

telstar



THE NEWSLETTER OF STARS (SOUTHTOWNS AMATEUR RADIO SOCIETY)

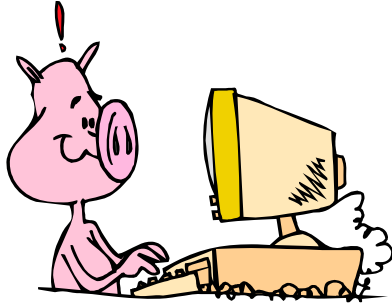
SEPTEMBER 2009

VOL 43 Issue 1

WHAT IS FLDIGI?

At this Thursday's meeting, Keith KC2DGC will present the first in a "digital" series with a presentation about Fldigi.

Fldigi is a computer program intended for Amateur Radio Digital Modes operation using a PC. Fldigi operates in conjunction with a conventional HF SSB radio transceiver, and uses the PC sound card as the main means of input from the radio, and output to the radio. The software also controls the radio by means of another connection, typically a serial port.



Fldigi is multi-mode, which means that it is able to operate many popular digital modes without switching programs, so you only have one program to learn. Fldigi includes all the popular modes, such as DominoEX, MFSK16, PSK31, and RTTY.

Not sure what a Digital Mode is?

Digital Modes are a means of operating Amateur radio from the computer keyboard. The computer acts as modem (modulator - demodulator), as well as allowing you to type, and see what the other person types. It also controls the transmitter, changes modes as required, and provides various convenient features such as easy tuning of signals and prearranged messages.

Because of sophisticated digital signal processing which takes place inside the computer, digital modes can offer performance that cannot be achieved using voice (and in some cases even Morse), through reduced bandwidth, improved signal-to-noise perform-

SEPTEMBER MEETING

This month's club meeting will begin at 7:00 PM on Thursday September 3rd at the NIKE Base Club-house.

All interested in amateur radio are invited to attend. Neither club membership nor an amateur radio license is required.

We look forward to seeing you there!

ance and reduced transmitter power requirement. Some modes also offer built-in automatic error correction.

Digital Mode operating procedure is not unlike Morse operation, and many of the same abbreviations are used. Software such as Fldigi makes this very simple as most of the procedural business is set up for you using the Function Keys at the top of the keyboard.

Intrigued? Interested? What to know more? See you at Thursday's meeting!

Happy Birthday!

- 3rd: John Leitten KA2RFT
- 5th: Jim Starr N2TFA
- 17th: Ken Johnson KG4KQW
- 21st: Lee Rose KB2IHJ
- 26th: Dave Bouman KD2EY
- 29th: Bob Lehning WA2YSJ

WHAT YOU MISSED IF YOU MISSED THE LAST MEETING

(adapted from the meeting minutes)

President's Report: Keith KC2DGC

- Keith reports that the remote base for the two-meter repeater has been repaired, the antenna still needs repair.
- The repeaters are working fine.

Treasurer's Report: Jack KB2ESM

- Jack reports that he received two A.R.R.L. membership renewals.
- All members are encouraged to renew their A.R.R.L. memberships through the club as we get to keep \$2.00 of the annual membership fee.

Director Report—John KB2VWC:

- Excused: home recuperating from hip replacement surgery.

Club House Chairman: Don K2PMC

- Don reports that we have the cable and clamps to run to run the messenger cable from the tower to the clubhouse. Just need some tie-wraps
- Don also reports that the club station made its first "Olivia" contacts on forty meters. They were very good QSO's

For the Good of the Club:

- Kyle, KC2RQO, volunteered the Pioneer High School Radio Club to help on club projects.

The meeting was adjourned so all in attendance could enjoy the food and friends at the annual club picnic.

BOARD OF DIRECTORS COLUMN — *This month from Keith KC2DGC, President*

If you have been faithfully reading your Telstar every month you probably have noticed the traditional "Presidents Column" has been missing. Because of recent popular demand, we will be reinstating it as new process. Each month a board member will write the column on the topic of his/her choice. The exception will be our Telstar editor, Judy Levan N2TEZ, who already has enough work to do. I'm sure you will find this new format to be interesting and informative.

Now I would like to rock your world, if I may. Let me start by proposing a scenario for you to consider. Imagine that commercial power was unavailable for not just a few days or a week, but for months at a time. Then imagine this outage covered a 300 to 1200 mile radius. What impact would this have on our way of life? If this sounds shocking, it should because it could happen, but how?

The answer is EMP (Electromagnetic Pulse). EMP can be caused by a massive solar storm or a nuclear explosion in the atmosphere producing a strong enough static discharge pulse to overload sensitive computer and integrated circuit devices. Commercial power transformers are particularly vulnerable to EMP events by producing reverse ground currents through core windings causing overheating and failure. These transformers are expensive and take months to a year to build.

Recently, I and Bob Koster KA2WYE attended an EMP table top discussion sponsored by Steuben Foods of Elma and hosted by the town of Elma. Bob went as a representative of the amateur radio community and I as a West Seneca CERT member. The meeting was also attended by local town law enforcement, firemen, town supervisors, Erie county political staff, Erie county water authority, National fuel, and NYSEG, just to name a few. We were presented with this scenario and each represented team discussed ways to prepare for such an event. It was a very serious atmosphere and the outcome produced more questions than answers.

(Continued on page 4)

STARS Board of Directors

President	Keith Patterson KC2DGC
Vice President	Scott Barto KB2KOL
Treasurer	Jack Cullum KB2ESM
Finc. Secretary	Judy Levan N2TEZ
Secretary	Wayne Carpus W2ZDP
Director	John Crawford, Sr. KB2VWC
Director	Ken Pokigo KC2AYK

HIGH ALTITUDE BALLOON LAUNCH (Part 1)

By Ken KC2AYK

STARS club would like to consider doing a high-altitude amateur radio balloon launch sometime in the future. This has been a topic discussed among several of the STARS members at various times. Bob Koster (KA2WYE) has made a few attempts at getting a balloon launch together in the past but for a number of reasons firm plans were never able to be made.

To successfully implement a balloon launch, it takes a lot of work to prepare and complete all of the required technical and logistical tasks involved.

In the past a few people may have tried to do everything and that can be overwhelming to accomplish and this can be a recipe for disaster. Another problem is committing to a fixed date too soon and then trying to find a way to accomplish all of the work in time.

Projects like these should be a fun and rewarding experience. If our club pursued such a project, I would only like it to be that way. Let's consider this project and try to come up with a way to make it happen and provide a great time for all involved. Maybe this could become a fun and exciting project and keep interested people busy during the winter months with nice projects. The projects can lead to fulfillment and a sense of accomplishment while being an educating experience. Here's my idea for a plan...

Don't set a firm commitment date:

Let's just say we want to do a balloon launch in the future (maybe say in the early spring). Remember amateur radio is a hobby we participate in. We may already have enough commitments to meet at our real jobs. Let's keep the pressure off.

Breakdown the work:

Let's breakdown all of the items that would need to be done to do the balloon launch. These would then become a roadmap for mini projects to work on.

Get a lot of involvement:

I'm sure we have a wide variety of experienced people in our club with various technical interests. We could easily set-up a bunch of projects that could satisfy our people with a number of interesting things to investigate and work on.



As long as we have a roadmap and some involvement of interested people, we could have a path to success. As experiments and projects are completed and built, they are put on the side as just another piece of the overall puzzle.

Some of these things will be simple projects to build and some will be more involved. Then at a later date we have determined that enough of the technical pieces are available and ready for implementation, we continue down the path toward a launch. In the meantime, many folks are having fun experimenting and socializing and that's what it's all about!

Here are some of the areas involved that can provide for fun technical projects:

- Video & optics
- GPS
- Photography
- ATV
- 2 Meter Radio
- 10 meter radio
- UHF radio
- Microcontrollers & Electronics
- Signal Tracking
- Software & programming

Maybe you have an interest in some of these things. Consider getting involved. We can start lining up a number of experiments and projects to work on.

We can discuss some more ideas and details in the future. Let's talk about this topic ideas during the next meeting.

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The obvious is that we as a community or as a nation are not prepared to deal with this type of an event and communications will be vital part of any preparedness plan. All current day communication technology would be at risk unless it is constructed in such a way as to be "Hardened" or EMP protected. Once again, when all else fails, the amateur radio community will be called upon to provide emergency communications and we will need to re-think how we would prepare for an event like this.

There will be a national conference September 8-10, 2009 at Niagara University where representatives from Washington D.C. and all over the United States will be attending.



Featured Speakers include: former Governor & Presidential Candidate Mike Huckabee; former Speaker of the House Newt Gingrich; Congressman Roscoe Bartlett; and former Congressman Curt Weldon.

This will be the first conference of its kind and western New York has the opportunity to be at the forefront to plan for this new threat. Some of our own STARS members will be attending this meeting and will be reporting on the outcome of this conference at a future STARS meeting. You won't want to miss what they have to say.

If you would like to learn more about EMP, go to the EMPACT America Inc. web site at <http://www.empactamerica.org/index.asp> Conference information is also available at this site if you are interested in attending.

—Keith Patterson, KC2DGC

STARS VE SESSION

STARS will be holding a VE Test Session on Saturday September 19th. The session will be held at the Hamburg Youth Center (corner of Prospect and Hawkins Aves.)

All candidates should arrive by 9AM. Walk-ins will be allowed, but pre-registering will help speed up the processing the day of the test.

All candidates should bring the following to the test session:

1. An original photo ID or two other original forms of ID, plus a photocopy of the ID(s) to be turned in to the examiners for their records.
2. Your current amateur radio license (if any) plus a photocopy of it.
3. The original copies of any applicable Certificate of Successful Completion of Examination (CSCE) plus a photocopy of each.
4. A test fee of \$14.00
5. Your Social Security Number (SSN) or your FCC Federal Registration Number (FRN). Your application for a new or upgraded amateur radio license will be rejected by the FCC if you do not provide one of these numbers.

For more information, or to register for the test, contact John Crawford KB2VWC 649-5933.

CLUB HF STATION

The club Nike Base HF station is located on Lakeview Road 1.75 miles east of Route 20 next to the Hamburg Town Arena. The NIKE Base clubhouse is open every Thursday evening (except general meeting nights at the Youth center) from 7 to 10 PM.

CLUB NET

STARS club nets are open to all to exchange information on local amateur radio activities.

STARS WB2EZU Memorial HF net meets at 10AM local time on Saturdays on 3.925 MHz +/- QRM. Bob Lehning WA2YSJ is usually the net controller.

STARS Sunday morning RagChew Net at 9:30AM on 28.380 Mhz.

SEPTEMBER IS NATIONAL PREPAREDNESS MONTH

As part of the US Department of Homeland Security's "Ready" Campaign, September is National Preparedness Month. It helps to raise awareness and promote action by Americans, businesses and communities on emergency preparedness.

Individual preparedness is the cornerstone of emergency preparedness. Experience shows that if Americans take steps ahead of time, they stand a much better chance of coming through an emergency unharmed and recovering more quickly.

"The 'Ready' campaign is specifically encouraging individuals across the nation to take important preparedness steps," said ARRL Public Relations and Media Manager Allen Pitts, W1AGP. "These steps include getting an emergency supply kit, making a family emergency plan, being informed about the different emergencies that may affect them, as well as taking the necessary steps to get trained and become engaged in community preparedness and response efforts."

There are four easy steps,

1. Get an Emergency Supply Kit
2. Make a Family Emergency Plan
3. Be Informed
4. Get Involved



Visit www.ready.gov for more information.



Don't forget to fly the flag on September 11th!

STARS & ARRL MEMBERSHIPS

Membership in STARS is open to anyone with an interest in amateur radio. A license is not required. Membership applications may be downloaded from the club website or obtained by sending a SASE to Judy Levan N2TEZ, 120 University Blvd., Depew, NY 14043.

Annual dues are payable on January 1 and are \$21 for a single membership, \$27 for family memberships and \$8 for a student membership (through grade 12). The dues are pro-rated on a monthly basis for new members plus there is an initiation fee of \$5 when first applying to the club. For example, a new member joining in July would pay \$15.50 (6 months X \$1.75 per month plus the \$5 initiation fee).

Applications should be returned to Judy N2TEZ along with the appropriate dues. The applications will be reviewed and approved by the Board of Directors and then voted on by the general membership at the next regular club meeting.

Members who are joining ARRL for the first time or who are renewing their membership should send their ARRL membership forms to Jack Cullum KB2ESM, 6871 Webster Road, Orchard Park, NY 14127 along with a check made out to STARS. No extra cost to you and STARS benefits!

CLUB MEETINGS

Club meetings are held on the first Thursday of the month at 7:00PM at either the Hamburg Youth Center (Prospect and Hawkins Avenues) or the NIKE Base Clubhouse. Everyone is welcome. Board meetings are held on the fourth Thursday of the month at the Nike Base Club Station at 7:30PM and are open to all club members.



STARS has been designated a Special Service Club by the ARRL.

HPM/140 BIRTHDAY CELEBRATION EVENT

The Hiram Percy Maxim Birthday celebration is back! This year, the ARRL is honoring the 140th anniversary of the birth of the League's first president and co-founder. Hiram Percy Maxim, W1AW, was born September 2, 1869 and died February 17, 1936, in a Colorado hospital of complications stemming from a throat infection; his widow died just nine days later.

The operating event is open to all amateurs, and the goal is straightforward: Find the stations adding /140 to their call signs, and contact as many as possible during the event period, September 2-9.

Who is eligible to sign /140? ARRL members who hold ARRL appointments, ARRL elected volunteers (such as ARRL Directors and Section Managers), ARRL Life Members, ARRL Headquarters staff and VEs, AECs, QSL bureau workers and awards managers (who are ARRL members). If you work at least 25 /140 stations, an attractive certificate can be yours! The certificate can be endorsed in increments of 25 QSOs, up to 100.

Time Period: 0000 UTC September 2 until 2400 UTC September 9.

Exchange: All stations signing /140 send RS(T), their appointment and their name; others send RS(T) and their name.

Eligibility: All amateur stations may participate. ARRL Life Members, and those persons holding ARRL appointments, elected positions or ARRL HQ staff, may add /140 to their call signs for the duration of the celebration. Volunteer Examiners, Assistant Emergency Coordinators, QSL Bureau workers, Registered Instructors and Awards Managers who are ARRL members are also invited to participate.

/140 stations may be contacted on any band or mode for credit. You can work a station once per band and mode. Repeater contacts are valid for credit.

See page 20 of the September QST or visit www.arrl.org for more information.

SEPTEMBER SPECIAL EVENTS

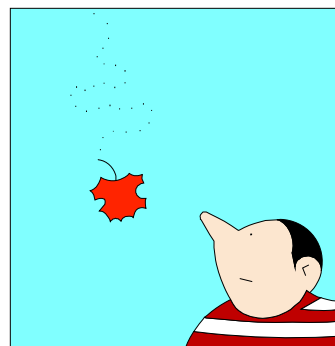
Sep 3-Sep 14, 0000Z-2359Z, Salt Lake City, UT. Utah DX Association, K7T. 82nd Anniversary of the invention of the electronic TV. 14.260 7.240. QSL. Wesley Wilkinson, W7WES, 7363 Galaxy Hill Rd, West Jordan, UT 84081. w7wes@yahoo.com or www.udxa.org

Sep 7, 1200Z-2359Z, Nutley, NJ. Robert D. Grant United Labor Amateur Radio Assoc, N2UL. CQ Labor Day. 28.460 14.260 7.250 EchoLink W2NJR-R. Certificate. RDGULARA, 112 Prospect St, Nutley, NJ 07110-0716.

Sep 7, 1400Z-2100Z, Muskegon, MI. Muskegon Area Amateur Radio Council, K4C. Cars for Cancer Car Show. 14.245 7.270 146.940. QSL. Muskegon Area Amateur Radio Council, Attn: K4C, PO Box 691, Muskegon, MI 49443. All proceeds to local Cancer Center w8zho@arrl.net

Sep 9-Sep 12, 1200Z-1200Z, Wickham, Ha, ENGLAND. RSGB, GB1WT. Over 200 years since Admiralty Shutter Telegraph Installed. 14.200. QSL. John Wakefield, MOXIG, Oakhurst, Lower Common Rd, West Wellow, Romsey, HA SO51 6BT, ENGLAND. www.grz.com/gb1wt

Sep 9-Oct 9, 0001Z-2359Z, Kingston, NY. Overlook Mountain Amateur Radio Club, N2H. 400th anniversary of Henry Hudson's discovery of the Hudson River. 80-10 m SSB CW PSK 6 m 2 m 70 cm SSB FM CW PSK. Certificate. via bureau or direct to Donald Koeppen, N2WCY, 54 Windwood Ln, Woodstock, NY 12498. www.omarclub.org



Sep 11-Sep 13, 1300Z-2200Z, Galveston, TX. Leslie Bartosh, AD5WB, N5I. One year anniversary of Hurricane Ike. 14.280; 40 15 10 m possible depending on conditions. QSL. Leslie Bartosh,

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AD5WB, 17 Campeche Dr, Galveston, TX 77554.
ad5wb2@yahoo.com

Sep 11-Sep 13, 1700Z-1700Z, Lincoln City, IN. Tri State Amateur Radio Society, W9OG. To commemorate the 200th Anniversary of Lincoln's Birthday. 14.175 14.050 7.175 7.050. QSL. Dennis Martin, 5577 Victoria Ct, Newburgh, IN 47630. tars@w9og.net or www.w9og.net

Sep 12, 1600Z-2359Z, San Diego, CA. USS Midway (CV 41) Museum Radio Operations Room, NI6IW. USS Midway Commissioning 1945, National POW/MIA Remembrance Day and Tin Can Sailors National Reunion. SSB 14.320 7.250 PSK-31 7.070 CW 14.060 7.055 D-STAR 2m/70cm SOCAL rep. QSL. USS Midway Museum Radio Room, 910 N Harbor Dr, San Diego, CA 92101. kk6fz@arrl.net

Sep 12-Sep 13, 0100Z-1600Z, Snohomish, WA. Star Ship USS Thermopylae (Star Trek Fan Club), KC7BYP. Promoting Amateur Radio within the Starfleet ranks. 3.900 eve 14.270 21.285 day depending on conditions 146.52 simplex. Certificate. Steven Eizenberg, 4604 W 4th Ct, Kennewick, WA 99336. Certificate and QSL available. Below 80 m nights; 20 15 m days. - 23023 Wood Creek Rd, Snohomish, WA. kc7byp@charter.net

Sep 12-Sep 13, 1500Z-0000Z, Coopersville, MI. Michigan DX Association, W8DXI. The RF Express - Railroad And Radio Friends. 14.240 14.050 7.240

7.050. Certificate. Michigan DX Association, 1652 Rossman SE, Grand Rapids, MI 49507. mdxa1.org

Sep 12-Sep 13, 1500Z-0300Z, Inver Grove Heights, MN. South East Metro Amateur Radio Club, W0B. Cold War Memorial at the site of the B-52 crash on 9/16/58. 21.352 14.252 7.252 3.952. Certificate. W0CGM Special Event, 1655-68th St West, Inver Grove Heights, MN 55077. www.semarc.org

Sep 18-Sep 20, 0000Z-2359Z, Santa Ana, CA. W6APD/KM6HB, K6P. National POW-MIA Recognition Day. 21.350 18.150 14.253 7.250. QSL. Mark McMullen, KM6HB, PO Box 27271, Santa Ana, CA 92799. km6hb@arrl.net

Sep 19-Sep 20, 1500Z-0300Z, Richmond, VA. Richmond Amateur Radio Club, W4ZA. 80 years as a ham radio club doing public service. 14.250 14.050 7.250 7.050 3.850 3.550. QSL. A.C. McNeer, K4YEF, 7817 Brentford Dr, Richmond, VA 23225. www.rarcpio.net or www.rarclub.net

Sep 26, 1400Z-2100Z, Pennville, IN. Jay County Amateur Radio Club, W9JCA. Balbec Days celebrates the Underground Railroad. 14.205 7.190. Certificate. Darrell Borders, PO Box 214, Portland, IN.

Sep 26, 1500Z-2100Z, Herkimer, NY. Ft Herkimer Amateur Radio Association, W2FHA. Town of German Flatts 10th Anniversary Living History Weekend. 14.280. Certificate. Christopher L Bouck, 28 W State St, Dolgeville, NY 13329. www.fhara.net

September VHF QSO Party
Saturday 1800 UTC September 12 -
300 UTC Monday, September 14

10 GHz and Up Contest
6 AM local time Saturday, September 19 -
12 AM local time Sunday, September 20

Amateur Radio Quiz: What Kind of Tool Am I?

By H. Ward Silver, N0AX

- 1) Which tool is used to trim wire leads flush with a circuit board?
 - a. shear
 - b. side cutters
 - c. gas pliers
 - d. compound snips
- 2) Which is most likely to have a "T handle"?
 - a. soldering iron
 - b. crimping tool
 - c. reamer
 - d. flat file
- 3) Which type of tool family has a "Double D" member?
 - a. punches
 - b. drills
 - c. saws
 - d. calipers
- 4) What type of holes does a "fly cutter" cut?
 - a. circles
 - b. squares
 - c. rectangles
 - d. irregular
- 5) True or False?
 - a. A tap puts threads in a hole while a die puts threads on a rod.
 - b. The second number in a screw size (i.e. 6-32 represents body size).
 - c. The higher a drill's number, the smaller the hole it drills.
 - d. It is desirable for a drill bit to walk.
 - e. Chips and curls are created by rip saws.
- 6) Which solder alloy is the easiest to melt? (%Sn:%Pb)
 - a. 60:40
 - b. 50:50
 - c. Silver-Solder
 - d. 63:37
- 7) What does a bend-and-brake do?
 - a. Curves electrical conduit without crimping it.
 - b. Removes material from the inside of square holes.
 - c. Bends sheet metal precisely.
 - d. Holds the workpiece for milling.
- 8) What does a nibbling tool nibble?
 - a. wire insulation
 - b. coax braid
 - c. sheet metal
 - d. finger stock

- 9) The material left around the edges of a hole after drilling is called a _____.
 - a. frass
 - b. burr
 - c. kerf
 - d. dross
- 10) Which of these is *supposed* to be used to poke holes in things?
 - a. nail set
 - b. thread chaser
 - c. awl
 - d. Phillips screwdriver
- 11) Which of the following is *not* a type of screwdriver bit?
 - a. pan
 - b. torx
 - c. allen
 - d. spline
- 12) Rank these measuring tools in order of least precise to most precise:
 - a. calipers
 - b. micrometer
 - c. tape
 - d. rule

Bonus: What tool is also the name of a popular antenna and why?

ANSWERS:

- 1) b. These have cutting edges on the side of the jaws to slide along a surface as they cut.
 - 2) c. The T-handled reamer is used to enlarge holes by hand.
 - 3) a. A double-D punch creates a round hole with two flat sides.
 - 4) a. The fly cutter is used to cut large-diameter circular holes in sheet metal.
 - 5) a-T; b-F (it represents threads per inch; c-T; d-F (walking means the bit is moving sideways; e-F (these are the material removed by drilling.)
 - 6) d. This mix of tin (Sn) and lead (Pb) melts at the lowest temperature.
 - 7) c. Built-in clamps hold the metal while forms shape the bend.
 - 8) c. A nibbling tool removes small bits of sheet metal to form a non-circular hole.
 - 9) b. The burr is then removed with a counterpunch, a deburring tool, or by filing or scraping.
 - 10) c. Yes, all of them *can* be used to poke holes in things, but the awl is the *proper* tool to use.
 - 11) a. Pan (as in "pan-head" is a type of screw head, not the shape of the bit used to turn it.
 - 12) micrometer, calipers, rule, tape (with few exceptions).
- Bonus:** The variable-length mobile "screwdriver antenna" is so named because the original prototypes used dc motors from electric screwdrivers to adjust the length of the antenna's whip.