



ARES COMMUNICATOR

Information for Scott County Amateurs



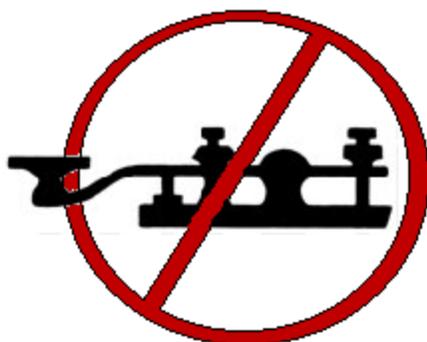
January, 2007

Accurate, Reliable Emergency Communications

Volume 7, Number 1

FCC Drops Morse Code Requirements

The FCC has decided to drop all Morse code testing requirements for the Amateur Radio Service in the United States. This means that Technician and Technician Plus will have identical privileges, and there will be no code exam required for General and Extra Class. Presumably, those who now have General Class theory CSCE's will be allowed to upgrade to General. This change brings the United States into line with many other countries worldwide that have eliminated a Morse requirement. In addition, the FCC affirmed its recent expansion of phone privileges on the 75 meter band.



The current amateur service operator license structure contains three classes of amateur radio operator licenses: Technician Class, General Class, and Amateur Extra Class. General Class and Amateur Extra Class licensees are permitted to operate in Amateur bands below 30 MHz, while the introductory Technician Class licensees are only permitted to operate in bands above 30 MHz. Prior to this action, the FCC, in accordance with international radio regulations, required applicants for General Class and Amateur Extra Class operator licenses to pass a five words-per-minute Morse code examination.

The FCC's action eliminates that requirement for General and Amateur Extra licensees. This change reflects revisions to international radio regulations made at the International Telecommunication Union's 2003 World Radio Conference (WRC-03), which authorized each country to determine whether to require that individuals demonstrate Morse code proficiency in order to qualify for an amateur radio license

with transmitting privileges on frequencies below 30 MHz.

This action also revises the operating privileges for Technician Class licensees by eliminating a disparity in the operating privileges for the Technician Class and Technician Plus Class licensees. Technician Class licensees are authorized operating privileges on all amateur frequencies above 30 MHz. The Technician Plus Class license, which is an operator license class that existed prior the FCC's simplification of the amateur license structure in 1999 and was grandfathered after that time, authorized operating privileges on all amateur frequencies above 30 MHz, as well as frequency segments in four HF bands (below 30 MHz) after the successful completion of a Morse code examination. With today's elimination of the Morse code exam requirements, the FCC concluded that the disparity between the operating privileges of Technician Class licensees and Technician Plus Class licensees should not be retained.

BREAK - OVER



ARES Activities

Weekly Net Monday 7 PM 146.535 mhz (s)
Breakfast Saturday, Jan. 13th

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
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.
EDITOR: Bob Reid, Scott County Emergency Coordinator
Snail Mail: 13600 Princeton Circle
Savage, MN. 55378
E-Mail: NOBHC@aol.com
Phone: Home 952-894-5178 Portable 612-280-9328
Reader submissions encouraged!

ARRL Kids Day

Sunday, January 7, 2007

ARRL Kids Day gives amateur operators a chance to provide youngsters with a fun, hands-on radio experience. The first ARRL Kids Day of the new year takes place is Sunday, January 7, 2007. ARRL Education and Technology Program Coordinator Mark Spencer, WA8SME, offers some Kids Day 2007 thoughts and suggestions on p 45 of December QST. Kids Day begins at 1800 UTC and continues until 2400 UTC. There's no limit on operating time. Suggested exchanges are first name, age, location and favorite color. Suggested frequencies are 14.270 to 14.300 MHz, 21.380 to 21.400 MHz and 28.350 to 28.400 MHz, plus local VHF repeaters with the sponsor's permission. You can find more information about the event on the web at <<http://www.arrl.org/FandES/ead/kd-rules.html>>. Licensees should observe third-party traffic restrictions when making DX contacts. These apply when unlicensed individuals communicate via ham radio.

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Q: How did the Viking army send secret messages?



A: Norse code!!!

Scott County ARES Contacts

Emergency Coordinator
Bob Reid NOBHC
13600 Princeton Circle
Savage, MN 55378
952-894-5178
NOBHC@arrl.net



Asst. Emergency Coordinator
Bob Minor WONFE
5210 West 141st Street
Savage, MN 55378
952-894-2657
WONFE@arrl.net

Asst Emergency Coordinator
Daniel VandeVusse NOPI
5722 West 141st Street
Savage, MN 55378
952-440-1878
NOPI@arrl.net

REVISED BAND PLANS FOR 80/75, 40 AND 15

The ARRL Executive Committee approved revised band plans for 80/75, 40, and 15 meters developed and recommended by the League's Band Planning Committee. ARRL Chief Executive Officer David Sumner, K1ZZ, says the Band Planning Committee "did a commendable job" stepping into the breach caused by the FCC's unexpected 80/75 meter decision in the so-called "omnibus" Report and Order (R&O) in WT Docket 04-140.

"In the case of 80/75 meters, it is an interim plan, subject to change if the FCC acts favorably on our Petition for Reconsideration," Sumner said. The lower edge of the Amateur Extra 75-meter phone band shifted to 3600 kHz as of December 15.

The League wants the FCC to rectify an "unintended consequence" of that expansion by moving the narrowband/wideband boundary on 80/75 meters to 3635 kHz.

ARRL Vice President and Band Planning Committee chair Rick Roderick, K5UR, says his panel considered members' input in developing the changes the committee recommended. He notes that the Committee received nearly 900 comments.

The charts below reflect the old band plan as well as the changes that went into effect December 15.

75/80 MTRS	OLD	NEW
3.590	RTTY DX	RTTY/Data DX
3.580-3.620	RTTY	3.570-3.600: RTTY/Data
3.620-3.635	Packet	Delete
3.790-3.800	DX Window	No change
3.845	SSTV	No change
3.885	AM calling freq	No change

40 MTRS	OLD	NEW
7.040	RTTY DX	RTTY/Data DX
7.080-7.100	RTTY	7.080-7.125: RTTY/Data
7.171	SSTV	No change
7.290	AM calling freq	No change

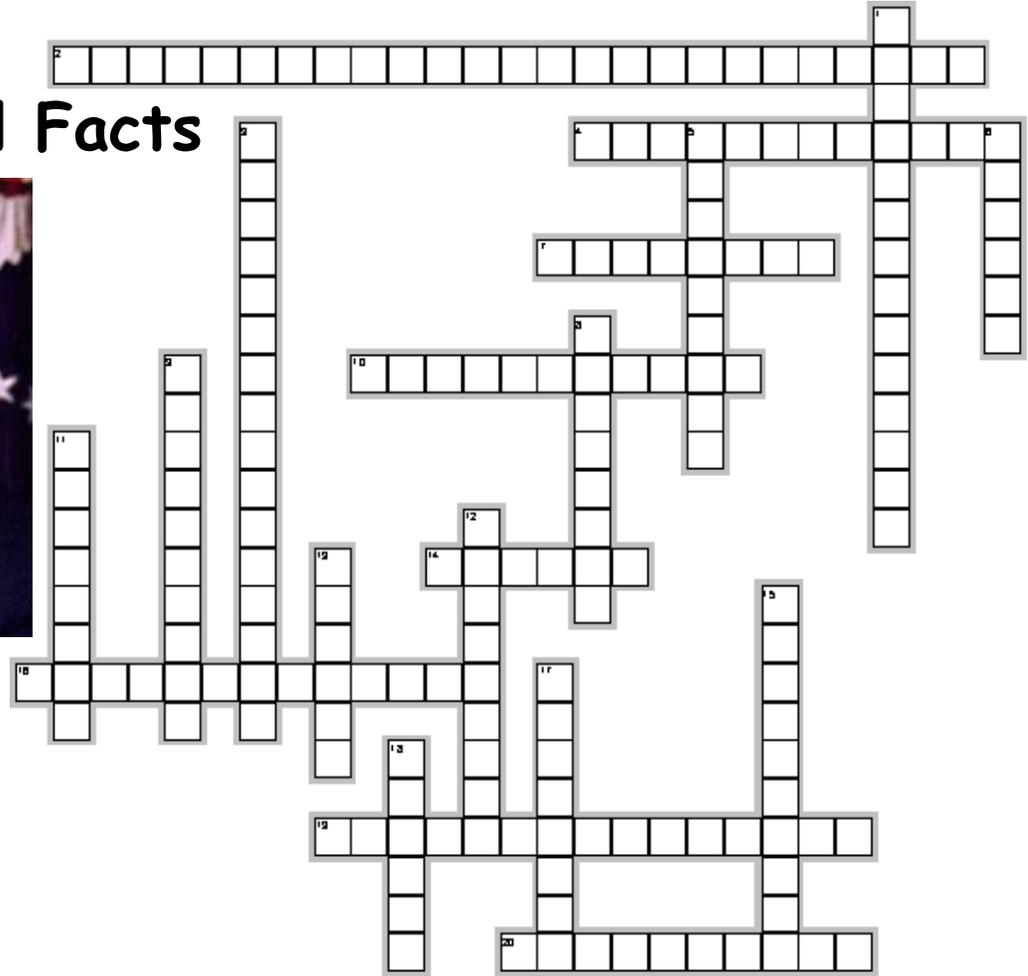
15 MTRS	OLD	NEW
21.070-21.100	RTTY	21.070-21.110: RTTY/Data
21.100-21.110	Packet	21.070-21.110: RTTY/Data
21.340	SSTV	No change

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Presidential Facts



Gerald R. Ford
1913 - 2006
38th President



Across

2. Held these two offices without ever having been elected.
4. Had this facility rebuilt at the White House, because Richard Nixon had it removed.
7. Ford was assigned to this light aircraft carrier during World War II.
10. The Gerald R. Ford Presidential Museum is located in this city.
14. What position, on the University of Michigan football team, did Gerald Ford play?
16. Ford appeared on the cover of this magazine in 1942 along with the woman he was dating at the time.
19. Ford was offered professional football tryouts with the Chicago Bears and this team.
20. First President to earn this Boy Scout rank.

Down

1. Scored a hole-in-one in 1977 at this golf tournament.
3. Studied the assassination of President Kennedy as a member of this group.
5. Gerald Ford was employed part-time as a ?
6. Gerald Ford's last name by birth was King, before he was adopted by his mother's second husband, Gerald Ford Sr. What was Ford's original first name?

8. In May 1975 Ford ordered US forces to rescue the crew of this US merchant ship after it was seized.
9. His daughter, Susan, hosted this event at the White House.
11. The Gerald R. Ford Library is located in this city
12. Sara Jane Moore attempted to assassinate Ford how many days after the attempt by Lynette Fromme?
13. Was head coach of this team at Yale University.
15. "Squeaky" Fromme attempted to assassinate President Ford in this city on September 5, 1975.
17. In what state was Gerald Ford born?
18. Portrays Andy Richards on the soap opera Young and Restless, and is related to Gerald Ford.



2 x 4 Wire Resistance Simplifies Precision Measurements

New Technology from Fluke

Using two wires to measure resistance is convenient, but causes measurement error. You can virtually eliminate this error by using four leads and a multi meter with separate source and measure terminals.

Unfortunately, adding additional leads and connections makes the measurement more complicated. You have additional leads to connect and you may have to swap clips and probes as you change from voltage to resistance. Now a new concept with new technology enables you to take four-wire resistance measurements with just two leads.

Why measure resistance with four wires? Managing two leads can be challenging enough, especially when you are measuring tiny components in tight spaces. But trying to check a small solder joint, flex connector or chip resistor with four leads can be a real trial. Switching lead configurations can lead to swapped banana plugs and measurement mistakes. And changing from voltage probes to Kelvin leads and back takes time. So why measure resistance with four wires?

Using two wires to measure voltage does not seriously impact measurement accuracy. The voltage input on a multimeter generally has a 10 Megohm input impedance, so very little current flows in the leads, and the resulting voltage drop in the leads is negligible. Current measurements are also not significantly affected by series lead resistance. However, resistance measurements are subject to inaccuracies because of lead resistance.

When performing a resistance measurement the multimeter switches a current source into the measurement loop. The current is driven through the unknown resistance and the multimeter measures the resulting voltage drop.

If there are only two leads, as shown in Figure 1. The source current travels on the same path used to measure the voltage drop. The measurement leads are not perfect conductors and have some series resistance of their own. By driving the current through the measurement leads, we see not only the voltage drop across the unknown, but also voltage drop for each lead. Thus, we end up measuring the combined resistance of the positive lead, the unknown, and the negative lead.

If we use four leads, the source current and the measure-

ment can be separated. The meter terminals are called "Source" for the current supply and "Sense" for the voltage input.

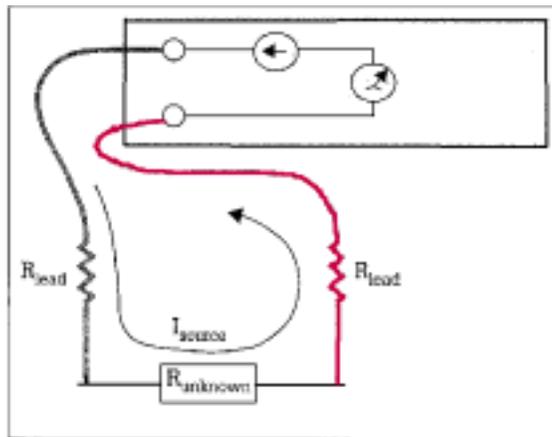


Fig. 1: Two-wire resistance measurements introduce error due to voltage drop in the test leads.

The series resistance in the Source leads does not affect the current flow. And the measure/sense leads have almost no current flow because of the meter's high input impedance. This means there is no $I \times R$ voltage drop in the measure leads. So, we measure only the voltage drop across the unknown resistor due to the source current flowing through it.

A patented new technology from Fluke maintains the convenience of using two leads, but delivers the measurement performance of a 4-wire method.

The new Fluke 8845A and 8846A Precision Multimeters have a special set of input connectors. They are completely compatible with standard 4 mm banana plugs. But on the inside, each jack is split into two contacts: one source and one measure. Specially designed test leads have two conductors per lead, again, one source and one measure. The leads align with the

contacts inside the jacks and carry the separate source and measure signals over the full length of the leads. At the far end of the

leads, clips and probes that maintain separation between source and measure signals can deliver 4-wire performance right to the component under test.

2x4-wire ohms makes it easier to make accurate resistance measurements, without having to change cable configurations and without having to work with a bench full of silicone spaghetti.

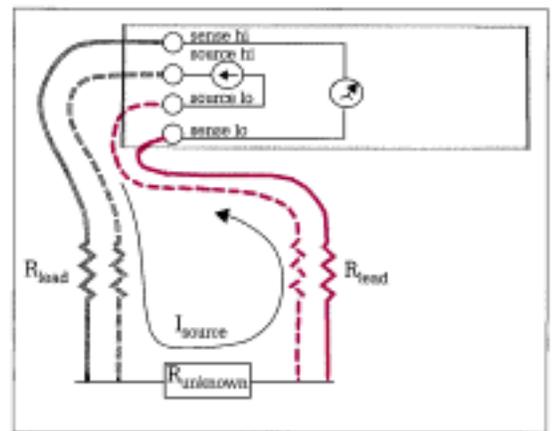


Fig. 2: Four-wire resistance measurements eliminate currents in the leads and eliminate this source of error.

NIMS Knowledge

National Incident Management System

The skills required to be a successful emergency communicator have changed dramatically since the terrorist attacks on September 11, 2001. President Bush directed the Secretary of Homeland Security to develop and administer a National Incident Management System (NIMS) to provide standards for domestic response. This system provides a consistent nationwide template to enable all government, private-sector, and nongovernmental organizations to work together during domestic incidents.

The various components all work together as a system to provide a national framework for preparing for, preventing, responding to, and recovering from domestic incidents. Participating in disaster response without a knowledge of NIMS wastes time which could be used to help recovery activity. As ARES members NIMS fits well with our objectives of Accurate, Rapid communications.

Take the time to visit the training page on www.scottares.org and complete the FEMA ICS700 course, if you haven't already taken the on-line course.

Test Your NIMS Knowledge

Here is a short quiz to see how you stand on NIMS knowledge

1. Fill in the appropriate ICS organizational element that is activated directly for the activities listed below, the organizational elements are listed below.

ICS organizational elements

- A. Incident Command
- B. Information Officer
- C. Safety
- D. Finance/Administration
- E. Logistics
- F. Operations
- G. Planning
- H. Liaison

- _____ Responsible for staging areas
- _____ Provide Support and Services to meet incident needs
- _____ Set objectives and priorities
- _____ Collects and evaluates information, maintain status
- _____ Prepares information releases
- _____ Monitor cost, provide accounting, procurement and time recording services
- _____ Develops measures for the safety of all personnel
- _____ Conduct tactical operations, develop tactical objects, and direct all tactical resources.
- _____ Primary contact for agency representatives

2. The ability to communicate within the Incident Command System (ICS) is absolutely critical. To ensure efficient, clear communications, ICS requires the use of

- A. Agency-specific codes
- B. Common terminology
- C. Radio codes
- D. Technical language

3. One of the basic Incident Command System (ICS) principles is that the first Incident Commander is responsible until the:

- A. Five management functions are activated (Operations, Logistics, Finance, Administration, Planning).
- B. Next operational period has begun
- C. Event or incident is demobilized
- D. Authority is delegated to another person

4. The ability to communicate within ICS is absolutely critical. To ensure efficient, clear communications, ICS requires the use of:

- A. Agency-specific codes.
- B. Common terminology.
- C. Radio codes.
- D. Technical language.

Answers in next month's newsletter.

Bumper sticker of the year:

"If you can read this, thank a teacher - and, since it's in English, thank a soldier"

Get Your NIMS Answers Here

Training requirement for emergency communications volunteers are constantly changing. The following FEMA on-line courses are required for ARES members working with any government served agency.

The four on-line self-study courses are;
IS-100 Introduction to Incident Command System,
IS-200.FW Basic Incident Command System
IS-700 National Incident Management System (NIMS)
IS-800.A National Response Plan (NRP)

The address for the FEMA courses is: <http://training.fema.gov/EMIWeb/IS/crslist.asp>. When you complete the course, send the documentation to Bob Reid, NOBHC, Scott County E.C..

The East-West Shrine Game is All About Kids!

Jan. 20,2007 11:00 am kickoff

The East-West Shrine Game has never been “just another football game”. The Shrine Game is the Premier All-Star Game in America, and has a long history of distinguished players and coaches in the Game.

But that’s not what makes it “Football’s Finest Hour.” What makes the Shrine Game so special is its true purpose - helping to support Shriners Hospitals for Children. Every year since 1925, the Shrine Game has been played to raise money and to help make the public aware of the expert orthopedic and burn care available, at NO cost, at all 22 Shriners Hospitals for Children.

The Shriners hospital serving the upper Midwest is located in the Twin Cities. You can contact the hospital at Shriners Hospitals for Children-Twin Cities , 2025 East River Parkway, Minneapolis, MN 55414, Telephone 612-596-6100

To date, the game has raised more than \$14 million for Shriners Hospitals and has helped inform millions of people about the mission of this extraordinary philanthropy. The Shrine represents many things: good times, camaraderie, and tradition. But what really binds together the more than 500,000 Shriners nationwide is an attitude of caring. The late President Gerald R. Ford was a Shriner and a Mason.

President Ford’s personal opinions about Freemasonry can be found preserved in a speech he gave at the Unveiling Ceremony at the George Washington Masonic National Memorial, Alexandria, Virginia, February 17th, 1975: “When I took my obligation as a master mason—incidentally, with my three younger brothers—I recalled the value my own father attached to that order. But I had no idea that I would ever be added to the company of the Father of our Country and 12 other members of the order who also served as Presidents of the United States. Masonic principles—internal, not external—and our order’s vision of duty to country and acceptance of God as a Supreme Being and guiding light have sustained me during my years of Government service. Today especially, the guidelines by which I strive to become an upright man in Masonry give me great personal strength. Masonic precepts can help

America retain our inspiring aspirations while adapting to a new age. It is apparent to me that the Supreme Architect has set out the duties each of us has to perform, and I have trusted in His will with the knowledge that my trust is well-founded”

You will see some of the premier college players, many playing their last game as amateurs. Here are some facts about the East-West Shrine Game Alumni in the NFL;

- * Over 50 alumni in the NFL Hall of Fame in Canton, OH
- * 55 of 103 players from the 81st Game were drafted in the 2006 April draft, 40 players were signed as free agents

- * 41 players from the 81st Game made 2006 opening day 53-man rosters, 24 more were signed to practice squads and 5 were put on injured reserve
- * 16 players in the XL Super Bowl on the rosters of Pittsburgh and Seattle
- * 17 players on the 2006 Pro Bowl rosters
- * The Minnesota Vikings have 9 alumni on the team.



May you have the hindsight to know where you've been, the foresight to know where you're going, and the insight to know when you've gone too far.



ARES Breakfast
Saturday January 13th
7:30AM
Perkins Restaurant
Savage, MN

NECOS Schedule - January, 2007

1 Jan	Holiday
8 Jan	WONFE Bob
15 Jan	KB0FH Bob
22 Jan	AB0YQ Steve
29 Jan	K0KTW Pat
5 Feb	N0PI Dan
12 Feb	WONFE Bob