



MINNESOTA MARSGRAM



Information for Minnesota Navy-Marine Corps. MARS Members

March, 2007

Volume 11, Number 3

NNN0ALL Minnesota

by NNN0GAZ Tim

Greetings, by the time you get read this, the "largest winter storm in eight years", according to some local meteorologists, should be history. I certainly hope including this quote doesn't jinx the storm we all need the moisture. I'm sitting here in the shack working on material for the March newsletter and it seems as though every channel has a different view of the storm. I think I'll just stick with what the folks at the National Weather Service say.

To all of you who participated in Air Force MARS Operation Deep Freeze in February many thanks. We moved some traffic, did some interoperability work with Air Force MARS and overall learned some lessons along the way. From the recent Chief MARS info broadcast, it appears we have some training to do in formatting ECOM messages. As sysop for the Minnesota switch, I can say I didn't find many messages from MN that needed much help, but a little review probably wouldn't hurt any of us.

We still could use some additional stations participating in emergency communications exercises. Exercises don't get much easier, Region One of Air Force MARS did all the foot work, all we had to do was show up, check-in,

pass some traffic and pay attention. Not bad for a Saturday morning – and that is about all it took. I spent two hours on the Air Force Transcontinental net and about an hour checking traffic on the MN switch. Overall the time commitment was reasonable and I fit it in to a very busy Saturday, with a Conference Swim meet, where I was one of the timers, and other family commitments.

Don't forget, our primary mission is to provide emergency communications support – providing a pool of trained communicators for duty in an emergency, how can we do that if we don't have exercises and don't train – and members don't participate? One thing for sure – exercises aren't going to go away, we don't get to schedule emergencies or disasters – the question is not if something is going to happen, the question is when.

One more reminder here – Daylight Savings Time starts on the second Sunday of this month. If you are running a computer with a Windows operating system older than Windows XP, see

the article in the February Minnesota MARSGRAM on how to update the time zone so your machine knows the correct day to adjust your computer clock.

Winter appears to be holding on, so on those cold evenings, don't forget we still meet daily at NCE for the 5G1B. Don't miss the opportunity to participate in an evening net, you might just benefit from a mini-lesson or an impromptu ecom exercise. Your participation is valued and definitely worth your time.

Enjoy this issue of the Minnesota MARSGRAM.

BT OVER

Daylight Savings Time
SPRING AHEAD! MARCH 11TH



Happy St. Patrick's Day

The MINNESOTA MARSGRAM is published for the benefit of Amateur Radio Operators in Minnesota and other interested individuals. The contents DO NOT reflect official Navy positions.

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Content Contributions Welcomed and Encouraged

MINNESOTA TRAFFIC NETS

Designator	Frequency	Local Times
5G1B	Pri. NCE Sec. NBG Ter. NAR	18:30 Daily

MINNESOTA ADMIN. NET

5G4A	Pri. NCE	19:00 2nd Sunday
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MARS DATA SYSTEM

NN0DVD	Freq. NCO AFSK/USB
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Website <http://www.mnmars.org>

Intranet site <http://www.communityzero.com/mnmars>

Operation DEEP FREEZE

by: AI NNN0GAZ ONE

I would like to thank everyone that participated in the AFMARS exercise DEEP FREEZE. I think the turn out was better than some of the other exercises we have had so well done to those that found time to send EEI and SITREP messages.

As usual there were some things that have changed from our last exercise so it is good practice to participate in ALL the exercises to keep up with the changes. I plan to have an exercise each quarter this year and hopefully they will be planned and communicated in advance so you all have time to prepare for them.

The Central Region Hospital Group is planning an exercise in July called ICE STORM, not sure if we will be able to participate or not but it may be interesting to have an ice storm in July in Minnesota. Again thanks to everyone that participated in AFMARS DEEP FREEZE.

BT OVER



Training Corner

ROGER or WILCO

by: Bob, NNN0GAZ FOUR

The title of this training note is intended to emphasize that we use one or the other of these prowords, never both. Both ROGER and WILCO are authorized and defined prowords listed in annex C, NTP8 (D). Of the two, WILCO has a broader meaning.

ROGER is defined as *I have received your last transmission satisfactorily.*

WILCO incorporates this definition and goes further – it is defined as *I have received your message, understand it, and will comply. To be used only by the addressee. Since ROGER is included in the meaning of WILCO, the two prowords are never used together.*

On our routine traffic nets we rarely have occasion to use WILCO. We simply acknowledge receipt of a message with the proword ROGER.

However, when a station is directed by NECOS to take some action WILCO would be the appropriate proword.

For instance, if NECOS directs a station to assume net control WILCO would be the appropriate response. Remember – never use both prowords.

BT OVER

Only Irish coffee provides in a single glass all four essential food groups; alcohol, caffeine, sugar and fat.

Alex Levine

MN Navy-Marine Corps MARS Staff

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Arabian Sea (Feb. 20, 2007) - An F/A-18C Hornet assigned to the "Wildcats" of Strike Fighter Squadron One Three One (VFA-131) launches from Nimitz-class aircraft carrier USS Dwight D. Eisenhower (CVN 69). Eisenhower and embarked Carrier Air Wing Seven (CVW-7) are on a regularly scheduled deployment in support of Maritime Security Operations (MSO). U.S. Navy photo by Mass Communication Specialist Seaman Travis Alston (RELEASED)

ARRL Invites Comments On New HF Digital Protocol

The ARRL is seeking comments from amateurs concerning development of an open-source (non-proprietary) data communications protocol suitable for use by radio amateurs over high-frequency (HF) fading paths. This is not a Request for Proposals (RFP). An RFP may or not be forthcoming depending on evaluation of the information received.

Specifically, the League is asking for comments and information on the following issues:

- * Access Method: Is Orthogonal Frequency-Division Multiplexing (OFDM) the best candidate technology, or should other competitive technologies be considered?
- * Data Rate and Bandwidth: What data rates/throughputs are achievable at various bandwidths up to 3 kHz bandwidth?
- * Adaptivity: What adaptive features should be considered, such as automatic adjustment of transmitter power, modulation waveform and coding, in order to maximize throughput and efficiency in two-way contacts?
- * Robustness: What is achievable for reliable operation at power levels typical in the Amateur Radio Service and low signal/noise and interference ratios?
- * Error control: What are the appropriate applications of error control suitable for HF channels? For example, how should Repeat reQuest (ARQ) and Forward Error Control (FEC) be applied to two-way contacts and one-to-many (roundtable and bulletin) transmissions?
- * Activity Detection: What is an effective method of determining whether a frequency is busy prior to transmission?
- * Operating System: What operating systems (such as Windows or Linux) are appropriate for Amateur Radio use with this protocol?
- * Hardware: What practical and affordable hardware platforms are suitable for amateur stations? Consider the use of personal computers with or without sound cards. Provide any information about the need for an additional "box" if needed.

Please provide the following with your response: (1) name of respondent, (2) respondent's contact information, (3) related experience, and (4) type of respondent: (individual, partnership, corporation or group). Do not include proprietary information as part of your response.

Post, fax or e-mail your response by 1900 UTC, May 15, 2007, to ARRL Chief Technology Officer Paul Rinaldo, W4RI <w4ri@arrl.org>, 3545 Chain Bridge Rd — Suite 209, Fairfax, VA 22030; Fax: 703-934-2079.

BT OVER

Interoperable Communications Assessment Released

Dept. of Homeland Security Scorecard for Metro Area

The Department of Homeland Security (DHS) today released scorecard assessments of interoperable communications capabilities in 75 urban and metropolitan areas nationwide. Interoperable



communications involve policies, technology and

training that enable law enforcement, fire and emergency medical services from multiple jurisdictions in a common community to effectively communicate within one hour of an incident.

"The 9/11 Commission identified interoperable communications as a major challenge and many communities listened by taking the sometimes difficult steps necessary to close communication gaps among first responders," said Homeland Security Secretary Michael Chertoff. "Their experience proves that basic interoperability at the command level is achievable. We're committed to making this a priority in every major urban area, and we'll continue to push for closing these gaps by the end of 2008."

The reviews focused on three main areas: Governance (leadership and strategic planning); Standard Operating Procedures (plans and procedures); and Usage (use of equipment). The evaluation criteria was derived directly from the SAFECOM Interoperability Continuum and Interoperability Maturity Assessment Model that depicts the key components of interoperability — governance, standard operating procedures, usage, technology, and training and exercises.

The findings identify gaps and areas for improvement. Key findings include:

- * Policies for interoperable communications are now in place in all 75 urban and metropolitan areas.
- * Regular testing and exercises are needed to effectively link disparate systems and facilitate communications between multi-jurisdictional responders (including state and federal).
- * Cooperation among first responders in the field is strong, but formalized governance (leadership and strategic planning) across regions is not as advanced.

The scorecards illustrate the current capability for each area and provide recommendations for improvement.

The only areas in Minnesota covered by the review was the Twin City metro area. The Twin Cities area includes St. Paul and Minneapolis and cities, townships, and political subdivisions within and including the counties of Dakota,

Test Your NIMS Knowledge

Designers of the system recognized early that ICS must:

- * Meet the needs of incidents of any kind or size.
- * Provide logistical and administrative support to ensure that operation staff can meet tactical objectives.
- * Be cost effective by avoiding duplication of efforts.
- * ???

- A. Require that a minimum number of personnel be deployed to perform administrative and logistics functions.
- B. Use certified emergency responders to serve as incident commanders and section chiefs.
- C. Allow personnel from a variety of agencies to meld rapidly into a common management structure.
- D. Compensate for incident response failures likely to result from a lack of resources.

Check for the answer in next month's MARSGRAM

February NIMS Solution

At each level of the ICS organization, individuals in positions of primary responsibility have distinct titles. Using specific ICS position titles serves three important purposes:

- o The use of distinct titles allows for filling ICS positions with the most qualified individuals rather than by rank.
- o Standard position titles are useful when requesting qualified personnel.
- A. Titles provide a common standard for all users.

- BT OVER



Get Your NIMS Answers Here

Training requirement for emergency communications volunteers are constantly changing. The following FEMA on-line courses are required for MARS 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 NNN0GAZ.

Communications Assessment

cont'd from pg. 3

Hennepin, and Ramsey. The Twin Cities received an Advanced Implementation rating in the area of Governance, Standard Operating Procedures, and Usage.

The Governance rating indicates that decision making bodies proactively look to expand membership to ensure representation from broader public support disciplines and other levels of government, while updating their agreements and strategic plans on a regular basis.

Regional Standard Operating Procedures, reviewed through the TICP process are in place and regularly used by included agencies. NIMS procedures are well established among all agencies and disciplines. All procedures were effectively utilized during exercise(s).

In regard to usage, first responders regularly and seamlessly utilize interoperability solutions. The region demonstrated successful multi-agency communications during exercise(s), including state, federal, and support organizations.

The technology utilized to achieve the interoperability is described as follows; The City of Minneapolis and Hennepin County agencies currently operate on the Allied Radio Matrix for Emergency Response (ARMER) systems. The ARMER systems include an 800 megahertz (MHz) digital trunked system, a very high frequency (VHF) system, and an ultra high frequency (UHF) system. The City of St. Paul, Dakota County, and Ramsey County operate on various 800 MHz, VHF, and UHF systems. Interoperability is achieved using shared radios, gateways, console patches, and shared channels (e.g., ARMER 800 MHz, VHF, UHF, and National Public Safety Planning Advisory Committee 800 MHz frequencies).

Ramsey County includes the City of St. Paul and is currently migrating to the ARMER radio system. Dakota County will migrate to the ARMER system in 2007. In addition, the metropolitan area, consisting of nine counties and including the three UA counties, is developing a 700 MHz wideband data interoperability solution.

The report made no mention of any contingency plans in the event the 800 megahertz system is compromised.

BT OVER

Coming Soon
Opening March 21st



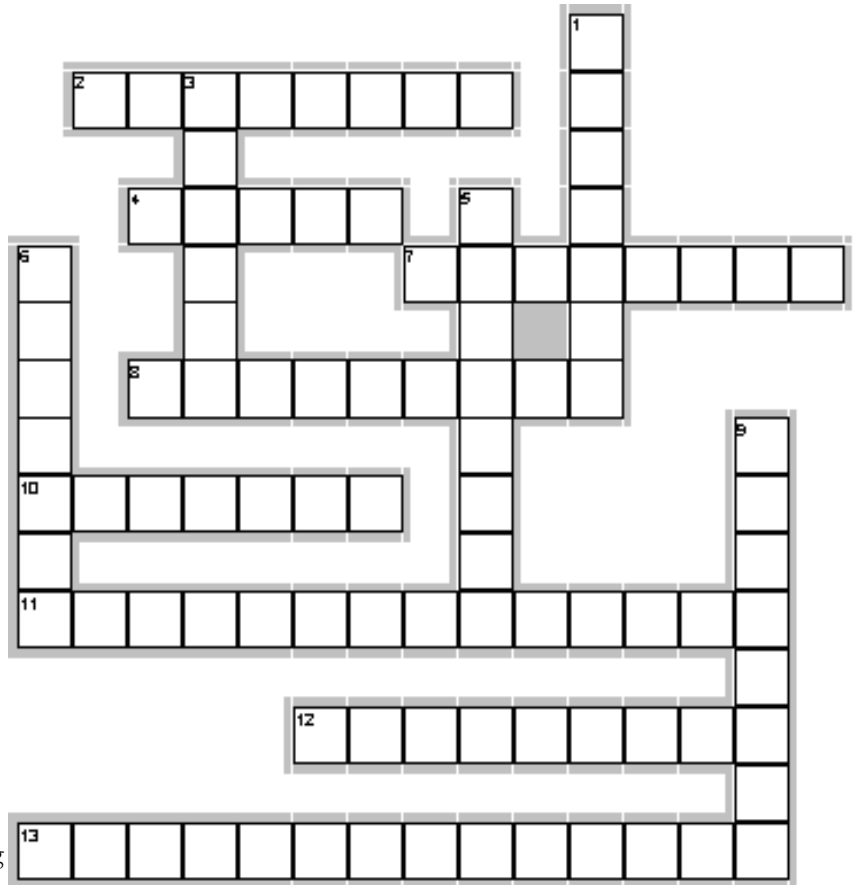
POWER SUPPLY BASICS

Across

2. A surge suppression device used to absorb transients and spikes occurring on the power lines.
4. An extremely short perturbation on a powerline, usually lasting for hundreds of milliseconds to several seconds.
7. A type of current limiting which reduces the current through the regulator to a low value under a short circuit condition.
8. A device or circuitry for maintaining a constant output voltage over a range of load currents and input voltages.
10. A term used to denote the common two junction transistor types (NPN or PNP) as opposed to the FET devices.
11. Refers to the effective value of an alternating voltage or current corresponding to the dc voltage or current that would have the same heating effect.
12. A short perturbation on a powerline, usually lasting for microseconds to tens of milliseconds.
13. The transistor that controls the passage of power between the unregulated dc source and the load in a regulator.

Down

1. A resistive load across the output of a supply to quickly discharge the stored energy once the supply is turned off.



3. The residual ac left after rectification, filtration, and regulation of the input power.
5. The product obtained by multiplying the current times the voltage in an ac circuit without regard for the phase angle between the two.
6. A last-ditch protection circuit which senses an overvoltage condition and fires an SCR to short circuit the supply and protect the load.
9. A circuit for producing ac power from a dc source.



February Crossword Solution - Ham Radio Jargon

Across

2. BK-CW abbreviation for "break"
5. DISTANCE-In ham radio jargon, what does the two-letter phrase "DX" stand for?
8. LID-A poor amateur radio operator is referred to as a ??
9. DUMMY-Non-radiating load
10. BEAM-When ham radio operators discuss a beam, what are they talking about?
12. BAREFOOT-To operate without an amplifier, a radio operator may say he is operating _____?
13. RAGCHEW—A lengthy contact

Down

1. PADDLE-Use with a keyer
3. KIT-Hams build these
4. FCC-What is the authoritative agency over amateur radio operators in the United States?
6. SK-Deceased ham
7. ELMER-Person who helps you get on the air
11. FOX-Hidden transmitter
12. BUG-Semi-automatic key
14. CQ-Ham radio operators solicit a new contact by using what two-letter phrase?

Mackinaw Successfully Completes First Icebreaking Assignment



MACKINAC STRAITS, Mich - USCGC Mackinaw escorted tugs James A. Hannah and Mary E. Hannah through the Mackinac Straits Wednesday, marking the first ice escort assignment in her history.

In preparation for the arrival of the Hannah tugs, Mackinaw groomed and widened a track from Round Island Passage, beneath the Mackinac Bridge to Lansing Shoal Light. This "track maintenance" required power and finesse to crush and flatten windrows, groom turns and flush loosened ice to ready the track.

As a new asset to Operation Taconite- the icebreaking operation covering Lake Superior, the St. Mary's River, the Mackinac Straits and Green Bay- Mackinaw got an early start on the assignment not only to ready the ice for the tugs, but also to provide an opportunity for the Cutter's navigation team to log critical icebreaking training.

The western-most ice edge, extending just beyond the Lansing Shoal light, held the thickest and most besetting ice of the transit. To break up this 3-6 foot thick brash ice under immense pressure, Mackinaw sliced curved tracks and then made high-speed passes through them, using her wake to disrupt and dissipate the concentrated ice. The Northeast winds helped carry the ice floes south and out of the path of the Hannah tugs.

Mackinaw's next assignment will be another Straits escort operation to assist the tug Michigan who originated her transit in Chicago with a load of heating oil bound for Cheboygan, Michigan (coincidentally Mackinaw's home port). The escort is currently scheduled for Monday, February 19th.

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ARRL Launches Emergency Radio PR Campaign, Web Site

"Ham Radio . . . Getting the message through for your family and community" is the theme of the League's 2007 public relations campaign. The "Emergency Radio" Web site <<http://www.emergency-radio.org/>> debuted this week. ARRL Media and Public Relations Manager Allen Pitts, W1AGP, says the 2007 PR initiative picks up the momentum ARRL public information officers started during the just-ended "Hello" campaign.

"As we begin launching the new emergency communications campaign, the friendships and good will developed in Hello will aid in future promotions of Amateur Radio," Pitts said. "For 100 years, radio in its many forms has saved lives and aided in crises. We have a great legacy and a bright future."

The new Web site is a partner to the "Ham Radio . . . Getting the message through for your family and community" brochure now available and, in fact, already starting to make the rounds. "If an emergency or disaster should happen, the new 'Ham Radio . . . Getting the message through' site has the capability to quickly upload current information, providing PIOs with words and pictures to circulate to the media while the event is still news," Pitts explained.

As both the brochure and the "Ham Radio . . . Getting the message through" Web site note: "Amateur Radio . . . has consistently been the most reliable means of communication in emergencies when other systems failed or were overloaded." The campaign stresses that ham radio works and works well and it doesn't require any external infrastructure, such as telephone lines or even the Internet, to get the message through.

The Web site provides page space for emergency communication and disaster relief organizations to tell about their work. "So far, SKYWARN, MARS, SATERN and RACES have taken advantage of our offer, showing the versatility of ham radio in disasters and emergencies," Pitts says, "and more are expected."

The campaign also emphasizes that ham radio is fun and a good way to keep in touch with friends or family. "You can have this capability for yourself and your family," the campaign points out, inviting members of the general public to get an Amateur Radio license and become active in emergency communication through the Amateur Radio Emergency Service (ARES) or other organization. A "How to Get Started" tab on the Web site offers step-by-step instructions.

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5G1B Net Schedule

6:30PM 4007 kHz USB

Day	NECOS	Tfc Rep
Sun.	XYA	XEE
Mon.	XEE	XEE
Tue.	BQH	BQH
Wed.	KZC	KZC
Thu.	SXU	SXU
Fri.	AVS	OCF

Sat. Rotating Duty (see below)

Don't be bashful, if the net has not been called by the net control station within 2 minutes, jump in and start things rolling.



NNN0AWFT George Fisher 3/22

Service Recognition

NNN0BJJ Curtis Dahleen 34 yrs

NNN0VEU Neil McMillin 24 yrs

NNN0AWFT George Fisher 1 yr

Don't forget your paperwork!

Saturday NECOS / TREP Schedule

	NECOS	TREP
Mar 3	KZC	KZC
Mar 10	SXU	SXU
Mar 17	AVS	OCF
Mar 24	XYA	XEE
Mar 31	XEE	XEE
Apr 7	BQH	BQH

Test Your Analytical Skills

QRP Trip

Courtesy of QST

Packing up for that mountaintop QRP trip, it's time to choose the batteries and the packs are almost full. From prior experience, you know you'll need 18 A/h of capacity. You have gel-cell packs that are rated at 5 A/h and alkaline batteries that are rated at 1.5 A/h and require a set of four in series to run the radio. The gel-cells weigh 12 ounces each and the alkaline cells 2 ounces each. Which type of battery will do the job with the least pack weight?

Answer in the next issue of the Minnesota MARSGRAM



Groton, Conn. (Feb. 9, 2007) – The fast attack submarine USS Louisville (SSN 724) moored at Submarine Base New London, is surrounded by ice during below average cold temperatures. U.S. Navy photo by Mr. John Narewski (RELEASED)

Solution for February

Trailer Wiring

This month, let's help your next door neighbor. He has a trailer as shown and enlisted your help in connecting the antenna at point X to the TV at point Y. The coax is run outside. How many feet would you need if you ran the coax from X to Z to Y? Could you do it with less wire by running it differently and still stay outside the trailer?

Answer:

Since the trailer is 16' x 8' x 8', think of two cubes 8' x 8' x 8'. Run the coax to the right center of the trailer on the roof (8' away from Z), which requires 11.3', and from there to Y which again requires 11.3' for a total of 22.6'.

Another way is to visualize the right side (ZY) of the trailer laying down as illustrated. Now the solution is readily seen to be 22.6'.

- BT OVER -



The First Day
Of Spring

