ARES COMMUNICATOR

Information for Scott County Amateurs

May, 2006 **Accurate, Reliable Emergency Communications** *Volume 6, Number 4*

Rail Crash Forces Savage Evacuation

ARES Exercise Scenario

"Broadcast media has flashed information about a breaking story in Scott County. Initial reports indicate there has been an explosion in the Port Savage / Cargill area of the City of Savage in northern Scott County along the Minnesota River.

Highway 13 has been cordoned off from County Rd 5 on the east to Hwy 101 on the west. Traffic is being detoured via County Road 42 to the south.

News updates indicate there is a large fire currently burning at the Richards Asphalt complex. The earlier explosion caused approximately ten cars from an east-bound freight train to derail near the intersection of Lynn Avenue and Hwy 13. Two of the de-railed tank cars are known to contain sulfuric acid and chlorine gas. One of the cars is leaking.

Authorities have announced the evacuation of a seventeen block area of downtown Savage located south of the fire. The area is bounded by Ottowa Ave. on the west, Glenhurst Ave. on the east and 126th street on the south. The Red Cross has opened shelters to house the people displaced by the evacuation order."

This was the scenario for the tabletop exercise during our breakfast meeting on April 8th. The ARES members around the table simulated communications between five locations in Scott County. Formal message traffic was developed and passed between; St. Francis Hospital, Savage City Hall, the Red Cross service center, and two Red Cross Shelters.

The goal of the exercise was to improve our directed net operating procedures and gain practice in developing formal emergency traffic.

The exercise showed that the group has improved overall since the last exercise and pinpointed some areas that will be emphasized in future training. *BREAK - OVER*

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

Quick Training Tips

Addressees and Signatures

Our goals in providing emergency communications for a served agency are always Accuracy and Speed. Accuracy is always our primary goal.

Two elements in the formal message format that are important in improving accuracy and limiting confusion are the Addressee and the Signature.

Messages that involve requisition of emergency supplies and personnel often require the signature of an agency official before the request will be considered. This requirement allows agencies to control expenses, or at least track expenditures during a disaster response. The Incident Command System, MIMS in Minnesota, also requires proper authentification of supply and manpower requests.

Typically a signature would include the agency representative's name, title, and location. For example a request for supplies from a shelter would look like this; Frank Smyth, Shelter Manager, Vernon Ave. Shelter.

The person receiving the message must also be clearly identified in order to permit rapid delivery. For example a message addressee might look like this; Joel McColl, Emergency Manager, Savage City Hall.

It is our responsibility as communicators to make sure all messages contain the detail needed to ensure accurate rapid communications. *BREAK - OVER*

ARES Activities

Weekly Net Monday 7 PM 146.535 mhz (s)
Breakfast Saturday May 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

Armed Forces Day Crossband Contacts

Saturday May 13 – 14, 2006

The US Army, Air Force, Navy, Marine Corps and Coast Guard will cosponsor the annual military/Amateur Radio communications tests Saturday and Sunday, May 13-14th in celebration of the 56th Anniversary of Armed Forces Day.

Although the actual Armed Forces Day is Saturday, May 20, the Armed Forces Day on-the-air activities will take place earlier, to avoid conflicts with those who might be attending Dayton Hamvention, May 19-21.

The annual activity features traditional military-to-amateur crossband (ie, hams transmit on amateur frequencies and receive military stations on nearby military channels) SSB voice tests and copying the Secretary of Defense's annual Armed Forces Day message via digital modes (RTTY, PACTOR, AMTOR, PSK-31 and MT63).

"These tests give Amateur Radio operators and Short Wave Listeners an opportunity to demonstrate their individual technical skills and receive recognition from the Secretary of Defense and/or the appropriate military radio station for their proven expertise," the US Armed Forces Day announcement says. QSL cards will be provided to those making contact with military stations. Commemorative certificates will be awarded to those receiving and copying without error the digital Armed Forces Day message from the Secretary of Defense.

The tentative schedule of on-the-air events—including a list of participating stations, the Secretary of Defense's message transmission schedule and more information—is available on the internet at www.mnmars.org and in the current issue of World Radio magazine. Operating times and frequencies for some of the Navy-Marine Corps. MARS stations are shown below.

Navy-Marine Corps MARS Stations

NAV: 1200Z 13 May to 0400Z 14 May
LSB: 4010.0 (80M), 7348.0 (40M)
USB: 14478.5 (20M), 20994.0 (15M)
Point of Contact: Bo Lindfors
Location: Williamsburg VA
Address: HQ NAVMARCORMARS Radio Station NAV
Cheatham Annex Bldg 117
108 Sanda Ave
Williamsburg VA 23185-5830

NAV-3: 1200Z 13 May to 0400Z 14 May
LSB: 4014.0 (80M), 7394.5 (40M)
USB: 13974.0 (20M), 20997.0 (15M)
Point of Contact: Bob Conley
Address: NAVMARCORMARS Radio Station
2562 Bauman Avenue
Omaha, NE 68112-3314

NAV-4: 1200Z 13 May to 0400Z 14 May
LSB: 4011.5 (80M), 7376.5 (40M)
USB: 14467.0 (20M), 21758.5 (15M)
Point of Contact: ITC(SW/AW) Jeffries
Location: Great Lakes IL
Address: NAVMARCORMARS Radio Station
615 Preble Ave
Camp Barry, Bldg 153
Great Lakes, IL 60088-2850

NBL: 1200Z 13 May to 0400Z 14 May
LSB: 4003.0 (80M), 7371.5 (40M)
USB: 14463.5 (20M), 20936.0 (15M)
Point of Contact: ITC(SW) Dever
Location: Groton CT
Address: NAVMARCORMARS Radio Station
PO Box 161 Naval Submarine Base
Groton, CT 06349-5161

NPL: 1500Z 13 May to 0400Z 14 May
LSB: 4003.0 (80M), 7351.5 (40M)
USB: 14463.5 (20M), 20936.0 (15M)
Point of Contact: ITC(SW) Thomason
Location: San Diego CA
Address: NAVMARCORMARS Radio Station
937 North Harbor Drive
San Diego, CA 92132-5100

NUW: 1500Z 13 May to 0400Z 14 May
LSB: 4044.0 (80M), 7381.5 (40M)
USB: 13528.5 (20M), 20952.5 (15M)
Point of Contact: Mr. Digger O'Dell
Address: NAVMARCORMARS Radio Station
260 W. Pioneer FSC Bldg
NAS Whidbey Island WA 98277

Secretary of Defense Message Test via Digital Modes

The secretary of defense message will be transmitted via digital modes including RTTY, PACTOR, AMTOR, clover, PSK-31 and MT63 from the stations listed below, including frequencies, mode, and date/time in zulu (utc). All frequencies are listed for center of intelligence. Offset as appropriate for your TNC.

Stations copying **NAV, NAV-3, NAV-4, NBL, NPL or NUW** send entries to:
Armed Forces Day Celebration, Chief, Navy-Marine Corps MARS, Cheatham Annex Bldg 117, 108 Sanda Ave Williamsburg, VA 23185-5830

NAV-4

7375.0	RTTY	14 May/0240Z
	AMTOR FEC	14 May/0310Z
	MT63	14 May/0340Z
14468.5	RTTY	14 May/0240Z
	AMTOR FEC	14 May/0310Z
	MT63	14 May/0340Z

THE NATURE OF DISASTERS AND IMPLICATIONS FOR AMATEUR RADIO

By Tom Cox VE6TOX

(Editor's Note: This is Part One of a three part series covering a presentation to the Communications Academy 2006, April 1, 2006, Burien WA)

DISASTERS AND EMERGENCIES

Disasters are not simply big emergencies. They are unique and distinct. In trying to learn how to prepare for disasters, we make the mistake of looking at the disaster in retrospect. This leads to the same mistakes being made almost every time and the same "lessons learned" being written for almost every disaster report.

Emergencies are what the emergency services train for and respond to every day. A disaster is something that they rarely train for and may only happen once or twice in a lifetime.

Dictionary definitions for emergencies usually include "a sudden, unforeseen happening which requires action to correct or to protect lives and/or property."

Dictionary definitions for disasters are very similar. For example "A disaster is a tragic event that disrupts the normal routine of life, causing loss of property and life and suffering". There may also be a statement "overwhelming local resources."

The legal definition might humorously be stated as "It isn't an emergency until the government says it is" (Declaration of a state of emergency).

A declaration of a state of emergency is usually done for disasters - not emergencies.

To show the unique character of a disaster, try throwing in more police, fire or ambulance personnel and see if that would make any difference. If not, you are looking at a disaster.

Fast developing local disasters are caused by explosions and tornadoes. Slow developing local disasters are caused by sink holes and water main breaks.

Fast developing regional disasters are caused by earthquakes and tsunamis. Slow developing regional disasters are caused by hurricanes, wildfires and pandemics.

CHARACTERISTICS OF DISASTERS

While the characteristics below are almost invariably found with all disasters, an important caveat must be added that it is possible that some of these things will not occur with any particular disaster.

It is an unusual event. Society learns quickly to cope with usual events and it becomes either routine or an emergency. Disasters, by their nature, are distinct from emergencies because they do not happen all the time. [Unusual, but not unexpected. It is common knowledge that California has frequent earthquakes and Florida has hurricanes.]

Communications fail. This is one of the defining characteristics that separate an emergency (communications still work) and a disaster. The problem is that there are over 40 different ways that communications fail - many of which Amateur Radio cannot solve or is only of limited assistance. For example:

Equipment failure - repeater off the air, tower destroyed, dispatch center collapse.

Frequency overuse - listening to dozens of firemen calling "Mayday! Mayday! Mayday!" all at once during 9 / 11/2001 clearly illustrates that nobody's Mayday were being understood. Very little information aside from "Mayday! Mayday! Mayday!" got over the radios.

Battery failure - batteries get used up at an incredibly fast rate during disasters.

Inability to reach specific organizations, individuals or sites.

Radios for agencies are not frequency agile and couldn't talk to one another.

Passing of incorrect or partially correct information.

Misunderstanding the information presented or not acting properly upon it.

Phones work. They may not work 100%, but they work. If they don't work, they will be fixed soon. If they do work, people won't use Amateur Radio.

The scope or extent is uncertain. With unusual events occurring compounded by communications failure, it is no surprise that disasters invariably result in nobody knowing the full extent of how bad things are.

The worst hit areas are the last to be responded to. Areas slightly affected scream the loudest because they still have phones working or alternate forms of communications. The worst hit areas lose all forms of communications and are simply forgotten due to the noise from elsewhere.

Nature of Disasters *cont'd pg. 4*

Nature of Disasters *cont'd from pg. 3*

Lack of information - due to the widespread scope of a disaster, EVERYTHING is affected. As a result, there is a tremendous need to find out what roads are out and what roads are intact, what vital services are destroyed and which ones can easily be repaired, where the greatest number of casualties and evacuees are to be found and what buildings are intact for recovery use or have been destroyed. You basically need information on every single aspect of government and business and homes in an instant. Combined with communications failures, you are not going to get the information you need. [What ever you can see, it is never the whole picture.]

Misinformation - it is very, very easy for information to be misconstrued, rumors to be stated as facts and honest mistakes to become absolute facts when dealing with a disaster. When massive amounts of information are required, it is easy for wrong information to slip in. Disasters are full of examples of "Wrong Information".

People die. While the emergency services deal with death on a daily or weekly basis, the sheer number of deaths can have a profound and traumatic effect on both responders and those affected. Emergency responders have trouble "switching gears" when faced with body parts and dozens or hundreds of casualties and the public is shocked to see bodies lying on the streets for days.

Emergency services and government will be equally affected. Fire halls are destroyed by tornados. City halls are flooded out. 911 centers collapse. While cases of emergency workers abandoning their posts are extremely rare, it is hard to respond to a disaster when your fire truck is crushed and all the water mains have been broken.

Hospitals will among the most affected. Hospitals are almost invariably affected by the disaster. Whether the disaster damages the building itself, the contents of the buildings are disrupted (few hospitals are earthquake proofed), or staff is unable to get to or from the hospital, the hospitals are the first to feel the effects. Hospitals are expensive to build and many a re kept longer than the average building because they are just too expensive to replace. As a result, they can be more fragile.

Things get worse. In emergencies, the arrival of the emergency services usually results in things getting better fairly rapidly. Casualties are taken to hospital, fires put out, bad people are arrested. In disasters, the limited resources of the emergency services and the fact that they have been affected as well usually results in a continuation of things deteriorating. When the fire truck is crushed and the water mains are broken, the arrival of the firefighters has no effect on the disaster and the situation continues to deteriorate.

Things get better or they get worse. Disasters never stay exactly the same. This means your response environment will constantly be changing and the situation you were in an hour ago may be completely different now.

Things will last much, much, much longer than you expect. There is a tendency for everyone to think that after an earthquake or a hurricane or any disaster that things will be cleaned up in a week or two. Months later, as society continues to struggle with rebuilding, they realize that the recovery will be years in the making.

Next month part two of the article will deal with Disaster Response.

BREAK - OVER

NIMS / ICS Training Required

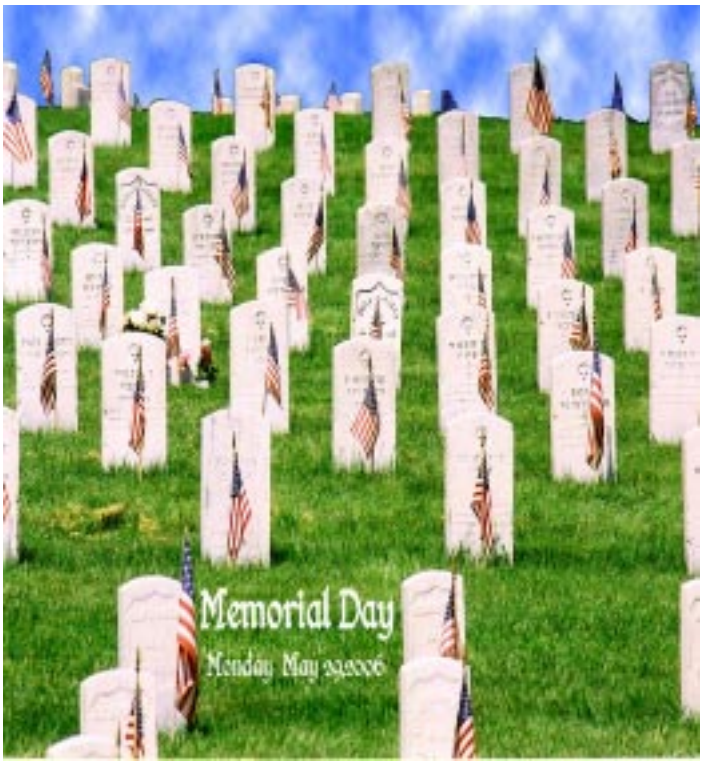
The Department of Homeland Security is requiring all first responders, including volunteers, to complete training in the National Incident Management System (NIMS) by 2007.

This sounds formidable, but in reality there is an Independent Study course from FEMA that covers it. The course is IS-700 - go to www.training.fema.gov/EMIweb/IS/crslist.asp and find the course list. Follow directions and you will get to IS-700.

ARES members can take the course on line or download the material and do it at their own pace. It shouldn't take more than three hours in any case. There's a final exam on line, but it isn't going to cost much sweat (or any money - courses are all free). After passing the final, you will get notification by e-mail or regular mail.

ARES members are encouraged to look at the rest of the course offerings on the FEMA training Web site (see also IS-100, and IS-200). They represent a wealth of knowledge, organized so that us real people can get through them and actually learn something. They aren't rocket science, just good stuff we need to know!

BREAK - OVER



Severe Weather Crossword Solution

Across

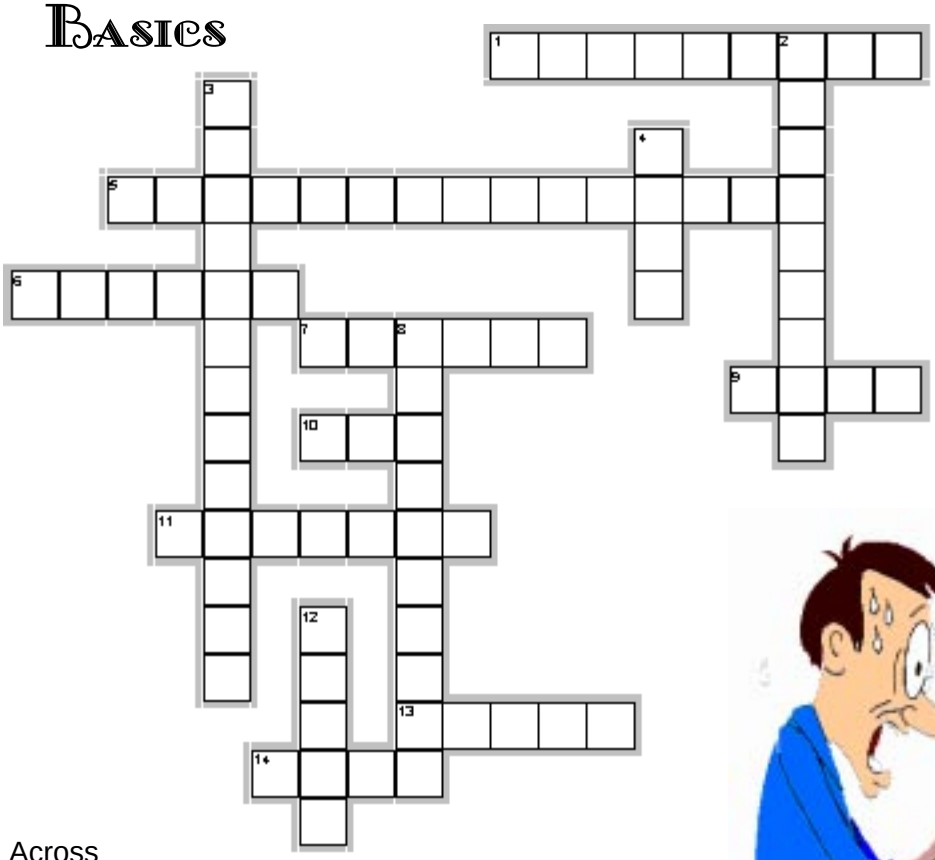
2. DOWNBURST—A strong downdraft current of air from a cumulonimbus cloud, often associated with intense thunderstorms. It may produce damaging winds at the surface.
5. MAMMATUS—Rounded, smooth, sack-like protrusions hanging from the underside of a cloud (usually a thunderstorm anvil). Often accompany severe thunderstorms, but do not produce severe weather; they may accompany non-severe storms as well.
7. ROLLCLOUD—A low, horizontal tube-shaped arcus cloud associated with a thunderstorm gust front. Relatively rare; they are completely detached from the thunderstorm base or other cloud features, thus differentiating them from the more familiar shelf clouds. Should not be confused with funnel clouds.
9. FUJITA—A scale of tornado intensity in which wind speeds are inferred from an analysis of wind damage.
12. HAIL—Showery precipitation in the form of irregular pellets or balls of ice more than 5 mm in diameter, falling from a cumulonimbus cloud.
15. ACCESSORY—A cloud which is dependent on a larger cloud system for development and continuance. Roll clouds, shelf clouds, and wall clouds are examples.
16. WARNING—Issued when a hazardous weather is occurring, is imminent, or has a very high probability of occurring. Used for conditions posing a threat to life or property.

Down

1. FUNNEL—A cloud extending from the base of a towering cumulus with a rotating column of air that is not in contact with the ground
3. RAINFREEBASE—A dark, horizontal cloud base with no visible precipitation beneath it. It typically marks the location of the thunderstorm updraft.
4. TORNADO—A violently rotating column of air, usually pendant to a cumulonimbus, with circulation reaching the ground. It nearly always starts as a funnel cloud and may be accompanied by a loud roaring noise. On a local scale, it is the most destructive of all atmospheric phenomena.
6. ANVIL—The flat, spreading top of a cumulonimbus cloud. Some may spread hundreds of miles downwind from the thunderstorm itself, and sometimes may spread upwind.
8. DEBRISCLOUD—a cloud near or on the ground, often appearing beneath a condensation funnel and surrounding the base of a tornado. When this cloud appears beneath a thunderstorm it will confirm the presence of a tornado, even in the absence of a condensation funnel.
10. MUGGY—A subjective term for warm and excessively humid conditions.
11. WATCH—Issued when the risk of a hazardous weather has increased significantly, but its occurrence, location, and/or timing is still uncertain. It is intended to provide enough lead time so that those who need to set their plans in motion can do so.
13. GUSTFRONT—The leading edge of surface winds from thunderstorm downdrafts; sometimes associated with a shelf cloud or roll cloud.
14. ROPE—The dissipating stage of a tornado, characterized by thinning and shrinking of the condensation funnel. Damage still is possible during this stage.

BREAK - OVER

Radiogram Basics



Across

1. The person to whom the message is sent.
5. Station writing the message.
6. Assigned to each message for tracking purposes.
7. Proword used when sending a confusing word.
9. Proword used to indicate punctuation in the message text.
10. Get a reply from the addressee.
11. Proword used when sending a group of numerals.
13. The number of words in the message text.
14. When the message was written.

Down

2. Identification of the person sending the message.
3. Location where the message started.
4. When the message was written AM/PM
8. Routine, Priority, Welfare, etc.
12. Proword used before and after the message text.

ARES Breakfast

Saturday May 13th
7:30AM
Perkins Restaurant
Savage, MN

NECOS Schedule - May 2006

1 May	KB0FH Bob
8 May	AB0YQ Steve
15 May	K0KTW Pat
22 May	W0NFE Bob
29 May	KB0FH Bob
5 Jun	AB0YQ Steve