
stations in the news

SLAIGHT, SELKIRK, IN BIDDING FOR STANDARD BROADCASTING

As BT went to press, Selkirk Communications Ltd. had joined in the bidding for Standard Broadcasting, offering \$24 a share. The move follows a bid by Allan Slaight, whose Slaight Communications owns CFGM/CILQ-FM Toronto. He agreed to buy 49% of Standard from Hollinger Argus Ltd. (Conrad and Montegu Black) for \$21.50. The offer could cost Slaight as much as \$126 million—it was extended to all shareholders, conditional on 90% of the shares being acquired within 35 days and CRTC approval within 120 days. If the CRTC approves, CFGM and Q107 would be sold to Western International Communications of Vancouver. An unusual provision would give Slaight the option of selling Standard's interest in Valley Cable TV of California back to Hollinger for \$2 million, 30 days after all regulatory approvals.

Following the agreement, Allan Slaight resigned as head of the 'Committee for Responsible Privatization of CBC-TV,' which is attempting to persuade the federal government to sell CBC's English and French television networks.

TV ONTARIO EXPANDS NETWORK

Two major new TVOntario transmitters are to begin operation in December/85. They will serve Belleville (64.5 kw on channel 53) and Kingston (143.1 kw on ch. 38), and will share existing CBC towers. Application has been made for Peterboro (152.1 kw on ch. 18). As part of a \$3.3 million extension program, TVO is also adding two medium power transmitters in the Bancroft area, a third at Kenora, and LPTVs at Parry Sound and Tobermory, to be operational by spring, 1987.

Other TVO news:

- Three out of four awards for adult educational documentaries at this year's Houston International Film Festival were won by TVO. Another TVO production, *The Final Chapter?* took gold awards in two other categories.
- A new NAPLPS frame creation software package, 'Createx Plus,' was introduced by TVO at Videotex '85 in New York.

ACCESS AUTOMATED COMPUTER SYSTEM FOR ON-AIR BROADCAST



Alberta's ACCESS Network has installed a totally automated computer system for on-air broadcast application. Programs are microwaved from the Edmonton studios to Superchannel facilities in that city, for uplink to Anik C3. The uplink became available after the amalgamation of Superchannel and First Choice Pay-TV; ACCESS leases it, as well as a full transponder on the satellite. Neil Tegart, manager of broadcast services, says the fully automated system permits logs to be generated weeks ahead to the exact second. With the computer 'taking' each source to air, only one operator is required to load and switch the four C format one-inch VTRs.

ORANGEVILLE FM APPLICATION

Ted Randal and Chuck Connors of CKAN Newmarket, ON, have announced plans for an FM station in Orangeville, 35 miles west of Newmarket. CFRM (Farm) would operate on 103.5 MHz—a Class B frequency assigned to Guelph—with an 'adult contemporary country' format. Randal told an Orangeville meeting that the station would have about 250,000 people in its primary coverage, and could be on-air by mid-1986 if approved by the CRTC.

BCTV CONTRACT REJECTED

More than 70% of the 125 technical employees of BCTV Vancouver voted in favor of strike action June 2nd, after a break down in contract talks. NABET was seeking a 2-year pact with increases of 6% each year. BCTV offered increases of 4, 4 and 6% over 3 years—already accepted by employees at CHEK-TV Victoria, also owned by BCTV. The previous contract expired February 18, 1985.

Other stations in the news:

- **CHNB-TV North Bay** will be 35 years old this fall and other stations and former employees are invited to send on-camera greetings (10 sec. long, on 3/4-inch tape). Contact Tim Hannah at Mid-Canada TV, 245 Oak St. E., North Bay, ON, P1B 1A2.

- **CKDA Victoria** has applied for a change of frequency, from 1220 to 1200.

Transfers of ownership approved by the CRTC include: • **CFMC-FM Saskatoon** to Rawlco Communications; now 6 kw on 103.9, it will boost power to 100 kw on 95.1, co-located with CKOM. Format will be progressive rock. • **CKST St. Albert, AB**, to Balsa Broadcasting Corp., owned by Central Interior Cablevision of BC (51.7%) and Saskatoon Telecable (33%). • **CJRS Sherbrooke** from Radiomutuel to CJRS Radio-Média Inc., controlled by Claude Boulard (60%) of CIMO-FM Magog.

NAGRA KNOWS VIDEO

Applications for transfer of ownership: • Saskatoon Telecable for a 72% interest in **CJJC Langley, BC**; • An increase from 50 to 100% of **CKDK Woodstock, ON**, for Schoone Communications; • Purchase of **CKKC Nelson and CFKC Creston, BC** from KC Broadcasting, by Four Seasons Radio Ltd. of Kelowna.

• Classical music station **CFMX-FM Port Hope-Cobourg, ON**, is co-presenter, with Ontario Place, Toronto, of a seven-concert series at the Forum.

• **CKCY-TV** has changed its call letter to **CHBX-TV Sault Ste. Marie, Ontario**.

• The **British Broadcasting Corp.** ended 405-line TV transmission in January. Started Nov. 2, 1936, as the world's first regular television service, the 405-line system grew to a network of 107 transmitters. It declined with the introduction of a duplicate 625-line service in 1969.

• **CJRT-FM Toronto** marked the 20th anniversary of Ted O'Reilly's *Jazz Scene* with a 'Jazz Jam' at Harbourfront. Free to the public, the show featured over 25 of Canada's top jazz musicians.

• The CRTC has approved the use of SCMO on **CHFI-FM Toronto** as a back-up monaural program feed for **CFTR's** new transmitter site at Grimsby, Ontario.

• A unique co-operative effort by **Cable 13**, the London community channel, and **CFPL-TV London** provided local coverage of the recent Ontario election. Both provided mobile units for on-location reporting of election results.

• The CRTC has renewed the licences of Québec's private radio networks for a full 5-year term. The two nets are Télémedia (CKAC Montréal and 36 other stations) and Radiomutuel (5 owned-and-operated stations, plus 10 affiliates).

YEAR 10 FOR CKCU-FM OTTAWA

CKCU-FM Ottawa, Canada's largest campus-community radio station, will mark 10 years as an FM station on November 16, 1985; all station alumni are invited to attend. For information, write CKCU-FM, Rm. 517, Carleton University, Ottawa, ON, K1S 5B6, or telephone Joe Reilly at (613) 231-4498.

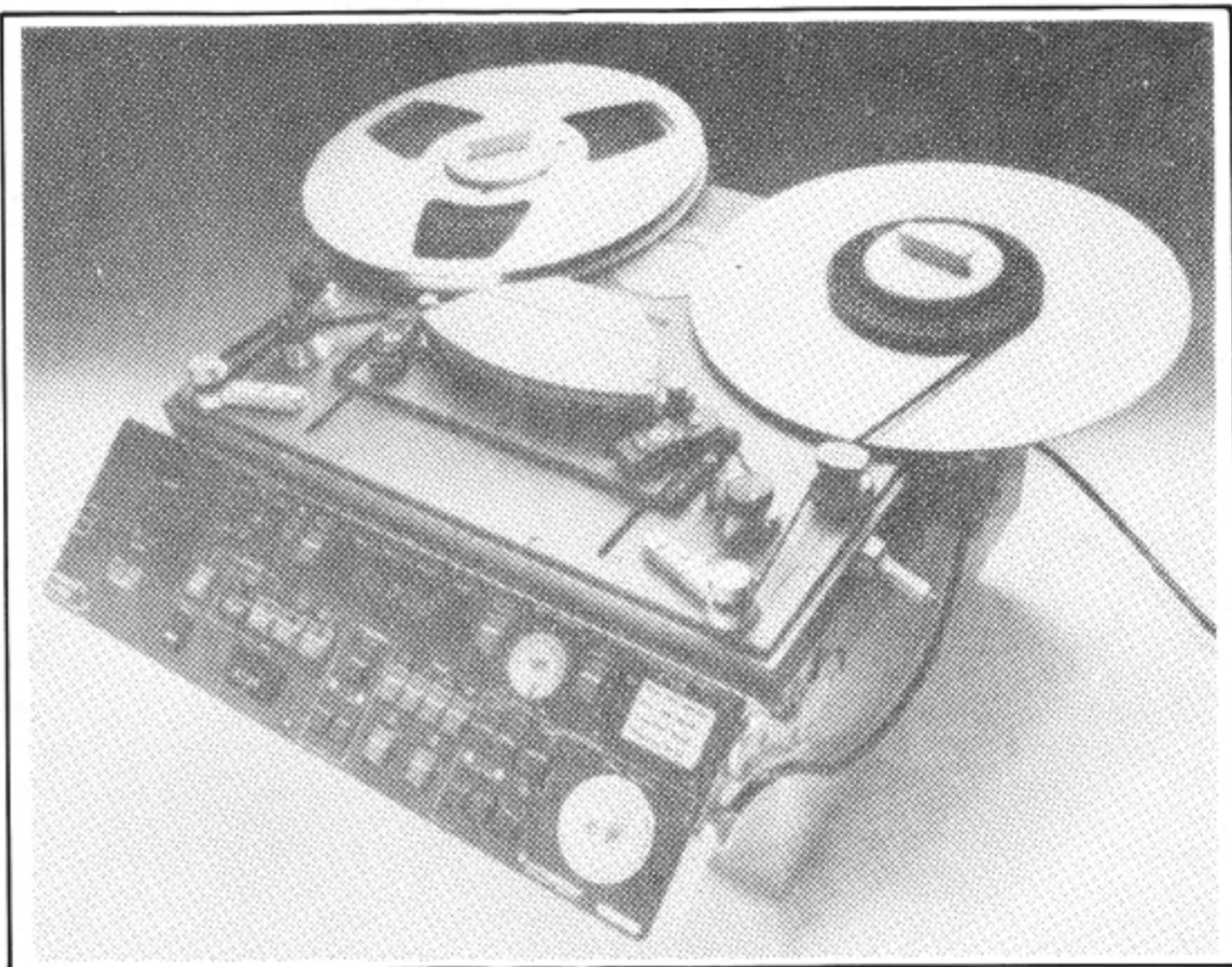
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Region	'Charlie Awards for Spot News'	'Dan' Awards for Documentaries	'Sam' Awards for Editorials
ATLANTIC	Radio: CJCB/CKPE-FM Sydney TV: CJCH-TV Halifax	CHNS Halifax CJCH-TV Halifax	CFNB Fredericton CBYT Corner Brook
CENTRAL CANADA	Radio: CKSL London Tomado Reports TV: CKVR-TV Barrie 'Pope's Visit'	CKSL London 'Charities in Need' CFPL-TV London 'Psychiatric Patients'	CHUM Toronto 'Political Series' CITY-TV Toronto 'Stephen Lewis Series'
PRAIRIES	Radio: CJCY Medicine Hat TV: CFCN-TV Calgary 'Plane Crash'	CJOB Winnipeg CFCN-TV Calgary 'Cancer Series'	(no 1985 award) CFRN-TV Edmonton 'Plight of Poor'

British Columbia award winners were not yet announced as BT went to press and will be reported in our September/October issue.

RTNDA PLANS HALIFAX MEETING

Plans are underway for the 1985 RTNDA National Convention to be held at the Nova Scotian Hotel in Halifax, Sept. 5-7. A seminar on *Management Motivation* by consultant Gerry White, is scheduled — along with outstanding speakers, yet to be finalized as BT went to press. Social events will include a lobster dinner at a nearby seacoast location, and it is hoped to have a cruise on board the world-famed schooner *Bluenose II*, plus a tour of the Navy dockyard of the historic seaport city.

WINDSOR NEWS QUOTA CRITICIZED

A recent CRTC decision requiring CKLW and CKEZ-FM Windsor, ON, to have 45% Canadian content in their newscasts is under heavy criticism from news people. An editorial in the *Globe & Mail* headed *The State as Editor* concluded that 'the state has no business in the newsrooms of the nation.' Eric Rothschild of Newsradio urged a strong stand by RTNDA, while Jim MacLean of CKEY Toronto said the requirement 'opens the door to direct government control of editorial content.' RTNDA president Bob Beaton of CJOB Winnipeg, in a letter to CRTC chairman André Bureau, said the decision, in effect, regulated newscast content and was a dangerous precedent, 'contrary to the public interest and to the constitutional provision of freedom of the press.'

CFPL-TV's RON LAIDLAW RETIRES

Ron Laidlaw has been named 'editor emeritus' on his retirement after 32 years as news director of CFPL-TV London, ON. He was with the London *Free Press* organization exactly 45 years. In 1953 he

became the first news employee of CFPL-TV, Canada's second private TV station. A founding member of RTNDA Canada and its second president, Laidlaw will receive the 1985 President's Award at this year's national convention in Halifax.

BN VIA CANCOM SATELLITE

Up to 100 TVROs are being installed at radio stations affiliated with Broadcast News, following an agreement between BN and CanCom. BN will use up to eight audio channels (five 15 kHz) to deliver news and other services via CanCom's Anik D transponders. Capability includes stereo (BN already carries *Rockline* and *Canadian Countdown* in stereo), high-speed news wires and cable TV services.

SASKATCHEWAN AWARDS

Saskatchewan Reporters' Association Award winners from the electronic media are: Radio news—Bob Nixon, CBC Regina; radio feature—Mark Leven, CKCK Regina, Larry Powell and Laurence Wall, CBC; TV feature—Carol Coffey and Art Jones, CBC Regina, and Joanne Schnurr, CKCK-TV.

CNN EXCHANGE WITH SOVIET BLOC

Cable News Network has become the first American news organization to affiliate with Intervision, the Soviet bloc TV consortium. A two-year agreement permits exchange of news and journalists, and entertainment programs. There will also be cooperation on a 6-hour documentary, *Portrait of the Soviet Union*. Last year, CNN was allowed to use the Soviet satellite system to broadcast some of the 'Friendship Games' organized by the USSR after it pulled out of the Olympics.

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TECHNITOPICS

by Sandy Day



Spotlight on Space Geneva—Here We Come!

The ITU embarks this summer on a major attempt to sort out impending problems in use of the geostationary orbit. A world administrative radio conference, to be held in two sessions, is scheduled to commence August 8th. WARC-ORB (1) will determine the methods most appropriate for planning, and the services and bands to be planned for those using the geostationary orbit. It's getting crowded up there, with some 80 satellites operational and more than double that number either in the co-ordination stage or announced to be put into service in the 6/4 and 14/11-12 GHz bands. The service most likely to be affected is the fixed-satellite service (FSS).

Broadcasting satellites have already been planned, those of Regions 1 and 3 at a WARC in 1977, and of our Region 2 at

RARC-BS-83. In our region, uplinks (feeder links) were also planned in the 17 GHz band, but Regions 1 and 3 have yet to plan their own. Broadcast feeder links are categorized as FSS.

The conference agenda includes two additional tasks. The first is to find a band suitable for DBS sound service between 500 and 2000 MHz at powers sufficient to feed simple portable and car FM radios. The major interest in this stems from Western Europe. Even a cursory examination indicates that such a band should not be shared, and this spectrum is already crowded with other vital services, leading to the initial conclusion that we should look elsewhere for this service.

The second task involves, in effect, ratification of the Region 2 direct broadcast satellite (DBS) plan from RARC-BS-83 by the rest of the world. Such a plan, while honored by governments signatory to the Final Acts, is not binding on nations of the other regions until ratified by having its Final Acts incorporated in the ITU Radio Regulations. There is already opposition to this step from some European nations.

Planning involves agreed-upon procedures and parameters whereupon a satellite can obtain a satisfactory orbital location and chunk of spectrum suitable for its intended service at the time indicated by an Administration. There are such procedures now which work fine until the orbit or spectrum become crowded. The advanced nations have been able to work out the details as their birds went into service. The problem arises from the many have-not emerging nations (who easily outnumber the advanced nations in any ITU showdown vote) who want a reservation to provide for their eventual needs. This is termed *a priori* planning. There are two parts of the orbit where *a priori* planning would be particularly difficult, that near 70° West where west coast South America coincides with Eastern North America, and near 10° East where central Europe coincides with many African nations.

Opinions on techniques among the emerging nations favor *a priori* planning, but such an approach is strongly opposed by the U.S.A. and some others. An example of the one approach is that promoted by Algeria. Each country would be assigned one orbital slot, with 500 MHz in the 6/4 band and 250 MHz in each of the 14/11-12 and 7/8 GHz bands. A country could rent out its assignment if it wished. At preparatory seminars held recently, this and other somewhat similar proposals have been looked at with enthusiasm from the emerging nations but with dismay by the developed.

Barely two months prior to the conference, most nations have kept their cards hidden and those proposals which have gone forward (far after the nominal Geneva deadline dates), have been guarded and non-committal. Canada and the U.S.A. have been preparing for years for this conference, but neither at this stage is divulging its full strategy. There is bound to be mass confusion before a satisfactory compromise is found. Our delegations will be facing a very difficult situation.

CHML/CKDS APPOINTMENT TED TOWNSEND



Don Luzzi, president of radio stations CHML and CKDS Hamilton, is pleased to announce the appointment of Ted Townsend as chief engineer.

Ted has been part of the engineering department of CHML and CKDS since joining the company in 1969. Ted is currently co-ordinating the design and construction of the new studios and equipment of the new CHML/CKDS radio centre scheduled for completion in October.

CHML and CKDS are proud to honor the achievements and dedication of their professionals.

New Developments Highlighted at NAB '85

by Sandy Day

NAB has certainly created a monster—with this year's convention in Las Vegas, April 13 to 17, more than ever an exciting, expensive, exhausting extravaganza. Attendance surpassed last year's 37,000. The trade show included 678 exhibitors and overflowed into the now-completed Hilton Pavilion display area. The engineering sessions included 94 papers and totalled some 50 hours between Saturday at 10:00 am and Wednesday morning.

The high-rollers were in town for the Hearn-Hagler fight, causing considerable chaos in accommodations; many NAB attendees found their room quotas arbitrarily reduced, and there were few minimum-stakes tables available in the casinos. Even the slots seemed to be less friendly. The scene at the entrance to Caesar's Palace the night of the fight was something to behold: acres of white Cadillacs, sprinkled with Mercedes, Ferraris and other exotic breeds, Hollywood stars and glitter, surging surly security guards, and peasants by the hundreds trying to catch a glimpse of the glamor. It was quite a phalanx to penetrate in getting to the BMI dinner. This dinner is an annual affair for NAB's present and former board members and senior staff—fantastic food and fellowship, and much appreciated by the few Canadian cousins who manage an invitation.

The Canadian hospitality suite at the Dunes was humming as usual, barely elbow room in mid-evening. Broadcasters certainly are indebted to the fifty Canadian suppliers who co-operated to provide this meeting place. It was evident that Canadian engineers were somewhat reduced in numbers, which is really a shame, as most could learn more in a few days at NAB than is possible over the balance of the year. When will managers learn that engineers work, and work hard, at shows like this? Not much time is left for both fun and sleep.

Software Enhancement

A notable and important trend in this year's displays was the addition of more sophisticated software to the established hardware lines. For instance, the Emmy

Award-winning Ampex Digital Optics (ADO), of which over 500 have now been sold, now has 3-D capability and permits objects to pass through each other. Ampex calls this 'infinity'. The computer graphics clan were much in evidence: NEC System 10, Chyron 'Chameleon', Dubner 'Two-paint', Bosch, MCI Quantel 'Mirage' plus 'Morph' and the DSC 'Illusion'. And now we have the Droid-works, with a digital sound/video editing station which operates in real-time, random access for video and film post-production. It drew a crowd. Software is naturally less costly to add, and the newer sales features emphasized this in ingenious user-friendly ways.

'Tubes are dead—?'

The CCD cameras were more in evidence and seem destined to replace the tube versions for ENG. The question seems to be how long it will be before the CCD's are good enough for studio use, and some suggest about a five-year period. Even in the transmitter lines, solid-state is making its inroads. The Nautel 50 kW AM, with others like Harris now at the 5 kW mark, and even a 5 kW UHF on display from Toshiba. Several solid-state exciters were in evidence, including Larcan's new 250 W VHF model TTC 250L.

HDTV

HDTV systems were all over the place, mostly the NHK 1125-line version, which, married to the digital VTR could put a system in operation for about a half-million. RCA was demonstrating its 750-line progressive scan design. One hurdle towards a world-wide common standard is substantially reduced by the NHK scan-converter which employs motion sensing to minimize inter-system artifacts. William Connolly, Sony Broadcast president suggests HDTV now is 'an investment in the future'.

Component Video

The evidence was everywhere that composite NTSC video within the studio is on the way out. Certainly in digital applications, and generally in small-format

camera and videotape equipment, processors and switchers, component video, (usually Y, R-Y and B-Y) is the coming trend. Videocassettes in M-format, or Panasonic's MII format using metal-particle half-inch tape, are pushing one-inch type C and retaining quality acceptable for NTSC transmission. Switchers, waveform monitors and time-base correctors were in evidence which could permit component video retention in much of the studio system. And some of the M-format all-in-one camera/recorders are now about the size of the 3/4-inch U-matic cartridge.

Time-Base Correctors

About 16 different exhibitors featured TBCs—generally less costly, smaller, and adaptable to component video, still-frame, slo-mo, and digital effects.

Automatic Cartridge Tapes

Remember the RCA, then Ampex versions of automatic cartridge machines for two-inch tape, then last year, the Sony Betacart which could handle 40 cassettes? Well, move over! RCA demonstrated the 'Silverlake' TCR-500 which can handle 281 M-format cassettes, up to 93 program hours, controlled through IBM-PC software. The Asaca can handle over 600 Beta cassettes. Panasonic, BSI and Lake had other models. And Broadcast Systems introduced one suited to line news production in real-time.

Professional Audio

Radio stations had fallen in love with the compact disc (CD), introduced a little over a year ago, even though the player had been designed for the audiophile market. The 'professional' CD was at NAB this year—Philips, Studer Revox and Sony displaying sophisticated versions having features important to broadcast production, microcomputer-assisted, of course. (Everything but the leg-weary delegates seemed to be computer-assisted).

Professional audio tape machines, digital as well as analog, were displayed at several exhibits, anything from two to

24 tracks. Sony introduced some beauties, the APR 5000 analog and the APR 5003 digital. Interestingly, on this class of machine, the analog almost meets the digital quality standards.

Stereo consoles were everywhere, with our Canadians McCurdy and Ward-Beck not taking a back seat to anyone.

AM Stereo

The broadcast equipment was there to see—exciters, monitors, processors—but AM stereo was not generating the steam it had in previous years. There was lots of talk, plus a few papers dealing with technique and stereo exciter design. Stations, with Harris joining Motorola in the C-QUAM camp, will be about 70% C-QUAM and 30% Kahn, with a few Magnavox still remaining. However, the receiver front was prominent, some 16 manufacturers producing C-QUAM only, including the big three in automakers and Pioneer in the after-sales market, while two, Sony and Sansui offered multiple-system receivers. Many stations still appeared to be waiting until others decide their fate for them. However, there was enthusiastic support from most, in that the AM stereo receivers at least demonstrated some ability to reproduce better quality AM sound in both mono and stereo modes.

Delco, it was reported, will have AM

stereo available in all GM model lines this year, with production of 350,000 units. U.S. prices range between \$250 and \$500. Penetration of AM stereo in current lines where it has been an option is around 20%. Sony is bringing out a \$325 automatic all-system car radio.

AM Technical Improvements

The report of the NAB AM Improvement sub-committee was prominently featured in the Saturday sessions, which played to a full-house. The eight recommendations, which do not involve AM stereo specifically, were reviewed.

- *Promotion* is essential to convince listeners that AM can sound very good on new receivers—get them into the stores that feature these sets.
- A *Technical Reference Centre* is being established at NAB, which will provide any information on good engineering practice that has been published. This information will be available to station engineers through NAB upon request once copyright clearances are obtained.
- *Audio processing* at the transmitter should limit frequencies to no higher than 12 kHz and should not have excessive boost. Recommended transmitter pre-emphasis and receiver roll-off characteristics have been proposed.
- *Transmitting antenna* array response should be balanced and broadbanded.

Bad arrays lead to roll-off, distortion, and splatter at high modulation levels. Antennas should present to the transmitter an even resistance and symmetrical reactance shift over the sidebands. Problem arrays are usually those where the RSS/RMS ratio exceeds 2.5. Over a 30 kHz bandwidth centred on the carrier, impedance within $\pm 10\%$ is good, $\pm 20\%$ is acceptable. VSWR should be 1.2 or better within 10 kHz of the carrier.

- *Research on antenna design* towards reduced skywave and enhanced ground-wave should be continued. One design being investigated has skywave reduced by about 15 dB.
- *Transmitter Transient Distortion* needs to be reduced. Normal total harmonic distortion tests are inadequate as they give only an rms indication of all products. Best is the three-signal test method which shows all even and odd order nonlinearities. Transfer testing, where input, suitably delayed, is balanced by the output signal in a differential amplifier, shows all linear and non-linear distortion products.
- *Receiver design* improvements are needed, and should provide a gentle roll-off above 5 kHz rather than a sharp cut-off at a higher frequency. A 10 kHz filter should be included to knock-out adjacent channel carriers. AM receivers can be built into a single chip, but this provides difficulties since the overall gain is some

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120 dB maximum. The key to best quality lies in the filters provided external to the chip. Improvements recently have resulted from AM stereo, better IF filters, noise blanking, and new designs of synchronous or quasi-synchronous detectors. There are problems in designing an AM receiver of greater than 5 kHz bandwidth. One element is the loopstick antenna. A hi-fi receiver should use a unipole rather than a loopstick, or at least provide an external antenna connection.

• *RF Interference* must be controlled so as to keep man-made noise to a minimum in the broadcast spectrum.

Multi-channel Television Sound

MTS was thoroughly aired at the Saturday afternoon sessions, with ten papers presented dealing with the practical aspects of instituting MTS in the station. Out on the floor, there was much to see, 30 displays—the Tektronix 1450-1 demodulator (an upgrade kit is available for the original model), stereo, SAP, and PRO-channel generators by Broadcast Electronics, stereo and SAP generators and a reference stereo decoder by Modulation Sciences, and Asaca stereo generator, one from Orban plus a stereo synthesizer, McMartin and TFT with stereo and SAP generators and a beautiful monitor from TFT. Harris showed a novel 'phase fixer' which would compensate stereo phase error plus wow and flutter from tape sources. While the suppliers were hot to trot, the engineers were mostly looking, assessing, adding up costs, and hedging on when they might convert. Only 30 stations are now on air with TV stereo, with a possible 300 by year-end.

As NAB president Eddie Fritts pointed out in his keynote address, the consumers aren't waiting, the competitors to off-air broadcasting already have stereo, and audience is eroding. Broadcasters are hurting themselves by delaying.

Among the U.S. nets, PBS has had stereo available on its music programs for some time for FM-simulcast purposes. Several PBS stations are already converted. NBC, who has an important consumer interest through parent RCA, is ahead and will have several programs by summer broadcast by its O&O stations, and presently is doing stereo tests on WNBC-TV New York. ABC's record is spotty, though seven affiliates are already on air with stereo. CBS is dragging its feet, apparently preoccupied with converting to satellite feed. This latter step is important to a network since it is the most economical means to reach affiliates with stereo program feeds. CTV, which presently feeds mono by sound-in-sync, may find that stereo tips the scales in favor of satellite distribution of at least part of its feed. Program producers, even now, say that they are getting little demand for stereo sound tracks except for

pay-TV programs and PBS musical shows.

My personal view is that we should get moving fast before U.S. border stations, stereo equipped, start any amount of programming for which simultaneous substitution on cable has been required in the past.

Meanwhile, the consumer products people are selling stereo-TV sets, stereo decoders, and even separate SAP receivers at a good rate. VCRs, pay-TV and rental cassettes have stereo tracks. Stephen Stepnes of RCA sees a quickening demand: 'The consumer's appetite has been whetted—consumers won't be satisfied until their local stations are in stereo too'.

Canadian Content

Prominent among the displays by Canadian firms were Ross Video with the RVS-210 switcher and effects, BVS with Bert's video aids and COX products, Bayly with RF hardware, Listec (a kissing cousin) with the A-2100 Electronic Script Writer, Larcan with the TEC-IV exciter for stereo TV, the 250 W solid-state VHF-TV and the TFM-25L brand new 25 kW FM transmitter. Ward-Beck featured a new line of stereo TV consoles, and Nautel received rave notices over the 500 kW solid-state Ampfet transmitter. One U.S. broadcaster who had just installed a 5 kW asked me, 'How come you guys are so smart up there; you're way ahead of the Americans'. David Grace, take a bow! David, Nautel president, was a surprise seat companion on the flight into Los Angeles from Toronto, an interesting and very bright man, and he has a great staff hiding down in Nova Scotia.

McCurdy was there with a very nice lineup of audio gear, and even the old warhorse, George, showed up. Those consoles must seem to be like grandchildren—he loves every one of them.

To sum up, the whole show was excellent, but even a superhuman engineer couldn't have covered more than a quarter of the sessions, events and displays of interest. As Tom Keller, NAB's Senior VP for Science & Technology said, 'It's far too much for any one person, but it at least offers something for everybody'. It did.

For those who missed it, or who want a record of the technical sessions, the 'Proceedings of the 39th Annual Engineering Conference' containing over 60 of the technical papers is available (\$35 US) and cassettes of the 24 engineering sessions can be obtained (at between \$8 and \$24 US per session, plus \$6 per order outside the U.S.A.), both from NAB.

Sandy Day is vice-president of Engineering Services for the Canadian Association of Broadcasters, whose 'Technitopics' column is a regular feature of Broadcast Technology magazine.

JULY/AUGUST 1985

THE BASICS

By Bruce Dingwall



AM Stereo: Part One — The Broadcast Systems

In the area of AM Radio, the choice of an AM Stereo system which will be the standard is quickly becoming a *de facto* situation. Because it is almost upon us, and because this is *The Basics*, I thought some information about how AM Stereo systems work, and how to make AM Stereo work in the real world, might be useful. Although I have had the good fortune to work with two of the systems, I'm sure many of you have, for reasons economic or otherwise, stayed out of the fray and need some updating.

It will take at least two installments of *The Basics* to tell all, and so I will try to give you as much background and detail as possible. Much of this information was garnered from a variety of sources, including manufacturers' literature. In particular, thanks to Bob Streeter of AM Stereo Inc. for allowing me to lift from his *AM Stereo Newsletter*, and Chris Hays of KRLA for permission to use some material from a talk he gave in Fullerton, CA.

I also cannot resist the opportunity to tell my version of the story about the major proponents, since this may be the first and last time I can write about it while

'choice' remains an operative word. Because the whole affair is taking on the characteristics of an unbelievable scenario, I'm going to tell it that way.

The Tale of Four Systems, or Them's What Has, Gets

Many years ago, in the land of Oz, or New York (choose one—they're about the same), there lived a very forward-looking and inventive young man by the name of Leonard Kahn. For many years, young Leonard tried to interest AM broadcasters in the possibilities of Stereo AM Radio. Engineers listened, but were unconvinced.

Then came the Great Ratings Shift, as listeners moved away from AM Radio, which was mono, to FM Radio, which was stereo. Suddenly, there was great interest in AM Stereo. Once again, young Leonard trotted out his AM Stereo system for the world to judge.

At the same time, four other companies trotted out *their* AM Stereo systems, all of which were slightly different from each other, and all of which were completely different in principle to Leonard's. These were known as the RCA from Belar, the VCPM from Harris, the PMX from Magnavox, and the C-Quam from Motorola.

The great overseers of radio in the United States, the FCC, decided in their infinite wisdom to have tests performed on these AM Stereo systems, to determine which should be allowed to become the standard; it was even possible they would figure out which was best, thereby overcoming their gaffs in the choice of an FM Stereo system, and in the area of quadrasonic broadcasting (*you do remember that, don't you?*).

Well, despite a lack of co-operation from young Leonard, they made their tests and announced their findings. Oops, somebody messed up the matrix that was used; okay, they did it all again. Both times, it was determined that the people from the land of Magnavox had the best system for AM Stereo, PMX. It had the

best separation, best frequency response, best coverage, best mono compatibility, and *it was simple!*

Naturally, the other pretenders to the throne objected, said the tests were faulty, threatened to sue, *ad nauseam*. Also, naturally, the FCC rose to the occasion and side-stepped the issue by declaring that it would be a 'marketplace decision' ...let the suckers fight it out among themselves.

And so, many years later, the fight is narrowed from five to two combatants. It should be noted with great regret that the people from the kingdom of Magnavox have dropped from the fray, perhaps wisely, since they suffered no wounds and only a slight loss of dignity, even though their superiority was shunned.

They will be missed by the eight who tried PMX, liked it, and believe to this day that it is the best. They shall be known in broadcasting folklore as a hardy little band—Eric, Bob, Trevor, Clive, Bruce, *et al.* PMX will also be missed by those who now wish they had had the guts to try it. But, I digress.

The battle for supremacy is now down to young Leonard of Kahn, and massed forces from the Kingdom of Motorola. Aligned with the C-Quams are the Harrises from Quincy, who, after twice regrouping their forces, dropped their pilot tone, and then dropped the fight. Thereby proving the old adage, *'if you can't beat 'em, join 'em'*.

Those from the land of Motorola also have a great ally in the people from the land led by the great General, Motors. For very justifiable reasons, the Delco troops of General Motors decided to endorse the Motorola system, and their decision is questioned only by those who stand behind the other systems.

Leonard also has an ally, in the troops of the great Japanese emperor, Sony, since new radios from the land of the rising Sony now contain a 'multi-system chip', which does a very nice job for Leonard's system.

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Whither the battle? It's very hard to say! There have been rumors that the Motorola press for supremacy is motivated from above. On the other hand, the Kahn press for supremacy has the power of the courts behind it. Stay tuned!

Seriously...

I couldn't resist that! I hope that you will agree that the whole AM Stereo situation has just gotten out of hand. However, read what follows, and tell me if we're going to get the best AM Stereo system, no matter how it's chosen!

AM Radio is not as bad as the public perceives it. Although AM stations are on 10 kHz channels, they are protected to 30 kHz spacing or better, depending on the frequency. The trouble for AM Radio really began in the 50s with the 'all-American' 5-tube radio.

The first thing they did to cheapen home radios was to eliminate the tuned RF stage (one of the reasons car radios work better than home radios). Without signal-frequency selectivity, the radio receives noise right into the mixer stage, where it is likely to produce harmonics of itself, or couple directly to the following stages.

So, the noise floor deteriorates, and the only *cheap* way to solve the problem is to narrow the IF bandpass of the receiver, causing loss of fidelity, or the characteristic 'AM sound'. Even in a \$300 car radio, the AM section probably has a 39-cent integrated circuit doing the whole job.

Broadcasters see AM Stereo as a way to get back the high fidelity that has been lost in AM receivers, since the manufacturers will have to make a better AM front end to have AM Stereo perform properly. Rather like the classic case of cart before the horse, but it may work!

The Systems

All of the four main systems, Magnavox, Harris, Motorola and Kahn, have one thing in common: they work by adding an exciter to an existing AM transmitter. The exciter has two outputs: one is the L+R audio, which is fed to the transmitter's normal audio input; the other is a modulated RF carrier, which replaces the signal from the transmitter's normal crystal oscillator stage.

Because these exciters are retrofitted onto transmitters which were never designed for stereo operation, they must also contain corrective equalizers and adjustable time delays to ensure that all of the phase relationships are correct at the modulated stage of the transmitter.

Image Motion is a problem suffered by three of these four proponents, and so a description of this phenomenon is necessary. It is caused by the radio receiv-

ing two uncorrelated signals at the same time. This occurs in one of two ways: either a co-channel interfering station skips in at night, or the station's own transmitted signal bounces off the ionosphere causing a multipath problem.

In the first case, the interfering signal will appear to revolve about the desired signal. In the latter case, the desired signal will rotate back and forth (because the ionosphere is unstable). In either case, it is distracting, and can cause motion sickness in some people!

All of the systems except Kahn suffer from this problem and, according to Bob Streeter, the only way to ensure it won't happen at all is to lock the frequency of every station in the country to a standard source (like WWV).

- **Magnavox** is a mixed mode system; the L+R is amplitude-modulated onto the carrier in the normal manner, and the L-R is phase-modulated onto the carrier. The decoder then used a conventional envelope detector to extract the Sum signal, and a quadrature detector to extract the PM difference component. The system employs a powerful pilot tone of 5Hz, modulated +/- 20 Hz. It is used for stereo identification only, but makes for economic receiver decoding.

The advantage to this system is simplicity, which tends to reduce the cost to the consumer. This is truly a receiver designer's system. It suffers from a bandwidth somewhat wider than normal monaural AM, causing possible interference to adjacent channels. Also, this original decoder/matrix IC tended to 'snap' if the negative envelope reached pinchoff, starving it of phase channel information.

Bob Streeter: 'The most severe problem has been communication with the broadcast community. The second most severe problem has been the lack of continuous system development to enable the PMX system to keep pace with the other AM Stereo hardware developments. The primary technical limitation on the system is its sensitivity to envelope modulation depth. A marketable decoder requires special control circuits for deep negative envelope modulation peaks.'

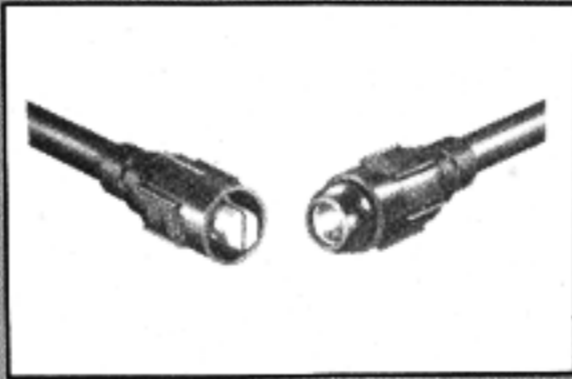
Quadrature in its pure form would be two conventional AM transmitters on the same frequency, with their carriers in phase quadrature (90 degrees apart). This approach would yield good stereo in a proper decoder, but has serious envelope detector compatibility problems, as well as spectrum problems.

- **Harris** went through three forms of their system to try to overcome the quadrature problems. These included reducing the spread between the carriers from 90 to 30 degrees, which reduced the envelope detector distortion to 4%, and allowed for linear synchronous detection in stereo. However, the stereo coverage deteriorated seriously over monaural.

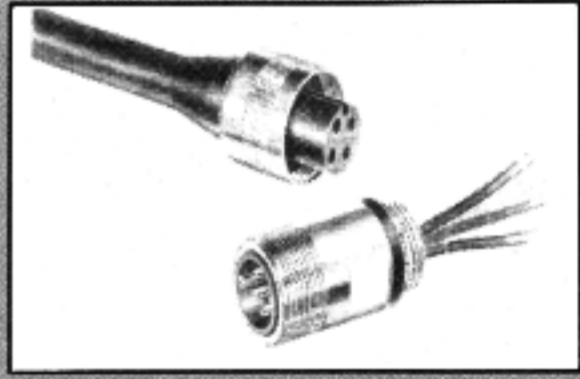
Then they introduced a complex companding scheme and a variable angle system depending on the nature of the transmitted material. This required a sliding pilot tone (25-55 Hz) and created a variable modulation index scheme. The decoder was complex, and the pilot tone vulnerable to interference 'hits'; it also solved the coverage problems for low to moderate amounts of stereo information, but those coverage problems appear in the monaural side of the signal.

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Next, they locked the pilot tone at 55 Hz, arguing that most of the time, the system would be in full quadrature, and that the receiver need not track the depth of modulation. At the receiver, this created an apparent loss of loudness on heavy stereo modulation.

Finally, they moved the pilot tone to 25 Hz so that their system would get through the Motorola decoder chip. Subsequently, they signed a deal with Motorola, and set out to convert all their exciters to C-Quam. Most engineers feel that this move effectively killed the synchronous detector forever.

Even though it's dead, I've gone into detail about the Harris system since there are those who believe that there will be a second generation of AM Stereo, employing many of the principles of the Harris VCPM (including synchronous detection), but considerably refined.

Bob Streeter: 'Harris transmits the signal everyone else wishes they had the nerve to. Under laboratory conditions, its spectrum and stereo performance should be flawless. Too bad about its monaural signal'.

• **Motorola.** The Motorola C-Quam system solves the envelope detector compatibility problem, but trades it for a complex stereo decode algorithm, which can be optimized for noise or distortion, but not both at the same time. The L-R channel goes through several conversions of format between encoding, transmission and decoding, and this makes it difficult to maintain good stereo performance with real world hardware.

The stereo pilot tone is weak compared to the audio signal (4%), and requires careful decoding. A marketable receiver design requires special control circuits for, and transmitter protection from, deep negative envelope modulation peaks in stereo.

Motorola uses a 'distortion corrector' in their decoder, which is the reciprocal of a cosine function. Since cosines can vary from zero to one, the reciprocal can vary from one to infinity! The gain of the cor-

rection loop approaches infinity as the stereo modulation approaches 100%.

The decoder is therefore designed to 'give up' somewhere between 70% and 75% stereo modulation. This prevents noise rush-up in stereo, but any information above 70% will suffer distortion in stereo; mono will be okay. As well, the transmission system would be configured to prevent single channel modulation over 70%.

All of this means that the problems with the Motorola system are more in the decoding than in the transmitting, and are part and parcel of the MCI3020P chip. Bob Streeter: 'If the tremendous effort Motorola placed on their second generation AM stereo decoder IC...could not yield improved performance (in the Delco tests), shame on Motorola.'

• **Kahn.** Kahn-Hazeltine is an independent sideband system. The Kahn system places the left channel information primarily on the lower sideband, and the right channel information primarily on the upper sideband. This sounds simple enough, and will position adjacent channel interference on one side or the other of the sound field. It modifies and reduces the effect of self (and co-channel) interference, and allows the monaural signal to be corrected for antenna asymmetry problems.

Through it all, there is the problem of compatibility with envelope detection. A single sideband wave has a similar problem to quadratures, in that substantial distortion will result if you ask an envelope detector to decode it. To resolve this, as the stereo information is increased and the compatibility problem develops, a second order sideband is added to the stereo sideband in a carefully controlled manner. This 'extra' sideband appears to the envelope detector as if it were the missing sideband (not exactly, but pretty close).

Kahn-Hazeltine is a PM-optimized approach, designed to be received with a decoder similar to a PMX decoder, but with an audio phase rotation of 90 degrees

in the L-R path. Actually, L+R is shifted 45 degrees one way, and L-R is shifted 45 degrees the other way.

Through the use of a complex vector analysis, it could be shown that the Kahn system is not sensitive to sideband phase. It can be shown that rotating the L-R audio 90 degrees will cause the phase term to drop out. The stereo information is then, theoretically, contained in the relative amplitude of the upper and lower sidebands.

What all of this produces is a relative freedom from image motion, but fairly high distortion. Interesting concepts, but do they work? The Sony SRF-100A makes it sound pretty nice, although a little right-heavy. There was supposed to have been an IC available to decode Kahn, but it is not yet available. There is, however, a Kahn 'Secret' which makes use of the Motorola chip to do the job.

Bob Streeter: 'The Kahn system and equipment are quite complex. It depends on a transmitted distortion correction term for monaural receiver compatibility. To my knowledge, it cannot be correctly decoded, even in theory.'

'That is, signals on the encoder left and right inputs will not be *exactly* reproduced at the decoder left and right outputs, even with mathematically and physically perfect hardware; either excess distortion and/or reduced separation will occur.'

Gentlemen...I rest my case. There they are, all lined up awaiting your approval. And so far, two them have not met with your approval, and so for the various reasons set forth, have dropped from the contest. What is to happen?...You decide, because I already have my favorite!

Next month, a bit more theory, and making it work!

Bruce Dingwall, C.E.T., is chief technologist in charge of studios and transmitters for CFRB. The Basics is a practical review of common engineering problems, and readers are invited to send their questions or comments c/o CFRB, 2 St. Clair Ave. W., Toronto, ON. M4V 1L6.

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BROADCAST BEAT

by Phil Stone

Broadcast People, Happenings and Humor...

A lot of water has gone under the bridge since the May edition of *Broadcast Beat*... **Richard Hahn** succeeded that great broadcasting pioneer and advocate of Canadian talent **Lyman Potts** as a board member of FACTOR, the Foundation to Assist Canadian Talent On Records; Hahn is a lawyer experienced in entertainment, copyright and trade mark areas... **Ken Swirsky** became gsm at CFGO Ottawa; **John Willson** replaced him at BBM... **Roel Kruize**, who'd been with EMI in Holland, was appointed vp and managing director of Capitol Records division... At CFNY-FM Toronto, **David Marsden** named **Don Berns** md and assistant pd; he's been in radio in Kansas City, Buffalo and San Diego... More about Radio Canada International, this year marking its 40th anniversary: RCI has six transmitters in Sackville, NB, and relay stations in the U.K. and Portugal. It broadcasts in 11 languages to the Americas, Europe, Africa, and the Middle East, reaching an estimated 10 million every week... **Russ Patrick**, who was arts correspondent for *The Journal*, left CBC to become vp of a pr firm in Los Angeles which specializes in entertainment. Clients include **Jimmy Stewart** and **Deborah Kerr**... Named to senior vp at McKim are **Lou Quattro** (finance), **H. Donald Borthwick** (planning & development), and **Ann Boden** (national media & administration)—one of the brightest, most incisive minds in broadcast advertising...

July 23rd is when musicians try to get the same rhythm in their golf swing as they do in their instruments: the Ontario Music Industry 12th annual golf tournament is slated for the Sleepy Hollow Club near TO... At Q-107 Toronto, **John Derringer** is md, succeeding **Samantha Taylor**, now with CBC-TV's *Video Hits* and CFNY-FM... **Mel Cooper** tells us **Bill Hazell** of CFAH, recently named an 'honorary citizen,' helped to establish the Victoria Yachting Foundation and attract *Canada 1* to that city as its permanent location... The broadcast industry campaign against drunk driving, backed by the Radio Bureau of Canada, CAB and its regional associations, and CABR (Reps), had a target of \$5 million in free air time. In the first four months alone, it reached \$2 million... Radio-Québec's public TV network has an ad budget of nearly \$1 million—spent mostly in TV guides and newspapers... Gulf Canada will spend \$3.5 million this season for TV ads in Toronto Blue Jays and Montreal Expos games, plus \$1.5 million on *Play Ball* clinics for youngsters 10-12... Telemedia plans to replace CJCL's five transmitter towers on Toronto Islands with six new ones at a cost of about \$1 million. Completion date is expected to be November and will greatly increase the 'Music of Your Life' station's reach...

A lot of us remember well where we were on September 28th, 1972: I was in the Humber College cafeteria with **Larry Holmes** and other faculty members, listening to the world hockey championship game between the Soviets and Canada. The score was tied 5-5 with but 34 seconds to play, when the voice that was a legend cried of **Paul Henderson**, 'He shoots—he scores!' What a moment, such a memory too, of the late **Foster Hewitt**. He's up there now with **Gordon Sinclair** and other past broadcasting greats to whom we all owe so much—recall, respect, reverence...

In the '30s an '40s a fine soprano, **Sophia Mutzak**, was heard on network radio, including the **Jack Benny** and **Kate Smith** shows, and CBC's *Along Gypsy Trails* with **Ivan Romanoff**. The Ukrainian-born Canadian died recently at age 71... On the bookstands: *The Bassett Report—Career Success and Canadian Women* by **Isobel Bassett**; and *The BBC—A Short History* by **Asa Briggs**... Former CRTC chairman **Harry Boyle** remains active; he authored a 10-part series for CBC Radio's *Morningside* titled *The Deputy Minister*... Lorimar, which produces *Dallas* and *Dynasty*, was reportedly rejected in its \$1 billion bid for Multimedia, owner of 5 radio and 12 TV stations, 100+ cable TV franchises and 30 daily newspapers... Re-elected president of the Canadian Television Program Distributors Association was **David Jackson**, vp/gm, Entertainment Programming Services... **Cory Galbraith**, who worked CFTR for some four years, is news director at CJSB Ottawa—where, we learn, he always makes time to read each issue of BT... *We won't mention names, but we know a fellow who only picks up the cheque when it's made out to him...*

'His idea of giving a girl the royal treatment,' said the secretary describing her first date with a local announcer, 'is first to take you to Burger King and then to Dairy Queen'... When WBen (now WIVB-TV) Buffalo got its TV licence in 1948, four years ahead of Toronto, it advertised for a sportscaster. Applicants included the legendary off-beat pitcher of yesteryear, **Dizzy Dean**, but the man who got it was **Chuck Healy**, who became well-known to Ontario viewers. Today, after retiring in 1978 to become a stockbroker, Healy does a show for the Buffalo PBS affiliate called *Over 50*, geared to senior citizens. *Strikes, Spares and Misses*, which he started in 1956, remains the oldest bowling show on U.S. television... **Rudy Vallee**, one of radio's early stars, still performs at age 84 with a one-man show... A round of applause for CHUM stations and others who gave free promos for *Tears Are Not Enough* and *We Are The World*—the two LPs made for Ethiopian relief. CHUM's promos, voiced by **Walter Soles**, were also made available for distribution by CAB... Back in 1945, **Bob Hope** was in Orillia when CFOR went on the air and he cut the ribbon for the official opening. Hope still keeps in touch and provided a 'phone interview and IDs for CFOR's 40th anniversary celebrations... CHIQ-FM Winnipeg is marking its 10th anniversary... One of the most talented young people we ever met is **Jamie Warren**—musician, singer, announcer, producer—whom we taught at Conestoga College. His country single *Take Me Home Mississippi* has been a fixture in the leading charts... BBM now has more than 1500 subscribing members; recent additions include five radio stations, five ad agencies and three advertisers...

Some European cable TV viewers will be able to see the best of French Canada's shows this fall. TV5, the satellite channel seen in Europe and North Africa, is to carry programs prepared by a Canadian consortium... Members of the Toronto Blues Society include **David Barnard** of Ryerson's CKLN-FM and **John Valentyn** of CJRT... First woman director of CCTA is **Shirley**

Frost of Shellbird Cable TV... **Allan Slaight** is proving he is also astute as an 'angel'—two shows in which he invested are Toronto hits: *Cats* and *The Little Shop of Horrors*... **Alan Lysaght** and **David Pritchard** hope to soon have 80 stations carrying their rock show, *Canadian Countdown*, via satellite. Another FM show is planned ... The Boston Pops, now 100 years old, began with cabaret-style concerts where champagne was served.

CCTA's 1986 convention will be held in Vancouver, May 12-14, which is the second week of Expo '86... New to CKEY Toronto retail sales: **Joanne Silverstein**, ex-CFGM, and **Allan Carson** from Oshawa... Musician-promoter-writer **Bill Bobek** moved from Duke Street Records to MuchMusic as national publicity manager... CHEZ-FM Ottawa, owned 50.7% by **Harvey Glatt**, now controls CKIK-FM Calgary, through Paper Bag Holdings... A Telemedia study says VCRs in the U.S. are used primarily to record TV programs, whereas Canadians are bigger in renting movies... Ad man/author **John Straiton** (*Of Women and Advertising*) says 75% of all prime time TV ads are directed to women. He notes that the leading soaps all have 'strong heroines' who are all over 40. Women, he adds, buy 80% of food and household products... CTV brought **Tom Clark** back from Peking, where he was correspondent for the past two years, to be *Canada AM* news anchor. Replacing him in Peking is Ottawa correspondent **Roger Smith**, whose grandfather traveled to China in 1916 as an Anglican missionary... Britishers coming to North America notice the higher presence of commercials on TV: in GB, the limit is 6 minutes per hour, here the norm is 12... **Frank Glieber**, the veteran CBS sportscaster, died at 51 of a heart attack while jogging... You might like to read *Newsworthy* by **Susan Crean**, which examines the lives of women in radio, TV and newspapers ...The 37th 'Emmy' Awards have been set for September 22nd with **Alexander Cohen** as producer... Executive producer **Gilles Pilon** is manager of Centre de Montage Electronique, a division of Télé-Métropole... Do Americans trust TV network news? A survey says 58% consider it objective, 20% say it's too far 'left' and 10% labelled it too far 'right'...

It took Michelangelo Buonarroti seven years to paint the ceiling of the Sistine Chapel. Seven years to paint a ceiling! Some people have landlords like that... **Norm Bolen**, a veteran of CBC-TV, became executive producer of *Sunday Morning*, succeeding **Roger Bill** who returned to Newfoundland... When *Magnum P.I.* goes into syndication next year, MCA expects profits of \$100 million—far more than it earned on its network run... Marketing director **Ron Waters** says MuchMusic, now with 550,000 subscribers and 60+ advertisers, should earn a small profit in its first year of operation... Named promotion reps by MCA are **Peter Diemer**, ex-CHAY-FM, in Ontario, and **Teurino Barbaro**, ex-CFUN, CKWX/CJAZ-FM, in BC... The colorful **Dubarry Campeau**, one-time entertainment columnist at the *Toronto Telegram*, died of cancer at age 73... Few technical people rise to head the drama and features area of broadcasting, but CBC's **Bill Terry** did. Area head in the English radio network, he started as a TV audio technician... **Andre Picard**, with Telefilm Canada for two years, was named director of its Canadian Broadcast Program Development Fund...

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CANCOM and Broadcast News struck a deal to install up to 100 satellite receivers, which would provide a variety of services to BN subscriber stations across Canada...*I really don't think the world is worse—it's just that the news coverage is better...* **Johnny Lombardi's** 1985 International Picnic, held at the CNE, was the 19th... Many stations treat media buyers to parties and drinks. CHCH-TV this year took them to a matinee performance of the hit musical 'Cats' playing at Toronto's Elgin Theatre... **Ken Purdye** of BBM was elected a director of the Canadian Advertising Foundation... Speaking of BBM, this fall it will start year-round ratings for Toronto and Montreal; 35 more weeks of additional information will be collected from network TV respondents, with reports issued bi-weekly... **Christine McNaughton**, formerly with the CRTC, is manager, corporate affairs for CFMT-TV Toronto... Radio, we've discovered, is certainly different around the world and this summer we hope to visit the broadcast facilities in Austria and/or France... Meanwhile, we found this UPI item interesting: In the South American country of Columbia, witches have been ordered to stop teaching their craft over radio—seems stations are ignoring warnings against carrying programs with magicians, sorcerers and fortune tellers... **Frances Fox**, the former communications minister, heads a group that is seeking a licence for a childrens' TV channel...

Sunday is the day many men bow their heads; some are praying, some are putting... **Barry Hamelin** of BN is on an interesting assignment: implementation of the BN satellite project... It is said the proposed purchase of Standard Broadcasting by Slaight Communications had nothing to do with two major changes—replacement of **John Spragge** at CFRB by **Ralph Lucas** and of **Bill Ballentine** at CKFM by **John Mackery**... Night Court's **Selma Diamond**, who died at age 64, was born in a movie theatre in London, Ontario. Seems her mother was an avid movie-goer who didn't take note of the warnings of impending childbirth... **Dick Drew**, whose company launched *The Canadian Achievers*—with **Pierre Berton**, syndicated on 91 radio stations, is duly proud of *Les Succes Canadiens*—avec **Jean Marc Chaput**, the French version now carried by 30 stations daily. It means the yearly production of 624 programs! ...In 1984 the federal government spent \$95.8 million on advertising—more than double the \$46.3 million spent by Proctor & Gamble, the nation's biggest private sector advertiser...

Selkirk's CJAZ-FM Vancouver, said to have lost \$3 million in five years of all-jazz, moved to mostly MOR... Look for more made-for-TV movies as a result of pay-TV and VCRs providing earlier viewing options of regular first-run films... **Fred Davis**, original host of Global-TV's Wintario show, was a special guest for the lottery's 10th anniversary... Global, by the way, picked up the \$100,000 *Name That Tune* program—the original version of which began on NBC radio in 1952. It went to TV from 1953 to 1960, returning in 1970... **Peter Marshall**, once the host of *Hollywood Squares*, is touring with the musical version of

La Cage Aux Folles seen at Toronto's O'Keefe Centre... ABC-TV cancelled the game show *Family Feud* after nine years and about 20,000 women being kissed by host **Richard Dawson**. He's also known for playing the fast-talking Cockney, Peter Newkirk, in *Hogan's Heroes*... The **Smothers Brothers**, TV stars of the '60's are back together with a road show... **Allan Slaight** lost his father, former broadcast and newspaper executive **John Edgar Slaight**... It appears that the 15-second commercial will be fully accepted by fall. CBC already has them, and CTV says it will carry both 15-secs. and split-30s... **David Basskin**, named CTV's director of business affairs, will oversee legal, contractual and licensing matters... The Canadian International Air Show is always a highlight of the Canadian National Exhibition in Toronto. The show's chairman is CFRB's **Bill McVean**, an award-winning pilot...

According to the Toronto Star's **Richard Nielsen**, the CBC has 12,000 employees plus 36,000 free-lance or part-time contributors; four radio networks, two TV networks, an overseas radio service, northern service, 67 radio stations, 36 TV stations (plus 28 affiliates), more than 50 studios, and divisions for commercial and export sales... TvB has a comprehensive guide to co-op advertising written by **Shari Ferris**, vp for retail advertising... In his interesting newsletter, BEAC president **Brian Antonson** notes that **Gary Parkhill** of Conestoga has the honor this summer of addressing the Radio Academy of Great Britain at their second annual meeting. BEAC's annual conference will be held October 17-20 at the Delta Ottawa. (See *Broadcast Education* section for details.) As one of the BEAC originals and now the proud owner of a lifetime membership, we are pleased to note BEAC has grown to some 150 members from 20 schools

across Canada...

Leslie Jones, who was morning news co-host at CBLT Toronto, is now at Global news... **Sandra Post**, once Canada's premiere woman golfer, has two daily sports commentaries on CHWO Oakville-CJMR Mississauga... CHUM's **Duff Roman** and Standard Broadcast Sales' **Sandra Raddick** planned to marry in Wisconsin...

According to the NAB 1984 programming survey, here's how formats rank on U.S. radio stations:

FM FORMATS	1984	1983
Adult Contemporary	28%	27%
Country	25%	21%
Contemporary Hit	20%	17%
Easy Listening	10%	13%
AM FORMATS		
Adult Contemporary	34%	28%
Country	30%	28%
News/talk	6%	9%
'Golden Oldies'	6%	7%

The '85 Broadcast Executive Society golf tournament is August 22nd at Toronto's Cedarbrae Club... It was the late **Al Boliska** who once asked his listeners if they had noticed what golf spells backwards...

Don't you be backward! Send news for Broadcast Beat to Phil Stone, c/o 2350 Bridletowne Circle, Suite 1601, Scarborough, Ontario M1W 3E6.

We've Got a Story for You!

We have a reputation for hard-hitting, knowledgeable commentaries on smoking-related issues. Before you prepare your program outline or write your article or editorial, why not contact the organization that is not content with the same old ho-hum approach to Canada's No. 1 preventable medical problem. Before you call, check our references:

"Many politicians and their aides agree" that the NSRA is "the most effective lobby..."

The Globe and Mail

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Former United States Surgeon General

"I have asked the World Health Organization to examine the skillful campaign being waged by the NSRA... more effective than any of the educational programs undertaken by the medical profession or the government."

Dr. Gerald D. Hart

Former President, Toronto Academy of Medicine

"The most impressive and intelligent lobby I have ever known."

The Hon. David Crombie, M.P.

Former Minister of National Health & Welfare
(quoted by The Toronto Star when Mr. Crombie was the Mayor of Toronto)

NON-SMOKERS' RIGHTS ASSOCIATION

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Try these numbers, anytime: 416-595-1538 • 416-531-6602

people in the news

CANADIAN WOMEN IN CABLE VANCOUVER EXECUTIVE



Members of the 1985 executive of Canadian Women in Cable, Vancouver chapter, are (from left): Myrna McLeod, membership; Margaret Watson, treasurer; Jacquelyne Kinsey, hospitality; Elizabeth Clarke, secretary; Lesley Wood, ways and means; Marie Schneider, president; April Franklin, newsletter; and Lucie McKiernan, vice-president. Not pictured: Pam Ward, programming; Sandra Buschau, B.C. regional representative; Karen Kiehlbauch, immediate past president.

- Atlas Electronics—**Christopher Dias** named a Québec sales rep in Montréal.

- Canadian Astatic Ltd.—national sales manager **J. Robert Harvey** promoted to general manager.

- CBC—**Mary Lou Finley**, co-host of *The Journal* is winner of one-year Nieman Fellowship at Harvard University. Award is by Martin Goodman trust fund, named for late president of Toronto *Star*.

- Canadian Captioning Development Agency—joining CCDA is **Robert Thompson**, computer design specialist.

- Canadian Press—broadcast industry representatives appointed to CP board of directors are **Jack Schoone**, president of Eastern Broadcasting, Moncton, NB, and **Fred Sherratt**, vp, CHUM Ltd., Toronto. Yet to be named is a representative for French-language broadcasters.

- CRTC—Commissioner **Paul Klinge** has completed his 7-year term; named to the commission is **Bud Sherman**, 58, one-time TV news director in Winnipeg and member of the Manitoba legislature.

- Canadian Science Writers Assn.—1985 award winners include **Holly Preston** and **Bruce Rankin** of CKTV Regina, **Luc Chartrand** and **Rene Vezina** of Radio-Canada, and from CBC, **Thomas Keehan** (*Ideas*), **Eve Savory** (*The National*), and **David MacQuarrie** of CBOT Ottawa.

- CHEC Lethbridge, AB—**Glen Kirby** named news director.

- CHTN Charlottetown—appointments include **Rick Green** to gm, **Dave Galley** to sm, and **Graham Brown** to nd.

- CIHI Fredericton—**Wayne Dion**, pd from 1977-80, returns as operations mgr. **Pat Donelon**, former gm, has left to establish his own business.

- CJOK Fort McMurray, AB—**Bruce Smith** named news director.

- CJVI Victoria—**Kim Hesketh** named pd; **Haydn Thomas** takes over as nd.

IN MEMORIAM

David M. Armstrong

David M. Armstrong, who established CKDA Victoria in 1950, died April 22, 1985, at the age of 65. He was president of Capital Broadcasting Systems, which operates both CKDA and CFMS-FM. He is survived by his mother, his wife Sheridan, and four children.

Wayne MacArthur

Wayne MacArthur, 37, president and general manager of CHTN Charlottetown, passed away March 11, 1985. He died in hospital in Halifax, after an advanced liver infection failed to respond to treatment. Surviving are his wife Welda, who continues with CHTN, and two sons, Tyler and Corey.

- CKDA/CFMS-FM Victoria—**Mary Jo Molzan**, from CKGY Red Deer, named promotions manager.

- Dept. of Communications—Industry members of federal task force studying Canada's broadcast system are: **Fil Fraser**, Access Alberta; **Mimi Fullerton**, Telemedia; **J. Conrad Lavigne** and **Finlay MacDonald, Jr.** They'll be paid about \$500 a day for a 3-day work week.

- Dielectric Communications—Maine firm has named **Homer Stanley**, formerly of Harris, to senior engineer, and **Alan MacLean** to design engineer.

- Hitachi America—**Tsuneo Tanaka** has succeeded **Katsuaki Suzuki** as president.

- Mutual Broadcasting—**Jack Clements** promoted to president.

- National Assn. of Broadcasters—promoted to vp are **Henry J. Roeder** (conventions & meetings) and **Robert E. Yadon** (TV operations).

- Radio Bureau of Canada—promoted to vp, national sales, is **Chris Pandoff**.

- Rank Cintel—**John Etheridge**, with Rank 38 yrs., 14 as Rank Cintel managing director, has taken early retirement. He'll continue his IBC involvement as chairman of the exhibition committee for IBC '86.

- Standard Broadcasting—changes in radio division include **Ralph Lucas** from vp/gm CJAD to pd, CFRB; **John Mackey**, from pd, CJSB, to gm, CKFM; **Greg Stewart** from mgr., CJFM, to vp/gm of CJAD and CJFM; and **Cam Gardiner** from assistant pd to pd at CJSB Ottawa.

- Strand Century—**Marvin Altman** is president, Strand worldwide; **Michael Lowe** named vp, international sales.

- Telefilm Canada—**Andre Lamy**, director general since 1980, leaves August 1st.

- The Reel Network—Toronto tape duplication & distribution firm has named **Michael Goldberg** gm, **Joel Reitman** director of sales, and **Clinton Young** production supervisor

- Times Fiber Communications—**Colin J. O'Brien**, president, adds title of chairman, succeeding **Lawrence DeGeorge**.

- White Radio—**Steve Quinn** promoted to Ontario regional sales manager.

Year 10 for BT

This 1985 Buyers' Guide issue of *Broadcast Technology* — the largest one ever — completes our tenth year. As we mark this still-young milestone, Jacquie and I would like to say 'thanks' to all — advertisers, contributors and readers — for the pleasure of your company over the past decade. We look forward to many more enjoyable years of service to the broadcast industry, and friendship with so many of the good people associated with it.

Survival in a Competitive Marketplace

Neil MacMullen of Annapolis Valley Radio called to comment on the report that 40 per cent of Canada's radio stations failed to make a profit in 1984. The enemy, Neil suggested, is not so much economic recession as it is complacency. Training, he added, is a particular problem, not only of employees, but also of management — an area that college courses in broadcast should give greater emphasis.

Meanwhile, Ben Hoberman, president of ABC Radio in the U.S., had some similar thoughts. He called on broadcasters to 'be imaginative. Examine your market. Find those segments not adequately served... Pay attention to the 35-64 year old demographic... a prime consumer with substantial disposable income, leisure time and specific needs.' While stations should introduce effective cost controls, Hoberman urged investment in both computers and human resources. 'A good station depends upon a creative, dynamic and hard-working staff. Look to training programs, incentives and ways to enable the gifted staffer to grow.' Radio's mobility gives it an edge, he added, and local stations, regardless of size or format, should be 'the equivalent of a local newspaper' in community involvement.

There are success stories to be told — Neil MacMullen's AVR group is one of them — so let's hear about the strategies that work. If you have a case history of success that you'd like to share, sent it along. (A brief description is usually sufficient.) We'd be pleased to publish it in BT at the earliest opportunity.

The Over-Regulation Problem...

CRTC Decision 85-280, May 6, 1985, denied an application by CKDS-FM Hamilton to increase its ratio of vocal selections from 50% ('easy listening' format) to 75% (MOR). The denial was given as a punishment. It seems CKDS strayed from its Promise of Performance and, the CRTC charged, had for at least three days in February played 58% vocals. CKDS did its own audit, cover-

ing a full week, and claimed the level of vocals was only 55% — within the 5% 'tolerance' level. The CRTC then analyzed another full week period and found the vocal level to be 56%.

Having thus willfully strayed from the path of righteousness, CKDS was denied this momentous format change, and was solemnly admonished that its performance *in this regard* would be reviewed when the station's licence renewal came before a June hearing.

The mind boggles to think of taxpayers' money being spent for uncounted man-hours devoted to this picking of nits.

Such detailed regulation is nonsense, and it's time for everyone associated with the Canadian broadcasting industry to address this problem with some conviction, courage and common sense.

Can the Media be 'Bought'...?

The broadcast media in both Canada and the United States are currently involved in vigorous campaigns against drunk driving. While the industry is to be commended on this responsible initiative, it is apparent that the motivation is, in part, based on fears of a ban on broadcast advertising of alcoholic beverages.

Such a ban, of course, would be unfair discrimination against the broadcasting industry. If advertising of alcoholic beverages is harmful, then it should be banned in *all* media. The same is true of advertising for cigarettes. (After a 1971 ban of cigarette ads on U.S. stations, the broadcast industry in Canada, to its credit, voluntarily discontinued such ads here.)

In this writer's opinion, advertising of both alcoholic and tobacco products should be banned in *all* media, for two reasons: 1) Advertising promotes the consumption of these products. It is sometimes argued by manufacturers of these products that advertising merely affects *share* of the existing market and does not increase it. Media people who accept this statement are saying, in effect, that their medium *does not sell*. Prominent U.S. ad man Emerson Foote described this argument as 'complete and utter nonsense,' and a U.S. Federal Trade Commission report states, 'available evidence suggests that...cigarette advertising does influence overall consumption.'

2) Advertising also influences the media to suppress information which may have an adverse effect on advertisers. The respected *New England Journal of Medicine* (Feb. 7, 1985) carried a disturbing Special Report by Kenneth E. Warner, Ph.D., of the University of Michigan School of Public Health. Entitled *Cigarette Advertising and Media Coverage of Smoking and Health*, the report documents numerous cases of the suppression by the media of information concerning this major health problem. The media, it seems, *can* be 'bought.'

If there are any benefits which derive from the advertising of these products, they are far outweighed by the harm and cost to society. That's a controversial conclusion — if you'd like to add your comments, your letters, as always, will be welcomed.

