



December 2009 – Facilitators Corner:

Life is full of uncertainties. We have seen economic difficulties affect the County, Country and world. One of the things that has not changed is the way that Amateur Radio makes a difference in people's lives. Those who participate in one the aspects of Amateur Radio have a clear picture of this. We are ambassadors of the Air able to touch another person's life by the magic of radio. We do this in many different ways such as contacts via DX and local friends. We can also gain from helping with support of emergency communication. In the past eight years I have made more than a dozen friends due to my interest and participation in Amateur Radio. I would like to thank the whole community for making me feel welcome.

You and the Amateur Radio community by trying something new, helping to Elmer a new ham coming out to a club activity join in on field day.... When the New Year comes there will be many opportunities. You have a chance to help out. The annual club party is coming in February with that it is time to renew your membership with the club (if you are an employee of ATK consider helping out as a club officer). Some of the activities are: bike races, parades, field day, contesting and many other opportunities. I hope to see you on the radio.

73
David Cook [KD7OUP](#)

Please support our Club by renewing your membership or by joining the Club.

Remember, if you want to be considered for the position of Club President or Treasurer you must be an employee of ATK. The Facilitator can be any Club Member in good standing

From the ARRL: **STS 129:
Stocking the International Space Station**

Besides taking spare parts to the International Space Station ([ISS](#)) this coming Monday, the space shuttle [Atlantis](#) ([STS-129](#)) will deliver the module

antennas for [Columbus](#) -- the laboratory built by the European Space Agency ([ESA](#)) and host of two Amateur Radio on the International Space Station ([ARISS](#)) antennas.

"Lou McFadin, W5DID, a member of the [AMSAT](#) Board of Directors and a key volunteer for ARISS, showed the astronauts the best ways for them to safely unpack and assemble the antennas and associated cables once they and the hardware reach the ISS," said ARRL ARISS Program Manager Rosalie White, K1STO. "They reviewed how to maneuver and install the antennas during the spacewalk. Lou also oversaw the re-packing of the antennas and the onboard flight kit that accompanies shipments going to the ISS." Astronauts will install and deploy our ARISS antennas during the second spacewalk of STS-129. The ham team will monitor the spacewalk activity via a NASA real-time teleconference call. "The new antennas will increase opportunities for the many hams who covet making contacts with astronauts and cosmonauts," White explained. "Frequencies available for transmission to and from [Columbus](#) will be 2 meters, 70 centimeters, L-band and S-band. To start, the two Ericsson radios (2 meters and 70 centimeters) that are already on the ISS (but seldom used) will be moved and installed in [Columbus](#)."

The upcoming mission -- set to launch at 2: 28 PM (EST) on Monday, November 16 -- will be the last shuttle mission to bring personnel to the ISS. There will only be [five more shuttle flights to the ISS after this one](#); the last shuttle flight on the launch manifest is [STS-133](#), on board [Discovery](#), with a launch target of September 16, 2010. STS-133 will be the 134th and shuttle flight and the 36th shuttle mission to the ISS. "You'll see this theme in some of the flights that are going to come after ours as well," said Brian Smith, the lead space station flight director for the mission. "This flight is all about spares -- basically, we're getting them up there while we still can."

NASA ISS Ham Radio Project Engineer Kenneth Ransom, N5VHO, told the ARRL that the new VHF/UHF Amateur Radio antenna is currently stowed in the bay of the space shuttle [Atlantis](#) and will be installed during the second extravehicular activity (EVA) of the shuttle mission; EVA is NASA's term for a spacewalk. "The antenna -- along with another VHF antenna -- was developed

by ARISS in cooperation with the ESA to support an experiment involving the maritime Automatic Identification System ([AIS](#))," Ransom explained. "Both antennas will be installed on the Earth-facing starboard edge of the Columbus module. The AIS antenna will be forward and the ARISS antenna will be aft. The ARISS team is planning to migrate some stowed Amateur Radio gear to take advantage of the new antenna."

STS-129 will carry Commander Charlie Hobaugh, Pilot Barry Wilmore, Mission Specialists Bobby Satcher, Mike Foreman, Randy Bresnik and Leland Melvin; Wilmore, Satcher and Bresnik will be making their first trips to space. *Atlantis* will bring back Mission Specialist/ISS Flight Engineer Nicole Stott, KE5GJN, who has been on board the ISS since August 2009.

Starting to Stock Spares

The space shuttle program is turning its attention to helping the space station build up a store of replacement parts. As the only vehicle large enough to carry many of the big pieces of equipment into space, several of the shuttle flights are devoted to the task. This is the first, however, and as the first this mission is dedicated to taking up the spares of the highest priority. "We're taking the big ones," Smith said. "And not only are they the big ones -- they're the ones deemed most critical. That's why they're going up first."

After the shuttle stops delivering parts and people to the ISS, smaller Russian spacecrafts will take over. ISS Program Deputy Manager Kirk Shireman compared the shuttle's delivery service to a tractor-trailer: "What you've done is take away the 18-wheeler and replace it with a bunch of small pickup trucks."

For STS-129, *Atlantis'* cargo hold will be full of spares to keep the ISS going after the shuttle stops making trips to the ISS. According to NASA, *Atlantis* will carry a spare control moment gyroscope, a spare nitrogen tank assembly and a spare ammonia tank assembly. A spare latching end effector for the ISS's robotic arm, a spare trailing umbilical system for the rail car that the arm travels on, a spare antenna and a spare high pressure gas tank will also make the trip on Monday. In all, that's 27,250 pounds worth of spares to keep the ISS going long after the shuttles retire.

NASA said that some of those spares would be used to replace failed components of the systems that provide the station power or keep it from overheating or tumbling through space. Others, in the case of the latching end effector and reel assembly, are essential parts of the robotics system that allow the astronauts to replace the

other parts when they wear out. "It was a long-term goal to have the full power production capability and all the international partners present and six person crew capability," said Mike Sarafin, the lead shuttle flight director for the mission. "These are the spares that will allow us to utilize the investment that we've put in."

In addition to the complex robotics work required to get the spares into place, there are three spacewalks scheduled to go on outside and a complicated rewiring project planned for the crew inside. The focus for the work inside, and object of several tasks inside, will be preparing for the [STS-130 mission](#), during which the last US space station module will be delivered: The Tranquility node with its attached cupola. During the spacewalks, that will mean routing connections and preparing the berthing port on the Harmony node that it will attach to. On the inside, the work is a little more extensive; originally, Tranquility was to be installed on the Earth-facing port of the Harmony node, but it's since been decided that it would fit better on the port side of Harmony. And changing the plans requires significant changes to the hardware. Data, power, cooling lines, air flow -- all of those connections need to be rerouted to the new location, and with double the manpower normally available at the station, a shuttle mission is a good time to get that done.

While recent station assembly missions have lasted up to 17 days, NASA said that *Atlantis* has only 11 to get to the station -- and back. "All that in 11 days," Sarafin said. "It's a lot to package into a finite period of time; it's a challenging mission."

Atlantis' Commander Charles O. Hobaugh concurred: "There's been a lot of work put forth to make it all successful, and it's just incredible to see how much has been accomplished and how successful it has become. The space station has been a long hard road, but it's been an extremely productive road. We've really been able to bring together a diverse national and international background of cultures for one common cause. It's all science and exploration and cooperation."

Liftoff of *Atlantis'* flight to the International Space Station is set for 2:28 PM EST on November 16.

The countdown to launch begins 1 PM EST on Friday, November 13. -- *Thanks to NASA for some information*



GSARC Activities:

VE Test Session – December 15, 2009

Place: North Park School (Library)
50 E. 700 North
Tremonton, UT 84337

Time: 6:30 PM

December 2009 – **No Club Meeting**
Merry Christmas & Happy Holidays

January 2010 – Club Meeting

Date: TBA

Location: TBA

Amateur Radio Technician Class

Date: TBA

Contact: Dave Cook KD7OUP

February 2010 – Club Year End Party, Lunch

Date: 27-Feb-2010

Location: Beijing Buffet, Brigham City

June 2010

ADA Tour de Cure

Field Day

Brigham City Repeater Update:

As a reminder, the 145.290 Repeater now has a PL Tone. ***If you haven't programmed your HT or Mobile Radio for the 145.290 Repeater with a PL of .123 the Repeater will not acknowledge your transmission.*** If you need help bring your Radio and Owners Manual to a Club Meeting.

Fielding-Riverside Repeater Update:

Work continues on the Repeater. The 2-meter and 440 link antennas have been installed thanks to Ray

Manning, KB7WEV. Ray was able to acquire a man-lift and operator and put the 2-meter beam up as high on the pole as the lift would go. Ray has also spent quite a bit of time cleaning out the Repeater Shack and getting it ready for the equipment to arrive and be attached.

Rob Daines, KK7DO, and Boyd Young, N7WFM, have been working on the Fielding-Riverside (F-R) Repeater. They have the repeater working as a stand alone meaning that the 440 link is not working yet. The repeater can be set up at the site and when the link is ready it can be taken up later. This will make the F-R Repeater usable to locals in the area it just won't be linked to the 145.430 and 145.290. Anyone who is willing to help take the repeater to the site please contact Rob Daines.

The Cal-Mountain APRS Digi above Tremonton has been off the air for quite some time. This Digi is owned and has been run by a Logan group.

Within the next week or so our Club will install an APRS Digi at our Fielding-Riverside Repeater Shack and get APRS coverage back up in that area.

If you have an article or information you would like to post in the newsletter please send it to:

Bob Haynie
119 South 600 West
Brigham City, Utah 84302
- or -
bhaynie72@hotmail.com

Club info

Golden Spike ARC

Club Info Net

Wednesday night: 2000 hrs. (8:00 PM)
Carried over the 145.430, 145.290 and 448.300
MHz repeaters

Net Coordinator: Wayne Jenson, AB7TS
Net Assistant: Sandra Farnsworth, KE7EHJ

Box Elder County Emergency Training Net

Sunday night: 1930 hrs. (7:30 PM)
Carried over the 145.430, 145.290 and 448.300
MHz repeaters

Net Coordinator: Deloss Everton, W7TEU
Net Assistant: Boyd Giles, KC0VLO

Linked Repeaters:

145.430 - (pl .123) MHz (Blue Springs Hills)
145.290 - (pl .123) MHz (Brigham City)
448.300 - (pl .123) MHz (Blue Springs Hills)

Officers:

President: Brian Chapman, KA7MOA
Facilitator: Dave Cook, KD7OUP
Treasurer: Brian Chapman, KA7MOA

Newsletter Editors: Cathi Anderson AJ7CA
Bob Anderson, AA7TR
Bob Haynie, KC7JOK

Repeater Trustees:

'43 Rob Daines, KK7DO
'29 Boyd Young, N7WFM

Club Web Site:

<http://www.ubetarc.org/> (as of: 06-Nov-06)
Web Maintained by: Dave Cook, KD7OUP
The Web site will be updated as Dave gets time though the Site Name
(URL) may remain the same for quite some time.



Box Elder County ARES

Amateur Radio Emergency Service

December 2009:

I am so upset that I was not able to attend the ARES-RACES Conference Saturday November 7th. I haven't missed one of these Conferences in many years. I had a bad cold and didn't want to share it with 200 of our States ARES-RACES members.

Basic Message Handling Part-1 Continued –

Components of a Standard ARRL/NTS

Radiogram:

The standard Radiogram format is familiar to most hams from the pads of yellow-green forms available from ARRL Headquarters.

The form has places for the following information:

1. The "Preamble", sometimes referred to as "the header", consists of administrative data such as the message number, originating station, message precedence (importance) and date and time of origination. The combination of the message number and the originating station serves as a unique message identifier, which can be traced if necessary. We will discuss the Preamble in greater detail below.
2. The "Address" includes the name, street address or P.O. box, city, state, and ZIP of the recipient. The address should also include the telephone number with area code since many Radiograms are ultimately delivered with a local phone call.
3. The "Text" of the message should be brief and to the point, limited to 25 words or less when possible. The text should be written in lines of five words (ten if using a keyboard) to make it easier and faster to count them for the "check." Care should be taken to avoid contractions, as the

apostrophe is not used in CW. If a word is sent without the apostrophe, its meaning could be lost or changed. The contraction for "I will" (I'll) has a very different meaning when sent without the apostrophe! Contractions are also difficult to understand when sent by phone, especially in poor conditions. Commas and other punctuation are also not used in formal messages. Where needed, the "period" can be sent as an "X" in CW and digital modes, and spoken as "X-RAY." The "X" may be used to separate phrases or sentences but should be used only when the message would not be clear without it, and never at the end of the text. Question marks can be used as needed, and are usually spoken as "question mark", and sometimes as "query".

4. The "Signature" can be a single name, a name and call sign, a name and a title, "Mom and Dad", and occasionally a return address and phone number -- whatever is needed to ensure that the recipient can identify the sender and that a reply message can be sent if necessary.

Details of the Preamble:

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

Block #1 - Message Number:

This is any number assigned by the station that first puts the message into NTS format. While any alphanumeric combination is acceptable, a common practice is to use a numeric sequence starting with the number "1" at the beginning of the emergency operation. Stations who are involved in year-round message handling may start numbering at the beginning of each year or each month.

Block #2 - Precedence:

The precedence tells everyone the relative urgency of a message. In most cases, a single letter abbreviation is sent with CW or digital modes. On phone, the entire word is always spoken. Within the ARRL/NTS format, there are four levels of precedence:

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

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

Priority -- abbreviated as "P". For important messages with a time limit; official messages not

covered by the EMERGENCY precedence or a notification of death or injury in a disaster area. This precedence is usually associated with official traffic to, from, or related to a disaster area.

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

Block #3 - Handling Instructions:

This is an optional field used at the discretion of the originating station. The seven standard HX pro-signs are:

HXA -- (Followed by number.) "Collect" telephone delivery authorized by addressee within (X) miles. If no number is sent, authorization is unlimited.

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

HXC -- Report date and "time of delivery" (TOD) to originating station.

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

HXE -- Delivering station to get and send reply from addressee.

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

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

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

Block #4 - Station of Origin:

This is the FCC call sign of the first station that put the message into NTS format. It is not the message's original author. For instance, you are the radio operator for a Red Cross shelter. The fire station down the street sends a runner with a message to be passed and you format and send

the message. You are the "Station of Origin", and fire station is the "Place of Origin", which will be listed in Block 6.

Block #5 - The Check:

The "check" is the number of words in the *text section only*. Include any "periods" (written as "X," spoken as "X-Ray"). The preamble, address and signature are not included. After receiving a message, traffic handlers count the words in the message and compare the word count to the "check" number in the preamble. If the two numbers do not agree, the message should be re-read by the sending station to verify that all words were copied correctly. If the message was copied correctly and an error in the check number exists, do not replace the old count with the new count. Instead, update the count by adding a "slash" followed by the new count. For example, if the old count was five, and the correct count was six, change the check to "5/6". For more information on counting words and numbers for the check, [follow this link](#).

Block #6 - Place of Origin:

This is the community or building where the originator of the message is located, whether a ham or not. This is not the location of the station that first handled the message, which is listed in Block 4, "Station of Origin".

Block #7 - Time Filed:

This is an optional field, unless "Handling Instruction Bravo" (HXB) is used. HXB means "cancel if not delivered within X hours of filing time." Unless the message is time sensitive, this field may be left blank for routine messages, but completing the time field is generally recommended. Many hams use Universal Coordinated Time (UTC) for messages and logging. During emergencies, it is better to use local time and indicators such as PST or EDT to eliminate confusion by emergency management personnel.

Block #8 - Date:

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

Header Examples:

This is how a complete header might look for a CW or digital message:

```
NR207 P HXE W1FN 10 LEBANON  
NH 1200 EST JAN 4
```

This is how the same header would be spoken:

```
"Number two zero seven Priority HX Echo  
Whiskey One Fox November  
One Zero Lebanon NH One Two Zero Zero
```

EST January four."

A brief pause is made between each block to help the receiving station separate the information.

Pro-Words and Pro-Signs:

When sending formal traffic, standard "pro-words" or pro-signs" (CW) are used to begin or end parts of the message, and to ask for portions of the message to be repeated. In addition to adding clarity, the use of standard pro-words and pro-signs saves considerable time.

Some pro-words and pro-signs tell the receiving station what to expect next in the address, text, and signature portions of the message -- they are *not* used while reading the header, since the header follows a pre-determined format. Examples of commonly used pro-words are, "figures" sent before a group consisting of all numerals, "initial" to indicate that a single letter will follow, or "break" to signal the transition between the address and the text, and the text and the signature.

MESSAGE HANDLING PRO-WORDS, PROSIGNS AND ABBREVIATIONS

Pro-Word	Pro-Sign (CW)	Meaning or Example
BREAK	BT *	Separates address from text and text from signature.
CORRECTION	HH *	"I am going to correct an error."
END	AR *	End of message.
MORE	B	Additional messages to follow.
NO MORE	N	No additional messages. In CW can also mean "negative" or "no"
FIGURES	Not needed	Used before a word group consisting of all numerals.
INITIAL	Not needed	Used to indicate a single letter will follow.
I SAY AGAIN	IMI *	Used to indicate a repeat of a word or phrase will follow.
I SPELL	Not needed	"I am going to spell a word phonetically."
LETTER GROUP	Not needed	Several letters together in a group will follow. Example: ARES, SCTN.
MIXED	Not	Letters and numbers

GROUP	needed	combined in a group will follow. Example: 12BA6
X-RAY	X	Used to indicate end of sentence, as with a "period."
BREAK	BK *	Break; break-in; interrupt current transmission on CW
CORRECT	C	Correct, yes
CONFIRM	CFM	Confirm (please check me on this)
THIS IS	DE	Used preceding identification of your station
HX	HX	Handling instructions, single letter to follow -- optional part of preamble
GO AHEAD	K	Invitation for specific station to transmit
ROGER	R	Message understood. In CW, may be used for decimal point in context

When receiving formal traffic, the following pro-words, always preceded by "Say Again", are used to ask for clarification or repeats of missing words.

WORD AFTER	WA	"Say again word after..."
WORD BEFORE	WB	"Say again word before..."
BETWEEN	-	"Say again between...and"
ALL AFTER	AA *	"Say again all after..."
ALL BEFORE	AB	"Say again all before..."

* Two letters are sent as one character. Additional CW abbreviations are covered in a later Learning Unit.

Sending a Message with Voice: When the receiving station is ready to copy, read the message at a pace that will allow the receiving station to write it down. If the receiving station has missed any portion of the message, they will say, "say again all after____" or "say again all between____ and ____." In some nets, the practice is to say "break" and then unkey between sections of the message so that a station can ask for missing words to be repeated (these repeated words are also known as "fills"). In many nets the entire message is read first before any fills are requested. All numbers are spoken individually, as in "three two one five", not "thirty-two fifteen", or "three thousand two hundred and five".

Here is the entire message as it would be spoken:

"Number two zero seven Priority HX Echo
Whiskey One Fox November
One Zero Lebanon NH one two zero zero
EST January four.

Mark Doe
Red Cross Disaster Office
Figures one two three Main Street
Rutland VT figures zero five seven zero one
Figures eight zero two five five five one two one
two

Break
Need more cots and sanitation kits at all five
shelters

Break
Joan Smith Shelter Manager
End No more"

Time Savers

What NOT to say:

When passing formal traffic, do not add unnecessary words. Since the parts of the header are always sent in the same order, there is no need to identify them. Here is an example of how *not* to read the header of a message on the air:

"Number two zero seven Priority HX Echo
station of origin W1FN
check one zero time one two zero zero EST
Lebanon NH January 4
Going to Mark Doe Red Cross Disaster Office
Address figures one two three Main Street
Rutland VT
ZIP figures zero five seven zero one
Telephone Figures eight zero two five five five
one two one two"

This example added nine unneeded words to the message, including "station of origin," "check", "time", "going to", "address", "ZIP", and "telephone". If there is something about the message that deviates from the standard format, or if an inexperienced operator is copying the message without a pre-printed form, then some additional description may be necessary, but in most cases it just wastes time. (The pro-word "figures" is used correctly, and "number" is always spoken before the message number.)

73's

Bob Haynie KC7JOK
Box Elder County ARES EC
bhaynie72@hotmail.com

**2010 G.S.A.R.C.
Yearly/Elections/Dues Funds Raiser
& Party will be held:**

Date: **Saturday – February 27, 2010**
Starting Time: **1:00 PM** Ending Time: **3:00 PM**

Location: **Bejing Buffet, Brigham City
(North of the DI)**

Menu: Oriental Buffet

We need an attendance count so **PLEASE – RSVP
– ASAP (and no later than 13-Feb-10)**

The **GRAND PRIZE** this year is a **YAESU FT-7900R
Dual Band Mobile Radio**



To be eligible for the **GRAND PRIZE**
your **Year 2010 Dues** must be paid prior
to the drawing.

**One chance to WIN the GRAND
PRIZE per Dues Paid Member.**

You **DO NOT** have to be present at the Party to win
the GRAND PRIZE.

The winner, if not present, will be notified within
48 hours of the drawing.

Please mail or give your dues and the form below to one
of the G.S.A.R.C. Presidency:

**Brian Chapman KA7MOA (2009
President/Treasure)**
(ATK M/S UT40-MET Ext. 8526)
2185 South Hwy 89, Perry, Utah 84302

Dave Cook KD7OUP (2009 Facilitator)
2675 South 725 West, Perry, Utah 84303

Please return the form below with your dues payment:

G.S.A.R.C. Dues for the Year 2010
\$ 15.00 Date Paid:

Name: _____

Call Sign: _____

Address: _____

City: _____

State: _____ Zip: _____

E-Mail Address: _____

Phone Number: _____ Cell

Phone: _____

Are you an ARRL Member: YES NO

If yes what month do you need to Re-new:

Will you attend the February Party? _____ (#
Attending)

ATK Employee: YES NO ATK/Thiokol
Retired (Please Circle One)

Note: Please write additional family member
information (Name & Call Sign) on the back of this
form.

******* PLEASE PRINT *******

This form will be used to update Club Membership
Records.

Golden Spike ARC

C/O Brian Chapman KA7MOA
2185 South Hwy 89
Perry, Utah 84302-4126

**December
2009
No Club
Meeting**



If undeliverable, or for address correction, or if you would rather not receive this Newsletter
Please contact or return it to Brian Chapman, M/S UT40-MET, with corrections/changes marked