

# SQUAKBOX

Issaquah Amateur Radio Club

Volume 31, No. 11

Issaquah, Washington

November 2009

## Remembering W7BI

*(Here is the next segment of Howard's Story continuing from last month as told to and transcribed by Pete Petersen WY7Z.)*

Howard tried several times to have the Navy recognize and reward the enlisted man in the fleet who had submitted a handwritten letter outlining the sonobuoy concept and design suggestions, but to Howard's knowledge, nothing was ever done for him.

Shipboard radar was quite primitive in the early 1940's. A frequency of 200 mHz was used and the phased array antennas, which rotated 360 degrees, were so large that only battleships and cruisers had room for them. Research scientists were attempting to develop a 400 mHz radar that would use a

much smaller antenna and Howard, because of his receiver experience, was assigned to work with them.

Howard built the radar receiver and worked on other component parts. The plan position indicator (PPI), a cathode ray tube with a trace that rotated on sync with the antenna rotation, provided some difficult problems to solve. They finally made a frame that held the CRT stationary and rotated a yoke of wiring and 2 component parts around the CRT. CRT's then

*(Continued on page 2)*

## FCC Issues Public Notice on Amateur Service Communication During Government Disaster Drills

On Tuesday October 20, 2009 the FCC released a Public Notice clarifying the Commission's rules relating to the use of Amateur Radio by licensed amateurs participating in drills and exercises on behalf of their employers. Entitled Amateur Service Communications During Government Disaster Drills, the Public Notice addresses participation by paid employees of organizations taking part in drills.

The Public Notice -- DA 09-2259 -- affirms that the Commission's rules "specifically prohibit amateur stations from transmitting communications 'in which the station licensee or control operator has a pecuniary interest, including communications on behalf of an employer.'"

ARRL Regulatory Information

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## November Program

### Annual Auction

See the article on Page 5 for the Rules.

Future programs are as follows:  
Dec - Ice Cream Party  
Jan - Open

### Also . . .

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There are openings for future programs. Contact Bruce KG7OI, 425-391-6828 to volunteer.

## At the last meeting . . .

October 7, 2009

The meeting was called to order at 7:32 pm, by President Ross Morris KF7D

After Introductions there were 22 members and guests present.

A motion was made and passed to approve the minutes of the September meeting, as published in the newsletter.

The Treasurer's report shows \$1573.79 in the treasury after insurance, PO Box and all other bills were paid.

Flash reported on the activities of the Issaquah Ham Radio Support Group (IHRSG).

Old business consisted of a brief mention of the November meeting being the annual auction to benefit the Issaquah Amateur radio Club treasury. The proceeds from the sale of any item sold are to go to the IARC treasury. Minimum prices can be set for any items donated. If the item does not bring at least the minimum, the person who donated the item may either take it back, or lower the minimum price.

The December meeting will again be a social time.

Lynn Burlingame N7CFO has become an official ARRL Affiliated Club Coordinator. In that capacity he graced our meeting with a brief message about a Speakers List. You can access more information via [N7CFO@N7CFO.COM](mailto:N7CFO@N7CFO.COM)

Bruce Helbert KG7OI gave us some updated information on the club repeater project. The frequency is 442.125MHz using a tone of 103.5Hz.

He is also looking for a cabinet that is suitable for a wet outdoor location. The desired size is about 2' x 3' x 6 feet tall. It need not be waterproof, but needs to be sturdy and somewhat rain tight.

Kermit Parker passed out copies of a URL for a video that shows the

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## E-Mail Elmer

Got a HAM radio question and can't find an Elmer to talk to? Just send your question by E-Mail to our E-Mail Elmer at:

[IarcElmer@dhuibh.net](mailto:IarcElmer@dhuibh.net) - Ed. - S

### 2009 IARC Officers

#### President

Ross Morris (KF7D) - (425) 392-1053 (Issaquah)

#### Vice President

Bruce Helbert (KG7OI) - (425) 391-6828 (Sammamish)

#### Secretary-Treasurer

Rod Johnson (WE7X) - (425) 392-8497 (Issaquah)

#### W7BI Trustee

Rod Johnson (WE7X) - (425) 392-8497 (Issaquah)

## W7BI Cont.

available had such short persistence that the "picture" could only be seen over a small part of the scope immediately behind the trace, and only in a totally dark room. RCA provided a newly developed long persistence CRT to experiment with. It proved to be an excellent tube and a PPI was soon developed that held a full picture throughout the thirty seconds required for 360 degree rotation. Their prototype led to a production model furnished to the navy even before the British had their radar.

During World War Two and the cold war that followed, Howard was involved in a great many projects, some of international scope and some of which are still classified. He was promoted to Section Head, Branch Head, and then in 1967 to Superintendent of the new Electronics Warfare Division, one of four Electronics Superintendents in the NRL and second highest of the civil service super grades in the federal government. In 1970, recognizing that he had been "building receivers for satellites" for ten years, he was also appointed Superintendent of the Space Systems Division. The combined budgets of his two divisions equaled half of the NRL total budget. His work brought him in contact with scientists, engineers, and representatives from allied nations as well as those in the U.S. government and military and in industry.

The projects on which Howard participated or supervised would

*(Continued on page 3)*

**W7BI Cont.**

fill a book and would be, in large measure, a history of naval electronics research in the 1940's to the 1970's. A partial list includes:

- The Navy's first UHF broadband antenna (1942). This was a vertical dipole that covered 200-400 MHz.
- The world's largest parabolic reflector antenna, used for the first moon-bounce communications (1951); first transcontinental and transoceanic communications by satellite (1955); first human voice signals over a satellite circuit (1954).
- The DOD Satellite Communication System involving 26 geostationary orbiting satellites. NRL participated in determining the characteristics of the satellites to assure that their performance was adequate to meet the Navy's operational needs. (1966-1968).
- The Tactical Satellite Communications System using satellite repeaters for ship-to-ship and ship-to-shore UHF communications, utilizing receivers and transmitters with enhanced frequency stability (1963-1970).
- The first U.S. wide-aperture circularly disposed radio direction finder (measuring 400 feet in diameter) to provide greatly improved DF bearing accuracy. Used, among other purposes, to locate transmitters in the USSR.
- Developed an improved model of the above using antennas and reflectors in concentric circles with a diameter of 800 feet, providing a sharp beam to greatly reduce interference from unwanted signals.

**Minutes Cont.**

earth from 100000 feet. Try [HTTP://videomaker.com/community/blogs/videonews/2009/09/5682-hd-video-from-100000-feet/](http://videomaker.com/community/blogs/videonews/2009/09/5682-hd-video-from-100000-feet/)

After a short social break, Ross Morris KF7D gave a very informative talk on the Washington State DOT Weigh-in-Motion system (CVISN) being operated by the WSP; to reduce the number and length of delays at the truck weighing stations.

Respectfully submitted by Rod Johnson  
Issaquah Amateur Radio Club secretary

- Designed a large upward looking radar "bedspring" antenna, built in Panama, to detect Russian Sputniks and compute their orbits.
- Developed multiplexing on a single RDF antenna system so that several operators could observe independently the bearings of signals simultaneously on several frequencies (1958).
- Studied a captured WW2 German tape recorder of advanced design, using a magnetic coating on paper tape that wore out after several uses. Howard's section, NRL chemists, and scientists from the 3M Co., developed an acetate film tape, very similar to the tape in wide use today.

More next month. - S

**Drills Cont.**

Manager Dan Henderson, N1ND, offered "This Public Notice is intended to clarify a difficult issue. A wide range of unofficial -- and frankly some incorrect -- interpretations have been offered on this topic in various public forums recently. DA-09-2259 is the official FCC notice on this issue. Though issued jointly by the Wireless Telecommunications Bureau (WTB), the Enforcement Bureau (EB) and the Public Safety and Homeland Security Bureau (PSHSB) under delegated authority from the Commission, the Notice makes it clear that WTB is the Bureau at the FCC with jurisdiction over the Amateur Radio Service rules and their interpretation."

The Public Notice states that, in order to facilitate participation by employees who wish to engage in government-sponsored drills and emergency exercises on behalf of their employers, a waiver can be requested from the WTB by the government agency sponsoring the drill or exercise (and not by the individual who wishes to participate in the drill or exercise). Such a request must follow established procedures for requesting a temporary waiver of the Commission's rules. The government entity conducting the drill must include in its waiver application the following information:

- When and where the drill will take place,
- Identification of the amateur licensees expected to transmit amateur communications on behalf of their employer,

*(Continued on page 4)*

## Drills Cont.

- Identification of the employer (s) on whose behalf the amateur(s) will be transmitting, and
  - A brief description of the drill.
- "It should be noted," Henderson said, "that the waiver request must be filed and acted upon in advance of the drill. The waiver must be actually granted by the Commission before the amateurs participate in the drill. It is not enough to apply -- the waiver must be granted first."

The public notice also emphasizes that in an actual emergency, the Part 97 rules "provide that an amateur station may use any means of radiocommunication at its disposal to provide essential communication needs in connection with the immediate safety of human life and the immediate protection of property when normal communications systems are not available." In those specific circumstances, rule waiver is not necessary.

Government entities requesting a waiver for their emergency/disaster drill should submit a written request addressing the factors listed above to Wireless Telecommunications Bureau, 445 12th St SW, Washington, DC 20554, Attn: Scot Stone.

A waiver is needed only for those licensees transmitting messages on behalf of their employer during the State and local government public safety agency's "occasionally conducted emergency preparedness or disaster drills test or drill." This may, after analysis, turn out to be very few licenses or, by rearranging functions of participants, a waiver may

not be needed. The Commission has also emphasized that only governmental agencies may apply for a waiver.

In September, the ARRL released guidelines that address numerous aspects of the issue of business communications in the Amateur Service.

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In September, the ARRL released guidelines that address numerous aspects of the issue of business communications in the Amateur Service. - ARRL WEB Site, Oct. 25, 2009 - S

# RYRYRYRY...



DE KA7TTY

Hello everyone,

Here it is November and time for our auction. See the rules below. It is time to dig into your stash in the basement or garage, or wherever you keep your stuff you are not currently using, and come up with the stuff you really will not use and need to pass on to someone who will love it and put it to use. These you need to bring down and donate to the auction.

It is also a fund raiser for the club and loads of fun. It is often amazing what shows up.

I will be thinking of you because I will be missing the auction meeting this year for the first time ever ! We bought concert tickets way back in March, and it turns out to be November 4th. Oh well. The bargains will have to wait until next year. Sorry about that.

I hope you are all winterized. I have noticed the nip is back in the air in the morning. First frost can't be too far away.

Take care and have a great auction. I will see you in December,

John KA7TTY

## Auction Rules

The rules for the auction are:

1. All items brought to the auction are considered donations to the Issaquah ARC. No consignment sales are conducted. All proceeds from the auction go to the club treasury.

2. Donors MAY set a minimum bid on individual items (the "Jess Butler Rule"). If the minimum is not reached, the item will be withdrawn from the auction and returned to the donor.

3. The donor may reduce or eliminate the minimum if they choose.

4. Bidders must sign in and get a number before bidding.

5. All bid sales are final and payment must be made in full be-

fore any purchases are removed from the building.

6. Unsold items will be (in order of preference) (1) returned to the donor, (2) offered free to any taker, (3) placed in someone's vehicle without their knowledge or (4) deposited in the nearest dumpster. - S

## Three Killed While Erecting Antenna

At approximately 8:40 PM on October 12, a man, woman and their 15 year old son were killed while trying to erect a 50 foot ver-

(Continued on page 6)

## SQUAKBOX

This newsletter is published monthly for the members of the Issaquah ARC W7BI. Items for publication must be received by the 15th day of the month preceding publication. Send items to:

**SQUAKBOX Editor**  
**John MacDuff, KA7TTY**  
 620 S.E. Bush St.  
 Issaquah, WA 98027-3909

Material may also be sent via E-Mail at w7bi@qsl.net.

The IARC is a nonprofit organization registered in the State of Washington and is affiliated with the American Radio Relay League (ARRL). Visit our WEB page at: <http://www.qsl.net/w7bi/>

Membership is open to anyone regardless of age, sex, race, national origin, religion, or amateur radio license status. Dues are \$20 per year for a family membership, free for those under 19 years of age.

A two-month courtesy mailing of this newsletter will be made to meeting visitors and others upon request.

Original material may be quoted without prior permission provided ISSAQUAH ARC SQUAKBOX is credited.

## - Coming Events -

- **November 4, 2009** - Monthly Issaquah ARC meeting at the Issaquah Valley Senior Citizens Center, 75 NE Creek Way, Issaquah. Doors open at 7:00 PM, the meeting begins promptly at 7:30 PM and the program begins at 8:00 PM. Refreshments are provided.
- **November 8, 2009** - Maple Ridge Ham Radio and Computer Swap Meet. Maple Ridge, BC. [http://rac.eton.ca/events/detail.php?event\\_ID=1286](http://rac.eton.ca/events/detail.php?event_ID=1286)
- **November 23, 2009** - Issaquah Ham Radio Support Group meeting. On the Radio check-in 146.56 MHz at 7:00 PM.
- **December 2, 2009** - Monthly Issaquah ARC meeting. See Nov. 4th for time and location.
- **December 28, 2009** - Issaquah Ham Radio Support Group meeting. On the Radio check-in 146.56 MHz at 7:00 PM.
- **January 6, 2010** - Monthly Issaquah ARC meeting. See Nov. 4th for time and location.
- **February 20, 2010** - Salem Hamfair & Computer/Electronics Swapmeet. Rickreall, Oregon at the Polk County Fairgrounds. <http://www.w7sra.com> .
- **March 7, 2010** - Burnaby ARC Flea Market. New Westminster, BC [http://rac.eton.ca/events/detail.php?event\\_ID=1333](http://rac.eton.ca/events/detail.php?event_ID=1333)

## Antenna Cont.

tical antenna at the home of the man's mother, Barbara Tenn, KJ4KFF, in Palm Bay, Florida. The deceased were not licensed amateurs. According to police reports, Melville Braham, 55, Anna Braham, 49, and their 15 year old

son Anthony were putting up an antenna -- Tenn's second -- at night when they lost control of the antenna and it crashed into nearby overhead power lines. The impact sent 13,000 volts of electricity through the pole that the three

were holding. A family friend, a 17 year old boy, was on the roof at the time of the accident. He and the couple's daughter, who was in the house at the time, were not injured. – ARRL News Letter, Oct. 15, 2009 - S

NEXT MEETING: Wednesday, Nov 4, 2009 - 7:30 PM

Talk-in frequency: 146.56 MHz

FIRST CLASS POSTAGE  
--- TIME SENSITIVE MATERIAL

Issaquah Amateur Radio Club  
P. O. Box 2171  
Issaquah, WA 98027-0097