

# The LPTV Report

News and Strategies for Community Television Broadcasting

Vol. 4, Issue 7

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July 1989

Right: The KY-25U from JVC Professional Products.

Below: Panasonic's AK-400 CCD camera.

Below: The Ikegami HL-55.



## Flexibility On A Budget Some Thoughts On LPTV Studio Cameras

—by Michael J. Havice, Ed.D.

So you're thinking about buying studio cameras for your LPTV station.

Your production staff is doing some catchy local programs, but they've complained about the picture quality, and they think you need to get some good studio cameras if it's going to improve.

The salespeople support the production department because they want to improve the quality of the commercials your station produces for their clients.

Your budget says it's a good time to upgrade to studio cameras as long as you can improve production values at a "reasonable" cost.

Your problem: What is the best studio camera purchase for your LPTV station? Here are some tips on making a decision that will both improve your productions and keep your staff happy.

### Production Values

Camera technology is not the sole determinant of production values. A high

quality camera produces a "clean" signal that allows a clear picture to be sent to the transmitter. But the production values inherent in set design, audio, lighting, costuming, make-up, performance, scripting and directing will be clearly visible to the viewing audience if the picture is "clean."

In other words, buying a new camera will not automatically improve your station's image. But using the best camera possible means that the quality of your

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## LPTV Distribution by State and Territory

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	Licenses	CPs*
ALABAMA	5	28
ALASKA	223	32
ARIZONA	12	50
ARKANSAS	6	37
CALIFORNIA	24	90
COLORADO	14	38
CONNECTICUT	0	6
DELAWARE	3	0
WASHINGTON, DC	1	0
FLORIDA	22	115
GEORGIA	11	54
HAWAII	1	23
IDAHO	20	40
ILLINOIS	3	32
INDIANA	8	26
IOWA	10	57
KANSAS	5	59
KENTUCKY	7	34
LOUISIANA	7	53
MAINE	6	14
MARYLAND	1	4
MASSACHUSETTS	6	18
MICHIGAN	6	18
MINNESOTA	18	51
MISSISSIPPI	11	21
MISSOURI	11	41
MONTANA	16	47
NEBRASKA	4	18
NEVADA	12	25
NEW HAMPSHIRE	2	6
NEW JERSEY	2	10
NEW MEXICO	9	62
NEW YORK	11	46
NORTH CAROLINA	4	48
NORTH DAKOTA	3	18
OHIO	8	39
OKLAHOMA	15	34
OREGON	16	36
PENNSYLVANIA	11	38
RHODE ISLAND	0	3
SOUTH CAROLINA	2	23
SOUTH DAKOTA	4	19
TENNESSEE	16	44
TEXAS	36	131
UTAH	18	19
VERMONT	0	10
VIRGINIA	3	22
WASHINGTON	5	38
WEST VIRGINIA	0	6
WISCONSIN	8	30
WYOMING	12	54
GUAM	1	0
PUERTO RICO	2	9
VIRGIN ISLANDS	0	1

TOTALS: Licenses: 661  
Construction Permits: 1,777

\*Construction Permits

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## In Our View

One of the more debated topics on the broadcast industry agenda recently has been the FCC's proposal to use a lottery to choose between competing applicants for full power TV and radio construction permits rather than the cumbersome and expensive comparative hearing process.

The FCC argues that the comparative hearings are flawed. Applications may lie in limbo for years because of procedural delays, thereby depriving communities of broadcast service. Hearings are expensive: they tie up the Commission's staff and drain the applicants' pockets. Often permits are awarded based on almost insignificant differences between virtually equally qualified applicants; and then many times those very permits are modified or sold or otherwise altered after they're granted, making the whole comparative procedure moot. Many applicants file solely in the hope that they can be bought out by competitors trying to avoid a hearing. The entire process, says the Commission, costs time and money and should be replaced with a lottery system. Look, they say, at the success of the LPTV lotteries.

That's too easy.

Both the Community Broadcasters Association and the National Association of Broadcasters have filed comments opposing a lottery system for radio and full power TV. The NAB says that comparative hearings are the only way to guarantee that the public interest is served. The CBA reminds the Commission that the LPTV lotteries were instituted as a practical way to deal with an overload of applications, not for any intrinsic advantages that lotteries themselves may have.

It is true that the comparative hearing system doesn't cover all the bases. But as long as licensees use the public's airwaves, they should be held responsible for using them in the public interest. And as long as that is the case, the FCC—as the agency responsible for overseeing the use of the airwaves—is obligated at least to try to award licenses to those who will serve the public the best. That goes for all licenses—LPTV included.

The FCC proposes to protect the public interest by using the same applicant qualifiers that they use in the LPTV lotteries. They want to establish a "fairly high acceptance standard" for TV and radio ap-

plications, similar to the letter-perfect standard now used for LPTV applications. They suggest imposing stringent financial conditions on applicants, requiring that applicants prove they have enough money lined up to build the station should they get the permit. They want to require ownership information like that asked for in LPTV applications so applicants cannot "load" a lottery by filing a large number of applications under different names.

These are workable suggestions. But they are preventive rather than creative in nature; they prevent abuses of the system rather than ensure that the system works actively in the public interest. In fact, lotteries themselves are only preventive. They remove some administrative problems but do not work actively to increase service to the public.

We believe that, unless the Commission is prepared to give up on the idea of using its regulatory power to enhance service to the public, it should reexamine its present comparative system with an eye to improving it rather than throwing it out. Certainly it should not look to the LPTV experience for a model. Unlike radio and full power TV, LPTV is a secondary service with very little regulation, and it was under those assumptions that a lottery was considered in the first place. And although lotteries certainly helped to get LPTV construction permits out, whether the CP's went to those "most deserving" is a matter of question in many cases.

It would be good to see a revised comparative hearing process that eliminates the possibility of abuse, that does not drain the litigants' financial resources or the Commission's energies, and that preserves the public interest standards of the present system. Perfection may not be possible, but even modest improvement in this case is preferable to abandoning the public interest premise altogether.

*Jackie Biel*

## Form 301 Revised, License Renewal Processes Reformed

The Federal Communications Commission has revised its Form 301 to deter the filing of sham applications for new stations. It has also severely limited the amounts that broadcast licensees can pay those who challenge their license renewal applications. The limitations, hopes the Commission, will prevent challengers from extorting large settlements from incumbent licensees or starting lengthy court proceedings.

FCC Form 301 is used to apply for authority to construct new commercial AM, FM, or full power TV broadcast facilities. The new form will require more detailed financial, ownership, and integration information from applicants. The changes, which were proposed by the Federal Communications Bar Association (FCBA), will prevent unscrupulous applicants from filing competing applications in a market solely to extort settlements from bona fide applicants. They will also help to prevent unqualified applicants from being granted construction permits.

Existing licensees are subject to challenge at renewal time by both petitions to deny and by "comparative challenges" by outside parties seeking the frequency. To deter abuses in this area, the Commission adopted several reforms:

1) All settlement payments made in return for withdrawing competing applications are banned prior to the initial Decision stage of a comparative hearing; and, thereafter, such payments are limited to the legitimate and prudent expenses of the withdrawing applicant;

2) Payments made in exchange for withdrawing petitions to deny are limited to the legitimate and prudent expenses of the petitioner;

3) The FCC must approve all other agreements between competing parties for a license to ensure that the agreements are in the public interest and not in

conflict with the reasonable and prudent expense standard;

4) The *Cameron* doctrine is eliminated. This doctrine allowed competing applicants in a comparative renewal proceeding to assume that they could acquire the incumbent licensee's transmitter site, and thereby to avoid completing the engineering sections of the application form. M/B

## Pirate Broadcaster Shut Down

An unlicensed and illegal Miami-area radio broadcast station was shut down in late May by U.S. marshals and FCC representatives. The station, which called itself "La Voz de Alpha 66," transmitted on 6666.6 kHz, a frequency used by aircraft in flight.

Transmissions were made from a mobile van that regularly changed its location, causing problems for authorities who tried to find the source of the illegal signal. The programming was in Spanish and appeared to be directed toward Cuba.

The transmitter was operated by Diego Medina, apparently secretary of a group known as Alpha 66 Organizacion Revolucionaria Cubana. The group has been fined twice before for unlicensed operations. M/B

## Channel America Adds New Talk Shows

Two new talk shows premiered in early July on Channel America.

"The Rik Turner Show," a 30-minute comedy/variety program, airs at 10:30 p.m. Wednesdays and 11 p.m. Fridays. The show features comedy, talk, and music and is a favorite of young adults on the East Coast, according to the network.

Hollywood celebrities are interviewed on "The Paul Ryan Show," taped in Los Angeles and telecast Tuesdays at 6 p.m. and Fridays at 7 p.m. All times are Eastern Standard time.

The new additions bring the list of first-run programs on Channel America to twenty. M/B

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# LPTV and the LAW

—by Peter Tannenwald

## Access to Towers

I have run into a lot of situations lately where holders of construction permits for new stations are disillusioned to find themselves unable to gain access to a good transmitting tower. They did not plan ahead well enough, the time allowed by the FCC to build and get on the air is running out, and panic is setting in. Either the permittee cannot find a site at all, or the owner of the site proposed in the construction permit application is grinning with fangs bared as he quotes an astronomical rent on a take it or leave it basis.

Good tower space is critical to the success of any broadcast operation. Without adequate height and a centralized location, an LPTV station will not have adequate signal coverage. And if the rent is too high, the station may not be economically viable.

The heart of the problem is that good tower sites are getting harder and harder to find, because more and more municipalities are adopting zoning regulations that prohibit the construction of new towers altogether or impose conditions that are impossible to meet. At the same time, the demand for tower space is growing, as hundreds of new LPTV and FM broadcast stations go on the air. Compounding the problem even further are the land mobile radio operators, including cellular telephone and Specialized Mobile Radio systems, who are also competing for space.

As the demand increases faster than the supply, the laws of economics dictate that prices will increase, and locating good space will become increasingly difficult. In some areas, all existing towers are full, and local land use regulations will permit no more to be built. The problem is especially severe in resort markets, many of which are attractive for LPTV stations, where the city fathers (and mothers) want nothing to disturb the beauty of their scenery, regardless of the public service rewards that a new station will provide.

### "Reasonable Assurance" Required

How can you, the LPTV applicant who expects a construction permit to be granted shortly, protect yourself against this problem? It is a question of balancing expense against risk.

Although LPTV applicants must certify on their applications that they have a site, the FCC does not require any kind of binding contract with the site owner. To verify the certification, the FCC often checks the name and telephone number of the site owner given in the application—as some of my clients have found out the hard way. But neither a contract to buy, a signed lease, nor an option to buy or lease is required.

You must have what is known as "reasonable assurance" of a site, which

means a clear understanding with the site owner that there is space at the site, that the space will be sold or leased to you if you want it, and that terms and conditions can be agreed upon. The precise terms and conditions (price, length of lease, and so on) need not be firmly established, but neither is it satisfactory simply to agree to talk about terms later. You must know the general parameters of the deal and that the deal can be made when the time comes.

If you walk away with only a handshake after a general discussion of the terms of a sale or lease, you are taking a significant risk, even if you pass FCC muster. Three problems are common. First, the FCC may take a long time to process your application; and by the time you get a grant, the space you were going to use may have been sold or leased to someone else. Second, if you plan to buy or lease land and build your own tower, local land use authorities may not approve the project. Third, once you have a construction permit in hand, the bargaining power changes. When you first approached the landowner, he or she was looking for business and needed you, so you had bargaining power. When you have a permit in hand, you need him, so the tables are turned. He has the bargaining power, because even if you are able to find another suitable site, changing location will require a new FCC application and maybe even a wait until the next filing window. Your back is against the wall, and you will pay a price for that.

Do not expect the FCC to bail you out. The price and other terms of tower leases are not federally regulated, except in the very rare case where one broadcaster controls the only usable site in an area and excludes all competitors from it. Zoning and other land use regulations are solely the province of local and state authorities.

### Protect Yourself

The only FCC rule is one that pre-empts local zoning regulations that block or impair the installation of satellite receiving dishes for reasons unrelated to health, safety, or aesthetics; or bar satellite dishes while permitting other antennas of similar size; or bar satellite transmitting antennas or Amateur Radio antennas under certain circumstances. The FCC will not intervene even if local regulations totally preclude you from building an LPTV station and the community ends up with no local service at all as a consequence.

To avoid these dire straits, before specifying a site in your LPTV application, make sure that the owner understands exactly how much space you will need and when you will need it. If you plan to build a new tower or increase the height of an existing tower, check local land use regulations at the outset. If a hearing is

*continued on page 6*

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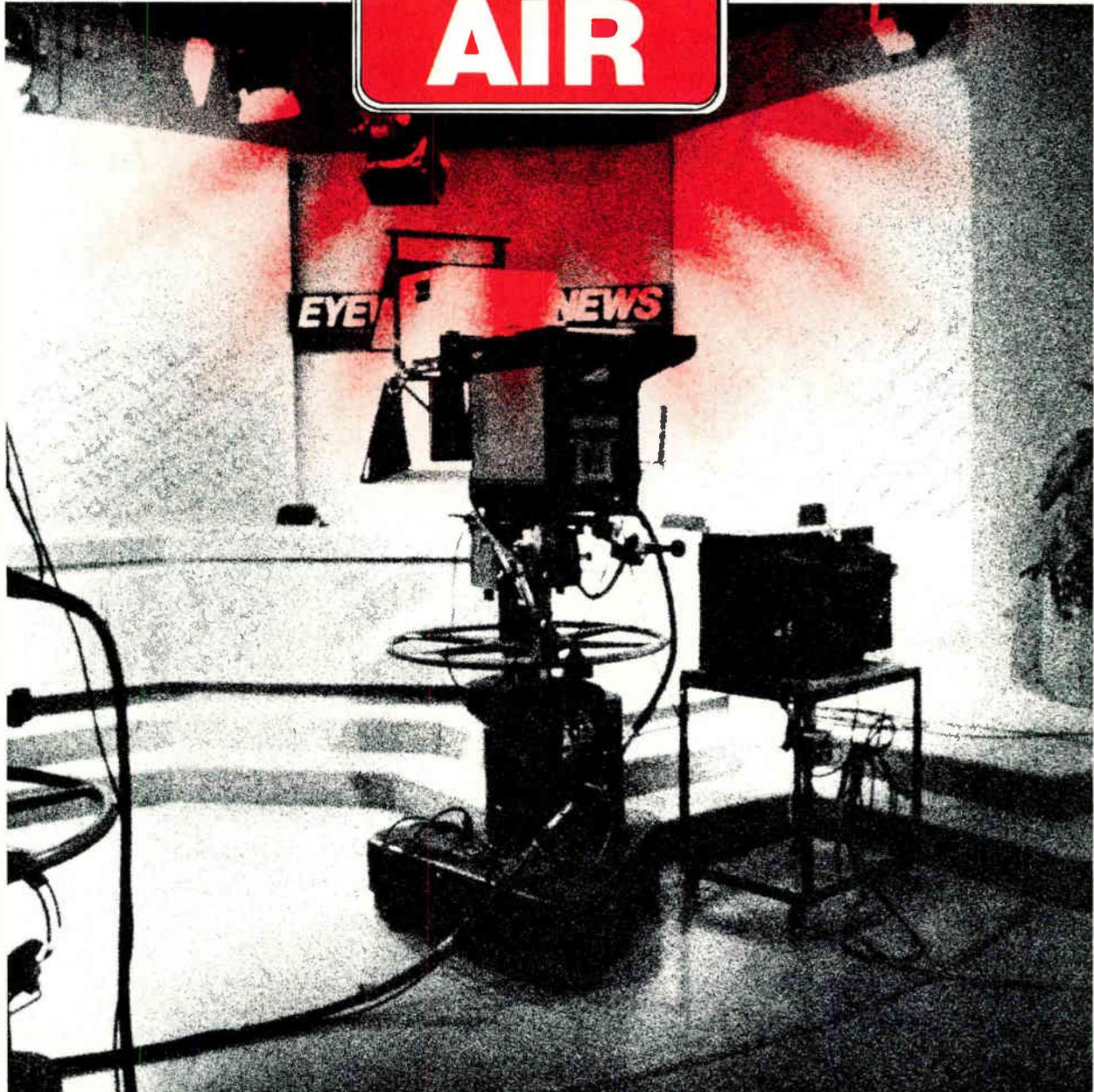
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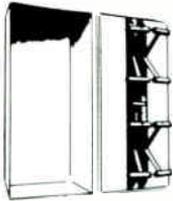
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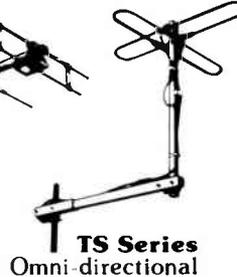
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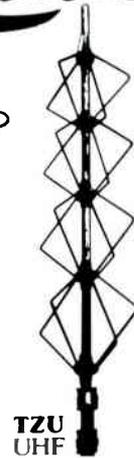
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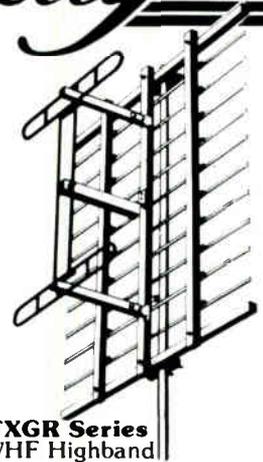
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needed to get a zoning variance or a building permit, find out how long it will take, and get the procedure started early on.

Do everything you can to lock in the price. The only sure ways to do that are with a signed option or an actual lease or contract to purchase land. Most applicants are reluctant to spend money on real estate options or contracts, even as insurance. But a little money spent now may pay off handsomely later if you can get on the air a year earlier because your site is available immediately.

If you have not yet made a contract, do so immediately after your construction permit is granted. It is penny wise and pound foolish to postpone a lease until the last minute to avoid paying rent. If you want to avoid paying rent too far in advance of going on the air, suggest to the landlord that you sign a lease now but postpone the first rental payment until you begin regular programming. The landlord will undoubtedly not agree to an open-ended provision of that nature, but you can make it fair by agreeing to start paying rent at either your sign-on date or a certain number of months after the lease is signed, whichever comes first. This assures the landlord that rent money will start to flow at a known time. If you do that, however, be sure also to have an escape provision that allows you to cancel the lease if you do not get on the air for any reason after a set date, so that you are not stuck with years of payments if for some reason your project fails.

*Peter Tannenwald is a partner in the Washington, DC law firm of Arent, Fox, Kintner, Plotkin & Kahn. He is general counsel to the Community Broadcasters Association.*

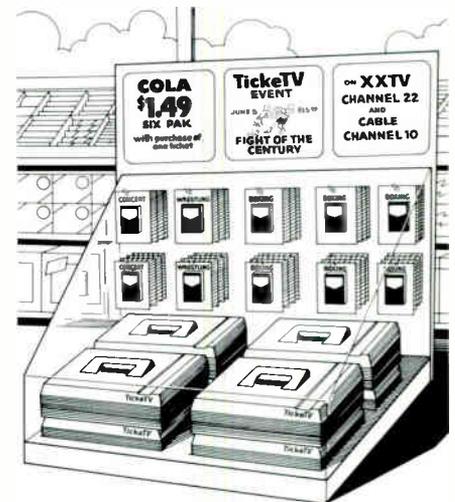
## "Tamper-Proof" PPV System Enters Market

International TeleSystems, Inc. (ITSI) has developed a positive trap technology that allows broadcasters to air pay-per-view programming inexpensively and with more protection from tampering than broadcast scrambling systems have provided up to now. The company's new "TickeTV" service offers major sporting events, concerts, feature films, theater performances, and other special programs. The first program using the new technology is scheduled for late fall.

Until now, only a few major events have made their way to pay-per-view, and their distribution has been limited to a few cable operators with expensive addressable access equipment. With the TickeTV system, however, an encoder at the broadcast transmitter scrambles the signal—which is then received in the viewer's home through a small and inexpensive unit that the viewer can easily connect to the television set. Ordinary, unscrambled, signals pass right through the unit to the set.

The unit, which can be purchased for about \$15 at convenience stores, supermarket chains, or other retail outlets (present descrambler boxes cost about \$100), is merely a conduit. The signal is actually unscrambled by a disposable electronic "ticket" which the viewer buys at the same outlets. Viewers who have not bought the ticket will see only the scrambled signal.

Slightly smaller than a business card,



the ticket can be manufactured and distributed for a total overhead cost of about \$3.00 each, at average volumes, according to Lawrence M. Shultz, ITSI president and developer of the system. Because it can carry more than 7,000 scramble combinations, the ticket is virtually tamper-proof, said Shultz.

The tickets can be sold through almost any retail outlet and can be programmed to descramble single or multiple events. Thus, a consumer could buy a single

ticket for a single sports event, or a "season" ticket that will descramble a series of programs.

The set-up cost to a broadcaster is related to power output. The system works with UHF and high-VHF signals and costs from \$2 to \$3 per watt to install—or \$2,000 to \$3,000 for a UHF LPTV station transmitting at 1,000 watts. The receiving boxes can be financed by the consumer through the station or simply bought outright for about \$15 each.

"The TickeTV technology means that local broadcast stations can prosper from pay-per-view rather than be victimized by it," said Shultz. He added that both cable and broadcast stations in the same market can use the technology at the same time.

Shultz is a former executive with Unicorn/MCA Records and the Jon Peters/Barbra Streisand Organization. Stephen Dart, ITSI's chairman and CEO, is also the managing general partner of Dart Oil & Gas and of the Whitlock Energy Partnerships. Directors of the company include Francois R. Brenot, a former close business associate of Jacques Cousteau; Andre A. Blay, former chairman of Embassy Home Video and former president of CBS/Fox Home Video; and Peter Grad, president of MTM Television. M/B

## Washington Conference Highlights Broadcast/Cable Issues

The future of television regulation was highlighted during a conference held in Washington, DC in early June, according to a report in the June 12 *FCC Week*.

Keynote speaker Rep. Ed Markey (D-MA), chairman of the House telecommunications subcommittee, criticized the deregulatory stance of the FCC during the past administration and said government and industry must work more cooperatively if the nation is to compete with foreign technologies.

Sen. Daniel Inouye (D-HI), chairman of the Senate communications subcommittee, said that his subcommittee would be pushing for rules to control the kind and amount of television programming for children. He also said he would be looking at reinstating must-carry rules, among other broadcast and cable issues. M/B

## Cable Vertical Integration Benefits Public, Says NCTA Study

The public benefits when cable system operators invest in programming networks, says Dr. Benjamin Klein, a UCLA professor of economics. In a report released in June by the National Cable Television Association, Klein says that such investment means viewers "can choose from an increased variety of programming choices not previously available...."

He also said that "there is no evidence that vertically integrated MSO's [multiple system operators] systematically exclude programming networks in which they do not have ownership interests." Vertical integration has been opposed by some members of the television industry on the grounds that it threatens the ability of program suppliers not owned by cable interests to compete for cable carriage. M/B

## Hit Video USA Adds New Feature

Hit Video USA, the Houston-based music video satellite network, has added a new program—"Power Mixx USA"—to its weekly feature program lineup. "Power Mixx USA" is an urban contemporary

dance music video program hosted by VJ Eric Easton.

The network has also recently added K22BG in Lubbock, TX to its family of broadcast affiliates. M/B

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## LPTV Studio Cameras

*continued from front page*

other equipment and the creativity of your staff will show to their best advantage.

### The Camera Selection Process

As general manager, you must be involved in the purchase decision beyond simply defining the expense limits and approving the purchase. For example, you need to know that you are purchasing *broadcast quality*, not industrial standard, cameras; and you need to know whether or not the price includes the lens, monitor, cable, and camera control unit (CCU). In many cases, the purchase price of a studio camera includes only the camera body. Mounting gear, cables, lenses, and other necessary items are extra.

Consult with your engineering and production staff during the selection process. Your job includes making sure that the cameras your station finally purchases will enable them to do a better job of creating video products you will be proud to broadcast.

### Price

I hope you're sitting down. A high-end studio camera, without lens, support system, or CCU, will cost more than \$55,000. Is it worth the cost? Yes! Every dime.

OK, now, catch your breath and ask yourself whether you really need a high-end studio camera. You do need a camera that will give you a signal that can compete in technical quality with the signal of a studio camera. And a high-end EFP/ENG camera (broadcast standard) in a studio configuration may be just the ticket. Remember, the news inserts you see every day on a commercial full power station are shot using a high-end, broadcast standard, ENG camera.

High-end EFP/ENG cameras range in price from about \$8,000 to \$15,000. Like studio cameras, they can be purchased in packages or as components. When you set your budget, make sure you include enough money to cover all of the components that will be necessary for the cameras to function properly in your studio. For example, if you want chroma key, you

must decide whether to purchase the chroma key option for one camera or for all of them. You may, for example, designate camera number two as the chroma key camera.

### Tube or CCD?

The pick-up device in a camera is either a tube or a charge-coupled device (CCD). The difference between the two lies in how they interpret the image presented on their pick-up surface. A pick-up tube scans the pick-up surface, 525 lines at a time, to create a frame of video. A CCD takes in the whole pick-up surface, made up of thousands of pixels, at once. (For a detailed discussion of the differences between pick-up tubes and CCD's, see *The LPTV Report*, September 1988, page 10.)

The camera you choose should be configured as either a three-tube or three-CCD camera. Each tube or CCD handles one color. A three tube/CCD will create better color separation than a one-tube or one-CCD camera will.

Right now, the performance of both tube and CCD cameras is quite similar. You must remember, however, that each type has advantages and limitations, depending upon your needs and your other equipment. When you have narrowed your decision to one camera manufacturer, ask the salesperson to demonstrate both tube and CCD cameras in your studio. Record the output of each camera under the same production conditions, and make your decision from there.

### Resolution

Resolution is the measure of the sharpness of the picture. It is usually expressed as horizontal lines. A studio camera should have at least 600 lines of horizontal resolution. Hitachi's FP-Z31A, for example, has a resolution of 800 horizontal lines and Ikegami's ITC-735 has a resolution of 750 lines.

Resolution is important because television is a two-dimensional medium. Sharper resolution makes it easier for the viewer to distinguish the edges of objects in a picture. Assuming that there is appropriate lighting, resolution will create the illusion of depth in the two-dimensional picture.

The resolution characteristics of a cam-

era can be maximized in a studio by paying proper attention to lighting.

### Signal-to-Noise Ratio

Signal-to-noise ratio (S/N) is also an important consideration in camera selection. A basic television signal is composed of noise, which is the "snow" you see when you get poor television reception. In a good picture, the television signal (or the image you want to see) overpowers the noise, and you see a clear image: the signal-to-noise ratio is high. In other words, for all practical purposes, the higher the S/N ratio, the more distinguishable the signal is from the noise generated by the system. A high S/N ratio makes the television picture less "grainy."

### Lenses

Studio and high-end EFP/ENG cameras may or may not come with a lens. For studio use, a short lens is usually more desirable than a long lens. The shorter lens gives a wider angle of view and a deeper depth of field. If you have the money, purchase a short glass lens instead of a longer plastic lens. Even though it will cost more, a glass lens has better optical characteristics than a plastic lens does. And the clearer and sharper the image presented to the pick-up surface, the clearer and sharper will be the recorded or transmitted picture.

If you purchase a CCD camera, be sure to order a CCD lens. Because the pick-up surfaces of tubes and chips are different, special lenses are needed for each. In other words, if you put a tube lens on a CCD camera, your picture will look very funny!

### Genlock

Make absolutely sure that the cameras you purchase are genlockable to system. Genlock allows the signals from several video sources to be locked onto one signal. In order to perform takes, mixes, wipes, keys, and special effects, studio cameras must have a genlock function.

### Registration and Set-up

Tube cameras must be registered: the red, blue, and green tubes must be

*continued on page 10*

## EXECUTIVE DECISION MAKERS



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aligned so that they don't overlap. CCD cameras need not be registered, because the chips do not move.

In a studio configuration, the cameras must be "set up." That means each camera must be adjusted so that all of them deliver the same brightness, contrast, and color. For instance, if you use three cameras to shoot Fred's auto commercial, Fred's red sweater should be the same hue and saturation regardless of which camera is being used.

Make sure your engineers and production people are present when registration and set-up procedures are demonstrated. They should make sure that they can perform registration and set-up procedures, and that all the necessary test equipment is available so the signal can be properly evaluated.

#### Support Equipment

The camera you choose will need a support system comprising a camera head, a tripod, and a dolly. Chances are, you already have such a system. But it's important to make sure that your system is suitable for the camera you purchase. In fact, it's a good idea to actually mount the camera you plan to purchase on the camera head and see how it performs. It may

be too light or too heavy for the support system you already have.

If you have a videoprompter, test the camera using the videoprompter. It is easier to solve videoprompter and camera mounting problems before, rather than after, the purchase is made. You may, for example, encounter a lens refraction problem that could be easily corrected with an alternative camera lens.

If you select a high-end EFP/ENG camera as your studio camera, you will want to consider purchasing the studio configuration bundle. That bundle should include studio head mounting gear, a viewfinder, zoom and focusing cables, camera-to-control video cable, and a CCU. Other options are also available.

#### The Camera Control Unit (CCU)

A CCU allows you to set up and control the camera remotely. It is an advantage in the studio because the output of the camera can be adjusted while a production is in progress. It is a necessity if there are adjustments to be made in camera set-up during a taping session.

In some studios, all camera adjustments are made at the camera head because there is no CCU. The advantage here is the cost saving. The disadvantage is that adjustments cannot be made during a taping session.

#### Engineering

Engineering support is an absolute must. The camera you purchase is a very sophisticated piece of equipment, so find out what type of support the salespeople and manufacturer will provide. If you can afford it, purchase the replacement boards many manufacturers offer. Having these handy means that your engineer

can replace a defective board without taking a camera out of service. Then the defective board can be repaired by your engineer or sent out for repair at leisure. One set of replacement boards will be enough for three cameras of the same make and model.

Replacement boards are most appreciated when a camera goes "down" in the middle of a costly production, but is back "up" within half an hour. Those seemingly expensive boards end up paying for themselves when your production effort is not ruined because of a camera problem.

#### To Summarize...

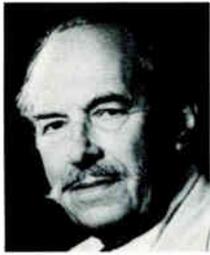
The quality of a camera is measured by how well it reproduces the images that you wish to transmit. A good camera signal is one that contributes to the technical image of your station. In general, high-end studio cameras produce pictures that are technically superior to those of high-end EFP/ENG cameras. But the high-end ENG/EFP camera can be a suitable studio camera for an LPTV station. If you have good broadcast engineering support and transmit a clean signal, most viewers will not notice any difference between the signals of high-end broadcast quality EFP/ENG cameras and those of more expensive studio cameras.

The accompanying chart shows some of the camera models available, along with prices and specifications. The information was provided by the Milwaukee video systems houses of Avonix, Roscor, and Video Images.

*Michael J. Havice, Ed.D. is assistant professor of broadcast communication at Marquette University. He is a specialist in video production and interactive video technologies.*

Manufacturer	Model	Pick-up Device	Lens	Price	Horizontal Resolution	Signal-to-Noise
Hitachi	FPC2U	CCD	No	\$6,449	620	57 dB
Hitachi	FPC2UD	CCD	Yes	8,090	620	57 dB
Hitachi	FPZ31PUE	CCD	No	13,680	660	57 dB
Hitachi	FPZ31PUC	CCD	Yes	15,210	660	57 dB
Ikegami	HL-55	CCD	No	30,860	700	62 dB+
Ikegami	HL-95D	Tube	No	33,464	650	60 dB
JVC	KY15UL16	CCD	Yes	8,280	500	58 dB
JVC	KY-25U	CCD	No	7,640	700	60 dB
Panasonic*	AK400	CCD	No	22,000	650	60 dB
Panasonic	AK400	CCD	Yes	23,900	650	60 dB
Panasonic	AK450	CCD	No	29,500	800	62 dB
Panasonic	AK450	CCD	Yes	31,400	800	62 dB
Sony	DXCM7	CCD	No	12,650	570 (RGB)	60 dB
Sony	DXCM7	CCD	Yes	14,550	570 (RGB)	60 dB

\*Panasonic Broadcast Systems Company  
Note: Prices do not include studio configuration.



# Technical Talks

—by John H. Battison, P.E.

## Flashback

In the eight years since LPTV was thrust upon a world of latent television entrepreneurs, a lot has happened. The average LPTV station today probably has about eight full-time employees and a simple technical operation compared with that of a full power TV station. Nevertheless, the equipment in an LPTV station today is probably far more complex and complete than that of many early full power operations.

LPTV is not new!!

When the FCC announced the new TV allocation plan following the three-year "TV Freeze" in 1953, it included the idea of "community stations" in the announcement. The intention was to have large full power stations serving larger areas, and smaller "community" stations serving each community. But the idea never really caught on, probably because of cost in most cases.

In 1956, I put KAVE-TV on the air on channel 6 in Carlsbad, NM. By 1956 standards KAVE-TV was a full power operation; by 1989 standards it was equivalent to an LPTV station! My ERP was 11 kW. But that is the only thing that separated it from today's LPTV's.

When we signed the station on the air, the governor of New Mexico, the late Honorable John Simms, performed the ceremonies, and Sunny Skies gave a ritual dance—all on camera.

### Systems Were Simple

We had one Dumont studio camera, with three lenses—50, 90, and 135 mm. The studio was 30' x 30' with a control room across one corner. Videotape had not been invented; instead we had two Bell and Howell projectors and a slide projector in the film chain, which was a Sarkes Tarzian product and worked very well. We also owned an Auricon single system, sound-on-film 16 mm camera which I used to make commercials. That was the sum of our video equipment! We had no special effects generators—all we could do was fade between sequences.

The film chain was in the transmitter

room and immediately adjacent to the video control room. This allowed me to run the station single-handedly from 9 p.m. until sign-off at 11:30 p.m. Running the station meant changing films as necessary, running voice over slides, logging the transmitter operation every 30 minutes (a former FCC requirement), and operating the switcher. I needed a first class FCC license to operate the transmitter; compare this with today's requirements!

Our staff was two salesmen; an engineer; a film editor; a secretary who wrote copy, logs and everything else; a part-time bookkeeper; and I. Both salesmen also did air work, as did one of our AM DJ's. That was the staff.

We did about twenty hours of live programming each week, including the spots, which were all live (or very occasionally on film) or slides with voiceover. We had public service time available for any local group, and a ladies' afternoon show from 2:30 to 5 with a studio kitchen, films, and a hostess. On Saturdays we aired an hour of live country music—with our one studio camera. We had to go to commercial, or slide, or black, when we needed to change the lens on our rotary camera turret!

### Studio Birthday Parties

I did a live kids' show—"Dan the Trainman"—from 5 to 6 p.m. each night, Monday through Thursday, and a live studio birthday party for kids every Friday. We could, and did, bring autos into the studio, and we helped bring a micro-midget speedway into being in Carlsbad.

Everything was in black and white. But we *did* transmit color without knowing it! As a CBS Extended Market Plan (EMP) affiliate, we paid for interconnection to the national network system and had a microwave tie-in. One afternoon we received an excited phone call from a viewer thirty miles away who said, "I'm getting a color picture—thank you!!"

We were unaware that we were transmitting color! We had no color monitors, nor the proper processing equipment. It

said a lot for our Dumont transmitter that it was broad-banded enough to pass color. Apparently the viewer had won a round-screen Motorola color TV in a raffle and was using it for normal reception when, to his amazement, color appeared!

So much for reminiscing. Next month we'll talk about the aftermath of the last window, and what you can do to improve your own operation.

*John H. Battison, P.E. is a consulting engineer with offices in Loudonville, OH.* 



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## Minority Broadcast Ownership Seminars Set

Ten regional seminars designed to train minorities for ownership opportunities in broadcasting are slated for this summer, according to an announcement by the Broadcast Capital Fund, Inc. (BROADCAP). The seminars will explore strategies for finding and evaluating broadcast ventures, obtaining financing, and using FCC and IRS incentives. The series is co-sponsored by the Interracial Council for Business Opportunity (ICBO).

Sessions are scheduled from June through September in New Orleans; Dallas; San Francisco; San Diego; Miami; Memphis; Cleveland; Kansas City; Washington, DC; and St. Thomas, U.S. Virgin Islands.

BROADCAP is a private, non-profit venture capital company founded in 1978 by the National Association of Broadcasters to assist minorities in the acquisition and development of broadcast properties. ICBO is a full-service business development organization founded in 1963 to foster minority economic growth.

For further information, contact Anna Johnson, ICBO, 51 Madison Avenue, Suite 2212, New York, NY 10010, (212) 779-4360. 

## CBA Opposes Broadcast Licensing Lotteries

The Community Broadcasters Association has filed comments opposing the FCC's proposal to select radio and full power television licensees with lotteries.

CBA disagreed with those arguing that because lotteries have been used successfully to award LPTV construction permits, extending the practice to other broadcast services is justified. CBA noted that the lotteries were started in order to deal with the tens of thousands of applications filed in the early years of the LPTV service, and that even now—when the application load is much smaller—they serve some purpose in that many LPTV applicants could not afford the costs of comparative hearings.

CBA also disagreed with the argument that it is impossible to reform the present comparative hearing system. LPTV operators still resent the speculators that the lottery process attracts, and many construction permits have been awarded through the lottery to frivolous applicants who never build their stations. Said CBA, "...many communities that might now enjoy new locally based television service if applicants had been evaluated on their merits remain without that service." 



# The News In Community Broadcasting

## Planning Your Newscasts

—by Bob Horner

In our April column, we suggested that before you make any decisions about your newscast, you conduct some basic research. Your studies don't have to be expensive or elaborate. Even your employees and their families can help you find out some interesting things about your community.

In this column, we will discuss how to use your results to plan the newscast your community may want but is not getting.

### Scheduling

The most important question in your survey may be the one that asks *when* the viewers want to see a newscast. Remember, you aren't bound by the rules, regulations, and traditions that affect the scheduling of local news on full-power network affiliates. You, as a community broadcaster, truly have the opportunity to present the news when your area wants and needs it.

In many areas, newscasts are not properly timed to the needs of a community. In highly industrialized areas, shift times sometimes dictate the best time to plan a newscast, and your research should give you an indication if this is the case. In rural, farming areas, sometimes the lunch break is a good time for a major newscast. Do people in your community generally go to sleep fairly early? Then, a 9 or 10 p.m. may be the best way to plan your broadcast.

The important thing here is not to be tied to tradition. Don't think in terms of morning, noon, 6 p.m., and 11 p.m., just because those newscasts already exist. What you are trying to find is the time your community is really interested in seeing the news, either as a main newscast or as a supplement what they are already watching

### Content

The answers to questions about content on your survey can give you valuable information about planning not only your newscast but the way you will spend

money. If your community tells you that it's really interested in community news, you can plan your resources in that direction. Again, it's important not to be tied to tradition.

In most cases, local newscasts use a relatively small amount of news, and then feel compelled to do a world roundup using material from a network. You aren't tied to these stereotypes. It's my opinion that people are still interested in knowing what happened when they hear sirens that go on for half an hour. It's amazing how many newspapers now feel that information is "too local" to print.

I suspect that the question on what kinds of events and subjects people would like to see covered will yield some very interesting answers, if you pose it as an open-ended question. It could very well form the basis for your assignment system, which we'll cover in a later column.

In the area where you ask the potential viewers to describe what kind of meeting news they would like to see, take note of their areas of interest, particularly in terms of deciding possible live coverage. For instance, you may find there's a market for running the city council meeting live, and then rebroadcasting it the next evening.

### Issues vs. Incidents

After you have determined what the audience is interested in, you are ready to start looking at how to cover these topics. Again we emphasize that it's important not to be tied to the old ways. Most news departments organize their reporters on the ancient "beat" system, which was an outgrowth of the ways that newspapers organized their coverage. Television is best served by a new way of thinking in this area...a more issue-oriented approach.

This means covering *crime*, rather than the police beat. And it's more than just a name change. It means covering the reasons and solutions, not just reporting a laundry list of incidents. Of course, there

*continued on page 14*

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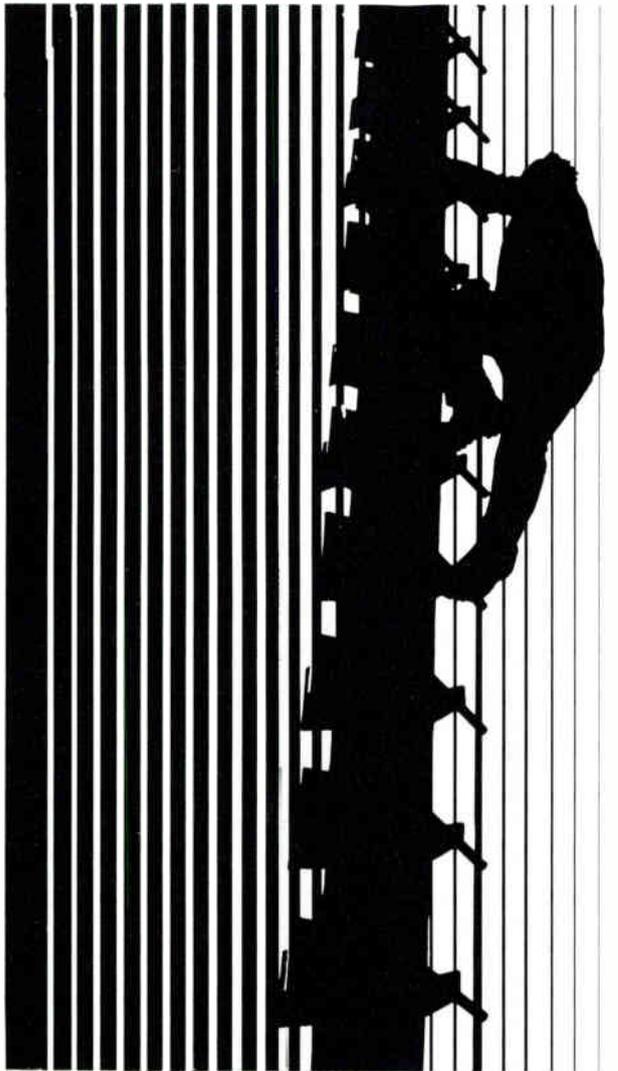
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## Credit Seminar Slated

The Broadcast Credit Association, a subsidiary of the Broadcast Financial Management Association, will hold its 22nd Credit and Collection Seminar October 17-18 at the Scottsdale Hilton Hotel in Scottsdale, AZ.

For registration information, contact Mark Matz, vice president-marketing, at 701 Lee Street, Suite 1030, Des Plaines, IL 60016, (312) 827-9330. 

## FCC Recommends Compulsory License Repeal

Concluding that private negotiations would better serve the public, the Federal Communications Commission has recommended that Congress eliminate the compulsory license for cable retransmission of both local and distant broadcast signals.

In a Public Notice released last October, the Commission sought comment on the issue and said that it would recommend repeal of the compulsory license for distant broadcast signals. It said that 1) repeal would benefit consumers because cable systems would be able to obtain certain signals that are overpriced under the compulsory license and therefore not available to many viewers, 2) broadcasters would benefit where their signals are currently underpriced and they are not adequately compensated for cable retransmission of their signals, and 3) the transaction costs to cable systems of full copyright liability have been reduced on a per subscriber basis, thus helping to make repeal feasible.

Chairman Dennis Patrick also noted in a separate statement that the "compulsory license inhibits the free flow of information about consumers' tastes and programming preferences and weakens the incentives of producers to respond to such information. Moreover, by subsidizing program acquisition by cable systems, [it] introduces a significant bias into the program distribution system, disadvantaging competitive alternatives to cable."

Commissioner James H. Quello dissented to the recommendation that the compulsory license be repealed for local broadcast signals, on the grounds that the costs associated with retransmitting such signals might dissuade cable operators from carrying them.

The NCTA opposed the repeal.

The compulsory license was established by the Copyright Act of 1976, which also set the initial royalty fees to be paid for eligible signals and created the Copyright Royalty Tribunal to oversee changes in the fees and to distribute the royalties to copyright holders. The FCC determines which signals are eligible for compulsory license treatment. 

are times when the incident itself is covered, but because you've invested more time in covering the whole topic, you are likely to treat the incident in a more complete way.

For instance, these are possible story topics for the "crime" beat:

- Who is committing the crimes in this community?
- Where are the crimes taking place?
- Are youth programs successful in helping turn around potential criminals, and where and how do these groups work?
- Are volunteer crime prevention programs working?
- What can the average citizen do to protect himself or herself from crimes like burglary, rape, and so on?

These are only a few ideas that can easily become hundreds once you decide to treat the topic as an issue, rather than sticking to the police blotter.

From your research, try to develop five or six main areas for issue-oriented coverage. Then you are ready for the next step—setting up your assignment system. We'll discuss this procedure in a later column.

*Bob Horner is a broadcast news consultant based in Atlanta. His experience includes nine years at CBS News, as well as extensive local news production. Bob welcomes your comments and suggestions on news-related topics for this column. Send them to him in care of this magazine. Or call him at (404) 257-0397. *

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**Circle (22) on ACTION CARD**

**Buhl Optical** announces its new line of lenses and accessories for use with the Kodak LC500 video projector.

Fixed focal length lenses, zoom lenses, and a mirrored rear projection system are all currently available.

**Circle (21) on ACTION CARD**



*Kodak's LC-500 video projector.*

**RF Technology, Inc.** announces the new RF-223B miniature portable microwave transmitter. The unit is available in any 250 MHz segment of the 1.7-2.7 GHz band and features switchable RF power output (12/3 watts at 2.0 GHz and 10/3 watts at 2.5 GHz). A special "Goldline" version of the transmitter is also available that will cover both 2.0 and 2.5 GHz ENG frequency bands in a single unit.

Other standard features include a dual audio channel with line/mic level switching, LPF video input, remote control capability, wideband (10 MHz), narrowband video, baseband switching, and 12 VDC operation.

Available options include AC power supply, disc rod, and parabolic antennas with gains up to 25 dBi at 2.0 GHz.

The RF-223 measures 4.5" x 5" x 7", and weighs just eight pounds.

**Circle (11) on ACTION CARD**

**Leitch Video** is introducing a rack-mounted AT, the RacPac. Its compact 7" size can hold any combination of drives in three full height units. Ideal for use in professional systems, the RacPac AT features a passive backplane with five XT and five AT slots and a modular 250-watt power supply that operates on 110/220 V.

The unit's modular design means that all components can be easily reached for



*The RacPac AT from Leitch Video.*

repair. Standard modules include a 286 CPU card with 1 Mb of memory; a multi-function card with one serial port, one parallel port, and room for up to 1.5 Mb of RAM; a drive controller with a 20 Mb, 3 1/2" hard drive and a 5 1/4" floppy drive; and a display adaptor capable of EGA, CGA, MDA, Hercules, or composite monochrome. Other configurations are available upon request.

**Circle (13) on ACTION CARD**

A hockey "Game of the Week" will soon be available on a cash and barter basis from the Western Collegiate Hockey Association and Skywave Sports Syndication.

Beginning in October and running through the 1989-90 season, the series will include a weekly telecast, the WCHA playoffs, and the WCHA "Final Four." In addition, each WCHA team will make special appearances on "Game of the Week."

All games will be offered on a market-exclusive basis. First choice will go to stations that have carried the games in the past.

(Skywave Sports Syndication president Dan Dobrowolski also operates LPTV channel 54 in Madison, WI.)

**Circle (187) on ACTION CARD**

The DL 705 Series rack-mounted active video delays from **Broadcast Video Systems, Ltd.** incorporate on-board active video amplifiers that allow uniform video output over the full delay range. Continuous delay adjustment is possible, up to 1970 nanoseconds on a single card. Sixteen ranges allow selection of the opti-

imum range to suit any application.

Twelve cards may be housed in a two-rack unit frame (3 1/2") complete with power supply. A single card frame and supply is also available. Cards are available to mount in popular video DA frames.

**Circle (15) on ACTION CARD**

For all of you who have trouble with the technical side of broadcasting, **Tektronix** offers a free videotape called *Basic Waveform Monitoring*, which explains the use of a waveform monitor and how it can enhance the technical quality of a production.

**Circle (9) on ACTION CARD**



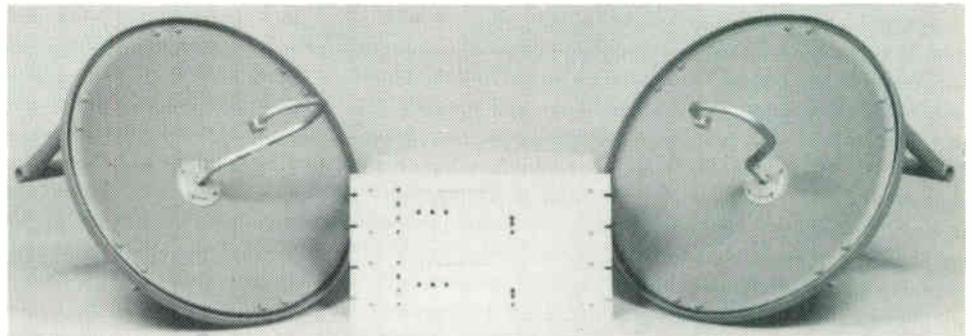
*The Wallet from Aston Electronics.*

The Wallet, a new, low-cost, still store system that stores key signals and features image access retrieval in under 1.5 seconds is now available from **Aston Electronics**.

The Wallet also has removable hard disks from which stored images can be transferred to the resident hard disk in less than two seconds, sophisticated editing software which offers three automatic output sequences, and the ability to accept either RGB or Y/C signals—or to convert between them.

The basic Wallet unit, which is rack mountable, contains a 40 Mb hard disk capable of storing 39 images with their key signals. An optional 44 Mb removable

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hard disk system can store up to 42 additional images and key signals on each disk. The removable disks are transferable from one Wallet to another. As a result, images can be transferred from base studios to remote broadcasting or replay sites via disks rather than over the air.

Five different versions of the Wallet are being offered. The basic unit includes a fixed Winchester 40 Mb hard disk. Also available is a system with one removable 44 Mb Winchester, a combination of fixed and removable drives, two fixed disk drives, or two removable disk drives.

#### Circle (17) on ACTION CARD

Basic but useful—if you need a quick review of or introduction to television production techniques. In connection with the Video Expo shows held annually in New York, San Francisco, Orlando, Chicago, and Los Angeles, the North American Television Institute offers courses in everything from script-writing to post-production.

Both events are sponsored by **Knowledge Industry Publications, Inc.**, publishers of periodicals, books, and other information sources for the television industry.

#### Circle (188) on ACTION CARD

## Atlanta LPTV-55 Joins VJN

Video Jukebox Network, Inc. has reached an affiliation agreement with John Broomall of Woodstock, GA, to air The Jukebox Network on Broomall's LPTV station, W55BM, serving Atlanta and Marietta, GA. The station reaches an estimated 500,000 viewers in the area.

The affiliation is the twentieth in The Jukebox Network's system of cable and broadcast outlets. The company also has affiliation agreements with LPTV stations W05BN in Detroit; W05BK in Charlotte, NC; channel 31 in Gainesville, FL; and W06BA in Jacksonville. The Jacksonville station will extend the Jukebox Network signal to areas not served by the company's owned and operated station, W10AX in the same city.

The company also said that it was close to completing construction of three new company-owned LPTV facilities: K10NG in New Orleans; W02BV in Birmingham, AL; and W08CU in Jackson, MS.

#### BON MOT

**The handwriting on the wall may be a forgery.**

Ralph Hodgson

# ... at the FCC

## NEW LPTV LICENSES

The following LPTV stations received licenses on the dates shown. Station call sign, location, and the name of the licensee are also given.

- K13UW Little Rock, AR. Jim C. Cowser, 5/15/89.
- K14HR Tucson, AZ. K. Sandoval Burke, 5/31/89.
- W11BM Orlando, FL. National Black Media Coalition, 5/30/89.
- W43AT Dalton, GA. John Forshner, 5/30/89.
- W51AR Tifton, GA. Latin American Television, Ltd., 5/30/89.
- K55FL Spencer, IA. KMEG Television, Inc., 5/31/89.
- K40CO Storm Lake, IA. KMEG Television, Inc., 5/30/89.
- K07UL Burley, ID. William L. Armstrong, III, 5/30/89.
- K12OE Firth/Basalt, ID. William L. Armstrong, III, 5/30/89.
- W57AQ Robinson, IL. Full Gospel Business Men's Fellowship International, 4/18/89.
- W15AK Paducah, KY. Robert W. Sudbrink, 4/17/89.
- W20AH New Bedford, MA. Freedom WLNE-TV, Inc., 5/30/89.
- K45CA Cape Girardeau, MO. New Life World Outreach Center, 5/31/89.
- K39CP Poplar Bluff, MO. Trinity Broadcasting Network, Inc., 5/31/89.
- W53AF Booneville, MS. Unity Broadcasting, Inc., 5/31/89.
- K67CV Lincoln, NE. Channel America LPTV Holdings, Inc., 5/30/89.
- K59DB Albuquerque, NM. Spanish TV 59, 5/30/89.
- W55EW Pahrump, NV. Communications Engineering, Inc., 4/17/89.
- W54AY Brownsville, NY. Island Broadcasting Company, 5/30/89.
- K14GW Corvallis, OR. K. Sandoval Burke, 5/30/89.
- W06BG Chattanooga, TN. Johnny Godgiben, 5/31/89.
- W10BI Nashville, TN. Family Broadcasting Company, 4/17/89.
- K14GX Beeville, TX. Mountain TV Network, Inc., 5/31/89.
- W40AH Chesapeake, VA. Acts Broadcasting Company of Chesapeake, 5/30/89.

## LPTV LICENSE RENEWALS

The following LPTV stations received license renewals on the dates shown. Station call sign, location, and the name of the licensee are also given.

- K22AG Anchorage, AK. John R. Moore, 5/5/89.
- W10AX Jacksonville, FL. Video Jukebox Network, 4/10/89.
- W13BE Chicago, IL. Charles Woods, 5/31/89.
- K18AI Grand Rapids, MI. Red River Broadcast Corporation, 3/15/89.
- K26AC Bemidji, MN. Red River Broadcast Corporation, 3/15/89.
- K54AT Brainerd, MN. Red River Broadcast Corporation, 3/15/89.
- K19BG St. Cloud, MN. Trinity Broadcasting Network, 3/15/89.
- K23AJ Devils Lake, ND. Red River Broadcast Corporation, 3/15/89.
- K32AP Windsor-Eldridge, ND. Cable Services, Inc., 3/15/89.
- K20AM Witlow City, ND. Full Gospel Businessmen's Fellowship, 3/15/89.
- K13GX Navajo, NM. The Navajo Tribe, 5/5/89.
- K66CH Reno, NV. Women's LPTV Network, 5/22/89.
- W08BY Milwaukee, WI. Charles Woods, 5/31/89.
- K11RP Cheyenne, WY. Russell Communications, 5/15/89.
- K49AY Cheyenne, WY. Echonet Corporation, 5/15/89.

- K15AD Cody, WY. KOUS-TV, Inc., 5/15/89.
- K22AD Gillette, WY. Summit Communications, 5/15/89.
- K48BM Jackson, WY. Ambassador Media Corporation, 6/9/89.
- K09UO Sheridan, WY. Russell Communications, 5/15/89.
- K40AQ Shoshoni, WY. Riverton Fremont TV Club, Inc., 5/15/89.
- K44AW Shoshoni, WY. Riverton Fremont TV Club, Inc., 5/15/89.

## CHANNEL CHANGES

- W38BC Jacksonville, FL. Jacksonville Translator, Inc. Channel change granted from 59 to 38 on 3/27/89.
- W63BK Pensacola, FL. Trinity Broadcasting Network, Inc. Channel change granted from 61 to 63 on 5/31/89.
- W65CD Paducah, KY. Dr. David Grimes. Channel change granted from 54 to 65 on 5/31/89.
- W33BB Raleigh, NC. Trinity Broadcasting Network, Inc. Channel change granted from 50 to 38 on 5/31/89.
- W13CB Beachwood, OH. TV 31, Inc. Channel change granted from 31 to 13 on 4/13/89.
- K34AK College Station, TX. Clear Channel Communications, Inc. Channel change granted from 28 to 34 on 3/23/89.
- W14BI Huntington, WV. Channel America LPTV Holdings, Inc. Channel change granted from 55 to 14 on 5/31/89.

## ASSIGNMENTS AND TRANSFERS

- W23AK Jasper, AL. Voluntary assignment of permit granted from Walker Television to WMTV, Inc. on 5/5/89.
- W61BG Montgomery, AL. Voluntary assignment of permit granted from Brooks Broadcasting, Inc. to Trinity Broadcasting Network, Inc. on 5/2/89.
- K49BZ Santa Barbara, CA. Voluntary assignment of permit granted from Response Broadcasting, Inc. to Coastline Communications, Inc. on 5/1/89.
- W41AX Ft. Pierce, FL. Voluntary assignment of permit granted from Story & Kelly-Smith, Inc. to Howard Story, Jr. on 5/1/89.
- W67BY Fort Myers, FL. Voluntary assignment of permit granted from Manglitz and Sanchez to Trinity Broadcasting Network, Inc. on 4/3/89.
- W49AI Inglis-Yankeetown, FL. Assignment of license granted from Suncoast Family Television Corporation to Citrus County Association for Retarded Children on 4/3/89.
- W47AL Orlando, FL. Voluntary assignment of permit granted from Beach Broadcasting to Tiger Broadcasting, Inc. on 6/7/89.
- W46AN Panama City, FL. Voluntary assignment of permit granted from Media Properties to Panama Properties, Inc. on 4/3/89.
- W53AH Vero Beach, FL. Assignment of license granted from Malrite of Florida, Inc. to Malrite Communications Group, Inc. on 3/21/89.
- W33AL Brunswick, GA. Voluntary assignment of permit granted from Christian Renewal Ministries to Trinity Broadcasting Network, Inc. on 4/25/89.
- K04NL Des Moines, IA. Voluntary assignment of permit granted from Jeffco Broadcasting to Video Jukebox Network, Inc. on 4/3/89.
- K65BY Waterloo, IA. Assignment of license granted from Full Gospel Business Men's Fellowship International to Trinity Broadcasting Network, Inc. on 4/5/89.
- W33AR Rockford, IL. Voluntary assignment of permit granted from Skywave Communications Corporation to Weigel Broadcasting Company on 3/21/89.
- W04BV Evansville, IN. Voluntary assignment of permit granted from American Television Network, Inc. to South Central Communications Corporation on 3/21/89.
- W54AT Brockton, MA. Voluntary assignment of permit granted from the Congregation of the Oblates of the Virgin Mary, Inc. to Catholic Television Center, Inc. on 4/3/89.
- K58BS Minneapolis/St. Paul, MN. Assignment of license granted from International Broadcast Consultants, Inc. to Trinity Broadcasting Network, Inc. on 6/12/89.

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K52DH Springfield, MO. Voluntary assignment of permit granted from John Wayne Wilson and Kathryn Lou Wilson to Trinity Broadcasting Network, Inc. on 5/26/89.

W10BD Jackson, MS. Assignment of license granted from K. Sandoval Burke to Great Oaks Broadcasting Corporation on 5/15/89.

K42BZ Bozeman, MT. Voluntary assignment of permit granted from CBC-TV to Eagle Communications, Inc. on 4/5/89.

K41CX Helena, MT. Voluntary assignment of permit granted from Ellen Angelia Murray to Trinity Broadcasting Network, Inc. on 6/6/89.

W59BA Goldsboro, NC. Voluntary assignment of permit granted from Impact Television Group, Inc. to Trinity Broadcasting Network, Inc. on 3/8/89.

K61EQ Albuquerque, NM. Voluntary assignment of permit granted from Western Bible College to Son Broadcasting, Inc. on 4/19/89.

K28CE Socorro, NM. Voluntary assignment of permit granted from The Church of the Crosses, Inc. to Son Broadcasting, Inc. on 3/16/89.

K30BN Coos Bay, OR. Voluntary assignment of permit granted from Quanta Communications to California Oregon Broadcasting, Inc. on 4/3/89.

K14HN Hillsboro, OR. Voluntary assignment of permit granted from Atwater Kent Communications to Kenneth J. Seymour on 5/30/89.

K16CB Portland, OR. Voluntary assignment of permit granted from Atwater Kent Communications, Inc. to Kenneth J. Seymour on 4/25/89.

W50BA Bellefonte, PA. Voluntary assignment of permit granted from Eastern Broadcasting Corporation to ITS Individual Shareholders, Roger A. Neuhoff on 3/31/89.

W09BL Williamsport, PA. Assignment of license granted from Valley Music, Inc. to Kennedy Broadcasting, Inc. on 4/7/89.

W60AI Charleston, SC. Voluntary assignment of permit granted from Microband Corporation of

America to Trinity Broadcasting Network, Inc. on 3/16/89.

W66BB Columbia, SC. Voluntary assignment of permit granted from Bogner Antenna Corporation to Channel America LPTV Holdings, Inc. on 4/3/89.

W46AJ Cookeville, TN. Voluntary assignment of permit granted from Impact Television Group, Inc. to Trinity Broadcasting Network, Inc. on 3/8/89.

W10BI Nashville, TN. Voluntary assignment of permit granted from Family Broadcasting Company to TV 10, Inc. on 4/19/89.

K64CR San Antonio, TX. Voluntary assignment of permit granted from Catholic Views Broadcasts, Inc. to Hamon Broadcasting Corporation on 4/19/89.

K35BO Wichita Falls, TX. Assignment of license granted from Sports 35, Ltd. to BSP Broadcasting, Inc. on 3/21/89.

W67BL Charleston, WV. Voluntary assignment of permit granted from Residential Entertainment, Inc. to Channel America LPTV Holdings, Inc. on 4/3/89.

## NEW LPTV CONSTRUCTION PERMITS

The following parties received LPTV construction permits on the dates shown. Station call sign and location are also given.

K54DF Harrison, AR. Mountain TV Network, Inc., 5/30/89.

K56EE Nogales, AZ. Carroll McCarthy, 5/1/89.

K31CL Arroyo Grande, CA. Erwin Scala Broadcasting Corporation, 5/30/89.

K67EU Monterey, CA. Schuyler Broadcasting Corporation, 5/31/89.

K22DD Santa Clara/San Jose, CA. Linda K. Trumbly, 5/31/89.

K39CQ Santa Maria, CA. Blacks Desiring Media, Inc., 5/30/89.

K27CZ Springfield, CO. Mountain TV Network, Inc., 5/30/89.

W21AT Daytona Beach, FL. Flamingo Broadcasting Corporation, 5/31/89.

W27AW Homosassa Springs, FL. Owen Broadcasting Enterprises, 5/30/89.

W46BC Key Largo, FL. David J. Stein, 4/26/89.

W09BS Naples, FL. New Florida Broadcasting Company, Inc., 5/30/89.

W47AW Vero Beach, FL. American Christian TV System, Inc., 5/30/89.

K34CV Burlington, IA. Mountain TV Network, Inc., 5/30/89.

K45CW Cedar Falls, IA. Great American Broadcasting Company, 5/30/89.

K39CN Coeur D'Alene, ID. Gem State Broadcasting, 5/31/89.

W58BP Paducah, KY. Millard V. Oakley, 5/30/89.

W34AT Portland, ME. Barbara Dilley, 5/30/89.

K51CY Austin, MN. Televue Systems of Minnesota, 4/18/89.

K53DI Austin, MN. Televue Systems of Minnesota, 4/17/89.

K55FJ Austin, MN. Televue Systems of Minnesota, 4/17/89.

K57EU Austin, MN. Televue Systems of Minnesota, 4/17/89.

K61EU Austin, MN. Televue Systems of Minnesota, 4/17/89.

K64DP Spring Lake Park, MN. Mark Denyes, 5/31/89.

K35CO Cameron, MO. Communication Systems Associates, Inc., 5/30/89.

W25BA Grenada, MS. Morgan D. Hardy, 5/31/89.

W26AW Natchez, MS. Free State Broadcasting, Inc., 5/30/89.

W29AT Manchester, NH. Central Broadcasting Corporation of New Hampshire, 5/30/89.

K19CN Carlsbad, NM. Carlsbad Publishing Company, 5/30/89.

K24CN Clovis, NM. American Lo-Power TV Network, Inc., 5/30/89.

K41CN Hawthorne, NV. Mountain TV Network, Inc., 5/31/89.

W39BC Hamburg, NY. Southtown's Christian Center, Inc., 5/31/89.

K24CJ Durant, OK. Betty Margaret Wheeler, 5/31/89.

K30CT Durant, OK. Betty Margaret Wheeler, 5/31/89.

K67EV Portland, OR. Roy H. Park Broadcasting of Oregon, 5/31/89.

W35AW Uniontown, PA. Turnpike Television, 5/31/89.

W50BC Wilkes-Barre, PA. Broadcast Data Corporation, 5/1/89.

W18AR Charleston, SC. Allbritton Communications Company, 5/31/89.

W15AQ Murfreesboro, TN. Joe F. Bryant, M.D., 5/1/89.

W48BA Nashville, TN. Ken Jacobsen, 4/13/89.

K33DB Houston, TX. The National Black Media Coalition, 5/31/89.

W42BE Fairfax, VA. Fairfax Low Power Company, 5/31/89.

K58DD Bellingham, WA. TV Board First Assembly of God Church, 4/13/89.

K56EG Yakima, WA. Ronald Theodore Bevins, 5/30/89.

W17AX Marshfield, WI. Edwin Gungor, 4/14/89.

W30AQ Marshfield, WI. Edwin Gungor, 4/14/89.

W28AS Wheeling, WV. Turnpike Television, 4/13/89.

K34CN Green River, WY. Holcomb Broadcasting, 3/14/89.

K19CD Thermopolis, WY. Lee F. Hollingsworth, 4/14/89.

K35CI Torrington, WY. Western Publishing Company, 4/13/89.

#### LPTV LOTTERY WINNERS

The following are tentative selectees of the LPTV/translator lottery held on May 25, 1989. If no petitions to deny the selectees are filed, and if they are otherwise qualified, they will be granted construction permits.

Ch. 18 Rogers/Bentonville, AR. The Times Southwest Broadcasting, Inc.

Ch. 33 Breckenridge, CO. ZLTV, Inc.

Ch. 42 Vail, CO. Millard V. Oakley.

Ch. 51 Hartford, CT. Trident Broadcasting.

Ch. 05 Clearwater, FL. George Fritzing.

Ch. 42 Sessoms, GA. Community Television.

Ch. 51 Ottumwa, IA. Lee Enterprises, Inc.

Ch. 65 Sioux City, IA. Kelco Television.

Ch. 24 Lewiston, ID. Russell Communications.

Ch. 59 Vandalia, IL. Ogden Leisure, Inc.

Ch. 58 Columbia, MO. Howard Wapner.

Ch. 43 Poplar Bluff, MO. Evarista Romero.

Ch. 65 Poplar Bluff, MO. American Lo-Power TV Network.

Ch. 16 Bozeman, MT. AER Productions.

Ch. 14 Livingston, MT. Mountain TV Network, Inc.

Ch. 23 Red Lodge, MT. Mountain TV Network, Inc.

Ch. 35 Morristown, NJ. TV-Nova.

Ch. 32 Cleveland, OH. Gerald Cohen.

Ch. 15 Columbus, OH. Advanced Allied

Communication Technologies, Inc.

Ch. 32 Lexington, OH. Edward F. Anglin.

Ch. 47 Springfield, OH. Impact Television Group, Inc.

Ch. 38 Grants Pass, OR. Inspiration TV of

Southern Oregon.

Ch. 14 Williamsport, PA. NEP Communications, Inc.

Ch. 33 Amarillo, TX. Stacy L. Davis.

Ch. 36 Center, TX. Ro-Mar Communications.

Ch. 61 Corpus Christi, TX. Neighborhood TV

Network, Inc.

Ch. 68 Dallas, TX. Frontier Southwest

Broadcasting, Inc.

Ch. 48 Del Rio, TX. T. P. Millar and K. J.

Petersen.

Ch. 31 Houston, TX. William Gerry.

Ch. 30 Monticello, UT. W. Russell Withers, Jr.

Ch. 45 Pullman, WA. Blacks Desiring Media, Inc.

Ch. 42 Bigelow Bench Area, WY. Daggett

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