

telstar



THE NEWSLETTER OF STARS (SOUTHTOWNS AMATEUR RADIO SOCIETY)

JUNE 2008

VOL 41 Issue 10

FIELD DAY 2008

STARS Field Day 2008 will be held at Glen Meadows Park in Hamburg on June 28-29. See page 3 for a map to the site.

Field Day has been a long tradition as an emergency preparedness exercise, operating equipment "in the field" using power sources other than commercial.

Set-up for Field Day will begin around 10 a.m. on Saturday morning. This can be a real learning experience as bows and arrows and slingshots can be used to fire lines over trees to haul wire antennas into the air. Generators will be set up to provide emergency power.

Then on 2 p.m. Saturday afternoon, the contesting will begin and the airwaves will come alive with stations from all over the U.S. and Canada as well as parts of Central and South America, including the Caribbean. The contesting will continue until 2p.m. Sunday afternoon (rain or shine). We will be planning a supper around 6PM on Saturday.

STARS will be running stations on CW and SSB and may be demonstrating other modes such as RTTY, SSTV, PSK31, ATV, etc.

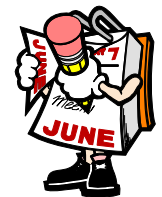


Everyone is invited to come and operate, log stations, or just hang out and have fun! Even if you don't have HF privileges, you can operate under the supervision of another amateur with a higher class

license. This is a great chance to learn how to improve your operating skills.

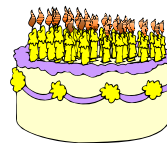
JUNE MEETING

This month's club meeting will begin at 7:00 PM on Thursday June 5th at the HAMBURG YOUTH CENTER. All interested in amateur radio are invited to attend. Neither club membership nor an amateur radio license is required.



We'll be discussing plans for Field Day. Look forward to seeing you there!

HAPPY JUNE BIRTHDAY!



3rd: Dave Lawton N2OZE
20th: Rich Budzynski KI2X
23th: Nancy Sojka KC2KOS

So, bring your lawn chairs, your family and friends and come on out. STARS will be using the shelter which is at the far end of the park. Although the park normally closes at dusk, we have been given a permit to be there all night.

STARS Board of Directors

President	Keith Patterson KC2DGC
Vice President	Scott Barto KB2KOL
Treasurer	Jack Cullum KB2ESM
Financial Secretary	Judy Levan N2TEZ
Secretary	Wayne Carpus W2ZDP
Director	John Crawford, Sr. KB2VWC
Director	Ken Pokigo KC2AYK
Past President	Bob Koster KA2WYE

AMATEURS AID IN AFTERMATH OF CHINESE EARTHQUAKE

As disaster recovery efforts continue following the earthquake in the Wenchuan area of China's Sichuan province on May 12, China's [Information Office of the State Council](#) reports that the death toll has reached 67,183 persons as of May 27. Communications in some of the surrounding areas were cut off, and communications in some other areas experienced network congestion due to drastically increased traffic. According to the Chinese Radio Sports Association ([CRSA](#)) -- the Chinese [IARU](#) Member-Society -- Chinese government officials and the news media have recognized that when communications failed after the earthquake, Amateur Radio operators stepped in to provide vital links.

CRSA designated 14.270, 7.050 and 7.060 MHz for emergency communications use during the quake, but these frequencies are now no longer restricted for this use; however, should a severe aftershock occur, CRSA said it will make the call for them to be kept clear again.

On Monday, May 26, China Central Television ([CCTV](#)) reported that, "When all other communication means failed, Amateur Radio operators came out! An Amateur Radio emergency communication network was set up, and one of the commanders, Liu Hu [[BG8AAS](#)], called for Amateur Radio operators on air to provide services for disaster relief."

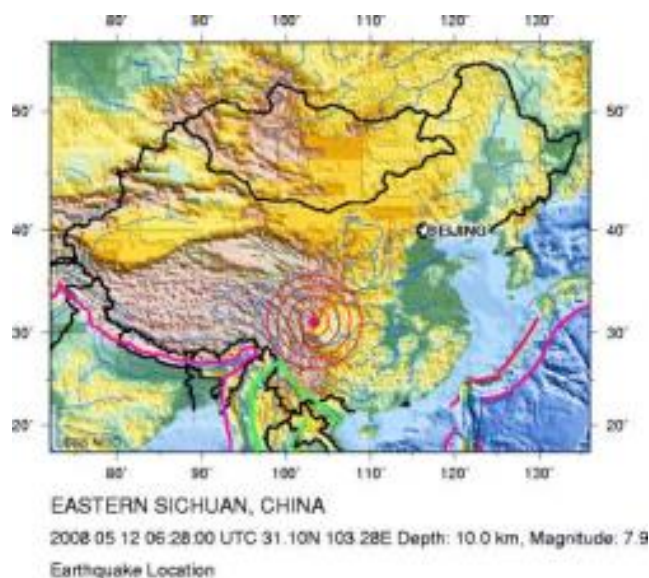
Fan Bin, [BA1RB](#), on behalf of CRSA, said, "Thankfully, one main repeater survived during the earthquake. This repeater provided 100 km coverage to Mianyang. Amateur Radio operators from Chengdu, Shenzhen, He'nan went to the center of the disaster area, set up repeaters in Beichuan County and provided various valuable first hand information from the center." CRSA officials said they hoped to report more detailed information on the role of Amateur Radio emergency communications in the big earthquake at a later date. In the meantime, Fan said, CRSA acknowledged that the main organizer of local Amateur Radio traf-

fic, Luo Minglin, [BY8AA](#), "continuously coordinated VHF/UHF communications for a 100 km radius from Chengdu, the capital of southwest China's province of Sichuan. More repeaters were set up in both Beichuan and Mianyang -- among the worst hit areas outside the epicenter -- to form an effective Amateur Radio communication network."

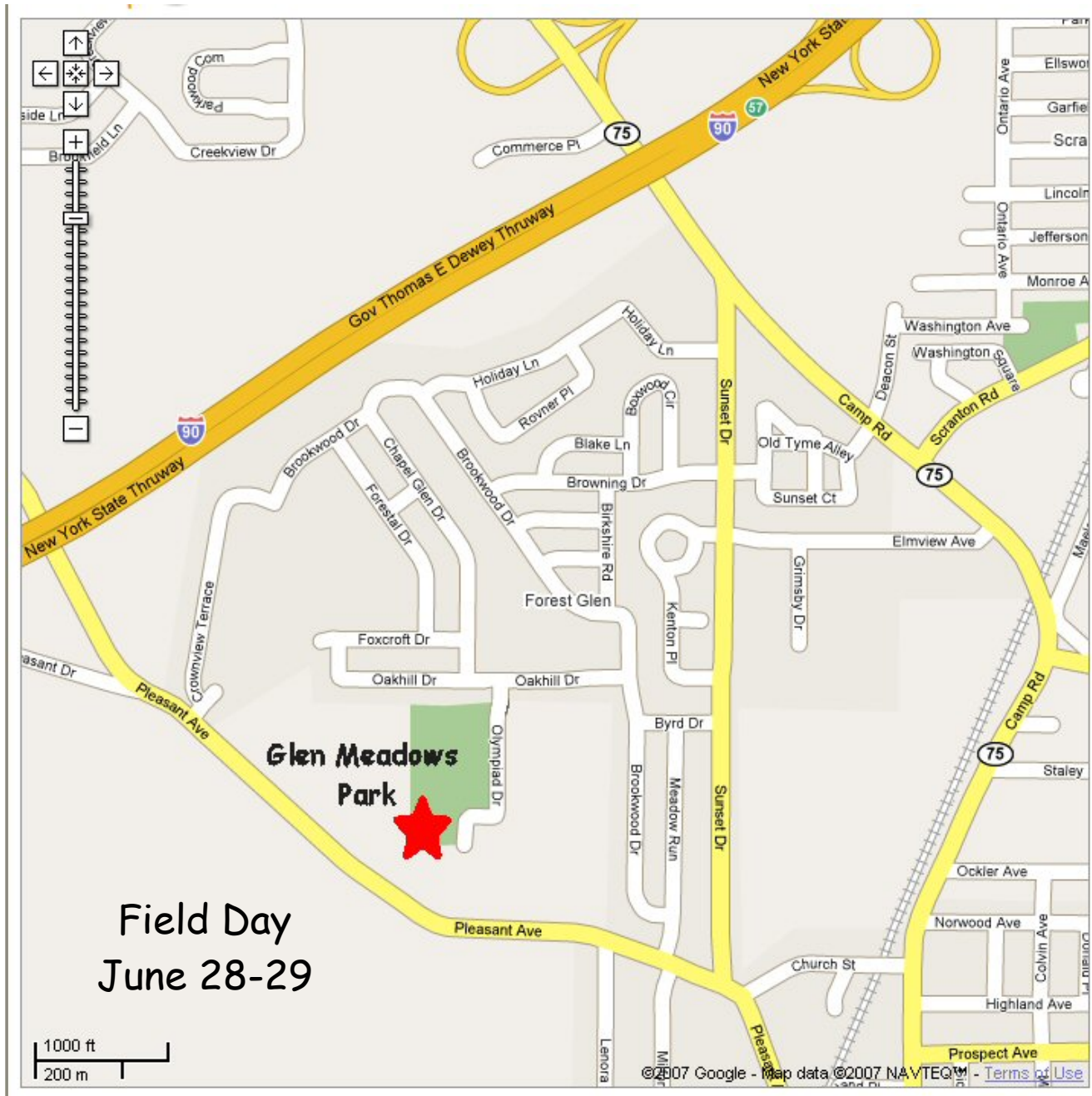
Zhang Zhen, [BG8DOU](#), said that right after the earthquake, "Two ham radio operators drove to the center of the earthquake area and had a repeater set up by the morning of May 13. This repeater enabled the transmission of rescue instructions and status reports, and was a main communication channel for public use. The repeater carried communications for the Mayor of Mianzhu City who gave orders to those on the front line rescue and recovery activity."

The CRSA said it appreciates the support given by the Amateur Radio community in helping to keep clear the emergency communication frequencies of 7050 kHz, 7060 kHz and 14270 kHz during the critical period after the earthquake: "Thanks for the cooperation and efforts made by all Amateur Radio societies." The radio society also acknowledged having received inquiries and the "warm concerns" of Amateur Radio societies worldwide.

-- Information provided by Fan Bin, [BA1RB](#), on behalf of CRSA, via IARU Region 3 Disaster Communications Committee Chairman Jim Linton [VK3PC](#)



This map shows the location of the epicenter of the May 12 earthquake that rocked Sichuan, China. [Photo courtesy of USGS]



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 Club Station.

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.

CLUB NETS

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 co-sponsors, along with WB2JPQ, the Sunday morning RagChew Net at 9:30AM on 28.380 Mhz.

UPCOMING HAMFESTS

PROS HAMFEST

June 14, 2008

Manion Park, Grove Street, Chaffee

7AM until Noon

Admission \$5.00

More info: ARRL Website

Contact: Roy Schwedt KC2LEE

Phone 716-676-3903

or email rschwedt@netscape.com

Tailgating can be done and vendors can bring your own table and shelter in case it rains. Overnighters are welcomed but would need to pre-register, for security reasons. Talk in is on 145.390 repeater. Since this is Flag Day, a special prize will be awarded to the most patriotic person or vehicle.

GRAM HAMFEST

July 19, 2008

Alexander Firemen's Grounds Route 98,

Alexander Open 7AM

Admission: \$6 presale / \$7 gate

VE Testing

Breakfast and Chicken Barbeque

More info:

Rob McLean KC2MHH 585-343-1347

kc2mhh@verizon.net

Joe DeFazio W2DIG 585-343-1145

w2dig2@verizon.net

2008 FIELD DAY WEBSITE

The official [2008 ARRL Field Day Web page](http://www.arrl.org/FieldDay) is on the web at www.arrl.org/FieldDay. This year, for the first time, the ARRL has put together a Station Locator to help amateurs or those interested in Amateur Radio find a Field Day site near them. If you're out and about, why not check out where other local clubs will be..stop in and say hello from STARS!



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RADIALS DEMYSTIFIED

PART 2

By Bill Rinker - W6OAV

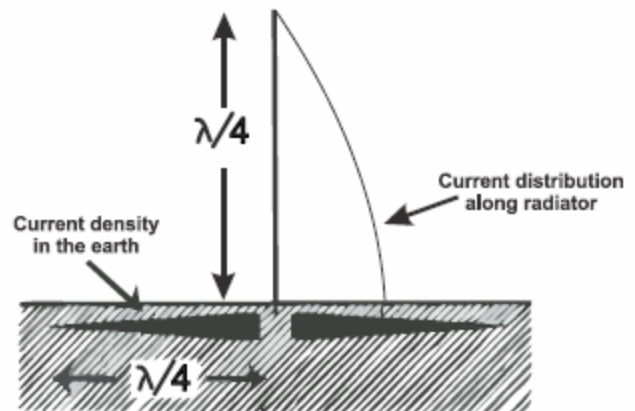
GROUND MOUNTED VERTICALS

Part 1 of this article discussed elevated verticals. Part 2 of this article discusses ground mounted verticals.

PURPOSE AND CHARACTERISTICS OF RADIALS ON OR IN THE GROUND

Unlike elevated verticals, radials on a ground mounted vertical DO NOT provide the ground plane. The earth itself provides the ground plane, be it a very lossy ground plane. Radials on, or in, the ground around the vertical are used to reduce the RF current loss in this ground plane.

As shown in below, the RF current flows back and forth in the top few inches of the lossy earth around the vertical. Radials placed in the top inch or so of the earth provide a less lossy path for the RF current flow. Less loss here means more RF current is available for the vertical element.



RADIAL RESONANCE

Radials in the ground are NOT resonant. They are so tightly coupled to the earth that resonance is impossible. Therefore, don't spend time trying to cut radials to exact 1/8 or 1/4 wave lengths. Remember, radials are just non-resonant low loss conductors on or in the

(Continued on page 5)

(Continued from page 4)

lossy ground. Some hams, instead of laying out radials, decrease ground loss by laying chicken wire out from the base of the vertical. In the following discussion, wave length refers to the physical length of a radial and not to the electrical length. Again, as described above, radials in the ground cannot be resonant and therefore do not have a resonant length.

RADIAL LENGTH

As shown in figure above, most of the RF current occurs within 1/8 wave length of the base of the vertical. Therefore, if you only have so much wire to use, more 1/8 wave length radials are better than fewer 1/4 wave length radials. The idea is to minimize loss where most of the RF current exists. For example, going from four 1/8 wave length radials to four 1/4 wave length radials will buy very little improvement in radiation efficiency. Going from four 1/8 wave length radials to eight 1/8 wave length radials will improve radiation efficiency.

Extending the radials beyond a physical 1/4 wave length from the vertical will not increase radiation efficiency. RF currents beyond 1/4 wave length are very minimal. That is why commercial radio stations do not lay out radials longer than 1/4 wave length. Doing so would be very expensive and contribute little to increasing radiation efficiency.

NUMBER OF RADIALS

There is a point of diminishing returns concerning the number of radials. As the number of radials increases, the cost linearly increases but the radiation efficiency gained levels off. Sixteen 1/4 wave length radials is optimum for cost verses increase in radiation efficiency. Increasing the number of radials from four to sixteen radials increases radiation efficiency significantly. Increasing the number of radials from sixteen to one hundred and twenty radials increases radiation efficiency by only one or two dB.

RADIAL GAUGE AND INSULATION

The gauge of a radial wire is not important for normal amateur power levels. The RF loss of the smaller wire

gauges is minimal. Also, insulation on a radial wire has no effect on radiation efficiency. However, the insulation is recommended to protect the radial wire from corrosion.

Reference 1: W.B.Cebik, W4RNL at <http://www.cebik.com/>. W4RNL's site has an extremely impressive collection of antenna articles.

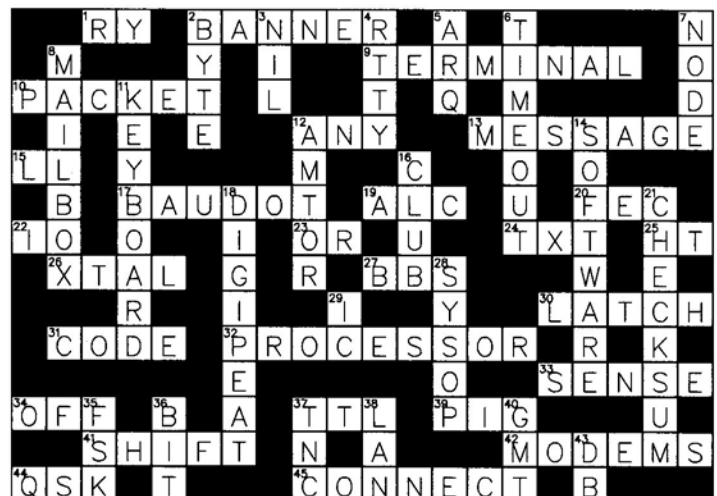
Continued in Part 3 - Radial-Less Verticals, Elevated Verses Ground Mounted Verticals

FCC: PLASMA TV INTERFERES WITH HAM

Here's a new twist on TV interference -- the FCC says a homeowner's plasma television is causing interference to a ham in Edgewater, Florida. FCC Special Counsel Riley Hollingsworth, K4ZDH, says the case involves "an elderly couple who saved up their money and bought a \$3000 plasma TV, and it's causing interference. I don't know what they're going to do about it but they're going to have to do something." Hollingsworth noted that plasma TVs are becoming notorious as interference generators and that so far, no one has come up with a remedy for it.

- CQ News

Last Month's Crossword Puzzle Solution:



RUSSIA LAUNCHES NEW AMATEUR RADIO SATELLITE

A new satellite carrying Amateur Radio 'Yubileiny' (RS-30) was successfully launched from Plesetsk on 23rd May.

Radio Amateurs around the world reported receiving the CW beacon signals on 435.315 MHz with reports also of signals on 435.215 MHz.

At the time of writing it is still not clear exactly which type of transponder, Linear or FM, is onboard the satellite. It appears to be in a 1500 km orbit which would give a pass time of up to 20 minutes and enable stations over 7000 km away to be worked.

Work on the satellite started in December 2004 with the intention of launching it in 2007 to commemorate the 50th anniversary of the first satellite Sputnik-1.

A full report on the satellite with pictures can be seen at Yubileiny is a next generation small satellite <http://www.npopm.com/?cid=242>

The Russian Federal Space Agency launch announcement is at <http://www.npopm.com/?cid=news&nid=60>

Reports on Yubileiny (RS-30) continue to appear on the AMSAT Bulletin Board which you can join at <http://www.amsat.org/amsat-new/tools/maillist/maillist.php>

DATES TO REMEMBER

June 5th—General STARS Meeting

June 26th—STARS Board Meeting

NIKE BASE OPEN THURSDAY EVENINGS

Don't forget...NIKE Base Chairman Don Niles K2PMC opens the NIKE Base every Thursday evening between 7 and 10 PM (except the Thursdays that our general membership meetings are at the Youth Center).

SPECIAL EVENT STATION AT NATIONAL WEATHER SERVICE BUFFALO OPEN HOUSE

On Sunday, June 8th, 2008, the National Weather Service will host its 4th open house at 587 Aero Drive in Cheektowaga. The open house hours will be from 9:00 AM to 5:00 PM.



The office is located on Aero Drive behind the Greater Buffalo International Airport. The airport is three miles east of the Buffalo city line on Genesee Street, Route 33. Aero Drive runs parallel with Genesee Street (Holtz Road to Aero Drive).

Overflow parking will be available at the Park and Ride lot on Holtz Road, adjacent to the Air Traffic Control Tower property. A shuttle will be provided.

Tours of the freshly renovated facility will include many interesting technologies that have been incorporated into the operation to better serve the public throughout western and northern New York.

Several outdoor venues will also be featured. These include the Coast Guard Auxiliary, Buffalo Airport runway snow removal and fire fighting equipment, Lancaster Emergency Operations Center vehicle, Army Corps of Engineers, local university displays, Navy and Air Force recruiters with information on weather careers in the military, displays of weather information gathering equipment, the Red Cross, just to name a few.

Staff members will be available to answer any questions visitors may have. Mark your calendar! Everyone is invited!

A SKYWARN Special Event Station, WX2BUF, will be operating from 9AM through 5PM at 14.255 7.235 (+/- QRM) and on 2m at 147.315. QSL will be available by sending a stamped, self-addressed envelope to:



WX2BUF - SKYWARN
National Weather Service
587 Aero Dr
Cheektowaga, NY 14225-1405

JUNE SPECIAL EVENTS

Jun 1-Jul 30, 0100Z-2359Z, Ottawa, ON. Ottawa Valley Mobile Radio Club, VC3C. The Champlain Trail, **400th anniversary of the founding of Canada.** 14.240 14.040 7.240 7.040. QSL. vig@mondenet.com, www.qrz.com/vc3c or www.ovmrc.on.ca

Jun 6-Jun 8, 1600Z-2200Z, Linthicum, MD. Historical Electronics Museum Amateur Radio Club, W2W. **D-Day Commemoration.** 14.244 14.044 7.244 7.044. Certificate. W2W-HEMARC, Box 1693 MS 4015, Baltimore, MD 21203. w3hem@arrl.net

Jun 7-Jun 8, 0100Z-2359Z, Various Locations, International. The Battleship New Jersey Amateur Radio Station, NJ2BB. **International Museum Ship Radio Event - 2008 Certificate.** 7.260 7.039 3.860 3.539. Certificate. Margaret Burgess, KB2BRR, 150 Schooner Ave, Barnegat, NJ 08005. List, frequencies and more information at web page. Work at least 15 different ships for special certificate. Ships wishing to participate should send a note to museum@nj2bb.org with the name of ship, callsign, location, QSL info and contact info for person responsible. www.nj2bb.org

Jun 7-Jun 8, 1200Z-2359Z, Newington, CT. United States Power Squadron Amateur Radio Club, W1AW. **The National Safe Boating Councils Safe Boating Campaign.** 21.390 14.290 7.290 3.990. QSL. W1AW American Radio Relay League, 225 Main St, Newington, CT 06111. www.usps.org

Jun 17-Jun 22, 0000Z-2100Z, Fort Worth/Dallas, TX. K5T. **National Railway Historical Society 2008 Convention.** 28.450 18.150 14.250 7.280. QSL. Harry Fasick, 2960 Whitley Rd, Wylie, TX 75098. www.lonestarrrails2008.com

Jun 21, 1200Z-2100Z, Gaylord, MI. Top of Michigan Amateur Radio Club, W1R. **Otsego County Air Show.** 28.400 14.290 7.270 3.940. Certificate. Air Show, 1349 S Otsego Ave, Gaylord, MI 49735. www.nm8rc.org

Jun 21, 1200Z-2000Z, Newington, CT. Newington Amateur Radio League, W1H. **NARLFEST - Celebrat-**

ing more than 60 years as an ARRL affiliated club. 28.340 18.140 14.240 50.140. QSL. Rich Lawrence, KB1DMX, 335 Lloyd St, Newington, CT 06111. www.narl.net

Jun 26-Jun 27, 1300Z-0100Z, Kearney, NE. Midway Amateur Radio Club, WOKY. **Annual Re-Ride of the Pony Express.** 28.440 21.325 14.265 7.260. QSL. Midway Amateur Radio Club, PO Box 1231, Kearney, NE 68848-1231. wOky.kearney.net

JUNE CONTESTS

June 7 — Digital Pentathlon — PSK; Exchange: Serial, 6-digit grid locator, power; dqso.net/start.html

June 14 — ARRL June VHF QSO Party — Phone, CW; www.arrl.org/contests

June 14 — Digital Pentathlon — MFSK; Exchange: Serial, 6-digit grid locator, power; dqso.net/start.html

June 21 — Kid's Day — Phone; Exchange: Name, age, location, favorite color; www.arrl.org/FandES/ead/kd-rules.html

June 21 — Digital Pentathlon — Olivia; Exchange: Serial, 6-digit grid locator, power; dqso.net/start.html

June 28-29 — Field Day — Phone, CW, Digital; Exchange: Category, ARRL/RAC section or DX; www.arrl.org/contests

June 28 — Digital Pentathlon — Hellschreiber; Exchange: Serial, 6-digit grid locator, power; dqso.net/start.html

June 21 — Digital Pentathlon — Throb; Exchange: Serial, 6-digit grid locator, power; dqso.net/start.html

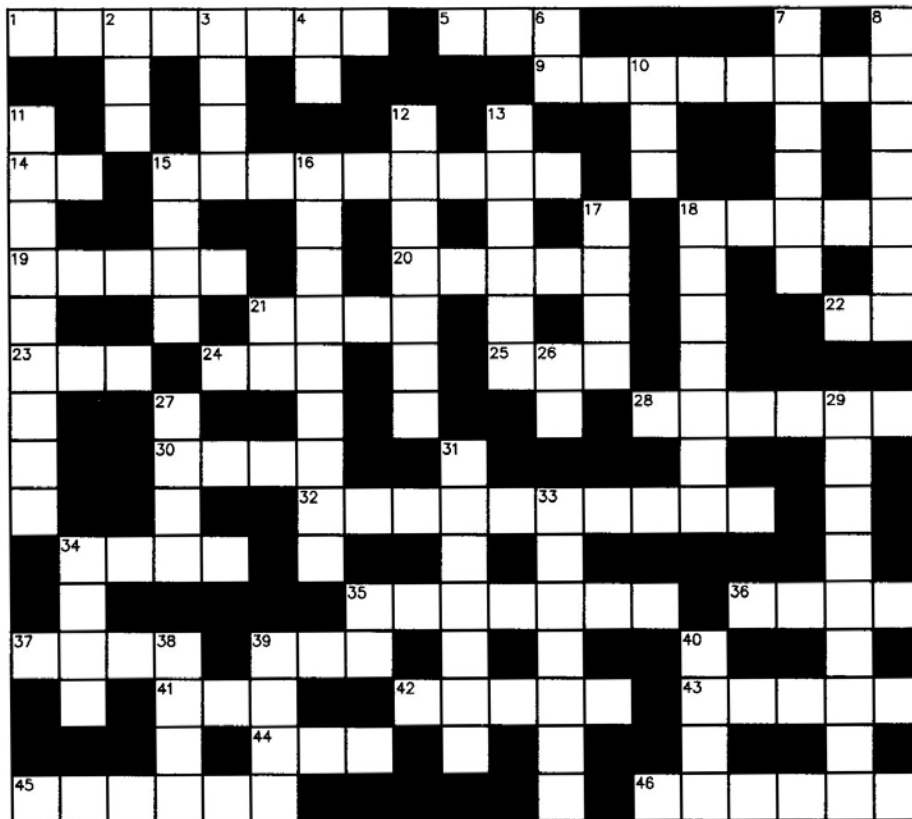


STARS has been designated a Special Service Club by the ARRL

Another crossword from H. Ward Silver NOAX.

You can find more like these in QST or on the ARRL website. (Answers in Next Month's Telstar)

FIELD DAY FUN



ACROSS

1. Public sites attract these
5. Handles traffic (abbreviation)
9. Common Field Day pest
14. Who mans the rig (abbreviation)
15. Supplies ac power
18. Bonus power source
19. Do this first (two words)
20. CW contacts count _____ as much as SSB
21. Handy antenna support
22. CQ _____ (abbreviation)
23. Field Day is a good way to meet _____ club members
24. Contacts are kept in a _____
25. Fueling the operators
28. Field Day is also a club _____
30. Bad news on Field Day
32. Field Day gives many their first taste of _____
34. Poorly guyed antennas do this
35. If it stays up, it's not big enough
36. The most popular person at Field Day
37. Holds up an antenna
39. Ready, _____, CQ Field Day!
41. This makes for a big signal
42. Special activities earn _____ points
43. Without light
44. Hold a frequency to do this
45. The worst visitor
46. Gas for the operators

DOWN

2. Hope this shines on your Field Day operation
3. Beach operators better keep an eye on this
4. Poor grounding might give you this kind of burn
6. Send your Field Day message to this person (abbreviation)
7. Simplest wire antenna
8. Class E stations are emergency-_____
10. Loose ropes let wire antenna _____
11. Not a pretty vine
12. Dc power source
13. These operators get a station all their own
15. Mealtime depends on this
16. What Field Day is preparation for
17. Keeps the station dry
18. East Bay is an ARRL _____
21. Bring equipment _____ the site
26. Chops firewood
27. Sponsor of Field Day
29. Make do
31. An operating set of radio equipment
33. Too little shade leads to this
34. A balloon with a hole
35. Tunes the antenna automatically (abbreviation)
38. These cover equipment
39. Tree climbers need to be _____
40. Hauls the Field Day equipment