

STARS GETS NEW REPEATER



STARS, working with **Yaesu**, will be testing a new DR-1 digital repeater. In return for the repeater, **STARS** will be required to submit regular reports on its operation.

The DR-1 unit has the ability to repeat both digital and analog transmissions. However, this will depend upon how the unit is set up for its initial tests.

Initially, the unit has been set to the same frequency pair as the existing **STARS** repeater, 147.09/147.69 mhz. However, the CTCSS code (PL code) for the new repeater will be set to 151.4 hertz. (The existing repeater still uses the CTCSS code of 107.2 hertz.) Amateurs are encouraged to create memory channels for their radios for both repeaters, each one using a different CTCSS code. Please note, the CTCSS codes should be entered on your radio's transmit side.

The receive side should have no code. That way, your unit will receive transmissions from both old and new repeaters. During a recent net, operators were using both repeaters. However, those amateurs with a CTCSS code on their receiver side could not hear the other repeater.

For proper evaluation, we are seeking signal reports for the new unit. Please include your location, transmitting power, and signal quality. Send those reports to: wb2elw@verizon.net.

(Continued on page 3)

(Continued from page 1)

NEW REPEATER

Special thanx must go to **John Leitten, KA2RFT**; and **Ken Pokigo, KC2AYK**; for the necessary work that made this repeater acquisition possible from Yaesu.

To utilize the digital features, Yaesu recommends two radios, one portable and one mobile.

The portable radio is the Yaesu **FT1DR**. It's a dual band digital/analog transceiver, with the AMS feature. Power output can be chosen from 4 levels, from 0.1 to 5 watts. GPS is built in! A data terminal exists, so data may be transmitted. It has 1266 memory channels.



The mobile radio is the **FTM400DR**, fully compatible with all the features of the System Fusion DR-1 digital repeater. It includes all the features mentioned for the **FT1DR** portable. However, the power choices are 5, 20 or 50 watts.

For more information on these items, use these Internet links (hold CTRL key and click mouse):

Please note, the C4FM digital system is NOT compatible with digital "D-STAR" systems.

[Yaesu digital amateur radios](#)

[Yaesu DR-1 repeater](#)

(AES version) [Yaesu FT1DR digital portable](#)

[Yaesu FTM400DR mobile](#)

[Digital communications](#)

[System Fusion](#)

**YAESU WEB SITES
TEMPORARILY
UNAVAILABLE**

YOUR HELP IS NEEDED

One of the characteristics of amateur radio is the expectation that amateurs will contribute to a community's public safety.

Two groups which exist for this purpose are ARES (Amateur Radio Emergency Service) and RACES (Radio Amateur Communications Emergency Service). In Erie County, the groups coexist as the Erie County ARES RACES (ECAR) team.

They meet once a month, on the second Monday, at 7:30 PM, at the Erie County Fire Training Academy, 3359 Broadway (just east of Union Road), Cheektowaga. Amateurs are welcomed!



While they can be called out for major emergencies, where communication is needed, their biggest activity is providing communications for planned community events,

such as walkathons and bicycle events.

This season, two such events are rapidly approaching, and in need of more amateur operators. The first is Tour de Cure, scheduled for June 7th. The other is the Ride for Roswell, set for June 28th.

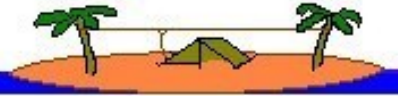
If you can help out on either of these events, come to the ECAR meeting on Monday, May 5th, 7:30 PM, at the Erie County Fire Training Academy. Or, for more information, contact Gene Kremzier, N2OBW, at:

N2OBW@arrl.net

UP with antennas



by Don - K2PMC



By now you should have a good idea of the difference between coaxial cable and a balanced transmission line. Okay, which one do you want to use, and why? Let's look at the pluses and minuses of each transmission line.

Coax can be routed through walls if necessary. It is minimally affected by weather conditions and some types can even be buried.

On the other hand, a coax fed antenna is generally a single band antenna unless traps or stubs are employed. Some pruning may be required to achieve a reasonable SWR at the desired operating frequency. It has a relatively narrow bandwidth on 160 and 80 meters. There is a much higher db loss per 100 feet than a balanced line. It is quite heavy, which will cause considerable sag in a center fed arrangement unless a center support is used. And, last but not least, "it ain't cheap!"

With a balanced transmission line, pruning is not necessary. Bandwidth is not a consideration. Multiband operation is not only possible but, on higher frequencies the antenna will exhibit gain over a typical resonant dipole. The loss per 100 feet is much lower than coax. It's pretty easy to make yourself, and you can do it inexpensively. Because it is so much lighter than coax, there will be less sag in a center fed antenna, in many cases eliminating the need for a center support.

What are some of the minuses of a balanced line? First, you can't lay it on the ground and you can't run it through a wall. So it can be more difficult to run from the antenna to your shack. The impedance may vary slightly, based upon weather conditions and the type of balanced line you use.

How do antenna tuners and baluns (short for **bal**-anced/**un**balanced) figure into your choice between coax or balanced? Balanced transmission lines will always require a balun and a tuner. However, a coax fed antenna requires a 1:1 choke balun at the feed point. And, in practice, most hams using coax feed employ an internal or external tuner to insure a good match to their rig. So, in reality, tuners and baluns are used on both balanced and coax installations.

Let's now focus our attention on Standing Wave Ratio (SWR). We all know that in order for our antenna to work well, it has to have as low a SWR as possible. Right?

Let's start by looking at Figure 1 which are DB loss tables for coax and balanced transmission lines.

HF DB Loss Tables With No Standing Waves

RG8/9913 Coax		600 Ohm Open Wire Line	
Band	db Loss /100'	Band	db Loss /100'
80M	.22	80M	.07
40M	.32	40M	.099
30M	.38	30M	.118
20M	.45	20M	.139
15M	.55	15M	.171
10M	.63	10M	.197

FIGURE 1

As you can see, coax has more than 3 times the loss per 100' than 600 ohm open wire line. This should be a consideration in your choice of transmission line for your antenna system.

Figure 2 depicts the SWR of a typical coax fed 80 meter dipole across the entire band.

(Continued on page 5)

(Continued from page 4)



80 Meter dipole at 50' resonant at 3750 Khz Coax feed

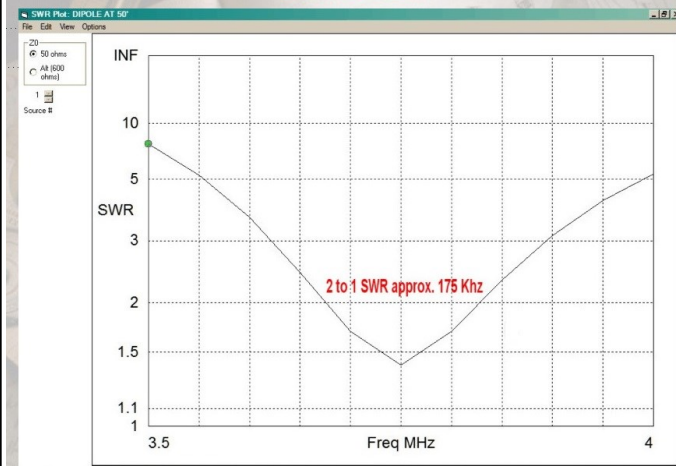


FIGURE 2

Figure 3 depicts the SWR of a typical open wire fed 80 meter dipole across the entire band.

80 Meter dipole at 50' - 600 ohm open wire line



FIGURE 3

Between now and next month I would like you to re-view Figures 2 & 3 and make a determination as to which of these antennas is going to perform more efficiently across the 80 meter band.

73's

Don, K2PMC

(Editor's note: If you have questions or comments regarding anything from "Up with Antennas", feel free to email Don Niles at: k2pmc@arrl.net.)

HAMFESTS

05/03/2014 [AWA Spring Meet](#)

Location: AWA Museum
6907 Buffalo Road
Bloomfield, NY

Sponsor: Antique Wireless Association

Website: <http://antiquewireless.org>

05/03/2014 [Garden State ARA Hamfest](#)

Location: MOESC
100 Tornillo Way
Tinton Falls, NJ

Sponsor: Garden State Amateur Radio Assoc.

Website: <http://www.gardenstateara.org>

05/04/2014 [Warminster ARC Hamfest](#)

Location: Middletown Grange Fairgrounds
576 Penns Park Road
Wrightstown, PA

Sponsor: Warminster Amateur Radio Club

Website: <http://k3dn.org/hamfest.htm>

05/17/2014 [Ocean-Monmouth ARC Tailgate Hamfest](#)

Location: Infoage Learning Ctr - Proj. Diana Site
2300 Marconi Road
Wall, NJ

Sponsor: Ocean-Monmouth Amateur Radio Club

Website: <http://www.n2mo.org>

05/24/2014 [BARA Spring Hamfest](#)

Location: Westwood Regional High School
701 Ridgewood Road
Township of Washington, NJ

Sponsor: Bergen Amateur Radio Association

Website: <http://www.bara.org>

(control + click on name for full information)



Makers... The Future of Ham Radio

May 16-18 2014

hamvention.org



BERT KANANAUGH WA2CTC – SK

It is with sadness that Brad Feltz, N2DNR, reports that Albert "Bert" Kavanaugh, WA2CTC, has become a silent key. Brad lived in West Seneca, and was a previous member of STARS.

LCD MONITOR AVAILABLE

Raffle tickets will be available at the May 1st meeting for a 17" Gateway LCD monitor; 1 ticket for 1 dollar or 3 tickets for 2 dollars.

Here's your chance to get rid of that CRT monitor!

XYL SAVES THE DAY

The package arrived less than 24 hours after ordering. The package was opened and the new Yaesu FT1DR portable and its accessories were there.

However, later on, when the box with the actual radio was opened, the programming cable was not found.

The wife was told not to empty any garbage cans until all were checked. All locations where the box sat were searched. The box was checked four or five times. The floor was checked. NO CABLE!

Six hours and five trash cans later, the wife was told the cable had not been found. When she was shown the box, and the molded plastic packing tray was lifted (6th time), she said, "What's that in bubble-wrap wedged under the tray?"

It took her only 1 minute to find the missing cable.



NWS SKYWARN TRAINING

Upcoming training is listed in the table below. For more information, and to register for a training session, use this link:

<http://www.erh.noaa.gov/buf/skywarnt.htm>

DATE	TIME	COUNTY	LOCATION	SPONSOR/CONTACT
Tuesday April 29th, 2014	7:00 p.m.	Erie	Buffalo Buffalo State College Classroom Bldg, 4th Floor	Buffalo State Geography Department
Thursday May 1, 2014	7 p.m.	Jefferson	Watertown Glen Park Fire Department 630 Main Street	Jefferson County Emergency Management
Thursday May 1, 2014	7 p.m.	Wayne	Lyons Wayne County Public Safety Bldg 2nd Floor 7376 Route 31 Suite 2000	Wayne County Emergency Management Contact: Gbastedo@co.wayne.ny.us
Wednesday May 21, 2014	7:30 p.m.	Erie	Tonawanda Tonawanda City Hall	ARATS
Friday June 6th, 2014	7:45 p.m.	Monroe	Henrietta Henrietta Fire Company #1 3129 East Henrietta Rd	Rochester Amateur Radio Association

EXAM SITES


05/03/2014 [North Tonawanda](#)

Sponsor: ARA of the Tonawandas
 Location: North Tonawanda Fire Headquarters
 495 Zimmerman Street - Training Rm.
 Time: 9:30 AM (Walk-ins allowed)

05/03/2014 [Jamestown](#)

Sponsor: CARS
 Location: Prendergast Library
 509 Cherry Street 2nd fl conf rm
 Time: 2:00 PM (Walk-ins allowed)

05/14/2014 [Canandaigua](#)

Sponsor: SQUAW Island ARC 
 Location: Ontario Co. Safety Training Facility
 2914 County Road 48
 Time: 6:30 PM (Walk-ins allowed)

05/14/2014 [Niagara Falls](#)


Sponsor: Niagara Radio Club, Inc.
 Location: Venture Forthe, Inc.
 3900 Packard Road
 Time: 6:30 PM (Walk-ins allowed)

05/17/2014 [Hamburg](#)

Sponsor: **STARS**
 Location: Hamburg Youth Center
 200 Prospect Avenue
 Time: 9:00 AM (Walk-ins allowed)



05/17/2014 [Rochester NY](#)

Sponsor: Rochester ARA 
 Location: RIT Gleason Engineering Bldg Rm 3139
 1 Lomb Memorial Drive
 Time: 10:00 AM (Walk-ins allowed)

(control-click on City for more info)



: (no fee charged)

05/18/2014 [Geneseo](#)

Sponsor: Genesee Valley ARA
 Location: Livingston County Government Center
 2 Court Street Rm 205
 Time: 5:30 PM (Walk-ins allowed)

05/27/2014 [Lancaster](#)

Sponsor: Lancaster ARC
 Location: Lancaster ARC- Club House Building
 525 Pavement Road
 Time: 7:00 PM (Walk-ins allowed)

NEW TECH EXAMS

Do you know anyone that has been studying for the technician examination?

If so, you may want to encourage them to test by June 30, 2014. On that date, the current technician examinations will be outdated, as a revised question pool will be featured in new technician examinations.

The new pool may feature questions that have not been part of most study guides. See the following:

<http://ncvec.org/page.php?id=362>

TESTING NEEDS

- Legal photo ID (a driver's license is excellent!)
- Current license and/or CSCE documents, if any, and a non-returnable photocopy of each
- Federal Registration Number (FRN); if none, then Social Security Number (SSN)
- \$15 in cash, check or money order
- Two #2 pencils with erasers, and a pen

[\(more info\)](#)

CONTEST CALENDAR



Start and Finish

Contest Title

Sponsor's Website

May 1, 1300Z - May 1, 1900Z	AGCW QRP/QRP Party	www.agcw.org/
May 1, 1800Z - May 1, 1900Z (CW) &	NRAU 10m Activity Contest	www.nrau.net/activity-contests/below-30mhz.html
May 1, 1900Z - May 1, 2000Z (SSB) &	"	"
May 1, 2000Z - May 1, 2100Z (FM) &	"	"
May 1, 2100Z - May 1, 2200Z (Dig)	"	"
May 2, 0230Z - May 2, 0300Z	NS Weekly Sprint	www.ncccsprint.com
May 3, 1000Z - May 4, 0400Z	2 GHz and Up World Wide Contest	www.ham-radio.com/sbms
May 3, 1000Z - May 3, 1700Z	Microwave Spring Sprint	sites.google.com/site/springvhfupsprints
May 3, 0000Z - May 4, 2400Z	Worldwide EME Contest	www.dubus.org
May 3, 0001Z - May 4, 2359Z	Ten-Ten Spring CW Contest	www.ten-ten.org
May 3, 1200Z - May 3, 2359Z	QRP To The Field	www.zianet.com/qrp
May 3, 1200Z - May 4, 1159Z	ARI International DX Contest	www.ari.it
May 3, 1300Z - May 4, 0700Z	7th Area QSO Party	7qp.org
May 3, 1600Z - May 4, 0400Z	Indiana QSO Party	www.hdxcc.org/ingp
May 3, 1700Z - May 4, 0459Z	Radio Club of America QSO Party	www.radio-club-of-america.org
May 3, 2000Z - See website	New England QSO Party	www.neqp.org
May 4, 1630Z - See website	OK1WC Memorial Contest	www.memorial-ok1wc.cz
May 6, 0200Z - May 6, 0400Z	ARS Spartan Sprint	www.arsqrp.blogspot.com
May 9, 0230Z - May 9, 0300Z	NCCC Sprint Ladder	www.ncccsprint.com/rules.html
May 10, 1200Z - May 11, 1200Z	Alessandro Volta RTTY DX Contest	www.contestvolta.com
May 10, 1200Z - May 11, 2400Z	Armed Forces Comm'ns Test	www.netcom.army.mil/mars
May 10, 1200Z - May 11, 1200Z	CQ-M International DX Contest	www.cq-m.ru/en/rules.html
May 10, 1500Z - May 11, 1500Z	Portuguese Navy Day	http://www.nra.pt/portuguese-navy-day-contest---2014.html
May 10, 1700Z - May 11, 1700Z	Nevada Mustang Roundup	www.nvgsoparty.info
May 10, 1700Z - May 10, 2100Z	FISTS Spring Sprint	www.fists.org/operating.html#sprints
May 10, 2300Z - May 11, 0300Z	50 MHz Spring Sprint	sites.google.com/site/springvhfupsprints
May 11, 1200Z - May 12, 2359Z	Straight Key Weekend Sprintathon	www.skccgroup.com
May 14, 1300Z - See website	CWops Monthly Mini-CWT Tests	www.cwops.org/cwt.html
May 17, 0800Z - May 17, 1500Z	Portuguese Navy Day	http://www.nra.pt/portuguese-navy-day-contest---2014.html
May 17, 1200Z - May 18, 1200Z	His Majesty King of Spain Contest	concursos.ure.es/en
May 17, 1200Z - May 18, 1200Z	EU PSK DX Contest	http://eu.srars.org/
May 17, 1600Z - See website	Feld-Hell Hamvention Sprint	www.feldhellclub.org
May 17, 2100Z - May 18, 0200Z	Baltic Contest	www.lrsf.lt/bcontest/english/rules_html.htm
May 18, 1000Z - May 18, 1400Z	Worked All Britain	wab.intermip.net
May 19, 0200Z - May 19, 0400Z	Run For the Bacon	www.fqgrp.org
May 22, 0030Z - May 22, 0230Z	NAQCC Monthly QRP Sprint	naqcc.info
May 23, 0230Z - May 23, 0300Z	NCCC Sprint Ladder	www.ncccsprint.com/rules.html
May 24, 0000Z - May 25, 2400Z	Worldwide EME Contest	www.dubus.org
May 24, 0000Z - May 25, 2359Z	CQ WW WPX Contest	www.cqwp.com
May 24, 2100Z - May 25, 0200Z	Baltic Contest	www.lrsf.lt/bcontest/english/rules_html.htm
May 25, 1300Z - May 25, 1600Z	SARL Digital Contest	www.sarl.org.za/
May 26, 0000Z - May 26, 0400Z	QRP ARCI Hoot Owl Sprint	www.qrparci.org/contests
May 26, 2300Z - May 27, 0300Z	MI QRP Memorial Day CW Sprint	www.miqrp.org
May 30, 0230Z - May 30, 0300Z	NCCC Sprint Ladder	www.ncccsprint.com/rules.html
May 31, 0000Z - Jun 1, 2400Z	Worldwide EME Contest	www.dubus.org
May 31, 0000Z - May 31, 2400Z	Full Day of Hell Feld-Hell Contest	www.feldhellclub.org




(Control + click to activate a link)

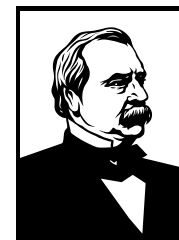
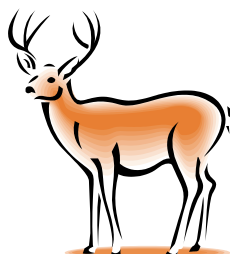


For more information on contests: <http://www.arrl.org/contest-calendar>

SPECIAL EVENT STATIONS

Full information at: <http://www.arrl.org/special-event-stations>

05/02/2014	3 Days on 3 New Islands for US Islands Awards Program	
05/02/2014	Thunder Base 2014 Boy Scouts of America Simon Kenton Council Camporee	
05/03/2014	3rd Annual 2010 Nashville Flood Commemorative Special Event Station	
05/03/2014	72 Rag Chew 10th Anniversary	
05/03/2014	Oklahoma Gas and Steam Engine Show	
05/03/2014	Titan Missile Museum Special Event	
05/03/2014	Toad Suck Daze Special Event Station	
05/04/2014	60th Anniversary of the Order of Boiled Owls of New York	
05/08/2014	1869 Transcontinental Railroad Golden Spike Commemoration	
05/10/2014	Bangor Train Day	
05/10/2014	Commemorating Daniel Boone's Pathway to Kentucky	
05/10/2014	MARS and Amateur Radio Crossband Test	
05/10/2014	National Train Day	
05/15/2014	30 Meter Mobile Beacon	
05/17/2014	BucksJam14	
05/17/2014	Hudson Valley Council Camporall 2014	
05/17/2014	Kansas Armed Forces Day	
05/17/2014	Scouting 500 Extravaganza	
05/17/2014	The American Airpower Museum	
05/18/2014	Saltram Shutter Telegraph -- over 200 yrs	
05/19/2014	Indy 500 Special Event	
05/20/2014	Charles Lindbergh Crosses the Atlantic	
05/23/2014	We're 4 Mules - Bishop CA Mule Days Celebration	
05/24/2014	Honoring Veterans for Memorial Day	
05/24/2014	Memorial Day At Veteran's Memorial Center Merritt Island Florida	
05/24/2014	President Grover Cleveland Birthplace	
05/25/2014	Relay For Life Miller County Missouri	
05/25/2014	WBCCI Region 4 Rally	
05/27/2014	Texas Star Party	
05/31/2014	Breeze Shooters 62nd Anniversary	



USEFUL INTERNET LINKS

(control + click to use link)

ARRL MAIN SITE:

<http://www.arrl.org/home>

ARRL ATLANTIC DIV.:

<http://www.atldiv.org>

CONTESTS:

<http://www.arrl.org/contest-calendar>

<http://www.hornucopia.com/contestcal/perpetualcal.php>

HAMFESTS:

<http://www.arrl.org/hamfests-and-conventions-calendar>

STARS REFLECTOR:

<http://groups.yahoo.com/group/STARS-WB2ELW/>

TELSTAR EDITOR:

wb2elw@verizon.net