



ARES COMMUNICATOR

Information for Scott County Amateurs



September, 2009

Accurate, Reliable Emergency Communications

Volume 9, Number 9

SACS Marathon

Saturday October 3rd

Scott ARES will provide communications support for the SACS, Shakopee Area Catholic Schools, marathon on Saturday October 3, 2009. ARES members will meet at the main entrance on the east side of the school at 7:30 am for a brief meeting. The event begins with walkers / bikers / joggers on the course at 8:00 am.

The marathoners follow a route through the residential area surrounding the school.

ARES volunteers provide the eyes and ears on the marathon route to alert the organizers of potential problems and assist in locating lost parents.

Since 1974, Marathon events have given students, school families, faculty member and others an opportunity to show their school pride while generating important financial support for school programs. With fun events and service projects, the Marathon has served communities while supporting nonpublic education.



The first MARATHON for Nonpublic Education originated in the Twin Cities when over 1200 participants collected about \$2500. It was so successful that the Twin Cities Federation of Home and School Associations declared the MARATHON an annual event, and the Minnesota MARATHON for Nonpublic Education, Inc., was formed. To date the MARATHON has generated over \$75 million of revenue for Nonpublic Education!

BREAK - OVER

FUNcube Announced

Satellite Targets Students

AMSAT-UK has announced a new amateur satellite project — FUNcube <www.funcube.org.uk/> — an educational single cubesat project that features a 435-145 MHz linear transponder for SSB/CW operation. According to AMSAT-UK, the goal of FUNcube is to “enthuse and educate” young people about radio, space, physics and electronics. “The idea of FUNcube is to combine an educational project to excite young people with a simple linear transponder for radio amateurs to use with either legacy modes like CW and SSB, or, still to come, digital ones,” said IARU Region 1 Satellite Coordinator Graham Shirville, G3VZV.

FUNcube’s target audience consists of primary and secondary school students. The new satellite will feature a 145 MHz telemetry beacon that will provide a strong signal for the pupils to receive. “A simple receiver board is being developed,” Shirville explained. “This can be connected to the USB port of a laptop to display telemetry in a fun way for the kids to learn. FUNcube will contain a materials

FUNcube *cont'd on page 2*

ARES Activities

Weekly Net Monday 7 PM 146.535 mhz (s)

Breakfast Saturday, September 12th

Digital Monday September 14th

Shakopee Marathon October 3rd

SELECTED TRAFFIC NETS

Designator	Freq.	Local Times	
MN Phone	3.860Mhz	Noon, 5:30pm	Daily
MN CW	3.605Mhz	6:30pm, 9:50pm	Daily
ARES			
Scott ARES	146.535 S	7:00pm	Monday
Carver ARES	147.165+	8:30pm	Sunday
Bloomington	147.090+	9:00pm	Sunday
Neighboring Nets			
North Dakota	3.937Mhz	6:30pm	Daily
South Dakota	3.870Mhz	6:00pm	Daily
Wisconsin	3.985Mhz	5:30pm	Daily

The ARES COMMUNICATOR is published for the benefit of Amateur Radio Operators in Scott County and other interested individuals.

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Time to Check Your Driving Habits

According to a recent survey, the ten most common bad driving habits are:

- Inattentive driving
- Speeding
- Failure to use turn indicators
- Illegal and inconsiderate parking
- Driving too close to the vehicle in front
- Poor lane discipline on roadways – drive in the right lane; the left lane is for passing
- Failure to use low beam lights in poor visibility conditions
- Ignoring traffic signals
- Inconsiderate passing
- General aggression while driving

Are you guilty of any of these bad habits? If so, it's time to work on becoming a safer driver

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FUNcube - cont'd from page 1

science experiment, from which the school students can receive telemetry data that they can compare to the results they obtained from similar reference experiments in the classroom." FUNcube is the first cubesat designed to benefit this age group and is expected to be the first British cubesat to reach space.

According to Shirville, FUNcube would be launched into a Sun Synchronous Low Earth Orbit (about 600-700 km above the Earth) using one of the many launch opportunities that exist for cubesat missions. According to QST Editor and satellite expert Steve Ford, WB8IMY, since FUNcube will be in a low orbit, amateurs from all around the world, including North America, should be able to access it.

FUNcube will carry a UHF-to-VHF linear transponder that will have up to 1 W and that can be used by radio amateurs worldwide for SSB and CW communications. Measuring just 10x10x10 cm and with a mass of less than 1 kg, it will be the smallest ever satellite to carry a linear transponder. The choice of frequencies will enable radio amateurs to use their existing VO-52 or DO-64 station.

A key feature of the satellite is the absence of an on-board computer. For reliability and maximum power efficiency, Shirville explained that the design has been kept as "straight-forward as possible," with satellite control being achieved using simple commands.

Shirville said the project should take less than a year to build: "Then we need to find a cubesat launch opportunity. We believe that this is an achievable mission with a relatively short timescale." ARRL Letter vol. 28 no. 30

BREAK - OVER



September 7, 2009

SPACE SHUTTLE DISCOVERY

Three Hams On Board

The launch of the Space Shuttle Discovery (STS 128) last Saturday was delayed by a problem with the shuttle's fill and drain valves. NASA technicians found problems with Discovery which launched carrying a crew of seven astronauts, including three radio amateurs.

Commanded by Frederick W. "Rick" Sturckow and piloted by Kevin A. Ford, Discovery is on a 13 day mission to deliver more than 7 tons of supplies, science racks and equipment, as well as

additional environmental hardware to sustain six crew members on the International Space Station (ISS). The shuttle also has a crew of five Mission Specialists: Jose Hernandez, KE5DAV; Nicole Stott, KE5GJN; Christer Fuglesang, SA0AFS/KE5CGR; Patrick G. Forrester, and John D."Danny" Olivas.

When Discovery undocks from the ISS, Stott will be left behind in the orbital

outpost. Timothy Kopra, KE5UDN — who has been on the ISS since July — will return to Earth on the shuttle.

Kopra's departure and Stott's arrival makes for six astronauts on board the ISS, and all but one are licensed radio amateurs: Commander Gennady Padalka, RN3DT; Flight Engineer Michael Barratt, KD5MIJ; Flight Engineer Frank DeWinne, ON1DWN; Flight Engineer Robert Thirsk, VA3CSA, and Flight Engineer Roman Romanenko.

Stott, KE5UDN, — who holds a BS in aeronautical engineering from Embry-Riddle Aeronautical University and a master's degree in engineering management from the University of Central Florida — joined NASA in 1988 as an Operations Engineer in the Orbiter Processing Facility (OPF) at the Kennedy Space Center (KSC) in Florida. In 1998, she joined the Johnson Space Center team in Houston as a member of the NASA Aircraft Operations Division, where she served as a Flight Simulation Engineer on the Shuttle Training Aircraft. Stott reported for astronaut



candidate training in September 2000.

In a NASA pre-flight interview, Stott said her primary responsibility on the ISS will be "to maintain the U.S. systems as well as the payloads that are on the US side, and that also includes the Japanese Experiment Module and the Columbus experiment module."

STS-128 marks the first spaceflight for Hernandez, KE5DAV, a native of Stockton, California. Selected as a NASA astronaut in 2004, he completed his initial training in February 2006. While on Discovery, he is slated to perform robotic operations to inspect Discovery after launch and assist with cargo transfer from the shuttle to ISS. Hernandez holds a BSEE in electrical engineering from the University of the Pacific and a master's degree in electrical and computer engineering from the University of California Santa Barbara.

Fuglesang, SA0AFS/KE5CGR, from Sweden, is an astronaut with the European Space Agency (ESA); he flew as a mission specialist and conducted three spacewalks on STS-116 in 2006. He was selected to join the ESA astronaut corps in 1992 and began training at NASA's Johnson Space Center in Houston in 1996. Fuglesang has a master's degree in engineering physics from the Royal Institute of Technology and a PhD in experimental particle physics from the University of Stockholm.

BREAK - OVER

Remembering 11 September 11



PATRIOT DAY

Sept. 11, 2009

HPM/140 Birthday Celebration

Special Event in September

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 cofounder. 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). The complete list of eligible positions can be found on page 20 of the September 2009 issue of *QST*. 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(I) 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.

Miscellaneous: /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, but please be considerate of the users during a repeater's busy periods. All /140 stations are encouraged to be as active as possible on local repeaters and nets. The certificate is available for making at least 25 contacts with /140 stations, with endorsement increments of 25, and a maximum endorsement of 100. To receive the award, send in a log extract with the date, time, band, call sign worked and exchange for each /140 contact. Include your

name, call sign and address, and tell us how many /140 stations you worked. Mail everything to HPM/140 Celebration, c/o W1AW, 225 Main St, Newington, CT 06111-1494. You can also send in your entry on a disk or CD in regular text format. All entries must be accompanied by a check or money order for \$5 (US) payable to ARRL. Please make sure your entry is postmarked by October 9, 2009.



HPM (right)—in 1915 and then in his mid 40s—and an unidentified operator at Maxim's 12M rotary spark gap station in Hartford, Connecticut. Maxim's personal setup also served as the first ARRL Headquarters station. "The receiving station outfit consists of a large loose coupler by means of which I can get very accurate tuning, an Audion Detector and variable condenser," he said. "The two sets of phones are usually connected in. The Transmitting sets consists of a 1 K. W. specially made transformer, glass plate condenser, oscillation transformer, ¼ H. P. General Electric Company motor running specially built quenched rotary spark-gap." [Courtesy John Dilks, K2TQN]



AMERICAN
RADIO
RELAY
LEAGUE

The National Organization
for Amateur Radio



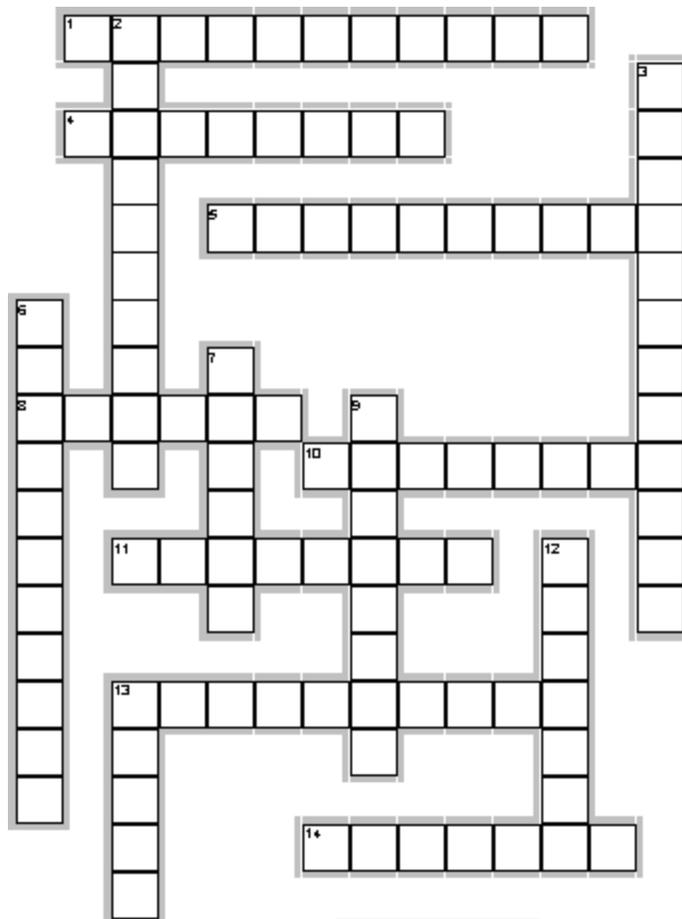
Across

1. Building where you check out the prize-winning produce.
4. Here we go 'round and 'round.
5. A great place to watch Dan Patch race.
8. Where the rides are!
10. Let's see if that big Exo lucius is back this year.
11. Showy equine venue.
13. A high altitude view of the area.

14. house that promises a spooky show.

Down

2. Wheel! A bumpy ride top to bottom.
3. The spot to cure hunger.
6. Nomad's temporary home.
7. barn called the hamburger hotel.
9. Not your everyday art - the "good" stuff.
12. Overhead voyage from Underwood St. to the midway.
13. Barn for the bacon.



August Crossword Solution

Basic Terms

Across

1. TACTICAL—A type of callsign used to identify a location or function during local emergency operations.
6. AMPLITUDE—A modulation method where the voice information can vary the amplitude of the RF carrier.
9. FILTER—A circuit that allows some signals to pass through it but greatly reduces the strength of others.
11. HARMONICS—Signals from a transmitter or oscillator occurring on whole-number multiples of the desired frequency.
12. TICKET—A common name for an Amateur Radio license.
13. OPEN—A type of repeater used by all hams who have a license that authorizes operation on the repeater frequency.
14. BATTERY—A device that converts chemical energy into electrical energy.



Down

2. AMATEUROPERATOR—A person holding a written authorization to be the control operator of an amateur station.
3. FEEDLINE—The wire or cable used to connect a transmitter, receiver, or transceiver to an antenna.
4. PECUNIARY—Payment of any type, whether money or other goods. Amateurs may not operate their stations for any _____.
5. LIMITER—A stage of an FM receiver that makes the receiver less sensitive to amplitude variations and pulse noise.
7. SELECTIVITY—The ability of a receiver to separate two closely spaced signals.
8. DREGION—The lowest region of the ionosphere.
10. EMISSION—The transmitted signal from an amateur station.

PM for PCs

Fall Clean-up for Your Computer

Although they continue to drop in price, workplace personal computers (PCs) are still a valuable and important investment for many peoples. As with any other piece of equipment, the life of a PC can be extended and the frequency of repairs reduced by taking the time to perform some basic maintenance procedures. While not all of us are technically savvy enough to dive into the components inside, there are some basic steps that can be taken by practically anyone.

Keyboards - You can clean a keyboard with a small-blade screwdriver, a can of compressed air (typically available at office supply stores), cotton swabs, and denatured alcohol. First, disconnect the keyboard from the PC. Using the screwdriver, gently pry up the “-”, “+”, and “Enter” keys on the right side of the keyboard. Tilt the keyboard in this direction and use the compressed air to blow in between the remaining keys, moving from left to right. Turn the keyboard over to dump out the debris and replace the keys.

If keys are stuck, try to pry them up gently with the screwdriver and clean the contacts with cotton swabs and denatured alcohol. (Be sure to use denatured alcohol, rather than rubbing alcohol, as it dries with no residue.)

Keys that are dirty can be cleaned with soap and water after prying them off, but be sure they are dry before putting them back on.

Mouse - Turn the mouse over and remove the ball access cover. Check the ball for cracks, pits, gummy deposits, and so on. If needed, replace the ball with a new one from an office supply vendor. Otherwise, clean the ball with a clean, dry cloth. Within the ball housing, carefully clean the rollers with a small-bladed screwdriver, or use a cotton swab with denatured alcohol. When the rollers have dried, replace the ball and its cover.

Monitor - There is little inside the monitor that can be safely cleaned, so all cleaning should be limited to the outside. The case should have dust blown off as much as possible, and the glass can be cleaned with a mild, non-abrasive glass cleaner. Spray the solution on a rag and wipe, rather than spraying directly onto the monitor glass, to reduce the risk of any solution getting inside the monitor. Be sure that nothing ever covers the monitor vents.

Computer Case - If you are comfortable with removing the cover of your computer case, you may want to check for dust and debris inside. If not, you may want to consider having a computer technician do this, possibly on an annual basis.

Make sure the computer is turned off and unplugged, and that you have discharged any static electricity by touching the case around the power supply. You can use a can of compressed air to blow out any dust you find inside, but try to make sure you blow the dust out, not just into the corners of the computer. Be sure to blow out the outside case vents as well. While you are in there, check for any obvious loose wires, screws, and chips.

Other Preventive Maintenance Steps:

- Back up your files regularly—whether through the use of floppy or compact discs, external/removable hard drives, tape backup systems, or Internet sites (such as backup.com).
- Do not plug your computer directly into a wall outlet. Use a surge protector or UPS device.
- Use virus protection software, and make sure that the virus definitions are kept up to date.
- Maintain your hard drive by running Scandisk, Defrag, or equivalent utility programs on a regular basis. You may want to do this as frequently as once a month, if you frequently add or delete files and programs.

BREAK - OVER

LID LIST

lid: noun, an individual who impedes activity in a directed net by using nonstandard procedures.

The Lid List is a collection of words and phrases often used by operators not trained in efficient directed net operation. Don't make these words a part of your operating vocabulary. This list will be updated as needed to include the latest *cool* procedures.

1. One for the count. Stations checking in to a directed training or traffic net are there to participate not to contribute to a total.

2. Recheck. Simply announce your callsign and the prowords OVER to get NECOS's attention. You only check in to a net once. You cannot recheck in to a net.

3. Ten-four, Roger that. Codes, jargon and slang are unprofessional and are not used in emergency communications.

World Cup Station Active

ZS10WCS, South Africa

With World Cup soccer coming to South Africa in 2010, hams in that country will commemorate the event starting in September 2009 with a special call sign: ZS10WCS. According to the South African Radio League (SARL), that country's IARU Member-Society, the call sign will be used in two ways: In the months leading up to the World Cup, to be held June 11-July 11, 2010, and for times during the event itself. SARL is requiring that clubs selected to use ZS10WCS before the event be on the air on weekends, Friday night through Sunday night. Clubs using the special call sign during the World Cup are expected to be on the air each day.

SARL will supply the special event QSL cards, and requests for direct QSLs will be handled by the SARL QSL bureau. Direct QSLs must include a self-addressed envelope and one IRC or US \$1. Amateurs may also QSL via e-mail <wcs@sarl.org.za>, but those hams sending an e-mail QSL will only receive an e-mail QSL in return, and not the commemorative printed QSL.



When the World Cup was in Germany in 2006, 38 different special event stations were on the air to celebrate the event. From May 13-July 16, 26 special district stations (DQ2006A to DQ2006Z) and 12 special stadium stations (such as DR2006B and DR2006C) at the various venues were on the air. The Deutsche Amateur Radio Club (DARC) offered a gold, silver and bronze award for contacting each station; there is no word if SARL will offer an award in 2010.

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Tee It Up For The Troops

Sep 11th National Day of Golf

The 5th Annual National Day of Golf in support of the troops for 2009 will be September 11th.

TEE IT UP FOR THE TROOPS is a 501c(3) non-profit organization established by the family and friends of a soldier serving in the U.S. Army. When the father asked what the son needed he responded by asking his father to do something for the soldiers and families of the fallen and disabled back home. TEE IT UP FOR THE TROOPS, INC, was created to help honor that request, and to honor and recognize the needs of all veterans who have served this nation.



The goal since 2005 is to annually make the Friday closest to September 11th a NATIONAL DAY OF GOLF saluting all those who have answered the call to duty. A day to acknowledge and honor the sacrifice of all military veterans and their families.

In 2008 we partnered with the Fisher House Foundation, America Supports You and the Intrepid Fallen Heroes Fund.

We have received the support of The Club Managers Association of America. Many of these clubs participated with us in 2005, 2006, 2007 and stepped it up even further for 2008. CMAA presented Tee It Up For The Troops with a donation of \$10,000.00 at the 2007 Golf Industry Show in Anaheim California. The Minnesota PGA supports this cause and we hope to have other chapters of the PGA join us in future years.

Check the organization's website for location of participating courses: www.teeitupforthetroops.com BREAK - OVER



ARES Breakfast

Saturday September 12th
7:30AM
Perkins Restaurant
Savage, MN

NECOS Schedule September 2009

7 Sep N0PI Dan
14 Sep W0NFE Bob
21 Sep KB0FH Bob
28 Sep KC0YHH Tony
5 Oct N0PI Dan
12 Oct W0NFE Bob