http://www.Tech-Notes.tv
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Our purpose, mission statement, this current edition, archived editions and other relative information is posted on our website: WWW.Tech-Notes.TV
This is YOUR forum!

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Note: All **Blue** underscored items in this PDF newsletter are working links.
(Click on the Link below to navigate to that section of Tech-Notes)
We have removed the @ in e-mail address, replacing it with the word at.

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Editor's Comments

A six month hiatus is just too much: but, as, we said in our last Editor's Comments, "It is amazing how time flies when you're having fun" and doing the Road Show IS HAVING FUN! To our loyal readers, all we can do is apologize and promise bigger and better things to come in the future.

In an effort to make up for lost time, we're working with our good friend and longtime TV engineer, John Silva, to bring you a story about the Pasadena Tournament of Roses Parade. This January marks the sixth anniversary of the annual telecasting of that granddaddy of all parades. John was one of the engineers with W6XYZ (now KTLA) and helped to make it possible. We'll have pictures and all to support this effort. Should you have any stories on the coverage of the Roses Parade or material we can use to support our story, old or new, please pass it on. We'd also love to have several sidebars to augment John's story: i.e.: amateur TV coverage, first color coverage, and W6XAO's involvement etc.

A change in direction

Tech-Notes has grown. We were originally established in 1997 to track, report and comment on the transition of analog television to digital. Don't look now, but that has all but happened with only a few loose ends still dangling. We added to our efforts our website on July 1, 2000 where we've tried to save a bit of broadcast history without duplicating the efforts of such fine folks as Barry Mishkind (The Eclectic Engineer), Ed Reitan (History of Color TV) or Chuck Pharis (TV equipment collector extraordinaire). I'm sure there are several others who are doing similar work and if you know about them, let us know too so we can share the information with others.

So what to do: pack it all up and say goodbye or head in a different or new direction? There's no way we're going to be a "drop-out!" We're having too much fun; so we've opted to do keep going, delivering in electronic form whatever technology we see that seems to be impacting our industry and to continue to comment on whatever strikes our fancy. We will also provide a forum for those who wish to express their opinions on broadcast related subjects while making an attempt to preserve some of the broadcast history we run across as we traverse this great nation of ours.

It is unfortunate for all that our longtime partner, co-publisher and co-founder, Jim Mendrala, is pursuing other interests (Real Estate) which is taking up a great deal of his time, so Jim will be taking less part in our efforts. Jim is probably one of the most knowledgeable guys when it comes to electronic cinema and it is a shame to see him go in another direction. May be he knows something we don't. ☺ He will always have a place here in the Tech-Notes – especially his "From the Pen of Mendrala."
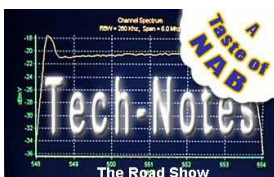
We will, of course, continue to do the Taste of NAB Road Show. At this point in our journey through life, it is difficult to see when there would not be a need for such a service as our Road Show and as long as there is, we'll do whatever we can to best fill that need.

To that end, we've already started contacting various organizations such as the Society of Broadcast Engineers (SBE), Society of Motion Picture and Television Engineers (SMPTE) and other organizations to see if any of the local chapters/sections would like us to do our thing in their local areas in 2007. Within three days of our initial e-mail query, we receive nineteen responses asking us to include them and we're sure there will be many more. This next year we've decided to do fifty-five venues – give or take a few – from right after NAB 2007 (Thursday, May 3rd through Wednesday, September 19th.)

If you know of any cutting edge technology you'd like to see us bring with us, let us know.

The Road Show - A Taste of NAB 2006

We had one of the best tours this year of all the years we've been doing the Road Show and this year makes five. The statistics say it all:

> We did fifty-one venues from West Coast to East Coast and back. We were on the Road for slightly over four months and in that time traveled sixteen-thousand-eight-hundred miles nearly to the foot. At those fifty-one venues, we had over one-thousand-thirty folks in attendance, which is an average of just over twenty-eight per venue. To date, we've received over one-hundred-thirty-five e-mail; none of which were derogatory, asking us to return in 2007.

Who could ask for anything more?

As for our chariot, the Big Red Dodge Sprinter van, well that was a different story. During the trip we went through two alternators, four voltage regulators and two pressure sensors. There was a month during the trip that we had to jumpstart the van every single day. I'm sure glad we had help along the way.

We discovered early on that we needed help with the Road Show. We were joined by (my) grandson, Thomas Bloomfield (17 years old), in El Paso. Tom was with us through the beginning of August, when he returned to Florida for his senior year of high school. One thing we can say is that when it came to packing the van, Thomas always "had a better idea." ☺

Joining us in Washington, DC was Tom's replacement for the balance of the Road Show, Alex Ferguson. Alex is an 18 year old high school grad from the Newburg (Portland area), OR who stepped up to bat swinging and really did a fine job for the balance of the trip. Alex, whose dad is an MD, will soon be entering Optometrist school.

There were so many folks who helped to make this year's trip such a great success that if we were to list them, we'd probably miss a few and that wouldn't be fair. We can't begin to thank all the sponsor's representatives who joined us along the way to not only share the technology their companies had to offer, but those who were there early and stayed late to help us set up and pack up. It really made a difference. There are a few who do standout in our minds that we have to mention: Tommy Goodson of Leader Instruments who delivered one of the alternators we needed to continue the Road Show to us from Daimler-Chrysler's distribution center in Houston to our disabled van in Austin, TX. We'd probably still be in Austin were it not for Tommy's help.

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Bucky was the guy who really did the lion's share of the work in Roanoke, VA. There are

very few people we've worked with who had a more positive attitude and always exhibited a "can do" spirit. Bucky stayed after the Road Show was over and all had departed to help pack things up and see us on our way. Bucky single-handly cleaned the room where we did our thing so his SBE chapter could get their cleaning deposit back. Several days after the Road Show, Bucky was on his way to a remote for WDBJ when he suffered a fatal heart attack. We will always remember Mr. Stover as a true friend!

To help make our presentations better, just prior to the Road Show, we invested in a 62 inch Toshiba DLP monitor. After it was paid for and we got it into the van, it didn't take a brain surgeon to determine that it was just too big to fit with the rest of the gear we'd be bringing with us, so it remained behind to be used for us to see the various technologies' in use by the networks and other television programmers so we could write about them.

In its place, we elected to bring with us a 32 inch Westinghouse plasma display that worked out quite well. We used it to show the various video sources we had with us – test signal generators, Wavelet compression, JPEG2000 compression, etc.

I'd like to thank AJA for the converters and distribution amplifiers, Leitch for the Panacea 16X4 router/switcher that made the selection of the various digital (HD & SD) signals possible without having to patch BNCs all over the place, so they could be displayed on our 32 inch monitor.

Daimler-Chrysler Strike Again!
Why The Taste of NAB 2006 Road Show Happen The Way It Did In Houston!

As the saying goes, "The best laid plans of mice and men…." This story could go on for

pages, but in summary and we understand there are a lot of stations considering this kind of vehicle for remote vans etc., Well, we're not very happy with our NEW Dodge Sprinter van. Since when we purchased it in April of this year, we've gone through two pressure sensors, four voltage regulators, two alternators (the last time we paid over $1K to increase the size), two batteries, and a plethora of patients. We've been scammed by more than one Dodge dealership, but we've finally made it back to Oregon.

If you should ever decide to buy one of these vehicles, bear in mind that ONLY a limited number of Dodge dealerships are permitted to do warranty work on the five cylinder diesel Sprinters. Daimler-Chrysler's customer service is closed on the weekend.

The Daimler-Chrysler warranty road service hot line isn't much help either, making us do the contacting of the local dealerships as we experienced troubles ourselves. We got such messages as: "The person you need to speak with doesn't work on weekends, but you could speak with him on Monday." Too bad vehicle problems don't happen in a 9-5, Monday through Friday environment. When Monday arrived, it seemed like we were calling on the weekends anyhow – not much better. We also discovered that the "authorized" dealerships usually don't carry many of the high failure rate items in stock and they have to be delivered from a central parts distribution center.

When we got towed into Austin and were told that the alternator had gone out for the second time, we elected to up grade to a bigger alternator – thus costing us over a grand to have this done. One can't but wonder why they didn't put in a substantial alternator to begin with??? The dealership didn't have a replacement anyhow and one had to be shipped in from their parts center. We can't began to thank Tommy Goodson of Leader Instruments for his kindness in picking up the alternator (near where he lived in Texas) and delivering it to the dealership in Austin, where we were stranded so it could be installed.

The bottom line is that we missed doing the Houston presentation ourselves because of van problems. Our hats are off to the several manufacturers reps who showed up and did the presentation on our behalf. We know that this was a terrible inconvenience to many, especially the folks in Houston who put a lot of time and trouble getting this together for us, but it's one of those "unforeseen circumstances" that we truly wished we could have avoided. We truly love very much what we do. You can't begin to imagine how this really got to us.

I promise you that Daimler-Chrysler has not heard the last of me on this one.

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Our Sponsors

As we've said many times before, we'd like to do the Road Show out of the goodness of our heart, but that's not possible. The Road Show would not be possible without the help of those good folks who care enough to share their latest technology with you. We have made a concerted effort to get a good mix of both radio and television technologies. Take a look at those companies who joined us this year. We wanted to post their logos here, but to keep the bit size of this document down, here's the link:

As most of you know, the Tech-Notes Taste of NAB 2006 Road Show is an educational event; we DON'T sell anything during or at the show. Please just remember that our sponsors CARED enough to let us bring to you their technology. In return, we ask that you give them prime consideration when you have a need for their products and or services. At the URL in the margin, you can find each sponsor's contact information and links to their websites.

We started with twenty-four sponsors this year:

AJA Video Systems, Broadcast Microwave Services (BMS), Doremi Labs, ESE, Evertz, Henry Engineering, InPhase Technologies, Jampro Antennas, Klienbit Video & Network Technology, LARCAN USA, Leader Instruments, nNovia, Omneon Video Networks, ProBel, QuVIS, Riedel Communications, Sencord, StreamBox, Sundance Digital, Tektronix, Telemetrics, Telos-Omnia-Axia and Z-Technology. In addition to these good folks, we had joining us at selected venues, Black Magic Design and DTVExchange.

To help make the Road Show more successful, we had two companies join us as Patrons. These folks provided food and refreshments at most all the venues. They were; Cobalt Digital and DTG. Links to their information can be found on those venue pages where they participated.

To make the Road Show even more successful, we gave away door prizes at each venue and then had a grand prize drawing of a number of items when the Road Show was completed.

Those companies/organizations participating in the drawings at each venue were:
ADS Tech, AJA Video Systems, Broadcast Buyers Guide, Clark Wire & Cable, Cobalt Digital, DSC Labs, ESE, Fluke, InterVideo, Leitch/Harris, NTI, Omneon Video Networks, Omnia, Order of the Iron Test Pattern, Pomona Electronics, SMPTE, Sundance Digital, Tech-Notes, Ulead, and Verbatim

Those companies participating in the End of the Road Show drawings were:
AJA Video Systems, Burst Electronics, Coaxial Dynamics, Dorrough, Fluke Instruments, Jadoo Power, Jampro Antennas, Pixel Instruments, Radiosophy, Sundance Digital, TowerSwitch, VidCad Documentation Programs and Z-Technology

Hopefully most of these folks will join us with their new, cutting edge technologies this next year.

History

Born a century ago, Philo Farnsworth changed your life
By Frazier Moore, Associated Press
Aug. 16, 2006

Fish don't know they're living in water, nor do they stop to wonder where the water came from.

 Humans? Not much better, as we share a world engulfed by television. And the deeper our immersion becomes, the less likely it

seems we'll poke our heads above the surface and see there must have been life before someone invented TV.

That invisible someone was Philo T. Farnsworth, who was fated to live and work, then die, in sad obscurity. Now, on the centennial of his birth on Aug. 19, 1906, his invention plays an increasingly powerful role in our lives - with less chance than ever of his being recognized.

How ironic! In this media-savvy age, not only should his name be as widely known as Alexander Graham Bell's or Thomas Edison's, but his long, lean face with the bulbous brow should be as familiar as any pop icon's. He should be the patron saint of every couch potato.

Instead, we regard TV not as a man-made contraption, but a natural resource.
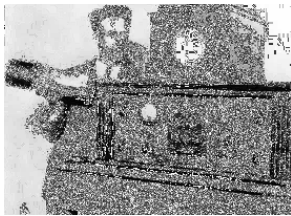
Nonetheless, it was Philo Farnsworth who conducted the first successful demonstration of electronic television.

The setting: Farnsworth's modest San Francisco lab, where, on Sept. 7, 1927, the 21-year-old self-taught genius transmitted the image of a horizontal line to a receiver in the next room.

It worked, just like Farnsworth had imagined as a 14-year-old Idaho farm boy and math whiz already stewing over how to send pictures, not just sound, through the air. He had been plowing a field when, with a jolt, he realized an image could be scanned by electrons the same way: row by horizontal row.

The prodigy at his plow had already made a fundamental breakthrough; charting a different course from others' ultimately doomed mechanical systems that required a spinning disk to do the scanning.

Yet Farnsworth would be denied credit, fame and reward for developing the way TV works to this day.

Even TV had no time for him. His sole appearance on national television was as a mystery guest on the CBS game show I've Got a Secret in 1957. He fielded questions from the celebrity panelists as they tried in vain to guess his secret ("I invented electronic television").

In 1971, Philo Farnsworth died at age 64. But his wife, Elma "Pem" Farnsworth, who had worked by her husband's side throughout his tortured career, continued fighting to gain him his rightful place in history, until her death this year at 98.

Fleeting tribute was paid on the 2002 Emmy broadcast to mark TV's 75th anniversary. Introduced by host Conan O'Brien as "the first woman ever seen on television," Pem Farnsworth stood in the audience for applause on her husband's behalf.

Pem Farnsworth

It was a skimpy challenge to the stubborn misconception that the Radio Corporation of America was behind TV's creation. This is a version of history that RCA was already promulgating as its president, David Sarnoff, plotted to crush the lonely rival who stood in his way.

David Sarnoff
1891-1971

Sarnoff waged a war not just of engineering one-upmanship, but also dirty tricks, propaganda and endless litigation. In 1935, the courts ruled that Farnsworth was the inventor of electronic television. But that didn't stop Sarnoff, who courted the public by erecting a wildly popular RCA Television Pavilion at the 1939 New York World's Fair and, after announcing that the RCA-owned National Broadcasting Co. would expand from radio into TV, transmitted scenes from the fair to the 2,000 TV receivers throughout the city.

Because of Sarnoff, money woes, and the lost years of World War II (which put TV broadcasting on hold), the clock ran out on Farnsworth's patents before he could profit from them.

Now, few know who Farnsworth was - even those working in the industry he sparked.

More on Farnsworth
It's about time!
By C. Benham

At last, my hero Philo Farnsworth is getting some honors here in Philadelphia.

Recently, the Pennsylvania State Historical Commission erected a roadside plaque at the site of Farnsworth's Philadelphia studio at 1260 E. Mermaid Lane in the Wyndmoor section of the city.

The Mermaid Lane location was in use during Farnsworth's Philco days for about 5 years in the 30's. The studio and lab is long gone. The tower is gone with replacements in place for local radio and repeaters.

The gentleman who started the Farnsworth plaque effort two years ago is Dave Custis, a local broadcaster. He built a radio station at the same location in the late 50's and knew the history and pushed for the honor. Dave told me that when he built the station, there was still a small wood shack under the newer tower that was original but now gone.

After Farnsworth left, the rebuilt tower was for W3XE/WPTZ-TV (now KYW-TV) until they left for a bigger stick a few miles away.

The local chapter of Broadcast Pioneers is looking to continue the honors and memory of Farnsworth in our upcoming events. Stay tuned.

"If it weren't for Philo T. Farnsworth, inventor of television, we'd still be eating frozen radio dinners." -- **Johnny Carson**

100 Years of Voice

Reprinted from Amateur Radio Relay League's www.helloradio.org/ website

(Editor's note: *It is not possible to tell the story of television without some mention of radio. On our website, we tell the story of San Jose, CA's radio station that eventually became KHZBS. It was one of the first too. To see that sto*ry   )

"Hello!" Not surprisingly, it was the first word to be heard over the radio some 100 years ago.

From the time he was a young boy, Canadian Reginald Fessenden was fascinated with the idea of transmitting voice. Upon hearing his uncle describe Alexander Graham Bell's demonstration of the telephone, the 10 year-old reportedly asked, "Why do they need wires?" He then spent much of his life trying to figure it out.

His early attempts at voice transmission were unintelligible. With government backing, Fessenden, and his assistant Thiessen, kept trying various improvements until they met with success.

Listen to Fessenden's first voice transmission on December 23, 1900 -- he says, "**Hello! Test, 1, 2, 3, 4. Is it snowing where you are Mr. Thiessen?"**

Reginald Fessenden's Workshop

Fessenden – Quicktime | Windows

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Fessenden formed the National Electric Signaling Company (NESCO) with a pair of Pittsburgh millionaires as backers after his contract with the government ended, and began working with the United Fruit Company helping perfect their wireless communication between land stations and ships at sea. With the powerful transmitters and antenna systems at this disposal, he began more earnest experiments in voice transmissions and in June 1906 successfully transmitted a message from his Brant Rock, MA office to a receiver at Plymouth, a distance of about 12 miles. Improvements to the antenna installations at Brant Rock continued through the summer with more successful experiments until Fessenden was certain the process would work properly.

Fessenden (right) in Brant Rock, MA.
Courtesty NC Div. of Archives & History

Working in secrecy, he planned a surprise for a 9 p.m. broadcast on Christmas Eve in 1906. With the assistance of his wife and trusted employees, he scripted a program of music and Bible readings. Shipboard operators had been tipped to listen for something special during the December 24 transmission, but no one could have anticipated what was planned. At the appointed hour, radio operators across the North Atlantic were surprised to hear voice coming from their radios, calling "CQ, CQ". It was Fessenden beginning the first "radio" program. After a brief introduction, Handel's "Largo" was played from an Edison wax cylinder phonograph, followed by the inventor playing "O, Holy Night" on his violin. The planned Bible reading by Mrs. Fessenden and his secretary had to be quickly covered by the inventor as the first reported cases of microphone fright and dead air occurred when both women froze.

After Fessenden's historic feat, thousands of inquisitive hobbyists began to experiment with this new fangled technology called Radio. They were, and are still, called "amateur" radio operators. Commercial broadcasting didn't begin for another 14 years after Fessenden's historic Christmas Eve broadcast. They labored in attics, barns, garages and cellars to perfect what we now call radio.

In 1912, Congress passed the first laws regulating radio transmissions in the U.S. By 1914, amateur experimenters were communicating nationwide, and setting up a system to relay messages from coast to coast (This is where the name "ARRL - American Radio Relay League, and then The National Association for Amateur Radio" came from!). In 1927, the precursor agency to the FCC was created by Congress and specific frequencies were assigned for various uses, including the ones set aside for Amateur Radio.

Amateur radio operators, also known as "hams", continued to be at the forefront of developing technologies years in advance of when they are rolled out to the public. FM, television, and even cellular telephones were all used by amateur radio operators many years ahead of the public.

Learn more about <u>ham radio</u>, <u>why people love it</u>, and find out how you can <u>become a ham</u>!

For activities surrounding this 100th anniversary, visit:

(Editors' note: *While on the Road Show this year, we had the opportunity to meet many folks, some of who contributed in their own way to broadcasting. One such person is William C. Grover, JR. who is 88 years young. Grover, still sharp as a tack, gave us a type written story of some of his contributions to places where he worked. Here, in his own words, are his story and some pictures he gave us to support what he did*.)

SUMMERY OF THE LIFE OF WILLIAM C. GROVER, Jr.

I was born in Comer, Georgia, May 24, 1918 and grew up there, attending Comer - Elementary and High School, graduating in 1935. I then attended Livingston State College in Livingston, Alabama for a year and then went to Chicago, Illinois to attend Electronic School to study Electronic Engineering for Broadcast Station engineering. After graduation, I went to Atlanta, GA to take the exam for a First Class Radio Operating License, which I passed and was granted my license on June 17, 1937.

I took a temporary job as a fill in operator for two station owned by a family In Columbus and Atlanta, Georgia. After that, I obtained a full time job with a new station being built in Athens, GA This was a combination position, Engineering and announcing. I stayed there for a year - 1938 1939, but wanted a position in engineering only and found a new station being built in Gastonia, N. C. which filled my desire, so I moved there in March 1939 as the number 2 Engineer.

In 1942, I was promoted to Chief Engineer at age- 24 - youngest known in this area. I stayed there until I went into semi-retirement, in 1983. I continued part time as a consult to the station, working on special projects until the Station was sold-transferred to new owners in 1986.

During the time as Chief Engineer, my duties were to supervise the engineering department, select, purchase and install needed equipment, maintain and operate the equipment.

In 1946, I was loaned to the FCC for a month to help prepare Engineering data for an upcoming hearing on specifications for the Clear Channel hearing. At that time WGNC had in an application for an FM Station. While I there, I discussed the plans for the FM station with the FM division Engineer.

During this waiting time, I worked with the owner and the manager planning this installation. This consisted of selecting a site, tower, equipment, etc and then their

purchase. I also supervised the building of the road, building etc, to complete this installation, while continuing the operation of the AM Station.

During these times, the AM transmitter burned, the studios moved twice, the AM transmitted moved twice, the FM transmitter was modified to accept subcarriers, modified for remote control, and modified it for stereo operation. Finally the transmitter was replaced with more powerful one and a new antenna was installed.

When the remote control was planned, there was only one manufacturer, and they were to limited to suit us. After looking around, it was decided that I would design and build our own as some other stations had constructed their own. Our system was unique in that it used only one equalized telephone line to carry program material and all remote control functions as well, with twenty five control positions; more than needed as I felt it would be easier to build in for extras as you were building it than to come back later to add to it.

I ordered two twenty five position, four level banks of contacts for circuit selection: on-off, meter samples, homing etc. The control tones were 18 KHz, 21 KHz, 27 KHz, and 30 KHz.

Metering was sent back via a 45 KHz subcarrier on the main carrier. Plate circuit samples were positive, grid current samples were negative, therefore since they were being sent via subcarriers, it was necessary to design and construct a polarity converter converting the negative to positive. I designed a high pass filter to pass the tones, but blocked the program, a low pass filter to pass the program but rejected the control tones from program channel.

Sharp band pass filters were used to select the desired tone to operate the desired relay. The 30 KHz tone had a 3 second drop out on the fail safe circuit, so that carrier was maintained during step operation required to operate the stepper - using one tone for two functions. Other tones used to "raise", "lower", "reset" etc. Components to build these filters were mostly TV horizontal circuit components. This is how we used only one line instead of three. We used it for about 8 or 10 years before the telephone company put in a 20 KHz low pass filter in the line end it would not let my higher tones through.

We changed and added one more line for control using tones in the range, 300 to 6000 cycles, (ten tones used) for control. We later put in a 950 MHz link for the program circuit, and the stereo and did away with the equalized program line. We also installed a 300 to 6000 cycle remote control for the AM when the transmitter was moved to a new location. (I had found and purchased two surplus units, a 40 MHz band FM radio with the ten tone detector unit built in. I separated the tone detector unit from the radio and converted the radio to receive the N.C. State highway patrol. I had the two units already, so I only had to put a new front end on them and then build the solid state control unit to match them.

I had some new ideas: DTMF technology had been quite reliable for telephone use. Why not apply that technology to remote control? I had not heard of any one doing it. I

thought it could be used in either of two ways. One was over a dedicated line or over a subcarrier on the microwave, using the l thru 0 for 10 circuit selection and * and # being use as the "On-Off" or "Up-Down" momentary controls, or second, to use standard telephone line, then use a telephone answering circuit that after a set number of rings, would latch up, and switch from telephone communications to the transmitter for remote control.

I started this idea, with the 1- thru O being circuit selectors, latching when selected circuit number button depressed, remaining latched until another circuit was selected at which time the previous circuit that was latched would be released and the new circuit relay would pull in and latch. This would allow circuits to be randomly selected. The latched relay would be a 4 pole double throw to allow the necessary controls and meter samples to be available. This theory worked fine except that my DTMF decoders were not stable enough.

I then found a Selectone DTMF detector unit that output from all sixteen tones available from the DTMF generator. I purchased the unit and installed it instead of my detector. Found it to perform great. I thought that then I could make an accessory to plug in to add the 4 extra outputs, and then I secured a one tone DTMF touch pad to provide all 16 pairs. This would permit all standard telephone generator tones to provide the essential 10 circuit latches plus the raise-lower functions, leaving the additional 4 extras to be accessed only with the special 16 key touch pad. I had the 12 circuit transmitter assembled and it worked fine. I then started on getting the studio unit working with the 16 key touch pad when the station came up for sale. I still had the plans for the telephone answering unit and a planning for a digital metering circuit to either return on the telephone line or on a subcarrier. I am sorry that I was not able to complete my project. I understand that this type control is now available. I assume others had the same ideas that I had and were able to complete similar circuitry.

Other projects through the years include, modifying war surplus and industrial two way FM communications equipment to use as "wireless" remote relay broadcast links. This included changing to 120 volt A C power supply to replace the vehicle DC supply, adding a fan for cooling, and audio actualization in both the transmitter and receiver to provide better audio quality. I also designed an interface and constructed them to assemble an automation system for programming both the AM and FM transmitters. This included a unit to automatically fade local tape program, announce and switch to Network news, and then switch back at end of news.

I had a few "Moonlighting" jobs during a thee year period which included installing and maintaining two way radio communications equipment in taxi cabs, oil delivery trucks, ambulances for funeral home, installing sound systems and paging systems, home stereo music system, installation of all equipment for several radio stations being built in nearby towns, and modifying a couple radio station transmitters for low power pre-sunrise operation and modifying a 5 KW transmitter to operate at 2.5 KW and getting it type accepted for operation by the FCC.

In addition to this the I taught Industrial Electronics for 3 years at the local industrial school, 1 year for Juniors in a two year course they were trying to introduce in the local high school; it survived only 3 years. Then I taught all classes; basic electricity, electronics and advanced electronics, Instrumental service units, and servicing techniques for 7 years at our local Community College (Industrial Division.) I did other minor projects from time to time during the years.

I'm now retired completely, and live at a local retirement village in the Charlotte area that has complete care services, assisted living, health care etc, and enjoying it all.

I served one term as Vice Chairman and one as Chairman of the Charlotte, NC chapter of SBE and am now a Life Member.

PICTURE EXPLANATIONS

From the front of 4 panels, they appear alike; however, the "works" are different. They look alike to avoid confusion when operating from studio location or operating from the transmitter location. The dial and operating switches are in like positions. The meter panels appear alike.
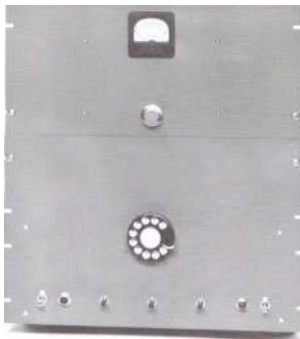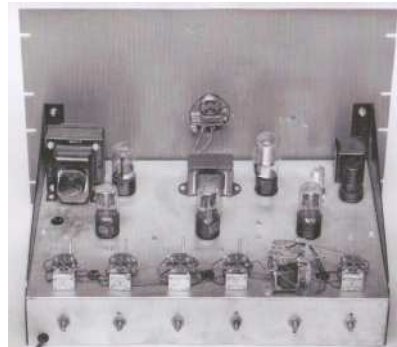

Picture #1 shows two of these panels located together only for the purpose of the picture at the photo studio. Pictures taken before any labels attached. Top - meter panel. Bottom - Dial selectors and operating switches.
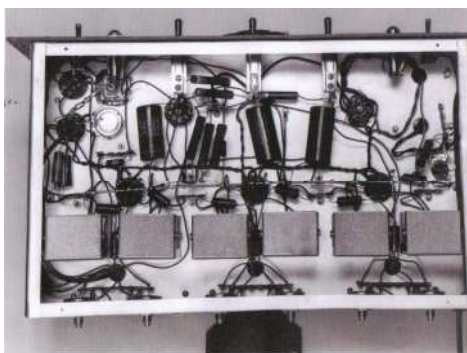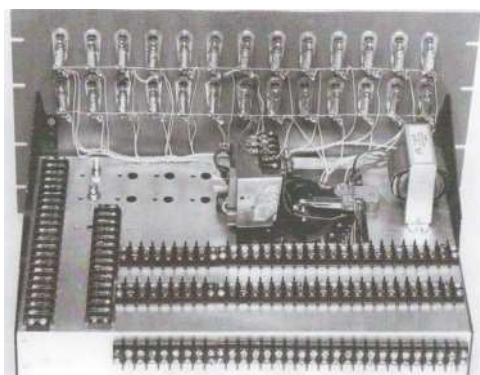

Picture #2 Top of one of the meter panels

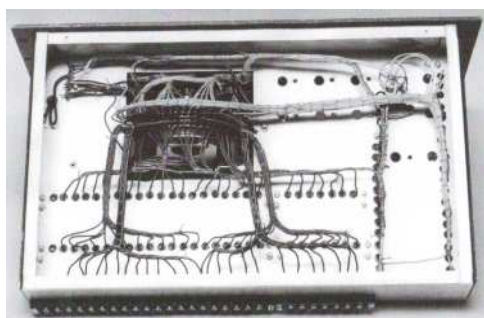Picture #3 Bottom of the previous

Picture #4 Studio tone generator with dial and operating switches (top side view)
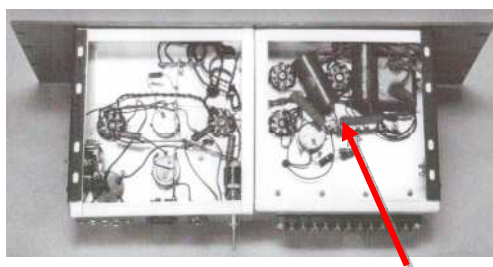
Picture #5 Bottom view of the above

Picture #6 Transmitter circuit selecting stepping switch terminal strips for external wiring and pilot lights to indicate circuit selected
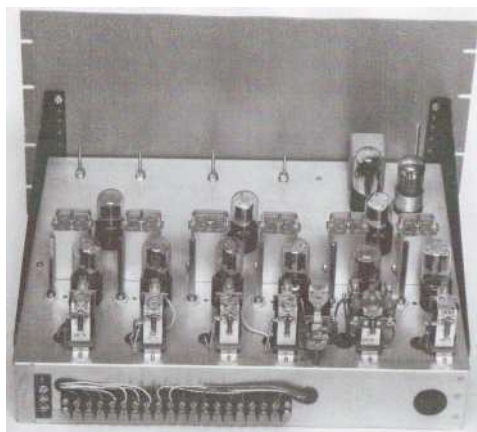

Picture #7 Bottom of the above (#6). The Studio unit appears the same but with less terminal strips.

Picture # 8 Top side of transmitter tone selector relay unit

Picture #9 Underside of above #8 (note-components near front panel make up the high pass filter that rejects the program from the tone circuits)

Picture #10 Top side of transmitter location sub-carrier generator on the right side and the polarity inverter for the 4 grid negative current samples on the left.

15

Voltage regulated power supplies were used on frequency sensitive critical circuits.

To complete the remote control system, several other units were built but no pictures were taken. One of these was the last one designed and constructed. It was the RF amplifier used to amplify the off air signal 10 miles away picked up with antenna mounted on a power pole. This turned out to be a tuned 101.9 MHz RF amplifier.

I designed this to use 3 stages of voltage amplifiers using 6AK5 tubes followed by one stage power amplifier using a 6AQ5 power amp tube. Each stage was completely enclosed in a copper compartment for complete isolation to prevent oscillation or feed back. High frequency range slug tuned ceramic coil forms were purchased and used to wire the several 100 MHz tuned circuits.

This amplifier took the signal from the antenna/commercial FM signal booster and amplified it to the required 2 watts of RF power to drive the GE FM frequency/modulation monitor without modification (some stations did modify it so it would not require 2 watts to drive it. GE advised me to not make any changes: I followed their recommendation.

The antenna consist of two yagi units that I assembled stacked and phased for signal aiding and feeding 300 ohm balanced line to the commercial FM booster at the bottom of the pole enclosed in a metal weather box. From there, it went under ground via 75 ohm coax to the RF amplifier described above. High voltage was reduced some so as to provide longer life and reliability.

(Editor's Note: *What follows is part of a three part series about Mt. Wilson, CA by Marvin Collins who was Chief Engineer with KFI and KOST radio in Los Angeles until his retirement in September 2000. It is reprinted here with his permission. The whole series of three articles can be seen on Barry Mishkind, "The Eclectic Engineer's" website.*)

Benjamin's Mountain – Broadcasters Invade
By Marvin Collins, W6OQI

Television in Los Angeles started in the early thirties with Harry Lubcke, physicist and engineer for Don Lee, working on a project that in 1938 turned into a television station at Seventh and Bixel in downtown Los Angeles. This experimental station, W6XAO on Channel 2, was moved to Mt. Lee above Hollywood in 1940. This same year saw probably the first Los Angeles FM station, K45LA on 45.5 megahertz; go on the air, also from Mt. Lee.

Klaus Landsberg put KTLA on the air from the Paramount lot on Melrose Ave in 1939. World War II brought further television activity to a halt in Los Angeles. After the war better transmitter locations were needed and attention was turned to Mt. Wilson and KTLA Channel 5 moved there in 1947, becoming the first television station to broadcast from Mt. Wilson.

Don Lee, a Cadillac automobile distributor, continued with his experimental W6XAO Channel 2 on Mt. Lee. Earl C. Anthony, a Packard motor car distributor and owner of KFI, after some field testing from Mt. Wilson, built KFI-TV and signed on from Mt. Wilson on August 25, 1948 with regular programming using an RCA TT5A transmitter on Channel 9. The transmitter log shows that earlier on June 23, 1948 a test pattern aired from 9:51 pm to 11:35 pm. Earl C. Anthony was a friend of Mr. Childs of the Mount Wilson Hotel Company. This facilitated the purchase of the land necessary for KFI-TV. KFI-AM was an NBC affiliate, so it was only natural that KFI-TV ran the NBC kinescope film network shows. The cross country microwave network feeds had not yet reached the west coast. The Program Log Book shows equipment in the TV truck was used to pick up programs from August 25, 1948 to October 6, 1948. On October 6, 1948 the KFI-TV studio at 141 South Vermont was first used.

From the same Mt. Wilson location KFI-FM operated with a General Electric three kilowatt Phasotron transmitter operating into a two bay antenna for an ERP of 10KW on 95.5 megahertz. KFI-FM was the first FM station on Mt. Wilson, having signed on the air on July 15, 1946 with program test.

Late in 1948 NBC signed on as KNBH on Channel 4 from Mt. Wilson on land purchased from Mr. Childs of the Mount Wilson Hotel Company. Years later KNBH became KRCA and then KNBC as we know it today. The same year saw CBS join with the Los Angeles Times in a joint venture to put KTTV Channel 11 on the air.

Meanwhile back on Mt. Lee, W6XAO had become KTSL, named for Thomas S. Lee, son of Don Lee. KTSL was still on Channel 2. Don Lee saw the handwriting on the wall that television was going to be transmitted from Mt. Wilson. Also Don Lee, the Cadillac distributor, probably did not want to be outdone by Earle C. Anthony, the Packard distributor. Don Lee acquired land west of Mt. Wilson in what was called the Deer Park area and built a television plant complete with an RCA TT5A transmitter like Earle C. Anthony had for his Channel 9. Before Don Lee could move his KTSL to the Mt. Wilson Deer Park area, he passed away.

(Editor's note: *The current Channel 2 antenna on Mt. Wilson is the only guyed tower on Mt. Wilson; the rest are all self-supporting. It is a 3 bay batwing. The original Don Lee tower was a free standing, 5 bay batwing which CBS later modified to fewer batwing elements and uses it as an auxiliary antenna. When the 5 bay batwing was used, no one in Pasadena could receive Channel 2 as the signal shot right over the top of anything close to the foot of the mountains.*)

Shortly after his death, CBS and the Los Angeles Times decided to part company at KTTV Channel 11. Earle C. Anthony was having union problems at his KFI-TV Channel 9 and had not made money with KFI-TV. The changes were now rapid. Earle C. Anthony sold KFI-TV to the Don Lee Company and KFI-TV became KHJ-TV on September 6, 1951. KFI-FM was turned off April 5, 1951 and the license was returned to the commission for cancellation. The old K45LA FM station in downtown Los Angeles became KHJ-FM on 101.1 megahertz. This call sign later was changed to its present KRTH-FM. KTSL Channel 2 on Mt. Lee was sold to the Columbia Broadcasting System when Don Lee bought KFI-TV Channel 9. CBS changed the KTSL call sign of Channel 2 on Mt. Lee to KNXT. In 1950 CBS bought the intended KTSL Deer Park property on Mt. Wilson and moved KNXT Channel 2 to that location, where Channel 2 still operates. CBS changed the KNXT call to KCBS many years later.

Early in 1949 ABC signed on KECA-TV Channel 7. This call sign was later changed to KABC. At the same time KLAC Channel 13 signed on from Mt. Wilson. They were in a hurry to begin broadcasting and at first they had a tent over their building which was still under construction when they signed on.

At first Channel 13 did not have commercial power; they generated their own power with their emergency generator for a short period of time until Southern California Edison could reach them. KLAC TV Channel 13 later was sold to Copley and the call sign was changed to KCOP.

It is interesting to note that until early 1949 the Southern California Edison Company supplied 50 hertz power to Mt. Wilson. In its early days KFI-TV had a rotary converter to convert the 50 hertz power to 60 hertz power. Frank Grill, who started at Channel 9 as a KFI-TV employee and was a KHJ-TV (now KCAL-TV) employee, remembers having to maintain the rotary power converter.

Channel 2's antenna

Mt. Wilson today

Pitt to Celebrate 100th Anniversary of Voice Radio Transmission
"Father of Radio" Reginald Fessenden did pioneering work while chair of Pitt's electrical engineering department

Public invited to a program on the history and future of radio on Nov. 11 in Benedum Hall Auditorium

PITTSBURGH-Reginald Fessenden, the prolific inventor and first chair of Pitt's electrical engineering department whose pioneering work with radio transmission led to radio as we know it today, will be celebrated at a symposium on Nov. 11.

Reginald who, you ask?

Fessenden, the "Father of Radio," is not as well known as his contemporary inventors-Edison, Marconi, and Tesla-but it was Fessenden's scientific daring that, in the end, gave us one of the most powerful communication tools in history: radio.

According to Fessenden's own records, he successfully made the first long-distance transmission 100 years ago when he broadcast his voice and his violin performance over the Atlantic, startling and mystifying sailors who typically were listening for dots and dashes and the occasional seagull, and heard "O Holy Night" instead.

But this dramatic moment was hardly his only contribution to the quality of life we enjoy today. Fessenden's prodigious genius also led to 500 patents, including the wireless telephone, the oscillator, the fathometer (an early version of sonar used in the search for the sunken Lusitania), the wireless compass, and the turbo-electric drive used in battleships. He also did pioneering work in light bulbs and was a proponent of alternating current. His theories, later proved accurate, audaciously challenged those of Edison and Marconi and prevail to this day.

Much of Fessenden's radio work was done while he was chair of the electrical engineering department at Western University of Pennsylvania, now the University of Pittsburgh. To commemorate Fessenden's role in radio's emergence, Pitt will host a symposium titled "The Birth of Radio and the Pitt Connection," from 8:30 a.m. to noon Saturday, Nov. 11, in the Benedum Hall Auditorium, corner of O'Hara and Thackeray streets, Oakland.

The first session, titled "The History of Radio," will feature emcee Larry Shuman, associate dean for academic affairs in Pitt's School of Engineering and professor of industrial engineering, and the following panelists:

- Charles Reichblum, KDKA's "Dr. Knowledge";
- Rick Harris, broadcasting historian and coauthor of the book When Radio Was Young (National Museum of Broadcasting, 1995);
- G. Alec Stewart, dean of Pitt's Honors College and amateur radio aficionado; and
- Marlin Mickle, Nickolas A. DeCecco Professor of Electrical and Computer Engineering and Telecommunications at Pitt.

The second session, on the future of radio, begins at 10:30 a.m. and will feature presentations by Mickle and Gerald Youngblood, CEO of FlexRadio Systems.

George Westinghouse lured Fessenden to the University in Pittsburgh because Westinghouse had already seen the engineer's genius and wanted him close at hand. Fessenden's invention of silicon-iron and nickel-iron alloys for the lead-in wires in electric light bulbs and the methods for sealing wires in a glass envelope had allowed Westinghouse to fulfill his commitment to light the 1893 World's Columbian Exposition in Chicago.

It was at the University that Fessenden developed the idea to use continuous high-frequency electromagnetic waves to transmit the human voice. This then led him to the "heterodyne principle" of amplitude modulation (AM), which eventually allowed us to hear such famous voices as Charles Osgood, Garrison Keillor, and Myron Cope.

Because of Fessenden's Pittsburgh connections-electrical and human-Western Pennsylvania became the incubator of modern radio. And in 1920, KDKA, owned by Westinghouse, aired the first commercial broadcast.

After seven years at the University of Pittsburgh, ending in the spring of 1900, Fessenden moved on and continued his experiments. In late 1906, according to his biography, an unplanned success occurred when a station he had built in Scotland "overheard" the voice of a Fessenden assistant who was giving instructions by wireless telephone from a Brant Rock, Mass., station to one in Plymouth, Mass. Then Fessenden made the world's first intentional voice "broadcast" from Brant Rock. His voice announced to the ships at sea that it was a test, then Handel's "Largo" from a phonograph, then Fessenden's own violin version of "O Holy Night" and his singing of one verse, then his reading of the New Testament Christmas story.

Fessenden's ideas, nurtured in Pittsburgh, took voice across the Atlantic, and the rest, as they say, is all-night talk radio.

Fessenden's grave marker, in Bermuda, contains a reference both to radio and sonar: "By his genius distant lands converse, and men sail unafraid on the deep." The world, still enthralled by the power of radio, shouldn't have to stumble across his grave to know his story.

To register for the conference, contact Sonia Bembic at 412-624-2640 or sbembic at engr.pitt.edu.

John Battison
Honored with SBE Lifetime Achievement Award

John Henry Battison was awarded the Society of Broadcast Engineers (SBE) Lifetime Achievement Award during NAB2006 in Las Vegas. Battison has played a significant role in the radio industry; from working in radio stations to founding the Society of Broadcast Engineers in 1963.

From 1978 to 1985 Battison held several management and engineering positions. He was the director of engineering and general manager of CHCTTV in Calgary, Alta. He became director of TV, produced Burl Ives on ABD Network and produced two weekly shows on Dumont, CBS and NBC. In 1947-1949 he worked for ABC New York, where he planned and designed four network TV and FM stations. In 1968-1970 he worked in Saudi Arabia, Riyadh as chief engineer of Saudi Television.

Battison was also a consultant. He was a consultant for Bing Crosby, owner of KCOP-TV in Los Angeles, from 1961 until going to Saudi Arabia in 1968. He was also a consultant to former Governor of New Mexico John Burroughs from 1960-1962. Battison became a TV consultant, planning TV studios, for American University, Washington, DC, from 1952-1954. He has lectured on broadcasting at New York University, American University and in 1952 became the director of education for the National Radio Institute in Washington, DC. Battison was nominated as a Commissioner to the FCC in 1961 and 1973 by Senator Joseph M. Montoya. He was appointed Colonel-aide-de-campe to Governor Sims of New Mexico. Battison is listed in Who's Who in America.

Other achievements include being the author of 15 technical books and more than 500 technical articles in technical journals. From 1964 to 1967 he was the editor of the Journal of Society of Broadcast Engineers. He is a former editor of Broadcast Engineering, a contributing editor for Public Telecommunications Review and technical editor of Radio magazine.

The Lifetime Achievement Award recognizes individuals for their dedication, lifelong achievement and outstanding contribution to the broadcast industry. Nominees must be SBE members in good standing and have been active for 40 years or more in the broadcast engineering industry or a closely allied field that benefits broadcast engineering. Nominations must come from SBE members in good standing, and include the endorsement of three other SBE members in good standing.

FCC Eyes DTV Distant Nets Regulations

The Federal Communications Commission is taking the next step in its ongoing - and sometimes controversial - work tied to distant network signals delivered to satellite TV subscribers.

The commission recently released a proposal that aims to amend its rules to include measurement procedures for determining the strength of a digital broadcast television (DTV) signal at any specific location. The final procedures would be used to determine whether households are eligible to receive distant DTV network signals that are retransmitted by satellite TV services.

The Satellite Home Viewer Extension and Reauthorization Act (SHVERA) directed the FCC to provide Congress with a report on its findings and recommendations for any revisions that might be needed for standards and procedures used to determine eligibility for distant network signals. Last December, the FCC issued a report to Congress on the matter, and suggested the agency should to conduct a rulemaking proceeding to specify procedures for measuring the field strength of digital television signals at individual locations.

The FCC will take comments on the issue.

EBU backs emerging 1080p standard
From: Mark Aitken   maitken at sbgnet.com

While to many the issue of an interlace versus a progressive-scan HDTV standard had taken on the entrenched fervor of a religious debate, EBU technical director Phil Laven said at the HD Masters conference in London this spring that there is no need for a format war in Europe as all the HD-Ready sets are standards-agile, writes Richard Dean.

However Laven left no doubt about the EBU's preference at the packed HD Masters conference, organized by TVBEurope in partnership with BKSTS and SMPTE. "Tests have shown that viewers see little difference between uncompressed 720p and 1080i pictures, but prefer 720p on compressed signals," said Laven, pointing out that for the foreseeable future viewers will never see uncompressed pictures at home, "So 720p offers broadcasters better quality at the same rate, or the same quality at a lower rate, perhaps making way for more channels.

"Interlace is an old but effective technique for bandwidth reduction dating back to the 1930s, but modern compression techniques are more efficient," added Laven, hammering the point home. "Although converting from progressively scanned footage into final interlaced broadcast is easy and accurate, converting in the opposite direction creates errors and approximations, so we believe that interlace should be avoided anywhere in the chain.

"The EBU position is that the emission standard should be progressive - 720p/50 now, and 1080p/50 in the longer term."

Heralding 1080p as the 'third generation HD standard' from which 720p and 1080i formats can be easily derived if required, Laven conceded that the format consumes a

mighty 3 Gbps of bandwidth at full quality. SMPTE is working on a new standard for both 1080p/50 and 1080p/60 in the US, with the likelihood of 1.5 Gbps 'mezzanine' compression variants for existing HD SDI infrastructure. "However it may surprise some of you," Laven told his hushed near-capacity audience, "to learn that stripped of the coding overhead associated with interlace, 1080p/50 actually needs a lower data rate than 1080i/50 to achieve the same subjective picture quality."

Far from closing down the religious divide on picture scan formats, Laven's claims seem likely to give the topic a whole new lease of life.

For more on this subject, visit: www.hdmastersconference.com

IPTV: Telcos strike back

IPTV is facilitated by broadband Internet pipes into the customer premise. Faster delivery of increasingly compressed digital content now enables the capability of broadcast-quality video and HDTV real-time streaming over the Internet. ADSL, ADSL2, ADSL2+ and the emerging VDSL methodologies are the enabling technologies..

Advanced compression codecs such as MPEG-4 AVC, Part 10, and VC-1/WMV are being used to deliver the high-quality video at a low bit rate. Audio is often delivered using advanced audio coding (AAC) compression.

IPTV has come to mean several things. Some describe it as a solely telco-based fiber technology. Others, as a move from sending all TV channels to all consumer's homes simultaneously over cable, to using dedicated switched video circuits where only the desired programs are delivered to the consumer on a demand basis.

The Internet

The Internet as we know it today exploded in the mid 1990s; however, it was never designed for multimedia, and much less for broadcast-quality video distribution. New technology and fiber now make high-speed video and data to the home possible.

Internet Protocol

Internet Protocol defines a numbering and naming methodology for locating devices on a network. Four 8-bit octets define a logical, or IP, network address. This IP address is bound to a unique Media Access Control (MAC) number. This number is physically burned (flash memory) into a device, creating an unambiguous locator for each networked device.

As touched on in the last newsletter, cable operators are using IP methodology to distribute programming to the edge. Edge devices, servers and encoders, allow for distributed and more granular delivery of content.

SES Americom Inks IPTV Deal with IDC

Global satellite communications company SES Americom and International Datacasting Corporation (IDC) are integrating IDC's next-generation DVB-S2 satellite receivers aboard the IP-Prime IPTV service. As part of a new agreement between the two companies, IDC is now the exclusive provider of satellite receivers over the initial year of IP-Prime service rollouts.

IP-Prime is the fully-managed solution that brings together IPTV components and technology partners - like Globecomm, Harmonic, NDS, Scientific-Atlanta, IDC and Siemens - creating an end-to-end service with encoding, middleware, scrambling/descrambling, content protection, conditional access and integration services.

According to IDC, the company's receivers feature new DVB-S2 technologies to maximize IPTV delivery over satellite bandwidth. SES Americom is also using IDC IP encapsulators and custom engineering and network management in support of IP-Prime, enabling telcos to deliver broadcast TV to customers across the country.

IP-Prime programming originates from the SES Americom IPTV broadcast center where video and audio will be received and processed for distribution via the AMC-9 satellite and fiber to telco video hubs nationwide. IDC receivers will be installed at the IP-Prime hubs, where programming is either handed off to telcos or delivered to IPTV set-top boxes in consumer homes, the companies said.

Mitsubishi Harnesses Colored Lasers to Produce New-Generation Lightweight HDTV

From: Craig Birkmaier   craig at pcube.com
As it appeared in the New York Times
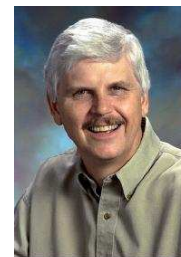
As if shopping for new flat-panel, high-definition television is not hard enough; Mitsubishi has announced that it has developed commercial television that uses colored lasers to display bright, deep images on large, thin, lightweight screens - surpassing images seen on film. The television sets, which Mitsubishi is calling the first of their kind, are expected to reach stores sometime late next year.

At the heart of the first generation of this new television is an existing rear-projection technology called digital light processing (DLP). In the past, this technology, developed by Texas Instruments, used white-light mercury lamps as the television's light source. With laser television, separate red, green and blue lasers are used in conjunction with an HDTV chip, said Frank DeMartin, vice president for marketing and product development at Mitsubishi.

He and Mitsubishi engineers said this provided a new look in large-screen units, signaling a move to lighter, slimmer profiles for rear-projection television. In terms of

performance, Mr. DeMartin said, laser television promises a greater range and intensity of colors. He said the new sets would be made with compact, sculptured cabinets and remain relatively light because the screens would be advanced plastics rather than the glass common in plasma television flat-panel units.

The screens will be so lightweight that the need for frames will be significantly lessened, Mr. DeMartin added. This will give the television a cleaner, practically all-screen look.

Its lighter weight, about half that of plasma models with comparable screen sizes, will also have a smaller footprint, he said. For example, a 50-inch plasma or L.C.D. television requires stands up to 17 inches deep to rest securely, Mr. DeMartin said.

Laser television technology is not new. For years, engineers have experimented in laboratories and research centers, seeking to illuminate television images with lasers. But the most optimistic outlook had been for laser television to be available in two to three years. Power and costs were barriers to bringing the technology to the marketplace.

But Marty Zanfino, the director of product development for Mitsubishi, said those issues had been resolved, resulting in large-screen laser television that is expected to be competitively priced with plasma television in sizes of 52 inches and larger.

Mr. DeMartin said laser television would use about a third the power of conventional, large-screen models that depend on high-power lamps. In such television, he said, the lamps are required to be on at full power whenever the sets that use them are on. But Mitsubishi's new lasers, which are based in semiconductors, turn on and off when needed. For example, Mr. DeMartin said, when black is required in an image - still a challenge for some plasma-based television - the laser switches off.

These solid-state lasers, he added, will greatly outlast lamps. As a light source, he said, they are practically "permanent," meaning that the lasers should last for the set's lifetime.

A 52-inch model of the Mitsubishi laser television was demonstrated when the company shows its new lines earlier this year in Huntington Beach, Calif. Mitsubishi is showed the new product at a time consumers are expressing interest in high-definition, flat-panel units.

Industry statistics show that consumers in the United States are buying large display television at twice the pace they did three years ago. Mitsubishi executives said Americans were buying five million high-definition television units a year, urged on by increased high-definition programming, the move to high-definition video consoles from Microsoft, Sony and Nintendo, and high-definition DVD players coming to market.

But unlike old technologies based on the cathode-ray tube, or C.R.T., which remained basically unchanged for decades, flat-panel television is continuing to evolve rapidly.

At the Consumer Electronics Show in Las Vegas in January, Toshiba and Canon demonstrated their jointly developed S.E.D. (surface-conduction electron-emitter display) televisions, new flat-screen units that essentially combine the best of C.R.T. emitter technology with digital flat-panel technology. The two companies recently postponed their introduction until next year.

"It's a story of complexity," Ted Schadler, a Forrester Research analyst, said of the dizzying array of choices prospective buyers face. He said there were more technologies, more shapes and sizes and more competing manufacturers' agendas.

While he said the S.E.D. and laser television technologies had "characteristics that are extremely interesting," he warned that consumers and retailers were going to have to do their homework as the flat-panel choices grew more complex.

"Television used to be very, very simple," he said. "You bought a big one or a small one that was black and white or color."

That has all changed, Mr. Schadler said. "Now we've got complexity like buying real estate or buying a car or something," he said. "It's just gotten tremendously complicated."

For more on this subject, visit:
http://www.nytimes.com/2006/04/03/business/03hdtv.html?_r=1&th&emc=th&oref=slog in

Why HANA, why now?
From: Craig Birkmaier   craig at pcube.com

As one of the subscribers to the OpenDTV list wrote: "Having been in A/V retail for a number of years and having done countless A/V system installs, I can tell you that something like HANA is very dearly needed. Unfortunately, HANA will likely go the way of its predecessor HAVi (www.havi.org) and never make any meaningful impact on the market. Why HAVi failed so miserably is something I'd love to know."

1394 is far from dead, however, it has largely failed to find a niche in the consumer electronics market, EXCEPT, as a digital video interface for camcorders. 1394 has, in essence, become a professional interconnect for computers, data storage, and increasingly for professional broadcast equipment.

Perhaps the final nail in the coffin was Apple's decision to drop 1394 from the iPod, choosing to go with USB2 instead. It is also conspicuously absent from the iTV prototype that Apple demonstrated last month.

I think there are four key factors here that are driving this.

1. The gerrymandering and delays associated with the introduction of 1394 as a consumer interconnection scheme because of the perceived need to add a content protection layer (DTCP), and the licensing schemes that were added for DTCP.
2. The small percentage of Windows PCs that ship with 1394 ports.
3. The ubiquity of Ethernet as the basis for home networking;
4. The growing use of WiFi in place of Ethernet to further simplify device interconnections.

I can tell you form personal experience that many consumers are overwhelmed by the proliferation of interconnections that are being used between that old (or new) TV and the various peripherals connected to it. This is driving a very profitable business for home electronics (A/V) installers.

My guess is that the trend will be to wireless interconnections of devices to a box with decoder(s) for content; the output of this box will connect to the display via HDMI.

I think some folks are wrong about the MPEG-2 limitation. This will be the case for integrated tuners; however, new devices like iTV will not be limited to MPEG-2.

Anti-stripping
From: Craig Birkmaier   craig at pcube.com

Multicast Must-Carry: The Words Not Heard at MSTV Confab

The language of a new carriage strategy emerged among the many discussions at the annual fall MSTV conference Oct. 3. During a panel moderated by MSTV chief David Donovan, the concept of multicast must-carry was turned on its head by NAB chief David Rehr.

Rehr instead dropped the term "anti-stripping," in reference to the bits comprising a digital broadcast signal. He said that anti-stripping was among the NAB's priorities for the coming year. He never once uttered "multicast must-carry," the assertion that must-carry provisions should apply to all of a broadcaster's digital programming streams. I.e., the NAB argues that cable operators should carry the entire 6 MHz signal occupied by a broadcast signal without stripping out any bits. Cable operators beg to differ, and so far, the FCC and lawmakers have agreed.

The FCC voted it down last March under the leadership of then-Chairman Michael Powell, who said must-carry applied only to the "primary video signal." Only Kevin Martin, who was a commissioner at the time, dissented in part because he said the public interest benefits of multiple DTV programming streams should be considered before knocking compulsory cable carriage off the table. Martin tried to revive multicast must-carry once the FCC had a full complement of commissioners under his chairmanship, but the item was pulled from the regular meeting agenda in June.

Interest on Capitol Hill remains tepid.

"I'm not sure if there's a market failure to address," said Barry Ohlson, senior legal advisor to Commissioner Jonathan Adelstein.

For more information, visit: http://www.tvtechnology.com/dailynews/one.php?id=4298

More Than One HDTV
From: Craig Birkmaier   craig at pcube.com

A new study shows one in six households in the United States now have at least one high definition-capable TV (HDTV), up from one out of every fourteen households just two years ago according to from Research Group. Yet, as much as ever, a disparity exists in HDTV ownership by household income level. Millions of HDTV sets have been sold in the US in the past year, and more homes than ever are actually watching HD programming. Yet even with the price of HD sets decreasing, we see that growth of HD is being driven by those who can most afford to buy one, which in an increasing number of instances includes households with more than one HDTV set. With just two and a half years to go before the digital TV transition takes place, two-thirds of Americans remain unaware of the pending analog cut-off, helping to explain why this deadline has had little impact on the purchase of HD and digital TVs to date.

http://whatcounts.com/t?r=5&c=671758&l=26942&ctl=14A7532:83C4C29D0DC715EB6E52957A9D2E111DF84C555F45D8AEFC

- The mean annual household income of HDTV households is 42% above average
- 26% of households with annual incomes of over $50,000 have an HDTV compared to 7% of households with annual incomes below $50,000
- 26% of HDTV owners have more than one HDTV - up from 11% last year
- 29% of HDTV owners are likely to get another HDTV in the next year - up from 18% last year
- Only one-third of adults have heard of the digital TV transition, scheduled for February 17, 2009

TV Statistics

$1.06 bln worth of pay TV stolen in Asia in 2005

1.5 mln paying IPTV subscribers in mid-2005

100 mln Internet-based TV subscribers by 2010

102 mln mobile TV subscribers by 2010

12% want video to go on their portable devices

13 mln PC-TV tuners were sold in 2005

13-14% of TV time for men and women 18-49 is out of home

17 mln IPTV users in China by 2009

17% of Americans have HDTV

17% of US consumers have a flat panel TV, 49% plan to get a flat panel

19.1% of Internet users interested in on-demand television purchases

19.7% of Americans to have DVRs by year-end 2006

2.73 TVs, 2.55 people in average US households

20% of all Americans and 15.7% of DVR owners watch 44.5+ hours of TV weekly

20.8% of average working day is spent on media

21.1 mln Latin American households subscribe to multichannel TV

25% of US households to own DVRs by 2008

250 mln DVR owners by 2011

26% of HDTV owners have more than one HDTV set

26% of US households to have HDTV by year-end 2006

3 mln plasma TVs sold so far

30% of Americans to have HDTVs by year-end 2006

34 mln IPTV subscriptions globally by 2010

36.9 mln IPTV subscribers in 2009

37 inch LCD TV prices down 30% so far in 2006

37.4% of HDTV owners have a vague idea of what HDTV actually means

4% of Western European households have IPTV

4.5 mln set top box subscribers by 2008, $231.3 mln industry

40 IPTV networks will have more than 100K subscribers in 2009

48.8 mln IPTV subscribers by 2010

49% of HDTV owners do not take full advantage of HDTV

50 mln hybrid set top boxes to be shipped by 2011

51% of US households have cable TV, 26% - satellite

52% of US TV watchers would switch paid TV services if they could get a better price

53 mln IPTV subscribers by 2009

53% of Internet-enabled Asian households want to view digital photos on TV

56% of Americans know what IPTV is

59% of digital TV subscribers will have interactive platforms by 2009

63% of US households to own HDTVs by 2010

63.1 mln IPTV subscribers by 2010

65.5% of Americans get their news primarily from local TV

67% of children under 2 watch TV at least once a day

69% of monitors in 2006 and 27% of TVs sold in 2006 to be LCD

7.3 mln LCD TVs sold in Q1 2006

73 mln cable TV subscribers in the US

8.7 mln Europeans to have IPTV by 2009

81% of Americans worry about TV that their children watch

99% of US households have access to at least one HDTV station

Ad-splicing equipment to generate $1.8 bln by 2011

By 2010 128.4 mln people will watch TV on their mobile devices

Cable TV infrastructure equipment sales to generate $2.1 bln in 2010

DVD sales to grow 12% in 2005, 9% in 2006

DVR families watch 5.7 hours of TV a day, regular families - 5.1 hours

Flat panel TVs to generate $72 bln by 2010

HDTV market to reach $65 bln by 2009

LCD market up 535% in Indonesia, up 456% in Chine, up 417% in Korea

LCD TVs to account for 56% of TVs sold in 2010

Mobile TV to be worth $8.4 bln by 2010

Subscriber growth for satellite TV down 29%

Top cable TV markets: China - 106 mln, USA - 69 mln, India - 46 mln

Top-selling TV brands: Sharp, Sony, Philips, Samsung

TV market leaders in 2005: LG, Samsung, TCL

TV production up 5.7% in 2006

TV spot ad revenues to grow 6.1-7.9% in 2006

TV usage for young men 18-24 up 5% in 2005

US DVR penetration reaches 7%

Video on demand to generate $163 per subscriber a month by 2009

ATSC Approves New Recommended Practice

The Advanced Television Systems Committee has given final approval to ATSC Recommended Practice: Transport Stream Verification (A/78).

The new Recommended Practice provides guidance to broadcasters and equipment manufacturers on a common methodology to be used to determine transport conformance with the elements and parameters of ATSC Standards A/53, *"ATSC Digital Television Standards," and A/65, "Program and System Information Protocol for Terrestrial Broadcast and Cable,*

"Our new Recommended Practice was designed to meet the real-word operational requirements of broadcasters" said Mark Richer, ATSC President. "It is likely to become the basis for DTV transport stream monitoring strategies."

Work on A/78 was led by Dr. Richard Chernock of Triveni Digital, within the Technology & Standards ad-hoc group TSG-1. Dr. Chernock observed, "The broadcasters focus has shifted from getting DTV on the air to keeping it working correctly. Monitoring is a key component to achieve this goal. A/78 provides important guidance, allowing attention to be prioritized from the most important impairments to those that have minimal consequences. The work that led to A/78 represents contributions from all segments of the industry."

While ATSC standards strictly define the contents and characteristics of the DTV emission transport stream, there may be a number of interactions and interrelationships amongst various components. Successful tuning and display of programs can be ensured if the transport stream adheres to the applicable specifications.

An ATSC Recommended Practice is a document that states specifications or criteria within advanced television systems that are not strictly necessary for effective implementation and interoperability, but that are thought to be advisable and may improve the efficiency of implementation or reduce the probability of implementation errors. The ATSC Recommended Practice may also specify a preferred methodology for implementation and operation, and may recommend a choice from among alternatives. A/78 may be downloaded from the ATSC Web site at http://www.atsc.org/standards.htm

Windows Vista RC2

From: Albert E. Manfredi   albert.e.manfredi at boeing.com

I wonder how much of the new look will come with installation of IE 7.0 in WinXP machines.

With Vista Release Candidate 2 -- likely the final "official" interim version of the operating system before Microsoft releases it to manufacturing in the next month -- the folks in Redmond have pulled together a product which simultaneously teases, vexes, and impresses the prospective user.

Since this is Microsoft we're talking about, let's take those out of order. The biggest annoyances with RC2 involved installation issues. Despite assurances to the contrary, I wasn't able to upgrade to RC2 from the previous Vista Beta version I had on my test machine. Instead, I had to do a fresh, full re-install. (Interestingly, while RC2 put up a message threatening to wipe my disk clean, that's not what it in fact did; a look at Windows Explorer revealed a directory called "Windows.old," where it had placed the earlier build.)

Vista's Flip 3D feature lets you stack up your open windows in a kind of flip-picture view in the middle of the screen, and scroll through them with the mouse to go back and forth among apps. Click image to enlarge and to launch image gallery.

You'd expect Microsoft to have focused on squeezing out all the stumbling blocks to a smooth installation. After all, isn't one of Windows' big selling points its purported easy installation as compared to Linux? Pretty clearly, that no longer obtains, especially given the fact that many Linux distributions aren't as driver-deficient as in the past. On the other hand, after the initial crop of users upgrading from XP, most Vista users won't be installing the OS themselves -- they'll be getting a pre-install on a new PC.

With RC2 ready to roll, I was afraid I'd run into some of the issues which have challenged other beta testers. Chief among those has apparently been a problem getting some systems to switch on Vista's Aero interface. Aero is Vista's premium GUI, creating a screen with see-through, 3-D-like elements. In earlier betas, Aero would only kick in if your PC was outfitted with a graphics card carrying at least 128 MB of video memory.

Following criticism of this rather onerous video-memory requirement, there was some talk of Microsoft scaling that back to 64 MB. Perhaps that's gone out the window, because the message traffic on Microsoft's Aero forum indicated that some users having problems had 512-MB video cards. (Microsoft seems to be aware of the issue, and there is a workaround.)

One final piece of collateral information indicating that Vista is going require heavier duty graphics than do today's PCs if it is to shine is provided in RC2's Windows Experience Index. That's the hardware assessment tool previously known as the Windows System Performance rating, or WinSPR. The experience index continues to use graphics as the gating factor. My test PC was equipped with a 3.2-GHz dual-core Pentium 940, which got it a subscore of 4.8 on the processor portion of the test. However, my 256-MB graphics card rated only a 3.1. That limited the final score to 3.1, since the final rating is determined by the lowest subscore.

Fortunately, my 256-MB graphics card ran Aero just fine. Which brings me to the "impresses" part of this review. Vista's GUI continues to improve. It certainly is pretty. More importantly, when one compares RC2 to RC1 and previous betas, Microsoft is clearly making intelligent tweaks to the interface. There's a subjective sense that the UI has settled down, and that changes to color, shape, transparency, and position have been done from a solid human-factors perspective rather than by some programmer run amok.

On the function front, Microsoft has improved the control-panel settings used to select UI color. It also appears to have moved the selection of Aero options ("glass" or "classic") one level down, which is intelligent because it's something you don't want uninitiated users playing with.

Now for the "tease" I mentioned up top. RC2 continues Vista's tactic of offering the kind of glitz that Microsoft must be hoping will convince home users to upgrade. Consider Vista's Gadgets, the great-looking little applets that reside on the right side of your desktop. (So what if the feature was borrowed from Apple?) Microsoft has been criticized for a paucity of gadgets; with early builds there were only 10. Now, a Gadgets Web site has upped that number to 54. Sure, we're got the UK Weather Track, but it's clear that Microsoft is intent on building up its portfolio of cool accessories.

Other apps obviously designed with eye-candy appeal in mind include Vista's Windows DVD Maker and the new Mail system, which replaces Outlook. In terms of functionality, I was most impressed with the Network and Sharing Center, a feature intended to smooth connecting to the Internet (this was also in RC1).

On the negative side, the Security Account Controls designed to make Vista more resistant than XP to viruses and malware are still more obtrusive than they need to be.

Vista's Media Center features, which I liked in my review of Beta 2, still have a clunky feel. Design-wise, I didn't like the fact that Media Center seems to "take over" my PC by going to a full screen. That's a counter-intuitive comment, since it makes sense for a movie and music interface to go wide. But that's not what you want with software that feels less than rock-solid. Since Vista is nothing if not a Trojan Horse through which Microsoft hopes to take over the living room, one would expect that the Media Center would be glitch-free.

Performance-wise, RC2 looks and feels good and marks a continued progression from RC1. (I had only one unexplained reboot!)

The bottom line is that, with RC2, Vista is increasingly looking like a smart combination of heavy duty functionality sure to be welcomed by corporate users and an increasingly good-looking presentation (read: Aero) that'll appeal to consumers.

For more information, visit:
http://www.eetimes.com/showArticle.jhtml?articleID=193200068

From THE CGC COMMUNICATOR

CGC #766
LOW POWER DEVICES ON VACANT TV CHANNELS COMING SOON

Following is the "First Report and Order and Further Notice of Proposed Rule Making" in the TV spectrum sharing proceeding mentioned last week.

http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-06-156A1.doc

EAS REQUIREMENTS EXTEND TO DIGITAL BROADCAST TECHNOLOGIES

Following is an extract (with permission) from a Leventhal, Senter & Lerman client newsletter dated October 17, 2006:

"In November 2005, we notified you that the FCC set an effective date for extending EAS requirements to digital television and radio, digital cable television, direct broadcast satellite television and satellite digital radio services. The new rules for national EAS will apply to digital television and radio, digital cable, and satellite radio beginning December 31, 2006, and to direct broadcast satellite television beginning May 31, 2007...." The full text is available at: http://earthsignals.com/add_CGC/EAS_LSL.pdf

CGC #767

NPR REQUESTS RECALL OF FM MODULATORS? PROBABLY NOT

The Baltimore Sun for October 26 carried an article entitled, "Public radio seeks recall of FM devices used in cars" that opened with the following sentence: "Citing widespread interference on broadcast frequencies used by its member stations, National Public Radio has asked the Federal Communications Commission to order recalls of millions of FM modulators that drivers use to play satellite radios and iPods through their car stereos."

This sounded a bit suspicious to us (knowing human nature, how many folks would voluntarily relinquish overpowered mini-transmitters?), CGC obtained a copy of NPR's

October 12 letter that was cited in the article. Put simply, NPR did not request a product recall in the traditional sense, but instead suggested a far more cogent three-step remedy.

Quoting now the relevant paragraph in NPR's October 12 letter to the FCC: "First, the Commission should initiate a reexamination of the self-certification process for authorizing low power transmitters, Second, non-compliant products should be taken off the market, Third, the Commission should institute a moratorium on Part 15 certifications or re-certifications to any organization that has knowingly participated in the commissioning, manufacture, sale or distribution of overpowered, noncompliant FM modulators, whether intended for use with satellite radios, flashplayers, or standalone devices."

So, unless there is some other NPR letter requesting a product recall, NPR did not suggest the Draconian recall action cited by the Baltimore Sun and echoed by major trade publications. http://tinyurl.com/yavd9x

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CGC #765

LOW POWER DEVICES ON VACANT TV CHANNELS COMING SOON

The Commission has adopted a First Report and Order and Further Notice of Proposed Rulemaking taking the first major steps toward allowing new low power devices to operate in the broadcast television spectrum on vacant channels.

The Commission declined to permit operation on TV channel 37 that is used by radio astronomy and wireless medical telemetry services; and on TV channels 52-69 which have been reallocated for public safety and other mobile services. It also declined to permit the operation of personal/portable devices on TV channels 14-20 which are used by the public safety service in 13 cities, leaving for further consideration the issue of whether fixed devices might be used in that band.

Marketing of such devices may commence on February 18, 2009, after the digital television (DTV) transition is complete and all TV stations are in operation on their permanent DTV channels. It has not yet been determined whether the new low power devices will be permitted on a licensed or license-free basis.

http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-267867A1.doc

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EXPERIMENTAL GRANT OF INTEREST

Hatfield & Dawson Consulting Engineers, LLC, has been granted experimental permit WD2XYJ to operate on 93.5, 94.7, 96.1 and 107.5 MHz under a Space and Naval Warfare (SPAWAR) Systems Center contract to develop and test enhancements to FM radio transmitter systems. Fixed: El Centro (Imperial), CA

http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-267847A1.doc

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FCC REQUESTS NOMINATIONS FOR NEW EMERGENCY ALERT COMMITTEE

In this Public Notice, the FCC seeks nominations for membership on its Commercial Mobile Service Alert Advisory Committee. The purpose of this committee is to "develop recommendations on technical standards and protocols to facilitate the ability of commercial mobile service providers to transmit emergency alerts to their subscribers to the extent such providers elect to do so."

http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-267898A1.pdf

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FCC RELEASES LONG-AWAITED "OMNIBUS" AMATEUR RADIO R&O

The FCC has issued a Report and Order (R&O) in response to nineteen petitions for rulemaking and one informal request for Commission action on various items of interest to the Amateur Radio community. Major actions involve the expansion of HF voice privileges for many HF operators, and the permitting of Auxiliary operations (e.g. linking) in most parts of the 2-meter band (see paragraphs 20-23 in the R&O).

The first URL takes you to ARRL's overview of the R&O. The second URL gives the full R&O text, all 44 pages.

http://www.arrl.org/arrlletter/06/1013/
http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-06-149A1.doc

ULTRA WIDEBAND TO BE PERMITTED DOWN TO 80 MHZ?

UltraVision Security Systems, Inc. (UV) filed a request with the FCC to permit the marketing and operation of an ultra-wideband surveillance system that transmits as low as 80 MHz, well below the 1990-10600 MHz band required by Rule 15.511(a). UltraVision's system would be used at fixed locations for security applications, but the company also wants the list of eligible users to be expanded considerably.

UltraVision claims that its new system needs no emissions in the 1990-10600 MHz band, and that its equipment relies instead on "what the Commission regards as low-level spurious emissions, and meets the limits for those emissions." If this sounds like IBOC, you are right, but the UV system is said to use extremely low power and rapid pulses, so the interference issues are more complex. UV claims that, "The energy into the passband of an actual receiver at any realistic distance will be completely undetectable."

Despite UV's claims, this ultra-wideband system needs a close examination for interference potential. The company states that the "-10 dB bandwidth typically lies between 80 and 600 MHz...."

Comments are due November 24, 2006.

http://hraunfoss.fcc.gov/edocs_public/attachmatch/DA-06-2102A1.doc
http://earthsignals.com/add_CGC/Ultravision_App.pdf

Podcasting in High Definition
By Shane Sturgeon
(Reprinted with permission: HDTV Magazine)

For those of you who just don't get enough High Definition from your local provider, here are a few more sources of HD content and information to satisfy your craving. I've scoured iTunes and plucked these gems to highlight for your viewing (and listening) pleasure. The first group are podcasts about high definition technology: news, reviews, analysis, etc. The second group are podcasts that feature high definition video. Shot in either 720 or 1080 lines of resolution, these are hefty downloads, but should help ease the pangs of your high definition hunger.

What are Podcasts?

I would venture a guess that most of you know what a podcast is, how to receive them, and how to listen to them. But for those who don't, here's a quick primer:

A podcast is an audio or video file that is distributed using "feeds". It differs from direct downloading or streaming in that it can be downloaded automatically using software capable of reading these "feeds". The term derives from a combination of the terms "iPod " and "broadcasting", although an iPod is not required to receive podcasts. You can play them on any mp3 player (or video player, for video podcasts), or your home computer or laptop. Each of the podcasts below is free and distributed via iTunes, Apple's online music/video service.

Podcasts about High Definition

HDTV & Home Theater Podcast - This is a podcast about all things related to High Definition television. Ara Derderian and Braden Russell get push this podcast out twice weekly. If covers news, reviews, and how-to's. -

Engadget HD - This is a podcast of many names. Originally, it was known as This Week in HD, and was hosted by Ben Drawbaugh and Warren Wiltshire. This later was adopted by HDBeat.com, a site managed by Kevin Tofel, and became The HDBeat Podcast. Warren then dropped out leaving it to Ben

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and Kevin. They hosted it for several episodes, and then Kevin left for other pursuits and Matt Burns came in. Now Ben and Matt have been doing this podcast for several months and then just a few weeks ago changed the name of both the site and the podcast to EngadgetHD. -

Podcasts in High Definition

MacBreak - The only Macintosh video show you'll ever need. Mac experts Leo Laporte, Amber MacArthur, Alex Lindsay, and Emery Wells talk about everything Mac, including hardware, software, pro apps, and tips. Shot in 1080p high def, because your Mac deserves the very best. (1080p) -

mariposaHD - mariposaHD is produced by four ordinary guys who quit their jobs, moved to South America, and decided to make a TV show. We film everything with HDV camcorders and edit the video on a PC in our living room. mariposaHD is recorded, edited, and distributed in the full 1920x1080 pixel resolution of the 1080i standard. (1080i) -

The Big D in HD - The Big D in HD is a video podcast celebrating the good times and fun of the "Happiest Place on Earth". Filmed with an HDV video camera see Disneyland Like never before on your Computer. -

For an up-to-date list of HD-related podcasts, see the HDTV Podcast Page.

For more about the HDTV magazine, visit: http://www.hdtvmagazine.com

Information & Education

Plain Old Steam Telephones
From: Robert J Carpenter   rcarpen1 at verizon.net
As seen on broadcast at radiolists.net

Regarding keeping a wire telephone for emergencies, the WTOP web site www.wtopnews.com carried this AP story:

Police Say Keep a Land Line

MANASSAS, Va. - Prince William County Police say it's a good idea to keep at least one land line phone in your home in case of an emergency. Many people are dropping land line service and relying on cell phones or Internet phones. But police say that could make a big difference in an emergency.

Police Captain Fred Miller says you should always have at least one land line phone in your house so you can connect to 911.

He gives the example of Hurricane Isabel, when many people lost cell phone service, but most with land lines still had telephone service.

Miller says land lines have a fail-safe connection to 911 which guarantees emergency services to your door.

Most 911 centers automatically locate your home through the 911 call on a land line.

DTV Training
From: Gary Sgrignoli

Well, the regular Major League baseball season is over and the playoffs have begun. The Cubs finished on top again, that is, they are on top of the list for the worst record in baseball! At least they made the top of some kind of list, and the chant goes forth again for the 98th year in a row - "Wait until next year!!!" But, of course, you won't have to wait until next year to attend one of the upcoming VSB seminars being offered around the country! And you can always check on the status of upcoming seminars on the MSW website (www.MSWdtv.com).

The DTV transition continues to accelerate with at least 1584 DTV stations on the air covering 211 markets containing about 99.95% of the TV households (90.6% of the households are in markets with 5 or more DTV signals). Behind us is the beginning of the FCC tuner mandate (100% of mid-screen & larger DTV sets must have DTV tuners as of March 2006, and 13" and larger sets will follow suit in March 2007), the "plug & play" cable compatibility issue, the "broadcast flag" resolution (kind of ...), and the DTV translator rules (the LPTV June 2006 filing window just passed us). Now NTIA has an NPRM out asking for comments on their $40 coupon program to be used at the end of the transition. Besides that, there is a significant increase in HD programming (including live programs such as sports, Super Bowl, Olympics, and even the local news) as well as more models of lower-cost DTV sets with integrated digital tuners on showroom floors (5th generation VSB chips have been out since spring 2005). With the advent of the 2nd Periodic Review in the fall of 2004, which set the post-transition channel election and replication/maximization process in motion with a projected NPRM date of Fall 2006, and Congress settling on February 17, 2009 as a hard analog "turn off" date, the last phase of the DTV transition is surely well under way !

These day-long digital VSB transmission seminars have been offered around the country for the last 8 years, with more on the way. Some of the cities across the country that have hosted seminars in the past have been: Albuquerque, Atlanta, Austin, Baltimore, Boise, Boston, Calgary (Canada), Chicago, Champaign (IL), Cincinnati, Columbia (SC), Dallas, Denver, Des Moines, Harrisonburg, Honolulu, Indianapolis, Kansas City, Knoxville, Lansing (MI), Los Angeles, Manchester, Milwaukee, Minneapolis, New Orleans, New

York City, Norfolk, Oakland, Orlando, Philadelphia, Phoenix, Pittsburgh, Portland (ME), Portland (OR), Raleigh, Reno, Sacramento, Salt Lake City, San Diego, San Francisco, San Jose, Seattle, Tampa, Topeka, and Washington DC. The plan is to visit new cities as well as to revisit some of the ones mentioned above.

There are now three (3) types of VSB transmission seminars to consider. The original 1-day VSB Fundamentals course contains all the basics of data communication in general as well as the VSB System in particular and is a pre-requisite to the 1-day VSB Measurements seminar that covers VSB testing information that is needed in the laboratory, at transmitter sites, and at remote field sites. The third seminar is a 1-1/2 day VSB Combo course that combines both VSB Fundamentals and VSB Measurements together for a complete look at the system. This 3rd seminar includes a solid fundamentals review in the first 1/2 day, and then focuses on the measurements the following full day of the seminar.

All three seminars are operated in a similar manner, with corporate sponsors covering the majority of the costs and only modest registration fees for the attendees. Look carefully in the list below to see which of the three seminars is being offered in each city !!!

Upcoming all-day VSB seminars are currently scheduled for:

Topic: VSB Combo (Fundamentals & Measurements)
Date: WEDNESDAY & THURSDAY, November 8-9, 2006
Location: Birmingham AL
Time: 1:00 pm - 6:00 pm (11/8/06);   8:30 am to 5:45 pm (11/9/06)
Hosts: SBE Chapter 68
Sponsors: Agilent, Belden, BMS, LARCAN, Harmonic, MRC, Nucomm, RF Central, Rohde & Schwarz, & Tektronix

Topic: VSB Measurements
Date: THURSDAY, May 17, 2007
Location: Harrisonburg, VA
Time: 8:30 am - 5:45 pm
Hosts: SBE Chapter 78
Sponsors: TBD

In addition to the above confirmed dates, the Seattle, Spokane, LA, Manchester, and Pittsburgh SBE chapters as well as Iowa Public Television folks in Des Moines, IA are trying to book seminars some time next year. The WEBE and SMPTE groups in Washington DC have expressed definite interest in jointly hosting a seminar in the Washington DC area in March of next year. These additional seminar dates should be forthcoming in the near future.

Corporate SPONSORS that are interested in being involved in any of the above upcoming seminars should contact me immediately so that I can put you in touch with the appropriate host people before sponsorship opportunities close.

As usual, the modest registration fee for these seminars covers an updated 1-1/2" thick (800-page) detailed seminar notebook as well as lunch, so if you know of anyone wanting to attend a seminar (e.g. any local station engineers or business clients in the area), please forward this information to them.

As an FYI, local TV broadcasters often host these seminars in conjunction with local broadcast organizations such as SBE and SMPTE. These seminars are designed to be "break-even" events for the hosts with my travel expenses and speaker fees paid by corporate sponsors, while the cost of the handout books and refreshments are covered by the very modest registration fees (often between $60 - $75 per person) charged to the attendees. The seminars often draw between 30 - 60 people (and sometimes more), and one credit is given towards SBE re-certification. Also, the material in the "VSB Fundamentals", "VSB Measurement", and "VSB Combo" seminars will help those preparing to take the 8-VSB Specialist Certification test that is now offered by SBE. See the national SBE website for more details (www.sbe.org).

If you know of any broadcast-related groups that would want to co-host or co-sponsor any future VSB seminars in their cities, please let me know. The fall and winter seminar schedule is currently being planned. I believe that these educational seminars are well worth the time, energy, and money to attend, especially in this last phase of the DTV transition where so many requirements are in effect for broadcasters.

As the DTV transition continues to roll out, the channel election comes closer to completion, and the final date for analog shutoff comes closer to reality (will the 2/17/09 date really "stick"???), let's all work towards continued success and progress throughout 2006.
Gary Sgrignoli
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www.MSWdtv.com

The primary difference between blogging and other kinds of web publications

The primary difference between blogging and other kinds of web publications is support for RSS (Really Simple Syndication). How many web sites do you track and visit on a regular basis? About a dozen or so? With RSS, you can keep track well over 200 web sites or even more. I know of people who keep track of thousands of web sites using RSS. Think of RSS as a polling protocol that allows a program to poll literally thousands of web sites and provide information on what's changed since the last time the sites were

polled. The protocol is lightweight enough that it doesn't have to pull down the entire web site.

The secondary difference between blogging and other kinds of web publications is the concept of a permanent link. The blog host software generates a URL for each post that other web sites can link to with relatively sound assurance that the link won't go stale. As an example of this, go to live.com, or Google if you prefer, and search for "C++ Function Objects." One of the top hits for that search is a blog post written 18 months ago. Now, the site that hosts that blog post has gone through several changes since then, including a complete software upgrade. Yet, the links to that post remain valid.

The combination of these two features leads to something very powerful: the ability to carry on conversations via linking and RSS, over very long distances. One fascinating example of this occurred last year during the war between Israel and Hizb'u'llah. All during the war, Israeli and Lebanese bloggers were carrying on an actual conversation. Due to blogging, they had established these relationships well before the outbreak of hostilities. Because of those pre-hostility conversations, they had come to see the humanity in each other, and were able to continue their conversations, despite differences in points of view, all during the hostilities.

What you end up with is something that has everything you'd associate with a "community" except for the face-to-face contact. It's a fascinating phenomenon.
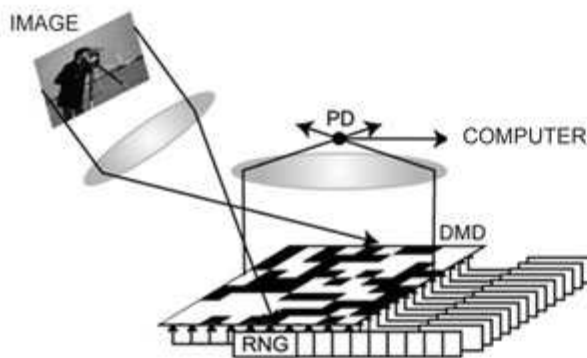
A 1-pixel camera
A pixel's worth 1,000 words

Rice engineers design single-pixel camera that takes high-resolution images
By Jade Boyd

For all their ease and convenience, few things are more wasteful and inefficient than digital cameras. They're loaded with pricey microprocessors that chew through batteries

In the single-pixel camera, the image from the lens is shined onto a digital micromirror (DMD) and bounced from there through a second lens that focuses the light reflected by the DMD onto a single photodiode (PD). The mirrors on the DMD are shuffled at random for each new sample, creating random patterns of black and white, as depicted in this schematic. Each time the mirrors shift, a new pixel value is recorded by the photodiode. The camera creates an image by capturing just one point of light, or pixel, several thousand times in rapid succession. The thousands of single-pixel snapshots are then assembled by a computer into a high-resolution image.

at a breakneck pace, crunching millions of numbers per second in order to throw out up to 99 percent of the information flowing through the lens.

Using some new mathematics and a silicon chip covered with hundreds of thousands of mirrors the size of a single bacterium, engineers at Rice University have come up with a more efficient design. Unlike a one-megapixel camera that captures one million points of light for every frame, Rice's camera creates an image by capturing just one point of light, or pixel, several thousand times in rapid succession. The new mathematics comes into play in assembling the high-resolution image — equal in quality to the one-megapixel image — from the thousands of single-pixel snapshots.

The research was presented Oct. 11 at the Optical Society of America's 90th annual meeting, "Frontiers in Optics 2006," in Rochester, N.Y.

The oddest part about Rice's camera might be that it works best when the light from the scene under view is scattered at random and turned into noise that looks like a television tuned to a dead channel.

"White noise is the key," said Richard Baraniuk, the Victor E. Cameron Professor of Electrical and Computer Engineering. "Thanks to some deep new mathematics developed just a couple of years ago, we're able to get a useful, coherent image out of the randomly scattered measurements."

Baraniuk's collaborator, Kevin Kelly, assistant professor of electrical and computer engineering, built a working prototype camera using a digital micromirror device, or DMD, and a single photodiode, which turns light into electrical signals. Today's typical retail digital camera has millions of photodiodes, or Megapixels, on a single chip.

DMDs, which are fabricated by Texas Instruments and used today primarily in digital televisions and projectors, are devices capable of converting digital information to light and vice versa. Built on a microchip chassis, a DMD is covered with tiny mirrors, each about the size of a microbe, that are capable of facing only two directions. They appear bright when facing one way and dark when facing the other, so when a computer views them, it sees them as ones or zeros.

In a regular camera, a lens focuses light for a brief instant onto a piece of film or a photodiode array. In the single-pixel camera, the image from the lens is shone onto the DMD and bounced from there though a second lens that focuses the reflected light onto a single photodiode. The mirrors on the DMD are shuffled at random for each new sample. Each time the mirrors shift, a new pixel value is recorded by the photodiode. In effect, the lens and DMD do what the power-hungry microchip in the digital camera usually does: They compress the data from the larger picture into a more compact form. This is why the technique is called "compressive sensing."

Today, it takes about five minutes to take a picture with Rice's prototype camera, which fills an entire corner of one of the tables in Kelly's laboratory. So far, only stationary objects have been photographed, but Kelly and Baraniuk said they should be able to adapt the photographic technique to produce images similar to a home snapshot.

However, their initial efforts are aimed at developing the camera for scientific applications where digital photography is unavailable.

"For some wavelengths outside the visible spectrum, it's often too expensive to produce large arrays of detectors," Kelly said. "One of the beauties of our system is that it only requires one detector. We think this same methodology could be a real advantage in terahertz imaging and other areas."

The research is funded by the Defense Advanced Research Projects Agency, the Office of Naval Research, the National Science Foundation, the Air Force Office of Scientific Research and Texas Instruments' Leadership University Program.

Flea-power AM and LPFM
From: Chuck Lakaytis   chuck at akpb.org

In the last few months I have received quite a few calls from AM stations in the lower 48 asking, "How do you guys get this"? They were referring to the fact that we have several AM stations in the system that have FM translators licensed to them.

All of these translators are fed with Common Carrier services of various sorts. They were all given Alaska Exemptions by the FCC.

An example is KBRW-AM in Barrow. The North Slope Borough encompasses over 89,500 square miles and the 10 KW AM cannot cover it all. So we have five translators covering various villages.

Quite a few years ago we experimented with one translator trying various off the air reception techniques from the AM. I built lots of noise rejection loops, etc. all to no ultimate solution of fading, and lots of noise.

Now that we are getting some decent wideband IP service up there we are going to experiment feeding them via IP using Barix boxes.

To be banned in Boston

Ah yes ... the hub of Massachusetts
City may banish TV dishes from view
Plan envisions shift to backs of buildings

The Boston City Council, citing a proliferation of satellite television dishes across the city, is considering banning the devices from the front of buildings.

Saying that the dishes are potentially dangerous and increasingly hard to overlook in parts of the city where some buildings are festooned with them, councilors plan to

consider a measure to confine the satellite television receivers to the back of buildings, out of public view.

``For some, it's an eyesore,'' said Council President Michael Flaherty, who sponsored the measure. A public hearing before the council's Public Utilities and Cable Communications Committee is scheduled for Friday.

http://www.boston.com/news/local/articles/2006/10/17/city_may_banish_tv_dishes_from_view?mode=PF

Features

IPTV – Who Will Make Money Off The Matrix
By Andy Marken

"A déjà vu is usually a glitch in the Matrix. It happens when they change something," – Trinity in the 1999 movie **The Matrix**

The Internet Matrix emerged in the late '80s with three struggling internet service providers (ISPs) serving researchers, educators and a few business people. It enjoyed spectacular growth.
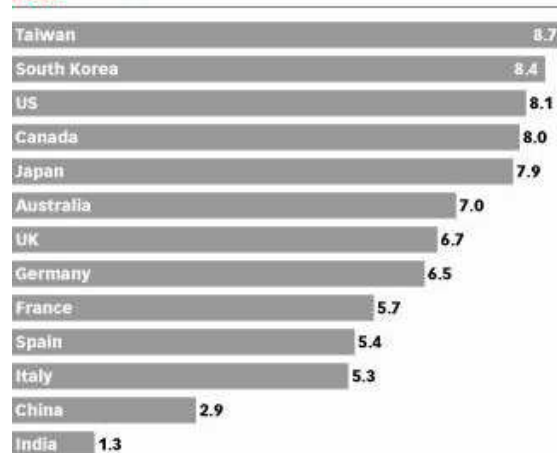
Morpheus and Neo sat there just enjoying the success!!!

The Internet's Matrix 2 came in the '90s with more excitement, more money than people could imagine. The death of many of the stars was painful…and expensive.

With the slow, struggling emergence of IPTV the third remake is here.

It is scaring the hell out of everyone…CE manufacturers, Tellywood, advertisers and yes more than a few consumers who don't know what to watch or where to watch it !!!

Digital Living Index* for Select Countries Worldwide, 2005

Country	Index
Taiwan	8.7
South Korea	8.4
US	8.1
Canada	8.0
Japan	7.9
Australia	7.0
UK	6.7
Germany	6.5
France	5.7
Spain	5.4
Italy	5.3
China	2.9
India	1.3

Note: *based on proclivity to adopt and use MP3 players, video-on-demand (VOD), home networks, computers, online services and similar advanced technologies
Source: Parks Associates, December 2005

CE manufacturers know folks around the globe have gone digital (Fig 1). We've got our MP3 players, computers for everyone in the family, home networks (ok some do) and

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slowly HDTV sets. But if we all migrate to IPTV they have to deal with MPEG 4 decoders, new formats and gawd sets that are just large monitors.

That's exactly what Sony, Matsushita (Panasonic) and a few others plan to do early next year…Internet TV sets.

They might as well.

Kids do most of their multitasking in front of their computers anyway. They're even helping boomers keep the heat on for global broadband growth

Our son for example doesn't have time for TV. His truck's bumper sticker declares his freedom…"Kill Your TV."

Unplug the cable?
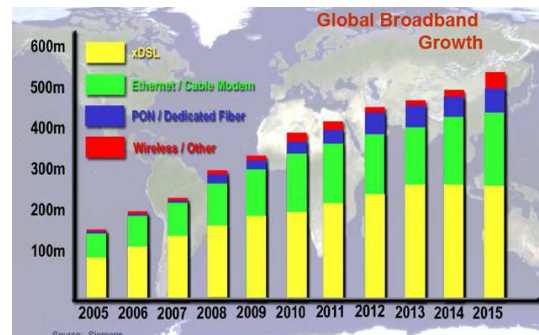
No problem.

Just don't touch his DSL connection !!!

True the world isn't all broadband…yet

But it is connected.

And it's getting faster…slowly.

Last year, 194 million households WW had broadband service.   By 2010 the number will increase to 413 million according to In-Stat.

The U.S. may have the best Internet products but the country is still only #12 in the high speed connected world. Iceland and South Korea lead the pack while Northern Europe has seven of the top ten slots.

Cable – big in the U.S. and Canada – will make modest bundled gains over the next few years but most folks seem to think of cable as aahh…TV!

Strategy Analytics believes the incumbents and independent DSL providers will have the greatest growth. But then they still have a lot of progress to make in their creative billing practices.
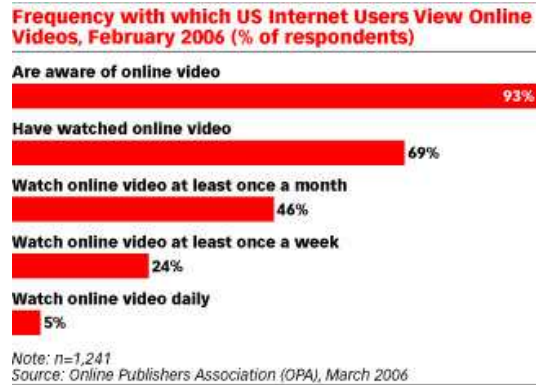
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You'd think the competition would give us ordinary folks an edge…doesn't happen.

In fact, the telcos want to get even more creative with their pipes. For example they want to slice and dice their service charges. Want video…VoIP, music…security…IPTV? Doesn't matter if the pipe isn't being used…you should pay **more** !!!!

Then too there is that little thing called QOS (quality of service) !!!!

Our kid is part of the increasingly connected generation. Cellphone in hand, listening to online music, IMing friends and whomever, surfing for class assignments, updating his MySpace, catching the latest on YouTube he has no time for regular TV !!!

If he wants a "real" show, he knows where the online stuff is at.   And according to Online Publishers Association (OPA) he isn't alone.

Frequency with which US Internet Users View Online Videos, February 2006 (% of respondents)

Are aware of online video	93%
Have watched online video	69%
Watch online video at least once a month	46%
Watch online video at least once a week	24%
Watch online video daily	5%

Note: n=1,241
Source: Online Publishers Association (OPA), March 2006

In fact Arbitron reports that Internet viewing has been increasing steadily in the U.S. – 7% in January '04, 8% in '05, 12% in '06.

That could be habit forming!!!!   And according to iSuppli it will.

IPTV subscribers in Western Europe are projected to be more than 16.7 thousand by 2010 compared to 3,283 thousand this year. In the U.S. there will be more than 422 M homes with broadband by then.

All prime candidates for complete entertainment their way!!! IPTV is expected to expand by a factor of more than 26 from last year to 2010! iSuppli sees the subscribers growing from 2.4 million last year to more than 63 million by 2010. That is a growth rate of 92.1% by anyone's calculations!!! What worries the controllers is that people who are viewing this stuff aren't just kids.

Nielsen's research shows that:
- 12.61% are 12-17
- 7.15% are 18-24
- 19.11% are 25-34
- 54.46% are 35-64
- The rest are at the other ends of the age groups

That means serious loss of viewers' eyeballs and worse yet advertisers clutch purses….sheess!!!

Just as online music created an opportunity for indie musicians, they have found an eager market for music video webcasts. Clubs across the country are installing webcams to entertain the global online market. It is great promotion for the clubs…for the bands…for the music lover.

For example Gig, a club in LA, regularly video records unsigned bands for their showcase. As the online audience grows you'll be certain merchandising will follow – music video sales, club and group merchandise and yes even download song sales. Online competitors to cable's MTV are also getting off the ground. Network Live, Live Nation and others are working on music VOD and a range of streaming entertainment. Every conventional TV network and production operation has similar video education, information and entertainment projects in the works.

Gig

Tellywood isn't certain how much of their audience IPTV will siphon off but they do know if someone is going to start eating their lunch. They want to be the fat cats at the table doing it!!!

Biggest problem? Finding the damn show you gotta see is impossible. There are thousands of shows/channels on the Internet now and in a few years there will be like a gazillion IPTV channels around the globe. No one has come up with a good on-line service TV Guide. It's OK for the time being. Our son sends us cryptic notes saying we should check out such and so. Of course he's not going to be home forever (we hope).

The IPTV trend spells huge expenditures in advertising, value added TV-based services and video services. ISPs haven't been this excited since the '80s.

As Morpheus said, *"Throughout human history we have been dependent on machines to survive. Fate, it seems, is not without a sense of irony."*

Worldwide IPTV Revenue Segmentation ($M)

Source: iSuppli
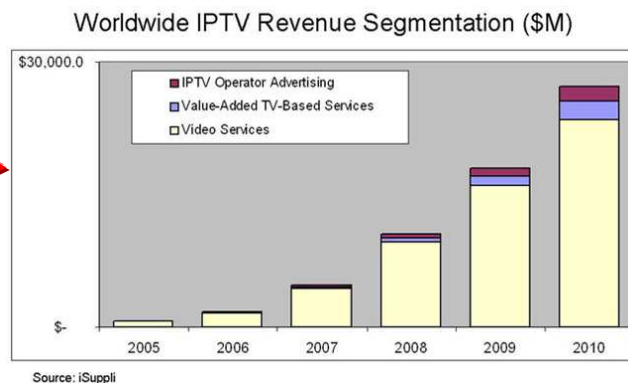
The battle has only just begun. Over the next few years there will be a huge push for subscribers. Providing video will simply be the admittance ticket. They will have to offer a rich set of offerings and…aggressive pricing.

As Cypher said…*" It means buckle up your seatbelt, Dorothy, 'cause Kansas is going bye-bye."*

Today, the Internet is the place to see and be seen. Even if you're a nobody you can be seen. Certainly Tellywood is jumping on the bandwagon if only out of defense. But it is

the indies who have the potential and the power to change the control structure (and heck even make some money along the way).

The potential numbers look good. The margins look good. The profits look good. Of course initially the picture quality is only just passably good…not great. That's understandable – and acceptable – at this stage in the technology's growth.

There are a whole new set of technical issues to be worked out. Like:
- high-def versions of H.264, VC-1, MPEG-4, DivX, JPEG
- correcting jaggies, judder, motion blur
- our beloved DRM

Internet video has a huge upside. But it comes with a risk to the content owners cannibalizing their present revenue streams. And for the next few years they will simply try to survive in **The Matrix.**

The Matrix

There will be ad-based, subscription-based and all-you-can-eat buffet services. Not surprisingly lots of folks – content owners, aggregators and ISPs -- like the ad-based approach. Folks like Google and Yahoo are getting ad folks trained in the 1-1 online advertising model. Last year it accounted for about $13 billion or 4.6% of the total media advertising. By 2009 it is projected to be $22.3 billion or 7.5% of the total. That's not chump change !!!

Add that to Tellywood's grand scheme of rent-not-to-own video and it will change the industry … dramatically. Of course there are a few obstacles like lawyers…new definitions of IP…ancient laws…lawyers. Tellywood obviously wants to maintain it's strangle hold over content rentals.

The online video sites are getting personal and indie content – some ultra bad, some mediocre, some pretty darned good – from everywhere. Sites like MySpace Videos, Yahoo! Video Search, MSN Video Search, Google Video Search, AOL Video and …oh yeah YouTube are already gaining huge audiences. Even lowly Grouper, which Sony just bought, showed a traffic increase of 1,678% in the first six months of the year according to Hitwise.

They prove that creativity doesn't just reside in Tellywood and folks have a wide range of interest levels (commonly referred to as Chris Andersen's **Long Tail** view of tomorrow).

Loosely translated consumers may be able to tell Tellywood…*Our way…or the highway.*

Sharpie Goes Way of Quill...Test For Yourself
Also from: Andy Marken   andy at markencom.com

Ok, we admit it right up front. We can only offer you half the solution -- the media. But hey...it's a start.

LightScribe burners are everywhere (heck, we'll help you locate one if you need for your review or...call a friend). And with Verbatim's v1.2x CDR, DVDR media you can use the burner's laser to write an attactive label faster and better than ever. That's right, we stepped up the performance of our Verbatim 16x DVDR and 52x CDR media so folks can produce fantastic video & audio discs--content and label!!!! The secret is in the recording dye that lets you write (create) the label 30% faster than before...so cool!!!

NPD notes that about 25% of the aftermarket burners sold are LightScribe-ready and the new ones all support our FASTER media so you can create silkscreen-quality labels. Come on...you know using yesteryear's Sharpie is like using an inkwell and quill.

Help your fans retire the darned things before they ruin their discs. Does anyone really want to do all that creative work for that special someone and then scribble on a label?

More from Andy Marken
Shrinking Storage…Keeping Data Safe, Close At Hand

"Distrust and caution are the parents of security," – **Benjamin Franklin**

In observance of the hard drive's 50th anniversary, we cajoled our kids into visiting the computer museum in San Jose. Seemed like an interesting way to get them to understand the technology that has impregnated their lives.

IBM 350 REMAC

We unplugged our son's MP3 player white earbuds. Made him leave his PSP at home. Turned off our daughter's cellphone…no IMing.

Other than the sheer size, they were totally unimpressed with the world's first hard drive -- the IBM RAMAC (Random Access Memory for Accounting and Control) drive.

Our son reached into his pocket and pulled out his Verbatim 4GB USB flash drive and 8GB USB HD and asked, "So what did they do with the 5MB refrigerator?" It's tough to explain to a kid who knows **everything** that OSs and apps were smaller then. After all, he vaguely recalls that photos were prints…videos were in the theater…phones were attached to the wall by wire…people wrote/mailed letters! Damn…we like progress.

Instant everything. And he wants it all with him…all the time.

We remember luggables. Then portables/subportables. Now pocket devices. Next? Who knows?

But no matter how small the device gets our storage requirements grow…in leaps, bounds…in megabytes, gigabytes.

The flash folks swear they are going to drive the hard drive into extinction. Just consider the features -- rugged, zero noise, broad operating environment, almost zero power requirements, darned good price/capacity ratio. They just might **if** people followed Chris Anderson's long tail concept.

Once you get away from the top hits (music, video, whatever) demand and storage requirements should thin out. Silly consumers.

Flash manufacturers claim there's no need for portable music storage beyond 4-5GB. They point out you really only need 32GB on your computer. 15GB for Vista…17GB for all your ready-to-use stuff. The rest? Delete it…overwrite it…send it somewhere to retire.

Yeah but…These people are engineers…flash engineers at that. They forget – or blow off – the fact that people don't carry just songs with them anymore. They "lug" along their video games…their photos…their videos…their music. Then they pack in other people's photos…other people's videos…TV programs…soccer and other games.

And they need their business presentations/papers, schoolwork, web downloads, email contacts/directories. Add Tellywood's DRM (Digital Rights Management) ball and chains. Suddenly, you're talking serious storage.
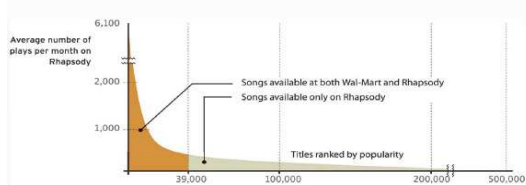
Holy C****!

The more storage the industry gives us the more we want. According to IDC, we create, grab, use, store 50-100% more information every year. Over your lifetime you'll
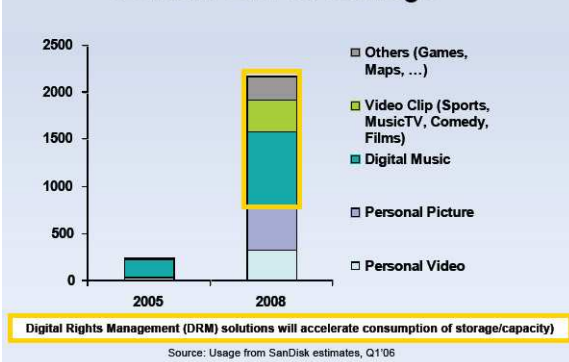
accumulate a whopping one petabyte (**that's HUGE!!**) of content – messages, web pages, photos, videos, music, documents, stuff. No wonder Seagate and Hitachi announced they'll begin shipping small 2 and 2.5TB HDs. Both flash and HD have great futures – as long as they keep delivering more capacity **without** any increase in cost.

What we're starting to see are storage tiers – applications where flash is best, uses where HD is superior.

The chip may be the new storage kid on the block but it is in such hot demand.

Portable Device Applications

In fact, NAND flash – used in cameras, phones, MP3 players, flash cards and USB drives – should hit $16.2 billion this year up 45% over last year.


Flash TeraByte Demand Forecast

We're surprised that MP3 manufacturers haven't taken a leaf from the phone and camera playbook. You know sell cheap devices with a token of storage – 256MB of memory plus a flash or USB drive slot.

People are suckers for the low price. Then rack up profits with the consumables! Worked for the Zip drive. Works for printers. Knock $50 off up front and sell 1-4GB storage for $75 - $200 each. Spin it right – "Now! You can separate your music genre to fit your mood," "Keep your party photos separate from the family outing photos," "Hide your really private stuff from your what the heck stuff." It is already being done…kinda.

According to InfoTrends more than 30% of the digital camera users never download photos from the card to their PC, to CD, to the TV. They simply show folks their photos on the camera. When one device is full…they buy another: thank you Joe & Jane Consumer.

The flash developers don't think small either. They see the "logic" for a new flash solid state disk (SSD). It isn't cheap but for military notebook computers, rough/tough operating environments and really clumsy users they make a lot of sense. And since nothing spins, they are also very power conservative. Of course you won't find SSDs in any $500 - $800 computer. Or in 30GB video iPods!

The capacity ground still belongs to HDs. While IT folks still account for the largest percentage of HD sales (about 80% according to IDC), the shrunken HDs are the ones that get all the glamour. The market for the 2.5-in down to 0.85-in HDs is growing rapidly. So are the capacities.

HDD Form Factors

© 2005 Coughlin Associates

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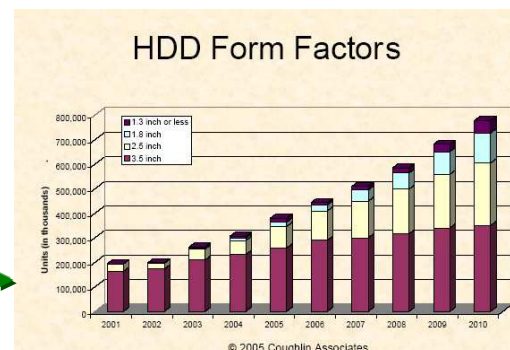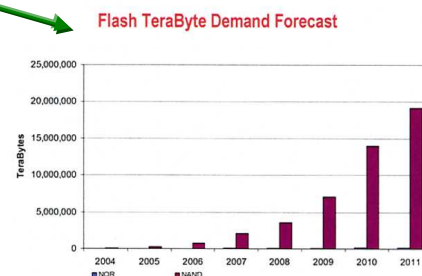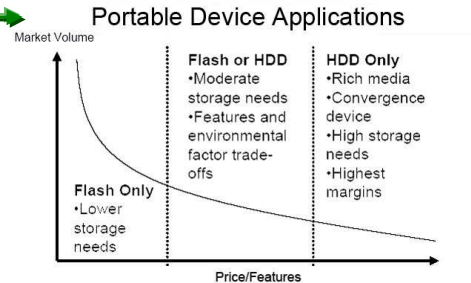
Just when 4GB USB flash became price competitive with USB HDs, companies moved up market to 8GB. Next 10 – 12GB.

With Microsoft's Vista almost ready to be released on the world (we're at RC 6.4.16 right?) they and Intel are talking up a new breed of drive. Call it Piton, Hybrid HD/Robson or ReadyDrive; it marries flash and HD. ➡
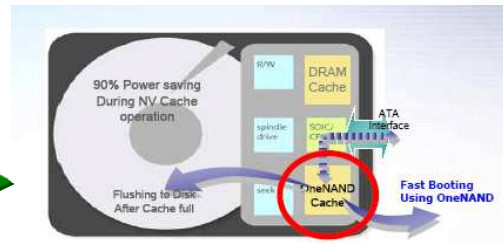
The pitch is that the new hybrid will reduce HD power consumption by reducing the number of times the drive has to spin up to search for data. It will also increase the MTBF (mean time between failures) for the drive. True. Of course without this creative marriage it would take 15 minutes to load Vista. That's like…forever.

But with all the cheap and portable capacity, we're facing an even bigger challenge … your personal data storage/protection. Flash people like to point out that another key reason business systems only need 32GB (of flash storage) is that IT should store all user data on the network in a central location. Yeah…like we trust corporate and government data security! That gives working slobs a warm, fuzzy, safe feeling.

Likewise offsite backup storage with Google or Apple or Microsoft or the other online storage/recovery services don't fit into our content storage and protection scheme. Scott McNealy (chairman of Sun Microsystems) was right when he said "you have zero privacy anymore. Get over it!" But we aren't going to simply bend over and let them take their best shot! That's why we like – and use – multiple USB flash and HDs…and a portable HD…and CD/DVD offline storage. Every one of these bit buckets has password and encryption just for added security.

Granted it isn't as 'scientific" as Tellywood's DRM but we feel pretty comfortable using 128-bit AES (Advanced Encryption Standard) protection with our storage devices…including our notebook computer. It's good enough for Top Secret document protection and just look how secure government data is!

We aren't protection paranoid. We just want to make it a little difficult for them to get our stuff…photos, videos, data, emails/addresses, passwords, access codes, presentations, personal/business information. Having all of that content on your notebook HD is very convenient – ok cumbersome but convenient. At the same time, without a couple of security hurdles it is terrifically exposed. Or you can put it on multiple USB flash/HDs as well as portable storage (HD, CD, DVD).

These storage devices are a lot easier to take with you, get through airport security and carry into a classroom or customer's office than the RAMAC refrigerator. They are easy to carry…easy to use…easy to lose. We've looked at the biometric units and they appear to be getting better.

We've read about the behavior-based trust solutions that bases security and access based on individual usage characteristics. When it becomes more mature we're all ready for it. For right now, we'll put up with the inconvenience of using good-enough password and encryption protection for our storage devices. Sure beats the H*** out of Tellywood's DRM (Digital Rights Management). Took our kid an hour to get past that.

If the security folks could get Tellywood to buy into content protection that could be assigned to a user rather than a disc they might sell more stuff. But they probably didn't experience fair use when they were growing up.

WXYZ-TV Remote Truck Rebuild
From: Chuck Pharis   chuck at pharis-video.com

For a guy who recently retired from the ABC television network, I've been doing more work than I did for them. In addition to traveling all over the world doing specials etc., not to mention the Super Bowl this year, I've acquired the very dilapidated remains of what was once the WXYZ-TV (ABC in Detroit) remote truck and am in the process of restoring it. It is my plan to outfit it with the kinds of equipment it once had and make it operations.
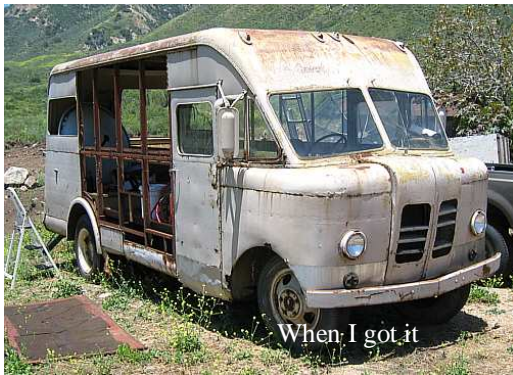
When I got it

A work in progress

How it will look when finished

"White Space" Threatens DTV Reception
From: Jim Pratt   jpratt at stny.rr.com

Proposed government legislation that would allow unlicensed devices to be used in "White Space" broadcast spectrum that protects DTV signals from interference was front and center at the Association for Maximum Services Television (MSTV) 20th annual television conference on Oct. 3 in Washington.

Elizabeth Murphy Burns, president Morgan Murphy Stations MSTV chairman, said the TV industry needs to come together to protects the integrity of over-the-air DTV signals. "We don't want consumers returning digital receivers to stores because of interference from unlicensed devices," she said. "We believe [those who want to allow unlicensed devices into the spectrum] need to prove a heavy burden proving there won't be interference."

Companies like Intel, Dell and Microsoft have been pushing for access to White Space spectrum. The goal? To allow consumers in rural areas who don't have access to broadband services from cable or DSL providers to ride the airwaves and use wireless technology to connect to the Internet.

But Paul McTear, Raycom Media president and CEO, added that unlicensed devices will cause extreme havoc with the digital transition. "There will be freezing DTV pictures and I don't think there is any proof from consumer device makers that they can prevent interference," he says.

The broadcast industry, with respect to that call for proof, scored a major victory when the Federal Communications Commission released a Public Notice stating that it needs additional technical information concerning unlicensed devices in the TV band.

"This is good news," said Dave Donovan, MSTV's president. The organization has been instrumental in the fight for spectrum integrity. "The bottom line is this a very technical issue and it deserves to be resolved by the experts at the FCC. We're looking forward to working with them."

The FCC says that after reviewing comments from broadcasters, other TV spectrum users and manufacturers and users of unlicensed devices it did not have enough information to adopt final technical rules. "There is no information in the record as to key criteria that would need to be specified to allow the use of that technique, such as the required levels for sensing, spectrum to be scanned, and durations for the sensing," the FCC said in a statement.

With only 865 days until the analog turn off Paul Karpowicz, Meredith Broadcast Group president, said his concern is that efforts to drive DTV adoption, particulary in small and mid-level markets, is lacking.

"There are still communities that are uneducated and don't know how to buy a set, let along get a signal," he said. "The industry has a responsibility to use our own airwaves to make consumers more educated than they are today. And NAB and MSTV have a role in shaping and directing that communication. But it's important because while 60% of consumers have cable that doesn't account for second and third TV sets in the basement."

RIAA crying wolf all the way to the bank
by Eric Bangeman

Ever since the rise of Napster in the late 1990s, the recording industry has pointed to piracy as a dire threat to its business model. After years of legal actions and generally irritating their customers, the labels finally figured out how to adapt their business model to respond to changing consumer expectations. Enter the digital music download and subscription services.

Despite the success of the download model, the RIAA has continued to complain about decreasing CD sales and shrinking profits. It is true that consumers are buying fewer CDs . At the same time, digital sales have soared. Including sales of ringtones and revenues from subscription services, digital media now accounts for nearly 9 percent of recording industry revenues and a startling 42.6 percent of total unit shipments.
Looking at the numbers over the past few years, two things stand out. One is the overall decline in sales of physical media (e.g., CDs, CD singles, vinyl, music videos, and DVDs), from 860 million units in 2002 to 749 million last year—almost 13 percent. More importantly, legal downloads have gone from zero to 554 million in two years. Perhaps most telling is that despite a decline of 151 million units of physical media sold since 2002, revenues have only dropped by US$340 million—about 2.7 percent.
April 2006

Thorsteinson Named Prexy of Harris Corp's Broadcast Communications Div.

In a very wise move, Harris Corporation named Timothy E. "Tim" Thorsteinson, 52, president of the company's Broadcast Communications Division. Thorsteinson, a 15-year veteran of the broadcast industry, had been serving as president of the Leitch Technology business unit of the Harris Broadcast Communications Division. Harris acquired Leitch in October 2005.

"Tim is well known and highly respected within the broadcast industry," said Howard L. Lance, chairman, president and chief executive officer of Harris. "His appointment comes at an exciting time for Harris and the industry as the transition to digital technologies continues to accelerate. He has a proven track record of operational success within the industry and a vision that will keep Harris at the cutting edge of product innovation and customer responsiveness..."

Thorsteinson joined Leitch Technology Corporation as president and CEO in November 2003. He led the company's financial turnaround and expansion through organic growth and acquisitions. Prior to joining Leitch, Thorsteinson was vice president of Grass Valley products for Thomson Broadcast & Media Solutions, where he was responsible for a variety of product lines including switchers, server/storage units, digital news production, signal management, film imaging product lines, and TV/film production products. Previously, he served as president and CEO of the Grass Valley Group.

Prior to joining Thomson/Grass Valley, Thorsteinson was with Tektronix, Inc., from 1991 to 2001. As president of the Video and Networking Division of Tektronix, he implemented a major R&D program focused on the transition of the worldwide broadcast industry from analog to digital and into the multimedia age. Previously, he served as president of Tektronix Pacific Operations, one of three units established to accelerate growth in key international markets.

Before joining Tektronix, Thorsteinson served 12 years with National Semiconductor Corporation where he designed several highly successful programs focused on process re-engineering and total quality management. He received his bachelor's degree from the University of the Pacific in Stockton, California.

Thorsteinson seems to have a Midas touch when it comes to leading companies. His no nonsense approach to business, as seen at nearly every company that has utilized his leadership abilities, has done quite well. He appears to be a guy who listens to his advisors, but doesn't surround himself with advisors who tell him only what they think is a rosy.

We've seen and heard of some remarkable improvements in the way Harris deals with its customers since Thorsteinson has taken over. No one would fault him for that.

Needless to say Harris' Broadcast Communications Division is a big company with, according to them, an annual sales of over $3 billion and more than 13,000 employees -- including 5,500 engineers and scientists. It will be interesting to see what additional improvements he'll make in this behemoth of a company.

Why the World Doesn't Need Hi-Def DVD's
From: Monty Solomon   monty at roscom.com

WHEN did you first become cynical about the electronics industry? Was it when VHS went out of style, and you had to buy all your movies again on DVD? Was it the time(s) you never got the rebate you mailed away for? Or was it when your computer's 90-day warranty expired, and the thing croaked two days later?

Doesn't matter. As it turns out, you didn't even know the meaning of the word cynical. This spring, Toshiba's HD-A1 high-definition DVD player hit store shelves. It's the first marketplace volley in an absurd and pointless format war among the titans of the movie, electronics and computer industries.

Just contemplating the rise of a new DVD format is enough to make you feel played. What's wrong with the original DVD format, anyway? It offers brilliant picture, thundering surround sound and bonus material. The catalog of DVD movies is immense and reasonably priced. And DVD players are so cheap, they practically fall out of magazines; 82 percent of American homes have at least one DVD player.

To electronics executives, all of this can mean only one thing: It's time to junk that format and start over.

Of course, the executives don't explain this decision by saying, "Because we've saturated the market for regular DVD players."

Instead, they talk about video and picture quality. A DVD picture offers much better color and clarity than regular TV, but not as good as high-definition TV. The new discs hold far more information, enough to display Hollywood's masterpieces in true high definition (if you have a high-definition TV, of course).

Microsoft beats JPEG with new photo format for Vista

From: Albert E. Manfredi   albert.e.manfredi at boeing.com

Microsoft Corp. unveiled a new photo format it claims will provide better quality at half the size of a JPEG image. Windows Media Photo (WMP) will be built into Vista, the next-generation of Windows.

One of the biggest drivers for upgrading computers is digital photography, so anything to make digital photography better is good for Windows.

Microsoft has been working on the photo format with unnamed partners, including camera makers, for nearly four years, which has been very much driven by their feedback.

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Windows Media Photo takes a significantly new approach to the same basic discrete cosine transform technology used in JPEG. The algorithm is a bi-orthoginal lapped transform based on published work from Microsoft Research. The format also includes a fresh approach to areas such as color space and color conversion.

WMP captures more of the raw information of photos to enable better presentation, editing and compression. Crow said WMP will easily enable 25:1 compression ratios for most uses of digital photography. That compares to a maximum of about 12:1 for consumer JPEG images before images visibly degrade.

WMP is based on a symmetrical algorithm that supports both lossless and lossy compression. It requires no complex math or special hardware support, and is based primarily on add and shift operations with few multiplies in its inner loops. Memory requirements are also minimal, in part because the algorithm supports encoding and decoding imagines in stripes that only need small buffers.

To preserve compatibility with existing systems, the WMP format uses the existing TIFF "container" including its approach to metadata. The choice of TIFF however limits file sizes to 4 gigabytes, a limit Microsoft will address for high-end users in the future. Microsoft will also release tools to support WMP on existing Windows XP systems.

Microsoft's spokesperson would not say whether camera, printer or chip makers will release products supporting WMP when Vista is launched. In a sign of how quiet Microsoft has kept the effort, some chip makers at the presentation were not even sure whether they had been informed about the technology.

New Mobile HDTV Device Allows Consumers to Receive High-Definition and Digital Cable Broadcasts on Laptops
From: John Shutt   shuttj at yahoo.com

Well, I'll admit that today's receivers work much better than the ones in 1999. However, I will state categorically that not one single ATSC receiver manufactured or prototyped today works as well as a 1999 vintage cobbled together DVB-T box did in Baltimore, nor as well as a prototype truly mobile HM-COFDM receiver did in Las Vegas in 2000, nor as well as diversity COFDM receivers did in NYC in 2004.

It's not just 8-VSB reception at 19.4 Mbps that I am worried about. It is the entire range of tools that DVB-T provides each individual broadcaster to choose her/his own tradeoffs between receiveability and payload that makes it head and shoulders above ATSC, and it always will be.

Variable bit rate to increase receivability? ATSC has proposed it with E-VSB but DVB-T had it from the very start. Hierarchical Modulation? Samsung proposed it in a skewed sort of way with A-VSB, but DVB-T demonstrated it at the 2000 NAB.

Portable reception? I have given several examples of portable DVD/DVB-T receivers that have been available in Europe for at least two years, while even today not one exists yet for ATSC. Laptop reception? Again, too many USB thumbdrive and PCMCIA cards to count have been offered for DVB-T over the past several years, but only in the last year have the ATSC Thumbdrive equivalent been offered.

Mobile reception? Bob Miller gave the finest example of mobile reception of a very low power DVB-T transmission that I have ever seen. Stephen Long tested mobile reception in the deserts of greater Las Vegas in 2000 at speeds where the ticket would have cost more than the receiver. (Oh how I wish Sinclair videotaped some of their Baltimore reception tests for future generations to ponder.)

Robustness? Mark Schubin took the same receiver that Stephen Long used all around the exhibit halls of the 2000 NAB and the only place he could not get reception was inside of a transmitter cabinet, and even then only when the door was closed.

Argue all you wish about a theoretical 2 dB advantage for ATSC, while I watch my television station's signal freeze and macroblock every time a car drives through the nearby parking ramp.

And I am still waiting for Motorola and NxtWave to deliver on their 1999 promises that derailed the effort to get ATSC thrown out of this country.

Whew, there, I feel all better now.

Obituary

'Mother of TV,' Pem Farnsworth, dies in Utah at 98
By Sarah A. Meisch
The Journal Gazette

Elma "Pem" Farnsworth, widow of the man credited with inventing electronic television and a former longtime Fort Wayne resident, died earlier this year in Bountiful, Utah. She was 98.

Farnsworth married Philo T. Farnsworth in 1926. On Sept. 7, 1927, he transmitted the first image on television in San Francisco, the concept for which he came up with while plowing his father's Idaho potato field at age 14.

When she married Philo, whom she called Phil, he told her he had another woman in his life – television, said Bob Metcalf of Fort Wayne, who formerly held her power of attorney. Pem Farnsworth welcomed Philo's interest.

"She was really a partner with him," Metcalf said.

Pem Farnsworth also was the first person whose image appeared on TV, Metcalf said.

She and Philo lived in Fort Wayne from the '40s to the '60s, after he established Farnsworth Television and Radio Corp. in the city in 1938. The Farnsworths lived in a house at State and St. Joseph boulevards. They moved to Maine in 1967 and later to Salt Lake City, where he died in 1971.

In 1997, Pem Farnsworth moved back to Fort Wayne to live with her youngest son, Kent. She returned to Utah less than two years ago to be near family, including a sister who died shortly after Pem's passing.

"Pem was a very vivacious and energetic woman who believed she could do anything," said her Hawaii-based personal manager, Georja Skinner. "She gave such great things to our world. She was someone who really lived from the heart and spoke frequently on having children know that anything you can dream, you can do."

Skinner met Pem Farnsworth in 1975, when her then-husband, Paul Schatzkin, met with Farnsworth to gather information for a TV movie on Philo. That movie never happened, but Skinner and Schatzkin, who wrote a biography of Philo Farnsworth, struck up a lifelong friendship.

Pem Farnsworth dedicated her life to making sure people knew that her husband was the inventor of TV, Schatzkin said. Philo never received his full due while alive because of the expiration of patents and the marketing muscle of competitor RCA.

That began to change in the 1980s when he was inducted into the National Inventors Hall of Fame and was among a handful of inventors whose faces graced postage stamps.

In 1990, Pem Farnsworth published a book about her husband, "Distant Vision: Romance and Discovery on an Invisible Frontier."

In 2003, an Emmy award named after Philo was given for the first time – the Philo T. Farnsworth Award for Technical Achievement. Pem Farnsworth attended the ceremony.

"We liked to call her the mother of television," Schatzkin said.

She had mixed feelings about her husband's finally receiving recognition, he said.

"She had great disappointment that she was never able to see a movie about her husband's accomplishments," he said. "There was frustration that he still hadn't gotten the recognition he deserved on a global scale."

A movie is in the works for HBO, Skinner said.

"I'll make sure that movie gets developed," she said. "I'll continue the work we started together."

Pem Farnsworth is survived by her sons, Kent and Russell of New York, and several grandchildren. She was preceded in death by sons Kenneth Gardner and Philo III. Funeral arrangements in Utah are pending.

Reader Input

The Boldest Dumb Idea I've Ever Seen
From: John Willkie   JohnWillkie at ixpres.com

The other day, I attended my first Society of Broadcast Engineers (SBE) section 36 meeting (San Diego, CA). I was intrigued by the location and the pitch. The meeting was at the brand spanking new headquarters of Qualcomm's MediaFlo USA headquarters on Eastgate Mall in San Diego. The pitch for broadcasters was that MediaFLO could be a new source of revenue for broadcasters.

Fat chance.

The challenges of out-of-home video are probably insurmountable. Most of the time, people are at work, or at home, or are sleeping, or are driving their cars. The only one of those activities that has a remote potential for revenue from MediaFLO is at home, but I suspect that few will enjoy the down-res. I recently read of a survey where 80 per cent of the people with video-enabled cell phones said they'd never use the service: and that was without regard to the cost.

As I pointed out before the meeting started (I have no interest in selling anything to Qualcomm), I am of the understanding that people are entertained by content and not technology. The executive in charge -- with a cable engineering background, but who claimed to be a broadcaster -- kept on mentioning "content providers" but I didn't see any participating in this system, and last I heard television programmers call people who provide programs "content providers" and they all have their own extensive distribution networks.

The basics: MediaFLO uses proprietary and very ingenious Qualcomm technology to transmit, via a COFDM (but not DVB-compatible) single frequency network, up to 20 video (320x240, up to 30 fps) and 20 stereo audio channels to Qualcomm-designed cell phones. Right now, they have almost 20 markets pre-operational, and will have up to 100 by the end of the year.   The technology is designed to minimize power usage and to minimize the digital cliff, by using a base and enhanced layer. Up to 15 fps comes from the base layer, and up to 30 fps when one is within a strong signal layer.   To minimize bandwidth usage they employ two-pass encoding. Total system delay (input to handset: 15 seconds)

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The handset is quite impressive, and so are the installations -- last summer, I saw the early install of their facility on Mount Wilson.

Qualcomm has obtained (under 47 CFR part 27) the rights to use channel 55 around the U.S., at least once broadcasters vacate that channel. On an interim basis, they are using channel 53 in San Diego, due to channel 55 being used by Los Angeles and San Diego DTV stations.

They have a national multiplex, distributed via a Ku transponder Intelsat IA8. In short order, they will have move their uplink from the main Qualcomm campus a few blocks away to this site. Therein lies the first technical issue for them to discover, since this site is under the takeoff pattern of the Miramar Marine Corps Air Station. As anybody with a satellite dish in this portion of San Diego knows, when jets takeoff from the airbase, their radar systems interfere with satellite reception and transmission. It's been known for DECADES; several firms that weren't even near the takeoff pattern have had to move their uplinks and downlinks behind hills to shield them from routine transmissions. When "there is a war (or battle) on, all bets are off."

The amount of money that they've spent on this facility is impressive. The rack room has 110 racks. Two separate 6mw power feeds; two mw UPS systems, computer flooring, main and back up a/c systems, 40,000 sf main building, with two more at the ready, with all expected to be occupied by the end of this year. On site generator, and two 9 meter uplinks, several simulsats and more to be installed by the end of the year. The nine meter dishes will be very good, I predict, at collecting RFI.

The live control room has 5 positions, in a 4:1 configuration. Omnibus automation. The main control room features a video wall with 18 5--inch screens, showing network status video signals, weather, input, uplink, downlink confidence displays. Kind of funny that the display showing the work being done on the network showed the time as being PST, since we're currently in PDT.

The wiring in the rack room was the finest I've ever seen. Each rack row has an "eye in the sky", the rooms are access-controlled, and have multiple fire-suppression systems.

Our visit ended in the programming "pit", which was slightly largest than the programming pit at KGB-AM/FM circa 1978. "If we can't buy programming, we'll produce it ourselves." That's the rub. They have no content, and I didn't detect the slightest knowledge on their part that the hardest thing to bridge is the soft skills needed to work with talent, creatives and crafts to produce programs on time and within sight of a budget line. I tried to discern if they understood the difference between the way cable firms and networks deal with producers, and the way that broadcasters and their networks deal with producers. The answer had something to do with HBO buying programs and producing unique content, which gave me the answer: they figure if they build the network, the content providers will come to them.

Yes, and they'll start off intending to sell old content at high cost, but when they see the facilities, they'll triple their prices, since the lack of contracts and content -- and the intention of competing with local and national broadcast networks -- since nobody is required to work with them, only breeds desperation.

They talk of having local aggregators to provide local content, perhaps with equipment installed at local TV stations. Gee, we can then watch clips from local newscasts. That 15 second throughput delay might be an issue.

One of my brothers is an EVP at Qualcomm. When I left the meeting, what came to mind is his description of Java circa 1994: a technological "solution" in search of a problem to solve. A few years later, he said that Java would NEVER be in cell phones. Two years after that, he was talking about how one could run a version of Java in 4K of memory. (Virtually all phones are Java-enabled now; Qualcomm found a way to embrace Java and defend their proprietary system.)

To seed the market for it's CDMA phones more than a decade ago, Qualcomm and Sony entered into a partnership, called Qualcomm Personal Electronics, that made cellphones. It didn't really succeed, at least in the long run, but it was do-or-die for them, and they now thrive. However, the breakup of the division was a painful one for Qualcomm.

I suspect that that experience informed Qualcomm in pursuing the MediaFLO strategy. They are likely to spend much money before getting out of the content distribution business. I do suspect they'll end up with several sports contracts, and little in the way of sports revenues, before costs are taken into account.

On engineer told me that he thought that MediaFLO equipped cellphones would end up being docked into a media center at home. Yeah, that's the trick: expensive subscription video with lower resolution than NTSC.

I do see something that could be a real revenue source for the system: local, subscription-only radio stations. They have plenty of bandwidth, and commercial radio has gotten real crappy. Of course, that can be done in a closet.

One attendee said his niece just got a video-equipped cell phone, but would never use it, as the cost for video was $.10 per minute.

Rules to live by:

1. If it's working, don't mess with it.
2. Never change anything on Friday.
3. If you amplify snowy pictures, you get amplified snowy pictures.
4. No matter what the last guy told you, turning the amplifier up won't fix it.
5. I'm not watching TV, I'm monitoring the system.

WKRP...the real story

From: Jay Braswell   jaybraswell at bellsouth.net

The "real" WKRP (licensed to Dallas, Georgia) took to the air in September, 1979. The station was a two-tower DA on 1500, with 1kw-D/500w-CH. WKRP had to protect WDEN in Macon, Ga, WVSM in Rainsville, Al, and WLEJ in Ellijay, Ga, all on 1500, according to Scott Baxter, the station's consultant. Only one problem...WLEJ was NOT on 1500, it was on 1560. Even so, the DA would've likely been required, due to WDEN, but primarily due to WVSM. CH protection to WTOP was required. In 2003, the station was granted a power increase to 5kw, still with 500w-CH, continuing to use the original DA pattern.

The original transmitter was a Collins 20V-3, with a "field built" phasor, which was assembled in an old Signal Corps cabinet. The Collins always gave trouble, and I replaced it with a new CSI in late 1980. I wanted a new Collins (or was it Continental by then?), but Dr. Dangerous Dave Hultsman wouldn't sell me one (just kidding...we needed something quickly, and Dallas couldn't get us one as fast as ol' Bernie Gellman. I'll have to tell you about the trip to Boynton Beach, Fl, one of these days).

We had a "homemade" console in the control room, built from parts from the Radio Shack. God, it was a piece of junk. But, that's okay, as WKRP in Cincinnati also had a "custom" console. Remember the cart machine(s) built into the board? In the production room, we had a little 5-channel Russco board. We had Shure SM-7 mics, Russco turntables, BE cart decks, and Ampex ATR-700 reel machines.

The station originally applied for "W-D-L-S", which was rejected after a protest from Atlanta's WKLS. Supposedly, it was the station's original CE (whose name I can't remember) that made an off-handed remark...something like, "with all the crap the keeps coming up, you oughta call it WKRP", which was said to be the inspiration for the decision to request the 'KRP call-sign. MTM Productions, owner of the television show, did indeed protest the call-sign request. They had asked the FCC to put a hold on the call letters, which the FCC said wasn't sufficient, in that MTM was not a licensee of any type broadcast facility. MTM tried suing in civil court, but they were denied, as they held the copyright to "WKRP in Cincinnati", not "WKRP" by itself. Once all the legal wrangling was over, MTM sent Paulding Productions, Inc (WKRP's licensee) a letter of apology, saying that it was nothing personal, that they were only trying to protect their intellectual property. The letter wished them good luck, and offered any assistance that could be provided. The station used the WKRP call-sign for nearly 10 years, until the change to the current WDPC in 1989.

In typical WKRP style, when the station's original GM, Mitch Leopard, played the 1st song, it was a 45 that was started with the turntable on 33. That 1st song? Believe it or not, it was "Lonesome Loser" by the Little River Band! Perhaps Mitch had himself some o' that ESPN stuff goin' on, 'cause it was a very fitting introductory tune.

The station gots lots of press coverage, due to a Knight-Ridder writer's feature story, but it didn't help business. Mitch was asked to leave, and I took the reins in June, 1980. We made some progress, but the station barely broke even, and didn't a couple of my months there. There were too many signals from Atlanta, FM had really begun to catch on, and our business base in Paulding county was very small. Today, Paulding County has more quadrupled in population, truly becoming a bedroom community for Atlanta.

We did have some drops from the WKRP in Cincinnati folks...Richard Sanders ("ooooooo"), Howard Hessman ("booger" and "hello fellow babies"), Gordon Jump ("does mama know about this?") and Loni Anderson ("down boy"), along with some other, custom stuff, but we also had a personalized version of the theme song, courtesy of Steve Carlisle. Our version said "I'm livin' on the air in Dallas Georgia, Dallas Georgia W-K-R-P", and finished with "I'm at W-K-R-P in Dallas Georgia". Somewhere, in some box, in one of the FOUR warehouses I'm paying rent on, are the tapes with that stuff, plus our three sets of William B. Tanner (appropriate, don't you think?) jingles.

We tried to work a deal with channel 5 in Atlanta (the then CBS affiliate), who was having some of the show's cast at their fall preview party, to have them come over to Dallas for an appearance. As I recall, it was going to cost us well over five grand, so we declined.

One of my favorite memories from WKRP, was having well known southern gospel artist Wendy Bagwell to visit, and watch him tell his famous "Rattlesnake Story" live on the air. Wendy lived in nearby Hiram, and visited with us several times. He was a genuinely nice guy. I also learned a whole lot about bluegrass music while I was there. We put on a three-hour bluegrass show on Saturday morning, and even broadcast live from several of the big bluegrass festivals in the area. I got to know a lot of genuinely good folks, and got to hear some damn good music.

The original owners of the station were Griffin & Maxine White (husband & wife), Bill Hathcock, and Howard Gordon, each holding 25% of the stock. It was a strange crew...all of these folks were in the building business. Griffin and Maxine owned PKW Supply (building supplies) and White Construction Co, Hathcock owned Paulding Concrete (ready Mixed concrete and supplies), and Hathcock and Gordon were partners in a residential building firm. I never learned what brought them into getting into the radio business.

In April, 1981, Hathcock and Gordon, who'd had a "falling out" with the Whites, brought some guy in, purportedly to buy the White's stock, and to run the station. He (I can't remember his name) knew absolutely nothing about radio, but he told a good story, and he drove a vintage Corvette. The new guy invited me to stay, but I politely declined (going from $18k to less than $8k "+ commission" helped greatly with my decision). He wasn't there very long, and was "un-hired" after failing to come up with the bucks to buy the stock, AND after "getting the station's money mixed up with his personal money", or so I was told. After a few months, Hathcock bought out the Whites and Gordon, then

quickly sold to Bill Rucker from Douglasville. Bill's mother, Della, had worked for Bob Schwab (WLSB-Copperhill, Tn; WPPL-Blue Ridge, Ga; WLEJ-Ellijay, Ga; WYYZ, Jasper, Ga) for years and years, and Bill had bought the Ellijay and Jasper stations from Schwab, and his mother was running them. A year or so later, Bill had a massive and fatal heart attack, and WKRP was donated to West Georgia College (Carrollton). There were a couple of owners after that, but the station was sold in the late 80's to a group from Douglasville, who also owned WDCY in Douglasville. To my knowledge, the stations (along with WNEA in Newnan) simulcast a Christian format.

In case you've forgotten (or never knew), the TV show's creator, Hugh Wilson, worked at WQXI in Atlanta. Dr. Johnny Fever was supposed to be a mixture of Skinny Bobby Harper and Dr. Donald D Rose. Les Nessman was a loving takeoff on WSB's Aubrey Morris, Herb Tarlek was a blend of WQXI's (and later WFOM's) Red Jones (who wore "stylish" clothes), WIIN's Fred Wagenvoord and WPLO's Herb Golombeck, and the Big Guy was Kent Burkhart. Additionally, Arthur Carlson (the character's name) was the real name of Susquehanna's VP, and Gordon Jump (who played Mr. Carlson) was an almost identical twin to WQXI's Jerry Blum.

"At now we come to the close of another broadcast day. WKRP in Dallas, Georgia is owned and operated by Paulding Productions, Inc., and operates on an assigned frequency of 1500 kilohertz, with a maximum power output of 1,000 watts, with a reduced power output of 500 watts two hours following sunrise, and two hours prior to sunset, utilizing a directionalized antenna during all periods of operation. WKRP's offices and studios are located at 362 W. Memorial Drive in Dallas, with transmitting facilities located east-northeast of Dallas, just off the Highway 62 spur. WKRP is a member of the Georgia Association of Broadcasters, and provides up to the minute news, weather and sports from the wires of the Associated Press, the APRadio News Network and the Georgia Radio News Service. Speaking on behalf of our advertisers and staff, this is Jay Braswell, bidding you all a most pleasant good evening, and inviting you to join us at sunrise tomorrow, to spend another day in the country with fifteen-hundred radio, W-K-R-P. And now, ladies and gentlemen...our national anthem."

Geez...I can remember all that stuff, but I cannot remember my damned cell phone number!!!

EP VHS
Hello from an 'early' VHS user.

Way back in 1979 (plus or minus) I had one of the very first battery operated VHS recorders with external camera. I don't remember the manufacturer, but that's not important.

I recorded a lot of family stuff using the EP mode. Now, here it is 25 years later, and several machines later and I cannot play them. I have a JVC HR-J692U machine and it plays the sound ok, but no picture. If I fast forward it, the picture comes up (too fast,

obviously) but no sound (normal). Obviously it cannot reproduce the EP mode. I also have an RCA Camcorder (vintage 1993). It just plays back fast!

So, my question is this; is there a machine on the market that still plays the EP mode? OR is there a conversion service that can put it on standard play speed?
Thanks for your time,
Al Lee

The answer-----------------------------

From: Douglas Korte   dkorte at ix.netcom.com

Saw your question in Tech-Notes (good job). You may want to talk to Bob or Maury at VTR Service in Burbank where their staff services many old and current tape machines from U-Matic & VHS to Beta-SP & DV. They are good guys and may know of current units supporting EP or a service for transfer. Good luck.

VTR Service
2700 W Burbank Blvd
Burbank, CA 91505
818-841-9200

Best Regards,
Doug

A few things
From: Mark Sutton   MSutton at katu.com

The history piece from John Silva was quite interesting to me...besides it happening just a few months before I was born, and so being of historical importance to me, I found a couple of guys in there who I worked with! I worked at Northwest Mobile Television between 1977 and 1983, and one of our clients was KTLA. They used our facilities for Major-league baseball and for college basketball and football.

I'm sure it was John Polich directed baseball...he smoked a pipe and loved to tell stories about the old days (though I never heard about this story!). He'd start cleaning his pipe and packing new tobacco in, usually during an inning break, but the game always started again before he'd finished. Sometimes, he'd really get into a story and the Technical Director would have to start calling camera shots for him. If you were on headsets and just paid a little attention to the game, you got to hear a good piece of history too.

John also knew that the skinny audio rack in the old NMT Crown Coach was called the "liquor locker" for a reason! In the bottom of it, we usually had a bottle or two of "antifreeze" and he'd inquire after some of that for himself. It didn't even have to be cold weather. And I remember talking to Hec Heighton on the phone: Transmission checkin

prior to show. These were the AT&T Longlines days, no satellite trucks. Wow, has it been that long?!?

I saw another old friend of mine, too: The TK-41 camera that Chuck Pharis picked up, formerly belonging to KOMO TV. I was a student in the old Edison Tech / Seattle Community College Broadcast program in 1972 when KOMO donated two of those cameras to us. Incomplete, though. What a pain in the ass that was, but I guess a learning experience, too. I already wrote Chuck. What surprises me is that the students didn't strip off the old KOMO plastic signage for souvenirs. I'm a little disappointed in them. Those cameras were essentially 3 of the TK30 cameras that John Silva had, placed in a big box with an optical splitter. Maybe 400 lbs.   Nice long optical path, maybe f=5.6, wide open, as I recall. It even ran on 3 pieces of camera cable, the old RCA MI-95 black and white cable. They were braided together, made a nice floor sweeper. This preceded RCA's "Elephant pecker" cable for their later cameras. Some of which may still be buried in Dodger stadium. They broke it out to barrier strips for troubleshooting and ease of termination. Wow!

     I'm still trying to fix the period in which I transitioned from being "The kid" in Engineering to being...the old man. Not the boss, he's younger than I am. I'm just the oldest, jeez! Oh, well, it's still better than a real job.

Mark Sutton, KATU Engineering staff   msutton at katu.com

The primary difference between blogging and other kinds of web publications
From: Charlie Nullia

The primary difference between blogging and other kinds of web publications is support for RSS (Really Simple Syndication). How many web sites do you track and visit on a regular basis? About a dozen or so? With RSS, you can keep track well over 200 web sites or even more. I know of people who keep track of thousands of web sites using RSS. Think of RSS as a polling protocol that allows a program to poll literally thousands of web sites and provide information on what's changed since the last time the sites were polled. The protocol is lightweight enough that it doesn't have to pull down the entire web site.

The secondary difference between blogging and other kinds of web publications is the concept of a permanent link. The blog host software generates a URL for each post that other web sites can link to with relatively sound assurance that the link won't go stale. As an example of this, go to live.com, or Google if you prefer, and search for "C++ Function Objects." One of the top hits for that search is a blog post written 18 months ago. Now, the site that hosts that blog post has gone through several changes since then, including a complete software upgrade. Yet, the links to that post remain valid.

The combination of these two features leads to something very powerful: the ability to carry on conversations via linking and RSS, over very long distances. One fascinating example of this occurred last year during the war between Israel and Hizb'u'llah. All during the war, Israeli and Lebanese bloggers were carrying on an actual conversation. Due to blogging, they had established these relationships well before the outbreak of hostilities. Because of those pre-hostility conversations, they had come to see the humanity in each other, and were able to continue their conversations, despite differences in points of view, all during the hostilities.

What you end up with is something that has everything you'd associate with a "community" except for the face-to-face contact. It's a fascinating phenomenon.

Parting Shots
By Larry Bloomfield

Intent or Spirit of the Law?

"*The first thing we do, let's kill all the lawyers!*" Wm. Shakespeare – Henry VI part 2. "*Stupid is as stupid does,*" Forest Gump. There is a definite link between these two quotes; it's long, but read on.

One point of reference before we start our diatribe on the current conditions relating to delivery of TV signals in this country: there are approximately 836 days, or 119 weeks, or 27 months, or 2.3 years of analog, FREE over the air television remaining in our country as the law is currently written and there are many who don't think this schedule will hold up.

Now, let's start with the Federal Communications Commission: "The FCC is directed by five Commissioners appointed by the President and confirmed by the Senate for 5-year terms, except when filling an unexpired term. The President designates one of the Commissioners to serve as Chairperson. Only three Commissioners may be members of the same political party. None of them can have a financial interest in any Commission-related business."

The above is a quote directly from the FCC's website which leaves little to the immigration that political appointees are probably not the best choice to run a highly technical organization. I've been an advocate of having communications engineers fill some or even all the five positions. Unfortunately, history has shown us that not only have these been political appointments, but most of them have been lawyers. (Yuk!)

I could be all wrong, but it is my understanding that the FCC and all broadcasters are, as a part of their fundamental charter, there to serve the best interests of the public. Now there is a very wide-mouth kettle of worms! The sad parts of all that is, if I'm correct, we

leave the interpretation of what "best interests of the public" are to attorneys. I'm beginning to think Shakespeare was right.

Since the FCC regulates all forms of communication in this country, except the Internet (God forbid that should ever happen), it is the one agency who must take blame for the seeming inconsistencies that we have to live with in the broadcast arena, which includes those on the receiving end of the broadcast chain. Unfortunately, it seems that more recently most of the "real" legislation of a communication nature – primarily TV, is coming from our beloved Congress and I'm still trying to figure out whose interest they've had at heart.

The next point is the issue of analog vs. digital television. It would appear that most folks are sadly misinformed when it comes to digital television. Between the misinformation the various cable companies have put out (we deliver digital to your door), not to mention our satellite friends (digital delivery via satellite), and the plethora of Hollywood hype, it's no wonder that you get a blank look when you speak of digital television, but if you say High Definition, then you get a look of understanding. Yes, most cable and all satellite signals are delivered digitally, but for the most part is digital delivery of good old fashion analog signals. So where's the gain, enhancement or improvement?

It is unfortunate that most folks don't know the difference – that being Hi-Def is an enhancement that comes with digital television. (You don't get Hi-Def without it being digital in this country.) My references to digital television are of the over the air variety. I make this distinction as there are other digital delivery systems that do NOT utilize or provide all the benefits that are available to over the air broadcasters and, it is true that many over the air broadcasters do not or are not taking advantage of all the enhancements available to them. Once they see the financial value to these extras, things will change in a heartbeat. i.e.: multicasting.

I have been beating this whole Satellite Home Viewer's Act (SHVA) "horse" (issue) to death for sometime now. Perhaps we'll get someone's attention and hopefully get something done about it. As with most broadcast policy laws today, the SHVA is unclear and leaves much of its interpretation to lawyers (Yuk!) who, for the most part, don't have a clue about broadcast technology. You'd think that if lawyers wrote it, it wouldn't have to be interpreted, it would be clear – but then, I guess this is kind of built in job security.

The FCC's several spins can be seen at: http://www.fcc.gov/mb/shva/

In light of EchoStar's recent run-in with the FCC, they have advised their subscribers the following: "Based upon a recent court ruling, there may be some small changes to your DISH Network programming." Later on they continue: "…as a result of a recent court ruling, no later than December 1st, 2006, we may no longer be able to provide distant networks to customers regardless of past qualifications. Distant networks are the ABC, NBC, CBS or FOX broadcast channels that you receive that originate from a market outside your community.

"In addition, DISH Network continues to do everything possible to prevent you from losing your distant network channels before December 1st. If you want to help our efforts and preserve your distant network channels – or learn more about what is happening in Washington about this issue – you can go to www.savemychannels.com which will walk you through how you can contact and e-mail your representatives in Congress to ask them to protect your channels. Because we are running out of time, we ask you to call and e-mail today."

I can fully understand that if you have your local analog network affiliate stations available to you via satellite, you really don't have much of an argument to get any network stations from outside your market, at least the way the current laws are written. There is, however, an issue that I believe is an exception. Notice I said "ANALOG."

Prior to most all television markets being offered via satellite – local into local, you could apply for and be granted a waver, at the pleasure of the local station, providing you could NOT receive that local station on a responsibly installed outdoor antenna.

(Thanks to John Willkie   johnwillkie_at_earthlink.net for the following) As outlined below, you first need to prove that, AFTER installing a rooftop antenna, you cannot receive a signal.

The original 1988 SHVIA is Pub. L. 100-667, title II, Nov. 16, 1988, 102 Stat. 3949; the 1994 SHVIA is Pub. L. 103-369, Oct. 18, 1994, 108 Stat. 3477; SHVERA is Pub. L. 106-113, div. B, Sec. 1000(a)(9) [title I], Nov. 29, 1999, 113 Stat. 1536, 1501A-523. Here's something to keep in mind: copyright isn't a technicality in these acts, as they are codified largely as part IN the Copyright Act.

Here's just a few Q&As from the FCC's web site (I'd provide cites to sections of the rules, but there are too many and my time is limited)

"7. Is there a way for a satellite subscriber to obtain network programming if the satellite company has elected not to provide local-into-local service?

A: Yes. Your first option would be to install an antenna so that you can receive your local broadcast TV stations over-the-air. If you are unable to receive your local broadcast TV stations with an outdoor over-the-air rooftop antenna, you may qualify as an "unserved household." If so, you would be eligible to receive no more than two distant network affiliated signals per day for each TV network. A "distant signal" is one that originates outside of a satellite subscriber's local television market, the DMA. For example, if the household is "unserved" the household could receive no more than two ABC stations, no more than two NBC stations, etc.
8. What is an "unserved household?

A: The term "unserved household" means a household that: (a) cannot receive, through the use of a conventional, stationary, outdoor rooftop antenna, an over-the-air network signal of Grade B intensity as defined by the FCC; (b) is a subscriber to whom the

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moratorium applies; (c) is a subscriber whose dish is permanently attached to a recreational vehicle or a commercial truck; (d) is a subscriber to whom the C-band exemption applies; or (e) is subject to a waiver granted by the television network station.

9. What is a Grade B signal?

A: The Grade B signal intensity is an FCC-defined measurement of the strength of a television station's signal as received at a specific location. Generally, a Grade B signal will provide a television picture that is "acceptable" for viewing purposes. SHVIA requires that the FCC initiate a proceeding that will result in a submission of findings to Congress concerning whether the Grade B signal standard should be modified or replaced by some other standard that would be more appropriate for determining whether a household is unserved. On May 26, 2000, the FCC issued a Notice of Inquiry ("Notice") seeking information and comment that will be used as a basis for this submission. The Notice is designated as "FCC 00-184" and can be downloaded from the link above or, you may purchase a copy from Qualex International at 202-863-2893."

Please notice that the FCC fact sheets aren't definitive.

I would love to see any cite you can point to where an area that received some multipath reflection was held by the FCC or a court of competent jurisdiction to be a white area. Hint: there are black areas, white areas and gray areas.)

If you have that documentation, I'd love to see it. (End of Willkie's contribution)

Nearly every TV station in the US has, in addition to their legacy analog transmissions, a companion digital transmitter sending out pristine, near studio quality pictures and sound. It's the law! The major networks now have two feeds to their local affiliates: analog and digital. Since one of the enhancements to digital is Hi-Def, guess what much of the material on the digital feed to those stations is? That's right; a good percentage of the evening prime time on the networks is in High-Def. Some of the morning shows and afternoon soaps are in High-Def. as well as the after the late news talk shows.

It would seem to me that since, where I live, most network affiliates have translators to extend to areas where the geography limits coverage of their main transmitter, this issue would be resolved. WRONG! This extension is currently only for their analog signals; they don't currently have companion digital translators. Granted, there is a move afoot to make this happen, but it hasn't as of yet.

It would seem to me that since many of us cannot receive the "digital" signals; this should fall under the same umbrella as when one was unable to receive the analog signals.

One argument that constantly comes up is the one of copyright. That has got to be the biggest boondoggle since Teapot Dome or Enron! Take a look at your local newspaper

stand. There are papers there from all over the world with copyrighted material in them and that doesn't seem to be an issue. What's fair for one should be fair for all!

I have to say, as I read it, there is nothing about the broadcaster's market that is "preserved" in the SHVIA and SHVERA. Indeed, the opposite is the case; these acts describe how viewers may lawfully circumvent, if certain conditions exist, and they go through certain procedures, their (sometimes) exclusive, time-restricted license to the COPYRIGHT in some of the materials they air.

Copyrights create EXCLUSIVE rights to materials, which the owners can use to license their materials. If you believe that consumers should be able to outbid local TV stations, or if you believe that copyrights are bunk, those are quite different matters.

If you think that EchoStar and DirecTV or even cable should be able to compete directly with local TV stations, I'm all for that; let's overturn their compulsory copyright license under which they -- without paying market rates -- acquire broadcaster's licensed materials for re-broadcast. It would be the same thing as a newspaper paying for a copyrighted feature or item they run.

I was and remain against the words of the SHVIA and SHVERA, although I'm sensitive to the needs that they address. According to the courts, EchoStar unlawfully used the acts to unfairly compete with broadcasters. If you think that's fair, that's another matter.

If you think that SHVIA and SHVERA should be repealed so that broadcasters and satellite operations may compete for exclusive access to material, we are in complete agreement. But, any other idea creates an unleveled playing field, imputes level criteria for it and starts competition there.

I believe this whole concept we now practice and supported by law, detracts from the good old Yankee concept of competition. Why should we promise or guarantee any broadcaster, let alone any business, any market exclusivity? As I mentioned earlier, households that wishes to look at any program material should be able to do so! You can go to a news stand and buy newspapers, which support themselves just like broadcasters with advertising - local and national. You and I should be free to choose whatever station we/I wish to watch no matter where it is located, just like I can buy a newspaper from anywhere in the country, let alone anywhere in the world. If the local broadcasters want (my) allegiance then why don't they give me/us something I/we want to see or listen to, just like a local newspaper does? I know I'm tilting windmills and it will probably not happen in my time, but I think it should.

On the other hand it is happening in our lifetime, today. You have the option of taking your home TV experience with you anywhere in the world that has broadband or watching what's on TV anywhere in the world where there is broadband. I have a friend who sat in Central Park (NY) watching Azerbaijan cable on a laptop, could change channels and it wasn't bad. And that was years ago. Granted, the server in my friend's apartment cost a bit then, but today you can buy the tools for peanuts. And broadband

will become more competitive with local broadcaster every minute, legal or illegal. So let's stop screwing around.

This could go on forever, so let me get to my final point. What I'm about to describe has been similarly related to me by many folks during my travels with the Tech-Notes Taste of NAB Road Show; it all adds up to downright misinformation, stupidity and attorneys.

I have invested a considerable amount of money in two television sets capable of displaying Hi-Def pictures, as well as the legacy analog TV sets I've had for some time. There are many other folks in my community that have at least one set capable of Hi-Def. Yes I watch the sets for pleasure, but I also watch them to see the latest technological devices being used so I can write about them and possible invite their manufacturers to join me on the Road Show.

I'm a subscriber to EchoStar's Dish Network and have four receivers, two of which can receive their Hi-Def services. Of the major networks, the only one Dish carries in Hi-Def is CBS. I understand that in some markets, they also carry some local-into-local Hi-Def. When I contacted Dish Network, they told me that my zip code didn't qualify for CBS Hi-Def service. Later in that call, they changed their tune and said that it wasn't offered via Satellite. I knew differently as I know folks here along the central coast of Oregon who receive it. The misinformation rained supreme! When I spoke to the supervisor, he told me I had to get a waver from the local station, KVAL-TV, Channel 13 in Eugene, OR.

This was asking for the near impossible! I have spent a lot of time and made a Herculean effort to get the necessary waver to receive CBS Hi-Def over the Dish Network from the local CBS affiliate, KVAL-TV in Eugene. Fisher Communications (Fisher owns about a dozen full power TV stations in the Pacific Northwest). Yes, I do receive KVAL's local-into-local signal via Dish Network, as I do all the other network affiliates, but none are available via Dish Network (or DirecTV) in Hi-Def. except CBS!

We do have analog translators serving our community, none of which give me a Grade B contour signal at my home. For the analog signals I don't care – I get them via satellite anyway, but for the Hi-Def, I'm being deprived of this service. Doesn't it say in the Constitution that I have a right to Life, Liberty and the pursuit of Happiness? Don't laugh; we are being deprived of our pursuit of Happiness!

When I contacted KVAL's Chief Engineer, Dan Stoe, he told me it was Fisher Communications corporate policy NOT to grant ANY wavers for ANY reason. I called Fisher's headquarters in Seattle where I spoke to Fisher's Chief Information Officer, Kelly Alford and he said there was no such policy. Later that day, I was called by Paul Greene, KVAL's Operations Manager and Program Director who told me I'd be getting a call the following morning form KVAL's Director of Engineering, Jim Bowen. When Bowen called, he told me that their corporate attorneys had told him their policy is NOT to grant ANY wavers. When I asked who these corporate attorneys were and where they were located, you'd think I had asked for the plans for the invasion of Normandy, the day

before it happened. Here's another instance where Wm. Shakespeare is on target and Forest Gump said it all!

So it would appear that irrespective of what FCC guidelines there are to permit those who do not get an acceptable signal, Fisher's attorneys set their own policies. Wonder what they have to say about all those ads to see KVAL on your iPod or Cell Phone are all about? You can also see distant stations that way too. Now who's talking out of both sides of their mouth?

It would seem that Fisher Communications is detracting from the whole concept of encouraging viewers to migrate over to digital through their attorneys. It would seem to me it's time to get attorneys who have an understanding and feel for the broadcast community on both sides of the transmitter.

Our local translator association is putting up a new, higher tower and will encourage the broadcasters to increase their power to cover our community better. At first, this will be analog, but you can rest assured that when analog goes away, may be then we'll have digital available here in my little hamlet. It would seem to me to be a timely effort were they to do so sooner than later. Companion digital channels have been offered to translator licensees. Since delivering eyes and/or ears to potential advertiser is the primary purpose of commercial broadcasting, reaching this community, which comprises over ten percent of the households in their marketing area, it would be a prudent move.

Needless to say, I still don't have CBS Hi-Def via satellite or via a translator. If I could get any of the local network affiliate stations via translator in Hi-Def (their digital signals transcoded to a local channel serving my community), I'd go away a happy camper.

Stay tuned for a great edition (next) on the Tournament of Roses

Well now, that's about it for this time. What do you think about all of this?

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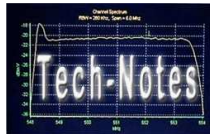
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