



# MINNESOTA MARSGRAM



Information for Minnesota Navy-Marine Corps. MARS Members

September, 2007

Volume 11, Number 9

## NNN0ALL Minnesota

by NNN0GAZ Tim

Greetings to All. Where did the summer go – those days pass much to fast for me. Already I've been an active participant in back-to-school sales, the Great Minnesota Get Together, and the Renaissance Festival. Now my attention turns to preparing for winter.

Hard to believe a year ago I was having my roof repaired, vehicle damage estimated and thankful that the worst of the late summer storm that struck Northfield was grapefruit size hail. There are still homes, businesses, and cars being repaired and every time the sky gets dark people wonder is it our turn again. We've completed a damage assessment for the National Weather Service – our estimated damages are upwards of 50 million dollars – just for twenty minutes of hail. For me it's hard to imagine the level of damage just 60 miles south from these late summer storms that have set new rainfall records. I am thankful that for the most part we've managed to keep buildings and businesses out of our floodplains.

After watching the news from Rushford, Elba and Minnesota City, I did check what the flood potential was at my home. I was surprised to find

that where I am at – roughly a mile and probably 30-40 feet above the river, I'm in an area of low to moderate risk for flooding. A closer look found that the source of the water is not the Cannon River but Spring Creek. Much of the soccer complex, just about 4 blocks south of my home, an area where youth soccer leagues play, surrounded by condos and townhouses, is all part of a floodplain for what normally is a small, tame creek. If you haven't checked your risk, visit <http://www.floodsmart.gov> - you may be surprised.

With the recent run of local disasters – both man-made and natural, we've had ample opportunities to file Essential Elements of Information messages of actual incidents. How many of you actually completed and transmitted an EEI message? The on-line tool at the national Navy-Marine Corps MARS site provides an almost fool proof means of collecting the data and setting up your message. From there it is a matter of cut, paste and transmit the information to the switch. Don't have digital capabilities –

find a member that does and transmit the message by PSK, MT63 or if nothing else by email to get the information on its way.

With the release of Navy Marine Corps MARS Instruction 1070.E, the requirements and eligibility for Department of Defense Identification cards is now clear. This instruction defines who will receive the card at this time – those that need it to access an Emergency Operations Center or are part of a team that will deploy to airports in support of the TSA in times of emergency. The additional requirement is that the member must have completed the National Incident Management System (NIMS) training courses. Specifically, you will need to complete IS-100, -200, -700, -800 courses.

For sometime we have been indicating these courses would be required and we have on a monthly basis provided study tips and reminders to assist members in completing these courses. To date I have received documentation from at

**GAZ** cont'd pg. 2

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>

**GAZ** *cont'd from pg. 1*

least four Minnesota members that they have completed the required courses. Again, I encourage each of you to complete the courses on-line. If you are a member who will be reporting to an Emergency Operations Center, make sure that I have documentation supporting that you have completed the courses. At that point, I will be happy to provide you with information on additional materials needed and the process by which the cards are issued.

If you are interested in a short trip to Northfield, sometime between mid-September and early October, I'll be venturing up on the roof of the Safety Center to check over the switch antennas in preparation for winter. Normally this task runs about one-two hours I do the work alone or with minimal assistance from a harmonic. We look over all the support lines, the coax condition and coax/antenna connections; place some marking tape on the antenna legs. Replacing the buckets of sand that hold the platform and antenna legs in place will probably be in order this year since many of them took some hail damage last year. Any help would be appreciated – usually we try to pick a warm Saturday morning so we are off the roof by noon.

Enjoy this issue of the Minnesota MARSGRAM. We look forward to hearing each of you on one of our evening nets.

BT OVER

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*"Criticism is often useful, and praise is often deceitful."*

Sir Winston Churchill

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**Tee It Up For The Troops****National Day of Golf**

September 7th, 2007 will find thousands of golfers across the nation taking to the links in an effort to honor and support the fallen and disabled members of our Armed Forces and their families.

TEE IT UP FOR THE TROOPS is the non-profit organization responsible for all those golfers and their cause.

The goal 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 the military veterans and their families.

The first event in 2005 raised over \$80,000 used for Freedom Scholarships awarded to the fallen and disabled military members and/or immediate family. In 2006 over \$100,000 went to The Wounded Warrior Project.

The 2007 event will support the Wounded Warrior Project in addition to the Fisher House and America Supports You organizations.

Minnesota Governor Tim Pawlenty has proclaimed September 7th, 2007, Tee It Up For The Troops Day. The Governor will also participate during the opening ceremony at the home tournament.

Tee It Up For the Troops makes no declarations in support for or against our involvement in current conflicts. The support is for those who serve. This year, over 100 golf courses in 32 states will host or participate in a Tee It Up For The Troops event.

You can find our more about the event at their website <http://www.teeitupforthetroops.com/index.cfm> including a listing of participating golf courses near you. If you can't make it to a participating course, please consider making a donation and playing golf on that day. Donations are tax-deductible.

BT OVER



**Fall**  
Beginning Sept. 23<sup>rd</sup>

## Training Corner

### Central Operations Guide

#### Area, Region, and State Nets

by: Bob, NNN0GAZ FOUR

- Stations are authorized to tune on frequency one minute before the start of a scheduled net, provided the frequency is not in use. Tuning during an active net without NECOS permission is forbidden. The NECOS may authorize a 30 second tuning period at the beginning of the net.
- The use of VOX (Voice Operated Transmitter Control) within the Central Area is not authorized.
- Area nets of general interest to the entire Central Area are: The CA1A net is an administrative net with check-ins limited to the Central Area Director, Area Deputy Director, Central Area Staff, Region and State Directors, and Region and State Staff. Other stations are invited to monitor the net.
- The CA1C net is a digital training net devoted to both assisting members to obtain basic skills in AMTOR and PACTOR, so they can utilize these modes on nets and with the MDS message switches, as well as providing a net for experimentation with the sound card modes. This net is secured at this time.
- The CA1E net is reserved for future ECOM net use.
- Region Nets provide the membership an outlet for out-of-region, out-of-state, and afloat traffic from the State Nets; allow for administrative discussions between the Region Director, Staff, State Directors, Net Managers, etc.; provide training and other administrative functions for the membership; coordinate with the Region and states during an emergency; and distribute information, guidance and other assistance to the membership.
- Region Traffic and ECOM Nets are open to participation by the general membership. Other Region Nets may have participation limited by the Net Manager as identified when the net is opened. All MARS members are invited to check-in.
- The Region Assistant for Net Operations/Reports (NNN0AS5 THREE) makes frequency and time allocations to the State Directors for their use as necessary. The State Director may establish or disestablish State Nets at their discretion.
- All Central Area Nets are listed in Annex B.
- Individual stations will report, to their State assistant for net operations, a frequency usage report reflecting the frequency used when a station has a transmitter and receiver up on a frequency and a control operator is present. A signal does not have to be transmitted, but a MARS member (the control operator) must be present. In other words you

### Test Your NIMS Knowledge

Expansion of incidents may require the delegation of authority for the performance of Operations, Planning, Logistics, and Finance/Administration functions. The people who perform these four management functions are designated as the:

- A. Deputy Staff
- B. Director Staff
- C. Command Staff
- D. General Staff

*Check for the answer in next month's MARSGRAM*

### August NIMS Solution

A basic ICS principle is that the first Incident Commander is responsible until the:

- D. Authority is delegated to another person.

- BT OVER -



cannot turn on your radio and then walk away. The reporting period for monthly reports is from the 1st of the calendar month thru the last day of the calendar month.

- The Frequency Usage Report format for individual MARS stations and Net Control Stations will be based on instruction from NNN0AS5 THREE.
- The frequencies allocated to the NAVMARCORMARS program are military frequencies assigned to the Navy, but are not specifically assigned for MARS operations. MARS has use of these frequencies on a NON-INTERFERENCE basis.

There are occasions when interference by another MARS service, area, or region, or non-military station may occur. In these cases, report the interference using the procedures found in NTP 8(D), paragraph B730. The message report will be sent by the State Director to the Region Director and NNN0AS5 THREE.

BT OVER

## Is it Time to Re-assess Where Are We Needed Most?

Jerry Boyd, N7WR WorldRadio February 2007

An interesting phenomenon has occurred within Amateur Radio Emcomm over the past quarter century. Prior to the early 1980s, with some relatively few and notable exceptions, the focus of Amateur Radio efforts in time of emergency or disaster was the public. When an emergency occurred, our forte was getting health and welfare (H&W) messages through, when there was no other medium available for that purpose. Our claim to fame was the value the public placed on us to let Mom and Dad in Omaha know that Susie in Anchorage survived the earthquake and was alive and well. With few exceptions, prior to the early 80s, it was the public, not government - and certainly not public safety - that was the recipient of our fine work. There were several reasons for that.

Until the early 80s, public safety was generally a closed society. Law enforcement in particular, but to some degree fire and EMS as well had a "we can do it and we don't need any help" attitude. Public safety personnel were somewhat suspicious of volunteers and did not seek ways to put them to use. Amateurs, as we are volunteers, often found the door closed, locked and unattended when they went knocking to offer services to public safety entities. That all changed, for a variety of reasons and I, as a Chief of Police at that time, had the opportunity to be right in the middle of those changes.

In the 1970s there were a number of government-funded studies of law enforcement which sought to improve the profession. Those studies were an outgrowth of the riots of the mid-1960s and to some degree blamed law enforcement for those acts of public disobedience on the premise that the police were "disconnected" from the citizens they served. As a solution, those studies recommended (in fact created "standards" requiring) the inclusion of community volunteers within the public safety professions. Not just reserve police officers or volunteer fire fighters but volunteers in crime prevention, communications, senior services, investigations, etc. That was the opening of the door which led to the current use of volunteers of all types (including Hams) by public safety entities across the nation.

I was proud to have had a role in expanding the use, by public safety, of Amateur Radio operators for communications support. I authored a series of often quoted articles in ARRL publications regarding ways in which amateurs could achieve acceptance by those of us in public safety. I spoke on the subject at Amateur Radio conventions throughout the

western United States and, in concert with the police department I headed and the American Radio Relay League, produced a much-watched video tape on the subject ("At Any Moment").

Over time, more and more public safety entities accepted Amateur Radio operators and began to utilize their services in emergencies and for large-scale special events. A good thing - if that is where it had stopped. But it didn't. Over time, my fellow police chiefs along with fire chiefs and others in government began to see amateurs as a cost-effective way of getting "routine," non-emergency work done without having to pay for it. After all; amateurs can't be paid as amateurs can they? And if agencies expand the role of Amateur Radio from actual communications in an emergency to include such things as installing public safety radio equipment, operating mobile communications units, and even serving as extra eyes and ears of the department on Halloween patrol - all without cost to the agency - then that, too, is perceived as a good thing.

For those amateurs not attracted solely by the opportunity to work along side cops and firefighters, many public safety agencies threw in a few incentives. Special police/fire identification cards, maybe a badge or a uniform. Some agencies with which I am familiar have gone so far as to make the "leaders" of affiliated Amateur Radio groups "Reserve Officers" with concealed firearms privileges as part of the deal.

I must tell you, in all candor, that when I played a role in opening the doors of public safety to Hams, oh, those many years ago I did not envision the degree to which the welcome mat would eventually be extended. My objective, back then, was to insure that when public safety communications in an emergency were inadequate to the task at hand, amateurs could and would come in to supplement (not substitute for) public safety resources. I did not envision, nor would I have supported, a situation in which amateurs substitute for what should properly be a routine function of government. I most certainly did, not envision, and would not have supported, the all-too-common situation today where the status and prestige of the uniform, badge, or agency affiliation is what drives amateurs to become involved, rather than their motivation being the idea of service and the fact that such service is one of the basic purposes of Amateur Radio.

So, by way of historical review, amateurs in many cases

## Re-assess The Need *cont'd from pg. 4*

became the “property” of the agency which issued the badge, ID, and uniform. To some extent, and I have witnessed this firsthand too many became prima donas. They will work for “XXX County Sheriff,” whether, or not their service is really needed or has anything more than ego value. But they will not work for Susie in Anchorage who, today like twenty-five years ago, has no way to let Mom and Dad in Omaha know she survived the earthquake which took out both landline and cellular telephones and the internet.

Jim Wades in his WorldRadio column last fall hit the nail on the head. We have arrived at the point where government agencies too often dictate what we as amateurs will do and how we will do it. We have, as Emcomm operators, lost touch with our roots - with the very basis and purpose of our existence. We fathom ourselves as emergency managers, as first responders, as public safety “professionals” though unpaid, and we have siphoned off too many to serve too few. There certainly are exceptions to this picture I paint and I am thankful for those amateurs who still serve citizens in need.

The events of 9/11/01, Katrina, and Rita collectively have reduced (not eliminated, but significantly reduced) the real need government has for our communications services. Yes, there will be times when public safety communications systems fail and our services will be needed. However, now being directly involved in public safety communications as my livelihood, I can tell you that the billions of Homeland Security dollars spent by and on public safety over the past five years have reduced, substantially, public safety’s need for Amateur Radio Emcomm. My dispatch center serves 27 different public safety entities: We have enough technology with redundancy, that I seriously doubt Amateur Radio will ever be needed to support their operations. I shudder when I hear people and organizations of amateurs talk about Amateur Radio having a significant role in public safety communications interoperability. if that’s true it is a terrible indictment of how Homeland security grant money has been spent. Interoperability “black boxes” are common place as are whole new radio systems all across the country. The pity is that while the need for amateur support of government has diminished, the number of gadgets and toys .which keep so many Hams glued to their police or fire department have grown exponentially, thanks to those grants.

I strongly believe, though I helped create this monster, that it is time to re-think our priorities and re-focus our

## Ecomm Actions!

By AI, NNN0GAZ ONE  
(from Ecomm Training Tips #13)

Our primary mission remains that of emergency communications. In the event of an actual incident we must be proficient in ecom procedures including, but not limited to, net operations, drafting/releasing EEI messages and the listing/transmitting high priority messages. Stations not proficient become liabilities. Only through constant training can we obtain and maintain proficiency. Ecom exercises are an excellent vehicle for developing/maintaining proficiency. In addition, to be prepared, we must have established working relationships with Army and Air Force MARS and local/state emergency organizations.

A review of ecom exercises conducted, at the state level, for the first two quarters of calendar year 2007 resulted in a total of two eight (28). Far less that those that required by NTP-8(D) DRAFT Annex D (one per quarter).

During the last calendar year receipt of actual/exercise EEI messages were at the lowest level in the past few years. We now have several customers that desire receipt of our actual EEI messages. Individual station support is requested to fulfill our obligation. An EEI form generator can be found on the national web site to assist in message formatting. The decision to send an actual EEI message is that of the individual station and should be based on an evaluation as to what incidents may be of national interest. If any question, send one!

BT OVER



efforts in the direction of those who really need us when “the big one hits.” Preparing to set up stations in public places, to accurately handle message traffic for the general public who will be without any other form of communications may not be as glamorous as staffing an EOC radio, or driving a sheriff’s communications van “Code 3.” In term of value and service however, Health & Welfare traffic on behalf of citizens is critically important. That’s where many of us started in Emcomm and in this writer’s opinion it is where we ought to return.

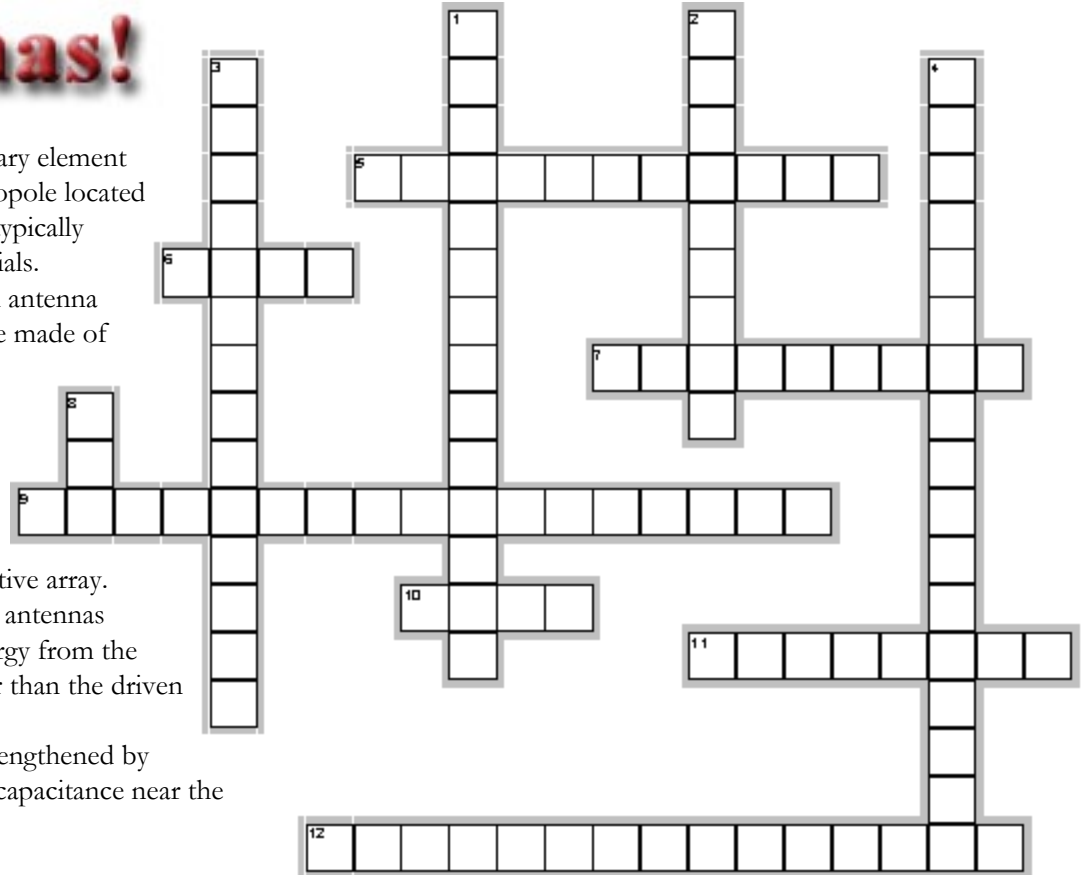
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# Antennas!

**Across**

- 5. Antenna in which the primary element is a quarter wave vertical monopole located above the artificial ground of typically three or four quarter wave radials.
- 6. A multi-element directional antenna array in which the elements are made of square or rectangular loops
- 7. Direction perpendicular to an antenna element.
- 9. The ratio of the power going in the desired direction to that at 180 degrees from the desired direction in a directive array.
- 10. Structural portion of many antennas
- 11. Element that receives energy from the driven element, usually shorter than the driven element.
- 12. Dipole that is electrically lengthened by placing loading inductance or capacitance near the outward ends of the antenna.



**Down**

- 1. The ratio of electrical length to physical length typically of a transmission line
- 2. Element of a multi-element directive antenna, usually longer than the driven element.
- 3. Plot of antenna radiation level as a function of azimuth angle around the antenna.
- 4. Vertical antenna that is electrically lengthened by placing loading inductance or capacitance structures near the top of the antenna.
- 8. A measure of how well a load is matched to a transmission line.



## August Crossword Solution

### NASA Trivia

**Across**

- 4. BARBARAMORGAN—The second teacher to be scheduled to go into space.
- 5. SEVEN—The number of Tracking and Data Relay Satellite Systems (TDRSS) satellites on-orbit today?
- 6. DRNORMTHAGARD—The first American Astronaut to ride aboard a Russian Soyuz rocket.
- 8. BILLCLINTON—The only U.S. President to be present at a Shuttle Launch?
- 10. RICHARDHTRULY—Former NASA administrator that was a back up crewmember for the first Space Shuttle mission.
- 11. ANDYTHOMAS—The last NASA Astronaut to live aboard Mir.
- 12. WALLYASCHIRRA—This astronaut was the only one of the Mercury 7 astronauts to fly in all three of NASA’s

‘Moon Shot’ programs (Mercury, Gemini and Apollo)?

13. JETPROPULSIONLABORATORY—The NASA Center that built the Explorer 1 spacecraft

**Down**

- 1. KATHYSULLIVAN—The first American woman astronaut to perform a spacewalk.
- 2. HIGHSPEEDFLIGHTRESEARCHSTATION—The original name for NASA’s Dryden Flight Research Center.
- 3. CASSINI—The largest interplanetary spacecraft ever built.
- 6. DRBERNARDHARRIS—The first African-American to perform a spacewalk.
- 7. ALANSHEPARD—The only astronaut of the original Mercury 7 astronauts to walk and hit a golf ball on the moon.
- 9. MOLLYBROWN—The name, given by Astronaut Guss Grissom, to the first Gemini capsule.

## 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.



NNN0BQH	Bruce Meyer	9/17
NNN0PLH	Larry Groom	9/21
NNN0EMO	John Oehlenschlager	9/28

## Test Your Analytical Skills More Christmas Trees

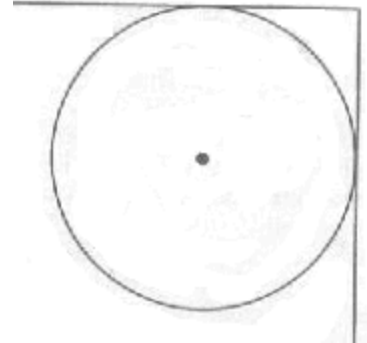
By John Timar Jr.

Courtesy of The Electron, Cleveland Institute of Electronics

Again we will use the same Christmas tree. The tree is located in the corner, so that the lowest branches just touch each wall, as shown. How far is it from the center of the trunk to the corner?

*Note from NNN0GAZ – you will need the information from the May, 2007 and August, 2007 Minnesota MARSGRAM to complete this puzzle.*

*Answer in the next issue of the Minnesota MARSGRAM*



## Saturday NECOS / TREP Schedule

	NECOS	TREP
Sep 1	AVS	OCF
Sep 8	XYA	XEE
Sep 15	XEE	XEE
Sep 22	BQH	BQH
Sep 29	KZC	KZC
Oct 6	SXU	SXU

## Argonauts - Mach 1



PACIFIC OCEAN (Aug. 24, 2007) - An F/A-18C Hornet, from the "Argonauts" of Strike Fighter Squadron (VFA) 147, breaks the sound barrier while making a high-speed pass close to the Nimitz-class aircraft carrier USS John C. Stennis (CVN 74) during an air power demonstration. The air power demonstration showed the capability of Stennis and Carrier Air Wing 9 to service members' family and friends who were invited to get underway with the ship. Stennis is returning to the United States after a 7.5-month-long deployment promoting peace, regional cooperation and stability and supporting the global war on terrorism.

## Test Your Analytical Skills Solution

*Note from the NNN0GAZ – to solve this puzzle, please refer to the May issue of the Minnesota MARSGRAM for additional information on the tree – if you didn't complete the problem in May, you'll need to now in order to solve this puzzle.*

Saunter over to your reference books and find the formula to find the volume of this three dimensional tree. Assume 100% density, as if it were made of solid chocolate! (skip the trunk)

Answer: 18.82 cu Ft.

Remember a Christmas tree is not a triangle as shown but a cone.

So you must use the formula for a cone, which is  $V = 1/3 * \pi * r^2 h$

**V = Volume; pi = 3.14159; R =**

**radius = 1.5 ft (squared = 2.25); h = height = 8**

$V = 3.14159 * 2.25 * 8 / 3 = 18.84$  cubic feet

Note from the NNN0GAZ – to solve this puzzle, you needed to determine the radius. In May, if you completed the puzzle, you solved for the height (AC – remember we are ignoring the trunk here) and the diameter (BD). You needed those numbers to complete this problem.

