

# Kings Point

## Amateur Radio Club Newsletter

25 Years Of Voluntary Emergency Communications Service To Our Community

[www.kparc.org](http://www.kparc.org)

Bringing together all levels of ham operators, both newcomers and veterans, to share in the enjoyment of shortwave radio and emergency communications

Volume 5 Issue 1

Sun City Center, Florida

January 2010

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### Vice President

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Larry Brown, W3LWB

#### Club Room Manager

Joe White, KA1KO

#### KPARC.org Web Master

Bill Love, W2LOV

#### Antenna Managers

Lew Merrill, N4LD

Jim Malanowski, W3SKI

#### Membership/Publicity

Bev Wilson, KI4TYZ

#### Weather Station Manager

Alan Blackwell, K9YI

#### Training Manager

Vacant

#### Program Chairperson

Vacant

**The Kings Point Amateur Radio Club meets the first Monday of every month at 2:00 p.m. in the Main Clubhouse Craft Room.**



Dick Bishop, W4NWD

## From The President

KPARC Members, Greetings,

### Happy New Year – 2010!!

This year will bring many opportunities to learn about and experience new things. One of our club objectives is to create an environment for advancing technical knowledge.

Through programs, training classes, discussions, demonstrations, and field trips we can keep our members informed on what is happening in the technical world. We are always looking for programs, presenters, and new subjects to introduce in our meetings. Your help and suggestions are important in meeting this objective.

Another KPARC objective is community service. In 2010 we will support community service through improved equipment, training, and hands-on practice. Watch for club projects that build confidence in our emergency preparedness.

One of the needs of our club is member participation in club operations. I've noticed other clubs address this by having a club work or project day. So for starters, I suggest we schedule a few hours one day a week to work on club projects. How about Tuesdays 1-3 PM? I will keep a list of projects posted in the club room. Joe White, our Club Room Manager, and I will help prioritize the list and be sure materials are available. The eye ball QSOs and colorful discussions will be fun and the club will benefit from having our facility more usable; plus more members will know how the equipment works.

Another proposed change for 2010 is to establish a regular schedule for opening the club room. It will take a little time to develop a formal schedule, but in the interim, I'll look for a volunteer to collect a list of members willing to take a time slot then develop this into a schedule. The times can be mornings or afternoons, every day, alternate days, or any combination. The benefits of this are more equipment operating time (build experience and confidence), and better exposure to the public, (promote community relations and service).

That's enough to kick off 2010. I hope you find a common theme in the subjects I mentioned. As always your feedback is invited,

73's Dick W4NWD

## Some Radio History

### A. Scientists

- Heinrich Hertz - first to detect radio waves in 1887 by causing a spark to leap across a gap that generated electromagnetic waves - built oscillator and resonator by 1893

Oliver Lodge in Britain, Alexander Popov in Russia, Edward Brailey in France - filled a glass tube with metal filings that would cohere under electromagnetic waves and when the tube was tapped, the filings would collapse to break the circuit - built coherer to detect radio waves by 1894

### B. Inventors

- Guglielmo Marconi invented his spark transmitter with antenna at his home in Bologna, Italy, in December 1894. He took his "Black Box" to Britain in Feb. 1896 and although it was broken by custom officials, he filed for British Patent number 12039 on June 2, 1896. He formed his first Wireless Telegraph and Signal Company in Britain in 1897 at age 23 and the world's first radio factory on Hall Street in Dec. 1898. The American Marconi Co. was formed in 1899. Marconi controlled patents for the Lodge tuner of 1900 with dial, and Fleming valve of 1904 that acted as a diode tube to amplify electrical current in one direction. His company sold spark transmitters to the U.S. Navy for point-to-point transmission.
- Reginald Fessenden of Canada invented a continuous-wave voice transmitter 1905 using a high-frequency alternator developed by Charles Steinmetz at GE 1903, made voice broadcast over North Atlantic Christmas Eve 1906; this broadcast was heard by wireless operators on banana boats of the United Fruit Company that developed crystal receivers for its ships; Fessenden sold to Westinghouse in 1910 the patent for a heterodyne receiver that used the joint operation of two AC currents for a third frequency.
- Lee de Forest patented his audion tube 1906, had visited the Fessenden lab in 1903 and stole the design for a "spade detector," promoted idea of multi-point broadcasting, sold patents to AT&T.
- Harold D. Arnold at AT&T developed the amplifying vacuum tube in 1913 that made possible the first coast-to-coast telephony and the first transatlantic radio transmission in 1915.
- Edwin Armstrong patented the regenerative circuit in 1913 that fed a radio signal through an audion tube 20,000 times per second to caused stronger oscillations in the tube that generated radio waves. He made long-distance voice transmissions 1914, developed superheterodyne circuit during World War I that combined high and low frequency waves, was promoted to Major in the Signal Corps, sold patents to RCA 1920, discovered FM transmission 1933 but rejected by Sarnoff at RCA who was trying to develop television.

De Forest began the longest lawsuit in radio history in 1915 when he sued Armstrong over the basic regenerative patent, but lost in 1921 and 1923 when it was demonstrated in court that de Forest could not explain how or why his audion tube oscillated; Armstrong did understand and made a clear explanation of regeneration. De Forest would win the final court battle in his 13th lawsuit in 1930, on a technical interpretation of the words used to describe oscillation, and was awarded the basic radio patent, causing him to become known as the "father of radio." The Ken Burns 1991 documentary *Empire of the Air* focused on the 3 men who "made radio" - de Forest, Armstrong, Sarnoff - but unfortunately ignored the contribution of many other important engineers and amateurs and pioneers.

### C. Amateurs

- Charles Herrold began regular broadcasting in San Jose 1912
- Prof. Earle Terry in Madison, Wisconsin - 9XM
- Fred Christian in Hollywood with 5-watt transmitter in his bedroom - 6ADZ
- William Scripps in Detroit broadcast music from office of his newspaper, the Detroit News, on station 8MK that became WWJ

- Hiram Maxim of American Radio Relay League testified at Congressional hearings in 1918 - 8500 amateurs transmitting to 200,000 receivers - many had returned from World War I with experience using Signal Corps SCR-70 vacuum-tube radios - most popular were simple inexpensive crystal radio receivers rather than tube sets
- Frank Conrad was engineer for Westinghouse, built SCR-70 receivers during war for Signal Corps and began broadcasting music from his garage in Pittsburgh - 8XK
- RadioShack Corporation formed in 1921 in Boston to sell equipment to "ham" operators, taking its name from the small wooden building for radio equipment on ships.

The American Radio Relay League in Dec. 1921 made the first successful transatlantic shortwave broadcasts with small superheterodyne receivers, and Frank Conrad would develop regular commercial shortwave broadcasting.

## Fox Hunting

KPARC members are becoming more and more involved the amateur radio activity known as FOX HUNTING. So the following was taken, in-part, from a Fox Hunting Amateur Radio Club. Please note that our monthly calendar has two dates dedicated to building the equipment and a hunt for a hidden fox. Sounds interesting and fun? Join the group on January 7 from 1:00 to 4:00 p.m. at the shack.

**Radio direction finding** is used to find sources of interference to any form of wireless electronic communications, including broadcast and two-way radio, television, and telephones. It is also used to track missing or stolen cars and other property. Search and rescue workers use it to find persons in distress. Emergency Locator Transmitters in downed aircraft are tracked with RDF techniques.

The information in this article pertains to RDF equipment and techniques for Amateur Radio operators. Hams use RDF to track jamming stations and stolen equipment, but more often, they use it just for fun. Hidden transmitter hunting has been done by hams for about fifty years and it is a growing activity. T-hunting refers specifically to hunts involving hams driving in RDF-equipped vehicles. A mobile T-hunt is best described as hide-and-seek for all ages with radio gear. When you set out on a T-hunt, you never know where you'll end up, and you have no idea what you're going to find. No form of ham radio contesting is more fun! Mobile T-hunting is done in cities and towns all over the USA, and elsewhere. Mobile T-hunting is called **foxhunting** in some parts of the USA, but everywhere else in the world, the

terms "foxhunting" and **ARDF** refer to another kind of RDF contest, done completely on foot in large woods and parks. It's a map-and-compass sport similar to orienteering, with about a half-dozen "fox" transmitters to find in a period of two hours or so. Someday this sport, which is also called foxtailing, fox-teering and radio-orienteering, may become an Olympic event. Meanwhile, it's a fun-filled activity for your hamfests and Scout Jamborees.

### NOTICE TO ALL MEMBERS

**YOUR 2010 DUES IS NOW  
BEING COLLECTED**

**SINGLE MEMBERSHIP**

**\$10.00**

**FAMILY MEMBERSHIP**

**\$15.00**

**YOUR PROMPT PAYMENT WILL MAKE THE  
TREASURER & SECRETARY VERY HAPPY**

**The First KPARC Meeting For  
2010**

**Monday January 4, 2010**

**At 2:00 in the Craft Room**

**Main Clubhouse**

# January 2010

Sun	Mon	Tue	Wed	Thu	Fri	Sat
					<b>1</b>	<b>2</b> KPARC/ SCCARC Breakfast @ Sun City Café Club Room Open 9-12
<b>3</b>	<b>4</b> KPARC Monthly Meeting @2:00 p.m. Craft Room Main Club- house	<b>5</b> SCCARC Emergency Net 7:30 p.m. on 147.225	<b>6</b> CERT Net 7:30 p.m. on 147.090 SCCARC Monthly Meeting 2:00 p.m.	<b>7</b> Fox Hunting Kit Assembly 1:00—4:00 p.m. KPARC Club- Room	<b>8</b>	<b>9</b> KPARC/ SCCARC Breakfast @ Sun City Café Club Room Open 9-12
<b>10</b>	<b>11</b>	<b>12</b> SCCARC Emergency Net 7:30 p.m. on 147.225	<b>13</b> CERT Net 7:30 p.m. on 147.090	<b>14</b>	<b>15</b>	<b>16</b> KPARC/ SCCARC Breakfast @ Sun City Café Club Room Open 9-12
<b>17</b>	<b>18</b>	<b>19</b> SCCARC Emergency Net 7:30 p.m. on 147.225	<b>20</b> CERT Net 7:30 p.m. on 147.090	<b>21</b> Fox Hunt & Dinner 4:00 to 6:00 p.m.	<b>22</b>	<b>23</b> KPARC/ SCCARC Breakfast @ Sun City Café Club Room Open 9-12
<b>24</b>	<b>25</b>	<b>26</b> SCCARC Emergency Net 7:30 p.m. on 147.225	<b>27</b> CERT Net 7:30 p.m. on 147.090	<b>28</b>	<b>29</b>	<b>30</b> <b>23</b> KPARC/ SCCARC Breakfast @ Sun City Café Club Room Open 9-12
<b>31</b>						