
U.S.E.C.A. EXPRESS

Awarded for "EXCELLENCE"

UTICA SHELBY EMERGENCY COMMUNICATION ASSOCIATION, INC. Volume 11, Number 10, December 1995

➔ ELECTIONS FOR CLUB OFFICERS ←

The elections will be held at the December monthly meeting.

YOU MUST ATTEND TO VOTE!

"THE HAPPENIN' CLUB"

CLUB ACTIVITIES

MONTH	DATE	TIME	EVENT
DEC	5	7:30 pm	General Meeting
DEC	15	6:30 pm	8th Annual Christmas Party
JAN	9	7:30 pm	General Meeting
FEB	13	7:30 pm	General Meeting
MAR	12	7:30 pm	General Meeting
APR	2	7:30 pm	General Meeting
MAY	TBA		"Trash For Cash"
MAY	14	7:30 pm	General Meeting
MAY	TBA		Pre-Field Day '96
MAY	17-19		Dayton '96
JUN	11	7:30 pm	General Meeting/Fox Hunt
JUN	28-30		Field Day '96
JUL	TBA		Christmas in July
AUG	TBA		Clinton River Clean-Up
SEP	2		Romeo Peach Festival Parade

COMING SOON . . .

DUES DUE!

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NEXT MEETING — December 5th

BOARD OF DIRECTORS

President Floyd Soo/KF8AT, (810) 391-6660
Vice President Ann Manor/KG8IF, (810) 751-3893
Recording Sec. Jim Mickle/N8OKW, (810) 739-6565
Treasurer Lynn Hardie/KB8QFY, (810) 524-7454
Membership Sec. Joan Dzidowski/N8VLY, (810) 263-4993
Past President Earl Hoskins/N8OEX, (810) 544-0625

ELECTED BOARD MEMBERS

Arpad Miklos/WY8M, (810) 751-3804
Betty Isbister/N8LXL, (810) 775-3492
H. "Biff" Baydoun/N8NQQ, (810) 566-7749

COMMITTEES

Editor Joe/K8OEF, (810) 781-0050
Mailers/Sorters Ann/KG8IF; Phil/WA8ZOF;
Biff/N8NQQ & Crew
Swap & Shop Kevin/N8QVX & Committee
Net Point Coord. Ken/KF8RG
Net Manager Lee/KB8TOQ
Activities Chair Betty/N8LXL
Program Director Floyd/KF8AT
Repeater Trustee Chuck/WA8Z
Technical Directors Doug/N8KND; Tom/KB8NDS
& Bill/KB8VLL
Field Day Co-Chair Betty/N8LXL; Don/WX3M &
Arpad/WY8M
Refreshments Walt/WB8E; Phil/WA8ZOF &
Marianne/N8TMJ
Health & Welfare Kathy/N8VOH, (810) 752-7818
& John/N8FNO
Club Historians Jerry/K8CFY; Ann/KG8IF &
Joe/WD8MFN
ARRL Liaison Dave/KF8CT
Club Videographer Floyd/KF8AT
Door Prizes Bill/AA8LZ

CONTROL OPERATORS

Chuck/WA8Z	Bill/N8CVC	Dave/N8OEV
Earl/N8OEX	Gulliver/WA8VIJ	Gordie/WB8H
Floyd/KF8AT	Pat/N8LOG	Doug/KG8F
Dave /WD8IFL	Mike/WX3L	Nancy/KB8QMS

PROGRAMMERS

WA8Z	N8KND	WB8H	N8FOW	N8CVC
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VOLUNTEER EXAMINERS

WA8Z	KF8AT	WX3L	W8VRW	AA8LZ
AA8NQ	WY8M	KF8RG	KF8MB	KF8CT
AA8CY	AA8HF	N8KDL	N8CVC	

SILENT KEYS

John Moore/KA8KTV	Joe Steel/KA8IZM
Charles Smith/N8FWF	Joe Lucido/NU8F
John Palmer/WD8LBH	Clarence Ringo/W8HQO
Rick Parady/KB8KLW	John Pizzuti/WB8NHT
Art Sheff/WD8EGV	Velma Ragon/N8YVC

Still Going . . .

Joe/K8OEF

It is that time again—the election of our club's officers. Be sure to attend December's meeting to cast your vote—remember, these will be the people to lead our club and maintain its reputation of the best radio club in town. The December meeting date has changed to the first Tuesday of the month.

The annual Christmas party will be at a new location—check out the details in this issue.

Dues time! Need I say more? If you've enjoyed the fun and fellowship, you must realize that it doesn't come free. The club needs your support. Do not let your dues lapse—you certainly don't want to miss a single issue of this award-winning newsletter—do you? [A plug for the editor.]

SWAP NEWS! According to all indications, our swap was a HUGE success. A big thanks to Kevin/N8QVX, his crew, volunteers and everyone who contributed. It means a lot to the entire club—even the "meals on wheels" was impressive. We're already looking forward to bettering it next year. What an act to follow!

Have a very joyous holiday season!

73 for now.



WHO WAS IT?

Kathy/N8VOH

(Nose of the North—Mouth of the South)



CHECK-OUT THE . . .

Check-Ins

Joe/K8OEF

As a NCO for this club, I kept records of those who checked into a Sunday afternoon Information Net (second Sunday of the month). For the month of December, here are the check-ins for the past three years in the order they checked in. Who's still here? Who's not?

1992: WB8E; N8NLS; KF8MB; N8VBG; K8CFY; N8VOH; N8OKW; N8WDI; N8VVH; N8NXM; N8RUE; KB8KLW; KF8AT; N8OEF; KF8CT; KB8NXS; N8RHT; N8NMX; KB8NYY; N8RRU; N8VBH; N8VLY; W8LLJ; N8MCD; N8RUD; N8VTF; VE3VLA; N8VSI; N8WCA; and, N8VDW.

1993: KB8AT; KB8QMS; WU8C; N8SCQ; WB8ITB; N8TLC; N8ZRZ; N8RHT; N8WDO; N8UJL; N8NLS; N8WYP; WB8HSG; WD8IFL; KB8OLS; N8XCZ; N8YJI; KB8NYY; WY8M; N8QVX; WA8VIJ; WX3L; N8YVC; N8RUH; N8VTF; N8TMJ; W8JEK; KB8QGE; KF8RG; N8OKW; N8TVW; N8VOH; and N8QOQ.

1994: KF8AT; K8CFY; AA8MD; WY8M; KB8QFY; KF8RG; K8VDZ; KB8RBV; N8VLZ; N8LXL; KB8TOQ; AA8LZ; N8XCZ; N8RUH; N8NOQ; N8QVX; KF8CT; KB8QXD; N8SIH; KD8WU; WB8E; N8OKW; N8TMJ; N8VOH; KA8CBZ; KB8SRI; KB8VLI; KG8KZ; N8RAR; KA8UHG; KB8SDN; VE3NGN; and, KB8QWY.

NOMINATIONS
For Club Officers

President
KF8AT/Floyd

Vice President
KG8IF/Ann

Recording Secretary
KB8YYC/Dennis

Treasurer
KB8QFY/Lynn

Membership Secretary—Vote for One (1)
KB8QXB/Sue
WX3L/Mike
KB8RBV/Manny

Board Member—Vote for Three (3)
KB8QMS/Nancy
N8XCZ/Elizabeth
KF8CT/Dave
KG8IE/Scott
N8UJL/Sara
N8LXL/Betty
WY8M/Arpad
K8CFY/Jerry





8TH ANNUAL
(Sanctioned & Official)

CHRISTMAS PARTY

Friday, December 15th

6:30 P.M. Cocktails & Appetizers

7:30 P.M. Buffet Dinner

9:00 P.M. Dancing (Live Band)

GARWOOD'S BAYVIEW LODGE

Conger Bay Drive—North of North River Road

White Elephant Gift Exchange

\$13.50*/Person

Make Checks Payable to USECA, INC.

Mail to USECA P.O. Box

Contact: Ann/KG8IF (810) 751-3893 or

Lynn/KB8QFY (810) 524-7454

**Includes Tax and Gratuity—Availability is Limited!*

Detroit Reclaimed by:

SATERN "Angels"

In August 1995, the City of Detroit Mayor's office conveyed a meeting of Emergency Management professionals from throughout Metro Detroit. The subject being the night before Halloween, know as "Devils Night."

In the past, Detroit has experienced arson fires in such abundance that it drew international news coverage and embarrassment from around the globe. The worst incident recording over 400 fires in a single evening requiring mutual aid from surrounding suburban police and fire departments.

This year Mayor Dennis Archer declared Devils Night arson activities would not be tolerated and asked for an "army of 30,000 volunteer angels" to protect the city during the period of October 29-31. Being as the Mayor asked for an "army of angels," it was only natural for The Salvation Army to be called to action.

After several meetings with city officials, it was determined that four of The Salvation Army Emergency Disaster Service canteens would be placed in strategic locations around the city to provide beverages, nourishment and encouragement to the other volunteer angels and emergency service personnel. The canteens would be able to respond with unprecedented effectiveness in the event of a major incident.

In the Army's planning for this event, officials were concerned about the possible interruption of communications. The Metro Detroit canteens crews use cellular phones as their primary mode of communication. They knew that with all the traffic on the cellular system, there would be a probably overload of that system.

In an effort to have a reliable communication system, and also to test the resources and creativity of the amateur radio operators who volunteer with the newly formed Salvation Army Team Emergency Radio Network (SATERN) group in Macomb County, Michigan—a request for volunteers went out on to local SATERN nets.

Under the direction of Captain Bill Heaver, KB8QMP and Walt Gracey, WB8E, SATERN volunteers arrived at Salvation Army Divisional Headquarters and

proceeded to equip each canteen and administrative/support vehicles with 2 meter radios and operators.

Through the generosity of the Utica Shelby Emergency Communication Association, Inc. (USECA), their 2 meter repeater helped provide the wide radio coverage needed to facilitate HT coverage across the Metro Detroit area. Floyd Soo, KF8AT, (president of USECA and a SATERN member), stated, "We are glad to do whatever possible in providing emergency radio communications. That's why USECA exists!"

With NCO [net control operator] Nancy Carr, KB8QMS handling and controlling the traffic, SATERN volunteers handled all communication assignments with a high degree of professionalism. Many City of Detroit officials were impressed by the services rendered by the EDS and SATERN volunteers.

One veteran Detroit Police sergeant walked up to SATERN member Dan Larned, KA8NDY and stated, "I don't want anything except to say thanks for all you Sally Ann [Salvation Army] people do." (Dan later informed net control that this encounter, "made all the long hours worth it").

When the detail ended, all the volunteers were dismissed to return home with their "war stories" of the night—"the devil was defeated in Detroit."

On November 1, 1995, Mayor Archer announced that Devils night would be no more; because the Angels have won during the three day period. Indeed, the SATERN "volunteer angels" had provided a valuable contribution to reclaiming the city for the future.

Speaking of the future, SATERN member Duwayne "Red" Mallast KB8SFK was heard stating: "Next year we're going digital!"

73 de KB8QMP

[Thanks to KB8QMP for the timelines of this article. It was sent to major publications such as QST and Worldradio—*USECA Express* readers are the first to see it—*Ed.*]

[On November 18, 1995, as we go to press, the SATERN team again assembled to provide the necessary support functions to assist the emergency personnel in Warren with the rescue at the cave-in on 12 Mile Road—*Ed.*]

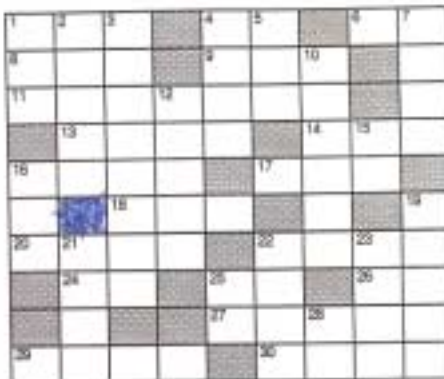
U.S.E.C.A. Crossword Puzzle

ACROSS

- 1 Insect or dinkster
- 4 Signing off (prosign)
- 6 Dits and dahs
- 8 W.A.N.I.K. land
- 9 Field Day, usually
- 11 Radio telegram contents
- 13 Test night must of upgrades
- 14 4M or Host Owl
- 16 You hope to make this at the swap
- 17 Handles 11 across
- 18 Provides some legal protection when added to name
- 20 Used to be an FCC code test requirement
- 22 Nippon brand name
- 24 Exommer
- 25 When Walt became a ham
- 26 Recent addition to Canadian prefixes
- 27 Electronic dit-dah maker
- 29 What you'll have to do to your too-long antenna
- 30 148.64(+)

DOWN

- 1 The guy who shows up for the free lunch
- 2 147.180(+)
- 3 Generator food
- 4 Scott's tower did a lot of this on FD
- 5 Mass quantities of contest eldib



- 7 A beam heading
- 10 American brand name
- 12 What you wind up doing at swap
- 15 And (CW)
- 16 Help!
- 19 147.140(+)
- 21 What you hope to break at swap
- 22 What it down should be
- 23 Back to you (SSB)
- 25 Over (CW)
- 28 Algerian prefix

KF8RG

Jerry and Betty

VISIT MECCA

Jerry/K8CFY

On a recent trip to Bedford, Mass. (Boston) to celebrate her mother's 80th birthday and also their 1st wedding anniversary, K8CFY and N8SIH toured the W1AW ARRL HQ. and operated one of their three stations available to members.

Using the Midcars frequency, 7.258 MHz, W1AW/K8CFY immediately brought a very quiet band to life, worked four stations in the time allowed, and had about ten stations calling

W1AW/K8CFY when he shutdown. One of the stations worked just happened to be a friend of Floyd/KFBAT.

A guided tour of all departments showed many computers being used, including one on which a lady was doing a new page layout (with Pagemaker) for QST.

Certificates were issued for touring and operating the station. Betty was disappointed that their weren't a souvenir store.

Jerry shot a few video scenes of the tour, so I guess that is their souvenir along with the certificates and the memory of being briefly a part of "The Ham's Mecca."

2-METER LANs

LOCAL AREA NETS

DAY	TIME	CLUB	FREQ.
SUN	1:00 pm	U.S.E.C.A./Info.	147.180
SUN	7:00 pm	HPARC/Kids	146.640
SUN	8:00 pm	SPIRIT of '76/Traders	146.760
SUN	9:00 pm	HPARC/DART	146.640
MON	8:00 pm	MECA	147.200
TUE	8:00 pm	U.S.E.C.A./Info.	147.180
WED	8:00 pm	GMARC	146.700
WED	8:00 pm	SPIRIT of '76/Info./Traders	146.760
WED	8:00 pm	SMART/ARPSC	147.140
WED*	9:00 pm	SATERN	147.180
WED	9:00 pm	MICHIGAN QRP	145.170
THR	8:00 pm	EDISON/Info.	145.330
THR	9:00 pm	ECHO	147.080
FRI	Midnite	U.S.E.C.A./Hoot Owl	147.180

*FIRST and THIRD WEDNESDAYS ONLY.



V.E. TESTING

Examinations for an Amateur License are held the on the first Saturday of each month (except July and August). Starting time is 7:15 p.m.; please do not arrive earlier. Walk-ins are welcomed. Pre-registration is preferred. Test site is at the Salvation Army, 34 Grand, Mt. Clemens. If testing, you must have the following: picture ID.; copy of your current license or completion certificates, if any. Birth certificate is accepted in lieu of picture ID. For more information and directions to the test site, contact Bill, N8CVC at: (810) 468-8345; (before 9:00 p.m.).

ALTERNATE V.E. TESTING

Hazel Park ARC
 Mike, WD8S; (810) 399-7970 or Bill, N8SWQ; (313) 533-5962
 LARC Club (Livonia); (313) 261-5486
 Motor City Radio Club (Wyandotte)
 Stan, KB8SB; (313) 676-6248

A MESSAGE FROM THE:

MEMBERSHIP SECRETARY

Joan/N8VLY

The December general meeting will be my last as membership secretary, although I will provide back-up until June.

I have thoroughly enjoyed the challenging position—but after 3 years, I'm ready to pass on the file cabinet!

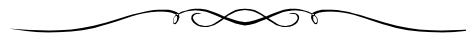
Before I leave this position, I'd like to clarify a few things:

1. A copy of the U.S.E.C.A., Inc. Constitution and Bylaws is available for all new members. If you never received one, and would like one, please let me know.
2. The roster will be printed for all U.S.E.C.A. members in the March *Express* containing all current information. Updates will be printed as necessary. The membership secretary should be notified—preferably in writing—of all corrections and changes as soon as possible.
3. The membership secretary is responsible for assigning autodial numbers—but Doug/N8KND or Bill/N8CVC, put them into the system.

Again, I have enjoyed the challenge of the position and I wish the new membership secretary all the best.

This is a great club to work with!

73.



<i>f</i> Founder	<i>c</i> Charter	<i>h</i> Hon. Charter
KA8KTV <i>f c</i> SK	N8HCT <i>f c</i>	KA8IZM <i>f c</i> SK
N8FNO <i>f c</i>	N8BK <i>h</i>	WD8MFN <i>f c</i>
WD8NHT <i>f c</i>	K8QLM <i>f c</i>	KA8BDG <i>c</i>
WB8QNI <i>c</i>	N8FDN <i>c</i>	WA8VZZ <i>c</i>
WB8OSF <i>h</i>	KA8VYV <i>h</i>	N8AWV <i>h</i>
J. Haubner <i>c</i>	G.Manquardt <i>h</i>	

A Field Day Advantage:

80 METER, FULL-SIZED PHASED VERTICALS

Tom/KB8NDS

Many amateur radio operators have heard of the legend and lore of phased vertical antennas. Some have even thought of building a phased array just to compare it with their old, trusty dipole. A few have gone so far as to build a couple of antennas for use on the bands down to 40 meters. Then there are those who, like myself, have chosen to putter in the land of lunacy, building a set of full-sized phased verticals for use on the 80 meter band.

Most hams have had the same response when I have mentioned the possibilities of building a set of 80 meter verticals. The usual reply is something like; "Those would be about 66 feet tall, wouldn't they? How would you ever stand them up?" For a long time I wondered the same thing. I'll be the first to admit that my first attempt at putting an antenna 66 feet into the air didn't fare very well. The problem is how to get enough rigidity, yet still have the thing be light enough to hoist without the aid of a crane. There is also the matter of how to get the thing upright once it has been assembled on the ground.

I suppose that there are a number of guys out there who would probably take the high-tech approach to such a problem and would order a truckload of aluminum tubing in interlocking sizes. As for me, I took the low-tech (cheap) method and came out with a dandy set of verticals for portable, and field day use.

The inspiration for the design of these antennas came from looking at the transfer tubes at a local grain elevator. They are really nothing more than a thin-walled steel tube, about twelve inches in diameter, with rings welded to the outside at about ten foot intervals. Cross braces extend from the rings in an "X" pattern, perpendicular to the axis of the tube. Strung across the ends of the cross braces and attached to the ends of the tube are guy wires. This provides the tubes with a tremendous amount of rigidity while keeping the amount of overall weight to a minimum. All this looking at guy wires and braces

got me to thinking about the possibility of building antennas using the same engineering principles.

Nearly everyone is aware of the differences between tubes made of the same material, but having varying diameters. The larger the diameter of the tube, the more rigid the tube tends to be. The same rules hold true for pretty much any other structural shape. The trick is that there are ways of increasing the effective cross sectional area and rigidity of an object without resorting to ever increasing size and weight. The secret lies in developing ways to convert the forces within an object from compressive loads to tension loads.

This principle is used all the time in the construction of buildings, bridges, towers, etc. Stop and think of the last time you saw a new building fabricated from timbers or solid steel bars. In this day and age it is very difficult to find such a structure because the people who design buildings realize the great savings in material cost and weight that can be had through the use of a few basic engineering principles. The secret lies in using trussed or web type construction on everything from floor joists to roof supports and I-beams.

Basically, I took the same approach in designing my antennas. I started out with the basic material for the antenna, 1¼" inch electrical thinwall conduit, because it was relatively light weight and inexpensive (free). The only problem with thinwall is that it is not strong enough to deal with the bending forces involved in getting an antenna vertical. Once upright, the tubing is nearly strong enough to bear the weight of itself, but lacks rigidity at the couplings. My challenge became that of dealing with the initial bending forces, and developing a method of coupling the sections together so they would produce a structure that was fairly rigid. There was also the matter of making the entire assembly portable and easy to fabricate and erect.

My design incorporates the same type of bracing used on many sailboat masts. Cross braces extend from the main tubing at right angles. Aircraft cable is then strung along the length of the conduit and is tensioned at the bottom end through the use of small (¼") turnbuckles. The main tubing portion of the mast is 47 feet long. A 20-foot collapsible fishing pole is inserted into the last foot of the conduit and

(Continued on next page)

is used as a support for the a thin wire which is taped to the pole to make up the remainder of the 66 feet. Although I attached the wire to the top of the conduit portion of the antenna via a hose clamp, I ran the wire all the way to the base just to be sure that there would be continuity all the way up the antenna.

I settled on ½" electrical thinwall tubing as the best overall material for the cross braces. It has the major advantage of being inexpensive, yet lightweight and fairly rigid. The individual sections of the 1¼" conduit used for the main mast are coupled by means of 1½" conduit sleeves. By drilling ¾" holes through the sleeves and the mast pieces I was able to insert the half-inch conduit all the way through both, which saved me the fabrication headache of having to weld up a lot of brackets to hold the cross braces at right angles to the mast. The cross braces are secured in place using thinwall couplings which I cut in half and reamed so that they would slide on over the ends of the tubing. A quick twist with a screwdriver is all that is needed to keep them in place.

In the ends of the cross braces I cut a quarter inch by one inch notch for the aircraft cable to seat itself into. A quarter inch bolt is located at the bottom of each notch to act as a bearing for the cable. Cotter pins or hitch clips are slid into holes that are perpendicular to the notches to prevent the cable from slipping out of the end of the braces. The base of the antenna consists of a thinwall connector (steel, not zinc) with its threads removed, welded to a piece of quarter inch steel plate. The steel plate is bolted to the top of an electrical switchgear bus insulator. The bottom of the insulator is bolted to a two foot piece of four inch square tubing. A SO-239 connector is mounted on a small bracket which aligns it with the base of the antenna for electrical connection of the coax center conductor via a stainless steel hose clamp.

The problems of erecting a large vertical antenna boil down to two basic elements; first, how to make the thing strong enough so that it can withstand the initial compressive and bending forces. Second, once the antenna is vertical it has to be rigid enough to remain standing. As anyone who has tried to stand up a long vertical object (especially one made of tubing) knows, the most difficult part of the procedure is to get the thing initially headed in an upward direction. Unless you have a lot of spare bodies, bracing, and pulling power it is extremely difficult, if not impossible, to get a pole shaped object to make the transition from horizontal to

vertical. Of the elements used in the traditional method of "pulling" a pole into a vertical position the initial bracing is probably the most critical. If you attempt to just go ahead and pull the pole up without first having it at least partially off of the ground, you quickly find out the meaning of the phrase "compressive forces". The tube will collapse, due to compression (and bending), somewhere near its base.

I conveniently managed to side step the problem of the initial forces by devising a method of standing my antenna up which greatly reduces the amount of stress applied to the antenna itself. Actually my idea wasn't anything new, it was merely an adaptation of some age old techniques. By adding a temporary vertical member at the base of the antenna I was able to use it to "pivot" the antenna into its vertical position. (See Figure 1). A two inch temporary "axle" was inserted through the four inch square tubing and was staked at each end in order to serve as a secure pivot for the antenna. This arrangement reduced the bending forces on both the antenna and the vertical member to almost zero. It also reduced the amount of manpower needed to raise the antenna by a tremendous amount. It only took five of us to stand these antennas up at Field Day this year.

Once the antennas were upright we supported them by means of quarter inch ropes attached to the antennas at three different elevations, anchored to three pieces of steel pipe driven about five feet into the ground. The support anchors were about 30 feet from the base of each antenna and spaced at about 120 degrees from each other. The two pieces of rope used between each antenna and the temporary member were detached and left to hang from the antenna for use when lowering the antenna back to the ground. This allowed us to use the same piece of pipe as the temporary member for both of the antennas.

After the supports were in place we began to string out our radials for the ground plane for the antennas. We used 16, 22 gauge radials per antenna, grouped four to a lug for attachment to the base of the antenna via 10-32 bolts. We found out

(Continued on next page)

the hard way the year before that antenna radials are best left laid on the ground without being attached to anything at their outer ends. This helps to prevent tripping, and breakage of the radials. Once the three-quarter wave sections of coax were connected to the antennas, and the ICE bandpass filter was inline (is anybody from 40 CW reading this?!) we were ready to "put our hand on the 80 meter band."

Much has been written about the subjects of spacing, phasing, and construction of vertical antenna arrays, so I won't bother to get into all of the theory here. Suffice it to say that this set of verticals had one-half wave spacing with a one-half wave delay line used to change the directional patterns of the antennas. By switching the delay line in and out of the circuit in series with one of the antennas it is possible to get two "figure eight" patterns which lie at 90 degree angles to one another. (See Figure 2). This allows a certain amount of "notching" out signals which are interfering with interception, and also provides a modest amount of gain in the direction of the pattern lobes.

Even though an antenna array of this size is impressive to behold I am inevitably asked the question, "How did those antennas perform?" All I

can say in response to that question is that by most accounts they did a great job. We were able to work more stations at Field Day this year even though the band was not cooperative. We also logged more distant stations than we had in years passed, working into California, Texas, and Florida, among others.

For those who expressed a desire to see a set of plans for my antennas, I am planning to make up a complete set of drawings to aid anybody who might want to try and build a set of these antennas for their own use. The drawings will probably be made available at our club meetings, or in the *USECA Express* in the near future. I am planning a couple of improvements for these antennas for next year's Field Day. These will consist of adding a set of matching networks at the base of the antennas in order to get them to match the characteristic impedance of the coaxes that feed them. This should allow me to put a 1:2 matching transformer at the transmitter and eliminate the antenna tuner. The plans will not include the matching networks, but should be sufficient to allow most ambitious amateurs to be able to build a reasonable facsimile of my 80 meter wonders.

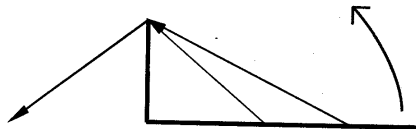


Figure 1

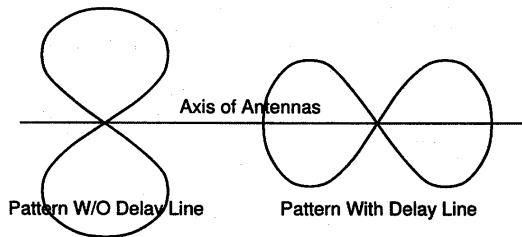


Figure 2

NET OP SCHEDULES						
2-METER NETS			CW NETS			
	SUN. 1 PM	TUES. 8 PM	FRI. MIDNIGHT		THURS. 9 PM	FRI. 10 PM
WEEK	147.180 MHz	147.180 MHz	147.180 MHz		3.680 MHz	21.140 MHz
1	KG8IF	WB8E	KB8WTC		-OPEN-	W8VRW
2	K8OEF	N8LXL	KB8TAS		-OPEN-	-OPEN-
3	AA8MD	WY8M	KF8AT		-OPEN-	WA8ZOF
4	-OPEN-	KB8RBV	WY8M		-OPEN-	N8MOJ
5	KB8RSH	N8VVH	KB8QMS		-OPEN-	W8VIJ

NCO's—If you are unable to take your net, please get a replacement or contact Lee/KB8TOQ.

DO DAYTON HAMVENTION

With U.S.E.C.A.

Thursday May 16, 1996
 Friday May 17, 1996
 Saturday May 18, 1996

We have 40 rooms set aside at the Comfort Inn (Exit 82 on I-75 and SR36) at the Miami Valley Centre Mall, 987 East Ash Street, Piqua, Ohio 45356.

The third floor is non-smoking and the fifth floor is smoking. The cost is \$61 plus tax for one person and \$69 plus tax for two people per room.

Reserve your room by May 1, 1996 with group account number G00410 for U.S.E.C.A. Phone: (513) 778-8100.

Be sure to use the dates for the nights you want the room under YOUR name and confirm if you plan to arrive after 5:00 p.m.

Contact Biff, N8NQQ, (810) 566-7749 if you need additional information.

PART III

"HAM-DOM"

Kathy/N8VOH

The New and Improved Ham Dictionary . . .

1. When one experiences extreme mental and physical discomfort from being in an enclosed room full of radio equipment, one is said to be suffering, "Hamophobia."
2. If you fall off your tower while installing your latest "home-brew" antenna, you may be transported to the hospital in a "Hambulance."
3. A guy who yells "Break-Break" in the middle of your important QSO then asks for a signal report on the repeater is a real "Hamhole."

Are there any readers who would like to contribute to this dictionary?

HAPPY HOLIDAYS . . .
To each and every one of you!

**USECA Board Meeting Minutes
November 7, 1995**

In attendance:

KF8AT	Floyd	President
KG8IF	Ann	Vice President
KB8QFY	Lynn	Treasurer
N8OKW	Jim	Recording Secretary
N8VLY	Joan	Membership Secretary
WY8M	Arpad	Board Member
N8NQQ	Biff	Board Member
N8LXL	Betty	Board Member
N8OEX	Earl	Past President
K8OEF	Joe	Editor
K8CFY	Jerry	Historian
N8QVX	Kevin	Swap Chairman
KF8CT	Dave	
N8RRU	Gary	
N8KND	Doug	
WB8E	Walt	
KB8TOQ	Lee	
KA8NDY	Dan	

Absent:
None

The meeting was called to order by the President at 7:31.

The minutes of the last meeting were approved.

The treasurer's report was approved as submitted.

MEMBERSHIP

The current membership is 209, with 28 1996 members paid. Moved by Lynn/Betty to only print one roster/year to be included with the March newsletter. Passed.

REPEATER STATUS

New chips are planned to be put in the memory on Friday evening. Parts for the new receivers are in and Doug will be putting them together now that winter is here.

ARRL

No new information.

ACTIVITIES

Swap, Kevin, N8QVX

The swap was a success. About 1000 attendance, with 132 tables sold. Most everyone liked it, especially the vendors. The advanced, Saturday set-up went over especially well with the suppliers.

Christmas Party, December 15.

The party will be at Garwood's Bayview Lodge on Friday, December 15th. Cocktails at 6:30 and Buffet Dinner at 7:30. Baked Chicken and Beef Tips over noodles. Coffee, Tea and Soft Drinks included, for only \$13.50 per person including tax and tip. Cash bar. Moved Lynn/Arpad that the club will pay for a sheet cake for desert. Passed. In addition, there will be a white elephant gift exchange for those who want to participate. Contact Lynn or Ann for more information.

EXPRESS

Joe had his hard drive crash, but will have a new one up and running in time for the December issue, which is about 50% complete.

The meeting was adjourned at 9:30 P.M.

Respectively submitted,

Jim Mickle, N8OKW, Recording Secretary


**USECA General Membership Meeting
November 14, 1995**

Board Members in attendance:

KF8AT	Floyd	President
KB8QFY	Lynn	Treasurer
WY8M	Arpad	Board Member
N8NQQ	Biff	Board Member
N8OEX	Earl	Past president
N8VLY	Joan	Membership Secretary
KG8IF	Ann	Vice President
N8OKW	Jim	Recording Secretary
N8LXL	Betty	Board Member

The meeting was called to order by the president at 7:30 P.M.

Attendance was approximately 70.

The minutes were accepted as printed in the Express.

The treasurer's report was presented.

MEMBERSHIP, Joan, N8VLY

Current paid membership is 230. Get your dues in now so that you will be in the 1996 roster.

UPGRADES

N8WMY, Jim, Tech plus

NET MANAGER, Lee, N8TOQ

Thursday nights CW net will change to 80 meter on 3680. Net point awards were presented to Jim, N8OKW and Manny, KB8RBV.

EXPRESS, Joe, K8OEF

Articles are due tonight.

REPEATER, Doug, N8KND

No report.

NOMINATIONS

The following were nominated:

President: Floyd, KF8AT

Vice President: Ann, KG8IF

Treasurer: Lynn, KB8QFY

Recording Secretary: Jim, N8OKW

Membership Secretary: Sue, KB8QXB, Mike, WX3L, Manny, KB8RBV

Board Members: Nancy, KB8QMS; Liz, N8XCZ; Dave, KF8CT; Scott, KG8IE; Sara, N8UJL; Dennis, KB8YYC; Betty, N8LXL; Arpad, WY8M; Jerry, K8CFY.

USECA JACKETS

Jackets were distributed and orders taken.

EVENTS

Swap, Kevin, N8QVX

All went great at the new location. We had a reasonable gain. Kevin thanked all the people that helped.

UPCOMING EVENTS

Christmas Party

The party will be at Garwood's Bayview Lodge on Friday, December 15th. Cocktails at 6:30 and Buffet Dinner at 7:30. Baked Chicken and Beef Tips over noodles. Coffee, Tea and Soft Drinks included, for only \$13.50 per person including tax and tip. Cash bar. Attendance is limited to 65 because of room size. Get your tickets early, as a sell-out is almost assured as over 40 tickets were sold at the meeting. Contact Lynn, KB8QFY or Ann, KG8IF for tickets. A white elephant yankee gift swap will be a feature of the event. Each person should bring a gift-wrapped white elephant for the gift exchange.

The program was on antennas, with various members doing show and tell on antennas they have built and used.

The meeting was adjourned at 8:45 p.m.

Respectfully submitted; Jim Mickle, N8OKW, Secretary.



FOR SALE: 2 Meter, FM amplifier, 1w in, 80 w out, 13.8 vdc, w/power control plug, \$120.

2 Meter copper pipe J-Poles \$20. N8RUH, TJ, (810) 786-5735.

MEETING HOSTS FOR DECEMBER

Barbara Parrott, KC8AQJ

John Parrott, WD4KWW

NET NOTES

Ken/KF8RG

I hope that by the time you read this, USECA will be on 80 meters with some of our CW nets. Some of our further out members have had trouble copying on the usual 15 meter frequency of 21.140 MHz. 15 meters, even at QRO power levels, does not offer the ground wave propagation that 80 does. Floyd (KF8AT) and I have discussed using 3680 kHz as a net frequency, where even QRP power levels should be easy to hear locally. (Heck, statewide and further!) This topic was supposed to have been brought up at the November meeting for discussion. I had hoped that a decision would be made to move one of the scheduled CW nets to 80m from 15m—presumably the Thursday net. Our CW nets are not enjoying the number of check-ins I'd like to see in a club of our size. A quick look at the net report shows a small group of regulars—where are all the "Know-Coders"? Perhaps some of you are intimidated by the NCO's speed? Ask him to QRS! (Go slower.) If the NCO's speed is still too fast, send QRS again and again until he reaches a speed you can copy. Remember, when doing code, speed doesn't count for very much, accuracy is everything!

I will be making up a new award for 1996—new graphics and a different layout—I still need some kind of "SATERN" symbol or logo. If any of you have ideas or graphics to contribute, pass 'em along at the address listed under the net report. I am hoping to use my computer and printer to avoid the cost of copies at Kinko's (\$1.50 per).

Speakin' of money . . . NOW is the time to renew your membership! Only \$20. quite a deal! C'mon—do it now! Your club dues are probably the cheapest part of Ham radio for most of you—heck, I easily spend 4 to 5 times that on QSL postage every year—up to 3 times that to put out the Net Point Awards, and it's a pittance compared to the cost of *any* Amateur gear. Soooo . . . what are *you* waiting for? **DO IT NOW!**

U.S.E.C.A. 1995 Net Points As Received November 14

Call	Name	pts	Call	Name	pts	Call	Name	pts
AAQW	LARRY	2	KB8NDS	TOM	6	KBBULS	ROGER	3
N2YEH	DON	1	KA8NDY	DAN	49	KBBUNX	MARK	2
VA3AWC	ALBERT	1	N8NLS	VIRGINIA	1	KBBUTC	MIKE	1
WX3L	MIKE	26	N8NMX	BILL	2	W8BUVW	BILL	2
WX3M	DON	3	N8NQQ	BIFF	35	WK8V	DAVE	1
WD4DNN	JOHN	1	N8NTD	JOHN	20	KA8VFK	NEEDNAME	1
WD7G	TONY	1	N8NXM	ED	1	KBBVLJ	STEVE	34
KA7KZO	JOHN	23	N8NZA	JEAN	1	KBBVLJ	DAVE	3
AA7LX	JOHN	1	N8OAE	ERNIE	15	N8VLY	JOAN	12
KCBACF	BRAD	11	WB8OAF	BILL	1	N8VLZ	GORDIE	10
KBBAKS	JERRY	10	WB8ODH	BRIAN	1	K8BVM	DAN	1
KFBAT	FLOYD	87	K8OEF	JOE	94	N8VMH	DAVE	14
AA8BE	RUDY	1	N8OEF	VAL	13	N8VOH	KATHY	20
KC8BFT	MARK	1	N8OEM	BARB	10	KBBVGM	LESTER	9
W8BHF	BOB	1	N8OEV	DAVE	8	W8VRW	HARRY	1
N8CBG	PETE	1	N8OEX	EARL	8	N8VTF	DON	33
K8CFY	JERRY	40	*N8OKW	JIM	53	N8VVH	LINDA	8
N8CHB	ROGER	1	N8OSU	RANDY	1	KBBVWL	ED	2
KFBCT	DAVE	43	N8OWI	COLE	12	KBBVVR	MARIE	1
N8CVC	BILL	3	AA8OZ	PAUL	3	KBBVWY	DORIS	1
WD8DQS	LESTER	1	N8PYH	GERARD	1	KBBWBV	KEN	6
WB8E	WALT	64	K88QFR	JIM	33	K88WBZ	CARL	35
K88GFE	KEN	2	K88QFY	LYNN	17	K88WCN	BRIAN	3
K88GGI	PAUL	8	K88QKR	JIM	1	N8WDO	DAN	3
K88GJ	KEVIN	2	K88QLZ	GARY	25	K88WLR	CHUCK	34
K88GPO	KEN	4	K88QMP	BILL	40	K88WLU	PAUL	6
W88GGL	DAN	9	K88QMS	NANCY	80	K88WMS	JIM	19
WB8H	GORDIE	4	K88GT	MARTY	9	N8WMY	JIM	22
AA8HF	DARWIN	11	N8QVX	KEVIN	26	K88WTC	MIKE	57
N8HWJ	FRAN	1	K88QWF	DORIS	1	K88WTH	RICHARD	31
N8HTV	JOHN	2	K88QXB	SUE	8	N8XCZ	ELIZABETH	7
WB8HUA	TOM	1	K88QXD	RANDY	49	K88YBT	JOHN	1
KG8IE	SCOTT	5	N8QXP	CHARLES	1	N8YBY	LEONARD	2
*KG8IF	ANN	51	K88RBQ	LOUIE	1	K88YFM	MARTY	1
WD8IFL	DAVE	66	K88RBV	MANNY	56	N8YJI	DINA	36
KG8IG	DON	1	K88RG	KEN	26	K88YJM	JOHN	1
N8IGM	JOE	1	N8RHT	RICK	3	K88YLB	ED	3
WB8JEK	BOB	1	WD8RNO	LYNN	2	N8YWK	BOB	7
N8JEX	RICH	10	N8RRU	GARY	20	N8YWS	STAN	23
AA8JN	FRANK	4	N8RUE	EDDIE	45	K88YYA	DREUX	37
N8JVA	ANDY	1	N8RUH	TJ	13	K88YYB	DEBBIE	1
N8KDL	DOUG	1	N8RUJ	ED	2	K88YYC	DENNIS	43
N8KIM	WAYNE	1	N8RYT	TOM	1	K88YVD	TOM	1
N8KLX	JERRY	1	N8SCQ	BOB	4	K88ZAW	RAY	3
KG8KM	HAL	1	K88SFK	RED	3	N8ZFA	PETE	2
N8KND	DOUG	10	N8SIH	BETTY	36	WB8ZIL	PAUL	7
N8KNS	DON	7	K88SRB	STAN	5	K88ZMC	BILL	6
KG8KZ	DAVE	17	K88SRD	KEN	17	K88ZMD	PAM	1
N8LLE	KEVIN	1	K88SRI	JERRY	5	W88ZOF	PHIL	9
KB8LRE	KEN	1	N8SUR	RICH	7	K88ZUJ	JIM	1
N8LXL	BETTY	4	K88TAS	JERRY	61	N8ZZF	PAT	1
KB8LYA	FRED	43	N8TMJ	MARIANNE	45	K89KCW	BOB	2
AA8LZ	BILL	19	K88TOQ	LEE	59			
WY8M	ARPAD	63	KA8TPE	SCOTT	1			
KF8MB	MEL	2	N8TUN	STEVE	4			
N8MCD	JIM	4	K88TVV	JIM	20			
AA8MD	ERIC	30	K8TXS	ALEX	1			
N8MJU	JIM	2	KA8UHG	STEVE	4			
K88MUJ	ANDY	3	N8UJL	SARA	1			

Top Twenty FM Scores

Call	Name	pts	
1	K8OEF	JOE	94
2	KFBAT	FLOYD	87
3	K88QMS	NANCY	80
4	WD8IFL	DAVE	66
5	WB8E	WALT	64
6	WY8M	ARPAD	63
7	K88TAS	JERRY	61
8	K88TOQ	LEE	59
9	K88WTC	MIKE	57
10	K88RBV	MANNY	56
11	*N8OKW	JIM	53
12	*KG8IF	ANN	51
13	KA8NDY	DAN	49
14	K88QXD	RANDY	49
15	N8TMJ	MARIANNE	45
16	N8RUE	EDDIE	45
17	KB8LYA	FRED	43
18	K88YVC	DENNIS	43
19	KFBCT	DAVE	43
20	K8CFY	JERRY	40

Net Points by:
Ken... *K88RG*

Database by:
Tom... *W88E*

Top CW Scores

Call	Name	pts	
1	*W8VRW	HARRY	234
2	N8MOJ	MARION	124
3	KFBAT	FLOYD	86
4	N8OEF	VAL	76
5	*KA8NDY	DAN	50
6	KG8KZ	DAVE	48
7	WB8E	WALT	40
8	W88ZOF	PHIL	38
9	N8WYO	ALAN	26
10	KG8QT	MARTY	16
11	WD8PLQ	GAYLEN	14
12	WY8M	ARPAD	8
13	W88LCZ	BYRON	8
14	K88TOQ	LEE	8
15	K88RG	KEN	8
16	AA8CY	BRIAN	4
17	N8SCQ	BOB	4

- 1) A star beside your call denotes an award due.
- 2) Pick up your award at general membership meetings. Please have someone else pick it up if you cannot attend.
- 3) Points are as follows: CW NCO = 4, FM NCO = 3, CW Check-in = 2, FM Check-in = 1
- 4) Mail Net Logs to KF8RG, 53762 Kristin Ct, Shelby Twp., MI 48316

FCC Budget Cut

A Senate subcommittee voted a 20 percent cut in next year's budget for the Federal Communications Commission. That could have a devastating effect on the agency and on the services it governs including Amateur Radio.

For Amateur Radio, it would probably mean an end to all services including routine regulatory changes and any enforcement. In fact, such deep funding cuts could lead the FCC to deregulating Amateur Radio and other personal radio services in the same way as the agency deregulated Class D citizens radio almost two decades ago.

Worldradio/November 1995



Family Radio Service

Docket 95-102

In response to a Petition for Rulemaking from the Radio Shack Division of Tandy Corp., the FCC released a Notice of Proposed Rulemaking to establish a very short distance two-way voice radio service.

The FCC is proposing to amend Part 95 (the General Mobile Radio Service rules) by re-allocating 14 GMRS channels to create a Family Radio Service (FRS). Families on outings to amusement parks, shopping malls, biking, hiking, etc., are envisioned to be the primary users of the proposed radio service. As proposed, the FRS would be an unlicensed service.

The FCC proposes these technical limitations for the Family Radio Service:

- Power: 1/2 watt maximum
- Emission: FM, voice, emission type F3E
- No antenna gain
- Antenna must be vertically polarized
- Bandwidth: 12.5 kHz

Interconnection with the Public Switched Telephone Network would be precluded.

Comments were due October 2, 1995.

"LIGHTS ON"

In Broad Daylight

Many of the automobile manufacturers are offering daytime running lights on their 1996 model vehicles. In an article in a recent issue of *Reader's Digest*, Gerald Donaldson, Assistant Director of Advocates for Highway and Auto Safety, was quoted as saying, "Turning on your low beam headlights—even in broad daylight—is one of the best things you can do to protect your life on the highways."

Why? Because it helps to make your vehicle conspicuous enough to get the other driver's attention. Thus, the other driver can more easily distinguish your car from background clutter in time to respond appropriately.

In Norway and Finland, where daytime running lights are required, multiple daytime accidents have been reduced by approximately 14% and 30% respectively, according to the article.



Food For Thought





A research project by Swedish psychologists reveals that hunger is less than conducive to safe driving. Their research revealed that drivers who haven't had enough to eat don't react as fast as their counterparts.

Obviously then, you shouldn't drive too long without making a "refueling" stop. And when you do eat, be selective in your choice of a diet, because scientists and safety experts are convinced that some so-called "unexplained accidents" can be the result of a wrong diet.

For example, Dr. H.J. Roberts, an internal medicine research director and expert on highway safety, believes many accidents are caused by pathological drowsiness brought on by eating too much sugar.

According to Dr. Roberts, eating lots of sugar-rich foods causes a heavy secretion of insulin. This reaction can take so much sugar, or glucose, out of the bloodstream that the brain doesn't get enough to function properly. This in turn can cause a kind of stupor or trance-like state.

DECEMBER, 1995

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
3 2 METER NET 1:00 P.M. 147.18	4 	5  GENERAL MEETING 7:30 P.M.	6 	7 CW NET (3.680) 9:00 P.M.	8 CW NET (21.140) 10:00 P.M. HOOTOWL NET MIDNIGHT	9 CW NET (21.140) 10:00 P.M. HOOTOWL NET MIDNIGHT
10 2 METER NET 1:00 P.M. 147.18	11	12 2 METER NET 8:00 P.M. 147.18	13	14 CW NET (3.680) 9:00 P.M.	15 CW NET (21.140) 10:00 P.M. HOOTOWL NET MIDNIGHT	16
17 2 METER NET 1:00 P.M. 147.18	18	19 2 METER NET 8:00 P.M. 147.18	20	21 CW NET (3.680) 9:00 P.M.	22 CW NET (21.140) 10:00 P.M. HOOTOWL NET MIDNIGHT	23
24 / 31 2 METER NET 1:00 P.M. 147.18	25 CHRISTMAS	26 2 METER NET 8:00 P.M. 147.18	27	28 CW NET (3.680) 9:00 P.M.	29 CW NET (21.140) 10:00 P.M. HOOTOWL NET MIDNIGHT	30 

U.S.E.C.A.

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ANNUAL MEMBERSHIP DUES (INCLUDES NEWSLETTER) REGULAR: \$20 — FAMILY: \$30
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PLEASE MAKE CHECK PAYABLE TO: **U.S.E.C.A.**

APPLICATIONS CAN BE GIVEN TO MEMBERSHIP SECRETARY AT MONTHLY MEETING OR MAIL TO:

JOAN L. DZIDOWSKI, N8VLY
45731 PLUM GROVE
MACOMB, MI 48044

The *U.S.E.C.A. EXPRESS* is published monthly (except July and August), by the UTICA SHELBY EMERGENCY COMMUNICATION ASSOCIATION, INC., of Macomb County, Michigan. Club meetings are held on the second Tuesday of each month (except July and August), 7:30 p.m., local time, at the Donald Bemis Junior High School, 12500 Nineteen Mile Road, Sterling Heights, Michigan (between Schoenherr and Clinton River Road). *Visitors are always welcome.* Articles for the *EXPRESS* should be submitted to the editor no later than the night of the club meeting for publication in the following month's edition. For those who want to get a message to the Board or the membership secretary, please call our answering machine at: (810) 268-6730.

U.S.E.C.A.

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*Happy
Holidays*



Christmas

Party

December 15