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The monthly Newsletter of the Monongalia Wireless Association
Morgantown, West Virginia

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Secretary/Treasurer: Norene Arnold, N8TJM

Vice President: Jack Averill, N8NQW

Newsletter Editor: Jack Coster, WF8X

Co-Editor: Bill Jacobs, WA8YCG



Last month Program .Mike K8LG shows his printed circuit board making setup

NEXT MEETING

The third Tuesday of the month May 21,
2002 in or near Room G 84 of the
Engineering Science Building

7:30 PM

More On the Sound Card

By Jan KX2A

RTTY is sent by transmitting a pattern comprised of a sequence of carrier jumps between two frequencies, the mark frequency and space frequency. Modern Baudot RTTY is supposed to use two frequencies separated by 170 Hz. The original RTTY transmitters used two oscillators, or two tuned frequency circuits operating alternately on the same oscillator, to generate these different frequencies.

A modern alternative is Audio Frequency Shift Keying, AFSK, using single-sideband SSB modulation. Since an SSB transmission has only one sideband and no transmitted carrier, modulating the audio stage with a single tone is the same thing as transmitting one of the RTTY frequencies. Only a single frequency is transmitted. If you then turn off this first tone and modulate the audio stage with a tone that is 170 Hz. Different in frequency from the first, you have now transmitted the second RTTY frequency.

AFSK RTTY is easy to generate. Instead of having a special RTTY modulator in your transmitter, just transmit audio tones in the proper sequence, connect the audio to your microphone input to modulate your SSB radio, and you are transmitting RTTY using AFSK. If everything is really clean, there is no way to discriminate an AFSK signal from an FSK signal. They are received and processed the same way. This modulation technique can be used for the other digital modes as well, PSK, MTTY, and even slow-scan TV.

During transmission, the computer sound card generates these tones at the correct frequencies and in the correct temporal (time) sequence to modulate your radio. There is one wrinkle in this approach, and it has to do with the standard hardware: The sound card generates an audio signal of about 5 volts peak-to-peak, to modulate speakers so you can hear sounds; but the microphone input of the typical SSB transceiver is looking for 50 microvolts of modulation from a microphone. This means that the sound card is providing about 100 times the voltage that the transmitter audio input stage expects.

Luckily, this overvoltage does not damage the audio input stage, but it sure can cause distortion. What's more, you cannot eliminate the distortion by turning down the microphone gain control. A substantial amount of distortion is created even before the signal reaches the gain control. To prevent this, you must reduce the voltage coming from the sound card. That is the primary purpose of those black boxes you have seen advertised called PSK interfaces, or digital interfaces, or Rig Blasters, or other trade names or nicknames. The parts that are absolutely necessary to make one of these work are two resistors, 100 ohms and 1000 ohms, which cost about \$1.50 for five at Radio Shack. However, many commercial interfaces provide additional features, such as plug-compatibility, switches, PTT switching, and directions on how to hook things up.

Next time we'll take a closer look at the "sound card to transmitter interface," and how to reduce distortion. We'll also look at a procedure to set your input level correctly, without requiring a second station or monitor.

Thanks Jan KX2A

Operating Tips and Anecdotes for the HF Operator

by Rich, W8PT

This month's query is about special event stations. Our HF operator wants to know more about, and perhaps even work some of the special event stations listed in QST magazine, but often has a hard time locating their current operating frequency. Call letters, QTH, operating frequencies, QSL information, and a general description of special event stations are usually listed on around page 94 of each month's QST magazine. Most often these are stations operating from within the USA, but sometimes you see listing for foreign special event stations. Some of these special event stations use one-by-one call signs, like W1B, K6A, or N5G; or meaningful call signs such as GB90MGY (90th anniversary of the Titanic Disaster). Many offer attractive QSL cards or certificates for working them. If you'd like to see a partial listing of foreign special event stations, a good site that I often use is the

Ohio/Pennsylvania DX Packetcluster DX Bulletins (<http://www.cpcug.org/user/wfeidt/Ohpadx/index.html>).

Yes, it is often time consuming searching around for special event stations, even though they have listed what frequency that they plan to operate. Other stations often spot (using packet clusters or the internet) these special event stations: time, callsign, and frequency are listed; often other information is also listed including the operator's name and the QSL route. I use the internet to see who is on what frequency. Probably my favorite site is DX Summit (<http://oh2aq.kolumbus.com/dxs/>). With DX Summit you can immediately narrow your search by selecting a specific mode (such as SSB) or a specific band (such as 10 meters). Both HF and VHF/UHF spots are listed. If you have the call letters of the special event station, you can use the "spot database search" link, type in the callsign of the special event station, and how many respond lines you wish to see. This is a great function. Collecting QSLs and Certs from special event stations is really worthwhile. Often the QSLs are full-color with pictures of the station and/or the operating crew. Finally, one tip that I wrote on last month that also applies to working special event stations: don't tune up your transmitter on the special event's transmitting frequency - this creates QRM and makes you unpopular with others who are trying to listen to the station operator. If you need to tune up on the air, pick some frequency above or below the special event station where no one seems to be using - operate smart! 73S, Rich, W8PT

Rich can be reached at w8pt@qcol.net.

For Sale

For Sale: 1/4 inch aircraft cable, galvanized 7 x 19, break strength 7,000 bs, work strength 1400 lbs. Part # 45506 on the Cable X-Perts web site <http://www.cablexperts.com> will cut to length at 25 cents per foot, about 350 feet available. K3JT call 983-2684 or email k3jt@arrl.net

Field Day Antenna Knot

Do you need a simple and quick knot to put a loop in a rope to hang that Field Day antenna?

Make 3 turns around your left thumb. Move the center loop to the right over the right loop. There is now a new center loop. Move the center loop to the left over the left loop. There is now a new center loop. Move the center loop to the right over the right loop. There is now a new center loop. Pull the center loop out and fasten to the antenna.

Clegg FM-27B SAVE \$50

Purchase a Clegg FM-27B for the Regular price of \$479.00 with No Trade and you may take a \$50 credit towards the purchase of any other new merchandise of your choice. Following are some possible suggestions of other merchandise you might take:

* Dycorn 35-0 Amp. 12v	\$175.00
* Larsen NLA-150-1K Ant.	\$ 29.00
* AC Supply for FM-27B	\$ 79.00
* Hy-Gain or Cushcraft VHF Antennas	
* Or any other merchandise of your choice —write for our "Condensed listing of Amateur Radio Equipment".	



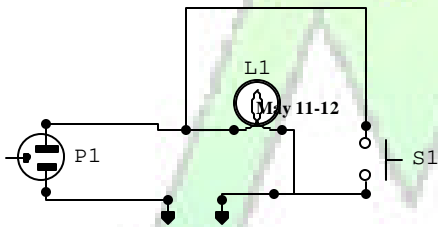
Terms on this FM-27B offer are:

- Master Charge
- BankAmericard
- GECC Revolving Charge Plan
- COD (20% deposit)
- Payment in Full with Order

This is an advertisement for AES from QST August 1973. \$479.00 for a 12 channel crystal controlled 10 watt transmitter. We have come a long way.

Thanks Bill WA8YC

Fuse Tester



Connect the fuse to be tested between the two test points PA and PB. If the light lights, the fuse is good.

Thanks Bill WA8YC

OPERATING EVENTS ON THE AIR

Danish SSTV Contest, sponsored by the Danish SSTV Group, from 0000Z May 5 to 2400Z May 11 (note one week duration). Frequencies: 80-10, 6, 2 meters. Categories: SO and SWL. Exchange an image to complete a QSO. QSO points: 2 points for first QSO with a country, 1 point thereafter, 1 point bonus for Danish stations, contact stations once per band. For more information--<http://www.home5.inet.tele.dk/carle>. Logs must be postmarked by June 6 to Carl Emkjer, Soborghus Park 8, DK 2860, Soborg, Denmark.

Nevada QSO Party--CW/SSB/RTTY, sponsored by the Frontier Amateur Radio Society from 0000Z May 11 to 0600Z May 12. Frequencies: 160-6 meters, CW 15 kHz and SSB 25 kHz above General class band edge. Exchange: RST and S/P/C or Nevada county. QSO points: SSB--1 pt, CW/RTTY--2 pts. Score is QSO points x Nevada counties or S/P/C counted only once. Logs must be e-mailed or postmarked by June 15 to nw7o@arrl.net or to NW7O, Jim Frye, 4120 Oakhill Ave, Las Vegas, NV 89121-6319. Oregon QSO Party--CW/SSB, sponsored by the Central Oregon DX Club, 1400Z 11 May-0200Z 12 May. Frequencies: CW 1815 kHz and 40 kHz above band edge, SSB 1855, 3900, 7240, 14280, 21390, 28390 kHz; no repeater QSOs. Exchange: RS(T) and OR county or S/P/C. QSO points: SSB--1 pt, CW --2 pts. Stations may be worked once per band/mode and in each county. Score is QSO points x OR counties or S/P/C + OR counties counted only once. 50 bonus points for working K7O. 100 bonus points for working K7ZZZ. Logs must be e-mailed or postmarked by June 10 to k4xu@arrl.net or to Oregon QSO Party, c/o K9QAM, 23083 Maverick Ln, Bend, OR 97701.

FISTS Spring Sprint--CW, sponsored by the FISTS International CW Club from 1700Z-2100Z May 11 (see February QST, p 109). CQ-M International DX Contest--CW/SSB/SSTV, sponsored by the Krenkel Central Radio Club from 2100Z May 11-2100Z May 12. Frequencies: 160-10 meters including satellites, which count as a separate band; remain on a band for at least 10 min. Categories: SOSB (CW, SSB, Mixed, Satellites), SOAB (CW, SSB, Mixed, QRP--must sign "/QRP"),

MS-Mixed, SWL-Mixed, WWII Veteran, SSTV, Victory. Exchange: RS(T) and serial number. QSO points: Using P-150-C award countries, own country--1 pt, same cont--2 pts, different cont--3 pts. Score is QSO points x countries counted once per band. For more information--http://www.mai.ru/~crc/cq-m/cqmain_e.htm. Logs must be e-mailed or postmarked by July 1 to cqm@mail.ru or to CQ-M Contest

THIS SPACE RESERVED FOR YOUR ARTICLE.

Committee, Krenkel Central Radio Club of Russia, PO Box 88, Moscow, 123459, RUSSIA.

50 Mhz Spring Sprint, sponsored by the Eastern Tennessee DX Association from 2300Z May 11 to 0300Z May 12 (see April QST, p 93).

His Majesty King of Spain Contest, CW, sponsored by the Union de Radioaficionados Españoles (URE) from 1800Z May 18 to 1800Z May 19 (SSB is June 22-23). Frequencies: 160-10 meters using IARU Region 1 bandplan. Categories: SOAB, SOSB, and MS. Exchange: RST and serial number or EA province. QSO points: 1 pt per QSO. Score is QSO points × EA provinces counted once per band. For more information, send e-mail to ure@ure.es. Logs must be e-mailed or postmarked by June 25 (SSB by July 30) to ure@ure.es or ea5al@ure.es or Vocalia Concursos URE, Apartado Postal 87, 12200, Onda, Castellon, Spain.

CQ WW WPX Contest--CW, sponsored by CQ Magazine, from 0000Z May 25-2400Z May 26 (see March QST, p 102). QRP ARCI Hootowl Sprint--CW, sponsored by the QRP ARCI International from 2000 local-2400 local May 26. For rules, see December 2001 QST, p 98, or <http://www.personal.palouse.net/rfoltz/arcia/arcist.htm>.

MI QRP Memorial Day CW Sprint, sponsored by the MI QRP Club from 2300Z May 27 to 0300Z May 28 (see January QST, p 107).

W1AW Qualifying Runs are 7 PM Friday, May 3, and 9 AM Monday, May 20. The K6YR West Coast Qualifying Run will be at 9 PM PST Wednesday, May 8 (10-40 WPM). Check the W1AW Schedule for details.

ARRL June VHF QSO Party--1800Z Jun 8-0300Z Jun 10 (see May QST, p 110).

ANARTS WW RTTY/Digital Contest--sponsored by Australian National Amateur Radio Teleprinter Society (ANARTS) from 0000Z, Jun 8 to 2400Z, Jun 9. Frequencies: 80-10 meters. Categories: SO, MS, and SWL, SO and SWL only operate 30 hours. Exchange RST, CQ zone and Time (UTC). QSO Points are determined by an exchange table available from ANARTS. Score is QSO points × DXCC entities + VK, JA, VE and W call districts + continents (counted only once). For more information <http://www.qsl.net/anarts/>. Logs due by Sep 1 to ctdavies@bigpond.com or to Contest Manager, VK2BQS, Jim Swan, PO Box 93, Toongabbie, NSW 2146, Australia

RSGB Jubilee Contest--CW/SSB--sponsored by the RSGB from 1000Z Jun 8-1000Z Jun 9. Frequencies: 80-10 meters according to IARU band plan. Categories: SOAB (Assisted and Unassisted), MS, all categories may be Phone, CW or mixed mode. Exchange: RS(T) and serial number. QSO Points: 5 pts/QSO. Score: QSO Points × Commonwealth call districts (count once per band). For more information--<http://www.rsgbhfcc.org/>. Logs are due by Jul 6 to hf.contests@rsgb.org.uk or to RSGB HF Contests Committee, c/o S V Knowles G3UFY, 77 Bensham Manor Rd, Thornton Heath, Surrey CR7 7AF, UK. Asia-Pacific Sprint--SSB--1100Z to 1300Z Jun 8 (see Feb QST, p 109).

Kid's Day Operating Event--from 1800 to 2400Z Jun 15; see the related article elsewhere in this issue or <http://www.arrl.org/FandES/ead/kd-rules.html>. All-Asian DX Contest--CW--sponsored by the Japan Amateur Radio League from 0000Z Jun 15 to 2400Z Jun 16 (SSB Sep 7-8). Frequencies: 160-10 meters, incl 10-min band change rule. Categories: SOAB, SOSB, MO, Low Power (Asian stations only), Junior (JA stations <20 years), Senior (JA stations >70 years). Exchange: RS(T) and a two digit number denoting the operator's age. YL stations may send 00. QSO Points for non-Asian stations: 40-15 meters--1 pt, 80 and 10 meters--2 pts, 160 meters--3 pts. Score: QSO pts × Asian prefixes (WPX rules). For more information and Asian station QSO points http://www.jarl.or.jp/English/4_Library/A-4-3_Contests/2002AA_Rule.htm. Logs due by Jul 31 (Oct 30 for phone) to aacw@jarl.or.jp (SSB logs to aaph@jarl.or.jp) or JARL, All Asian DX Contest, Tokyo 170-8073, Japan.

SMIRK QSO Party--6 meters only--sponsored by the Six Meter International Radio Klub, from 0000Z Jun 15 to 2400Z Jun 16. Frequencies: phone QSOs within the lower 48 states and Canada above 50.150 Mhz; only DX QSOs between 50.100 and 50.150 Mhz. SO category only. No repeater QSOs. Exchange: SMIRK number and grid. QSO Points: SMIRK member = 2 pts, non-member--1 pt. Score: QSO points × grids. For more information--<http://www.smirk.org/>. Logs due by Aug 1 to contest@smirk.org or to Pat Rose, W5OZI, PO Box 393, Junction, TX 76849.

West Virginia QSO Party--CW/SSB--sponsored by the West Virginia State Amateur Radio Council from 1600Z Jun 15 to 0200Z Jun 16. Frequencies: 80-10

meters, CW--35 kHz from band edge, Phone--35 kHz from General band edge and Novice/Tech 10-meter segment. Categories: SO, MS, MM and Mobile, all categories may be HP, LP (<100 W), QRP (<5 W), Phone, CW or mixed mode. Work stations one per band/mode and WV stations from each county (WV mobiles keep separate log for each county). Exchange: RS(T) and WV county or SPC. QSO Points: Fixed stations: CW--2 pts, SSB--1 pt; Mobiles: CW--5 pts, SSB--3 pts; Bonus--100 pts for QSOs with W8WVA once per band/mode, WV mobiles add 100 points per county activated with minimum of 15 QSOs. Score: QSO points × WV counties (+ SPC for WV stations), add bonus to final score, multipliers count only once. For more information--<http://www.qsl.net/wvavr1>. Logs due Jul 15 to WA8WV@aol.com or to Dave Ellis, WA8WV, 610 Hillsdale Dr, Charleston, WV 25302.

SPECIAL EVENT STATIONS

Batesburg-Leesville, SC: Ridge Amateur Radio Club, W4RRC. 1300Z to 2200Z May 11. South Carolina Poultry Festival. 14.225, 14.255. QSL. Clifton W. Gantt, W4CWG, 1254 Holly Ferry Rd, Leesville, SC 29070.

Teretboro, NJ: Bergen Amateur Radio Association, K2BAR. 1500Z to 2200Z May 11. Celebrating the 29th anniversary of the Aviation Hall of Fame and Museum of New Jersey, and the 39th anniversary of Bergen ARA. 10, 15, 20 m; 146.580 FM simplex. Certificate. Jim Joyce, K2BAR, 286 Ridgewood Blvd, Washington Township, NJ 07676.

Fairfield, CT: Fairfield ARA, WB1CQO. 1400Z May 11 to 2000Z May 12. Celebrating the 67th annual Dogwood Festival. 28.366 21.366 14.266 7.266. Certificate. FARA, PO Box 486, Southport, CT 06490.

Fairmont, WV: The Mountaineer ARC, W8SP. 0000Z May 11 to 2400Z May 12. Commemorating the first official observance of Mother's Day at the International Mother's Day Shrine in Grafton, WV. General 80, 40, 20, 15 m phone+ CW bands and Novice 10 m phone. Certificate. Charles T. McClain, K8UQY, Rt 4, Box 161, Grafton, WV 26354.

Madison, CT: CT Yankee Council BSA, K2BSA/1. 0000Z May 11 to 1200Z May 12. CT Yankee Council Extravaganza 2002 (Camporee). 28.390 14.290 7.270 3.940. Certificate. Bruce Backer, WT1R, 272 Charles Ct, Orange, CT 06477.

Spartanburg, SC: Spartanburg Amateur Radio Club, K4JLA. 1400Z May 11 to 2400Z May 31. Celebrating 50 years of continuous service in amateur radio. 7.270 14.270 21.370 28.370. Certificate. Spartanburg Amateur Radio Club, 104 Garner Rd, Spartanburg, SC 29303.

Napoleon, MI: Cascades Amateur Radio Society, W8JXN. 1100Z to 1800Z May 12. Mothers Day & Lions Club Annual Fly in Pancake Breakfast. 146.880 146.58 28.380 14.280. Certificate. CARS, PO Box 512, Jackson, MI 49204.

Twin Cities, MN: Amateur Radio Association of Bloomington, WØEP. 1600Z May 17 to 2400Z May 18. Pavek Museum of Broadcasting On the Air. 29.050 14.240 7.230 3.885. Certificate. Pavek Museum of Broadcasting, 3515 Raleigh Ave, St Louis Park, MN 55416. <http://www.pavekmuseum.org/>.

St Louis, MO: American Archives Amateur Radio, KC8KGA. 1600Z May 17 to 1600Z May 19. Commemorating the 75th Anniversary of Lindbergh's Flight from New York to Paris. 14.270 7.270. Certificate. Dave Langston, KB8RAP, c/o Maritz, 1000 Town Center, Southfield, MI 48170.

Idabel, OK: McCurtain County Amateur Radio Club (MCARC), K5OLO. 1400Z to 2300Z May 18. Idabel Centennial Celebration and Traveling Vietnam Wall. 28.325 14.325 7.275 14.055 CW. Certificate. Gary L. Brock, 1701 SE Ave N, Idabel, OK 74745.

Wheaton, IL: DuPage Amateur Radio Club, W9DUP. 1600Z to 2300Z May 18. Armed Forces Day. 145.25/145.65 28.400 14.290 7.250. Certificate. Robert B. Beatty, WB9HNS, DuPage ARC, PO Box 71, Clarendon Hills, IL 60514.

White River Junction, VT: Twin State ARC and area amateurs, W1FN. 1400Z to 2000Z May 18. Armed Forces Day 2002, honoring our service men and women. 28.360 21.360 14.260 7.260. Certificate and QSL. Karl Zuege, KB1DSB, 2176 Drake Rd, Bomoseen, VT 05732 05732.

Pierre, SD: Pierre Amateur Radio Club, WØPIR. 1700Z May 18 to 0000Z May 19. Lewis & Clark Expedition. 28.440 14.250 7.250 3.950. Certificate. Gary Wallace,

AAØCT, PO Box 1261, Pierre, SD 57501-1261.
<http://www.rmrlent.dtgnet.com/parc/lcspec.html>.

St Charles, MO: St Charles Amateur Radio Club, KØLAC. 1300Z May 18 to 2300Z May 19. 198th anniversary of the Lewis and Clark Expedition. 28.470 21.370 14.270 7.270, 3.970, CW up 60 on each band. QSL and Certificate. Mike McCrann, WDØGSY, 25 Elm Dr, St Peters, MO 63376.

Auburn, WA: Cascade Mountain Amateur Radio Society, WC7O. 0001Z May 18 to 2300Z May 25. Commemorating those who died during the eruption of Mt St Helens. 28.360 24.960 21.360. QSL. Mark Selthofer, 35000 45th Ave S, Auburn, WA 98001.

Sturbridge, MA: Radio Operators for Missing Children and AMECO, KB1HGK. 1500Z to 2100Z May 19. International Missing Children's Day Searching All Four Corners of the World. General 40, 20 and 15 m band. Certificate. Radio Operators for Missing Children, KB1GK, c/o Lyceum Press & Gifts, 1 River Rd, Sturbridge, MA 01566. <http://www.lyceumpress.com/>.

Camden, NJ: Battleship New Jersey Amateur Radio Station, NJ2BB. 1200Z to 2000Z May 25. 59th anniversary of the commissioning of USS New Jersey BB62. 28.462 21.362 14.262 7.262. QSL. Margaret Burgess, KB2BRR, 150 Schooner Ave, Barnagat, NJ 08005.

Chestertown, MD: Kent Amateur Radio Society, K3ARS. 1400Z to 2100Z May 25. Commem- orating the Chestertown Tea Party of 1774. 28.340 14.240 7.240 7.040. Certificate. Paul Gerhardt, K3PG, 313 Chesterfield Ave, Centerville, MD 21617.

New Haven, Middlesex and Naugatuck Counties CT: Meriden ARC. Multiple stations (10 to 20) including W1NRG. 1500Z to 2300Z May 25. Celebrating 54 years of ARRL affiliation. Multimode. Certificate for first contact with endorsement for additional contacts. Meriden ARC, PO Box 583, Meriden, CT 06450. W1NRG is a 10-10 Castle Craig Chapter station. For more info <http://www.meridenarc.org/54th.htm>.

Roanoke, VA: Roanoke Valley Amateur Radio Club, W4CA. 1400Z May 25 to 2100Z May 26. Roanoke's Festival In The Park. 28.460 14.270 7.250. QSL. RVARC, PO Box 2002, Roanoke, VA 24009.

Waite Park, MN: Saint Cloud Amateur Radio Club, WØSV. 1800Z May 25 to 1749Z May 26. Celebrating the Saint Cloud Amateur Radio Club's 80th Anniversary. 28.420 21.390 14.290 7.230. Certificate. WØSV, 401 N 4th St, Waite Park, MN 56387.

Baton Rouge, LA: USS Kidd ARC/Baton Rouge ARC, W5KID. 1400Z to 2200Z May 27. Honoring Memorial Day. SSB: 10, 15, 17, 20 m General band. QSL. W5KID, 305 River Rd, Baton Rouge, LA 70803.

Belleville, MI: Yankee Air Force Museum, W8YAF. 1200Z to 2000Z May 27. Observing Memorial Day at the Yankee Air Museum at Willow Run Airport. 7.270. Certificate. Frank A. Nagy, N8BIB, 24315 Waltz Rd, New Boston, MI 48164-1965.

Elgin, IL: Elgin Amateur Radio Society, W9IKN. 1300Z to 1800Z May 27. 25th Valley Foxtrot 10 Mile Run and the 800th Club Meeting. 147.525 50.130 14.240 7.240. Certificate. Elgin ARS, PO Box 1351, Elgin, IL 60121.

New Concord, OH: Cambridge Amateur Radio Association, Inc, W8VP. 1300Z to 2000Z May 27. Opening of John and Annie Glenn Museum and Historical Site. 14.270 7.245. QSL. Cambridge Amateur Radio Associaton, PO Box 1804, Cambridge, OH 43725. For updates check <http://www.geocities.com/w8vp>.

Windsor, Berkshire, UK: Cray Valley Radio Society, Burnham Beeches Radio Society and the Radio Society of Great Britain, GB5Ø. 0700Z-2200Z daily May 29 to Jun 9. Celebrating the Queen's Golden Jubilee by Amateur Radio at Windsor Castle. 3.5 to 50 MHz CW, SSB, PSK31 and RTTY. QSL. Owen Cross, G4DFI, 28 Garden Ave, Bexleyheath, Kent DA7 4LF, Great Britain or via bureau. <http://www.gb50.com/>.

Tupelo, MS: Tupelo Amateur Radio Club, KK5K. 2000Z May 31 to 0500Z Jun 2. Celebrating the 4th Annual Elvis Presley Festival Special Event. 28.465 21.365 14.265 3.862. QSL. Tupelo Amateur Radio Club, 429 Goodlett St, Tupelo, MS 38804.

June

Asheboro, NC: Randolph ARC, NC4ZO. 1300Z-2000Z Jun 1. Warbird Air Show D-Day Commemoration. 28.400 21.320 14.240 7.240. Certificate. Randolph ARC, 6747 King Mt Rd, Asheboro, NC 27205.

Richfield, PA: Susquehanna Valley ARC, W3VPJ. 1600Z-2300Z Jun 1. 3rd Annual Spring Bison Festival from the Bison Farm II. 7.240. Certificate. Chris Snyder, NG3F, 3 N Maple St, Selingsgrove, PA 17870.

Russell, MA: BSA Venture Crew 510, W1W. 1400Z-2300Z Jun 1. Demonstrating ham radio to over 500 Cub Scouts in one day during "Webelos Woods 2002" at H.A. Moses Scout Reservation. 146.94 28.390 21.360 14.290 7.270. Certificate. BSA Venture Crew 510, NE1C, PO Box 562, Agawam, MA 01001.

Grosse Ile, MI: Motor City Radio Club, W8MRM. 1400Z Jun 1-2200Z Jun 2. Annual Spring Island Fest and 70th Anniversary of the MCRC. 28.375 21.375 14.244 7.244. Certificate. MCRC, PO Box 337, Wyandotte, MI 48192.

Minden, NE: Hastings Amateur Radio Club, WØWWV. 1400Z Jun 1-1800Z Jun 2. Celebrating the 49th Anniversary of Pioneer Village. 146.820 28.350 14.250 7.250. QSL. Ron Blecha, 221 N Garber Ave, Minden, NE 68959.

Niles, IL, and Pisa, Italy: Metro Amateur Radio Club and Pisa Amateur Radio Club, K9Y and IZ5AXT/TWR. Jun 1-2. Pisan Leaning Tower Event/Award. 21.370 21.030 14.270 14.030. Certificate. Michael Dinelli, N9BOR, 9423 Kolmar Ave,

Skokie, IL 60076-1321. Pisa ARC at Leaning Tower of Pisa; MARC at America's Leaning Tower in Niles. QSL for one station; certificate for both stations. DX QSL manager is IK5ZTT.

Olathe, KS: Johnson County ARES, KSØJC. 1800Z Jun 1-2200Z Jun 2. From Ensor Museum, honoring Marshall Ensor, code teacher. 28.400 18.150 14.250 10.125. Certificate. Dan Reed, NØZIZ, 29545 West 152nd Ter, Gardner, KS 66030. QSL available upon request.

Wentzville, MO: Wentzville Lodge #46 AF&AM, WØM. 1400Z Jun 1-2200Z Jun 2. 136th Anniversary of Wentzville Lodge #46 AF&AM. 14.240. Certificate. Scott A. Schultz, 1853 Queen Anne Ct, Wentzville, MO 63385.

Streetsville, ON, Canada: Mississauga Amateur Radio Club, VE3MIS. 1400Z Jun 1-2000Z Jun 2. 30th Streetsville Founders Bread & Honey Festival. 28.340 14.240 7.230. Certificate. MARC, c/o Michael Brickell, 2801 Bucklepost Cr, Mississauga, ON, Canada L5N 1X6. <http://www.manrc.on.ca/>.

Atkinson, NH: Atkinson Amateur Radio Club, K1D. 0400Z Jun 1-0400Z Jun 16. Celebrating Kid's Day and Amateur Radio Awareness. 28.380 21.380 14.270 7.230. Certificate. Peter Schipelliti, W1DAD, 7 Dearborn Ridge Rd, Atkinson, NH 03811.

Baton Rouge, LA: USS Kidd ARC/Baton Rouge ARC, W5KID. 1400Z-2200Z Jun 6. Honoring D-Day\Normandy Invasion. SSB: 10, 15, 17, 20 m inside General band and above RTTY subband; CW: QRP sub bands. QSL. W5KID, 305 River Rd, Baton Rouge, LA 70803.

Buffalo, NY: Erie County ARES/RACES, N2R. 2200Z Jun 7-0200Z Jun 8. American Red Cross Mash Bash event honoring M.A.S.H. Units. 14.250 7.110 7.230. QSL. James Moxon, N2OSL, <http://www.eqsl.cc/> (preferred method) or 81 Moorman Dr, Cheektowaga, NY 14225.

Baltimore, MD: Historical Electronics Museum ARC, W3GR. 1200Z-2200Z Jun 8. Role of electronics in D-Day. 28.348 21.115 14.240 14.040. QSL. HEMARC W3GR, PO Box 746, MS 4015, Baltimore, MD 21203.

Bedford, VA: Roanoke Valley ARC and Franklin County ARC, WW2DDM. 1400Z-2400Z Jun 8. First anniversary of the National D-Day Memorial. 40 20 15 10 m. QSL. Charlie Beckwith, K4BSF, 563 Buzzard Rock Ln, Rocky Mount, VA 24151-4844; <http://www.qsl.net/ww2ddm>.

Lander, WY: Fremont County Amateur Radio Society, KD7PPP. 1600Z Jun 8-2400Z Jun 9. Spring Time Comes Late in the Wind River Mountains of Wyoming.

28.360 21.330 14.330 7.240. Certificate. Ray H. Snyder, 300 Wood St, Lander, WY 82520.

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Marietta, GA: Southeast Wireless Club, K4S. 1200Z Jun 15-2000Z Jun 23. Cub Scout Day Camp--Covered Bridge District, Atlanta Area. 28.450 21.350 18.150 14.250. Certificate. James Olson, W4JO, 3442 N Cook Rd, Powder Springs, GA 30127.

Simi Valley, CA: Ventura County Amateur Radio Society (VCARS), N6R. 1800Z Jun 22-2100Z Jun 23. Commemorating the lives of President Ronald Reagan and Mrs Nancy Reagan. 28.360 21.360 14.260 7.260. Certificate. Peter S. Heins, N6ZE, PIO, Ventura County ARS, 1559 Norwich Ave, Thousand Oaks, CA 91360-3533.

Albuquerque, NM: NM SCARES, N5M. 0000Z Jun 22-0000Z Jun 27. New Mexico's 90th birthday. 28.390 21.290 14.290 7.290. QSL. Jay Miller, 4613 Jupiter St NW, Albuquerque, NM 87107.

Hagerstown, MD: Antietam Radio Assn, W3CWC. 0001Z Jun 24-2200Z Jun 30. Fiftieth Anniversary of ARA Club Founding. 50.140 28.440 14.240 7.240. Certificate. Antietam Radio Assn, PO Box 52, Hagerstown, MD 21741.

Milpitas, CA: Milpitas Amateur Radio & Electronics Society, W6MLP. 1900Z Jun 28-1900Z Jun 29. Cancer Society Relay-for-Life. 28.390 21.360 14.290. QSL. Milpitas Amateur Radio & Electronic Society, 777 S Main St, Milpitas, CA 95035; <http://www.w6mlp.org/>.

Yucaipa, CA: Yucaipa Valley Amateur Radio Club, KF6LLS. 1700Z Jun 28-0500Z Jun 29. 10th Anniversary of Landers/Big Bear Earthquake. 28.353 21.353 14.253 7.253. Certificate. Yucaipa Valley ARC, 34428 Yucaipa Blvd E-188, Yucaipa, CA 92399.

Cape Lookout, NC: United States Power Squadrons Amateur Radio Net, N1C. 1400Z Jun 28-2200Z Jun 30. National Safe Boating Campaign from Cape Lookout Lighthouse. 28.367 21.367 14.267 7.267. Certificate. Donald Stark, N3HOW, 65 Stark Spur, Eighty Four, PA 15330.

Los Alamos, NM: Los Alamos Amateur Radio Club, W5PDO. 1800Z-2200Z Jun 29. Earthwatch Institute's Student Challenge Awards Program from Fenton Hill Observatory. 28.450 21.350 14.250. Certificate. Don Casperson, AA5PA, 984 Nambe Loop, Los Alamos, NM 87544.

Asheboro, NC: Randolph ARC, NC4ZO. 1300Z-2000Z Jun 1. Warbird Air Show D-Day Commemoration. 28.400 21.320 14.240 7.240. Certificate. Randolph ARC, 6747 King Mt Rd, Asheboro, NC 27205.

Richfield, PA: Susquehanna Valley ARC, W3VPJ. 1600Z-2300Z Jun 1. 3rd Annual Spring Bison Festival from the Bison Farm II. 7.240. Certificate. Chris Snyder, NG3F, 3 N Maple St, Selinsgrove, PA 17870.

Russell, MA: BSA Venture Crew 510, W1W. 1400Z-2300Z Jun 1. Demonstrating ham radio to over 500 Cub Scouts in one day during "Webelos Woods 2002" at H.A. Moses Scout Reservation. 146.94 28.390 21.360 14.290 7.270. Certificate. BSA Venture Crew 510, NE1C, PO Box 562, Agawam, MA 01001.

Grosse Ile, MI: Motor City Radio Club, W8MRM. 1400Z Jun 1-2200Z Jun 2. Annual Spring Island Fest and 70th Anniversary of the MCRC. 28.375 21.375 14.244 7.244. Certificate. MCRC, PO Box 337, Wyandotte, MI 48192.

Minden, NE: Hastings Amateur Radio Club, WØWV. 1400Z Jun 1-1800Z Jun 2. Celebrating the 49th Anniversary of Pioneer Village. 146.820 28.350 14.250 7.250. QSL. Ron Blecha, 221 N Garber Ave, Minden, NE 68959.

Niles, IL, and Pisa, Italy: Metro Amateur Radio Club and Pisa Amateur Radio Club, K9Y and IZ5AXT/TWR. Jun 1-2. Pisan Leaning Tower Event/Award. 21.370 21.030 14.270 14.030. Certificate. Michael Dinelli, N9BOR, 9423 Kolmar Ave, Skokie, IL 60076-1321. Pisa ARC at Leaning Tower of Pisa; MARC at America's Leaning Tower in Niles. QSL for one station; certificate for both stations. DX QSL manager is IK5ZTT.

Olathe, KS: Johnson County ARES, KSØJC. 1800Z Jun 1-2200Z Jun 2. From Ensor Museum, honoring Marshall Ensor, code teacher. 28.400 18.150 14.250 10.125. Certificate. Dan Reed, NØZIZ, 29545 West 152nd Ter, Gardner, KS 66030. QSL available upon request.

Wentzville, MO: Wentzville Lodge #46 AF&AM, WØM. 1400Z Jun 1-2200Z Jun 2. 136th Anniversary of Wentzville Lodge #46 AF&AM. 14.240. Certificate. Scott A. Schultz, 1853 Queen Anne Ct, Wentzville, MO 63385.

Streetsville, ON, Canada: Mississauga Amateur Radio Club, VE3MIS. 1400Z Jun 1-2000Z Jun 2. 30th Streetsville Founders Bread & Honey Festival. 28.340 14.240 7.230. Certificate. MARC, c/o Michael Brickell, 2801 Bucklepost Cr, Mississauga, ON, Canada L5N 1X6. <http://www.manrc.on.ca/>.

Atkinson, NH: Atkinson Amateur Radio Club, K1D. 0400Z Jun 1-0400Z Jun 16. Celebrating Kid's Day and Amateur Radio Awareness. 28.380 21.380 14.270 7.230. Certificate. Peter Schipelliti, W1DAD, 7 Dearborn Ridge Rd, Atkinson, NH 03811.

Baton Rouge, LA: USS Kidd ARC/Baton Rouge ARC, W5KID. 1400Z-2200Z Jun 6. Honoring D-Day/Normandy Invasion. SSB: 10, 15, 17, 20 m inside General band and above RTTY subband; CW: QRP sub bands. QSL. W5KID, 305 River Rd, Baton Rouge, LA 70803.

Buffalo, NY: Erie County ARES/RACES, N2R. 2200Z Jun 7-0200Z Jun 8. American Red Cross Mash Bash event honoring M.A.S.H. Units. 14.250 7.110 7.230. QSL. James Moxon, N2OSL, <http://www.eqsl.cc/> (preferred method) or 81 Moorman Dr, Cheektowaga, NY 14225.

Baltimore, MD: Historical Electronics Museum ARC, W3GR. 1200Z-2200Z Jun 8. Role of electronics in D-Day. 28.348 21.115 14.240 14.040. QSL. HEMARC W3GR, PO Box 746, MS 4015, Baltimore, MD 21203.

Bedford, VA: Roanoke Valley ARC and Franklin County ARC, WW2DDM. 1400Z-2400Z Jun 8. First anniversary of the National D-Day Memorial. 40 20 15 10 m. QSL. Charlie Beckwith, K4BSF, 563 Buzzard Rock Ln, Rocky Mount, VA 24151-4844; <http://www.qsl.net/ww2ddm>.

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*****Your help needed*****
What do we add to Solid Copy?
What do we take out?
Is it too big?
Is it too small?
Your input would be most helpful.
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