telstar



THE NEWSLETTER OF STARS (SOUTHTOWNS AMATEUR RADIO SOCIETY)

APRIL 2011

COMMUNITY EMERGENCY RESPONSE TEAM - CERT

The Community Emergency Response Team (CERT) Program educates people about disaster preparedness for hazards that may impact



their area and trains them in basic disaster response skills, such as fire safety, light search and rescue, team organization, and disaster medical operations. Using the training learned in the classroom and during exercises, CERT members can assist others in their neighborhood or workplace following an event when professional responders are not immediately available to help. CERT members also are encouraged to support emergency response agencies by taking a more active role in emergency preparedness projects in their community.

The Community Emergency Response Team concept was developed and implemented by the Los Angeles City Fire Department (LAFD) in 1985. The Whittier Narrows earthquake in 1987 underscored the areawide threat of a major disaster in California. Further, it confirmed the need for training civilians to meet their immediate needs. The training program that LAFD initiated makes good sense and furthers the process of citizens understanding their responsibility in preparing for disaster. It also increases their ability to safely help themselves, their family and their neighbors. The Federal Emergency Management Agency (FEMA) recognizes the importance of preparing citizens. The Emergency Management Institute (EMI) and the National Fire Academy adopted and expanded the CERT materials believing them applicable to all hazards.

Come out to this month's meeting and learn how you can be involved.

APRIL MEETING

This month's club meeting will begin at 7:00 PM on Thursday April 1 at the Hamburg Youth Center, corner of Hawkins and Prospect Streets.

We'll start the meeting with a presentation from John Gullo KC2WSB, Town of West Seneca Disaster Coordinator. John will tell us about CERT (Community Emergency Response Team)—how to get involved and how amateur radio can partner with CERT.



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

Hope to see you there!

HAPPY APRIL BIRTHDAY!

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KB2JDB Joe Claus K2PMC Don Niles N2ING Ed Patton



Don't forget...we're still looking for a Field Day Chairperson (or Co-Chairpersons if we have more than one volunteer!)

2011 CLUB OFFICERS

President:	Wayne Carpus W2ZDP
Vice President:	Scott Barto KB2KOL
Treasurer:	Don Niles K2PMC
Secretary:	Keith Patterson KC2DGC
Financial Secretary:	Judy Levan N2TEZ
Director:	Ken Pokigo KC2AYK
Director:	Jon Hall KC2QKB

Clubhouse Chair: Telstar Editor: Webmaster: Don Niles K2PMC Judy Levan N2TEZ Marc Fruth N2UBT

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.

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

STARS 2m Sunday morning Net at 10:30AM on the STARS Repeater 147.090



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

CONDOLENCES

...to Conrad Barrick KC2WRY on the passing of his wife Linda. The thoughts and prayers of STARS are with Conrad and his family.

SUCCESSFUL VE SESSION

STARS held a VE Test Session on Saturday March 19th at the Hamburg Youth Center. The session was led by John KB2VWC with VEs Scott KB2KOL, Jim N2TFA and Judy N2TEZ.

Congratulations to John Dlugosz KC2ZXV on earning his Technician license! As provided by our by-laws, Joe becomes a non-voting Associate member of STARS for 2011. Welcome to STARS, Joe!

The next STARS VE session is scheduled for May 121st. For more information, or to register for the test, contact John Crawford KB2VWC 649-5933.

AMATEUR EXTRA CLASS TEST QUESTION DELETED

Due to the FCC revising the rules concerning Spread Spectrum, the Question Pool Committee of the National Council of Volunteer Examiner Coordinators has decided to delete a question from the Amateur Extra class question pool. According to QPC Chair Rol Anders, K3RA, when the Spread Spectrum rule change goes into effect, the answer to question E1F13 in the Amateur Extra class question pool will no longer be correct.

In March 2011, the FCC eliminated the requirement that amateur stations transmitting Spread Spectrum use Automatic Power Control (APC) to reduce transmitter power. At the same time, the Commission reduced the maximum power of a Spread Spectrum emission from 100 to 10 W PEP.

The current Amateur Extra class question pool is effective through June 30, 2012.

STARS TECH PROJECT #1 PC sound card interface

by Ken Pokigo, KC2AYK

Have an interest in Amateur radio digital communication modes? You can build your own interface to use a personal computer to operate your rig using digital modulation modes like, RTTY, PSK31, Olivia MSFK and SSTV. Join our project group and work together with others to learn about these modes. We will be building our own inexpensive sound card interface devices. These will allow you to use your rig with a PC and operate various digital modes using software. There are various freeware programs available, which you can obtain and then quickly be able to begin to have fun with your interface.

At the March meeting we briefly introduced this topic. We are getting some interest and our plan is to begin project meeting times where everyone interested can work together and learn more about these exciting digital operating modes. We will plan times where we can agree to meet, most likely at the STARS clubhouse. The cost of materials for this project will be minimal. We will discuss further details at the April club meeting. (Another reason to come on out!)

During the technical sessions, the first thing we will be doing is discussing the theory of operation and circuit design. Next we will each build the interface. If you haven't done something like this before, it will be a great experience to begin to learn basic circuit theory, electronics components, assembly and soldering. It can be a very rewarding experience when you complete your interface and begin to use it. That's the last part. We will spend time getting the interfaces working and learn to utilize the Amateur operator software to begin communicating with various stations.

Our hope is that we can get several people operating in these modes so that we can all share the fun experience together. We can experiment in the various radio bands such as VHF, UHF and HF to learn more about the capabilities when using each.

How will it work?

The basic way the interface will work is by connecting the transceiver to a personal computer. This can be a desktop or laptop type. The radio's microphone and speaker audio lines are connected to a computer's sound card. And the transceiver is operated in SSB voice mode. Software decodes the receiver audio from the radio and then generates transmit audio to the radio. The PC's sound card is used as a modem, a term defined as "modulator" and "demodulator". In short, it converts digital ones and zeros to sound tones and in reverse, sound tones to digital levels.



What's in the interface?

The interface is an electronic circuit that handles the level conversion of the sound tones such that they can be properly generated when sent to the transmitter, and when received they can be properly decoded by the computer. The circuit will also provide proper isolation to achieve clean signals as well as reject noise and spurious frequencies. In order for the software to control the switching of the radio from RX to TX, the interface must control radio to key the

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transmitter. This is sometimes done using the parallel port of the PC and another connecting cable to the radio's the PTT feature. Our interface will be much more sophisticated and utilize VOX (voice activated switching). This will eliminate the need to use the parallel port of the PC.

Using VOX-based transmit in this board's design makes interfacing it to the radio much easier.

How will the interface connect?

The simple diagram at right shows how the interface will connect to the PC..

The audio from the receiver will be interfaced to the PC sound card microphone input and the sound card speaker or line out will be interfaced to the radio microphone audio input. The interface device will use a VOX circuit to key up the radio into the transmit mode when necessary.

Summary

This article only provides a brief introduction to this project and the theory of operation for the interface device. Why don't you join us to learn more about this and how to operate using some of the digital modes that many Amateurs are enjoying throughout the world everyday? You can learn about how to build this device and then be rewarded by actually using it to open a whole new world of Amateur Radio communications enjoyment!

NIST TO CONDUCT SURVEY

The National Institute of Standards and Technology's (NIST) Time and Frequency Division is conducting a survey (www.tf.nist.gov/survey) to learn more about its users, seeking to determine how the agency can make its services more useful in the future. NIST services include <u>WWV</u>, <u>WWVH</u> and <u>WWVB</u>, which provide reference time and frequency signals via radio. The NIST also provides the Internet Time Service -- which provides accurate time synchronization to computer systems -- and several other services to offer accurate time information via telephone or web pages. Radio amateurs are encouraged to complete the survey.

"If you use any of these services, we want to hear from you," said WWVH Electronic Technician Dean Takamatsu. "The survey should take just a few minutes to complete and your input will be greatly appreciated."

WWV and WWVB in Fort Collins, Colorado, along with WWVH on Kauai, Hawaii, broadcast continuous time and frequency information to millions of listeners worldwide. Information broadcast includes time announcements, standard time intervals, standard frequencies, UT1 time corrections, a BCD time code, geophysical alerts, marine storm warnings and Global Positioning System status reports.

STARS SURVEY RESULTS

By Scott Barto KB2KOL

After two month's of data collection on Survey Monkey, the results of the STARS survey are in...sort of! I wish that I could report an overwhelming response to the survey, but unfortunately we only received 23 responses, the approximate number of members that show up to the general membership meetings. And that number includes the seven board of directors. Although it is not a guarantee, it seems pretty certain that the members responding

are the ones that are already at the meetings. We are still unsuccessfully reaching out to the "paper members" trying to figure out what would draw them back into active club participation. So before I present the results of the survey, I need to ask you: what have you done lately to try to increase attendance or participation at STARS meetings or events? Have you called a friend of yours who has not been to a meeting in a while and encouraged him/her to attend? Have you e-mailed that long-lost ham friend who you have not had an eyeball QSO with in years? If not, try it! In our great hobby, enthusiasm breeds enthusiasm. So get excited about some aspect of the hobby and you will draw someone else in. And now for the results...

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When thinking about club activities and programs, please rate those listed below by your interest level...

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For the preceding twelve "questions", the chart at right shows the average rating value for each one... Ham Related Software Balloon Launch Mobile Ham Gear Installation Setting Up Your Shack Satellite Communications Fox Hunts Antenna Building Equipment Testing/Checkups Kit Building Repeater Use Emergency Communications RTTY, PSK31, Other digital modes

And for the answers to question #10, stay tuned to next month's TelSTAR where we will print all of the soapbox comments to the question:

Anything else you would like to share? If you do not regularly attend meetings, is there a better day/night?, etc. Get on the soapbox.

