



# “News & Views”

Your Taylorville HAMnet newsletter

HAPPY HALLOWEEN

Submit ideas/articles to [tville.hamnet@gmail.org](mailto:tville.hamnet@gmail.org)



Seems that everyone wants  
to be a HAM!

(see page 3 for more)

---

Page 2 HAM radio and the  
international space  
Station

Page 3 Who's a HAM?  
Member Spotlight

Page 5 Raspberry Pi projects

Page 6 Moon Bounce  
Communications

Page 7 Calendar Events  
Who's calling the Net

---



## Ham Radio and the International Space Station

When astronauts, cosmonauts and mission specialists from many nations fly on the international space station, they will have amateur, or ham, radio as a constant companion.



Since its first flight in 1983, ham radio has flown on many international space station missions. Dozens of astronauts have used the Space

This is a photo of the initial amateur radio station equipment while it was being tested. After testing, the equipment was stowed aboard space shuttle Atlanta for delivery to the international space station

Shuttle Amateur Radio Experiment or SAREX, to talk to thousands of kids in school and to their families on Earth while they were in orbit. They have pioneered space radio experimentation, including television and text messaging as well as voice communication.

In 1996, delegates from major national radio organizations and from AMSAT, which stands for the Radio Amateur Satellite Corporation, in eight nations involved with the international space station signed a Memorandum of Understanding to form ARISS.

Continued on page 4

## Herman Munster – A HAM?

**Most folks don't know it, but Herman Munster (Fred Gwynne) was a HAM RADIO OPERATOR! (at least on the show) In reality, there is no documentation of him really being a HAM but it is fun to think about it. In episode number 18, which first**

**aired on January 21, 1965 Herman is goofing around with his**



**ham radio set, which is apparently a homebrew (naturally) transceiver with headphones, microphone, large horn style speaker, a large quantity of tubes, one HUGE tube and a bank of dry cell batteries) when he overhears some kids playing Martian with their walkie-talkies. Naturally the kids lead Herman and Grandpa into thinking there really ARE Martians on Earth, and being good citizens they notify the Air Force. Most significant trivia we learn from this episode is Hermans call: W6XRL4 Above is a rare copy of Hermans QSL card:**

**Now wasn't that fun? I love the QSL card!**



Richard Evans

N7PCE

The spotlight this month is on

Richard Evans

Richard holds an Extra Class License and has been a HAM for many years.

Richard is the Taylorsville HAMnet training coordinator.

---

### A few "REAL" famous HAMs

**KB2GSD - Walter Cronkite**

**WB4KCG - Ronnie Milsap**

**K4LIB - Arthur Godfrey**

**N6YOS - Pricilla Presley**

**K7UGA - Barry Goldwater**

**JY1 - King Hussein of Jordan**

**FO5GJ - Marlon Brando**



Continued from page 2

ARISS was created in 1996 to meet certain objectives and was the logical outgrowth of the very successful amateur radio activities on the Mir space station and the space shuttle.

In the United States, the American Amateur Radio League, which is also known as ARRL, and AMSAT provide leadership and consultation. They also donate and build hardware as well as making sure safety and qualification tests are successfully completed so the equipment can fly.

Over the years, HAM RADIO has been almost a constant part of the efforts aboard the International Space Station.

**Check out this impressive Ham Radio contact with International Space Station ISS.**

N0KGM Bob, from Cottonwood Heights, Utah is shown talking with the Intl. Space Station (ISS) via his Amateur Radio gear. This contact took place June 28, 2011.

He recorded the 2 minute Ham Radio conversation he shared with Astronaut Col. Doug Wheelock (shown at right) who was the Commander of ISS Expedition 25.



To watch the video enter the following into your browser.

<https://www.youtube.com/watch?v=vKZpG-IOqjY>

Frequencies	
Worldwide downlink for voice	145.80
Worldwide packet uplink/downlink	145.825
<b>Region 1</b> voice uplink	145.20
<b>Region 2 and 3</b> voice uplink	144.49
Worldwide uplink for cross band voice repeater	437.80
Worldwide SSTV downlink	145.800
Callsigns for the ISS	
Joe Acaba	KE5DAR
Aki Hoshide	KE5DNI
Yuri Malenchenko	RK3DUP
Gennady Padalka	RN3DT
Sergei Revin	RN3BS
Suni Williams	KD5PLB
<b>Russian callsigns</b>	<b>RS0ISS, RZ3DZR</b>
<b>U.S.A. callsign</b>	<b>NA1SS</b>
German callsign	DP0ISS
Packet station mailbox callsign	RS0ISS-11
Packet station keyboard callsign	RS0ISS-3
Packet Digipeater	ARISS
For more information on the procedures used to contact the international space station, please visit the <a href="#">ARISS Web site</a> .	



## 64 Raspberry PI Low-cost “Super Computer” Cluster

.....And you thought Legos ® were just for kids!

The Raspberry Pi is making great advances in many areas, including HAM radio.



Check out the following link to see HAM radio related projects being done by the Rocky Mountain Amateur Radio group. This presentation was given at Hamcon-Colorado over a year ago. Think of the advances since then.

<http://www.rmham.org/wordpress/wp-content/uploads/2013/06/Raspberry-Pi-Hamcon-Colorado-6-29-2013-FINAL.pdf>

# Moon Bounce or Earth-Moon-Earth communication

A tidbit from Wikipedia, the free encyclopedia

**Earth-Moon-Earth communication**, also known as **moon bounce**, is a radio communications technique that relies on



the propagation of radio waves from an earth based transmitter directed via reflection from the surface of the moon back to an earth-based receiver.

The use of the Moon as a passive communications satellite was proposed by W. J. Bray of the British General Post Office in 1940. It was calculated that with the available microwave transmission powers and low noise receivers of that time, it would be possible to beam microwave signals up from Earth and reflect off the Moon. It was thought that at least one voice channel would be possible.

The "moon bounce" technique was developed by the United State Military in the years after World War II, with the first successful reception of echoes off the Moon being carried out at Fort Monmouth, New Jersey on January 10, 1946 by John H. Dewitt as part of Project Diana. The Communication Moon Relay project that followed led to more practical uses, including a Teletype link between the naval base at Pearl Harbor, Hawaii and United State Navy headquarters in Washington, DC.

In the days before communications satellites, a link free of the vagaries of ionospheric propagation was revolutionary.

Later, the technique was used by non-military commercial users, and the first amateur detection of signals from the Moon took place in 1953.

Amateur radio (ham) operators utilize EME for two-way communications. EME presents significant challenges to amateur operators interested in working weak signal communications. Currently, EME provides the longest communications path that any two stations on Earth can utilize for bi-directional communications.

Amateur operations use VHF, UHF and microwave frequencies. All amateur frequency bands from 50 MHz to 47 GHz have been used successfully, but most EME communications are on the 2 meter, 70-centimeter, or 23-centimeter bands. Common modulation modes utilized by amateurs are continuous wave with Morse Code, digital (JT65) and when the link budgets allow, voice. Google "Moon Bounce" to find more information on this unique mode of communication.

## Calendar Events – Oct. 2014

October 6th - Weekly Net, 8:30 p.m. 146.94 repeater  
October 13th - Weekly Net, 8:30 p.m. 146.94 repeater  
October 20th - Weekly Net, 8:30 p.m. 146.94 repeater  
October 25th - **In person meeting, Fox hunt demo,  
Special meeting, Ham Radio & Taylorsville City  
Guest speaker – Ben Gustafson**  
**Taylorsville-Bennion Heritage Center**  
October 27<sup>th</sup> - Weekly Net, 8:30 p.m. 146.94 repeater

## Calendar Events – Nov, 2014

Nov 3 - Weekly Net, 8:30 p.m. 146.94 repeater  
Nov 10 - Weekly Net 8:30 p.m. 146.94 repeater  
Nov 17 - Weekly Net 8:30 p.m. 146.94 repeater  
Nov 24 - Weekly Net 8:30 p.m. 146.94 repeater  
Nov 29 - **In person meeting – Antenna theory**  
**Taylorsville-Bennion Heritage Center**

## Calendar Events – Sept, 2014

Dec 1 - Weekly Net, 8:30 p.m. 146.94 repeater  
Dec 8 - Weekly Net, 8:30 p.m. 146.94 repeater  
Dec 15 - Weekly Net, 8:30 p.m. 146.94 repeater  
Dec 22 - Weekly Net, 8:30 p.m. 146.94 repeater  
Dec 27 – **IN PERSON MEETING – ELECTIONS – 2015**

## PLANNING

Dec 29 – Weekly Net, 8:30 p.m. 146.94 repeater

## Who's calling the net?

October 6 <sup>th</sup>	Rulon	K7BTU
October 13 <sup>th</sup>	Doug	AD7LO
October 20 <sup>th</sup>	Open	Please volunteer
October 27 <sup>th</sup>	Rulon	K7BTU
November 3 <sup>rd</sup>	Open	Please volunteer
November 10 <sup>th</sup>	Open	Please volunteer
November 17 <sup>th</sup>	Rulon	K7BTU
November 24 <sup>th</sup>	Open	Please volunteer
December 1 <sup>st</sup>	Open	Please volunteer
December 8 <sup>th</sup>	Rulon	K7BTU
December 15 <sup>th</sup>	Open	Please Volunteer
December 22 <sup>nd</sup>	Rulon	K7BTU
December 29 <sup>th</sup>	Open	Please Volunteer

**We need you to volunteer to take your turn in calling the net.** Each member should call the net as part of their readiness training. **We need your help!**

Thanks to those who have volunteered to help.

To get your name on the list, send an email to [tville.hamnet@gmail.com](mailto:tville.hamnet@gmail.com) and indicate the day or days you can be net control. You can call the net from your home or if you want to call it from the pantry radio room, let us know and we will make sure you can get in.