Cathay Newsletter December 2008

www.cathayradio.org

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Mission: The Cathay Amateur Radio Club is basically an active social club of Ham Radio Operators and their spouses

Monday Night Net Time: 9PM PST Frequency: 146.67MHz -600KHz PL85.4 and 442.70 +5MHz PL 173.8 The repeaters are linked. The Monday night net is the best way to find out the latest club news. All check–ins are welcome.

Washington High School Net: Nathan KI6PVO has started a net with the George Washington High School Amateur Radio Club in San Francisco. 147.060 PL100Hz. W6CX every Tuesday 7:30PM. Check in and see what is happening with the club. There is also a website www.washingtonarc.org.

Message from the President*: Edison Fong, WB6IQN*
Here's the last newsletter for the year. We have had some great events this past year. The club has offered free lunches, batteries, LED flashlights, etc. What club does all this for $15 per year. With the exception of the annual banquet, all events were free. At this time I like to thanks all the officers and board members for helping me out throughout the year. I also like to thank the net control operators for the Monday night net.

Remember that elections are coming up in January, so please consider running for a position. If not, try to think of a way you can contribute to the club. This is a great club with membership of about 90. We share the common interest of ham radio but I am sure

we all have other interest that we can share with others. This is a great forum for those interest. The club does not charge for placing articles of interest in our newsletter. They need not be related to ham radio.   Just submit it to me in the format of your choice.

In this newsletter we have pictures from the *Computer History Museum* tour. I wrote up an article on "dollar cost averaging investing." Bill KN6QD has an article on Bar Codes. Last of all, I want to invite everyone to the annual Christmas Party held in Sunnyvale this year on Saturday December 20th.

The 146.67 MHz repeater is still having problems. On November 1st George W6BUR drove all the way from the Oakland Hills down to Sunnyvale to my lab to have the duplexers on the repeater tuned. We managed to tune the them up and the sensitivity on the repeater has improved immensely. Unfortunately, there is still the audio problem that is intermittent and also cracking in the audio. George is trying to find a replacement board so I can repair the one that is defective.

Here is George W6BUR in my lab in Sunnyvale where we retuned the duplexer for the repeater. The instrument in the background is an Agilent 8753D 6 GHz network analyzer. This is an essential instrument in tuning duplexers taking the guess work out of using old tracking generators and spectrum analyzers. The repeater, unfortunately still has this audio problem which we are trying to hunt down.

Christmas Party - Saturday December 20   6-10 PM

Format: Potluck – Bring your friends, family, neighbors, etc.

Where: 1163 Quince Ave. Sunnyvale phone: 408-245-8210

Edison and family will once again host the Christmas Party this year. Last year we had over 60 people with kids, friends, neighbors, all kinds of ham friends. There will be all kinds of dishes from traditional Christmas, to Chinese, Korean, Italian, barbeque, you name it. Desserts are always plentiful.   Kids again will be able to break apart a gingerbread house. Who knows who would be there. Last year we had the Mayor of Sunnyvale and several famous people from the electronics industry. This is also a great party to update your professional networking if you are looking for job. We plan to show a movie to the kids if they calm down. I recently purchased a Samsung 52 inch LCD TV with a Sony Surround Sound receiver. That should be fun. I watched *Indiana Jones – Kingdom of the Crystal Skull* last Saturday and it was quite impressive.

If you need to check your radio for deviation, frequency, etc., bring it by, my service monitor and spectrum analyzer is open for all to use.

The address is:

1163 Quince Ave.   Sunnyvale, CA 94087   Precise directions can be found from www.mapquest.com.

Computer History Museum – summary *Ed Fong WB6IQN*

Was that fun or what? The picture shows that 28 people came to the History Museum on November 15. Our tour guide was Dave Varn KM6RI. I guess Jim Conners, the curator of the museum, figured he would have a licensed ham as our guide. Dave was very helpful in describing the history of computers and you could tell he had passion for it. We saw some fantastic "one of kind" items. I especially like the Enigma machine. I had never seen a real life one. These were the machines that Hitler used in WWII for secure communications. The Allies were not able to ever break the German code by themselves. Instead, they forced a U-2 submarine to surface and commandeered the machine to break the German code.

The tour took about an hour. Below are some of the highlights.

Here was the group. I counted 28, which was quite a crowd. There were nine kids. Maybe I can offer a ham class this summer to them.

The following are some of the pictures I took at the Computer History Museum.

This was an early census tally machined used in the 1890 census. It would tally up the data from various sources at the end of the day. What is interesting is that many early computers, or perhaps more accurately described as "tally machines" were built to solve particular problems.


I was surprised to see a real live working Enigma machine. This machine caused havoc during WWII. The Allies could not break the German code. The machine was invented by German engineer Arthur Scherbius a the end of WWI.   Hitler got the design and was convinced it could provide him with secure communications. It was not until the Allied Forces surface a U-2 submarine and obtain one of these devices and thus breaking the code that the war begin to turn.

The Cray 1. I never really saw a real one. I only used one via a T1 line running SPICE circuit simulations. Back in the 1980's, it was fast, really fast. This was the first "Super Computer" designed by Seymour Cray. I understand they have 4 of them at the History Museum. If you could use one, they would be happy to talk to you. This has the power of a Quad Core Intel processor. Unfortunately, just to cool this machine would cost a fortune.

This computer is all tubes and was originally designed to track incoming Soviet Union bombers during the cold war. Unfortunately by time the computer was finished, ICBM's were the state of the art and this machine could not track fast incoming missiles. This computer was later used to track domestic aircrafts. It was still in service as late as 1984.
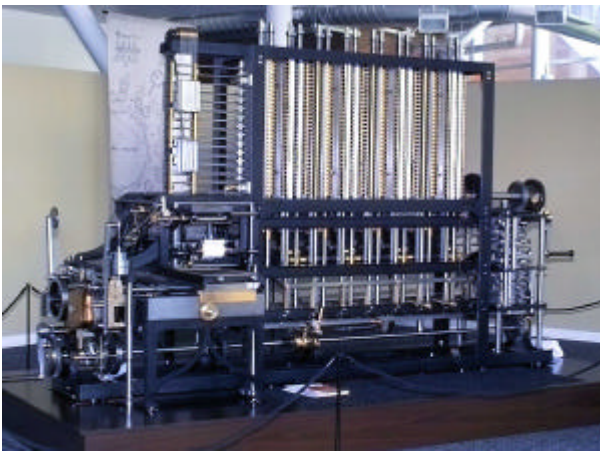
This is the Babbage Engine invented by Charles Babbage (1791-1871). The first complete Babbage Engine was completed in London in 2002, 153 years after it was designed. To Babbage, it was just a dream and it was never built in his lifetime. When one was finally built in 2002 according to the original plans, it consisted of 8,000 parts, weighing five tons. It worked, having the ability to calculate polynomials. The Museum offered a complete working model.

Now who can forget this machine, the infamous IBM360. This was the workhorse from 1970 to 1990. At the time, we all used remote terminals to access its formidable computing power. Almost all banks used it to process data. In many ways, today's desktops have more computer power than an IBM360.

After the computer tour, the kids went over to Shoreline Lake and spent the rest of the afternoon boating. We rented 2 paddle boats and a kayak. Although we paid for 1 hr of rental time, the city let us play until sunset so the kids had a blast.

Economics 101 – *Ed Fong WB6IQN*

Ok, we have covered many scenarios up to this point. In April, we showed that a 5% compound over a 14 year period was the same as a 7.14% average return per year. We also showed that if you would have invested in the major indices in the last 10 years, you are at a break even. That is not very good. Almost in all cases, for everyday single investors like myself, more conservative investments such as government I bonds, T bills, and California State General Obligation bonds were superior. We even showed that the top Hi Tech companies (Oracle, Cisco, Intel, and National Semiconductor) perform extremely poorly for the last 8 years.

If you present the above scenarios to an investment advisor their typical response is "of course markets to up and down and nobody has control over that. What you need to do is "dollar cost average" regardless of whether the market is up or down. This way you catch it when it is low and if it is high, you are ready for it to go higher."

OK, that sounds good. However, is this true? I put it to the test. Let's take the same years that our past newsletters have used adapting the S and P 500 index. It is as good as any and is a fair comparison.

So the above chart summarizes to the following for each year.

00-01	01-02	02-03	03-04	04-05	05-06	06-07	07-08
-15.3%	-2.5%	-23%	+34%	+5%	+3.4%	+13.6%	-10.5%

Again, take the simple example of a $100 investment every year and dollar cost average this over the 8 year period, just like the professions tell you. Assume we invest $100 at the beginning of each year and adjust for the market at the end of the year. So we would have the following rounded to the nearest dollar at the end of each year:

00-01	01-02	02-03	03-04	04-05	05-06	06-07	07-08
-15.3%	-2.5%	-23%	+34%	+5%	+3.4%	+13.6%	-30%
$85	$180	$216	$423	$549	$671	$875	$683

Now suppose one were getting 5% on a government bond such as a Ginnie Mae and adding $100 each year.

00-01	01-02	02-03	03-04	04-05	05-06	06-07	07-08
$105	$215	$331	$453	$556	$690	$830	$976

So even the most conservative AAA rated bonds win out over stocks.   If one wanted to be more aggressive one could invest in California Muni's and California Muni funds. Here one could get 6-8% totally tax free in today's market.

The only way one could have made money is if one would have gone into the market at the beginning of 2003 and got out September of 2007. If it were that easy, we would all be rich.

Ed

Barcodes – *Bill Tom KN6QD*

Some great information to know -

Good to know because of the problems with food processed in China.

The whole world is scared of China-made goods. Can you differentiate which one is made in the USA, Philippines, Taiwan or China?

For your Information ...the first 3 digits of the barcode is the country code wherein the product was made.

Sample: all barcodes that start with 690,691,692 until 695 are all MADE IN CHINA. Barcodes starting with 471 are Made in Taiwan, like this:

Nowadays, Chinese businessmen know that consumers do not prefer products 'Made In China', so they don't show from which country it is made.

However, you can refer to the barcode; remember if the first 3 digits are 690 - 695 then it is Made in China.

00 ~ 13 USA & Canada
30 ~ 37 France
40 ~ 44 Germany
49 ~ Japan
50 ~ UK
57 ~ Denmark
64 ~ Finland
76 ~ Switzerland and Liechtenstein
471 ~ Taiwan

80 ~ Codes are Made in the Philippines
628 ~ Saudi Arabia
629 ~ United Arab Emirates
690 - 695 ~ China
740 - 745 ~ Central America

According to Bill KN6QD, he has found some Chinese canned goods that are listed in the high 700's. The Chinese must have known about this list to change their barcodes. For example, to ship their products in bulk to another country to repackage into selling package sizes. Chinese are known to be very crafty to survive their 5000 years.

EARN YOUR RADIO LICENSE IN ONE DAY!
Sunday, January 25, 2009
8:45AM SHARP! - 3:00PM

San Francisco County Fair Building Hall of Flowers – Rec Room
9th Avenue and Lincoln Way
There will be a General cram for Techs same place & time.

Ample free parking. Great lunch restaurants nearby.

Bring 2 IDs (one with picture), a couple of pens and
    $20 cash for Technician study materials, tips, and test OR
    $40 cash for General study materials, lecture, and test OR
    $14 cash for testing only (Extra, Morse code tests available too)

8:45AM Check-in for study. Don't be early or late.   Dropins OK.
If you want test only (no preparation onsite) come at 2PM.
8:50 Beginners' tips, donuts
9:00 Self-study starts, coffee
1:30 Exams begin
No advance preparation needed for beginners, we
do it all in 6 hours.   General exam class begins
9:05AM (if you are already licensed or have
already mastered the Technician exam material).
Questions? hamcrams.com   Next test date: March 29, 2009

Passing this test will get you a ham radio
license from the FCC good for 10 years. You will be able to use:
        O local repeaters for Bay Area communication
        O Echolink for Internet-based radio
        O satellite and moon-bounce
        O international shortwave frequencies for global communication!

Come and join the great world-wide community of ham radio.

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