and fifty-five minutes.

Our operation scored a total of 355 points, compared to 223 in 2013, 263 in 2015, 201 for 2016, 239 in 2017. Statisticians did not compile necessary data for submitting ARRL Form B reports of activity for 2018 or 2014, and COTN records of Form B submissions are generally unavailable before 2014.

After 2018's report problem, the session statistics form for net control stations was updated to capture all SET data for 2019 sessions, rather than requiring a separate (and additional) submission as had been the practice in previous years.

Training

The second part of COTN's twofold mission—to relay traffic and to train people to do it—is reflected in the net's tagline, "Actively training traffic handlers since 1984." Training takes several forms on COTN. We conduct training on-air, through publications, with in-person training sessions, and exercises.

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[19] The messages passed break down by precedence as Emergency 0, Priority 12, Welfare 33, Routine 71, and ICS- 213 6. While ICS-213 is not a precedence, ARRL requests a breakdown of traffic with ICS-213 formatted messages reported separately. In operation, ICS-213 traffic is assumed agency traffic and therefore handled as Priority.

On-air training

During net sessions, new operators can listen. In so doing, the operator will hear proper procedure being practiced.

Where incorrect procedure is heard, a gentle correction will typically follow in the form of a "training tip" listed and handled after completing traffic. We emphasize that training is not about ridiculing the operator but that correcting errors helps all to avoid forming bad habits.

If unsure about a procedure or what to do in a particular case, the station may list a "query." Net control will handle the query in due course—typically after the completion of handling traffic. An experienced operator will address the question.

Publications

The COTN web site at www.cotn.us has several resources to aid in training.

Our "Training Tips" section presents a series of articles, each discussing a particular need. In some cases, a bad habit being formed on-air will warrant a new article that highlights the mistaken procedure heard, the operator's intent, cases where the mistaken procedure will create problems, and shows the correct procedure to accomplish the intent.

In other cases, the "Training Tips" article will arise from a query listed on a net session. An on-air discussion can help with immediate questions but following some questions up with a longer written article including references helps to ensure a more complete understanding.

The "References" section of the web site includes not only the references like numbered radiograms, but also training materials and links to others from ARRL and RRI.

Specific directions for operation of COTN, including administrative work behind the scenes are included in the SOP manual.

In-Person Training

COTN meets monthly to give operators a chance to meet the people behind the voices they hear on the air. Meetings are held on the second Thursday of the month at Franklin County Emergency Management & Homeland Security, 5300 Strawberry Farms Blvd., Columbus, OH 43230. We begin gathering there at 6 P.M. local time, and get training underway about 6:30 P.M.

A presentation focused on a particular topic will start the meeting, followed by a discussion. Topics and presenters are selected by the Training Officer, and may be part of a methodical series of topics covering the breadth of skills needed in a traffic handler, in response to a training need that has developed in recent weeks or months, or a request for the topic.

Training will often break for the regular net session at 7:15 P.M., or will instead involve a special net session held on-air with handheld radios operating at low power. This special hybrid session gives attendees an opportunity to practice particular procedures, to pause on-air operations for an in-person discussion about what just took place or how to address a need. Gaining experience with gear, procedures, and with the support of others provides not only the skills needed to accomplish the operational side of the mission but the confidence to use it on-air and outside of a training context.

Exercises

Exercises are where the training will be tested. Exercises such as those held for events like Field Day and SET or in conjunction with other organizations Community Emergency Response Team (CERT) are where the skills are put to the test in realistic emergency or disaster operating conditions. In these cases, as in real emergency operations, net operations are conducted with professionalism and efficiency by experienced operators who have trained and are ready to meet mission objectives. Where questions arise, they are put aside for offline or later discussion—after the exercise operation has concluded.

Liaison

COTN maintains liaison with several organizations.

Franklin County Emergency Management & Homeland Security

COTN executed a Memorandum of Understanding with FCEM&HS in 2015 after demonstrating operational capability through a series of exercises held with Franklin County's Community Emergency Response Team (CERT).

COTN maintains liaison with FCEM&HS through the agency's AUXCOMM group, Franklin County Auxiliary Communications Club (FCACC). When FCEM&HS needs AUXCOMM support, the agency uses FCACC to reach out to the appropriate coordinating organizations to activate a team that spans the disciplines necessary to support the mission at hand.

Central Ohio Radio Club

Central Ohio Radio Club (CORC) continues to host COTN sessions on its wide-coverage repeater systems, allowing COTN to maintain a footprint of approximately ten counties in Central Ohio. CORC's 146.97 repeater serves as our primary meeting place, with its 146.76 repeater acting as secondary.

CORC's management of its assets prioritizes such that Central Ohio Severe Weather Net (COSWN) has first use of its systems, COTN second, and others afterward. WIth 146.76 as COSWN's primary and 146.97 as its secondary, under normal conditions both COSWN and COTN can operate, with others required by CORC to yield to our operations. The cooperation balances efficient use of resources with resiliency.

Capital City Repeater Association

COTN uses Capital City Repeater Association (CCRA) 147.24 repeater as its tertiary operating frequency.

Franklin County Ohio Amateur Radio Emergency Service

As the VHF traffic net that covers Franklin County, COTN maintains liaison to Franklin County Ohio (FCOH) Amateur Radio Emergency Service (ARES), providing an outlet for traffic to or from FCOH ARES or any agency that it serves.

Ohio AuxComm Team

Ohio AuxComm Team operates amateur station W8SGT at the Ohio Emergency Management Agency Emergency Operations Center/Joint Dispatch Center. Located in Franklin County and run by operators in COTN's listening area, W8SGT is also served by COTN where a traffic outlet is needed.

Ohio Military Reserve Amateur Radio Group

COTN provides a traffic outlet for amateur station W8OMR, the Ohio Military Reserve Radio Group. As W8OMR is run by units based in Franklin County, COTN provides an amateur traffic outlet for that station.

Conclusion

The Central Ohio Traffic Net has been in continuous operation since 1984 and remains one of the most active nets in the amateur traffic system. The force of volunteer trained radio operators serves the public and the agencies that aid the public, and welcomes radio operators who wish to learn that skill to join the net and learn the art of traffic handling.

Our web site at www.cotn.us provides current information on officers, staff, operating schedule, procedures, and contact.