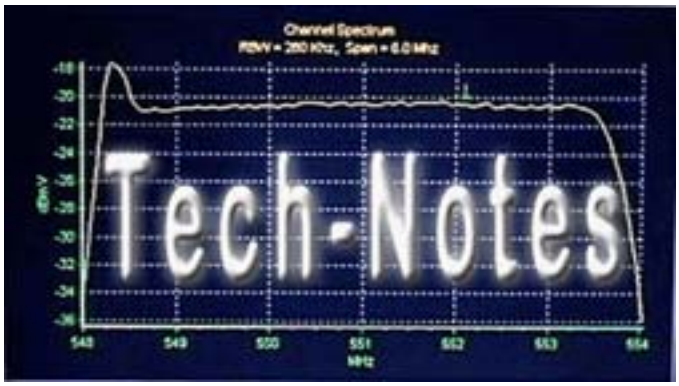

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Our purpose, mission statement, this current edition, archived editions and other relative information is posted on our website: WWW.Tech-Notes.TV
This is YOUR forum!

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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)

Editor's Comments

It is amazing how time flies when you're having fun. This edition has been in the making now for nearly two months. Sure hope it meets or exceeds your expectations. Probably one of the best articles in this edition is the one by John Silva and his participation in the first telecast of an atomic bomb blast from the Nevada desert. Click on this **Television History in the Making** tag to view this most interesting and challenging story. John has promised to share some of his other history-making experiences and there are many.

Speaking of Nevada, we need not to remind you that the trek to sin city is not that far away. Since we'll be driving our new Dodge Sprinter to NAB 2006, we'll be leaving on April 19th. That should give us the time we need to arrive safely there from here in Oregon. Please look for us. The van is **Red** and HUGE! So is our scooter this year. Be sure to stop us and say hi.

The Road Show - A Taste of NAB 2006
What's Coming

As we have said so many times before, there is **no** substitute for attending the real thing: The National Association of Broadcasters Convention in Las Vegas, NE. This year's theme is "Immediate Future." With all the new technology on the market place and the distinct changes in delivery and reception methods in the marketplace, it is imperative to keep abreast of what is available. Those stations and engineers who don't will be one day be looking at the call letters on the outside of their former place of employment wondering why someone else took their place who did! As cold as that may seem, it is hard to argue with the facts.

But, for those who didn't make it or couldn't make it, there is an alternative: The Taste of NAB 2006 Road Show. Please keep in mind that The Tech-Notes "Taste of NAB 2006" Road Show is NOT affiliated in any way with the National Association of Broadcasters and is strictly an educational event where.

This year we will be visiting fifty-four places that have confirmed they would like us to do our presentation for them and there is a possibility there may be one or two more venues added.

Nearly all are presentations are for a local Society of Broadcast Engineer (SBE) Chapter and/or a Society of Motion Picture and Television Engineers (SMPTE) Section. Some venues we've been going to since the beginning, five years ago, and others are new this year.


Old Van

Things are different this year. All returning sponsors will have new and different technology to share so you won't be seeing "the same old things." We've added nearly twice the number of sponsors and have purchase a gargantuan van to haul things around in that is equipped with an elevator to make life easier on all concerned. It's a Dodge Sprinter with a 158 inch wheel base. Ruff guessing it, it will hold nearly five times or more than our old faithful from years past: actually when parked next to each other, our old van looks like a toy.

The Monster Van

Just to give you an idea, here are a couple of shots of it.

We have some really great door prizes that will be given away at each venue. To keep the size of this document a bit smaller, we're just posting a link instead of showing you pictures. You can see the door prizes that we'll be giving out at each venue are at: **www.tech-notes.tv/2006/2006-Sponsors-DoorPrizes.htm#Venue**. What is also worth looking at are the door prizes that we'll be giving out at the end of the Road Show. The total value of them is considerable. You can see them at:

www.tech-notes.tv/2006/2006-Sponsors-DoorPrizes.htm#End.

We are more than willing to accept more door prizes of either variety, and the local venues are encouraged to obtain and present their own door prizes also. The local winners will be posted on each venue's webpage with the Expensive prizes posted on the sponsor's page. These door prizes are, of course designed to be that additional incentive for folks across this great land of ours to attend and learn.

Our Sponsors

Although we'd like to do the Road Show out of the goodness of our heart, 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 have committed to join us this year and there may well be more before we start our travels. We wanted to post the logos of the companies who've committed to join us this year, but, again, to keep the bit size of this document down, here's the link:

www.tech-notes.tv/2006/2006-Sponsors-DoorPrizes.htm

As most of you know, the Tech-Notes Taste of NAB 2006 Road Show is an educational event; there is no selling permitted. These good folks CARE enough to let us bring to you the technology you would have seen or missed seeing at NAB 2006. In return, we ask that you give them prime consideration when you have a need for their products and or services. We will provide you with the information necessary to contact them. On the URL above, each sponsor has their contact information and there are links to their websites.

See you on the Road show. **Click here to see our schedule**.

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Television History in the Making

THE WORLDS FIRST TELEVISED ATOMIC BOMB BLAST COVERED BY KTLA, LOS ANGELES

By John Silva
March 2006

On Wednesday, April 9, 1952, Klaus Landsberg, then Vice President and General Manager of television station KTLA in Los Angeles, received a phone call from an official from the U.S. Atomic Energy Commission. It was in regards to the possible television coverage of an upcoming atom bomb test in Nevada scheduled for Tuesday, April 22, 1952. This would be the first ever televised to the public. He said that the Commission had asked each of the three major Television Networks if they would be able to provide the coverage of the event.

He explained that each network after considering the short time-frame before the blast and the un-certainties in regard to the logistics involved had declined the offer. Further, each network found in checking with the regional phone companies that would be involved, were told that due to the rough and mountainous terrain involved it would take them six months or more to provide the required microwave services for picture and sound from the site. Actually, all three networks suggested to the Commission that KTLA, Channel 5, which was at that time noted for its near-immediate on-the-spot news coverage, might be an outside possibility in accomplishing the task even with such a short go-ahead notice. His phone call to Klaus was in response to this information.

He then asked Klaus if KTLA could, without any uncertainty, provide the coverage in time, ("13 lucky days") and additionally feed all three major networks to reach most TV homes throughout the US, as well as all of the non-network TV stations in the Los Angeles area and vicinity. Their expectations were to reach an audience of about 35,000,000 people throughout the US.

Klaus' answer, of course, was: Yes! However, the truth of the matter at that point in time, was: he really didn't know if it could be done in this short time frame. What he did know was: that if he said "Yes", at least we had a chance to make it happen, and if we succeeded, there would be an astounding promotional value attached to it. He also knew that if his answer was "No", that would have been the end of it all, and we never would have known if we could have made it happen.

Shortly, thereafter, he called me, as I was Remote Supervisor for the Station at that time, from his home and asked if I would pick up a supply of topographic maps covering the areas between Yucca Flats near Las Vegas where the bomb was to be set off, and our TV station, KTLA, in Los Angeles, and then come over to his house so we could together determine possible microwave sites for the job.

This I did. Then, as it seemed that time was running out by the seconds with an almost impossible time frame of about 13 days until the scheduled blast, we spent the whole night (about eight hours in all) studying the myriad of the topographical maps that I had brought. These maps showed elevations above sea-level of the peak mountain areas of interest. We searched for mountain tops that could possibly serve as microwave relay sites that together would allow us to send TV signals from Frenchman's Flat to our main transmitter building on Mt. Wilson. We would then microwave those signals to our studios 23 miles away via our transmitter-to-studio microwave link (TSL).

One location that puzzled us was an unnamed mountain peak along the way that had an altitude of 6300 fleet above sea-level. The problem was that it showed no vehicle access. It looked like it might be a great site; but the next likely point in the chain was Mt. San Antonio, part of Mt. Baldy, about 140 miles away. Considering the 2 Watts of transmitter output power of our 2 GHz microwave equipment, the length of the path between the two above points would exceed the maximum range for which the equipment would deliver usable signals at the receiving point. We resolved that I needed to think more about this. We decided to temporarily name this site: "Mt. X".

Further, we found that all of the prospective mountain top locations we had chosen were uninhabited. This meant that power to run the microwave and other support equipment would have to come from gasoline generators that we would have to supply and operate.

I asked Klaus where I could best be used to help test these sites. He replied that because most of the key personnel would be required to go to the various areas we would be dealing with, that he needed me to stay back to look out after station operations. He said that once the testing had started he would call for me to join up at the U.S. Atomic Energy Commission Command Center located at Frenchman's Flat, and then I should concern myself with our production and microwave pick-up point installations there, as well as any other microwave sites that we might need in the vicinity of the Las Vegas area, as well as to check out our set-up on Mt. Charleston, our first mountain-top site along the chain.

Receive Antenna on Mt. San Antonio from "Mt. X"

Personally, I would have preferred to have been involved with the testing at the microwave sites that we had potentially selected; but I did what he asked of me.

The next morning, I called a company named Microwave Associates, the leading manufacturer at that time of portable microwave equipment. During the call, I learned that they had just come out with a 10 watt microwave amplifier that could be fed by a 2 watt microwave source. This would make the combination produce 10 watts of output power to feed a transmitting antenna.

Each of our transmitting and receiving antennas in used for the link between "Mt. X" and Mt. San

Antonio would be 7ft in diameter with a parabolic pitch. Taking both antenna gains,10 watts of transmitter output power, and the receiver noise-figure into consideration, my calculations indicated that the received signals at Mt. San Antonio would have high enough signal-to-noise ratios to be considered noise-free and would deliver acceptable picture and sound quality.

This was just what I needed to know. This would satisfy the signal requirements for the 140 mile path between "Mt. X" and Mt. San Antonio. On the spot, I ordered the unit, and specified air shipment.=We received it the following morning, on Friday, April 11, which I then tested, with John Polich, our Remote Engineer, assisting.

As a start in the process of determining which of our proposed microwave mountain sites would work as desired, a preliminary effort was started with a strategy meeting for the testing crew at KTLA presided by Klaus on Saturday, April 12. Those included were myself, Raymond Moore, KTLA's Chief engineer at that time, and engineers Charles Theodore and Faye Konkle (from our KTLA Studios and Transmitter, respectively). Also included were, John Polich and Hector Heighton from our remote crew.

Early on Sunday, April 13, all those attending the meeting, with the exception of myself, traveled to Las Vegas to prepare for the tough job ahead. My job was to temporarily baby-sit the station, and to view and report back the quality of incoming signals that would eventually come down our microwave network.

On Monday, April 14, testing began according to plan. It was mountain-top to mountain-top equipment set-up and testing with portable power generators and mobile two-way communications, which was laborious and time-consuming to say the least**.**

By noon of the next day, which was Tuesday, April 15, our crews were having only partial success. As a result, other mountain tops were considered on the spot in order to get signals from Mt. Charleston to Mt. San Antonio, but this was at a 207 mile distance, which would require additional equipment, which we didn't have, and would consume precious time that we had left to meet our April 22 deadline.

Transmit antenna on Mt. San Antonio to Mt. Wilson

Then, in the afternoon, as Klaus had said he would, he asked me to join up at Frenchman's Flat to supervise the installations at our camera pickup and microwave origination point, our second hop site 1.4 miles from the origination site, and to make sure that everything was going OK at our third site on Mt. Charleston, 40 miles away.

I knew that our installation there would require a mobile control unit, two standby cameras, each

with a telephoto zoom lens, a gasoline generator with 2 weeks supply of fuel, a microwave transmitter and receiver with respective parabolic antennas, food and supplies; and hard-wire phone connection to our mobile control unit at Frenchman's Flat, and to our KTLA news room.

We also would need an audio/video switcher in the mobile unit that would select either picture or sound coming from the up-link from our mobile control unit at Frenchman's Flat, or video from either of the standby cameras there, the output of which would feed our microwave transmitter and antenna pointed at "Mt. X".

The next morning; I was on site and began completing the above tasks.

It was on this day that we came to realize that we positively had to find a way to get up to the top of "Mt. X". But at this point in time, the top of the mountain was simply an inaccessible illusion.

Then, with a partial feeling of desperation, the U.S. Atomic Energy Commission was contacted, and our problem of not having the needed access to "Mt. X" was explained. To our astonishment, they in-turn replied that they would immediately contact the U.S. Marine Corps at El Toro Marine Base in Santa Anna to ask for their assistance in sending two of their largest helicopters and crew to our vicinity immediately to get our equipment and personnel up to the desired mountain peak.

Two hours later, they called to let us know that their request had been granted. Squadron 363 of the 36th U.S. Marine Corps from El Toro had been selected to work with us, and would use an existing government helicopter landing site reasonably close to Frenchman's Flat to be their base.

They would be using two of their Sikorski HRS-2 heavy-duty helicopters to transport the following up to the relay site, as specified: two of our KTLA personnel, a pair of transmitting and receiving microwave antennas, associated microwave equipment, a gasoline generator, a two-way communication transceiver, two monitors, a compliment of supporting electronic equipment, a tent, a two week supply of gasoline, as well as a two-week supply of food and water, and finally, an assortment of mechanical necessities,. Further, they would be immediately dispatched from their air base to be ready to work with us sometime the following day, which they were.

By all, Tuesday, April 15, 1952 was declared a great day.

It was then decided that John Polich and Faye Konkle would go with the equipment by helicopter to "Mt. X" and set it up. Next, they would transmit a test signal to Mt. San Antonio using the 10-watt amplifier for extra power. If the test was successful, they would stay there and operate the equipment until after the conclusion of the bomb blast telecast on April 22.

On Wednesday April 16, the Marine airmen and their two Sikorski HRS-2 helicopters from Squadron 363 of the 36th U.S. Marine Corps in El Toro landed at their temporary landing base just a few miles from our control point at Frenchman's Flat. They truly were a sight for sore eyes. They were joined later in the day by John Polich, Faye Konkle and Klaus Landsberg where they had a serious meeting regarding their next day loading of equipment and ascent to the top of "Mt. X". Klaus had also brought a topographical map showing "Mt. X" and vicinity.


Marines & KTLA gear

The next morning, on Thursday, April 17, John Polich and Faye Konkle arrived at the Squadron's temporary headquarters in one of our KTLA utility vans loaded with all the necessary equipment, mentioned above.

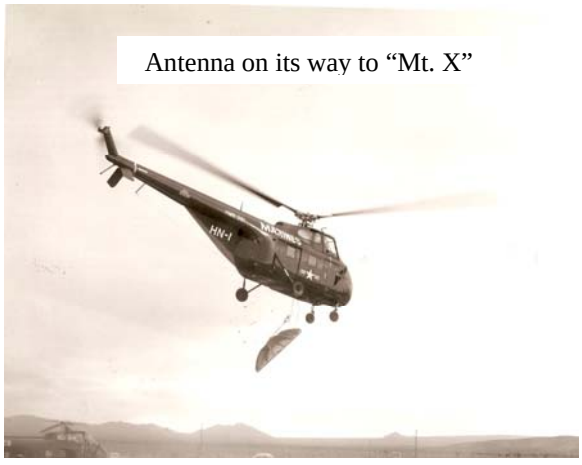

Marines helicopter crew

In about 2 ½ hours all items were evenly loaded between both Sikorski HRS-2 helicopters. John and Faye then boarded the first 'copter, and one-by-one, each with a 7ft microwave dish attached to the craft's under-structure with a dangling support-cable arrangement, slowly ascended, and then hovered, and then further ascended to join each other as a pair on their 70-mile journey to "Mt. X".

Marines loading KTLA gear

As the Marine pilots and co-pilots had never had the Sikorski helicopters up any higher than 5,000 feet they had to be very careful in maneuvering up as high as the 6300 ft height of "Mt. X".

Actually, everything went well and the delivery in each case was made without incident.


Antenna on its way to "Mt. X"

The next day, which was Friday, April 18, John Polich and Faye Konkle spent the time mounting and positioning their transmitting antenna towards Mt. San Antonio and their receiving antenna in the direction of Mt. Charleston.

It should be noted that our main transmitter engineers: George Bigler and Will Jewel

who had also been involved in the earlier field-testing from the site on Mt. San Antonio, remained there to continue testing the signals from "Mt. X". The hard part of their duties there was that they then had to remain there until after the telecast on April 22.

William Barnard, our senior transmitter engineer, was also involved with these tests, but remained stationed at our main KTLA transmitter site on Mt. Wilson, which was our final main receiving point in the microwave chain. From there, the received signals would be sent via our transmitter-to-studio (TSL) microwave link to the KTLA studios at 5451 Marathon Street in Hollywood, California. This would be the connection point where all networks and local independent TV stations would be fed received signals coming from our pick-up point at Frenchman's Flat.

John Polich on "Mt. X"

As it turned out, "Mt. X" the unnamed mountain peak that we puzzled over the night we spent pouring over the maps at Klaus's home, actually became our saving grace.

On Saturday morning, April 19, the crews in testing the microwave signals for continuity along the way, confirmed, to our pleasure, that the amplified 10 watt microwave signals transmitted from "Mt. X", on reaching our receiver on Mt. San Antonio, were quite acceptable.

In the afternoon of the same day, we tested through the complete microwave path from our pickup point at Frenchman's Flat to our KTLA studios in Los Angeles. The results were excellent. At that point, we knew that our microwave problems were behind us, and that we would meet our deadline of April 22nd. What a relief! But there was still a lot of work yet to be done.

Mobile unit with camera and Klaus on top at control point

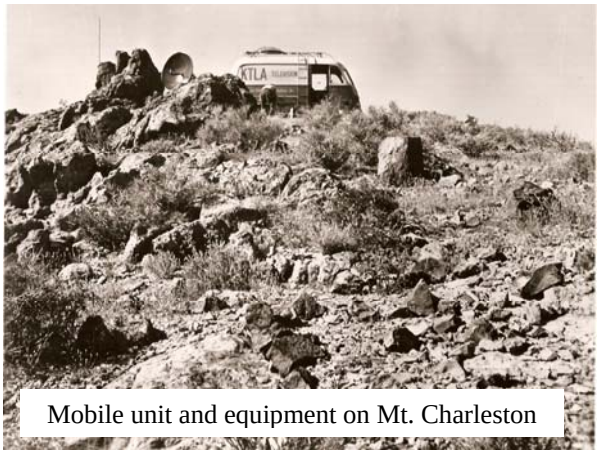
On Monday, April 21, all of our set-up and testing was completed. The next day when it came time for the telecast, Klaus served as Director, and I served as Technical Director, in our main mobile control unit at the camera pickup point, which was about seven miles away from ground zero.

Five Minutes to Go!

The Atomic Commission had given us the time for the bomb detonation to be between 7:00am and 9:00am. At 6:30am we were in full operation and officially went on the air feeding all three major networks and independent Los Angeles TV stations with our cameras, microphones and announcers producing program content at the pick-up point at Frenchman's Flat, in anticipation of the big event.

The minutes were beginning to seem like hours. No one even dared to take the time to relieve themselves if needed. Then we suddenly got the word from the Atomic Commission that the blast was to come in exactly 5 minutes. The intensity was then felt by all.

About 2 minutes went by. All of a sudden our camera monitors went completely dark. We had lost all of our power supplied by the Commission Control Center. As a result, we not only lost our camera pictures that were being used for various interviews in anticipation of the bomb blast, but we additionally lost our microphones and microwave signals up to Mt. Charleston.



Mobile unit and equipment on Mt. Charleston

Fortunately, we had a backup plan that immediately went into operation. Charles Theodore, our engineer in the mobile unit on Mt. Charleston noted the loss of incoming microwave signals from our pickup point. Without any hesitation or instructions from us, he switched the input of his microwave transmitter pointed at "Mt. X", away from our non-existent video signals coming from the cameras located at Frenchman's Flat to the output signals from the standby camera located on top of his mobile unit. His quick action resulted in only about 1 to 2 seconds of lost airtime.

As planned, the standby camera above was focused on ground zero by cameraman Robin Clark. In other words, Charles was now in command of the program feeding the network to KTLA in Los Angeles, and to approximately 35,000,000 TV viewers throughout the United States.

Fortunately, we had hard-wire telephone connections for communicating with our news department at KTLA and with Charles Theodore in the mobile unit at Mt. Charleston; so we knew what was going on as far as our staying "on the air" for the benefit of the 35,000,000 viewers. However, as we had no power, we had no idea how we looked off the air.

Charles assured us that we were feeding the microwave network from his camera and we had only lost a second or two of program content in the process. The news department also assured us that we were transmitting beautiful pictures around ground zero.

Klaus then told Charles that he was to take over until further notice, which he did. Klaus also directed our news announcer at KTLA to cover with dialog until we had power back at the pick-up point and got our cameras rolling with operable microphones.

Another 1 1/2 minutes went by at the command point with still no power or word from the Commission Command Center as to why we lost it. Then, as the seconds ticked by, the scheduled bomb blast suddenly occurred, and the TV audiences all over the United States saw for the first time, a televised atomic bomb blast captured by our standby camera on Mt. Charleston 40 miles away, at an altitude of 8200 feet above sea-level.

Within about a minute after the bomb blast, power was restored to our cameras and other mobile unit equipment at the pickup point at Frenchman's Flat. In another minute the cameras were warmed up and were producing useful pictures and we had the use of our microphones.

Klaus then instructed Charles to switch our feed to the network, which he did; and we then took over providing the program content with our own cameras on the ground, getting some interesting shots of the atomic mushroom cloud as it began to spread out and dissipate. Occasionally, we used the unique camera shot on Mt. Charleston to further augment our program content.

Of course Klaus, and everyone else at the pickup point and elsewhere along the way, were terribly disappointed because of what had taken place. However, on the positive side, reports from our studio in Los Angeles indicated that the general opinion was that the coverage was excellent. The mushroom cloud was huge, so the camera on Mt. Charleston, which was zoomed all the way in, revealed the complete cloud from ground level up to the mushroomed top. And then with the camera shots from the ground cameras that soon followed, and then close-up interviews of army and professional observers, provided an interesting and balanced presentation.

All in all, the Atomic Commission dignitaries were very pleased with the performance, and the fact that we had met their expectations in providing a very dramatic presentation, under very difficult conditions.

As a matter of fact, they were so pleased that they asked if we would consider providing a second coverage in about a year as they planned to do another atom bomb blast as a follow-up test.

When asked, Klaus, of course said yes. And one year later, on March 17, 1953, KTLA covered the second atomic bomb blast from Nevada. This time conditions were right and we knew exactly how to get the job done. We did it even better than the year before, without experiencing any of the adverse incidents that had happened the year before.

Further, this time there was no loss of power at the pick-up point so we had complete control of all camera shots, including those from the camera on Mt. Charleston.

A Special Note on the A-bomb Cameras

Of the four TK-30 cameras located at the KTLA main control point, two had their lenses open, and two had their lenses closed. This was to protect the coverage in case the initial intense light of the atomic explosion blew out the camera pick up tubes. The same situation existed for the two cameras on Mt. Charleston.

Addendum to This Adventure

It was intended that after the telecast on April 22, the microwave equipment would be brought down from the mountain and returned to the station. Unfortunately, due to bad weather and high winds, this was delayed for several months. John Polich and Faye Konkle were air-lifted down shortly after the A-Bomb telecast, and they returned to Los Angeles to wait for better weather conditions before returning to Mt. "X" for the equipment.

Finally, on November 21, 1952, 7 months later, when favorable weather conditions did return, the U.S. Marine Corps' squadron released two of its Sikorski HRS-2 heavy-duty helicopters, as before, to take John Polich and Faye Conkel back to the "Mt. X" site to bring back our microwave equipment.

When the entourage arrived at the peak, and the helicopter carrying John and Faye attempted to land at the top, the pilot undershot his aim due to unexpected heavy winds and down-drafts.

In trying to lift the 'copter up higher so that he could touch down at the microwave site where he intended to, the tail rotor got tangled with a large rock and tree and broke off. As a result, the pilot lost control of the helicopter and it proceeded to roll about 300 feet down the mountain slope, and came to rest in an upside-down position.

The four occupants, which included John Polich, Faye Konkle, Major Dwain Lengel, the Marine pilot and, Captain Gaylord Drutknecht, his co-pilot, were shaken up a bit, but, fortunately, all four crawled out of the helicopter basically unharmed.


Survivors hauling generator

The accompanying helicopter's pilot, on seeing what had happened, quickly landed on the peak. He and his co-pilot then ran down to where the four stranded occupants had crawled out of their helicopter, made sure that they were all right, and then helped them carry the remaining microwave equipment that had been carried in their craft, up to the top where they proceeded to load up the second 'copter that had arrived safely.

From this point on, all personnel and equipment in two passes with a single helicopter were air-lifted back to the U.S. Marine Corps temporary air base near Las Vegas without incident. John Polich and Faye Konkle then safely returned to KTLA with all of the equipment used on "Mt. X".

The exact locations of microwave relay points from Frenchman's Flat to Los Angeles for the Atomic bomb blast covered by KTLA on April 22, 1952 and on March 17, 1953:

Location	Description/Participants	Miles from Previous Location
a. KTLA main control point at News Knob & U.S. Atomic Energy Command (7 miles from ground zero)	Pick-up point (4 TK-30 Cameras) (Klaus Landsberg-Director) (John Silva-Technical Director (Ed Resnick & Jim Cassin-Cameramen) (John Polich & Hector Heighton-Stage Mgrs)	0 miles
b. Auxiliary microwave point	2nd hop - This point was necessary as KTLA control point was not line-of-sight to 3rd hop on Mt. Charleston. (Roy White-Engineer)	1.4miles
c. Mt. Charleston Peak 8200 ft altitude (Access by trucks& cars)	KTLA 3rd hop (2 TK-30 cameras) (Charles Theodore-Engineer) (Robin Clark - Cameraman)	40 miles
d. Mt. "X" 6300 ft altitude (Access by helicopter)	KTLA 4th hop (John Polich-Remote Engineer) (Faye Konkle-Xmtr Engineer)	67 miles
e. Mt. San Antonio 8500 ft altitude (Access by ski lifts & snow weasels)	KTLA 5th hop (Last remote relay point) (George Bigler-Xmtr Engineer) (Will Jewel-Xmtr Engineer) (This was the highest peak of all relay points)	140 miles
f. Mt. Wilson (6000 ft alt.)	Final Receiving point at KTLA xmtr bldg. (William Barnard-Xmtr Engineer)	28 miles
	Total Microwave Path Distance	275 miles

A SPECIAL TRIBUTE TO THE KTLA CREW THAT MADE IT HAPPEN

It is important to acknowledge the courage, skill, and dedication of the KTLA personnel that manned the microwave equipment on the mountain tops for about a week with minimal water and food, as this amazing adventure unfolded. They remained at these sites for days in extremely cold temperatures from snow blizzards and blistering winds. Not one complained about these conditions.

It is also important to acknowledge the magnificent help we received from the Marines from Squadron 363 of the 36th U.S. Marine Corps. They got us, and our equipment, up to and back from treacherous "Mt. X" when there was no other way.

Without the valiant efforts of the KTLA microwave relay crews on the mountain tops and the U.S. Marine Corps personnel that removed our one major stumbling block, this mission might very well have failed.

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News

IMPORTANT LPTV, CLASS A LPTV AND TV TRANSLATOR NEWS

The FCC has entitled this Public Notice: "Announcement of filing window for LPTV and TV translator digital companion channel applications from May 1, 2006 through May 12, 2006.... Freeze on filing of low power television, TV Translator and Class A analog and digital minor change, analog and digital displacement and digital on-channel conversion applications from April 3, 2006 through May 12, 2006." Need details (or an English translation)? Here is the Commission's three page explanation:
http://hraunfoss.fcc.gov/edocs_public/attachmatch/DA-06-123A1.doc

HALF-TERABIT PER SQUARE INCH DATA DENSITY FROM INPHASE TECHNOLOGIES BREAKS ALL RECORDS

Leader in Holographic Storage Successfully Demonstrates 515 Gigabits per Square Inch Data Density; as Compared to 300 Gigabits for Magnetic Disk Drives

InPhase Technologies, a sponsor of the Taste of NAB 2006 Road Show, recently announced that it has demonstrated the highest data density of any commercial technology by recording 515 gigabits of data per square inch. Holographic storage is a revolutionary departure from all existing recording methods because it takes advantage of volumetric efficiencies rather than only recording on the surface of the material. InPhase will deliver the industry's first holographic drive and media later this year. The first generation drive has a capacity of 300 gigabytes on a single disk with a 20

megabyte per second transfer rate. The first product will be followed by a family ranging from 800GB to 1.6 terabyte (TB) capacity.

Densities in holography are achieved by different factors than magnetic storage. Density depends on the number of pixels/bits in a page of data; the number of pages that are stored in a particular volumetric location; the dynamic range of the recording material; the thickness of the material, and the wavelength of the recording laser.

In this demonstration there were over 1.3 million bits per data page, and 320 data pages spaced 0.067 degrees apart were stored in the same volume of material. A collection of data pages is referred to as a book, and InPhase' s PolyTopic recording architecture enables more holograms to be stored in the same volume of material by overlapping not only pages, but also books. Three tracks of overlapping books were written with a track pitch of 700 microns. The InPhase Tapestry™ material was 1.5 millimeters thick, and the laser wavelength was 407 nanometers.

The impact that these data densities will have on future products is tremendous. For the home video fan, one disk could hold the equivalent of 106 DVD movies. For IT managers dealing with archiving millions of email messages, higher densities mean savings on space, time, and power.

InPhase Technologies, based in Longmont, Colorado, and founded in 2000, is the developer of holographic data storage (HDS) recording media and systems. InPhase, a spin off of Lucent Technologies is funded by several venture capital investors and corporate investors such as Hitachi Maxell, Ltd., Bayer MaterialScience AG, and ALPS Information Technology Fund. For more information on InPhase, visit the company's Web site at: www.inphase-tech.com.

New SBE Chapter in the making

The broadcast engineering community of Southern Oregon/Northern California, seeing the need for continuing education and general interfacing, are forming what is probably the newest Society of Broadcast Engineers chapter in the US. Taking the lead in this adventure is Mike Gary, Chief Engineer of KMVU-Fox 26 in Medford, OR.

Gary says: "I've been getting a lot of interest form all stations here. We have all agreed to get all MCR personal and engineering tech's signed up for membership at all the stations here in Medford area.

The first of the three required formation meetings was held at KOBI-TV5 on March 16, 2006 in Medford and the subject of the meeting was LPTV and TV translator rules, a very important topic to all Oregon broadcasters. The meeting was sponsored by LARCAN USA, one of sponsors of the Taste of NAB 2006 Road Show. Meeting #2 will

be held sometime this month (April 2006) and will be a formation meeting where officers and other positions will be filled. The third of the required formation meetings will also be held at KOBI-TV on May 8th and will be the Taste of NAB 2006 Road Show.

In the spirit of cooperation, the Portland SBE Chapter 124 will help, as they are doing now with the Eugene Chapter 76, by announcing the Medford meetings etc. in their "Water Cooled" newsletter. The Eugene's Chapter 76 will help the new Medford chapter, yet to be assigned a chapter number, with programs.

Gary went on to say: "This is the first time as engineers that I know of , that all the stations can drop the "we are better than you are game" to come together as one voice to help each other, share idea's and knowledge and just get to know each other."

Michael Gary can be reached at KMVU-TV Medford Oregon and by e-mail at: mgary@kmvu-tv.com.

LARCAN Joins ATX Incorporated

LARCAN has recently announced that they have joined forces with ATX Incorporated, a technology company specializing in the Broadcast, Cable Television, Telephone and Satellite Industries globally. LARCAN brings an in-depth understanding of broadcast communications and technology to ATX's business groups.

This opportunity affords LARCAN some new horizons to look toward in addition to their historical broadcast television focus.

LARCAN will continue to operate as its own entity as a member group of ATX. In a press release, LARCAN asks that all continue to contact the same people as you normally do for sales, customer service, technical services, engineering, and all other departments as nothing has been altered from our normal day-to-day operations.

For more information visit either LARCAN's website at: **http://www.larcan.com** or the ATX, Inc. website at: **www.atxincorporated.com**

ATSC, NAB SPONSOR 'DTV HOT SPOT' AT NAB2006

According to TV Technology, the Advanced Television Systems Committee (ATSC) and the National Association of Broadcasters (NAB) have teamed up to present "DTV Hot Spot: A Digital Paradise," a demonstration of digital television technologies at NAB2006 in Las Vegas from April 24 to 27. For more information, visit: **http://www.tvtechnology.com/tvsp/one.php?id=93**

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Also from TV Technology,

NEW OMNEON SPECTRUM COMPONENT UPS BANDWIDTH

Omneon Video Networks, a sponsor of this year's Taste of NAB2006 Road Show, is rolling out a new member of the company's Spectrum line, the MediaDirector 4202, which has the capability of doubling overall system bandwidth to support higher channel counts and higher IP throughput. For more information, visit;
http://www.tvtechnology.com/tvsp/one.php?id=96

SMPTE Releases VC-1 Standard

The Society of Motion Picture and Television Engineers announced this week the release of its much anticipated Standard for Compressed Video Bitstreams. Release of the VC-1 document, along with supporting Recommended Practices, will guide companies in building interoperable solutions using advanced compression technology.

"Standardization of VC-1 represents over two years of work by more that 120 individuals representing over 75 media and entertainment companies," says Ingo Höntsch, Chair of SMPTE's Video Compression Technology Committee, which oversaw development of the VC-1 standard, "and many companies throughout the industry have been promoting VC-1 integration for some time now."

"Formal standardization of VC-1 provides stability for manufacturers and allows for a high level of confidence that users can interchange bitstreams between products from different manufacturers," says Peter Symes who as SMPTE Engineering Vice President oversaw the development of the Standard. "The work was contentious at times, and initially some people thought that SMPTE would just "rubber stamp" the Microsoft document. In fact, many individuals and organizations contributed to the final documents over the two-year development period. Significantly, SMPTE has now been chosen as the organization to standardize two new compression systems."

Formal standardization was proposed by Microsoft Corporation, who contributed decoder source code and other resources towards development of the process.

"The SMPTE VC-1 standard went through a very rigorous and formal open due process procedure involving committee members from all segments of the Media, Entertainment and Computer industries" says Mike Dolan of Television Broadcast Technology (TBT), who chaired the main ad hoc committee. "This process has resulted in a clear, comprehensive and completely open standard for development of compressed video bitstreams," Dolan adds.

SMPTE's Compression Technology Committee has also formed a new Working Group dedicated to providing maintenance of the test materials and documents, as well as the

administration of a bitstream exchange program. Microsoft has contributed source code for an example encoder that is available to committee members participating in this program.

The VC-1 documents are SMPTE 421M-2006, “VC-1 Compressed Video Bitstream Format and Decoding Process” - the Standard itself, as well as two supporting Recommended Practices, SMPTE RP227-2006 “VC-1 Bitstream Transport Encodings” and SMPTE RP228-2006 “VC-1 Decoder and Bitstream Conformance”. All three documents can be purchased on the SMPTE website at www.smpte.org.

Wednesday, February 18, 2009

According to the latest whatever, this date is the date on which analog TV will cease to exist! It is also the date around which many broadcasters have started office pools betting it ain’t goinna happen. How say you?

NEXT GENERATION CONTENT DELIVERY HIGHLIGHTED ON NAB2006 EXHIBIT FLOOR

NAB2006 will display the future of content delivery at the new Next Generation Content Delivery Showcase in Las Vegas April 24 – 27.

The Next Gen Showcase will bring a new segment to the NAB exhibit floor, featuring products and services for IPTV, mobile television, gaming, VOD, interactive television and more. Companies such as the Mobile DTV Alliance, Nellymoser, Nokia, QUALCOMM-MediaFLO, Verizon and Widevine Technologies will demonstrate products in this area. To see a complete list of Next Gen exhibitors, visit www.nabshow.com/press/REL_032306_next_gen_exhibs.asp.

"New content delivery platforms are being introduced at breakneck speed and we look forward to exposing broadcasters and other content delivery providers to this technology," said NAB Senior Vice President, Conventions & Expositions, Chris Brown. "The Next Gen Showcase allows a new breed of NAB exhibitors to interact with our attendees who have always been on the cutting edge of content innovation."

TWO U.S. EMPLOYEES INJECTED WITH RFID MICROCHIPS AT COMPANY REQUEST

Big brother is watching...
From: FrankGott@aol.com

http://www.securityfocus.com/brief/134

Government Contractor Adopts Controversial VeriChip Implant in Workplace

Cincinnati video surveillance company CityWatcher.com now requires employees to use VeriChip human implantable microchips to enter a secure data center, Network Administrator Khary Williams told Liz McIntyre by phone yesterday. McIntyre, co-author of "Spychips: How Major Corporations and Government Plan to Track Your Every Move with RFID," contacted CityWatcher after it announced it had integrated the VeriChip VeriGuard product into its access control system.

The VeriChip is a glass encapsulated RFID tag that is injected into the flesh of the triceps area of the arm to uniquely number and identify individuals. The tag can be read through a person's clothing, silently and invisibly, by radio waves from a few inches away. The highly controversial device is being marketed as a way to access secure areas, link to medical records, and serve as a payment instrument when associated with a credit card.

According to Williams, a local doctor has already implanted two of CityWatcher's employees with the VeriChip devices. "I will eventually" receive an implant, too, he added. In the meantime, Williams accesses the data center with a VeriChip implant housed in a heart-shaped plastic casing that hangs from his keychain. He told McIntyre he had no qualms about undergoing the implantation procedure himself, and said he would receive an implant as soon as time permits.

"lt worries us that a government contractor that specializes in surveillance projects would be the first to publicly incorporate this technology in the workplace," said McIntyre. CityWatcher provides video surveillance, monitoring and video storage for government and businesses, with cameras set up on public streets throughout Cincinnati.

The company hopes the VeriChip will beef up its proximity or "prox" card security system that controls access to the room where the video footage is stored, said Gary Retherford of Six Sigma Security, Inc., the company that provided the VeriChip technology. "The prox card is a system that can be compromised," said Retherford, referring to the card's well-known vulnerability to hackers. He explained that chipping

employees "was a move to increase the layer of security....It was attractive because it could be integrated with the existing system."

Ironically, implantable tags may not provide CityWatcher with that additional safety, after all. Last month security researcher Jonathan Westhues demonstrated how the VeriChip can be skmmed and cloned by a hacker, who could theoretically duplicate an individual's VeriChip implant to access a secure area. Westhues, author of a chapter titled "Hacking the Prox Card" for Simson Garfinkel's recent "RFID: Applications, Security, and Privacy," said the VeriChip "is not good for anything" and has absolutely no security.

"No one I spoke with at Six Sigma Security or at CityWatcher knew that the VeriChip had been hacked," McIntyre observed. "They were also surprised to hear of VeriChip's downsides as a medical device. It was clear they weren't aware of some of the controversy surrounding the implant."

Although CityWatcher reportedly does not require its employees to take an implant to keep their jobs, Katherine Albrecht, "Spychips" co-author and outspoken critic of the VeriChip, says the chipping sets an unsettling precedent. "It's wrong to link a person's paycheck with getting an implant," she said. "Once people begin 'voluntarily' getting chipped to perform their job duties, it won't be long before pressure gets applied to those who refuse."

Citadel And ABC Disney Confirm Merger

Citadel Broadcasting has officially agreed to purchase the majority of ABC Disney's radio assets to the tune of $2.7 billion. The deal makes Citadel the third-largest radio ownership group and puts Chairman/CEO Farid Suleman among the heavy hitters in the industry. ABC Radio's 22 stations, along with the ABC Radio Networks, are merged with Citadel's current holdings to become Citadel Communications.

ABC Disney will spin off the 22 radio stations into the merger, with Disney shareholders owning 52 percent of the new radio company and Citadel shareholders controlling the rest. Disney will hold onto their Radio Disney and ESPN brand names and radio networks. Citadel will deliver ABC News' radio content via a 10-year licensing agreement, though Disney will still have control of ABC News programming in other channels. The official confirmation was made during Disney's first quarter financial report today. The deal is expected to be entirely completed by year's end.

In total, 14 FM and eight AM ABC station are involved in the deal, in nine major market cities including New York, Los Angeles, Chicago, San Francisco and Dallas.

End Of An Era.....

Western Union sent its last telegram on Friday, February 3rd. There are those who honestly didn't even know that they'd maintained public telegraph service in recent years. Here's the Associated Press story:

http://abcnews.go.com/Business/wireStory?id=1568370&ad=true>http://abcnews.go.com/Business/wireStory?id=1568370&ad=true

WB Net, UPN to merge, become the CW TV Network

The WB Network and UPN will merge and become the "CW" Television Network this fall. The WB and Tribune have been partners in the WB The new "moniker" of the conjoined network that hopes to turn the two smaller broadcast networks into a bigger power is obviously C from CBS, which owns UPN and the W from Warner Brothers.

According to a Hollywood Reporter story, the timing of the deal is opportune for both sides, sources said, in part because CBS Corp.'s existing affiliation pact with News Corp.-owned top UPN affiliates, WWOR New York and KCOP Los Angeles, is set to expire in September, while Tribune has been in protracted negotiations with WB for a new long-term affiliation deal.

The CW will incorporate The WB's current scheduling model, which consists of a 6 night-13 hour primetime lineup including Monday through Friday nights from 8-10 (EST/PST); Sundays from 7-10 (EST/PST); Sunday from 5-7 (EST/PST) outside of primetime as well as a Monday thru Friday afternoon block from 3-5 (EST/PST) and a 5-hour Saturday morning animation block. Together, the network will program 30 hours a week over seven days for its affiliated stations.

It is unlikely that this merger will have an impact on engineering employment, but then it would be a good time to clear out some of the deadwood that sometimes accumulates in these kinds of organizations.

For more information, see:
http://www.hollywoodreporter.com/thr/article_display.jsp?vnu_content_id=1001883855
http://www.variety.com/index.asp?layout=print_story&articleid=VR1117936727&categoryid=14 and for information on the new affiliates, visit:
http://email.BroadcastingCable.com/cgi-bin2/DM/y/epMw0GeJRg0Olt0CiMe0Ad

Commerce Committee Chairman Stevens Introduces American Broadband for Communities Act

From: Mark Aitken maitken@sbgnet.com

There is a true firestorm brewing, and it may well represent a further crippling of OTA capability. Allowing unlicensed services to reside in Broadcast Spectrum is a disaster unless there is a requirement for OTA receivers to meet certain (and defined) operating capabilities. While most will blame multipath as the most crippling of reception capabilities, I maintain that the other variables are just as capable of making reception impossible (front-end overload, adjacent channels, poor discrimination, bad/cheap AGC, Blah-Blah-Blah...the list goes on...) So, without even knowing how present and future receivers perform, are designed, etc..., we will now just throw a bunch of unlicensed devices into the mix!

Disaster in the making... The boat was launched without the necessary seaworthiness passengers expected, the mechanics have been working on endless modifications since the launch, and another storm is brewing. A tsunami in the making? Maybe the perfect storm?

Senate Commerce Committee Chairman Ted Stevens (R-Alaska) today introduced the American Broadband for Communities Act of 2006. The Act frees up spectrum not being used by broadcasters for unlicensed wireless devices which would provide communities with wireless broadband and home networking services.

Broadcasters are allocated hundreds of megahertz (MHz) of spectrum to provide television service across the country. But in any one market some of the spectrum goes unused. Some studies have indicated that there is more than 150 MHz of spectrum in Anchorage, Alaska, and Honolulu, Hawaii, that could be used by unlicensed devices for wireless services. Even in large cities like Boston and Chicago it is estimated that nearly 50 MHz of spectrum goes unused.

The bill would allow manufacturers to design unlicensed devices to be operated in the broadcast spectrum not being used by broadcasters. These unlicensed devices would make it easier for companies to offer broadband services to consumers. The devices would be designed to sense their environment and identify what spectrum is in use and would only use portions of the broadcast spectrum not being used by broadcasters.

"Allowing unlicensed operations in the broadcast band could play a significant role in bringing wireless broadband and home networking to more of our citizens by lowering costs, particularly in Alaska where connectivity is so important due to our remoteness," said Stevens.

The American Broadband for Communities Act also directs the Federal Communications Commission (FCC) craft technical requirements for unlicensed devices in the broadcast band that would protect broadcast stations, a proceeding it has already initiated. In addition, the legislation urges the FCC to further establish an interference complaint resolution process for broadcasters.

"I believe that the requirements in the bill will give the broadcasters additional protection while allowing more efficient use of the valuable broadcast spectrum, which is an invaluable public resource," said Stevens.

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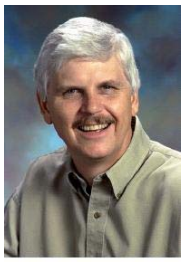
http://stevens.senate.gov/pr_detailed.cfm?prid=333

Regards,
Mark A. Aitken
Director, Advanced Technology
Sinclair Broadcast Group
10706 Beaver Dam Road
Hunt Valley, MD 21030

Verizon, CBS Sign Retrans Deal

From: Craig Birkmaier craig@pcube.com



Telco Verizon and CBS have struck a retransmission-consent deal that includes analog TV-station carriage, digital multicast channels, HDTV, and VOD, both network and local VOD content, primarily news.

Getting VOD play on the telco's FiOS video system will be CSI, Survivor and NCIS, among other shows.

The VOD will be available for no extra cost above FiOS service. Verizon had already been carrying the CBS stations per a "special" agreement. When Verizon launched its video service, it made a deal with CBS to carry its stations in the markets where it was launching.

Verizon says it is the telco's biggest TV station carriage deal to date in terms of number of stations. Verizon already has a carriage deal with NBC and ABC stations.

For the complete story, visit:
http://www.broadcastingcable.com/article/CA6317143.html?display=Breaking+News&referral=SUPP&nid=2228

SBE envisions reshaped EAS

The Society of Broadcast Engineers Jan. 24 told the FCC that the Emergency Alert System is beyond "band-aid" approaches in fixing its ills and must be reshaped using new system architecture and technology.

The SBE comments were filed in response to a commission Final Notice of Proposed Rulemaking on EAS. Reminding the commission that the society has long been involved with EAS and its predecessor, EBS, the trade organization proposed several steps, including:

- Creation of multipoint distribution links from government warning originators to Warning System Origination Points (WARSEPS), to eliminate the broadcast daisy chain
- Adoption of Common Alerting Protocol

  Creation of EAS performance standards
- Elimination of broadcasters as an EAS origination source
- Federal funding and training for a national system
- Mandating electronic devices to have a warning capability.

As part of its filing, the society recommended that the United States first needs a strategy to warn the population of emergencies, like that presented in the Oct. 25, 2004, comments of the Partnership for Public Warning.

With such a strategy in place, one federal agency should manage and coordinate warning responsibilities, including EAS. According to the filing, the FCC should have a role in this agency to coordinate compliance issues.

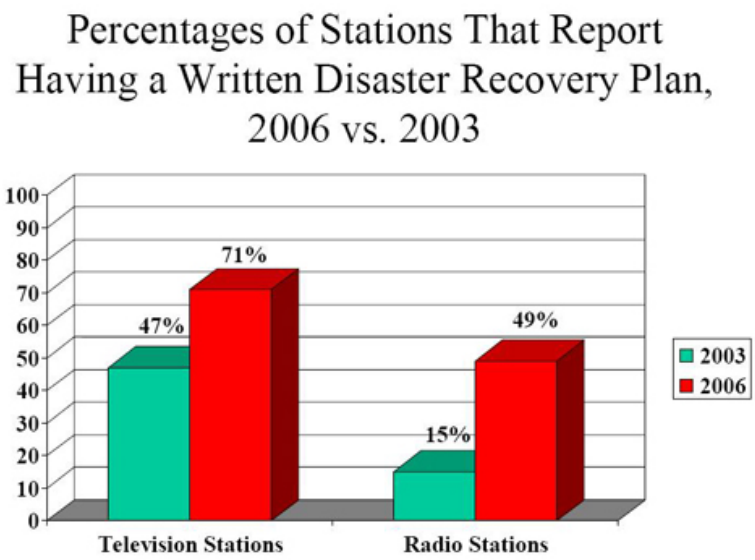
The society urged the commission to mandate the "E-Chip" for digital receivers. According to the filing, the E-Chip would make the issue of voluntary or mandatory compliance "almost moot in the digital broadcasting domains."

Another benefit of the E-Chip approach is taking warnings out of the main program stream, which would remove much of the "testing and other duties" that currently hinder the willingness of broadcasters to comply voluntarily.

For more information, visit www.sbe.org.

Broadcasters Beef Up Disaster Recovery Plans

NAB announced recently that radio and television stations are significantly more prepared to respond to disasters than was the case three years ago. An internal survey conducted between February 21 and March 3, 2006 assessed the current state of emergency preparedness of local radio and television stations.



Source: *NAB Research & Planning surveys of stations, May 2003 and February 2006.*

"Based on our survey, we estimate there are now over 800 television stations and more than 6,000 radio stations with a written disaster recovery plan," said NAB Vice President of Research and Planning David Gunzerath. "That represents more than a 50 percent increase in the number of television stations who reported having such plans in 2003. Over the same period of time, the number of radio stations with such plans has more than tripled."

"Local radio and television broadcasters are uniquely positioned to disseminate vital, often life-saving, information during times of crises," said NAB President and CEO David K. Rehr. "Never was that more apparent than this past year, when broadcasters went to extraordinary lengths to stay on the air before, during and after Hurricane Katrina. It is a role broadcasters take seriously and strive to fulfill every day in communities across America."

Bush Proposes Tax On Wi-Fi, Unlicensed Spectrum

By Jeffrey Silva

President Bush, facing a huge budget deficit, in early February proposed squeezing more money from the nation's airwaves by supporting legislative changes that would allow the Federal Communications Commission to set "user fees" on "un-auctioned" radio spectrum.

The proposal, contained in the president's 2007 budget plan and projected to raise $3.6 billion during the decade, is believed to be aimed at unlicensed frequencies used for Wi-Fi and other applications.

It's unclear whether the "user fee" tax would be paid by equipment vendors or end users.

"Spectrum assignment policy has not kept pace with the changing market. Service providers using different technologies to deliver a similar product can face different spectrum license acquisition costs," the budget stated. "The lack of parity in spectrum assignment creates incentives that can diminish the overall utility of the spectrum."

Bush's $2.77 trillion spending package proposes $302 million for the FCC in fiscal 2007. Most of the agency's budget would be underwritten by regulatory fees.

Bush again called for the elimination of the Telecommunications Development Fund, describing it as "a poorly performing venture capital enterprise financed by interest earned on spectrum auctions." The TDF was included in the 1996 telecom act, whose ten year anniversary is Wednesday.

UPDATE: White House denies Wi-Fi tax; satellite, taxi companies could face spectrum fees

The Bridge DBS Data

DBS Penetration by DMA 3Q2005

DMA	DMA Code	DMA Rank	DBS Penetration
New York	501	1	14.72%
Los Angeles	803	2	23.64%
Chicago	602	3	17.97%
Philadelphia	504	4	9.50%
Boston(Manchester, NH)	506	5	9.73%
San Francisco-Oakland-San Jose	807	6	17.86%
Dallas-Fort Worth	623	7	32.19%
Washington, DC (Hagerstown)	511	8	22.09%
Atlanta	524	9	30.61%
Houston	618	10	21.84%

From THE CGC COMMUNICATOR

CGC #722
INSIDE THE APPLE iPod NANO

Technology Review magazine has taken a look inside the iPod Nano, Apple's flashy new toy. The magazine voided the warranty so you don't have to.

http://www.technologyreview.com/InfoTech/wtr_16058,294,p1.html

CGC #723
CELL TOWERS CANNOT BE BANNED ON AESTHETIC GROUNDS ALONE

This unanimous decision of the U.S. 9th Court of Appeals is being hailed by wireless carriers anxious to build out their networks, even if the proposed structures run cross-grain to local aesthetic concerns.

http://tinyurl.com/b8scg

WTB IS READY TO UNLEASH "AUTO-TERM"

By this Public Notice, the FCC's Wireless Telecommunications Bureau announces again it will add a new feature to the Universal Licensing System (ULS) on February 1, 2006. The feature is called "Auto-Term," and it automatically terminates certain instruments of authorization.

http://hraunfoss.fcc.gov/edocs_public/attachmatch/DA-06-45A1.doc

CGC #728
"DATE CERTAIN" FOR DTV TRANSITION MAY NOT BE SO CERTAIN

A clerical error on Capitol Hill is believed responsible for a $2 billion spending difference between the House and Senate versions of the budget reconciliation bill recently signed by President Bush, and it could derail the "date certain" of February 17, 2009 for conversion to digital television.

Neither legislative branch is inclined to revisit the highly controversial legislation, so if the error can't be corrected by another means, it could pose a threat to and/or a potential delay in efforts to release analog TV spectrum for future use by public safety.

http://broadcastengineering.com/newsletters/bth/20060227/#dtvdtv

MEDIA BUREAU ANNOUNCES NEW FEATURES IN CDBS

The FCC's Media Bureau has added several features to its Consolidated DataBase System (CDBS). The new features include:

o A new CDBS webpage and expanded user assistance,

o Electronic filing for various "non-form" submissions,

o Improved security and FRN management, and

o Procedures to announce changes to the database.

The FCC indicates that these improvements will make for "more reliable, secure and responsive CDBS performance."

http://hraunfoss.fcc.gov/edocs_public/attachmatch/DA-06-472A1.pdf

LEONARD KAHN FILES SUIT

Leonard Kahn and Kahn Communications, Inc. have filed suit against iBiquity Digital Corporation, Lucent Technologies Corp. and Clear Channel Communications, Inc. The second URL takes you directly to the "Wrath of Kahn" website:

http://www.rwonline.com/dailynews/one.php?id=8625
http://www.wrathofkahn.org/default.php

CGC #730

SKYPE GAMBLING ON WIRELESS VoIP AS THE NEXT BIG THING

Santa Clara's Netgear Inc. is building a Wi-Fi phone that can make VoIP calls via Skype from any wireless hotspot, such as those commonly found in a growing number of business districts as well as popular coffee houses. Calls placed via Skype rather than cellular are free in some instances, but the ability to make such calls will be significantly limited unless citywide Wi-Fi networks are deployed.

http://tinyurl.com/jt5jg

News In Brief

From: Lee Woods, Chief Engineer KOIN-TV

1. Make the most of the '20Mb/s pipe' today, or face uncertainty tomorrow S. Merrill Weiss, winner of the NAB2006 Television Engineering Achievement Award, advises to use the full potential of the 6MHz DTV channel bandwidth today or else. (Broadcast Engineering)http://broadcastengineering.com/newsletters/hd_tech/20060321/Weiss-award-winner-20060321-20060321/

2. Interest in HD, flat panels boosts TV sales revenue in 2005, sales of LCD TVs were up 137 percent when compared to figures from 2004. (Broadcast Engineering) http://broadcastengineering.com/newsletters/hd_tech/20060321/hd-revenue-panel-20060321/

3. Consumers Choose Dell's 50-inch Plasma HDTV in Four-City, Head-to-Head Competition with Panasonic (Business Wire via Yahoo News) http://biz.yahoo.com/bw/060321/20060321005546.html?.v=1

4. A third HD format for DVD emerges (Broadcast Engineering) http://broadcastengineering.com/news/highlights/format-hd-dvd-20060320/

5. Red laser-based optical HD format debuts at CeBIT NME last week announced the world's first red laser HD optical disc solution. (Broadcast Engineering) http://broadcastengineering.com/newsletters/hd_tech/20060321/Red-laser-optical-20060321/

6. Dolby Showcases Newest Broadcast Solutions for Tomorrow at NAB 2006 In addition to the newest Dolby products, Dolby Media Producer will also be showcased (Broadcast Newsroom) http://www.broadcastnewsroom.com/articles/viewarticle.jsp?id=38338

7. Light Emitting Diode (LED) technology and its impact on DLP television applications (Digital TV Designline via Planet Analog) http://www.planetanalog.com/features/showArticle.jhtml?articleID=183701350

8. Nano-TV enters the flat-screen fray [Carbon Nanotube] (Melbourne, AU Age) http://www.theage.com.au/articles/2006/03/21/1142703346701.html

9. DTV Station Status DTV Station Status per FCC CDBS - March 20, 2006 (TV Technology) http://www.tvtechnology.com/dlrf/one.php?id=1221

10. Standing vigil for analog TV Run for the hills, Feb. 17, 2009, is the day of the apocalypse. This is the day that will affect almost every American household, as it's the drop-dead date for analog television to go the way of the dodo bird. This

threat has been hanging over the broadcast industry for about 10 years now and has been pushed back in the past, but this time President Bush officially signed legislation calling for this "hard date" for the official cutoff. (United Press International via PhysOrg) http://www.physorg.com/news12013.html

11. Cuban Predicts High-Def Net 'Survivor' HDnet founder and Internet billionaire Mark Cuban predicts that within five years every household will have a high-definition set, but that not every network will be able to make the switch (Broadcasting & Cable) http://www.broadcastingcable.com/article/CA6318190.html?display=Breaking+News

12. Strategy Analytics Views DTV Transition as Pay TV Windfall (TV Technology) http://www.tvtechnology.com/dlrf/one.php?id=1213

13. Men, women willing to sacrifice for HD plasma, says survey Findings of a Roper Public Affairs poll sponsored by Pioneer Electronics finds men and women who said they'd go to surprising lengths for an HD plasma display. (Broadcast Engineering) http://broadcastengineering.com/news/highlights/sacrifice-sacrifice-sacrifice/

14. Sony Steps Into 2006 JN reports on Sony's 2006 lineup, including that shiny, new Blu-ray player! (Ultimate AV) http://www.guidetohometheater.com/news/032106sonylineshow/

15. Toshiba delays HD-DVD rollout (Hollywood Reporter via Reuters / Westfall Weekly News) http://today.reuters.com/news/newsArticle.aspx?type=industryNews&storyID=2006-03-23T115131Z_01_N236372_RTRIDST_0_INDUSTRY-TOSHIBA-DC.XML&archived=False http://www.newsone.ca/westfallweeklynews/stories/index.php?action=fullnews&id=163088

16. Warner HD DVDs Officially Delayed; LG To Build Dual-Format Player HD DVD titles to trickle out starting April 18th; LG Electronics to offer Blu-ray/HD DVD combi player this fall; Disney to support HD DVD? (Ultimate AV) http://www.guidetohometheater.com/news/031906hddvd/

17. First HD-DVD players due to go on sale (Digital TV Group) http://www.dtg.org.uk/news/news.php?class=countries&subclass=0&id=1558

18. Two Stations Want To Pull Analog Plug The FCC's Media Bureau has received two more requests from stations that want to "flash-cut" to digital-only broadcasts, pulling the plug on their analog channels and going all-digital before the 2009 deadline. (Broadcasting & Cable) http://www.broadcastingcable.com/article/CA6318479.html?display=Breaking+News

19. Sinclair To Carry The Tube As it looks to ramp up its digital broadcast offerings, Sinclair Broadcast Group is signing on to carry music-video service The Tube Network Television on its TV stations. (Broadcasting & Cable) http://www.broadcastingcable.com/article/CA6318194.html?display=Breaking+News

20. The Year of HD Start leveraging HD content now to sell more HDTV (Dealerscope) http://www.dealerscope.com/doc/285985080363708.bsp

21. Klegg Electronics Launching Large Screen High Definition Media PC Television Comprising Windows XP Media Center Edition and Wireless Keyboard (Market Wire via Yahoo News) http://biz.yahoo.com/iw/060324/0114495.html

22. Extra costs a worry for next-gen DVD adoption Consumers about to face a confusing and expensive choice between two conflicting standards for high-definition DVDs will face further costs to upgrade their entertainment systems if they want to enjoy all the benefits of the new movie players. (Reuters / CNET News.com)
http://today.reuters.com/news/newsArticle.aspx?type=technologyNews&storyID=2006-03-24T133515Z_01_N23354348_RTRUKOC_0_US-MEDIA-BLURAY.xml&archived=False
http://news.com.com/Extra+costs+a+worry+for+next-gen+DVD+adoption/2100-1041_3-6053510.html?tag=nefd.top
23. HDTV DVD Players: Can the Studios Be Trusted? [Phillip Swann] Millions of high-def owners could get a sub-par picture if the studios include anti-copying software in new discs. (TVPredictions.com) http://www.tvpredictions.com/hdplayers032306.htm

24. Format Fight Dims Future For Hi-Def DVD Players (Hartford, CT Courant) http://www.courant.com/features/home/hc-hunt0324.artmar24,0,4838285.column?track=rss

25. NAB-HD Station Powered by Sundance Digital's Titan Automation Powerful, multi channel Titan automation will mark its second year at the heart of NAB-HD (Broadcast Newsroom / HD Issues) http://www.broadcastnewsroom.com/articles/viewarticle.jsp?id=38394 http://www.hdissues.com/articles/viewarticle.jsp?id=38394

26. ATI projects 60% on-year digital TV chips growth, TSMC said to benefit (DigiTimes) http://www.digitimes.com/bits_chips/a20060324PB203.html

27. China's CCTV launches HDTV service (Digital Media Europe) http://www.dmeurope.com/default.asp?ArticleID=14336

28. FCC Releases Second Further Notice of Proposed Rule Making on Children's Television Obligations of Digital Television Broadcasters. Second Further Notice Of Proposed Rule Making http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-06-33A1.doc e]

29. TV going off the air At least, analog signals, which are scheduled to expire by 2009 (Cleveland, OH Plain Dealer) http://www.cleveland.com/business/plaindealer/index.ssf?/base/business/1143456906209490.xml&coll=2

30. Looking Ahead [Dale Cripps] Without notice my HDTV died. What is there to do but turn misfortune into good so I decided that I would bite the bullet and 'YIPPY YAHOOO!' get a new HDTV with all those new goodies, like HDMI (and a bigger screen)and 1080p. I'm excited again! (HDTV Magazine) http://www.hdtvmagazine.com/articles/2006/03/looking_ahead.php

31. Ultimate HDTV buying guide Everything you need to know before shopping for an HDTV, from DLP to HDMI. (CNET) http://www.cnet.com/4520-7874_1-5108580-1.html?tag=promo

32. How about a new HDTV for next season's shows? (Consumer Reports via Seattle, WA Times) http://seattletimes.nwsource.com/html/makeitcount/2002887321_consumerreports26.html?syndication=rss

33. Editors' Top Televisions HDTVs larger than 60 inches are as American as extended-cab pickup trucks and the Super Bowl. (CNET) http://reviews.cnet.com/Home_video/4521-6531_7-6429656-4.html?tag=cnetfd.noflash

34. The Dawn of High-Def DVDs Karen Raugust looks at the two high-def DVD formats, HD DVD and Blu-Ray Disc, set to launch this spring and how it will affect the home entertainment industry. (Animation World Network) http://mag.awn.com/index.php?ltype=pageone&article_no=2830

35. The Schubin Report [MP3 Audio] (Television Broadcast) http://www.theschubinreport.com/TSR/theschubinreport.mp3

36. HDTV Magazine Releases The State of HDTV Technology, 2006 Review, and CES Report The highly anticipated HDTV Technology Review 2006, by Rodolfo La Maestra, is now available in both a PDF downloadable file for immediate access or a printed version deliverable within days. The report is a comprehensive (and searchable) desk reference detailing all existing and near-future HDTV technologies and H/DTV products. (PR Web) http://www.prweb.com/releases/2006/3/prweb364939.htm

37. Hollywood Discards Downscaling (DVD-Recordable) http://www.dvd-recordable.org/Article2560.phtml

38. Panasonic to roll out Blu-ray player in September Panasonic said on Tuesday it will start selling a Blu-ray high-definition disc player in September for under $1,500 and sees up to 5 million of these new DVD players sold industry-wide in their first year. (Reuters) http://today.reuters.com/news/newsArticle.aspx?type=technologyNews&storyID=2006-03-29T132617Z_01_N28173361_RTRUKOC_0_US-MEDIA-PANASONIC-BLURAY.xml&archived=False

39. UpdateLogic(TM) Launches Software Distribution Service for Digital TV Devices (RedOrbit) http://www.redorbit.com/news/technology/446635/updatelogictm_launches_software_distribution_service_for_digital_tv_devices_updatetvtm/index.html?source=r_technology

40. UpdateLogic(TM) and PBS National Datacast Partner to Deliver Software Updates to Digital Television Devices National Datacast to Provide Nationwide Data Broadcasting For UpdateLogic's UpdateTV(TM) Digital Television Solution (Business Wire via Yahoo News / RedOrbit) http://biz.yahoo.com/bw/060328/20060328005374.html?.v=1 http://www.redorbit.com/news/technology/446618/updatelogictm_and_pbs_national_datacast_partner_to_deliver_software_updates/index.html?source=r_technology

41. New C2-7300 HDTV Processor Offered From TV One HD video processor with full HD-SDI audio embedding and extraction, supporting up, down and cross conversion (Broadcast Newsroom / HD Issues) http://www.broadcastnewsroom.com/articles/viewarticle.jsp?id=38489 http://www.hdissues.com/articles/viewarticle.jsp?id=38489

42. Industry Needs To Explain End Of Analog TV Washington— Establishment recently of the Feb. 17, 2009, hard date for the end of U.S. analog television broadcasting has created an urgent need for a cross-industry consumer education campaign to avoid chaos and confusion among consumers that still rely on over-the-air broadcast signals. (This Week in Consumer Electronics) http://www.twice.com/article/CA6319021.html

43. FCC, CEA Push Analog TV Cutoff Education Washington— The Federal Communications Commission (FCC) is calling for a concerted effort to educate consumers on the analog TV cutoff and, separately, the Consumer Electronics Association (CEA) announced a new voluntary effort at retail. (This Week in Consumer Electronics) http://www.twice.com/article/CA6319024.html

44. Break Out the Lawyers, It's Congress, Again! [The Masked Engineer: Mario Orazio] (TV Technology) http://www.tvtechnology.com/features/Masked-Engineer/2006.03.24-f_mario.shtml

45. NAB-HD Shows How HD is Done LAS VEGAS: After a rocky first year, the NAB-HD pavilion plans to come roaring back to life with a new goal: to serve as a large, fully operational, true high-definition broadcast station that demonstrates the possibilities of live HD television. (TV Technology) http://www.tvtechnology.com/features/news/2006.03.24-n_NAB_HD_shows.shtml

46. Newsrooms Size Up the Acquisition Battlefield File-based workflows, HD key factors as stations switch out cameras (Broadcasting & Cable) http://www.broadcastingcable.com/article/CA6318927.html?verticalid=311&industry=Special+Report&industryid=1025

47. Stations Build Virtual Duopolies CW, My Network TV sign deals with digital affiliates (Broadcasting & Cable) http://www.broadcastingcable.com/article/CA6318929.html?display=Syndication

48. Akimbo and HDNet Team to Deliver High Definition Programming Via the Internet Titles From HDNet's Library available for Download on Akimbo for Media Center (Business Wire via Yahoo News) http://biz.yahoo.com/bw/060327/20060327005327.html?.v=1

49. CEA: Digital TV To Surpass Analog In 2006 Washington — The digital television revolution is complete. For the first time since the arrival of the first DTVs in 1998, the majority of TVs shipped to U.S. retailers this year will be digital, according to a study released today by the Consumer Electronics Association (CEA). (This Week in Consumer Electronics) http://www.twice.com/article/CA6319020.html

50. Off-Air Digital Antenna Debut At DX Antenna Rutherford, N.J. — DX Antenna, a Funai Electric company, is making available the DTA 700, a low-profile antenna said to provide ultimate reception and outperform traditional products of larger size and cost. (This Week in Consumer Electronics) http://www.twice.com/article/CA6319114.html

51. Sony To Ship $1K Blu-ray Player In July LAS VEGAS — Sony Electronics executives announced that they will launch their first Blu-ray Disc (BD) player, model BDP-S1, in July at "about a $1,000 suggested retail price," and kicked off a pre-order campaign on the unit. (This Week in Consumer Electronics) http://www.twice.com/article/CA6319034.html

52. DVD Wars: The Waiting Game (Motley Fool) http://www.fool.com/News/mft/2006/mft06032724.htm

53. Summary of DTV Applications Filed Updated to March 24, 2006 Federal Communications Commission) http://www.fcc.gov/mb/video/files/dtvsum.html

54. Breakdown Chart of DTV On-The-Air Stations Updated to March 24, 2006 (Federal Communications Commission) http://www.fcc.gov/mb/video/files/dtvonairsum.html

55. DTV Stations Presently On-The-Air (887 Stations) Updated to March 24, 2006 (Federal Communications Commission) http://www.fcc.gov/mb/video/files/dtvonair.html

56. Digital Television (DTV) Stations with Active Special Temporary Authorities (STAs) to Operate (679 Stations) Updated to March 24, 2006 (Federal Communications Commission) http://www.fcc.gov/mb/video/files/dtvstas.html

57. MLS Announces HDNet Broadcasting Schedule for 2006 (OurSports Central) http://www.oursportscentral.com/services/releases/?id=3285768

58. NASA & HDNet Announce High Definition TV Broadcast Partnership (NASA / SpaceRef) http://www.nasa.gov/home/hqnews/2006/mar/HQ_06129_HDnet.html http://www.spaceref.com/news/viewpr.rss.html?pid=19387

59. NFL official scouts NASCAR on FOX for HDTV replay technology NFL director of officiating Mike Pereira is heading to the races. (Associated Press via MSN/FoxSports) http://msn.foxsports.com/nascar/story/5456280?CMP=OTC-K9B140813162&ATT=167

60. NAB-HD 2006 HD is not easy, epscially when you have only days to set up a fully functional television station within a convention center. But NAB-HD wants broadcasters to realize that HD is a reality. (Television Broadcast) http://televisionbroadcast.com/articles/article_1253.shtml

61. HD: It's Staring You in the Face (Television Broadcast) http://televisionbroadcast.com/articles/article_1258.shtml

62. DTV Needs An Analog Hole [Mark Schubin] (Television Broadcast) http://televisionbroadcast.com/articles/article_1261.shtml

63. CEA seeks help in reviewing DTV interface standard (EE Times) http://www.eet.com/news/latest/showArticle.jhtml?articleID=184417020

64. Why your high-def picture may not look as good as it could So the pricey HDTV that knocked your socks off at the store doesn't look nearly as good when you get it home. Here's why--and what you can do to fix it. (Consumer Reports) http://www.consumerreports.org/cro/electronics-computers/why-your-highdef-picture-may-not-look-as-good-as-it-could-306.htm

65. TV broadcasting starts on cell phones in Japan (Asahi Shimbun) http://www.asahi.com/english/Herald-asahi/TKY200603310550.html

66. New Mobile Video Service Gets Cool Reception. Broadcasters are concerned that MediaFLO, a new mobile video service being launched by Qualcomm later this year, will cause significant interference to their analog and digital television (DTV) broadcasts. MediaFLO is scheduled to debut in the fourth quarter, with a nationwide footprint. (Broadcasting & Cable) http://www.broadcastingcable.com/article/CA6321271.html?display=Technology

67. How Could I Have Missed It? [Joel Brinkley] Back in the winter of 1999, I was covering the digital-television transition for the New York Times, and in one article I noted CBS's strategy for broadcasting the upcoming NCAA basketball tournament. (Ultimate AV) http://blog.ultimateavmag.com/joelbrinkley/

68. A&E Has Eye on HD A&E will debut an HD network this fall. (Multichannel News) http://www.multichannel.com/article/CA6321241.html?display=Breaking+News

69. RCN Says YES to Renewal, HD RCN and YES Network reached a multiyear renewal of their carriage agreement. (Multichannel News) http://www.multichannel.com/article/CA6321148.html?display=Breaking+News

70. Make Room for Digital TV: Easy Tips to Design a Media Room for Your Home Forget April showers. It's Tax Month and, as everyone knows, it's April rebates that bring the big sales on consumer electronics, including the hottest "must have" media product of 2006: Digital television (DTV). Furniture.com's lead design consultant offers do-it-yourself solutions to help those looking to make the most of their new digital technologies by creating a media room in their homes. (PR Web) http://www.prweb.com/releases/2006/4/prweb366097.htm

71. Complicated TV choices will get worse (Tucson, AZ Star / Norman, OK Transcript) http://www.azstarnet.com/dailystar/business/122745.php http://www.normantranscript.com/commerce/local_story_092004635

72. A Trio of Widescreen Monitors (Extreme Tech)
    http://www.extremetech.com/article2/0,1697,1945229,00.asp

73. Mitsubishi Harnesses Colored Lasers to Produce New-Generation Lightweight HDTV (New York, NY Times / Gadsden, AL Times)
    http://www.nytimes.com/2006/04/03/business/03hdtv.html?_r=1&oref=login
    http://www.gadsdentimes.com/apps/pbcs.dll/article?AID=/20060403/ZNYT05/604030313/1011

74. First HD DVD Players Released for Sale Buyers get two complimentary HD DVD movies. (Home Theater Magazine)
    http://www.hometheatermag.com/news/033106hddvd/

75. Which Day for this Blu-ray? If the price is right, you can have this one in September. (Home Theater Magazine)
    http://www.hometheatermag.com/news/032906panasonic/

76. Ed's View -- A Parallel World In the vary wee days in television history, back in the late 1800's, one of the first concepts devised for a means to electrically transport images was via parallel wires. In this scheme an image was focused on a small array of crude selenium sensors. Each sensor represented one pixel. (HDTV Magazine) http://www.hdtvmagazine.com/articles/2006/03/eds_view_--_a_p.php

Information & Education

DSL/ADSL/SDSL Basics

What's the difference between DSL and ADSL or is the same thing?

One person says: DSL = upload and download same speed. ADSL = upload and download different speed.

Another person says: DSL is the generic name for either ADSL or SDSL. In ADSL you have two speeds generally, and ADSL is generally residential grade. In SDSL both up/down are the same speed and it's a better quality than ADSL normally.

And yet another person adds: And to add to that, most of the DSL that's commonly available (in the USA anyway--I don't know about the rest of the world) is ADSL. I have ADSL here, and I don't even think that SDSL is a choice.

By the way ADSL stands for Asynchronous DSL (different upload and download speeds) and SDSL is Synchronous DSL (same upload and download speeds).

DTV Training

From: Gary Sgrignoli

They moved up the mid-size DTV set deadline to March 2006 and 13" sets to March 2007, the "plug & play" cable compatibility issue, the "broadcast flag" resolution (kind of), and the DTV translator rules (even the LPTV May 2006 filing window is in sight). 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 are already out). 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, 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!

BTW, if anyone is in need of DTV coverage & interference analysis for their LPTV filing preparation, MSW's BILL MEINTEL (540-428-2308) can help out. Remember that the open filing window is from May 1 - May 12, 2006 , which is just 3 short months away !!!

These day-long digital VSB transmission seminars have been offered around the country for the last 7 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, Boston, Calgary (Canada), Chicago, Champaign (IL), Cincinnati, Columbia (SC), Dallas, Denver, Des Moines, Honolulu, Indianapolis, Kansas City, 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, Topeka, and Washington DC. The plan is to visit new cities as well as to revisit some of the ones mentioned above.

As you may recall, a new, 2nd type of VSB transmission seminar has recently been created that focuses on the types of VSB Measurements that are desired in the laboratory, at transmitter sites, and at remote field sites. Topics covered will include: signal power & jitter measurement theory, laboratory/Tx site/remote field site measurement methodology (including FCC compliance), specific DTV RF parameters to be measured and why, when, and how to measure them, and what type of test equipment to use (including required as well as desirable features and specifications). These new 1-day "VSB Measurements" seminars (also day-long in length) are now being offered in addition to the original 1-day "VSB Fundamentals" seminars (which are considered a prerequisite for these new measurement seminars). These new measurement seminars will be operated in a similar manner as the original seminars, again with corporate sponsors covering the majority of the costs and only modest registration fees for the attendees. Also starting in March is the 1-1/2 day VSB "combo" seminars. That is, they will cover a solid fundamentals review in the first 1/2 day, and then focus on the measurements the

following full day of seminar. Look carefully in the list below to see which seminars are being offered in each city !!!

Upcoming all-day VSB seminars are currently scheduled for:

Topic: VSB Fundamentals
Date: Friday, May 12, 2006
Location: WVPT in in Harrisonburg, VA
Time: 8:30 am to 5:30 pm
Hosts: SBE 78 & WVPT
Sponsors: ERI, Evertz, MRC, R&S, Sundance Digital Automation, ECS, & WVPT

Topic: VSB "Combo" (Fundamentals & Measurements)
Date: Wednesday & Thursday, May 30 & June 1, 2006
Location: WMUR in Manchester NH
Time: 2:00 pm - 6:00 pm (5/30/06); 8:30 am to 5:30 pm (6/1/06)
Hosts: NNEB & WMUR
Sponsors: TBD

Topic: VSB Measurements
Date: Thursday, May 18, 2006
Location: KRMA in Denver, CO
Time: 8:30 am to 5:30 pm
Hosts: SBE 48 & Rocky Mountain PBS
Sponsors: Mod Sci & others TBD

Topic: VSB Fundamentals
Date: Wednesday, June 21, 2006
Location: TBD in Birmingham, AL
Time: 8:30 am to 5:30 pm
Hosts: SBE 68
Sponsors: TBD

In addition to the above confirmed dates, the Knoxville (TN) SBE has voted to host the fundamentals seminar there some time in the late spring. Also, the Albuquerque SBE chapter is trying to book the measurements seminar this summer, and the Pittsburgh SBE chapter is planning to host a combination seminar (1-1/2 day for both Fundamentals and Measurements) in the summer or fall. Scheduling for Atlanta (GA) & New York City (NY) seminars this spring & summer is also happening. These additional seminar dates should be forthcoming in the April seminar newsletter.

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 contact with the appropriate host people before sponsorship opportunities close.

As usual, the modest registration fee for these seminars covers an updated 1-1/4" thick (600-page) detailed seminar notebook as well as lunch. I've attached announcement flyers for the San Diego, & LA, seminars for your reference, which contains contact information and general logistics. If you know anyone wanting to attend such a seminar (e.g. any local station engineers or business clients in the area), please forward this e-mail to them as well as the attached flyer.

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 $50 - $60 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" as well as the new "VSB Measurement" seminars will help those preparing to take the 8-VSB Specialist Certification test that is now offered by the 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 spring & summer 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.

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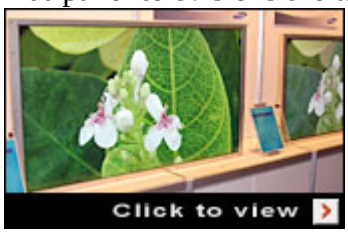
Plasma or LCD? Size matters

By Tom Krazit

http://news.com.com/Plasma+or+LCD+Size+matters/2100-1041_3-6052824.html

Your next television will probably be big and flat. But the industry is divided on what technology you'll choose to improve your view of the world.

Flat-panel televisions are taking over the world, according to executives speaking here at the DisplaySearch U.S. FPD Conference on Wednesday. Old CRT (cathode-ray tube) televisions are quickly becoming obsolete as high-definition LCD (liquid crystal display) and plasma televisions turn heads with high-definition images.



Plasma TVs dominate the market for flat-panel televisions larger than 40 inches, while LCD televisions reign among smaller sets. The line is starting to blur, however, as LCD TVs grow larger and reduce the cost advantage of plasma displays.

LCD televisions are making inroads because the cost of manufacturing LCD screens larger than 30 inches has fallen, said Tim Alessi, director of product development and advertising for LG Electronics. LG, as the world's leading LCD company through its joint venture with Philips, and the second-largest plasma TV company behind Panasonic, is in a unique position to evaluate the competing technologies, he said.

Potential customers who are thinking about purchasing a large television will note the quality of moving images on a plasma screen as well as the wider viewing angle, said Yoshi Yamada, chief executive officer of Panasonic North America. High-definition plasma displays also tend to cost half as much as comparably sized HD LCD displays.

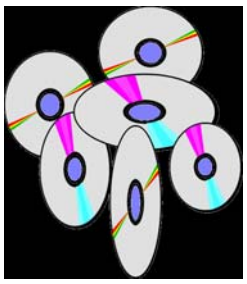
However, LCD panels are lighter, and the cost advantages could disappear in the coming years as technology improves, as it did in the market for LCD monitors and notebook screens.

Plasma should continue to be the choice for sets that are larger than 45 inches or so, while LCD TVs are quickly replacing CRT sets smaller than around 35 inches, Alessi said. The battle lines have been drawn in that middle ground, which coincidentally is expected to be the average TV size toward the end of the decade.

About CDs

Re-surfacing CDs so they work again.

Visit:
http://www.instructables.com/ex/i/2EC632F40B1E1029BC4A001143E7E506/?ALLSTEPS



ARCHIVAL QUALITY GOLD CDs & DVDs TO THE RESCUE

From CGC: Many consumers and businesses will lose valuable data because of the mistaken impression that conventional silver CDs are more or less permanent storage devices. While typical discs may achieve a several year life span (and storing the discs in cool/dark/dry places will extend their lifetimes), genuine archival discs are definitely needed.

One attractive solution to the "data rot problem" is Kodak's new "Preservation CD-R" and "Preservation DVD (-R)" discs. According to the marketing agent for these products, the new discs and CDs use a 100% 24K gold reflective layer and special substrate formulations to yield expected data lifetimes of up to 300 years for the CDs, and 80-100 years for the DVDs.

The following URL for specific info on the new Kodak products: http://www.earthsignals.com/add_CGC/Gold_10_PMA_06.doc

LIFESPAN OF CD-Rs & CD-RWs SAID TO BE AROUND 2 TO 5 YEARS

From CGC: For anyone who's spent an inordinate amount of time burning music and photo CDs, or saving data, here is a disturbing story from IDG News Service via MIT's Technology Review magazine. Those CD-Rs and CD-RWs that were supposed to last a lifetime may only accomplish that task if you are about to kick the bucket. "Unlike pressed original CDs, burned CDs have a relatively short life span of between two to five years, depending on the quality of the CD," [Kurt Gerecke, a physicist and storage expert at IBM Deutschland] says. However, some of the blogs associated with the article suggest that the actual life is highly variable. Data loss or corruption is also known as "bit rot" in some circles.
http://www.technologyreview.com/Blogs/wtr_16140,290,p1.html

The quotation from Kurt Gerecke, a physicist and storage expert at IBM Deutschland, attracted quite a few comments. Most questioned his claim that burn-your-own CDs would last only two to five years, as typified by this response from an Orange County FM broadcaster:

"About five years ago, there was an article in the Los Angeles Times addressing this same subject, once again with an expert saying the shelf life was short. I e-mailed the reporter telling her that we had audio CD-Rs that were 5 years old that still reproduced good audio here at the radio station. Those CD-Rs were burned in 1995. They still sound good in 2006...."

Of course, the definition of disc failure is at the heart of the matter. A retired communications engineer who has looked into archive quality CDs through a "little Googling" notes that music CDs can play "pretty well" [or acceptably to some] with uncorrected bit errors, whereas those same errors might be catastrophic for other applications.

For those interested in accelerated wear testing on CDs, check out the first URL below, and note the outstanding performance of "Silver+Gold, Phthalocyanine" CDs. This paper, from the Journal of Research of the National Institute of Standards and Technology (Sept-Oct 2004), also indicates that it is wise to store CDs in COOL/DARK/DRY places.

In casting about the web, we discovered that that Kodak at one time offered gold and gold/silver phthalocyanine CD-R discs – see the second URL below. However, several calls to Kodak and a Kodak supplier indicate that these discs have been discontinued.

The bottom line is this: The only way to be reasonably safe against both degradation and obsolescence is to copy your data to the latest media every now and then, use

redundancy, have diversity in storage location and technology, and make COOL/DARK/DRY a rule of thumb for storage.

http://www.itl.nist.gov/div895/gipwg/StabilityStudy.pdf
http://www.kodak.com/global/en/service/faqs/faq1630.shtml

HAAT calculator back on line

From: Tom Bosscher tom@bosscher.org

You learn so many things on the Internet. While reading Stan Horzepa's , WA1LOU "surfing" page on the ARRL web site, he states that he received an email from Dale Bickel at the FCC telling him that the HAAT calculator was back on line.

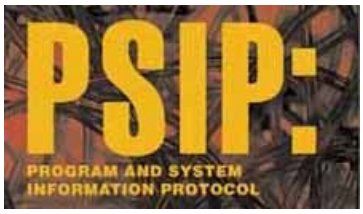
Very useful. But make sure you input in meters, not feet and the result is also in meters.

Stans' page is http://www.arrl.org/news/features/2006/01/06/1/
The direct link to the FCC HAAT calc is:
http://www.fcc.gov/mb/audio/bickel/haat_calculator.html

Thank you's to Dale and Stan
Tom Bosscher

PSIP - Pre-Torino issue

From: John Willkie JohnWillkie@ixpres.com



Time Offset Change -- Effective January 1, the time offset between GPS and UTC was increased from 13 to 14 seconds. The practical implication for PSIP is that all PSIP generators - except for those where the time is synced to a GPS receiver -- need to change GPS_UTC_offset (byte 14 in the System Time Table) to 14. Otherwise, a station will be in violation of the 1 second accuracy requirement under the sub-heading "system_time" on page 23 of ATSC A/65b.

Speaking of time -- I'm seeing issues with daylight savings time settings in STTs transmitted by stations with dynamic and static PSIP. Daylight savings settings is covered in A/65b, Annex A (which is normative). As shown in table A2, at the beginning of the year (or otherwise outside daylight savings time), DS_status = 0, DS_day_of_month = 0 and DS_hour = 0. The latter items only change within "one month" of the daylight savings time change. It's always been a toss up to me as to what this "one month" means when the "month" spans two months. Is it 30 days or 31 days? What I've implemented is this: if the transition takes place on the eighth of the month, DS_day_of_month changes starting with the first second on the ninth of the previous month, which to me neatly deals with any ambiguity at the receiver. I should also point

out that the transition day/time for daylight savings in the U.S., due to Congressional meddling, will be different starting this year than it has been in the past, at least in the United States.

New Rating Region - Judging by the latest version of ATSC's code point registry, the new (optional) rating region, region_number 5, for the United States, is now operational. Implementation on the receiver side will be interesting in the United States and Canada at least, due to granted patent for upgrading rating regions. Funny that I know that, but lack any other details at this time about region 5. I have a dull perception that there are many changes to the PSIP spec pending at the ATSC, but if I knew anything officially about these, I would most likely not be able to mention them.

Quota Utilization - I've attached a partial screenshot of the frontscreen of the EtherGuide Ferret application that many of you will be able to try out within a week or so. The station in question isn't transmitting any Event Information tables. Is the omission obvious enough? For those that saw Ferret in a earlier form, "Quota Utilization" is a new feature.

Positioning Statement -- (first take) EtherGuide Ferret enables any employee of a TV station to clearly see in a single glance if there is a problem with your station's PSIP and PSI and empowers even the most technically adept to quickly drill down to diagnose the extent and cause of the problem.

Fair Warning -- As it currently stands, EtherGuide Prophecy will reject data streams or files from DecisionMark. There are several problems, any of which will cause my PMCP parser to reject them. The currently adopted PMCP specification is 2.0; but DecisionMark lists the schema as being version 1.4. The second problem is that the message header says the originating device is "Listing_service" when PMCP 2.0 lists it as "Listing_Service." There is likely to be other problems as well. Anyone with DecisionMark's ear might want to encourage them to comply with the adopted PMCP specification. When they provide me a file that will pass my PMCP parser, I will trumpet the fact.

Ferret Status - A month or so ago, I was hoping to have a fully working demo (file input only) version of Ferret out the door by this Tuesday. I might make it, but it also appears I might be a day or so late. Right now, I'm finishing up the application's user interface and metadata-to-PMCP conversions. On my laptop computer (1.6GHz) the application processes the toughest (most table sections) transport stream of 180 seconds length in less than 100 seconds, or faster than real time. I don't plan to use a CPU with a clock rate so low, but I always like headroom.

Specifications and Features -- here's a list of partial specifications and features for EtherGuide Ferret:

* Errors clearly flagged, viewable from any distance, with direct listing of the affected MPEG and/or ATSC specification element being violated.

* Extensive, powerful and easy to use graphical user interface.

* Transport stream input via DVB-ASI, 100/1000 Ethernet and file.

* Timing accuracy: better than 1 microsecond.

* Unit securely accessible via the Internet (Internet connectivity provided by others) using any Java-enabled web browser or mobile telephone.

* Processes, presents and times all MPEG-2 public (PAT, CAT, PMT, TSDT) and user private data tables, and all PSIP tables (including ATSC Use Private, Directed Channel Change and Directed Channel Change Selection Code tables, and (provisionally) all PSIP-E tables. Support for non-conflicting SCTE and DVB-SI tables available as options.

* File and socket output of all tables via PMCP 2.0 interface (and EtherGuide extensions to the PMCP schema for tables and situations outside the PMCP schema.)

* User can select between decimal and hexadecimal numeric displays of all relevant figures on a screen-by-screen basis using context-sensitive menu.

There is more. The fun part is that aside from DVB-ASI in/out, all of the above is working today in one fashion or another. This on an application that I only started working on in earnest in December. Once I have the DVB-ASI interface working, I'll be able to finish work on the Emissary (PSIP generator) component and release the whole EtherGuide Prophecy suite.

Best Regards
John Willkie

Test Equipment for HD Radio

From: Lowell Kiesow kiesowle@plu.edu

Everything that follows applies to HD for FM, not AM.

The test equipment needed for HD depends entirely on the combining method. Where the HD and analog RF signals share the same coaxial "pipe" to the antenna, then you need a spectrum analyzer with appropriately narrow resolution bandwidth, for setting carrier ratios. A spectrum analyzer should also be used at system startup, to check for spectral re-growth. If I were going to buy one thing, it would be an SA.

Where HD and analog RF do not share a common pipe to antenna(s), then you'll need a Wattmeter capable of accurately reading the RMS value of the complex HD signal: for

example, the Bird BPM series. Also needed is a conventional Wattmeter for measuring analog power.

Some kind of receiver, capable of playing the analog and HD signals simultaneously is required to time align the two. Kenwood car radios and the Day Sequerra receivers work fine for that. Using two separate receivers for time alignment does not work.

Beyond that, test gear to monitor the health of AES-3 digital audio is handy, but certainly not required. Measuring modulation, in the conventional sense, is irrelevant in the world of digital.

That's about it for HD test gear. Nothing else is required.

Lowell Kiesow, Chief Engineer KPLU 88.5, KVIX 89.3, KPLI 90.1
Pacific Lutheran University Tacoma, WA 98447

DTV STATIONS AUTHORIZED TO BE ON THE AIR

February 1, 2006

CATEGORY	# DTV STATIONS ON AIR	# DTV CHANNELS	% ON THE AIR	WITH LICENSED FACILITY OR PROGRAM TESTS	WITH STAs
TOP 30 MARKET NET AFFIL.	119	119	100%	110	9
OTHER COMMER.*	1108	1230	90%	510	598
NC EDU.**	334	373	89.5%	236	98
TOTAL	1561	1722***	90.6%	856	705

* May 1, 2002 Build Out Deadline
** May 1, 2003 Build Out Deadline
*** This new total (1722) includes single-channel DTV operations

Features, History & Opinions

People have so much valuable (often irreplaceable) content on their PCs (desktop and notebooks) today that not backing up is more risky than ever before.

Whether it's for a small business network, personal PC or notebook; NTI's BackupNOW! Deluxe Suite is currently the only software that provides both full image backup and individual file/folder backup.

By beefing up the full image backup and individual file/folder backup capabilities with Email and Profile Backup/Recovery tools, folks can quickly create backups of their important emails and critical data files or their complete hard drive. That means you can quickly recover individual files that have been lost or restore the entire system to its prior state.

Of course NTI's BackupNOW! Deluxe Suite isn't for everyone. Just for PC users who have valuable stuff on their system.

Know people like that?

Andy Marken
Santa Clara, CA 95054
(408) 986-0100
andy@markencom.com

Toward digital TV

From: John Shutt shuttj@yahoo.com

The UK DTV model started with OnDigital that put tens of thousands of subsidized boxes into the hands of individuals, who got to keep them after OnDigital's demise.

DTV uptake in the UK after OnDigital's demise, and other places, is enhanced by the ability to receive additional programming that cannot be received via analog FTA. No such stimulus is offered here in the US (because in most cases the additional programming is subsidized by TV License fees) so there is no incentive for the average OTA viewer to buy an STB. (The very few HD display owners who rely exclusively on OTA excepted.)

Until the US offers "DTV Exclusive" programming, it will take an analog cutoff to provide any incentive to buy digital STBs.

Would this situation been different had the US adopted the Sinclair petition? In my opinion YES because broadcasters such as Papas and Sinclair would have been touting

DTV much more than they did, and networks would have been looking for ways to leverage more profit by offering DTV exclusive derivative multicasts of their cable brands. (ESPN/Disney for ABC, News for NBC, MTV for CBS, and movies for Fox)

Further, the CEA manufacturers would have been swamped with competition for STBs by European and Asian manufacturers, since the designs could be so similar (I simply point to Australia as an example.) As it stood, nobody wanted to build an STB in 1999 when the PSIP standard, the E-VSB standard, and the echo tolerance ability was still in flux. Making a box prior to 2004 was tantamount to making an obsolete product before it even left the factory floor. Not true with DVB-T, with the exception of the 2K only former OnDigital boxes.

As it is, the entire industry has been in a holding pattern waiting for the 1999 promises of operational receivers to be fulfilled. As exampled by the prototypes that have been tested by Bob Miller, even 2005 STBs fail to live up to the LG prototype, so there still is something else to be solved. Maybe it will never be commercially solved to the M. Schubin site standard.
John

KOMO trip

From: Chuck Pharis chuck@pharis-video.com

This is a really beautiful camera. RCA TK-41A. Made in 1955 or 56. Had a great trip - 2 1/2 days, and about 1,200 miles: Seattle to Los Angeles. It made it to my garage safe and sound.

It is 98% complete, and will be the one I will restore to working condition. KOMO had two of these. They got them in 1956. This is C-1.

I am investigating its history, and will put the information on my web site next month. It came as shown. No support equipment, but I have one complete set here from KTLA. This is a three cable camera.

The car dealership in Seattle who owned this camera was sold. The new owner did not want it. He contacted KOMO Tv and offered it to them for free! Get this: they did not want it AHHHHHHHHHHHHHHHHHHHHHH! SO it's now mine! More photos and information soon!

Hello ALL from Detroit
This year's Super Bowl
More from: Chuck Pharis chuck@pharis-video.com

I took these photos of the control room, audio room, video room and video tape. All the photos were taken Sunday afternoon. You might enjoy seeing what it looks like in the tv trucks four hours before the game!

Everyone was out to lunch. A rare, quiet moment here on game day! There are really many control, audio, tape and video rooms, but these are the main ones. It's about 28 degrees here, and in the teens with the wind chill.

Hope you enjoyed the game!
Chuck Pharis

The much anticipated HDTV Technology Review 2006,
by Rodolfo La Maestra, is now available!
http://www.hdtvmagazine.com/reports/hdtv-technology-review.php

You might think you have the whole story about HDTV until you thumb through its amazing 207 fact-filled pages. This report is a comprehensive (and searchable) desk reference detailing to the Nth degree all existing and near-future HDTV technologies and H/DTV products. The report provides a clear explanation of the present and emerging HDTV technologies incorporated in these products as well as a seasoned assessment of their respective strengths and weaknesses and their likely market successes or failures. From politics to markets, the report unerringly delivers the entire state of the H/DTV industry.

If you are a professional in television, movies, displays, distribution or any part of the retail chain, you owe it to yourself to own a copy. If you are a passionate evangelist for HDTV from any of the diversified business or cultural sectors, this report is perfectly suited to you. And those consumers who demand the best in information need look no further, for they have found the mother lode in this report.

It's a bargain, plain and simple.

http://www.hdtvmagazine.com/reports/hdtv-technology-review.php

We have several sections of this year's report available at absolutely no cost whatsoever:
* Introduction & Table of Contents
* 1080p into HDTV Displays
* Digital Connectivity - Tutorial
* Glossary of H/DTV Terms

Also available are the complete 2003, 2004, and/or 2005 Reports ... each at no cost:
* State of HDTV Technology and CES 2005
* State of HDTV Technology and CES 2004
* State of HDTV Technology and CES 2003

Enjoy,

- Dale & Shane
HDTV Magazine

NEW FCC COMMISH

From: Ernie Belanger armtx@mhcable.com

Regardless of your feelings about President Bush no one can disagree with the fact that he certainly takes care of his friends.

FCC Chairman Martin finally gets a third Republican vote.

Rob McDowell wins the White House nod as the next nominee to the Commission. He's a communications attorney who worked for the Bush-Cheney team during the 2000 Florida vote recount and for Bush's 2004 re-election campaign. Right now McDowell is the senior VP at lobbying group Comptel - which specializes in the Telco sector.

Say Goodbye to 8-VSB

From: Bob Miller bob@viacel.com

Say goodbye to 8-VSB South and Central America that is.
http://www.telegeography.com/cu/article.php?article_id=10777

As Brazil goes so goes South and Central America. Where have I heard that before? And I predict that Mexico will switch to or allow COFDM also. May be a few years.

Bob Miller

VOIDING AUTOMATIC TERMINATION OF BROADCAST AUXILIARY LICENSES ON 2/1/06

A special report by Chris Imlay, SBE General Counsel

(Revised 1/23/06)

A number of issues were raised by the FCC almost a year ago in a January 21, 2005 Declaratory Ruling ("DR") regarding automatic terminations of wireless radio service authorizations in the Universal Licensing System (ULS). SBE has since that time attempted to clarify the applicability of this DR to broadcast Auxiliary (BAS) facilities. We received the necessary clarifications orally from FCC staff long ago, but FCC has been unwilling to clarify for broadcasters generally (by a revised public notice) the means necessary to protect Broadcast Auxiliary Service (BAS) licenses from cancellation. This is a basic "primer" For those of you who have limited experience with the FCC's ULS, there are some issues you *must* know about ***right now, to avoid automatic cancellations starting February 1, 2006***.

I. Background

On January 21, 2005, the FCC issued its DR in Docket 05-23, which stated that, as of July 1, 2005, it would automatically terminate and delete from the ULS any wireless

radio service authorization for which not notification of completion of construction had been filed. Part 74 facilities were not among the radio services listed as affected by this automatic termination provision. Section 1.901 of the FCC rules, however, does include Part 74 BAS facilities among the "wireless radio services." This issue made it necessary to clarify the applicability of the automatic termination provisions. So, SBE filed on February 21, 2005 a Request for Clarification of the DR, asking whether the DR applied to Part 74, and other clarifications. In addition, SBE representatives met with FCC Gettysburg staff in February of 2005 to ask the same questions. Broadcast engineers deserve to know how to avoid termination of their stations' BAS licenses before the automatic termination provisions became effective.

The FCC issued a *Public Notice* on May 25, 2005 (DA 05-137) postponing the effective date of the automatic termination provisions in the ULS until Fall of 2005, in order to allow licensees some time to submit late-filed notifications of completion of construction of licensed facilities, together with requests for waiver of the notification deadline. These are commonly known as "NT" filings, the code used in the ULS for Notification of Completion of Construction.

SBE representatives met with the FCC's Wireless Bureau staff in June of 2005, to discuss the SBE Clarification Request. SBE explained that if the Commission would simply issue a clarification public notice, that was all that would be necessary. FCC agreed to do this. The FCC further postponed the implementation date of the automatic termination provisions due to the disruption of broadcast operations due to Hurricanes Katrina, Wilma and Rita. Ultimately, the Commission postponed the implementation of automatic terminations until February 1, 2006. In its December 20, 2005 *Public Notice* announcing this latest postponement, the FCC stated as follows:

The…automated feature in (the)…ULS for all Wireless Services that will identify those licenses, locations or frequencies for which a timely notice of completion of construction or a request for an extension of the construction or coverage period has not been filed by the required deadline. Where the Wireless Service includes construction or coverage requirements and the licensee fails to submit a notice of construction or request for an extension in a timely manner, ULS will both notify the licensee that its license, location or frequency has automatically terminated and will list the license, location or frequency on a weekly public notice as automatically terminated.

Clearly, this is not something a BAS licensee can afford to have happen. FCC's public notices have not significantly clarified the obligations of BAS licensees. Here are some important points about the process.

II. Are Part 74 Facilities Included in the Automatic Termination Provisions?

Yes. The FCC finally made that clear in the December 20, 2005 *Public Notice*, though it was not at all clear in the DR. Part 74 is in fact one of the radio services affected by the DR and subject to the automatic termination provisions if the notification of completion of construction is not timely filed and if a Petition for Reconsideration is not timely filed if an authorization is terminated for non-compliance with the notification obligation. The

inclusion of Part 74 is mandated by the original ULS Report and Order, FCC 98-234, released October 21, 1998. Though that is far from clear in the DR, there is no doubt now about the inclusion of Part 74 as one of the wireless services that are subject to the provisions of the DR.

III. When Do I Have To File An NT For A New Or Modified BAS License?

The rule is that you must file an NT after completion of construction of a BAS license where a frequency is added, deleted, or changed. Therefore, a licensee has to file an NT for any new BAS license. As to modified facilities, if the frequencies are not changed, it is not necessary to file one. The only BAS (or other) facilities that are subject to the Notification of Completion of Construction obligation are those in which frequencies are added or modified. Most Aural and Television BAS facilities are given an 18 month construction period, within which time an NT must be filed. However, RPUs and Low Power Auxiliary facilities are given only 12 months to construct and within which an NT must be filed. Note, by the way, that if you delete a frequency from a license, you actually have to file an NT after the modification application is granted, or else the deleted frequency comes back! Notwithstanding the FCC's informal guidance here, the best practice is to file an NT for any new or modified BAS facility before the end of the construction period, and as soon as the new or modified facility is complete. Filing an NT is extremely easy in the ULS compared to other FCC filing requirements in either the ULS or the CDBS, and the safest thing is always to file, rather than risk an automatic termination, which starts February 1, 2006.

IV. What is the status of BAS Modification Applications When an NT is not Filed for the Modified Facilities?

SBE expressed concern to the FCC about the status of a licensed BAS facility that is subject to a granted application for modification, but for which an NT is necessary but not timely filed. This was clarified by the WTB Gettysburg staff as follows: If an application for modification of a licensed BAS facility includes a change in frequencies, an NT is required. If the NT is not timely filed, *the license will revert to the prior licensed status* in the database and the modification will disappear. **Apparently, however, there have been differing opinions by FCC staff expressed to others. Do not rely on this to preserve your BAS license!**

V. Beware! ULS Records do not reveal old and proposed new facilities!

For Aural and TV BAS fixed links, as soon as a modification application for an existing fixed BAS facility is granted, the old record disappears from the ULS, and only the proposed new facilities show up. Since there is an 18-month construction period for new and modified BAS licenses (except that RPUs and Low-Power Auxiliary stations are given 12 months only), and since it is necessary to ensure that an existing but not yet changed path is properly protected from other incompatible applications (especially given the new Prior Coordination Notification requirements for fixed BAS facilities), there should be protection of both old and new facilities during the modification period. ***This cannot be done under current FCC ULS protocols***. It is unreasonable (since, for

example, new studio construction and modified STL construction could take the better part of the 18 months authorized) to delete the old licensed facilities in the ULS before the end of the construction period for BAS licenses. SBE understands that this will be addressed in ULS upgrades sometime in the future. Because this matter has not been resolved, however, the FCC staff suggests that an applicant should *not* modify a fixed BAS facility. Rather, the applicant should file an application for a new facility instead, and, upon completion of construction of the new facility, the applicant should simultaneously file a notice of completion of construction for the new facility, and a dismissal of the old license.

VI. Check the Administrative Information for Each BAS License, and Make Sure that NT's have been filed for ALL of your BAS Licenses Before February 1, 2006 !

The FCC's December 20, 2005 *Public Notice* urges licensees to check their licenses and determine whether or not an NT was filed for them. If not, you should immediately do so, *together with a request for waiver* (electronically filed along with the NT) for the untimely filing of the NT. This will protect your license against automatic termination, and the FCC routinely grants waivers for late NT filings. At the same time, it is easy and free to do an administrative update (AU) for each license to make sure the contact information, licensee name, and all other administrative data is correct.

FCC Acts on SBE Request for Clarification of Broadcast Auxiliary License Automatic Termination Provisions

On February 13, 2006, Cathleen A. Massey, Deputy Chief, Wireless Telecommunications Bureau, FCC, released a letter addressed to SBE General Counsel Chris Imlay, clarifying various aspects of FCC's 2005 Declaratory Ruling dealing with automatic termination of Broadcast Auxiliary licenses. SBE had requested that the FCC issue such clarifications following meetings with FCC staff in Gettysburg, PA in February of 2005.

The Clarification Order just released, which SBE has placed on its website (www.sbe.org), addresses certain aspects of the 2005 FCC Automatic Termination order which were unclear. "The clarification letter," Imlay says, "is long overdue." He added, "BAS licensees are entitled to understand what obligations they have to fulfill in order to avoid the ultimate sanction of license termination, and they are entitled to know what the effect of the new requirements is on long-outstanding licenses which have been modified." Imlay notes that many inquiries about the process have been received by SBE, not only from engineers, but as well from communications lawyers who found the FCC's orders on automatic terminations confusing.

SBE representatives had met a year ago with FCC staff and had obtained answers to most of the questions about the 2005 Declaratory Ruling. At the FCC staff's suggestion, the SBE requested written confirmation of the advice received. The FCC was reluctant to do so until now. The clarification letter confirms that Part 74 licenses are subject to the Automatic Termination provisions; what the effect is on modified licenses if the

modification is subject to termination for failure to file a timely Notification of Completion of Construction; and the best means of protecting old license parameters, during the period after a modified license is granted but before the modified facilities are constructed.

Though FCC did not agree with the SBE's suggestion that further public notices concerning the process are necessary, the clarification letter itself serves that function as a practical matter, given that the letter was publicly released by the FCC in the Daily Digest of February 13, 2006. SBE President Chriss Scherer noted, "The SBE is pleased that the Commission has now responded to our effort to make the ULS process regarding automatic terminations understandable. Unintentional BAS license terminations, especially for fixed facilities, are now a 'high stakes' situation, given the expensive and cumbersome procedures for obtaining new and modified fixed BAS licenses."

For further information, contact SBE General Counsel, Chris Imlay at BFITPC@aol.com.

RUSH TO HD (FINALLY)

From: Duane Dunn duane_k_dunn@mac.com

A number of things have happened in the last year or so to put full steam ahead on the move to widescreen HD DTV. Probably the only thing that might slow a headlong rush would be an economic collapse....

• Consumer costs for HD has dropped to about 20% of what it was just a few years ago, this fuels the demand.

• Tuner mandates that started in 2004 have meant that now millions of people can actually receive ATSC digital TV directly or similar improved HD & theater quality via satellite and cable.

• Nobody really needs cable, satellite, or broadcast TV to get shows anymore. Most anything is available often commercial free via iTunes and other Internet enabled means.

• While IPTV delivery of iTunes TV shows and similar services will expand greatly in 2006, these are for convenience. The video quality while decent is not HD.

• Savvy broadcasters see that consumers want HD and video on demand and/or PVR functions like TiVo. The only way that traditional broadcast can compete and protect the business model is to go back to its roots, live TV. IPTV and VOD can't compete with live television. If broadcasters can deliver they will be able to offer several things hard to match; immediacy and quality.

• There will always be a large percentage of poor, averse to gadgets, viewers who will want free commercial filled TV. Really free TV, no cable or Satellite bill.

• The President Feb. 8th signed the digital TV transition bill, turning it into the law of the land, as it were. The country will officially turn off the analog TV spigot on February 17, 2009. (That is, unless they postpone the date again because the American public still is not being told they need to stop buying analog TVs. Oh, well.)

• The digital-to-analog converter $40 box subsidy. March 31, 2009 -- Last day for consumers to request $40 government subsidy coupons for a digital-to-analog converter box.

• Xbox-360 has spurred the demand for HDTVs. Playstation3 may as well. Gamers are serious about their hardware and will spare no expense.

• Market share will go to the stations that can deliver quality HD.

There are some problems however;

1. Many have given up on the idea of off-air reception. Often cable must carry means only one of the local station's DTV sub channels is carried and at a low bit rate. This despite FCC rulings like this: Over the air reception devices rule.

2. Reception of DTV can be trickier than NTSC and the poor tuners don't help. Synchronized Multiple Transmitter Networks can facilitate widespread carriage of the DTV ATSC signals to the maximum number of viewers. Broadcasters would rather play megawatt ERP wars and leave entire regions without service.

3. If the economy collapses then a solid SD infrastructure will be just fine for awhile if you can afford the UHF power bills.

4. DTV ATSC broadcasters do not have a coherent nationwide consumer delivery plan and receiver media device or set-top box to compete with satellite or cable. This makes wireless digital DTV transmissions the most underutilized technology perhaps ever in history.

Reflections on AM Stereo

From: Rich KRDE KNCN674@aol.com

As a member of the C-QUAM team it is amazing to say it didn't catch on. Over 1200 USA station on and over 2000 world wide. Plus more than 45 million ICs / radios built and sold. Was that a total failure -- probably not. But is stereo or any incremental technical improvement enough to make a industry change -- probably not. Color for TV was a real improvement and did make a difference.

Stereo for a mono formatted medium already in transition to "talk" was probably too little too late. Some even say "Rush" killed AM stereo!!

The argument that the long decision time to set a standard was a big problem is true but multi mode was available in analog from the outset. C-QUAM platform motion was solved with the second generation chip design. Remember the cost of C-QUAM was about $3.00 incremental receiver cost and the current drain was only 20 milliamps -- not major issues. Oh yes -- the receiver "license fee" was a huge 25 cents per receiver -- station fee ZERO. In demos done at NAB L.V. shows almost no one could tell the difference between AM and FM stereo using standard Harris and CRL equipment -- and those were "golden ears"!! Again -- will a small technical change help? - Probably not, especially one like IBAC with cost, performance and reduced coverage issues. Content is and will be king.

Also remember C-QUAM was totally compatible, did not use extra spectrum, power or degrade the original AM mono signal. That was the difference between a system designed by real communications system engineers and one, like Ibiquity, where engineering was/ is secondary to money. C-QUAM also did make money for Motorola too.

It was my great pleasure to work with the C-QUAM team for almost ten years as it transitioned from pure analog technology to a DSP platform.

Finding Employment in Broadcasting

From: Bill Croghan CPBE WBØKSW
Chief Engineer, KOMP/KXPT/KENO/KBAD Lotus Broadcasting loteng@lvradio.com

Many people use any excuse they can why they were not hired. He didn't like my salary requirements, didn't like Irishmen, hated my religion, disagreed with my politics, etc. etc.

I've heard about this from folks where I turned them down due to bad employment histories, far to many jobs in a short period, Showing up for an interview dressed inappropriately, bad attitudes, and lack of skills.

If you think it was some specific issue that cost you that job, evaluate the total picture. If a reference is less than good, even if couched in the limited "we can only confirm employment dates" terms, you can tell if this is a person you may or may not want to hire. "The boss didn't like me", "The PD sucked", "The owner was a crook" and so on may have been true for one or two jobs, but that won't explain a job record of multiple short tenures over a fair period.

There are some people who seem to apply for every job opening I've ever advertised, even in smaller markets than here. Would I really want them working for me? One guy in particular I'm reasonably certain has never failed to send a resume, and a lot of others in my position find his name familiar. No wonder the last ones I've gotten from him show he is not working in the Broadcast business any more.

Bill

Obituary

Richard J. Stumpf

Motion picture and television veteran, Richard J. Stumpf, passed away on February 2. He was 79. In 1998, Stumpf retired after 29 years with Universal Studios where he was Senior Vice President of Engineering and Development. Prior to that, he was Director of Sound and Electronics, managing the sound department for 14 years. He was co-inventor on two patents while at Universal.

Early in his career he was at NBC for 10 years and for 7 years was with RCA specializing in television engineering. Between these assignments he was in aerospace for 3 years working on the first man in space program, Project Mercury. Stumpf was a member of the Academy of Motion Picture Arts and Sciences since 1970. He served on the Scientific and Technical Awards Committee for 23 years, its Science and Technology Council since its founding, and chaired the Council's Technology History Subcommittee.

He was recognized with two Academy Awards for technical contributions and the Academy Medal of Commendation in 1992.

He was a Life Fellow member of the Society of Motion Picture and Television Engineers and served in many capacities including five terms on the Board of Governors. From 1984 to 1991 he co-chaired the High Definition SMPTE Working Group that wrote the 1125/60 production standard. He received the Samuel L. Warner Memorial Medal Award in 1986 and the SMPTE Presidential Proclamation award in 1997. In 1998 he received the NATO Lifetime Achievement Award.

He served as CTO Emeritus of the Entertainment Technology Center at USC.

He is survived by his wife of 48 years, Paula, sons Derrick and Andrew, daughters Elisabeth and Barbara, and their families including six grandchildren.

Funeral Services were held Saturday, February 11, at St. Mel Church, 20870 Ventura Blvd, Woodland Hills.

In lieu of flowers, the family requests donations to the Theodore Payne Foundation for Wildflowers and Native Plants. www.theodorepayne.org

Reader Input

In the Tech-Notes

From: Thomas G. Osenkowsky tosenkowsky@prodigy.net

You may wish to consider posting a note that my post was NOT serious, only (bad) humor. A few days ago I received an email from a person who asked a question regarding a post I made about the FCC censoring the Internet. This person assumed I was serious and I had to tell him in no uncertain terms the post was a joke. I was too good at my craft, I guess.

Either I'm good or there are many gullible people out there. Have a Happy, Healthy & Prosperous New Year!

-Tom

EP VHS

From: Al Lee WA4EWV@knology.net

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

From the Pen of Mendrala

By: Jim Mendrala

Digital Cinema Starts Right Now

John Fithian, president of the National Association of Theatre Owners (N.A.T.O.) said at ShoWest in Las Vegas, that "Digital Cinema Starts Right Now!"

ShoWest is the largest annual convention for the motion picture industry. It is the only international gathering devoted exclusively to the movie business. It is also the single largest international gathering of motion picture professionals and theatre owners in the world, with delegates from more than 50 different European, Asian and American countries in attendance.

This year the attendance was around 5,000 people, with about 3,000 people pre-registered.

The 2006 ShoWest convention was a tremendous success, featuring a variety of studio sponsored events, informative seminars, and a trade show filled with the latest and greatest innovations in motion picture technology.

Sony demonstrated on Monday, March 13th, their big 4K projector on the first day with some material sampled from 65 mm original camera negative. Most observers said it was great but a few were worried about it having a bright enough picture for the really large screens in the world. Since Sony hasn't really delivered yet on this projector their slogan was "Wait before you Take".

On Tuesday, March 14th, Sony demonstrated 2K material on their 4K projector. Depending on where you sat in the auditorium, 2K looked about the same as 4K. But if you sat up close, less than 3 screen heights, the difference was obvious. The 2K demo was said to be comparable to the Texas Instruments DLP.

How is the transition to digital cinema going?

The studios and stars are endorsing digital cinema. The distributors are working on a business model and think they have a good plan formulating. Most studios are going to have digital content available by the end of this year of all new movies.

What is the importance of global adoption of a single digital projection system standard?

The studios are supporting the Digital Cinema Initiative (DCI) JPEG 2000 specifications and the Society of Motion Picture and Television Engineers (S.M.P.T.E.) are working on the standards. Digital Cinema Initiatives has signed an agreement with the Fraunhofer Institute for Integrated Circuits IIS in Erlangen, Germany to collaborate and jointly

produce a certification test plan. The test will be comprised of test procedures and data to validate compliance with the Digital Cinema System Specification published by DCI last July. DTS, Inc. has introduced the DTS Digital Cinema Encoder with JPEG 2000 image compression technology but at this time there seems to be not much interest, but we'll see. The DTS Digital Cinema Encoder's key features are that it can achieve any desired bit rate or distribution size reel by reel while preserving constant image quality. It uses variable bit rate encoding and Intelligent bit allocation based on individual frame complexity and image quality over the entire reel or the whole motion picture.

What are we learning from observing the progress of digital cinema in the U.S. market to date?

The idea of 4K has yet to catch on even though it is superior to 2K. But at tjis time 2K is easier to do with all the HDTV productions facilities around but Hollywood still wants digital cinema to exceed the best that 35 mm has to offer and provide a better experience for the theater goer. In a few years the 2K vs. 4K delivery will be a mote point.
With theater goers dwindling and HDTV on the rise, Hollywood, even though it is mostly in the TV business, will want to explore digital cinema's new capabilities. James Cameron (Titanic, True Lies, The Terminator) will address at the "Digital Cinema Summit" just before N.A.B. on Sunday. April 23rd and give an in-depth look at the future of digital "3D" (stereographic) movies as a new frontier in movie making. Cameron's address on "Digital cinema and 3D opens doors for filmmakers to mine completely new creative territory," he says. "It's up to exhibitors, now, to adopt these new technologies on the display side, so that audiences have a reason to seek out the cinema and leave their computers and flat screen TVs."
What is the likely pacing for deployment and which countries are likely to be first to go?

So far it looks like digital cinema will start to grow since all the studios are all planning on having digital cinema content available on their shelves by the end of the year. How long it will take for theater owners to switch over remains to be seen. Only time will tell but digital cinema is definitely "starting now" as John Fithian, President of N.A.T.O. said.

Who will pay?

It looks like the distributors will be the big beneficiaries of digital cinema as they will save on print costs. Digital cinema is far more cost effective in this area. What the distributors might do is amortize the cost of the projection equipment and maintenance over a period of several years to the theater owners so that the theater owners will not have to buy the expensive digital cinema projection equipment, servers etc. and maintain them.

Otherwise ShoWest didn't have much new to show. NEC had their new projector, the 2500. It was believed to be the brightest. Rumor has it that Mike Thompson has installed the projector at a Malco Theater in Memphis, TN and had to reduce the light output on his 70 foot screen. The screen is said to have a gain of 1.9 with no hot spots. Film is not

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dead and one company Horizon had a film projector for about $10,000. Another had a prototype Film/Digital projector where one could swap out the projector mechanism for either film or digital projection. The prototype for the digital was a box with a lens mounted on it. Nothing was in the digital box.

If you haven't seen a digital presentation yet, by all means do so as what you will see at this time looks pretty good. Some movie goers are getting pretty fussy about how they view their films.

Parting Shots

By Larry Bloomfield

As mentioned in our last newsletter, and I feel compelled to mention again that is Mrs. Bloomfield, who has been my support, navigator, helper etc. over the years on the Road Show Taste of NABs, will not be able to make the trip this year. She has been diagnosed with inoperable renal cancer. I have been told, that in her condition/situation, radiation and/or chemotherapy will not do any good. So, once again, your thoughts and prayers are appreciated. Her e-mail is: **Carollee@Tech-Notes.TV**

Joining me in El Paso, after school lets out to help with the Road Show, will be my 17 year old grandson, Thomas Bloomfield. Some of you may remember him from the past two years. He will be with me until sometime in August when he will return to Florida and the remainder of his High School obligations. He will be a senior next year. His e-mail address is: **TAB@Tech-Notes.TV**, but he seldom checks it. He says he's too busy with what he tells me is his work after school and "the ladies."

There are a number of subjects worthy of my rants: a la carte, for one. This is a subject very long in the tooth. Why should viewers have to pay for things they hardly, if ever, watch? I've never heard even one good reason for not having a la carte. So what's the delay? Politics and good old fashion BS!

Here's another one: Comcast and Time Warner Cable work hard to take over assets from bankrupt Adelphia. With all the hoopla about how successful cable is, how did Adelphia ever get into the position of having to declare bankruptcy? It certainly wasn't from giving the customers what they wanted or asked for. Now the question is: Will Comcast and or Time Warner do any better? I doubt it!

Here's a headline that I choked on when I saw it: "FCC's implementation of SHVERA (Satellite Home Viewer Extension and Reauthorization Act), which in addition to Alaska/Hawaii multicast includes the OK for significantly-viewed channels via DBS." The Satellite Home Viewer's act in the beginning and now is a massive joke! I live in one of ten states where there are more than 300 translators extending the range of television stations. That does NOT mean that everyone can get free over the air TV. It also doesn't mean that satellite subscribers can necessarily get the stations in their DMA, yet some stations set themselves up as demigods and won't permit people to view channels that can't get otherwise.

It's time for broadcasters to wake up and smell the roses as they are growing today! All the networks are offering their programming via cell phones and other such devises, yet I can't watch what I want, when I want to without having to have some General Manager or Chief Engineer's permission.

Tech-Notes has always taken the position that television stations are like newspapers; you should be able to subscribe or buy whatever one you wish, no matter where it comes from. If I want to read my local newspaper, which happens to be the Siuslaw News, I would subscribe to it – which I do. Yet if I want to read the New York Times, I should and do have the same option, but when it comes to television, no way.

I've heard broadcasters say that they loose local advertising exposure if viewers are permitted to opt for watching out of market TV stations. Hay friends, it's called good old Yankee competition. If you give your local viewers what they want when they want it, you retain their loyalty. If you don't – oh well!

Satellite radio is taking off. Why? There are a lot of listeners who travel and it is a pain in the you know what to keep changing stations as you travel and not be sure if you will get the same programming in the next town or not. It's all catering to the mobile society that we live in today. There was a time when a person didn't travel any more that 20 to 25 miles from where they are born. I see the smile on your face. Many of us do that just going to and from work, much less when our wives go shopping. Are you willing to pay a dozen dollars a month to listen to commercial free radio? Apparently there's more than a dozen-million folks out there that are and trust me, the camel's nose hasn't even begun to get into the tent.

Although many like the crap that Shock jock Howard Stern puts forth, and I have been tempted to cancel my subscription to Sirius just because he has joined them, but there is so much other really good material to listen to, I caved in. I do like those old radio programs from my youth: Fibber McGee and Molly, Suspense, The Whistler, Jack Benny, Fred Allen and more. It surprises me that satellite radio hadn't appeared on the scene before it did. It couldn't be all bad, I've heard that Sirius and XM have move into Canada. Could Mexico be next?

Here's something to keep an eye on. I understand that lawmakers are debating a telecom reform act that would include axing local franchises for cable and new Telco video

entries: there go those monopolies. Healthy Yankee competition has never been a bad thing as long as there is competition. Remember when NBC was forced to get rid of their Blue Network (now ABC)? Funny thing; ABC has nearly a dozen network offerings to broadcasters or should I say

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

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Thanks.