



September, 2011

Volume 16, Number 9

NNN0ALL Minnesota

by NNN0GAZ Tim

Greetings. Recently all Region Five members received the following broadcast from the Assistant to the Region Director for Emergency Communications, NNN0AS5 TWO: FM NNN0AS5 TWO OH TO NNN0ALL REGION FIVE

BT UNCLAS

- SUBJ: NNN0AS5 TWO 07/11 A. NTP8 (D), OLD AND NEW VERSIONS, PARA. 108 A THRU E
- 1. WHEN WE JOINED MANY MARS WE AGREED TO ADHERE TO THE NTP8 SERIES PUBLICATIONS WHICH IN PART DESCRIBE OUR PRIMARY OBJECTIVE.
- 2. WE ARE NOT DOING WELL AS INDIVIDUAL STATES OR AS A REGION. IN THE LAST FIVE MONTHS WE HAVE HAD ONLY 1 (ONE) EXERCISE.
- 3. ONLY EXERCISES WITH A NOTIFICATION MESSAGE TO STAFF ARE COUNTED BY ASG TWO, ASZANDASA.
- 4. NEED YOUR HELP!

In the past, at conferences and in this newsletter, I have spoken or written about some of the issues I face as a State Director and Region Five Director. Probably the most glaring issue is emergency communication exercise and training. One of the main missions in MARS is to provide support for emergency communications. Yet when we ask for emergency communications

exercise ideas – well to be honest one could hear a pin drop. When we have an exercise – we might as well have yelled fire in a theatre, there is a mass exodus to leave the air. Our issue with ecom is not for a lack of trying – Al, asks for ideas, provides tutorial materials, and makes all the arrangements for a drill – thankfully, a limited number of loyal, dedicated participants show up for the party. But we need everyone – nothing is worse than trying to train someone during an actual emergency/event – been there, done that in the real world and to be honest – don't want to go there again. Yet when we ask why others don't up we don't get many answers. Even saying, "I'm not sure how to compose an EEI message," would be an answer. Exercises are to practice find our strengths and work on our weaknesses – don't feel embarrassed if an error is made – it's the entire reason for the drill.

I will admit, that I have not been able to attend my fair share of ecom drills – be they in Minnesota or in other states, I have little room to chastise anyone – the best I can ask is that we all try to participate, that is what I am asking here. My goal for

the remainder of the year is to make every effort to attend our remaining exercises. As a State Director, the goal for the remainder of 2011 - to make every effort to meet the goal of one exercise per quarter – we're halfway through the year – so that's only two quarters/two exercises. If we can fit another exercise in – that would be icing on the cake. There are a number of scenarios we can try, lets look at recent events in the news; earthquake (the east coast had one, nothing rules out MN); a tornado in north Minneapolis; wildfires – they've happened in MN, you get the idea. There is also the SET exercise in October – is anyone affiliated with a club that may be participating – maybe we could team up and try a combined amateur/MARS exercise.

My challenge to you as members is to participate – check in to evening nets, take your turn at being the net control station, participate in emergency communications exercises. The person who benefits is you and you become a valuable asset to this organization.

Enjoy this issue of the Minnesota MARSGRAM.

BTOVER

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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MINNESOTA TRAFFIC NETS

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

MINNESOTA ADMIN. NET

5G4A	Pri. NCE	19:00
		2nd Sunday

Website <http://www.mnmars.org>

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

Earthquake!

Lost in the hullabaloo about the 5.8 quake in Virginia on Tuesday, August 23, 2011, was the fact that there were about 90 other earthquakes across the United States that same day, including a 5.3 quake in Colorado.

Of course, only a few of those were detectable by people, and only 12 were above a 3.0 magnitude.

In other words, it was a typical seismologic day — in terms of sheer numbers of tremors — in the United States; what was slightly out of the ordinary was the magnitude and location of the earthquakes, said Rafael Abreu, a U.S. Geological Survey geophysicist, in an interview with The LA Times.

The New Madrid fault, which runs through the Midwest has been relatively quiet for a long time. Are we really ready? You can see a map of recent seismic activity in the central U.S. at:

<http://www.ceri.memphis.edu/seismic/recenteqs/index.html>

Hurricane Irene was also busy on the east coast created some discomfort in wireless service. As a result of Hurricane Irene:

- 6,500 cell towers were offline on Monday August 29th
- 44% of all cell sites in Vermont were non-functional
- 35% of all cell sites in Connecticut were non-functional
- 31% of all cell sites in Rhode Island were non-functional
- 25% of all cell sites in Virginia were non-functional
- One million customers were without cable service.

BTOVER

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Test Your NIMS Knowledge

Each month we take a look at a topic covered in the FEMA on-line courses required of all emergency communications volunteers. See how much you recall from the course.

An Area Command organization does not include an Operations Section because:

- A. Operations are conducted on-scene.
- B. Area Commands are not really commands.
- C. Its authority is limited to obtaining resources.
- D. The Planning Section handles operation in an Area Command.

Check in next month's MARSGRAM for the answer.

August NIMS Solution

Public health emergencies that are not site specific are a good use for a(n):

- B. Area Command

BTOVER

New Spotters Guide

The National Weather Service has completed the revision of the Spotter's guide. The publication is available for



downloading at: www.nws.noaa.gov/om/brochures/SGJune6-11.pdf The guide will be printed later this year according to NOAA information.

You can find enough information at the NOAA site (www.noaa.gov/index.html) by searching on “spotting” to keep you occupied for several hours. There is a wealth of good severe weather information that will improve the accuracy of your storm spotting. Accurately observing and reporting current conditions in the field is an important tool that enables the local weather service to keep the public informed during severe weather.

BTOVER

Training Corner

Operating Signals "Q" And "Z"

by: Bob, NNN0GAZ FOUR

Operating signals are described and listed in NTP8(D), ANNEX C. Para. C 100 provides:

a. Operating signals are concise codes designed primarily for use by communication personnel in exchanging information incident to the handling of messages or in establishing communications. Communication personnel also use them in service messages.

b. Operating signals provide no security and therefore must be regarded as the equivalent of plain language.

c. The "Z" signals are designed to cover military requirements and should be used whenever necessary in military communications. "Q" signals may be used in military communications where no suitable "Z" signal exists. Only "Q" signals will be used in non-military communications.

d. Meaning of "Q" and "Z" operating signals may be amplified or completed by the addition of appropriate call signs, time groups, complementary groups, etc. Call signs used to complement

an operating signal normally follow the signal, but under certain conditions, such as to achieve clarity or to effect separation, they may be placed ahead of the operating signal. Plain language is prohibited except when no other method is provided to complete the meaning.

e. When desired, an operating signal may be given an interrogative sense:

(1) When communicating with military stations, by inserting the prosign INT before the "Q" or "Z" signal.

(2) When communicating with non-military stations, by inserting the prosign INT after the "Q" signal and data used with it.

f. Operating signals should not normally be used in radio-telephone procedure. Instead, the operating information will be conveyed by concise phrases. When it is necessary to relay operating signals over voice circuits, they are transmitted by their phonetic equivalents.

g. ...

h. Blank spaces in the meaning of "Q" and "Z" signals will be completed in the order in which they appear; however, blank spaces enclosed in parenthesis normally will be completed on an optional basis only. (examples omitted)

There are more than 200 Z signals, most of which would seldom if ever be used by MARS operators transmitting Pactor or sound card modes. Listed below are a selection or sample of those that might be used. The list includes those set forth by NNN0GAZ TWO/ NNN0KZC in the August, 2004, MARSGRAM, for use in PSK-31.

ZAQ The last word (or group) 1) received from you was...; 2) transmitted to you was ...).

INT ZBK Are you receiving my traffic clear?

ZBK I am receiving your traffic ... 1) clear; 2) garbled.

INT ZBO Of what precedence(s) and for whom is (are) your message(s)?

ZBO I have (or ... has) ... (numeral followed by precedence prosign for each message(s) for ...).

ZEK No answer is required.

ZEN This message has been delivered by a separate transmission or by other means 1) messenger or courier; 2) mail to the addree(s) immediately following this operating signal.

ZES Your message ... has been received ... 1) incomplete;) garbled. Request retransmission.

ZEU Drill message.

INT ZEV Request you acknowledge message ...

ZEV Message (...) is acknowledged.

INT ZGN When was I (or...) last heard?

ZGN Nothing heard from you (or ...) (since ...).

INT ZKA Who is controlling station (net control station on this frequency (or on ...KHz (or MHz))?

ZKA I am (or ... is) controlling station (net control station) on this frequency (or on ... KHz (or MHz)).

INT ZKB Is it necessary to obtain the permission of the controlling station) before transmitting messages.

ZKB It is necessary to obtain the permission of the controlling station (net control station) before transmitting messages.

INT ZKD Shall I take control of net (for ...) (until ...)?

ZKD Take control of net (for ...) (until ...)

INT ZKJ May I close down (until ...)?

ZKJ ... 1) close down (until...); 2) I am closing down (until ...).

ZKL Resume normal radio communication now (or at ...).

ZKM Take guard (for ...) (on ...KHz (or MHz)).

INT ZRC Shall I tune my transmitter to ... 1) proper frequency; 2) zero beat with your (or ...) transmitter?

ZRC Tune your transmitter to ... 1) proper frequency; 2) zero beat with my (or ...) transmitter.

INT ZRF Will you send tuning signal on your present frequency (or on ... KHz (or MHz)) for one minute or until AS is given?

ZRF Am about to send tuning signal on my present frequency (or on ...KHz (or MHz)).

ZSO Send tapes (or messages) ... 1) once; 2) twice.

ZUE Affirmative (Yes).

ZUG Negative (No).

ZUH Unable to comply.

ZUI Your attention is invited to ...

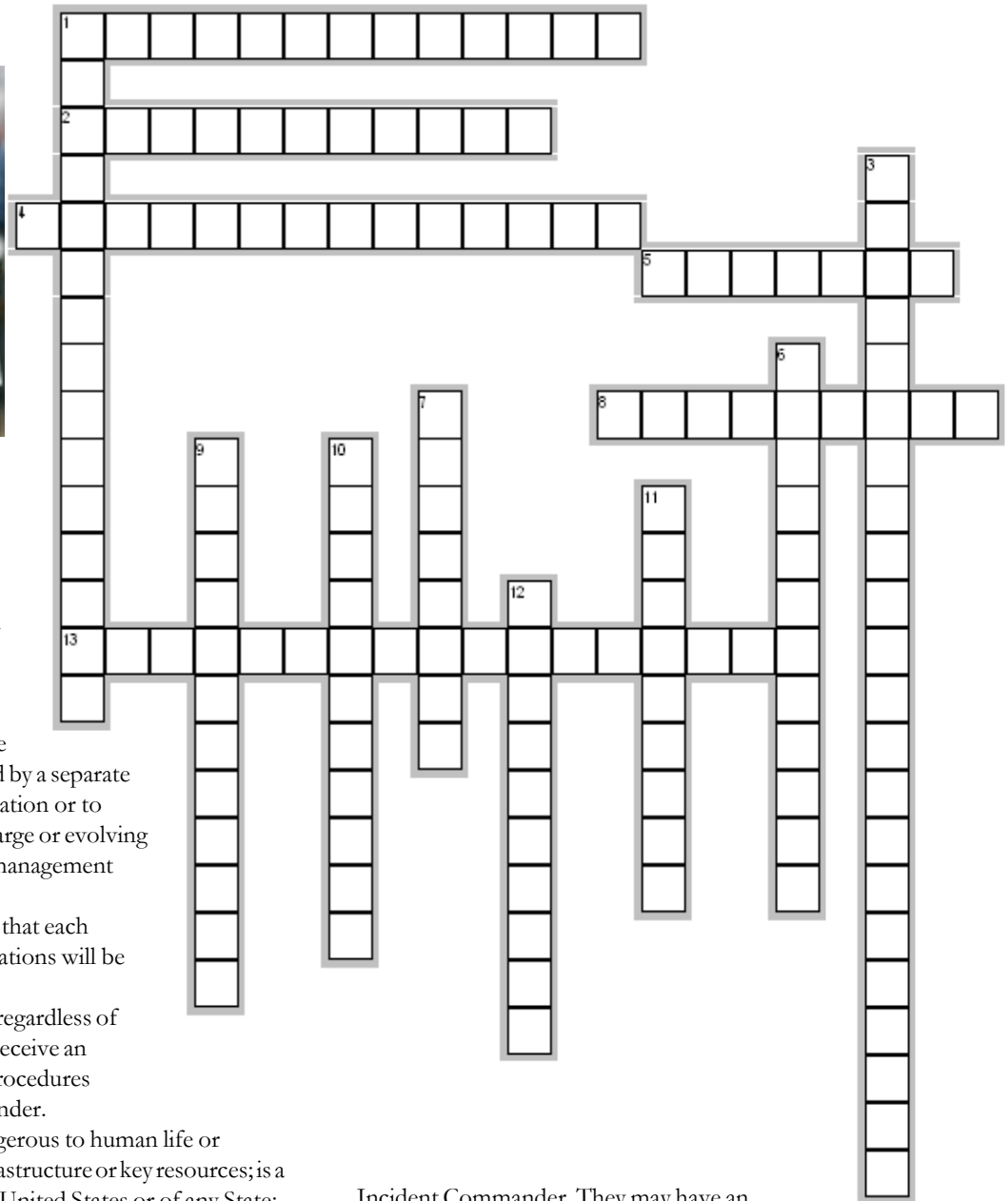
ZUJ Stand by.

ZWF Incorrect.

ZWG You are correct.

ZWH Try again.

The "Q" codes will be taken up in Part 2.



Across

- 1. Organizations and entities that are not part of any governmental structure. Includes for-profit and not-for-profit organizations, formal and informal structures, commerce, and industry.
- 2. An organization established to oversee the management of multiple incidents that are each being handled by a separate Incident Command System organization or to oversee the management of a very large or evolving incident that has multiple incident management teams engaged.
- 4. Principle of management stating that each individual involved in incident operations will be assigned to only one supervisor.
- 5. Process in which all responders, regardless of agency affiliation, must report in to receive an assignment in accordance with the procedures established by the Incident Commander.
- 8. Activity that involves an act dangerous to human life or potentially destructive of critical infrastructure or key resources; is a violation of the criminal laws of the United States or of any State; and is intended to intimidate or coerce the civilian population, or influence or affect the conduct of a government by mass destruction, assassination, or kidnapping.
- 13. The time scheduled for executing a given set of operation actions, as specified in the Incident Action Plan. Can be of various lengths, although usually they last 12-24 hours.

Down

- 1. The Section responsible for the collection, evaluation, and dissemination of operational information related to the incident, and for the preparation and documentation of the Incident Action Plan.
- 3. A facility established to coordinate all incident-related public information activities. It is the central point of contact for all news media.
- 6. Consists of Public Information Officer, Safety Officer, Liaison Officer, and other positions as required, who report directly to the

Incident Commander. They may have an assistant or assistants, as needed.

- 7. Immediate actions to save lives, protect property and the environment, and meet basic human needs. Response also includes the execution of emergency plans and actions to support short-term recovery.
- 9. A group of incident management personnel organized according to function and reporting to the Incident Commander.
- 10. Established for the temporary location of available resources. Can be any location in which personnel, supplies, and equipment can be temporarily housed or parked while awaiting operational assignment.
- 11. Any incident, whether natural or manmade, that requires responsive action to protect life or property.
- 12. Describing an incident, natural or manmade, that warrants action to protect life, property, environment, public health or safety, and minimize disruptions of government, social, or economic activities.

August Crossword Solution

Across

1. MAGNETICNORTH—The direction to which a compass points.
3. DEADRECKONING—A method of determining position by making an educated guess based on last known position, speed and currents.
5. CABIN—A room inside a boat.
8. BACKSPICE—A method of weaving the end of a rope to keep it from unraveling.
10. LANYARD—A line attached to a tool.
11. WAKE—Waves generated in the water by a moving vessel.
14. FOLLOWINGSEA—Sea with waves approaching from the stern of the boat.
16. PAINTER—A line attached to the bow of a dinghy and used to tie it up or tow it.
17. FORECASTLE—The most forward below decks area of a vessel.

Down

2. ABEAM—At a right angle to the length of the boat.
4. GROUNDSWELLS—Swells that become shorter and steeper as they approach the shore due to shallow water.
5. CAPTAIN—The person who is in charge of a vessel and legally responsible for it and its occupants.
6. BOATSWAIN—A crew member responsible for keeping the hull, rigging and sails in repair.
7. SCUPPER—An opening through the toe rail or gunwale to allow water to drain back into the sea.
9. CHANNEL—A navigable route on a waterway, usually marked by buoys.
12. ABAFT—Toward the rear of the boat, behind the boat.
13. DAVIT—A device that projects beyond the side of the boat to raise objects from the water.
15. LEEWAY—The sideways movement of a boat away from the wind, usually unwanted.

BTOVER

Exercise!



The next MN MARS exercise will be held on Sept. 21st from 2330Z to 0030Z. Details for follow on the 5G1B nearer the exercise date. Who knows if there will be a whole lotta shakin' goin' on, a downpour, solar eclipse, or invasion of Iowaegians! Stop by the net at 6:30PM and get the latest scoop as conditions evolve!

BTOVER

National Preparedness Month



The eighth annual National Preparedness Month kickoffs this month, using the slogan: “A Time to Remember. A Time to Prepare.” The campaign seeks to transform awareness into action by encouraging all Americans to take the necessary steps to ensure that their homes, workplaces and communities are prepared for disasters and emergencies of all kinds.

“As we move forward with planning for this year’s events and activities, we also recognize that this September marks the ten year anniversary of the 9/11 terrorist attacks,” said FEMA Administrator Craig Fugate. “By doing what we can to ensure that our communities, and our nation, are prepared to respond and recover from all types of disasters and hazards, we honor the memory of those who were lost that day.”

FEMA’s *Ready* Campaign promotes individual emergency preparedness at home, in the workplace, and throughout America’s communities throughout the year. *Ready* is a national campaign, produced in partnership with The Ad Council, designed to educate and empower Americans to prepare for and respond to all types of emergencies, including natural disasters and potential terrorist attacks.

You can find additional information at the READY campaign website: <http://www.ready.gov/america/index.html>

The Minnesota Department of Health and the Minnesota Department of Public Safety, with funding from the Minnesota State Legislature, have developed the codeReady emergency preparedness campaign as a statewide, community-based initiative to promote and improve the public’s level of preparedness. Information on preparing for a number of situations can be found at: <http://www.codeready.org/index.cfm>

BTOVER

How's Fishin' ?

'Bout a foot long on Lake Ida!

ALEXANDRIA, Minn. (KSAX) – Three years after a Morris woman lost her prosthetic leg on Lake Ida, a Wisconsin woman fished it out and returned it.

It happened over the Fourth of July weekend; Beth Krohn went fishing while at her lake home on Lake Ida. She was out on the lake for about an hour when she felt a snag, but when she started to reel in her line, she quickly began to realize she caught something and it wasn't a fish.

"It kept coming up and I'm like, 'Oh my gosh!'" Krohn said. "I hope it's not a dead body. We got it up and it was a prosthetic leg."

Pam Riley is from Morris, but she also has a lake home on Lake Ida. She lost her prosthetic leg three years ago



Beth Krohn shows off a keeper from Lake Ida.

while swimming. She never thought anyone would find it, but always laughed about "what if?"

"What would anybody think when they see a part of a leg," leg owner Pam Riley said. "They probably wondered where the rest of the body was."

After Beth caught the keeper that morning, she called a few places in Alexandria hoping to find its rightful owner. She ended up calling Advanced O and P in Alexandria; turns out she reeled in the leg right in the nick of time.

"We told (the receptionist) we found this prosthetic leg," Krohn said. "She started laughing and said she was going to put me on hold. She said the lady who lost was there in the office and she wanted to talk to me."

Krohn and Riley met up later that day in the Walmart parking lot in Alexandria to exchange stories and body parts. Krohn said she will tell this story for years to come because even though her catch wasn't one for the wall, she said it was definitely a keeper.

"How can you top that?" Krohn said. "It's like going deer hunting and shooting the biggest buck of all."

BTOVER

REMEMBERING 9/11

Fly Your Flag

The Foundry, Heritage.org

This month, America honors the anniversary of September 11, 2001, when terrorists killed nearly 3,000 of our fellow citizens. In the days after 9/11, Americans stood together as one, setting aside partisan fervor and recognized a common enemy in Islamist terrorist groups, particularly al-Qaeda. National security was rightfully restored as our nation's highest priority.

Ten years later, Osama bin Laden is dead, delivering to victims' families and the rest of America a bit of justice for the heinous acts we all witnessed. But one terrorist's death does not justify re-

the national mindset that to that day. As Thomas "Those who reap the blessing of freedom, unfatigue of it."

The global terror that be- result of 9/11 continues, and brave men and women risk their lives daily to protect America and prevent future acts of terrorism. As soldiers return from Afghanistan and Iraq after third or fourth tours of duty, we're reminded that a clear and present danger remains.

America's military requires the ability to respond forcefully and effectively, and it relies on Congress and the President to provide the necessary resources.

As Abraham Lincoln said in the Gettysburg Address, "It is for us the living, rather, to be dedicated here to the unfinished work which they who fought here have thus far so nobly advanced."

As the 10-year anniversary of 9/11 approaches, it's important to honor the victims and the heroes of that day by not only remaining on guard, but promising we will never quit this important fight until the threat no longer exists.

We will also be asking Americans to join us in a display of unity once again. On Sunday, September 11, 2011, we hope that every neighborhood across the nation is flooded with American flags celebrating the lives of those we lost in New York, Virginia and Pennsylvania and the heroism we witnessed, while also reminding each other that the fight to prevent another attack is not over.

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war on gan as a



BTOVER

ISS May be Evacuated in November

Russian rocket failure limits options

www.space.com

Ed Note: One of ham radio's most important ongoing educational and public relations programs is ARISS - Amateur Radio on the International Space Station. With the US Space Shuttle fleet retired and Russia having indefinitely grounded its Soyuz launch vehicles that were to be used in place of the Shuttles to transport Astronauts and Cosmonauts to/from the ISS, both nations are saying that the ISS may have to be abandoned indefinitely come this November. For ham radio, if this deactivation of the ISS happens, would the ARISS program resume — or even be considered to resume — after the ISS were to be reactivated? And if the worst case scenario were to happen, what would the loss of the ARISS program mean to ham radio?

The International Space Station may have to start operating without a crew in November if Russian engineers don't figure out soon what caused a recent rocket failure, NASA officials announced Aug. 29th.

The unmanned Russian cargo ship Progress 44 crashed just after its Aug. 24 launch to deliver 2.9 tons of supplies to the orbiting lab. The failure was caused by a problem with the Progress' Soyuz rocket, which is similar to the one Russia uses to launch its crew-carrying vehicle — also called Soyuz — to the station.

Currently, six astronauts reside on the space station. They shouldn't be unduly affected by the Progress crash, NASA officials said, because they have enough supplies to last a while on orbit.

But three of these astronauts are due to return to Earth next month, and the rest are scheduled to come back in mid-November.

At the moment, the Soyuz is the only way to get astronauts to and from the station. So if the rocket anomaly isn't identified and fixed soon, a fresh crew won't be able to reach the orbiting lab before the last three spaceflyers head for home.

That situation would leave the \$100 billion orbiting lab unmanned for the first time since 2001. Still, it wouldn't be a disaster, according to NASA officials. "We know how to do this," NASA's space station program manager Mike Suffredini told reporters today. "Assuming the systems keep operating, like I've said, we can command the vehicle from the ground and operate it fine, and remain on orbit indefinitely."

NASA would of course prefer to keep some crew aboard the orbiting lab, Suffredini added. Leaving the station

unmanned would cut back significantly on the scientific research being done 240 miles (386 kilometers) above the Earth. In the wake of the space shuttle's retirement last month, NASA has repeatedly stressed the importance of that research, and the scientific potential of the station.

But the timing just might not work out. Two Soyuz spacecraft are currently docked to the station to take its six astronauts home. The vehicles are only rated to spend about 200 days in space, so they'll have to depart soon.

Lighting conditions at the Soyuz's Kazakhstan landing site are also an issue. NASA and the Russian space agency mandate that landings must occur at least one hour after dawn and one hour before dusk, to facilitate better search and rescue operations should any be required.

The lighting window closes for about five weeks on Sept. 19 for the first crew and around Nov. 19 for the second. Waiting for a new window to open would stretch the Soyuz spacecraft beyond their 200-day ratings in both cases, Suffredini said.

So all six astronauts on the space station will almost certainly have left the orbiting lab by mid-November. Russian engineers are working hard to give crewed Soyuz launches the best chance to meet that deadline; the next one is slated to blast off Sept. 21, but that's almost certainly not going to happen, Suffredini said.

Russia has formed a commission to determine the cause of the Progress crash, and to figure out how to fix it. But NASA says

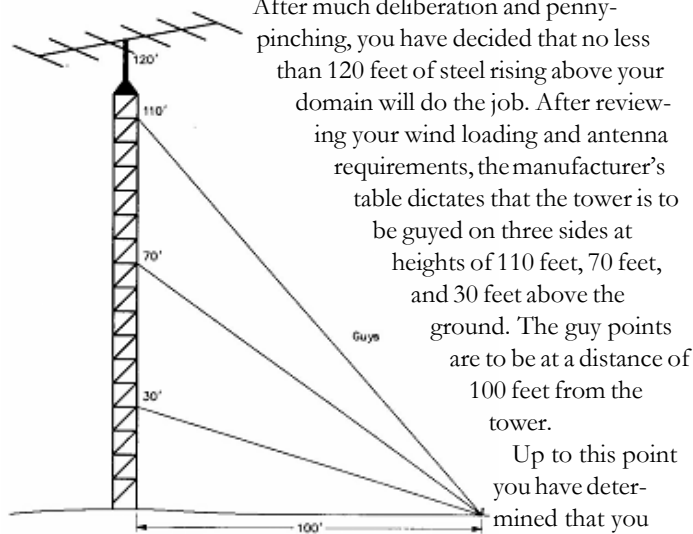
it won't rush anything, as astronaut safety is its chief priority. "We'll just see how it plays out," Suffredini said.

NASA won't put any crews on a Soyuz until the rocket has had several successful unmanned launches, he added. Those could happen relatively soon. Russia plans to use Soyuz boosters to launch a commercial payload and another Progress supply ship by late October.

The Progress crash marked the latest in a string of Russian launch failures over the last 10 months. This series of mishaps has caused some concern among U.S. lawmakers and experts, since NASA will rely on Russia to loft its astronauts to orbit until private American crew-carrying spaceships come online. That could start happening by 2015, officials have said.



Solution for August Skills Test



After much deliberation and penny-pinching, you have decided that no less than 120 feet of steel rising above your domain will do the job. After reviewing your wind loading and antenna requirements, the manufacturer's table dictates that the tower is to be guyed on three sides at heights of 110 feet, 70 feet, and 30 feet above the ground. The guy points are to be at a distance of 100 feet from the tower.

Up to this point you have determined that you

need the following supplies:

1200 feet of guy wire, 36 insulators and a minimum width of land must be 156 feet.

Next, you've decided you want to side mount a rotating Yagi with a 30 foot boom. So here is the question...

What is the maximum height (other than in the top ten feet) at which a rotating Yagi with a 30-foot boom (mounted at the midpoint) and a reflector length of 28 feet can be side mounted? (Ignore sag in the guy wires and antenna material.)

Answer: The question asks how high the antenna can be mounted without bumping any of the guy wires. First, figure the turning radius of the antenna:

$$\text{turning radius} = \sqrt{\left(\frac{1}{2} \text{boom length}\right)^2 + \left(\frac{1}{2} \text{reflector length}\right)^2} = 20.5 \text{ feet}$$

Being optimistic, start at the top guy point on the tower and work down from there. Sketch the triangle to help visualize the problem. The angle between the top guy and the tower is: angle = arcsin (height / guy length) = 42 degrees.

Now figure the distance below the guy point at which the guy wire is at least 20.5 feet

from the tower:

$$\text{Tan (42 degrees) / distance}$$

$$\text{Distance} = 20.5 / \text{tan (42 degrees)} = 22.8 \text{ feet}$$

Since this is a shorter distance than the next lowest guy point (40 feet between guy points), you can mount the Yagi at a height of 87.2 feet. A better idea would be to not cut it quite so close. A height of 75 to 80 feet will keep the antenna well clear of any electrical interactions with the guys and give you room to work with the antenna. Well, it looks like you can get the Yagi up and working.

BTOVER

Q: Where do ponies get their school supplies?

A: Stables!

Special Event Stations Mark Tenth Anniversary of 9/11

In remembrance of those who died in the terrorist attacks that occurred on September 11, 2001, several Amateur Radio Special Event Stations are being planned.

- The Pentagon Amateur Radio Club, K4AF, will be on the air 7 AM-9 PM Saturday, September 10 (1100-0100 UTC, Saturday, September 10 through Sunday, September 11). Active operating frequencies will be posted during event on the [K4AF website](#). This Special Event is to honor all those lost on September 11, 2001, with special remembrance of the 184 people who lost their lives at the Pentagon and on board American Airlines Flight 77.

- The Blair Amateur Radio Society, W3PN, will be operating N3U/FLT93 from September 8-15 in memoriam of United Flight 93 that crashed near Shanksville, Pennsylvania. This year's activity will take place during tenth anniversary and the Memorial Dedication for the Victims of United Flight 93. To receive a QSL card, please send a self-addressed, stamped envelope to Blair Amateur Radio Society, W3PN, 112 E Wopsononock Ave, Altoona, PA 16601.

- The Northeast Wireless Radio Club, N2WC, will be on the air Sunday, September 11 from 12 noon until 6 PM EDT (1700-2300 UTC). NWRC members will be operating in the General class bands on Phone, CW and Digital; please check the clusters for frequency updates. You can receive a Special Event QSL card when you send a \$2 donation to Northeast Wireless Radio Club, 213-37 39th Avenue, Suite 175, Bayside, NY 11361.

- The Kings County Repeater Association, KC2RA, will be on the air 9 AM-5 PM EDT (1300-2100 UTC) on Saturday, September 10. Look for KC2RA on 7.250 and 14.295 MHz, as well as EchoLink node 132967 (KC2LEB-R) and the KC2RA repeater at 146.430 (CTCSS 136.5). KC2RA members will be offering a special QSL card for the event. To receive a card, please send a self-addressed, stamped envelope to KC2RA 9/11 Memorial Event, PO Box 280288, Brooklyn, NY 11228-0288.

- The Symbol Technologies Amateur Radio Club, W2SBL, will be on the air September 10-11 on the following frequencies: 3.911, 7.240, 14.070 and 50.135 MHz, as well as D-STAR REF10C. STARC members will read the name of a person killed in the attacks with every QSO. A Special Event QSL card is available when you send a self-addressed, stamped envelope to Symbol Technologies Amateur Radio Club, W2SBL, One Motorola Plaza, B-13, Holtsville, NY 11742.

The dates, times and frequencies of these Special Event Stations are listed as they were reported to the ARRL, and as such are subject to change.

BTOVER

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.	???	???

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

Back to School



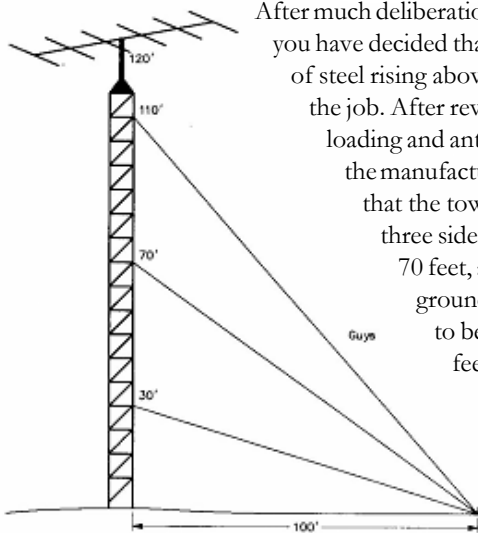
Saturday NECOS / TREP Schedule

NECOS TREP

Sep 3	KZC	KZC
Sep 10	SXU	SXU
Sep 17	XYA	XEE
Sep 24	XEE	XEE
Oct 1	BQH	BQH
Oct 8	KZC	KZC
Oct 15	SXU	SXU

Test Your Analytical Skills

More Tower Questions



After much deliberation and penny-pinching, you have decided that no less than 120 feet of steel rising above your domain will do the job. After reviewing your wind loading and antenna requirements, the manufacturer's table dictates that the tower is to be guyed on three sides at heights of 110 feet, 70 feet, and 30 feet above the ground. The guy points are to be at a distance of 100 feet from the tower.

Up to this point you have determined that you need the following supplies:

- 1200 feet of guy wire and
- 36 insulators.
- minimum width of land must be 156 feet.

You can side mount a rotating Yagi, with a 30 foot boom between the 75 – 80 foot height on the tower to avoid any electrical interactions and it will rotate without catching a guy wire.

You've decided in addition to the rotating Yagi, you would like a

cont'd col. 2



PORTSMOUTH, Va. (Aug. 27, 2011) A photo taken from aboard the aircraft carrier USS Enterprise (CVN 65) of tug boats steadying the Wasp class Amphibious Assault Ship USS Iwo Jima (LHD 7) as Hurricane Irene passes over Norfolk Naval Shipyard. (U.S. Navy photo)



Patriot's Day

remembering September 11, 2001

160 meter dipole, cut for 1.850 MHz to be tied to the top of the tower with the opposite end at ground level (fortunately your lot is flat) – how far will the opposite end be from the base? If the feed cable is to connect at a switch box at the tower base and that feed cable drops vertically to ground level from the feed point, how much cable is required?

Answer in the next issue of the Minnesota MARSGRAM