

CENTRAL ILLINOIS RADIO CLUB

Short CIRCuits



January 2008

From the President

Christmas Dinner

OK – The last time we met was for the Christmas Dinner. I believe Swingers was a fine location, but would appreciate any feedback. The meals were good, albeit a bit expensive. I do think the seating - at round tables of 6-9 worked out well, facilitating conversation. Anyway – it was good to celebrate the holidays together with you. Nettie and I enjoyed ourselves and I hope you did also.

DX Spider

I am not sure how many of you use the DX Spider (the dx packet cluster), but it has been out of service for quite a while. Basically, it had been running from the top of State Farm's Tower on Veteran's parkway. We lost access to the internet from that location and have been casting around for a new site. Thanks for Ralph Bellas for volunteering to host the spider at his QTH. Gary Huber arranged for the State Farm radio club to purchase a TNC and the spider should be up and running at Ralph's in the near future.

Meeting ideas

We had a few ideas for meeting topics at the Christmas dinner, but essentially we need more. Please give some thought to what you would like to do in the coming year and we can discuss at the January meeting.

I am working on getting us a presentation or visit on or to the wind farm, but so far don't have anything scheduled. Also, as some of you may know, Jim Baker had a lightning strike which did dire damage to much of his

station. He, Gary Huber and I are thinking of putting together an evening on lightning protection. Spring is coming up and with it the inevitable thunderstorms.

January Meeting –

Circuit Board construction / etching, etc. Dan Beer will give us a presentation on the creation of printed circuit boards. This is a practical skill that I would venture is in decline. Dan is super experienced, an electrical engineer in addition to being a dentist and should be able to give us a great practical presentation.

Officer's

The 2007 officers were re-elected to 2008. I am not sure this is healthy for the club. We really need to have new faces and ideas cycling through the leadership. Please give thought to stepping forward when we elect next year's officers.

Floyd Hofmann

As you undoubtedly know, Floyd's wife of 62 years, Alice, passed away recently. Our heart goes out to Floyd and his family.

Take care everyone. See you Wednesday, January 23 at 7:00pm in the Red Cross on Route 9 East, across from the Fire station.

Thanks –

Keith
AC9S

Central Illinois Radio Club

P.O. Box 993
Bloomington, IL 61702-0993

<http://www.qsl.net/w9aml/>

President: Keith Hanson AC9S
(309) 378-4416

Vice President: Mike Sallee,
KC9FWL

Secretary: Chuck Kostelc N9RZV
(815)-842-4058

Treasurer: Norm Huber N9ZKS
(309) 378-4674

Newsletter Editor: Norman Huber,
n9zks@verizon.net
(309)-378-4674

The CIRC is a not-for-profit ARRL special service club whose purpose is to advance the service of Amateur Radio. Located in Central Illinois, CIRC and its members welcome all to use the 146.94 repeater and to attend club meetings.

Submissions for the newsletter must be received by the 10th of the month and may be snail or e-mailed to the editor at:

Norm Huber
19266 US Highway 150
Bloomington, IL 61704-5855

e-mail n9zks@verizon.net

Permission is granted to Amateur Radio-related organizations to reproduce contents of Short CIRCuits provided full credit is given.

And You Thought It Was Hard To Put Up An Antenna In Normal

My Christmas present would be approval of my antenna. I presented 7 packages (of 20 pages) of the original request that started when France requires all new (after Oct 1st this year) construction of satellite dishes and outdoor airconditioner air handlers to fill out "construction permits". The house appearance before and a computer diagram of what it will be after the "construction". The ham antennas normally, if less than 12 meters tall and elements not longer than 4 meters, do NOT NEED ANY PERMIT. I noted that and enclosed the 12 page ham antenna law in each of the 7 packages that I submitted.

The kick in the butt (the little things that happen in France) is that one department doesn't know or care about what another one does. So, this community doesn't know any more than "require a permit". Sure the DDE, whatever that stands for, knows that ham antennas can be put up without permit UNLESS it is on a REGISTERED HISTORIC SITE. We are not. But, the road is a scenic drive and is marked on the map as such. In my opinion, the scenic part is LOOKING TO THE SEA (<http://www.keeran.net/Echailer.html>) like I see out my window. And the antenna would be in my courtyard behind someone looking at the sea !

In a month, they say, (which will be next week) I will get a yes or no reply with a number. No Explanation to why or WHY NOT will come with the reply. Some deal.

The French like their original stone houses appearance so much you have to use roofing tile shaped solar panels on the roof if you put solar hot water heat in. It absolutely needs to leave the house look original. (I haven't touched the house shape when applying for my antenna permit)- I remember M-A's long time ago statement that the French were mad at military tanks driving through the city breaking the steps to the houses when driving out the Germans. In other words, we are worse than the Germans. The Germans didn't destroy the cities or steps... they just killed the citizens.

My photos/diagrams that I submitted (didn't think you wanted *all the pages*) are attached. Just by looking at it, would you understand what I am putting up? Would a non-ham?

see attachments (looks like they are in reverse order - you can figure that out)

73 Swa sont tres

Larry F/K9ORP That is " ef barre de fraction ka noof oh air pay "

PS - the pronunciation is difficult for me - J sounds like Gee and G sound like zhaa. I'll never speak in French. oh, the 2 meter beam will reach the APRS node 30 miles away... then I will be on the map. hi hi They don't need to know all that technical stuff in the antenna permit. The land toward the sea is ours but I am not supposed to put a wire across the street. shhhhhh so what.... later... a 252 foot long piano wire will cross the street. hummm , no , I don't know who that belongs to ... it is "just another wire". hi hi

Calendar of Events

Sun	Mon	Tue	Wed	Thu	Fri	Sat

Weekly 10 Meter Net

Every Tuesday evening at 28.450 mHz- at 8:30 p.m.

Weekly 2 Meter Net

Every Tuesday evening on the 146.940-repeater at 9:00 p.m.

10/10 Breakfast

First Saturday of every month at 8 a.m. in the Baker's Square at Vernon Ave. and Veterans (Just south of College Hills Mall).

CIRC Meeting

Fourth Wednesdays of the month at 7:00 p.m. at the Red Cross building in Bloomington (Just north of the airport).

Bloomington VEC Testing Dates

1/19
3/15
5/10
7/19
11/15

All at the Osborne Room at the Blomington Police Department.

Testing from 12:00 to 2:00. Setup at 11:30.

Keith, AC9S

Nets in the Area

Mon thru Sat	9:00 A.M. CT	14.2475 (HF)	Displaced Peorians
Monday	9:00 P.M.	146.730	123.0 PL Open Net
Tuesday	9:00 P.M.	146.255	(103.5 PL) Woodford County
Tuesday	7:15 P.M.	146.910	Tazwell County ESDA Net
Tuesday	8:30 P.M.	28.450	CIRC Open 10 meter Net
Tuesday	9:00 P.M.	146.940	(103.5 PL) CIRC Open Net
Wednesday	9:00 P.M.	147.060	Open Net Has Newslines
Wednesday	9:00 P.M.	442.250	103.5 PL ARES Open Net
Wednesday	Varies	147.100	103.5 PL <i>Sometimes</i> Trader's Net follows ARES Net held on 442.250
Thursday	9:00 P.M.	146.760	(162.2 PL) Open Net with Newslines
Thursday	9:00 P.M.	146.850	(103.5 PL) Open Net Peoria
Thursday	9:00 P.M.	146.895	North central IL Traders Net
Sunday	08:15 A.M.	1.815	Open 160 meter AM net
Sunday	7:00 P.M.	146.985	Clinton ARC net (NEW)
Sunday	8:30 P.M.	147.075	Open Net with Newslines

Central Illinois Area Repeaters

Freq	Callsign	Location	PL
145.390	N9EZJ	Lincoln	103.5
146.730	K9HGX	Decatur	123.0
146.790	WD9HRU	Bloomington	
146.850	W9UVI	Peoria	
146.940	W9AML	Bloomington	103.5 CTCSS
146.985	KA9YPK	Clinton	
147.015	NX9M	Normal	88.5 (open*)
147.075	W9UVI	Washington	103.5 CTCSS
147.100	WA9RTI	Decatur	103.5
147.150	WD9FTV	Bloomington	
147.345	K9ZM	Lincoln	103.5
147.390	WB9DUC	Pontiac	127.3
442.250	WA9RTI	Decatur	103.5
442.700	WB9UUS	Normal	107.2 (open**)
444.350	W9EX	Normal	107.2

* Repeater is currently in open mode with pl for those with QRM

** Repeater RX with tight carrier squelch and loose tone squelch (107.2)

(Please help me keep this list correct. I know it may not be up to date at this time. Norm N9ZKS)

DXSpider and Local APRS Status

Written by Gary Huber AB9M

N9PE DXSpider will be moving to K9ZO's QTH. Ralph has offered to provide internet access which is required to network N9PE with the world wide spotting network. A new TNC (N1SF RC) an old radio (AB9M), and the old computer (N1SF RC) will be connected to K9ZO's internet connection and coaxial cable and antenna. N9PE DXSpider, 144.91 MHz should be QRV at 1200 baud by the time you are reading this. Thanks Ralph!

N9PE-2 is now QRV on 144.39 (1200 baud) as an APRS WIDE2 node. Use <http://www.findu.com/cgi-bin/find.cgi?n9pe-2> to "find" the node located at 4028.64N and 08857.30W. The N9PE-2 antenna is located about 197' AGL. N9PE-2 "broadcasts" information about W9AML for travelers with Kenwood D-7a or D700 series radios. Information includes the location of W9AML, its frequency, tone, and range as well as the Tuesday night net and Club meeting info.

AC9H, Ray has established an APRS I-GATE (AC9H-1) which really helps getting local APRS information into www.findu.com Thanks Ray!

Lightning and Protection Grounding;

I've added a number of hyperlinks to the W9AML website at <http://www.qsl.net/w9aml/> . When using the National Electrical Code link, you must agree to its "user agreement" in order to view the 2008 National Electrical Code "reader". While there are a number of sections that may be of interest to Amateur Radio Operators / Electricians, the section of most interest is Chapter Eight, Section 810 and Section 800 for those wanting to read "the code" for amateur radio station grounding and bonding.

To "cut to the chase", the "equipment or chassis ground" commonly found on most amateur radio station equipment should be connected to the station ground only if the station ground is bonded to the house primary entrance electrical ground. Note that the house primary entrance electrical ground and the "neutral" conductor are required (by the NEC) to be bonded together only at the "main distribution panel". Any and all additional ground rods or ground conductors shall be bonded to the primary entrance electrical ground (IAW the NEC). If your Station Ground is NOT bonded to the primary entrance ground, not only are you in violation of the NEC, but you may be providing a connection to the primary entrance electrical ground through your equipment! As a result, during a lightning storm, nearby strikes may create significant voltage potentials between various grounding points not bonded together causing component failure in station equipment.

"Play it safe" - "all electrical work shall be performed by knowledgeable and qualified personnel...", if you are unsure, leave it alone.

Remember When? Remember Now.

By Norm Fusaro, W3IZ

The ARRL CLUB NEWS and The American Radio Relay League

At one time or another we have all drifted back to happier, simpler times to help ease the stresses of life. While many professionals might agree that an occasional trip down memory lane is healthy and often therapeutic, few would recommend that we live in the past. Our human brains are wired to remember things that are comforting and suppress unpleasant memories. That is why we tend to use phrases like "the good old days" even if the time in reference was peppered with hardship.

Depending on how you look at it, ham radio like the automobile, has either hardly changed over the last 100 years or has advanced dramatically because of technological progress. Today's automobiles are loaded with safety features and convenience gimmicks yet the basic car is still a wheeled vehicle that burns fossil fuel in an internal combustion engine in order to transport passengers from point A to point B. In comparison radio operators still modulate and demodulate electromagnetic signals to communicate with stations near and far. Computer processing and micro electronics play a big part in how these illustrations have evolved, but have things really changed?

Amateur Radio is just one of many sectors where we see state-of-the-art technology blended with traditional concepts.

A trip to any marina will find modern sailboats made from composite materials and loaded with the latest navigational electronic devices but the basic component, harnessing energy from the wind to propel a vessel, has not changed in the thousands of years since its discovery. I am sure that you can think of your own examples where the application of modern technology has reshaped an old-fashioned idea, but the point is that while it is nice to remember and replicate things from the past, we live in the present.

Many people have an image of Amateur Radio as a nostalgic remembrance of another time when radio seemed to be magical when in fact it has always been cutting edge and futuristic. This portrayal of ham radio is reinforced by radio amateurs themselves through their reluctance to accept change and their insistence on preserving old technologies. The propensity to look back is not as prevalent in other activities as it is in Amateur Radio. When I go fishing I don't run into any anglers sporting woven rattan creels and bamboo fishing poles yet there is not a day that goes by when I am not reminded that "real radios glow in the dark" or some other witty reference to bygone times. How far back do we want to go to be authentic before it becomes absurd? "If it ain't spark it ain't radio?"

Years ago companies like Heath provided a way for many to get involved with Amateur Radio through kit building. The radio kit was less expensive than factory produced gear and, depending on the skill level of the builder, the finished products performed pretty well. Maintenance and repairs were easily performed because the builder had an intimate knowledge of the circuitry. Today, mass production and robotic manufacturing processes help drive down the cost of electronic equipment and in many situations make replacing a device more cost effective than repairing it. A current manufacturer of Amateur Radio that started life as a kit company quickly experienced a similar evolution. After a few short years of producing kits, the company found that they could offer a better product at a lower cost by providing assembled circuit boards populated with surface mount components. Assembly is a matter of plugging-in boards and configuring systems similar to how a computer is built. Digital electronics has allowed the experimenter to trade-in the soldering iron for computer software codes and the term home-brewing, once a common ham radio activity, has now given way to a more descriptive phrase -- soft-brewing.

Developers like Joe Taylor, K1JT have completely re-written the rules when it comes to EME, meteor scatter and other exotic digital modes once reserved for the eccentric radio amateur. Today many hams employ WSJT software with modest stations to ricochet information to one another via the lunar surface. Other software experimenters are developing new modes and tools for the radio amateur to exploit the power of digital processing. Commercial interests are able to offer feature packed equipment that is relatively less expensive than gear offered in the past, and hams are finding applications for this stuff that could only be imagined a short time ago.

Amateur radio has many examples of innovation and creativity. Sometimes an idea can be ahead of its time. Take for instance an article that appeared in the July 1934 issue of QST that suggested "International Round Table Nets and Globe Circling Relays" using an elaborate network of tape machines and relays to remotely control HF stations as far as 200 miles away so that the ARRL broadcast could be made simultaneously in all 48 United States. We are able to do that exact thing today using Voice over Internet Protocol (VOIP) but there are some who will argue that this is not "real" radio. Phooey!

ARRL founder Hiram Percy Maxim, W1AW was a forward thinker who moved in the same circles as Edison, Ford and Firestone, people who changed our world. Maxim was innovative and has many inventions to his credit. When the spark gap transmitter used at Maxim's station 1AW, could no longer generate radio signals it was replaced by a modern transmitter that used vacuum tubes. When asked if there were plans to repair the spark gap transmitter Maxim acknowledged the position of employing modern technology when he remarked "The voice of the spark set at 1AW will not be heard again." (QST, January 1923, pg 14)

Maxim was always looking beyond the horizon. Displayed in a showcase at ARRL headquarters is the Elser-Mathis cup. This trophy was inspired by Col Fred Johnson Elser, W6FB and SCM Lt Cmdr Stanley Mathes, K1CY after Elser learned of Maxim's fascination with the planet Mars. The unique wooden cup is waiting to be awarded to any radio amateur for the first Amateur Radio Contact between Earth and Mars. I am certain that "tongue may have been firmly planted in cheek" when this award was conceived but I believe that this trophy may be awarded to some radio amateur in my lifetime.

I would like to think that if Mr. Maxim were here today he would be very happy to see that Amateur Radio and the ARRL have stood the test of time and continue to attract newcomers to the hobby nearly 100 years since the League was founded. However I would not be surprised if The Old Man shook his head in bewilderment to find that we have spent much time and energy worshipping the past instead of looking ahead to the future.

It may be comforting to stroll down memory lane and fire up the vintage radio for the evening. The warm glow of the tubes and the refreshing aroma of heat radiating from the chassis will create soothing reflections and transport you back to a time when there was no internet, e-mail or cell phones. As you blow smoke rings from your briarwood pipe and replicate the authenticity of what you refer to as "real radio," try to remember that the icons of technology that you pay homage to were once state-of-the-art, modern appliances that filled the dreams of many. As much as Amateur Radio owes to its past, adoration of vintage radio should not take away from Amateur Radio's future.

REWARD OFFERED

A reward of 500 microfarads is offered for information leading to the arrest of this desperate criminal. Hop-a-long Capacity, this unrectified criminal escaped from a western primary cell where he had been. If encountered, he may offer series of resistance. The electromotive clamped in Ions awaiting the gauss chamber. He was charged with the induction of an 18 turn coil named Millihenry who was found choked and robbed of valuable joules. He is armed with a Carbon Rod and is a potential killer. Capacity is also charged with driving a DC motor over a Wheatstone Bridge and refusing to let the Band-Pass.

Force spent the night searching for him in a magnetic field, where he had gone to earth. They had no success and believed he had returned Ohm via a short circuit. He was last seen riding a Kilocycle with his friend

Eddy Current who was playing a Harmonic.

For Those Who Understand, No Explanation Is Necessary.

For Those Who Do Not Understand, No Explanation Is Possible.

Hedy Lamar

From:Larry Essary
<larry@pulse.net>

Not exactly your typical nerdy inventor with a pocket protector.

Hedy Lamar is best known as the incredibly beautiful and sexy screen siren of the World War II era. In modern Wayne's World speak, she was babelicious. Yet, perhaps the most fascinating part of Lamar's life had absolutely nothing to do with her beauty or film career. Hedy Lamar is almost certainly the only Hollywood star that had claim to a patent on a significant technological breakthrough - one that has become the basis for modern communications.

Lamar was frequently quoted as saying, "Any girl can be glamorous. All you have to do is stand still and look stupid." She may have played that role on the silver screen, but when it came to real life, Hedy proved that brainpower was everything.

Before examining her important contribution, let's take a quick look at her background (in case your memory has failed you, or, as in my case, you are too young to have ever known):

First of all, Lamar was only her stage name. She was actually born Hedwig Eva Maria Kiesler in Vienna, Austria back on November 9, 1913.

As a teenager, Hedy attended acting school and quickly made the transition into films. Like most movie stars, her first few films were forgettable. Yet, the one that she made at age seventeen made her an international star. A very controversial star, that is. In the 1933 Czech film Ecstasy, Lamar acted in a steamy love scene and appeared nude in a 10-minute swimming sequence. That was definitely not the thing to do. While mild by today's

standards, her nudity was considered morally unacceptable at the time, and the film was banned in the United States for several years on charges of indecency.

In 1933 (at age nineteen), her parents placed her into an arranged marriage with an Austrian armament manufacturer named Fritz Mandl. Mandl was the type of shady character who would sell arms to anyone, even if it meant selling them in violation of the Versailles Treaty.

Of course, to make these deals, Mandl had to entertain all of his prospects. This included attending hundreds of dinners with the likes of Hitler and Mussolini. And what would a business dinner be like without Mandl's gorgeous and equally famous wife dazzling these arms developers, buyers, and manufacturers? But, as we will soon learn from the outcome of this story, Hedy did not just entertain these men. She listened carefully and learned a great deal.

To an outsider, Hedy had everything. She was married to one of the wealthiest men in Europe. She lived in the famous Salzburg castle where the Sound of Music was filmed. Add to that all the clothes, jewelry, servants, and cars (one 1935 Mercedes owned by Mandl sold for over \$200,000 several years ago) one could ever want. It sure sounds like the ideal life to me, but it was not.

Hedy became more of a trophy than a wife to Mandl. He was a control freak and would not even let her go swimming without his supervision. After four years of marriage, Hedy could take no more. She decided to escape.

In her first attempt to see if she could get away, Mandl followed her. She was forced to sneak into a club that had peep shows upstairs. Hedy paid off the attendant to keep his mouth shut, but Mandl paid even more to get in. Hedy was forced to hide in one of the rooms. While in there, a male customer came in and

assumed that she was the lady he had hired. Without going into all of the details, Hedy was forced into the position of making love to the man to avoid her husband (she claimed that he was banging on the door).

During her real escape, Hedy supposedly drugged (that old trick - 3 sleeping pills in the coffee) the maid that was assigned to her, put on a maid's uniform, and walked out the service entrance to freedom. Hedy eventually made it to London where she appeared on the stage.

Hedy hopped aboard the ship Normandie on a cruise for Hollywood and stardom. She signed a contract with MGM's Louis B. Mayer while on the boat, but he insisted on a name change to avoid the controversy from Ecstasy. At this point, MGM publicist Howard Strickland (according to a 1970 New York Times article) approached Hedy and handed her a typewritten list of last names and asked her to make a choice. You guessed it - she chose Lamar and the rest is Hollywood history. Lamar was immediately crowned the most beautiful woman in the world by MGM and quickly became one of Hollywood's glamour gals. Which leads us to the real focus of this story - her incredible invention.

First, I must introduce you to the other lead character in this story, George Antheil. Antheil was Internationally famous for his mechanistic avant-garde musical style. When Antheil moved to Hollywood, he became a film composer and a syndicated columnist for Esquire magazine, for which he also contributed articles on romance and endocrinology. He even published a book on the subject - the 1937 Every Man His Own Detective: A Study of Glandular Endocrinology. What made him an expert on this subject one will never know. Maybe it is because, according to my hormone laden teenage students, that if you say "pianist" very quickly, it sounds just like "penis". Since they sound so much alike, one can only conclude

that being an expert in the first makes one knowledgeable in the latter. Well, maybe I am stretching it a wee bit here?)

In the summer of 1940, Lamar sought out Antheil. They were neighbors in Hollywood and supposedly met at a party. The story goes that Hedy did not want to see Antheil about his music. Lamar wanted to consult Antheil about glands - her mammary glands to be specific. Lamar wanted to find out how she could enlarge the size of her breasts. (Doesn't this part of the story smell kind of fishy? - Only two articles actually makes this claim.)

Very quickly, it became clear that Antheil didn't have the answer (those toxic silicone implants had not been invented yet), so the topic of conversation changed to the impending war and torpedoes. Lamar feared Hitler (remember that she actually knew the guy) and began to talk about an idea that she had for the radio control of torpedoes. At the time, radio control sounded like a great idea, but was not practical. All one had to do was jam the particular frequency that the torpedo operated on and the missile would fail to reach its target.

Lamar was sitting at the piano with Antheil when that flash of genius struck her. Antheil was hitting keys on the piano and she would follow. It became clear that Antheil was changing the keys that he was hitting, yet he was still able to communicate to her. What if this could be translated into radio control for a torpedo?

The next day they sat on his floor and figured the whole scheme out. Lamar realized that the frequency needed to randomly change so that the enemy could not jam it. Any attempt to knock out the signal controlling the missile would only knock out a small blip of the communication stream and have virtually no effect on its overall control. Hence, the concept known as "frequency hopping" was born.

Of course, getting this grand scheme to actually work was another story. Keep in mind that this was the time of large vacuum tubes, not the miniaturized microprocessors that rule our world today.

Antheil offered the solution to the problem. He had previously composed his Ballet Mechanique, which was scored for sixteen player pianos to perform at the same time. He suggested using punched piano rolls to keep the radio transmitter and torpedo receiver in synch. The transmitting signal was designed to broadcast over a band of eighty-eight possible frequencies - one for each key of the piano keyboard.

It took Lamar and Antheil several months to work out the exact details of their invention. Then, in December of 1940, they sent a description of their idea to the National Inventor's Council (set up by the government to get ideas from the general public). Very few of the hundreds of thousands of submissions that the Council ever received actually caused any kind of excitement, but Lamar and Antheil's did. Under the direction of the Council's chairman (and inventive bigwig over at General Motors) Charles Kettering, the government helped to improve on the concept. Patent 2,292,387 for the "Secret Communication System" was granted on August 11, 1942. (The patent is actually under her married name at the time - Hedy Kiesler Markey.)

Unfortunately, other members of the council were less than enthusiastic. There's no surprise here - just think about the feasibility of placing a synchronized player piano mechanism into a torpedo and having it operate properly. The Navy declared the mechanism too

cumbersome and shelved the idea. The concept of frequency hopping was too far ahead of its time. Lamar and Antheil pursued their invention no further. Yet, Lamar was still able to help out in another way - by selling war bonds. As part of one promotion, anyone that purchased \$25,000 worth of bonds could get a kiss from Lamar (would Pamela Anderson do the same today?). She was actually able to sell \$7 million worth in one night.

Not all great ideas are forgotten, however. In 1957, engineers at the Sylvania Electronics Systems Division, located in Buffalo, New York, used transistor electronics to accomplish the goal that Lamar and Antheil had set out to conquer years before. Finally, in 1962 (three years after the Lamar/Antheil patent expired), the concept of frequency hopping was used by the United States government in the communication systems placed aboard ships sent out to blockade Cuba.

Today, the concept is not only used by the military (it is used in the Milstar defense communications satellite system), but has also become the technology behind the latest in wireless Internet transmission and the newest cellular phones. A quick search of the United States Patent Office shows 1203 patents dealing with frequency shifting (now called "spread spectrum") between 1995 and 1997. How much influence the Lamar-Antheil patent has had, if any, on this technology will probably never be known.

Lamar never earned a penny from this invention that so many others have profited from. Instead, she slowly faded from public view. She was married and divorced six times

between 1933 and 1965 to Fritz Mandl, Gene Markey, Sir John Loder, Ted Stauffer, W. Howard Lee (who later married actress Gene Tierney), and Lewis J. Boles. In 1966, Lamar made international headlines when she was arrested for shoplifting in the May department store in Los Angeles, but was acquitted by a 10-2 jury vote. The bad publicity from this incident coupled with her controversial autobiography "Ecstasy and Me" (purportedly ghost written and not approved by Ms. Lamar) brought an end to her movie career.

On March 12, 1997, Hedy Lamar was finally honored by the Electronic Frontier Foundation for her great contribution to society. Her son Anthony Loder accepted the award for his mother and played an audiotape for the audience - the first time she had publicly spoken in over two decades.

Sadly, Hedy Lamar passed away on January 19, 2000 at her Casselberry home in Florida. The bulk of her nearly three million dollar estate was willed to her two children, but a portion was left to her former personal secretary and to a friend. Most surprisingly, however, was that she bequeathed \$83,000 to a local police officer who had befriended her in the last years of her life. Lamar asked that her ashes be scattered over the Vienna Woods, near where she was born in Austria. In one of those weird twist-of-fates, that same son Anthony today owns a Los Angeles phone store in which half of the phone systems that he sells are based on his mom's pioneering technology.

IMPORTANT NOTICE

Enclosed is a copy of the club application form as a reminder of the fact that most of us need to renew our membership at the first of the year.

Your Tresurer, Norm N9ZKS

Central Illinois Radio Club Membership Application

Date: ____/____/____

Membership dues are **\$15** per person or **\$20** per family (multiple members at one address). You do not need to be a licensed amateur radio operator to join CIRC. **** Required information.....**

****NAME:** _____ CALL: _____
Last First M

Additional Memb. NAME: _____ CALL: _____

****ADDRESS:** _____
Street / RR etc.

****CITY:** _____ ****STATE** _____ **** ZIP:** _____

****E-Mail** _____ **LICENSE CLASS:** _____

Home Phone (____) _____--_____ Work (____) _____--_____

ATTENTION Snow Birds! Please list alternate address and when to use it.

ADDRESS: _____ CITY: _____ STATE: _____ ZIP: _____

FROM: ____/____/____ TO: ____/____/____

Demographic Information: Parts of hobby you are active in?

- Are you a member of other Central IL Clubs? _____
- If so, which ones? _____
- Are you a member of any of the following: ARRL ____ McLean County ESDA ____
- Local ARES ____ Other ARES Group _____ American Red Cross Chapter _____

WHAT ARE YOUR SPECIFIC INTERESTS WITHIN THE HOBBY?

- | | | |
|---|---|---|
| <input type="checkbox"/> HF | <input type="checkbox"/> ATV | <input type="checkbox"/> Construction |
| <input type="checkbox"/> VHF/UHF | <input type="checkbox"/> Packet Radio | <input type="checkbox"/> Youth Activities |
| <input type="checkbox"/> QRP | <input type="checkbox"/> Satellite Communications | <input type="checkbox"/> EchoLink |
| <input type="checkbox"/> Emergency Communications | <input type="checkbox"/> Public Service Events | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> Fox Hunting | <input type="checkbox"/> Contesting | _____ |

What would you like to do at meetings? _____

What activities do you think the club should participate in or sponsor? _____

You can turn in your membership application at club meetings (4th Wednesday of the month 7:30 PM, at the Red Cross building in Bloomington, One Westport Court) or mail it and a check payable to the Central Illinois Radio Club to:

Office Use: Access # _____

Central Illinois Radio Club
P. O. Box 993
Bloomington, IL 61702-0993