



# ARES COMMUNICATOR

## Information for Scott County Amateurs



March, 2009

Accurate, Reliable Emergency Communications

Volume 9, Number 3

### County Immunization Effort Successful

#### Scott ARES Supplements Communications

*“Scott county public health professionals implemented their public immunization plan in response to a bioterrorism incident during the St Paul Winter Carnival events. Amateur radio operators, members of Scott ARES, assisted with communications for the clinics. ARES operators utilized error-free digital communications to assist with coordination between the eight immunization clinic sites within Scott County.”*

This was the scenario for the Cabin Fever ‘09 emergency communications exercise held in late February.

ARES members formed a directed communications net on a Saturday morning and practiced communications procedures and used a new digital communications tool.

The exercise tested the ARES group’s skill in using the Narrow Band Emergency Messaging System, NBEMS, in a simulated emergency. The NBEMS mixes computer soundcard digital modes with e-mail based messages.

The exercise started with a test of the Scott ARES groups Activation Plan using a telephone tree. The operators then fired up their radios and checked in to a Resource Net where they received initial instructions. The stations were assigned a tactical callsign associated with an exercise clinic site within the county. Next the operators went to the Scott ARES website ([www.scottares.org](http://www.scottares.org)) where they downloaded the specific exercise scenario for their exercise location.

The stations all dealt with issues at their site such as vaccine shortages, questions from the public, traffic problems, and other special incidents.

The after action review of the exercise revealed several areas that will be the basis for training for the coming weeks. The participants agreed that the chance to test their skills and equipment was fun and are planning on how to improve their individual skills for the next exercise.

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

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### Up Close and Personal:

#### ARES Op Provides Sayre Ca. Fire Comms

When I set up a portable Amateur Radio station at Olive View Medical Center as part of the Great Southern California ShakeOut preparedness exercise, November 13-18, 2008, I had *no* idea that I would be back there less than 48 hours later under very different circumstances.

Around 3 AM on Saturday morning following the ShakeOut, I received an urgent telephone call from ARES Northwest District Emergency Coordinator Dave Greenhut, N6HD, that the County Department of Health Services had lost contact with Olive View UCLA County Hospital, located in Sylmar, just as the flames from the Sayre fire were advancing on that facility.

Since I had not yet unpacked my equipment from my car after the ShakeOut, it was not long before I was on the road with radios, antennas, batteries and cables, heading from Chatsworth toward the hospital. As I approached Olive View on surface streets, I ran into one roadblock after another. With radio guidance from Scott Hanley, WA9STI, who was following my route on a street map, I finally got to a possible crossing point, stepped out of the car, quickly donning goggles, a dust mask and reflective vest, and walked over to the checkpoint. After explaining why I had been

**Up Close and Personal** *cont'd on page 2*

## ARES Activities

**Weekly Net Monday 7 PM 146.535 mhz (s)  
 Breakfast Saturday, March 14th**

### SELECTED TRAFFIC NETS

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

## BSA Radio Merit Badge Updated

The Boy Scouts of America (BSA) has updated the requirements needed to earn the Radio merit badge. While no new content has been added to the program, the new merit badge pamphlet features lots of new information, including color pictures and updated charts and text, that reflects the changes in the Amateur Radio Service since the last pamphlet update in 2002. Approximately 4000 Radio merit badges are earned each year.



Brian Milesosky N5ZGT ARRL Div Dir and Scouting Comm member, called the Radio Merit Badge “a perfect avenue to introduce Scouts and Scouters to the wonderful world of ham radio. Ham clubs across the nation should locate a local Boy Scout Troop, secure permission from their Scoutmaster and/or committee to teach the merit badge and deliver an exceptional Radio merit badge class. What the boys, and their leaders and parents, will learn in the process is a fair amount of what is part of the Technician license exam, so the next logical step after a merit badge class is an all-out recruiting effort to get that Troop involved in Amateur Radio. They’ll meet new friends and have a great way of communicating while in transit to and from the field, as well as additional peace of mind through an effective means of emergency communications while in the backcountry.”

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## Up Close and Personal - cont'd from page 1

dispatched to the hospital and showing my credentials, I was allowed to pass.

I could not park close to the building due to the long line of ambulances waiting to transport patients to alternate facilities, so I grabbed what equipment I could carry, met up with Tom Turner, KI6CCW, another ARES member from Santa Clarita, and we made our way into the main building.

We were greeted by guards and a metal detector. I smiled and told them we had plenty of equipment to set off their detector and asked that we be allowed in. After a look at our ID cards, the guards waved us through, and we proceeded down smoky corridors to the command center. Tom and I quickly established radio contact with the ARES net control station, manned from the site of that morning's Catalina Marathon by Jim Curio, KI6FGV, and then with Olester Santos, a manager with the County's Department of Health Services and a recently licensed ham, to give him a status report.

Tom and I stayed until power and telephone services were restored, at which time we were released. On my way home, I checked in by radio with the Los Angeles Fire Department's Auxiliary Communication Service, where I also volunteer. The net control operator asked me to stop by the evacuation center at Chatsworth High School. When I arrived there, I met with the shelter manager, and stayed until early afternoon just in case a communication problem among the shelters arose. All-in-all, it was a busy morning, but this is one of the reasons Amateur Radio exists.

I have been a ham radio operator for over forty years, so the combination of ARES training, teamwork and Dick McKay's excellent UHF repeater system made the communication aspect of our assignment the easy part. I encourage other hams to get the appropriate training and offer their services through ARES. When day-to-day communication systems fail, Amateur Radio comes through, and—despite all the high-tech resources being put into institutional preparedness—I don't see the need for our help going away any time soon. - Marty Woll, N6VI, ARRL Vice Director, Southwestern Division ARES Los Angeles Section-Wide Newsletter, December 2008-January 2009. *From: The ARES E-Letter for February 18, 2009*

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## Inattentive Driver Bill

### Introduced in MN State Senate

On January 30, at the instruction of the Board of Directors at its January 2009 meeting, the ARRL Executive Committee adopted a policy statement on mobile Amateur Radio operations. The statement addresses the growing number of proposed state and local laws and ordinances regulating the use of cellular telephone and text messaging, inadvertently affecting Amateur Radio mobile communications

The statement urges state and municipal legislators to limit the scope of their proposals, limiting them to devices such as full duplex wireless telephones and related handheld or portable equipment. Alternately, it suggests that licensed Amateur Radio operation be listed specifically as an exclusion to the proposed regulations.

“At the start of each new session, you see a flurry of this type of proposal in state legislatures across the country,” said ARRL Regulatory Information Manager Dan Henderson, N1ND.

“The Executive Committee’s policy statement highlights the differences between communications conducted by cellular telephone and those using Amateur Radio and offers some suggested statutory language for state motor vehicle codes which would protect Amateur Radio mobile operation,” said Henderson.

The ARRL recognizes that driver inattention is a leading cause of automobile accidents. “Two-way radio use is different from full-duplex cellular telephone communications because the operator spends little time actually transmitting; the time spent listening is more similar to, and arguably less distracting than listening to a broadcast radio, CD or MP3 player. There are no distinctions to be made between or among Amateur Radio, public safety land mobile, private land mobile or citizen’s radio in terms of driver distraction. All are distinguishable from mobile cellular telephone communications in this respect.”

State Senator Clair Robling (Dist 35), who represents Scott County in the State Senate, posted this note in her E-newsletter on February 13<sup>th</sup>.

**INATTENTIVE DRIVING** A Senate committee passed a bill this week (Feb 13<sup>th</sup>) addressing the subject of inattentive driving and setting penalties for drivers who cause damage or injury to others. A maximum penalty of a gross misdemeanor would be assessed at the time of an incident, but an officer could not stop a driver under this charge. The author told the committee that the law was needed because drivers currently can only be cited for failing to exercise reasonable care if they’re speeding or qualify as

## Postage Rate Increase

The United States Postal Service has announced that effective May 11th the price of a first class one ounce envelope will increase from 42 cents to 44 cents. Post cards will go to 28 cents. Airmail to all countries (except Canada and Mexico) will be raised to 98 cents. Mail to VE will be 75 cents, while to XE it will be 79 cents.

No word in the official announcement ([www.usps.com/prices/pricechanges.htm](http://www.usps.com/prices/pricechanges.htm)) as to if there will be an increase to International Reply Coupons (IRCs), although they too will probably be going up. Those who work the K5D DXpedition on Desecheo should seriously consider including the make up postage. It might even be a good idea to not attach the extra postage, just incase N200 is able to get the cards and get them out before the new prices take affect.

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## Police Detonate Ham Radio Equipment Mistaken for Bomb

OMAHA (KPTM TV) - Police evacuated a midtown neighborhood briefly Thursday morning for what was originally thought to be a bomb, but in the end, it turned out to be ham radio equipment.

The house, located near 48th and Mayberry, caught fire last week. A cleaning company found the equipment and called police, thinking it was a pipe bomb.

Police were called, and officers detonated the equipment. The neighborhood was evacuated during the investigation.

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*“If you don’t read the newspaper you are uninformed, if you do read the newspaper you are misinformed.”* Mark Twain

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reckless driving. Other bills restricting the use of cell phones have been introduced, but this broader bill should cause drivers to pause and think before using cell phones or doing all types of activities while driving (i.e. eating, reading maps or newspapers, fiddling with the CD player, etc.).

If you have concerns about limitations on amateur radio mobile operation and the effect on SKYWARN spotting or emergency communications you could contact your state legislators: Senator Robling Dist 35, and Rep. Mark Buesgens Dist 35B or Rep. Mike Beard Dist 35A.

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## Traffic Handling

### The Preamble

Number	Precedence	HX__	Orig Stn	Check	Place	Time	Date
#1	#2	#3	#4	#5	#6	#7	#8

The preamble or “header” is the section of the message form where all the administrative details of the message are recorded. There are eight sections or “blocks” in the preamble. Two of them, “time filed” and “handling instructions,” are optional for most messages.

**Block #1 - Message Number:** This is any number assigned by the station that first puts the message into written format. Essentially a message serial number.

**Block #2 - Precedence:** The precedence tells everyone the relative urgency of a message. There are four levels of precedence: Routine, Welfare, Priority, and EMERGENCY.

*Routine* – abbreviated with the letter “R.” Most Amateur traffic is handled using this precedence. Routine is for all traffic that does not meet the requirements for a higher precedence. In a disaster situation, routine messages are seldom sent.

*Welfare* – abbreviated as “W.” Used for an inquiry as to the health and welfare of an individual in a disaster area, or a message from a disaster victim to friends or family.

*Priority* – abbreviated as “P.” For important messages with a time limit; official messages not covered by the EMERGENCY precedence or a notification of death or injury in a disaster area. This precedence is usually associated with official traffic to, from, or related to a disaster area.

*EMERGENCY* -- there is no abbreviation for the word EMERGENCY is always spelled out. Use this for any message having life or death urgency. This includes official messages of welfare agencies requesting critical supplies or assistance during emergencies, or other official instructions to provide aid or relief in a disaster area. The use of this precedence should generally be limited to traffic originated and signed by authorized agency officials. *Due to the lack of privacy on radio, EMERGENCY messages should only be sent via Amateur Radio when regular communication facilities are unavailable.*

**Block #3 - Handling Instructions:** This is an optional field used at the discretion of the originating station. The seven standard HX pro-signs are listed below.

**Block #4 - Station of Origin:** This is the FCC call sign of the first ham that put the message into written format.

**Block #5 - The Check:** The check is the number of words in the text section only. Include any “periods” (written as “X,” spoken as “X-Ray”).

**Block #6 - Place of Origin:** This is the community or building where the originator of the message is located, whether ham or not. This is not the location of the ham that first handled the message, which is listed in Block 4, “Station of Origin.”

**Block #7 - Time Filed:** This is an optional field unless “Handling Instruction Bravo” (HXB) is used. HXB means “cancel if not delivered within X hours of filing time.” Completing the time field is generally recommended. During emergencies, use “local time” with indicators such as CST or CDT to eliminate confusion by emergency management personnel.

**Block #8 - Date:** This is the date the message was first placed into the traffic system. Be sure to use the same date as the time zone indicated in Block 7.

### Handling Instructions

**HXA** — (Followed by number.) “Collect” telephone delivery authorized by addressee within (X) miles. If no number is sent, authorization is unlimited.

**HXB** — (Followed by number.) Cancel message if not delivered within (X) hours of filing time; service (notify) originating station.

**HXC** — Report date and “time of delivery” (TOD) to originating station.

**HXD** – Report to originating station the identity of the station who delivered the message, plus date, time and method of delivery. Also, each station to report identity of station to which relayed, plus date and time.

**HXE** — Delivering station to get and send reply from addressee.

**HXF** — (Followed by date in numbers.) Hold delivery until (specify date).

**HXG** — Delivery by mail or telephone - toll call not required. If toll or other expense involved, cancel message, and send service message to originating station.

If more than one HX pro-sign is used, they can be combined like this: HXAC. However, if numbers are used the HX must be repeated each time. On voice, use phonetics for the letter or letters following the HX to ensure accuracy, as in “HX Alpha.”

Next month we’ll take a look at the address, text, and signature.

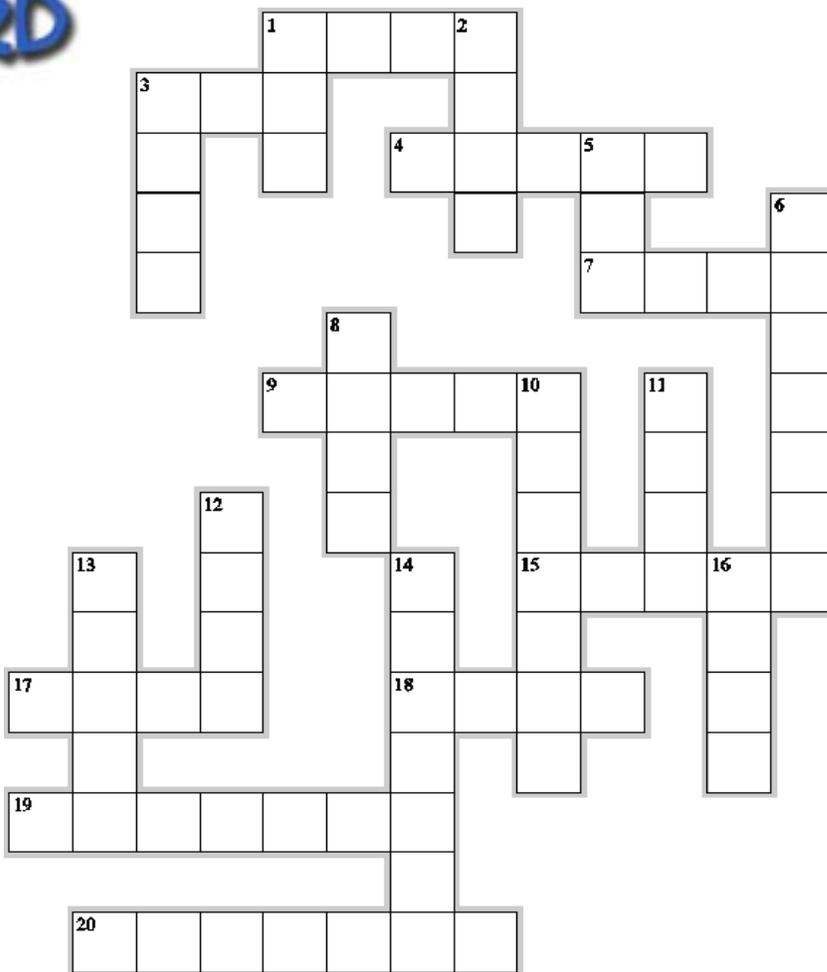
# CROSSWORD NAMES

## Across

1. West and Jemison
3. Peggy or Pinky
4. McClurg and Falco
7. Carvey or Delaney
9. Dern or Bush
15. Singer Rimes
17. Mineo and Maglie
18. Lomond or Ness
19. Brothers Jeff and Beau
20. Brothers River and Joaquin

## Down

1. Gibson or Brooks
2. Caesar and Vicious
3. Olin of "Alias"
5. Byrnes or Hall
6. Brothers Alec and William et al.
8. Crooner Jerry
10. Brothers Ben and Casey
11. Poet Teasdale
12. Whitney and Wallach
13. Belle or Bart
14. Brothers John and James
16. Peter and Wolfe



## Daylight Savings Time

**Spring Ahead**  
**Sunday March 8<sup>th</sup>**



When told the reason for daylight saving time the old Indian said... 'Only a white man would believe that you could cut a foot off the top of a blanket and sew it to the bottom of a blanket and have a longer blanket.'

**March 2009**

- 4<sup>th</sup> – U.S. Constitution in effect 1847
- 6<sup>th</sup> – OREOs born 1912
- 7<sup>th</sup> – 8<sup>th</sup> ARRL DX Phone Contest
- 8<sup>th</sup> – Daylight Savings Time Begins
- 14<sup>th</sup> – 16<sup>th</sup> N. America RTTY Sprint
- 18<sup>th</sup> – Pillsbury Doughboy B'day
- 17<sup>th</sup> – St. Patrick's Day
- 28<sup>th</sup> – 29<sup>th</sup> CQ WW WPX Phone
- 30<sup>th</sup> – National Hot Dog Day

# BASIC GLOSSARY

## Crossword Solution

### Across

4. CONDUCTOR—A metal material that allows electrical current to flow and has essentially zero resistance.
7. ELECTRON—Considered to be the smallest unit of electrical charge.
10. ARRESTOR—A fast-acting, over-voltage protective device that can absorb or short a voltage to ground when the voltage is in excess of the device's rated value.
11. WATT—The unit of measurement for electrical power, named after an 18th century Scottish engineer.
14. VOLT—The unit of measurement of electromotive force necessary to produce one ampere of current in a circuit having a total resistance of one ohm named for an 18th century Italian physicist.
18. HERTZ—The unit of measurement of the frequency of a sine wave or square wave, named after a 19th century German physicist.
19. WAVELENGTH—The physical distance between the beginning and the end of a cycle in a periodic wave (sine wave or square wave) as it travels through space.
20. SINEWAVE—A smooth, continuously moving waveshape that has no break in its appearance. It has positive and negative half-cycles that are generally symmetrical with respect to a reference.
21. FUSE—A short strip of metal having extremely low resistance and functioning as a protective device in a circuit.

### Down

1. COIL—A length of insulated wire wound around a laminated iron or steel core, a ferrite or powdered iron core, or a non-ferrous material such as ceramic aluminum, or plastic.
2. STABILITY—The ability of a component, circuit, or system to maintain a fixed level of operation within specified tolerances under varying external conditions. Changing conditions include voltage, frequency, temperature, and longevity.
3. AMPLIFICATION—The process of increasing the voltage, current, or power of an electrical or electronic signal.
5. GROUND—The part of a circuit or system that is the reference for the voltages existing in that circuit or system.
6. OHMSLAW—The relationship that exists between the electrical parameters of voltage, resistance, and current.

8. RESISTANCE—The electrical characteristic of a component, material, circuit, or system which acts to limit current in a circuit. It is measured in ohms and is designated with the letter R.
9. FREQUENCY—The number of cycles per second of an AC wave measured in hertz (Hz).
12. ALTERNATING—Either voltage or current that varies smoothly from zero to a maximum value in one direction, or polarity, and returns to zero. It then reverses its direction (polarity) and rises to a maximum value in the opposite direction, and then returns to zero to complete the cycle.
13. SQUAREWAVE—A rectangular-shaped (step-function) periodic wave with a positive and negative half-cycle of equal lengths of time or duration.
15. OHM—The unit of measurement of resistance symbolized by the Greek letter, omega, named after a 19th century German physicist.
16. BATTERY—An electrical device consisting of one or more cells which converts chemical or solar energy into electrical energy.
17. POWER—The rate at which work is done and measured in watts (W). In electrical and electronic circuits, Power (P) = Supply Voltage (E) x Supply Current (I).

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## What's In Your Go Kit?

### Scott ARES Ops Guide?

When planning for an emergency communications activation, the go kit includes all kinds of radio gear, supplies and personal items. For Scott ARES members one item just as important as the radio is a current copy of the Scott ARES Operating Guide (at [www.scottares.org/Training.html](http://www.scottares.org/Training.html)).

The Ops Guide contains all those little bits of information that make your communications run just a little smoother. Information such as: What is that frequency identifier? What does that handling instruction mean? What information is in the message header? What is ARL THIRTEEN? Is the letter "R" Roger or Ralph?

The Scott ARES Op Guide – Don't leave home without it! (Don't check in to any ARES net without it.)

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## SKYWARN Spotter Training Announced

The Metro SKYWARN board has announced the 2009 schedule for SKYWARN spotter training.

Spotters are trained about basic storm structure and the sequence of events of an approaching severe storm, to place themselves safely near severe weather and how to report into the net.

Special emphasis is placed on training the spotter how to differentiate severe weather from weather easily confused with severe weather with a specially prepared video and slide presentation. Many useful weather terms are learned to facilitate communication on the net.

To qualify, radio amateurs must pass a multiple choice test every two years. Spotters are expected to monitor severe weather potential and activate themselves as needed and available and place themselves at useful locations.

Reports are requested from anyone seeing severe weather. Updates from the NWS about current conditions are repeated or updated every ten minutes. Occasionally, the NWS will request information from a specific location or regarding specific conditions.

The following is a list of classes in the southern metro area. You will find the complete Metro SKYWARN training schedule on line at: <http://www.metrokywarn.org/sked.html>.

March 7<sup>th</sup> Saturday 8am-12pm  
Golden Valley Safety Center  
7800 Golden Valley Road  
Mike Sigelman 763-542-8450

March 7<sup>th</sup> Saturday 9am-1pm  
Open Circle Church 2400 Highland Drive  
Burnsville, MN  
Jeff Goodnuff 952-927-0201

March 25<sup>th</sup> Wednesday 6pm-10pm  
Carver County Government Center  
600 E. 4th St Chaska, MN  
Dean Anderson 952-466-3808

April 4<sup>th</sup> Saturday 8am-12pm  
Bloomington Fire Station #1  
10 West 95th St. Bloomington, MN  
Gene Clemens 952-831-3089

May 30<sup>th</sup> Saturday 9am-1pm  
Open Circle Church 2400 Highland Drive  
Burnsville, MN  
Jeff Goodnuff 952-927-0201

## Quick Training Tips

### OVER and OUT

*“Roger that squadron leader this is lame duck over and out”*

That might sound good in an old war movie but it doesn't sound good on a directed net.

Prowords are the topic this month. We use prowords in emergency communications to improve efficiency and lower the chance of errors. When everyone involved in passing information from one place to another follow the same rules of the road, the information moves rapidly and accurately.

The prowords OVER and OUT have specific meanings and are never used at the same time. The proword OVER indicates that you have finished your thought and it is time for the other station to speak their piece. Using the proword OVER indicates that you expect a reply from the other station.

The proword OUT indicates you are finished with the conversation and do not expect a reply. “Goodnight Charlie, hope you have a great week, OUT” is an example where a reply is not expected. The other station my reply or may not. If they have another question they may reply and end with the proword OVER indicating they are looking for more information from you. Charlie may reply, “Thanks, I hope you have the same, OUT”. This exchange between the stations is complete and the Net Control Station, NECOS, knows he can once again assume control of the net.

Good use of prowords is an indicator of a trained, efficient operator.

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## ARES Breakfast

Saturday March 14th  
7:30AM  
Perkins Restaurant  
Savage, MN

## NECOS Schedule March 2009

2 Mar	W0NFE Bob
9 Mar	KB0FH Bob
16 Mar	KC0YHH Tony
23 Mar	N0PI Dan
30 Mar	W0NFE Bob
6 Apr	KB0FH Bob

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