

THE PHIL STONE REPORT

THE STANDARDS ARE HIGHER

A conversation with Mac McCurdy of Standard Broadcasting

Hollis McCurdy. Unfamiliar?

How about Mac McCurdy? The genial, highly respected broadcaster, still ruggedly handsome and still as approachable as when we first knew him 'way back when. That would not be as far back as 1936-the year this former Maritimer came into radio with CKLW Windsor, from where Mac moved on to Sault Ste. Marie and then Brantford, before joining the RCAF in 1941. After demobilization he joined the Forces Station of the CBC International Service and then took all this background to become a staffer at the newly-opened CJAD in Montreal. He has, then, been with Standard Broadcasting since its purchase of CJAD in 1961, and today is a very titled man. He is president, Standard Broadcasting Corporation Limited; chairman, CFRB Limited, which operates both CFRB and CKFM-FM; chairman, CJAD Limited, owners and operators of CJAD and CJFM-FM, Montreal; chairman, Standard Broadcast Sales Limited; director, Standard Broadcasting Corporation (U.K.) Limited; chairman, Bushnell Communications



Limited, Ottawa, and director, Argus Corporation Limited.

All this indicates and provides evidence to the scope and ability of Mac McCurdy, who has seen great growth in Standard over the years. "I don't think," he told us over coffee, "that people really have been aware of how progressive we have been, how we have grown, nationally and internationally."

A look at the box that accompanies this article is vivid testimony to the wide arena of Standard's activities. Its operating subsidiaries, associated companies and trade investments cover a multitude of interests and yet each in its way is interrelated—each an integral part of what Standard is doing and where it is going. Its most recent activities have been the acquisition of CKTB/CJQR-FM in St. Catharines and establishment of a new AM station, CJSB, in Ottawa.

"Monty (Montagu) Black and his brother Conrad are comparatively young men, in their 30s, and they are by nature expansionists," said Mac in explanation of the latest additions to the Standard empire. The Blacks, of course, are the major figures in Argus Corporation, the major stockholder of Standard Broadcasting Corporation Limited. "Broadcasting today," said Mac, "is more than ever a business, a corporate structure, and it is indeed becoming more and more difficult for the private entrepreneur that you and I knew in the

Canada

Bushnell Communications Limited, Ottawa Canadian Standard Broadcast Sales Inc., New York

Cable Converters Inc., Ottawa (44%) Carleton Productions Limited, Ottawa CFRB Limited, Toronto

CJAD Inc., Montreal CTA Video Distributors Limited, Toronto CTV Television Network Limited,

Toronto (9.3%)
Independent Communications Services
Limited, Ottawa

Intermedia Electronic Services Limited, Ottawa Niagara District Broadcasting Limited,

St. Catharines

Skyline Cablevision Limited, Ottawa (44%)

Standard Aircraft Holdings Limited, Toronto Standard Broadcast Productions Limited, Toronto

Standard Broadcast Sales Company Limited, Toronto and Montreal

Operating Subsidiaries, Associated Companies and Trade Investments

Standard Broadcasting Realty Limited, Toronto

Standard Sound Systems Company Limited, Montreal

Télécâble Laurentien Inc., Hull The Video House Limited, Toronto VTR Productions Limited, Toronto Yorkville Studio Centre Limited, Toronto

United Kingdom

Bradford Community Radio Limited
(Pennine Radio), Bradford (11.2%)
Broadcast Marketing Services Limited,
London
Capital Radio Limited, London (24%)
Chiltern Radio Limited,
Luton/Bedford (12%)
Devonair Radio Limited,
Exeter/Torquay (10%)
Gloucestershire Broadcasting Company
Limited (Severn Sound), Gloucester (8%)
Leicester and Leicestershire Local Radio
Limited (Centre Radio),
Leicester (5%)

Moray Firth Radio Limited, Inverness (22%) North of Scotland Radio Limited (North Sound), Aberdeen (10%) North East Broadcasting Company Limited,

(Metro Radio), Newcastle (28.2%)
Plymouth Sound Limited, Plymouth (5.1%)
Radio City (Sound of Merseyside)
Limited, Liverpool (6%)

Radio Trent Limited, Nottingham (17.5%)
Radio Wyvern Limited, Hereford (10%)
Standard Broadcasting Corporation (U.K.)
Limited, London

Swansea Sound Limited, Swansea (8.6%) West Yorkshire Broadcasting Company Limited (Radio Aire), Leeds (7.5%)

Continental Europe

SBC Holding B.V., The Netherlands S.F.I.R. Standard Finanziaria Iniziative Radiotelevise—S.p.A., Italy (50%) S.P.E.R. Societa Pubblicita Emittenti Radiofoniche—S.p.A., Italy (45%) Standard Broadcasting (Italia) S.r.I., Italy early days to come into the cities and succeed. If you look at Ottawa, for example, only one station is an independent, CHEZ-FM. The rest are part of corporate structures—CHUM Limited, MacLean-Hunter, Telemedia, and so on. You need in the major markets the resources of other holdings to amortize profits and losses, to bring along personnel, to develop input both in programming and sales."

Why an AM station in Ottawa when FM is the golden-haired boy today of radio? "Who could pass over an available frequency like 540?" Mac asked. "We think despite the number of very good stations in Ottawa, that we can make it work. We have the resources, the personnel with know-how, and we are most optimistic about CJSB's future."

Mac does emphasize that getting permission to purchase or open a radio station is no longer what many considered it used to be—a license to steal. "Today radio is a big boy's game," he stated, "and you've got to know how fragmented it is. Although I think it will survive well in face of High Tech, it will not be a sinecure, particularly for any major market broadcaster. Look at CJOH-TV, which we bought from Bushnell when there were perhaps five or six signals available in the area. Today there are 20, and to keep people from tuning in, for example, Watertown, New York, we have to develop a local

identity, a major attention to news and public affairs.

"Radio in many ways has the same problem with the constantly increasing fragmentation. I don't think in the future it will take the same blood bath that it took when television first came in, but it will take resources to fund imaginative programming with top-flight personnel."

Back before Monty and Conrad Black, the legendary Bud McDougald was the head of Argus Corporation and he was a far more conservative man than the Blacks. One gets the impression that Mac McCurdy is sort of in-between: he is amenable to growth, but has the caution we all get from years of trial and tribulation—to move when the moving is right; and when that is done, to do what has to be done in the way that it ought to be done.

Standard got the St. Catharines stations—even though they were not the highest bidders because of their reputation as solid, progressive broadcasters. They boosted it with the seconding of key men like Don Insley and Wally Shubat to work with the people at CKTB and CJQR in building a programming and sales structure that came out of their long background in these respective fields. Don is at the St. Catharines stations three days a week; Wally, at this writing, is lending his expertise to the sales department.

Mac is proud of the stuff of which his

various staff people are made and their long tenure with Standard. He points to Peter Shurman, today general manager of CJAD and CJFM. "He started with us as a junior technician and look where he is today at the age of 33!"

You look, too, at Don Hartford, president of CFRB Limited and CJAD, Inc. At now-retired Lyman Potts who founded and fostered the highly successful Canadian Talent Library. At Jackie Rae, using his expertise to oversee CTL album productions. At Gordon Sinclair and Bob Hesketh: Don Insley and John Spragge; Bill Hall, Bill Ballantyne, Jerry Good, Peter Dickens; and you see how Standard- like the New York Yankees of old-nurtured. developed and established the kinds of people who became integral, dedicated and motivated pieces of the giant mosaic.

Hollis McCurdy or Mac McCurdy, Standard Broadcasting Corporation Limited or Standard Finanziaria Iniziative Radiotelevise, as it's known in Italy—whichever way you say it, the Standard standards fly high!

Phil Stone is a well-known writer, broadcaster and educator, whose Phil Stone Report and Broadcast Beat are regular features of Broadcast Technology. Phil may be reached at 2350 Bridletowne Circle, #1601, Scarborough, Ontario M1W 3E6, telephone (416) 492-8115.



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Technitopics

by Sandy Day

AFTERMATH OF RIO

Back in the land of the snowblower, curling, fuel oil bills, and headcolds, the Rio conference seems to have been a dreamworld, an almost unreal episode of plotting, calculating, international politics and sub-tropical pleasures. Yet Rio produced many hard realities: conditions under which AM broadcasting will now live, with opportunities and constraints substantially changed over those conditioned under NARBA. And it will take some time yet before the full effects of the Rio negotiations are finalized and understood by Canadian broadcasters. Perhaps the best way to start is to review the proceedings of the conference.

The International Telecommunications Union (ITU) is an agency of the United Nations, having a "Convention" to which ITU members adhere, which includes the Radio Regulations governing world-wide use of radiocommunications. There are 34 member countries in Region 2 (the Americas) and four small

countries not as yet members.

The Regional Administrative MF Broadcasting Conference (Region 2) took place in Rio de Janeiro Nov. 9 to Dec. 19, 1981. Twenty-six member countries attended; eight were absent (Barbados, Bolivia, Dominican Republic, El Salvador, Guatemala, Haiti, Honduras and Surinam). One member, Cuba, departed before the end of the conference, leaving 25 signatories to the Final Acts. There were about 200 delegates registered, including the eleven in the Canadian contingent. Four other Canadians attended parts of the conference.

There were six conference committees, with Canada's Gilles Courtemanche chairing the most difficult one, the Planning Committee. Ad hoc working groups were formed when required and Canada contributed substantially in this area,

chairing five of these groups.

The major tasks were to develop an acceptable Agreement, its associated allotment Plan, and resolutions and recommendations to guide the region, the ITU and all administrations through the complex post-conference procedures.

Computer Problems

This was a "planning" conference—as opposed to the "technical" conference, which the first session at Buenos Aires had been, in November 1980, and at which the basis for the technical part of the agreement had been developed. As a prelude to planning, it was necessary to computerize a very large data base, the parameters of about 15,000 stations, digitized national boundary, coastline and ground conductivity values, sky-wave calculations, calculations of service contours, and interference levels to and from all stations. Some 600 megabytes of information were involved. Unfortunately, a decision at Buenos Aires had permitted changes in station inventories to be submitted up until the opening day at Rio, and delegates arrived with some 4,200 additional changes which, with the inevitable data entry errors, led to mass confusion in the calculations churned out by the computers.

The facilities included computers in Geneva and in Brazil, satellite and land-line links, and terminals at the conference. Numerous failures occurred, and print-outs were frequently delayed for days or even weeks in some instances. One Canadian station we decided to cancel took four attempts before it finally disappeared. Another had one tower of the night pattern added to the day array. It took three attempts

before both patterns were corrected and interference from that station assumed its proper values. It was close to four weeks before the calculations were accurate enough to use for meaningful negotiations.

Because these problems seriously delayed the resolution of incompatibilities, it was decided that the Plan itself would be formed of two lists: **List A**, of stations having interference (to and from) acceptable to the administrations concerned; and **List B**, composed of stations where interference to or from stations in other countries was not acceptable to one or the other party. No differentiation in priorities was made between operating and planned stations—though operating stations in List B could continue to operate, while agreement had to be obtained before operation of planned stations could commence.

Political Problems

Throughout the conference, there were political overtones to many of the decisions, but usually the technical facts involved in the questions were clearly understood, and most administrations cooperated in solving difficulties—such as would be experienced in the lesser-developed countries as they tried, belatedly, to add needed broadcasting outlets. While "guaranteed access" was not written into the agreement, lesser protection of existing stations was accepted in such circumstances. Generally, there was excellent cooperation in solving difficulties, and many potential problems were settled as stations were "shoe horned" in the Plan.

Unfortunately, the United States and Cuba clashed over several issues. Cuba had participated actively, had been the major proponent in favour of 9 kHz, held bilateral meetings with other administrations, and appeared to be cooperating to the extent possible in solving incompatibilities, particularly with Canada and Mexico. However, they were incensed at the U.S. over blatant attempts to use the AM broadcast band, supposedly allocated for domestic broadcasting, to flood Cuba with politically-oriented programs, not only from an existing station in the Florida Keys, but also from Radio Marti, a proposed powerful installation which, during the conference, was receiving much attention in the press due to statements by American political authorities. The Cubans, in retaliation, had planned to reciprocate, particularly from two 500 kw stations on 550 and 1010 kHz. Interference from these would be substantial, affecting even Canadian stations. Following discussions, the Cubans proposed a large number of frequency shifts, over 70 in all, which would minimize interference within cooperating countries while rationalizing mutual incompatibilities within Cuba itself. The problem was that these wholesale changes were proposed about halfway through the conference, about the time that the computer results were beginning to make sense, and they would have altered the figures on many channels. There was great concern that the shifts would again delay seriously the availability of accurate data, and too little time was left for negotiations in any event. After lengthly debate, a secret ballot narrowly defeated the Cuban proposed shifts. After obtaining instructions from Havana, and following a statement of strong condemnation of the U.S.A., the Cubans walked out of the conference.

It remains to be seen what Cuba will now do with their planned stations. Almost all their stations were in List B, due to incompatibilities. Bilateral talks with Cuba will be essential.

Post-conference Procedures

While the conference succeeded in developing a satisfactory agreement, a Plan with the majority of stations accepted in List A, and resolutions laying out the post-conference procedures, it left a substantial number of tasks to the future. These involve the treatment of stations from countries not represented, from Cuba because of their failure to sign the Final Acts, and of stations of the participating countries remaining in List B.

Procedures are outlined for submitting corrections and verification of the Plan, such that a final version can be printed

following 30 June 82.

Negotiation and notification procedures are laid out for obtaining transfer of stations from List B to List A. Following successful coordination between the countries concerned, the IFRB will "notify" the proposed change and list any other countries which may be affected. In the absence of objections within 60 days, the IFRB will transfer the subject stations into List A. If

otherwise, the procedure will be repeated.

Protection of stations in List A is per the terms of the Agreement. List B stations are protected to a lesser degree, to the greater of the value of field strength contour resulting by eliminating the interference contribution from the strongest foreign contributor, and after 31 Dec. 83, to the maximum interference contribution which the subject station causes to a foreign station. A planned station in List B may not become operational if it causes unaccepted interference to a foreign station which was operating on 1 Jan 82. A number of general principles are listed for use in resolving incompatibilities.

The assignments of the countries not present, and of Cuba, were placed in List B along with a special symbol indicating that these could be ignored in transfer of other countries' stations into List A. However, if the former stations were operational on 10 Nov. 81, the symbol would not be added until 1 Aug. 82, (in Cuba's case, 1 Jan. 82), and when the IFRB received notice from these countries of acceptance of the terms under the Agreement, the symbol would be deleted, except where interference to a List A station was involved. Upon receipt by the IFRB of a notice of intention to accede to the Agreement by a non-signatory country, the IFRB would recommend the levels of interference that country should accept and the names of countries with which coordination would be required.

A Regional Conference (RARC) had been scheduled for 1986 to plan the 1605-1705 kHz band. This was recommended to be delayed until 1988 and to include on its agenda an update and

revision of the (1981) Rio de Janeiro Plan.

Major Accomplishments at the Conference

From the Canadian perspective, the conference was quite successful, Canada achieving all its major objectives. The terms of the Agreement, the technical rules in its annex, and the resolutions and recommendations contained in the Final Acts are satisfactory.

The operating stations in Region 2, previously notified "for information only" to the IFRB, will now receive protection from inter-regional interference caused by powerful incoming stations in the rest of the world. IFRB will calculate the effect on our stations and advise when interference is anticipated, and we will have the means to object to such entries.

Canadian stations in the Plan number 601, 415 presently operating, four in process of converting to operating, and 182 proposed. Of the operating stations, all are in List A for daytime and 324 for night. Except for a very few affected by plans for frequency shifts in Greenland, the balance were placed in List B because of unaccepted levels of interference from stations in the U.S.A. Where the night limits calculated at Rio were substantially greater than those accepted under NARBA, the stations, along with the U.S. offenders, were shifted to List B. The U.S. and Canada exchanged notes agreeing to accept all NARBA-negotiated interference levels. At bilateral meetings starting in February, Canada intends to sort out these problems so that the stations on List B-both ours and foreign-can be transferred into List A.

The 182 planned stations are mostly proposed on the NARBA clear channels. Though Canada announced its intention to "denounce" (get out of) NARBA, a full year is necessary before this can become final, and meanwhile the NARBA rules apply. The U.S. could saturate its 25 clear channels while Canada could not place a station on these channels within 650 miles of the border. However, with the planned stations (U.S. and Canadian) on List B, negotiations would be required under the Rio agreement before the stations could become operational. This would force mutual protection onto both the U.S. and the Canadian planned stations. The bilateral meetings will settle the issues, and Canada hopes to retain a fair share of the new station opportunities, though many of the 182 planned proposals will have to be dropped.

The Agreement takes effect 1 July 1983, but its procedures for changes or additions to the Plan take effect immediately. Meanwhile, the station frequency, day and night power levels, parameters and location other than for a small site tolerance, are as stated in the Plan. Many of the Canadian planned stations do not list the specific antenna array characteristics, but are entered under an "arcs of suppression" technique guaranteeing maximum radiation levels in various directions.

Station Characteristics

The basic rules applying to Canadian stations are quite similar to those of NARBA. Differences include ratio protection only, at the border if the service contour encloses the border, use of 50% skywave for calculations of night interference, though an 8 dB factor is included for stations in North America, giving equivalence to a 90% of time protection condition and no overlap rules of 2.5, 10 and 25 mV/m contours on first, second or third-adjacent channels respectively.

Stations are protected at their nominal field strengths (Enom) daytime, and at their nominal usable field strengths (Eu) nighttime, unless Eu is less than Enom. If a contour crosses the border, protection is at the field strength produced at the

border.

Class	Enom Day	mV/m Night	Maximum Power KW
A*	0.1(1)	0.5(1)	50
В	0.5(1)	2.5(2)	50
С	0.5(1)	4.0(2)	1

*The Class A night Enom is either groundwave or 50% skywave, whichever is farther from the site. Its Enom daytime is only 0.5 mV/mwhen calculating adjacent-channel interference.

(1) Protected by each other station at that contour on an individual

(2) Protected on an RSS basis using the 50% exclusion rule, the same

Protection ratios are 20 dB (20:1) cochannel 0 dB (1:1) first adjacent channel -29.5 dB (1:30) second adjacent channel

And now what?

Through the bilateral negotiations, DOC will be able to identify those planned operations which could be processed, and with the possibilities cleared, CRTC will be able to deal with applications. The timing in part will be determined by U.S. willingness to consider our proposals on U.S. I-A channels despite the 650 mile rule. If the U.S. holds firm, there will be a full year to wait. However, on Canadian I-A, regional or local channels, there should be minimum delay. The procedures though, involve the IFRB in Geneva, and some delays are probable before the IFRB gets its act together.

Sandy Day is Vice President of Engineering Services for the Canadian Association of Broadcasters. Readers' comments or questions may be addressed c/o CAB, Box 627, Station B, Ottawa K1P 5S2.

AM ALLOTMENTS FOR CANADA

For the first time, a specific plan provides for future growth in the AM band. Canada could get 182 more stations. No more. Maybe less.

The Region 2 Administrative MF Broadcasting Conference, held in Rio de Janiero, Brazil, November 9 to December 19, 1981, began a new era for AM broadcasting.

An allotment plan now covers all existing and future stations, with specific locations, frequencies and parameters—an arrangement similar to that for FM and TV. The plan allows for 10,653 stations throughout Region 2 (the Americas). Of these, 601 are in Canada: 415 operating, 186 proposed (4 of which are already being implemented).

The list of Canadian stations appears on the following pages

of *Broadcast Technology*. It must be noted that nightime parameters are not finalized in the cases of 91 stations on the "existing" list and 100 of the 186 "proposed" stations. Incompatibilities will force both Canada and the U.S.A. to drop a substantial number of their planned allotments; however, as Sandy Day observes in *Technitopics*, "Canada hopes to retain a fair share of the new station opportunities". Also, a number of entries are imcompatible with each other; e.g., 820 kHz is shown for both Halifax and Sydney, N.S., whereas only one such station could be licensed.

CITY/ VILLE	FREQ. kHz	CL	CALL SIGN/ INDICATIF	POW PUISS kW	ANCE
				D/J	N

CITY/ VILLE	FREQ.	CL	CALL SIGN/ INDICATIF	POWI PUISSA kW		
				D/J	N	

NEWFOUNDLAND

NOVA SCOTIA

Baie Verte	1240	В	CKIM	1	0.5
Bonavista Bay	750	A	CBGY	10	10
Clarenville	710	В	CKVO	10	10
Corner Brook	570	В	CFCB	1	1
Corner Brook	700	В	P	10	10
Corner Brook	80 أ	В	P	10	10
Corner Brook	990	Α	CBY	10	10
Corner Brook	1100	В	P	10	2
Corner Brook	1340	С	P	1	0.25
Gander	650	В	P	10	5
Gander	730	В	CKGA	1	1
Gander	1010	В	CFYQ	5	5
Gander	1350	В	CFYQ	1	1
Gander	1450	В	CBG	1	0.5
Goose Bay	740	В	P	10	1
Goose Bay	1230	С	CFLN	1	0.25
Goose Bay	1340	В	CFGB	1	1
Grand Bank	610	В	CKYQ	10	10
Grand Falls	540	Α	CBT	10	10
Grand Falls	620	В	CKCM	10	10
Grand Falls	680	В	CIYQ	10	10
Grand Falls	730	В	P	10	-
Harbour Grace	970	С	CFIQ	1	0.5
Labrador City	1240	С	CBSI-4	1	0.25
Marystown	560	В	CHCM	10	5
Marystown	740	В	CBNM	10	10
Musgravetown	670	A	CHYQ	10	10
Port aux Basques	1230	С	CFGN	0.25	0.25
Port aux Choix	790	В	CFNW	1	1
St. Anthony	600	В	CBNA	10	10
St John's	590	В	VOCM	10	10
St John's	640	A	CBN	10	10
St John's	690	В	P	10	2.5
St John's	800	В	VOWR	5	2.5
St John's	930	В	CJYQ	25	25
St John's	1000	В	P	10	10
St John's	1030	В	P	10	10
St John's	1180	В	P	10	10
St John's	1210	В	P	10	10
St John's	1230	С	VOAR	0.1	0.1
St John's	1520	В	P	10	10
Spaniard's Bay	850	В	P	5	5
Stephenville	870	В	P	10	10
Stephenville	910	С	CFSX	0.5	0.5
Wabush	1340	С	CFLW	0.25	0.25
Wabush	1490	C	CBDQ	1	0.25

Amnerst	830	В	P	10	10	
Amherst	900	В	CKDH	1	1	
Antigonish	580	A	CJFX	10	10	
Bedford/Sackville	790	В	P	10	10	
Bridgewater	1000	В	CKBW	10	10	
Dartmouth	680	В	CFDR	50	10	
Digby	1420	В	CKDY	1	1	
Halifax	540	В	P	10	10	
Halifax	820	В	P	50	50	
Halifax	860	В	СВН	10	10	
Halifax	920	В	CJCH	25	25	
Halifax	960	В	CHNS	10	10	
Halifax	1120	В	P	50	20	
Halifax	1200	В	P	10	10	
Halifax	1360	В	P	50	50	
Kentville	1490	С	CKEN	1	0.5	
Middleton	1350	В	CKAD	1	1	
New Glasgow	1020	В	P	10	5	
New Glasgow	1320	В	CKEC	5	5	
Port Hawkesbury	1410	В	CIGO	10	10	
Sydney	820	В	P	10	10	
Sydney	950	В	CHER	10	10	
Sydney	1140	В	CBI	10	10	
Sydney	1270	В	CJCB	10	10	
Truro	600	В	CKCL	10	1	
Truro	760	В	P	10	1	
Windsor	1450	С	CFAB	0.25	0.25	
Yarmouth	780	В	P	10	2.5	
Yarmouth	1340	В	CJLS	5	1	

PRINCE EDWA	RD ISLAND	•			
Charlottetown Charlottetown Charlottetown Summerside	630 720 1190 1240	B B C	CFCY P CHTN CJRW	10 10 10 0.25	10 10 10 0.25
NEW BRUNSWI	ICK				
Bathurst	870	В	P	10	10
Bathurst	1360	В	CKBC	10	10
Bathurst	1430	В	P	10	10
Campbellton	950	В	CKNB	10	1
Campbellton	1010	В	P	10	0.6
Caraquet	810	В	CJVA	10	10
			MARC	H/APRII	1982

18 MARCH/APRIL 1982

CITY/ VILLE	FREQ.	CL	CALL SIGN/ INDICATIF		WER SANCE W	CITY/ VILLE	FREQ. kHz	CL	CALL SIGN/ INDICATIF		WER SANCE W
				D/J	N					D/J	N
Edmundston	570	В	CJEM	5	1	Granby	1450	В	CHEF	10	5
Edmundston	890	В	P	5	5	Hauterive	580	В	CHLC	5	2.5
Fredericton	550	В	CFNB	50	50	Hull	970	В	CKCH	10	5
Fredericton	650	В	P	10	5	Joliette	1350	В	CJLM	10	1
Fredericton	970	В	CBZ	10	10	Jonquière	590	В	CKRS	10	5
Fredericton	1260	В	CIHI	10	10	Jonquière	1340	C	P	1	0.25
Grand Falls	840	В	P	10	1	Lac Etchemin	1240	C	CIRB	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	0.25
Grand Falls	1200	В	P	10	0.25	Lachute	630	В	CJLA	0.5	1.0
Grand Sault	1490	C	CKMV	1	0.25	Lac Megantic	1400	C	CKFL	1	0.25
Moncton	1030	В	P	50	2.5	L'Annonciation	1490	C	CKLR	1	0.25
Moncton	1070	A	CBA	50	50	La Pocatière	1310	В	CHGB	10	10
Moncton	1220	В	CKCW	25	25	La Sarre	1240	C	CKLS	1	0.25
Moncton	1300	В	CBAF	5	5	La Tuque	1240	C	CFLM	1	0.25
Moncton	1380	В	CHLR	10	10	Lévis	920	В	CFLS	10	10
Moncton	1530	В	P	10	5	Maniwaki	1340	C	CKMG	1	0.25
Newcastle	790	В	CFAN	5	1	Matane	1250	В	CBGA	10	5
Sackville	1040	В	P	10	10	Matane	1290	В	CHRM	10	10
Saint John	700	В	P	10	1	Mont Joli	960	В	P	1	1
Saint John	930	В	CFBC	50	50	Mont Laurier	610	В	CKML	1	7
Saint John	1110	В	CBD	10	10	Montmagny	1490	C	CKBM	1 -	0.25
Saint John	1150	В	CHSJ	10	5	Montréal	600	В	CFCF	5	5
Sussex	590	C	CJCW	1	0.25	Montréal	650	В	P	10	2.5
Woodstock	920	ļΒ	CJCJ	10	1 (Montréal	690	A	CBF	50	50
						Montréal	730	A	CKAC	50	50
QUEBEC						Montréal	800	В	CJAD	50	10
401010						Montréal	940	A	CBM	50	50
Alma	700	В	P	10	0.5	Montréal	980	В	CKGM	10	10
Alma	1270	В	CFGT	10	5	Montréal	990	В	P	50	50
Amos	1340	c	CHAD	1	0.25	Montréal	1040	В	P	10	2.5
Amqui	1220	В	P	5	5	Montréal	1280	В	CJMS	50	50
Asbestos	1340	c	CJAN	1	0.25	Montréal	1410	В	CFMB	10	10
Baie Comeau	670	В	P	10	2.5	Montréal	1570	В	CKLM	50	50
Baie Comeau	790	l c	СКВН	1	0.25	New Carlisle	540	В	CBGA-1	10	10
Baie Comeau	1160	В	P	10	0.5	New Carlisle	610	В	CHNC	10	5
Cabano	1240	c	CJAF	1	0.25	Percé	1180	В	P	10	1
Causapscal	1450	c	CBGA-4	1	0.25	Plessisville	1420	C	CKTL	1	0.5
Chapais	1340	C	CFED	0.25	0.25	Pohenegamook	1450	C	CHRT	1	0.25
Chibougamau	1240	l c	CJHD	1	0.25	Pointe Claire	1470	В	СКО	50	50
Chicoutimi	540	В	P	10	10	Port Cartier	710	В	CIPC	1	1
Chicoutimi	1420	В	CJNT	10	2.5	Québec	800	В	CHRC	50	50
Chicoutimi	1580	В	CBJ	50	50	Québec	870	В	P	10	10
Disraeli	1230	C	CJLP	1	0.25	Québec	980	В	CBV	50	50
Dolbeau	1040	В	P	10	10	Québec	1060	В	CJRP	50	10
Dolbeau	1230	В	CHVD	10	0.25	Québec	1280	В	CKCV	50	50
Drummondville	820	В	P	5	5	Rimouski	750	В	P	10	5
Drummondville	1400	ľc	CKRV	0.25	0.1	Rimouski	900	В	CJBR	10	10
Drummondville	1480	В	CHRD	50	35	Rimouski	1000	В	CFLP	10	10
	600	15	CERR	1 3	1	Rimouski	1110	В	CBSL	10	10

DESIGNED AND BUILT BY CANADIANS TO SERVE CANADIANS

1

5

0.25

В

В

С

620

1150

1450

CFRP

CHMG

Ρ

1

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1

NEW LINE OF LOW-POWER, "ECONOMY" VHF-TV TRANSMITTERS

Rivière-du-Loup

Rivière-du-Loup

Rimouski

5 WATT MODEL: TMV-2005/B

10 WATT MODEL: TMV-2010/B

Forestville

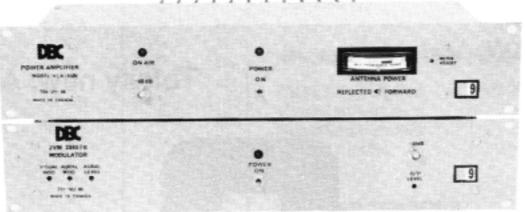
Gaspé

Gaspé

D.O.C. TYPE APPROVED TO RSS-151, CATEGORY "B"

GREAT PERFORMERS. SPECIFICALLY DESIGNED FOR "CANCOM" OR SIMILAR APPLICATIONS WHERE MULTI-CHANNEL TRANSMISSION FROM ONE SITE AND INTERFACE WITH EXTERNAL SCRAMBLER IS ESSENTIAL.

FOR INFORMATION CONTACT:



Model TMV-2005/B

DELTA · BENCO · CASCADE

124 Belfield Road, Rexdale, Ontario, Canada M9W 1G1 Telephone (416) 241-2651 Telex 06-989357

FEATURES:

CBSL

Ρ

CJFP

В

В

В

1110

720

1400

- S.A.W. FILTER IF
- EXTERNAL IF LOOP
- SELECTIVE OUTPUT
- VERY LOW HARMONICS

10

10

10

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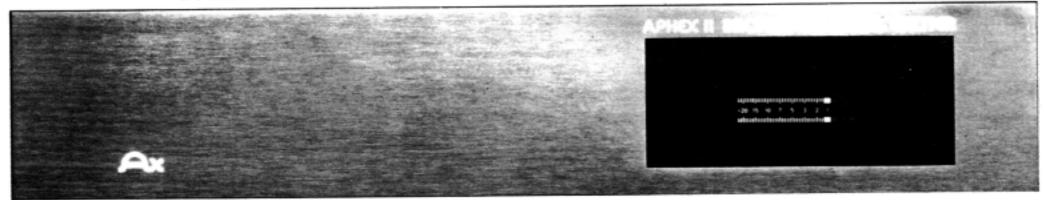
HIGH RELIABILITY

OUR "B" VERSIONS ARE BASED UPON THE DESIGNS OF OUR BROADCAST-QUALITY, "A" VERSIONS: TMV-2005, - 2010

SERVING BROADCASTERS FOR OVER 20 YEARS

AM ALLOTMENTS		_									1
CITY/ VILLE	FREQ. kHz	CL	CALL SIGN/ INDICATIF	PUIS	WER SANCE	CITY/ VILLE	FREQ. kHz	CL	CALL SIGN/ INDICATIF	PUISS	WER SANCE
	. !	1 1	1	k!	W					kV	"
				D/J	N					D/J	N
Roberval	910	B	CHRL	10	10	Collingwood	1400	C	- СКСВ	1	0.25
Rouyn	650	В	P	10	1	Cornwall	640	В	P	5	5
Rouyn	1400	C	CKRN	1	0.25	Cornwall	1170	В	CFIX	10	- 1
Ste Agathe	1230	C	CJSA	1	0.25	Cornwall	1220	В	CJSS	2.5	2.5
Ste Anne desMonts		C	CBGA-7	1	0.25	Cornwall	1600	В	P P	2.5	2.5
Ste Anne desMonts		c	CJMC	1 ,1	0.25	Dryden	770	C	CKDR	1	0.25
St.GeorgeDeBeauce		В	CKRB	10	5	Dryden	1340	c	CKNR	1	0.25
Ste Hyacinthe	1240	C	CKBS	0.25	0.25	Elliott Lake	930	В	CKNS	10	10
St. Jean	1090	B	CHRS	10	7	Espanola	1240	c	P	1	0.25
St Jerôme	900	В	CJEN	1 1	0.25	Espanola	1400	c	P	ī	0.25
St. Jovite	1400	C	CKSJ	1 10	5	Espanola Fort Frances	640	c	p	ī	1
Ste MarieDeBeauce		B	CJVL	10	1	Fort Frances	800	c	CFOB	li	0.5
St. Pamphile	1350	B	CHAL	1 10	5	Fort Frances	1030	В	P	10	5
Sept Iles	560	В	CKCN	10	10	Fort Frances	1180	В	P	10	10
Sept Iles	650	B	D D	10	2.5	Guelph	1460	В	CJOY	10	10
Shawinigan	1220	B	CKSM CHLT	10	2.5	Hamilton	820	В	P	50	25
Sherbrooke	630	B	CKTS	10	10	Hamilton	900	В	CHML	50	50
Sherbrooke	900	В		10	2.5	Hamilton	1150	В	CKOC	50	50
Sherbrooke	1120	В	P P	10	10	Hamilton	1280	В	CJJD	10	10
Sherbrooke	1160	В	CJRS	50	10	Hanover	1360	В	P	10	10
Sherbrooke	1510		CJSO	10	5	Hawkesbury	1110	l c	CHPR	0.25	-
Sorel	1320	B	CKVT	1	0.25	Hearst	1340	l c	CFLH	1	0.25
Temiskamingue Thetford Mines	1330	В	CKLD	10	10	Huntsville	630	В	CFBK	ī	1
Trois Rivières	550	В	CHLN	20	5	Iriquois Falls	1340	c	P	l	0.25
Trois Rivières	1140	В	CJTR	10	10	Kapuskasing	580	В	CKAP	10	1
Val d'Or	900	В	CKVD	10	2.5	Kapuskasing	1230	l c	CFLK	0.1	0.1
Valleyfield	1370	В	CFLV	10	5	Kenora	660	l c	P	1.	1.
Verdun	850	В	CKVL	50	10	Kenora	1020	В	P	10	2.5
Victoriaville	1380	В	CFDA	10	10	Kenora	1220	В	CJRL	1	1
Ville Dégelis	1370	В	CFVD	1	1	Kingston	960	В	CKWS	10	5
Ville de la Baie	1470	B	CHLS	l ī	ī	Kingston	1380	В	CKLC	10	10
Ville Marie	710	В		10	1	Kingston	1490	c	CFRC	0.1	0.1
VIIIe Marie	, , , ,	1 -		1	- 1	Kirkland Lake	560	В	CJKL	5	5
ONTARIO						Kitchener	570	В	CHYM	10	10
OHIAKIO						Kitchener	1090	В	CKKW	10	10
2424	1390	В	l CHOO	10	10	Leamington	710	В	CHYR	25	-
Ajax Bancroft	1240	C	CJNH	i	0.25	Leamington	730	c	CHYR-7	-	1
Barrie	950	В	CKBB	10	2.5	Lindsay	910	В	CKLY	10	5
Barrie Belleville	800	_	CJBQ	10	10	London	980	В	CFPL	10	5
Blind River	730	В	CJNR	1	1	London	1290	В	CJBK	10	10
	790	В	CKMW	5	5	London	1410	В	CKSL	10	10
Brampton Brantford	1380	В	CKPC	10	10	Midland	1230	c	CKMP	1	0.25
Brantford	830	В	P	5	1	Mississauga	1190	В	CJMR	10	-
Brockville Brockville	1450	I -	CFJR	li	0.25	New Liskeard	820	В	P	10	10
	960		CFTJ	l ī	1	New Liskeard	1230	c	CJTT	1	0.25
Cambridge Chatham	630	B		10	ī	Newmarket	1480	В	CKAN	10	10
	1450	1 -	CHUC	10	10	Niagara Falls	710	В	CJRN	5	2.5
Cobourg	1400			1	0.25		990	В	P	10	3
Cochrane	1 1400	1 -	1 -	· -	· · · · ·		<u>'</u>	<u>'</u>	<u>'</u>	<u> </u>	

OCTOPUS AUDIO INTRODUCES TO CANADA THE APHEX II BROADCAST AURAL EXCITER



THE FIRST AURAL EXCITER
DESIGNED SPECIFICALLY FOR THE BROADCASTER

FOR A DEMONSTRATION CALL OR WRITE



69 SHERBOURNE STREET SUITE No. 315 TORONTO, ONTARIO, CANADA M5A 3X7 M5A 3X7 PHONE (416) 868-0513 TELEX 06-986766

AM ALLOTMENTS					1 22	CTMV/	FREQ.	ابي	CALL SIGN/	PO	WER
CITY/ VILLE	FREQ. kHz	CL	CALL SIGN/ INDICATIF		WER SANCE W	CITY/ VILLE	kHz		INDICATIF		SANCE
				D/J	N					D/J	N
North Bay	600	В	CFCH	10	5 I	MANITOBA					
North Bay	840	В	P	2.5	0.5						
North Bay	1110	B	P CHWO	10 10	10	Altona	950	В	CFAM	10	10
Oakville Orillia	1570	В	CFOR	10	5	Boissevain	1220	В	CJRB	10	10
Oshawa	1350	В	CKAR	10	5	Brandon Brandon	820 880	B	P P	10 10	10
Ottawa Ottawa	540 580	B	P CFRA	50 50	10	Brandon	1150	A	скх	50	10
Ottawa	750	В	P	10	2.5	Brandon	1570	В	CKLQ	10 0.25	10
Ottawa	920	В	СВО	50 50	50	Churchill Dauphin	1230 730	B B	CHFC	10	5
Ottawa Ottawa	1150	В	CJRC P	50	50	Flin Flon	590	В	CFAR	10	1
Ottawa	1250	В	CBOF	50	50	Morden	1530	В	CISV	10 10	10
Ottawa	1310	В	CKOY	50	50 50	PortageLaPrairie St. Boniface	920 1050	B	CFRY CKSB	10	10
Ottawa Owen Sound	1440 560	В	CFGO CFOS	50 5	1	Steinbach	1250	В	CHSM	10	10
Parry Sound	1340	c	CFBQ	0.25	0.25	The Pas	1240	C	CJAR	1	0.5
Pembroke	870	В	P	10	5	Thompson Thompson	610 1210	B	CHTM P	10	10
Pembroke	1350 980	B	CHOV	10	1	Virden	1030	В	P	10	10
Peterborough Peterborough	1420	В	CKPT	10	5	Virden	1490	C	P	0.25	0.25
Port Elgin	1490	C	CFPS	1	0.25	Winnipeg Winnipeg	580 630	B	CKY	10	10
Red Lake Renfrew	1340	C	CKRE CKOB	0.25	0.25	Winnipeg	640	В	P	50	10
Richmond Hill	1320	В	CFGM	50	50	Winnipeg	680	В	CJOB	50	50 10
St. Catharines	610	В	CKTB	10	5	Winnipeg Winnipeg	770 810	B	P CKJS	10	10
St. Catharines St. Thomas	1220	В	CHSC	10 10	10	Winnipeg	870	В	P	50	10
Sarnia	1070	В	СНОК	10	10	Winnipeg	990	A	CBW	50	2.5
Sarnia	1110	В	CKJD	10	1	Winnipeg Winnipeg	1100	B	P P	10 25	25.
Sault Ste Marie	540	B	CKCY	15 10	2.5	Winnipeg	1290	В	CFRW	10	10
						1 3				=0	50
Sault Ste Marie Sault Ste Marie	870 920	В	CKCY	10	5	Winnipeg	1350	В	P	50	
Sault Ste Marie Sault Ste Marie	920 1050	B B	CKCY CFYN	10 10	2.5	Winnipeg Winnipeg	1350 1580	В	P P	10	5
Sault Ste Marie Sault Ste Marie Sault Ste Marie	920 1050 1200	B B	CKCY CFYN P	10 10 10	2.5			_	_		
Sault Ste Marie Sault Ste Marie	920 1050	B B	CKCY CFYN	10 10 10 10	2.5 10 10 10			_	_		
Sault Ste Marie Sault Ste Marie Sault Ste Marie Simcoe Smiths Falls Stratford	920 1050 1200 1600 630 1240	B B B B B C	CKCY CFYN P CHNR CJET CJCS	10 10 10 10 10 0.5	2.5 10 10 10 0.25	Winnipeg SASKATCHEWAN	1580	В	P	10	5
Sault Ste Marie Sault Ste Marie Sault Ste Marie Simcoe Smiths Falls Stratford Sudbury	920 1050 1200 1600 630 1240 550	B B B B C B	CKCY CFYN P CHNR CJET CJCS CHNO	10 10 10 10 10 0.5 50	2.5 10 10 10 0.25	Winnipeg SASKATCHEWAN Estevan	1580	В	P CJSL		
Sault Ste Marie Sault Ste Marie Sault Ste Marie Simcoe Smiths Falls Stratford	920 1050 1200 1600 630 1240	B B B B B C	CKCY CFYN P CHNR CJET CJCS	10 10 10 10 10 0.5	2.5 10 10 10 0.25	Winnipeg SASKATCHEWAN	1580	В	CJSL CBKF-1 CJNS	10 5 1	10 5 0.25
Sault Ste Marie Sault Ste Marie Sault Ste Marie Simcoe Smiths Falls Stratford Sudbury Sudbury Sudbury Sudbury	920 1050 1200 1600 630 1240 550 640 790 900	B B B B C B B A B	CKCY CFYN P CHNR CJET CJCS CHNO P CKSO CFBR	10 10 10 10 0.5 50 10	2.5 10 10 10 0.25 10 2.5	SASKATCHEWAN Estevan Gravelbourg Meadow Lake Melfort	1280 690 1240 1420	B B C B	CJSL CBKF-1 CJNS CJVR	10 5 1 10	10 5 0.25 10
Sault Ste Marie Sault Ste Marie Sault Ste Marie Simcoe Smiths Falls Stratford Sudbury Sudbury Sudbury Sudbury Sudbury Thunder Bay	920 1050 1200 1600 630 1240 550 640 790 900 580	B B B B C B B A B B	CKCY CFYN P CHNR CJET CJCS CHNO P CKSO CFBR CKPR	10 10 10 10 0.5 50 10 50	2.5 10 10 0.25 10 2.5 50	SASKATCHEWAN Estevan Gravelbourg Meadow Lake Melfort Moose Jaw	1280 690 1240 1420 670	BBC	CJSL CBKF-1 CJNS CJVR P	10 5 1	10 5 0.25
Sault Ste Marie Sault Ste Marie Sault Ste Marie Simcoe Smiths Falls Stratford Sudbury Sudbury Sudbury Sudbury Thunder Bay Thunder Bay	920 1050 1200 1600 630 1240 550 640 790 900	B B B B C B B A B	CKCY CFYN P CHNR CJET CJCS CHNO P CKSO CFBR	10 10 10 10 0.5 50 10	2.5 10 10 10 0.25 10 2.5	SASKATCHEWAN Estevan Gravelbourg Meadow Lake Melfort	1280 690 1240 1420 670 800 1410	B B C B B B B	CJSL CBKF-1 CJNS CJVR P CHAB	10 5 1 10 10 10	10 5 0.25 10 1 10
Sault Ste Marie Sault Ste Marie Sault Ste Marie Simcoe Smiths Falls Stratford Sudbury Sudbury Sudbury Sudbury Sudbury Thunder Bay	920 1050 1200 1600 630 1240 550 640 790 900 580 640 800 870	B B B B C B B A B B B B B	CKCY CFYN P CHNR CJET CJCS CHNO P CKSO CFBR CKPR P CBQ P	10 10 10 10 0.5 50 10 50 10	2.5 10 10 0.25 10 2.5 50 1 10 5	SASKATCHEWAN Estevan Gravelbourg Meadow Lake Melfort Moose Jaw Moose Jaw Moose Jaw North Battleford	1280 690 1240 1420 670 800 1410 830	B B B B B B	CJSL CBKF-1 CJNS CJVR P CHAB P	10 5 1 10 10 10 10	10 5 0.25 10 1 10 10
Sault Ste Marie Sault Ste Marie Sault Ste Marie Simcoe Smiths Falls Stratford Sudbury Sudbury Sudbury Sudbury Thunder Bay Thunder Bay Thunder Bay Thunder Bay Thunder Bay Thunder Bay	920 1050 1200 1600 630 1240 550 640 790 900 580 640 870 1010	B B B B C B B A B B B B B B	CKCY CFYN P CHNR CJET CJCS CHNO P CKSO CFBR CKPR P CBQ P	10 10 10 10 0.5 50 10 50 10 10	2.5 10 10 0.25 10 2.5 50 1 10 5	SASKATCHEWAN Estevan Gravelbourg Meadow Lake Melfort Moose Jaw Moose Jaw Moose Jaw North Battleford North Battleford	1280 690 1240 1420 670 800 1410	B B C B B B B	CJSL CBKF-1 CJNS CJVR P CHAB	10 5 1 10 10 10	10 5 0.25 10 1 10
Sault Ste Marie Sault Ste Marie Sault Ste Marie Simcoe Smiths Falls Stratford Sudbury Sudbury Sudbury Sudbury Thunder Bay	920 1050 1200 1600 630 1240 550 640 790 900 580 640 800 870 1010 1160	B B B B C B B A B B B B B	CKCY CFYN P CHNR CJET CJCS CHNO P CKSO CFBR CKPR P CBQ P	10 10 10 10 0.5 50 10 50 10	2.5 10 10 0.25 10 2.5 50 1 10 5	SASKATCHEWAN Estevan Gravelbourg Meadow Lake Melfort Moose Jaw Moose Jaw Moose Jaw North Battleford	1280 690 1240 1420 670 800 1410 830 1050 700 900	B B B B B B B B B B B B B B B B B B B	CJSL CBKF-1 CJNS CJVR P CHAB P P CJNB P	10 5 1 10 10 10 10 10 10	10 5 0.25 10 1 10 10 10 10
Sault Ste Marie Sault Ste Marie Sault Ste Marie Simcoe Smiths Falls Stratford Sudbury Sudbury Sudbury Sudbury Thunder Bay Thunder Bay Thunder Bay Thunder Bay Thunder Bay Thunder Bay	920 1050 1200 1600 630 1240 550 640 790 900 580 640 800 870 1010 1160 1230 1200	BBBBCBBABBBBBCB	CKCY CFYN P CHNR CJET CJCS CHNO P CKSO CFBR CKPR P CBQ P P CJLB P	10 10 10 10 0.5 50 10 50 10 10 10 10	2.5 10 10 0.25 10 2.5 50 1 10 5 5 5 0.25	SASKATCHEWAN Estevan Gravelbourg Meadow Lake Melfort Moose Jaw Moose Jaw Moose Jaw North Battleford North Battleford Prince Albert Prince Albert Regina	1280 690 1240 1420 670 800 1410 830 1050 700 900 620	B B B B B B B B B B B B B B B B B B B	CJSL CBKF-1 CJNS CJVR P CHAB P CJNB P CJNB P CKBI CKCK	10 10 5 1 10 10 10 10 10 10	10 5 0.25 10 1 10 10 10 10
Sault Ste Marie Sault Ste Marie Sault Ste Marie Simcoe Smiths Falls Stratford Sudbury Sudbury Sudbury Sudbury Thunder Bay Tillsonburg	920 1050 1200 1600 630 1240 550 640 790 900 580 640 800 870 1010 1160 1230 1200 1510	BBBBCBBABBBBBCBB	CKCY CFYN P CHNR CJET CJCS CHNO P CKSO CFBR CKPR P CBQ P P CJLB P CJLB P CKOT	10 10 10 10 0.5 50 10 50 10 10 10 10	2.5 10 10 0.25 10 2.5 50 1 1 10 5 5 5 0.25	SASKATCHEWAN Estevan Gravelbourg Meadow Lake Melfort Moose Jaw Moose Jaw Moose Jaw Moose Jaw North Battleford North Battleford Prince Albert Prince Albert Regina Regina	1280 690 1240 1420 670 800 1410 830 1050 700 900	B B B B B B B B B B B B B B B B B B B	CJSL CBKF-1 CJNS CJVR P CHAB P P CJNB P	10 5 1 10 10 10 10 10 10	10 5 0.25 10 1 10 10 10 10
Sault Ste Marie Sault Ste Marie Sault Ste Marie Simcoe Smiths Falls Stratford Sudbury Sudbury Sudbury Sudbury Thunder Bay Tillsonburg Tillsonburg	920 1050 1200 1600 630 1240 550 640 790 900 580 640 870 1010 1160 1230 1200 1510 620	BBBBCBBABBBBBCBBB	CKCY CFYN P CHNR CJET CJCS CHNO P CKSO CFBR CKPR P CBQ P P CJLB P	10 10 10 10 0.5 50 10 50 10 10 10 10	2.5 10 10 0.25 10 2.5 50 1 10 5 5 5 0.25 10 - 5	SASKATCHEWAN Estevan Gravelbourg Meadow Lake Melfort Moose Jaw Moose Jaw Moose Jaw North Battleford North Battleford Prince Albert Prince Albert Regina Regina Regina Regina	1280 690 1240 1420 670 800 1410 830 1050 700 900 620 660 760 980	B B B B B B B B B B B B B B B B B B B	CJSL CBKF-1 CJNS CJVR P CHAB P CJNB P CKBI CKCK P P	10 10 10 10 10 10 10 10 10 10 10	10 5 0.25 10 1 10 10 10 10 10 10
Sault Ste Marie Sault Ste Marie Sault Ste Marie Simcoe Smiths Falls Stratford Sudbury Sudbury Sudbury Sudbury Thunder Bay Tillsonburg Tillsonburg Timmins Timmins	920 1050 1200 1600 630 1240 550 640 790 900 580 640 800 870 1010 1160 1230 1200 1510 620 630 680	BBBBCBBABBBBBBBBBBBBBBBBBBBBBBBBBBBBBBB	CKCY CFYN P CHNR CJET CJCS CHNO P CKSO CFBR CKPR P CBQ P P CJLB P CJLB P CKOT CFCL P CKGB	10 10 10 10 0.5 50 10 50 10 10 10 10 10 10	2.5 10 10 0.25 10 2.5 50 1 1 10 5 5 5 0.25 10	SASKATCHEWAN Estevan Gravelbourg Meadow Lake Melfort Moose Jaw Moose Jaw Moose Jaw Moorth Battleford North Battleford Prince Albert Prince Albert Regina Regina Regina Regina Regina	1280 690 1240 1420 670 800 1410 830 1050 700 900 620 660 760 980 1210	BBCBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBB	CJSL CBKF-1 CJNS CJVR P CHAB P CJNB P CKBI CKCK P P CKRM P	10 10 10 10 10 10 10 10 10 10 10 10	10 5 0.25 10 1 10 10 10 10 10 10
Sault Ste Marie Sault Ste Marie Sault Ste Marie Simcoe Smiths Falls Stratford Sudbury Sudbury Sudbury Sudbury Thunder Bay Tillsonburg Tillsonburg Timmins Timmins Timmins	920 1050 1200 1600 630 1240 550 640 790 900 580 640 870 1010 1160 1230 1200 1510 620 630 680 730	BBBBCBBABBBBBBBBBBBBBBBBBBBBBBBBBBBBBBB	CKCY CFYN P CHNR CJET CJCS CHNO P CKSO CFBR CKPR P CBQ P P CJLB P CJLB P CKOT CFCL P CKGB	10 10 10 10 0.5 50 10 50 10 10 10 10 10 10 10 25	2.5 10 10 0.25 10 2.5 50 1 10 5 5 5 0.25 10 - 5 10 2.5 5	SASKATCHEWAN Estevan Gravelbourg Meadow Lake Melfort Moose Jaw Moose Jaw Moose Jaw Moorth Battleford North Battleford Prince Albert Prince Albert Regina Regina Regina Regina Regina Regina Regina	1280 690 1240 1420 670 800 1410 830 1050 700 900 620 660 760 980 1210 1300	BBCBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBB	CJSL CBKF-1 CJNS CJVR P CHAB P CJNB P CKBI CKCK P P	10 10 10 10 10 10 10 10 10 10 10	10 5 0.25 10 1 10 10 10 10 10 10
Sault Ste Marie Sault Ste Marie Sault Ste Marie Simcoe Smiths Falls Stratford Sudbury Sudbury Sudbury Sudbury Thunder Bay Tillsonburg Tillsonburg Timmins Timmins Timmins Timmins	920 1050 1200 1600 630 1240 550 640 790 900 580 640 800 870 1010 1160 1230 1200 1510 620 630 680	BBBBCBBABBBBBBBBBBBBBBBBBBBBBBBBBBBBBBB	CKCY CFYN P CHNR CJET CJCS CHNO P CKSO CFBR CKPR P CBQ P P CJLB P CJLB P CKOT CFCL P CKGB	10 10 10 10 0.5 50 10 50 10 10 10 10 10 10	2.5 10 10 0.25 10 2.5 50 1 1 10 5 5 5 0.25 10	SASKATCHEWAN Estevan Gravelbourg Meadow Lake Melfort Moose Jaw Moose Jaw Moose Jaw Moorth Battleford North Battleford Prince Albert Prince Albert Regina Regina Regina Regina Regina	1280 690 1240 1420 670 800 1410 830 1050 700 900 620 660 760 980 1210 1300 1330 600	BBCBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBB	CJSL CBKF-1 CJNS CJVR P CHAB P CJNB P CKBI CKCK P P CKRM P CKRM CKCK P	10 10 10 10 10 10 10 10 10 10 10 10 10 1	10 5 0.25 10 1 10 10 10 10 10 10 10 10 10
Sault Ste Marie Sault Ste Marie Sault Ste Marie Simcoe Smiths Falls Stratford Sudbury Sudbury Sudbury Sudbury Thunder Bay Tillsonburg Tillsonburg Tillsonburg Timmins Timmins Timmins Timmins Timmins	920 1050 1200 1600 630 1240 550 640 790 900 580 640 800 870 1010 1230 1200 1510 620 630 680 730 750 850 1040	BBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBB	CKCY CFYN P CHNR CJET CJCS CHNO P CKSO CFBR CKPR P CBQ P P CJLB P CKOT CFCL P CKGB CKGB CKGB	10 10 10 10 10 0.5 50 10 10 10 10 10 10 10 10 10 10 10 10 10	2.5 10 10 0.25 10 2.5 50 1 10 5 5 5 5 0.25 10 - 5 10 2.5 5 2.5	SASKATCHEWAN Estevan Gravelbourg Meadow Lake Melfort Moose Jaw Moose Jaw Moose Jaw North Battleford North Battleford Prince Albert Prince Albert Regina Regina Regina Regina Regina Resina	1280 690 1240 1420 670 800 1410 830 1050 700 900 620 660 760 980 1210 1300 1330 600 640	BBCBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBB	CJSL CBKF-1 CJNS CJVR P CHAB P CJNB P CKBI CKCK P P CKRM P CKRM P CKRM	10 10 10 10 10 10 10 10 10 10 10 10 10 1	10 5 0.25 10 1 10 10 10 10 10 10 10 10 10 10
Sault Ste Marie Sault Ste Marie Sault Ste Marie Simcoe Smiths Falls Stratford Sudbury Sudbury Sudbury Sudbury Thunder Bay Tillsonburg Tillsonburg Tillsonburg Timmins Timmins Timmins Timmins Timmins Timmins	920 1050 1200 1600 630 1240 550 640 790 900 580 640 870 1010 1160 1230 1200 1510 620 630 680 730 750 850 1040 1120	BBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBB	CKCY CFYN P CHNR CJET CJCS CHNO P CKSO CFBR CKPR P CBQ P P CJLB P CKOT CFCL P CKGB CKGB CKGB P CFCL P	10 10 10 10 0.5 50 10 10 10 10 10 10 10 10 10 10 10 10 10	2.5 10 10 0.25 10 2.5 50 1 10 5 5 5 10 10 2.5 10 10 2.5 10 10 10 10 10 10 10 10 10 10 10 10 10	SASKATCHEWAN Estevan Gravelbourg Meadow Lake Melfort Moose Jaw Moose Jaw Moose Jaw Moorth Battleford North Battleford Prince Albert Prince Albert Regina Regina Regina Regina Regina Resina	1280 690 1240 1420 670 800 1410 830 1050 700 900 620 660 760 980 1210 1330 600 640 650	BBCBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBB	CJSL CBKF-1 CJNS CJVR P CHAB P CJNB P CKBI CKCK P P CKRM P CKRM CKCK P	10 10 10 10 10 10 10 10 10 10 10 10 10 1	10 5 0.25 10 1 10 10 10 10 10 10 10 10 10
Sault Ste Marie Sault Ste Marie Sault Ste Marie Simcoe Smiths Falls Stratford Sudbury Sudbury Sudbury Sudbury Thunder Bay Tillsonburg Tillsonburg Tillsonburg Timmins Timmins Timmins Timmins Timmins Timmins Timmins Timmins Timmins	920 1050 1200 1600 630 1240 550 640 790 900 580 640 800 870 1010 1230 1200 1510 620 630 680 730 750 850 1040	BBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBB	CKCY CFYN P CHNR CJET CJCS CHNO P CKSO CFBR CKPR P CBQ P P CJLB P CKOT CFCL P CKGB CKGB CKGB	10 10 10 10 10 0.5 50 10 10 10 10 10 10 10 10 10 10 10 10 10	2.5 10 10 0.25 10 2.5 50 1 10 5 5 5 5 0.25 10 10 25 2.5 10 10 25 10 10 25 10 10 25 10 10 10 10 10 10 10 10 10 10 10 10 10	SASKATCHEWAN Estevan Gravelbourg Meadow Lake Melfort Moose Jaw Moose Jaw Moose Jaw North Battleford North Battleford Prince Albert Prince Albert Regina Regina Regina Regina Regina Resina	1280 690 1240 1420 670 800 1410 830 1050 700 900 620 660 760 980 1210 1300 1330 640 650 750 820	BBCBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBB	CJSL CBKF-1 CJNS CJVR P CHAB P CJNB P CKCK P P CKRM P CKRM P CKRM P CJME CKKR CFQC P	10 10 10 10 10 10 10 10 10 10 10 10 10 1	10 5 0.25 10 1 10 10 10 10 10 10 10 10 10 10 10 1
Sault Ste Marie Sault Ste Marie Sault Ste Marie Simcoe Smiths Falls Stratford Sudbury Sudbury Sudbury Sudbury Thunder Bay Tillsonburg Tillsonburg Tillsonburg Timmins	920 1050 1200 1600 630 1240 550 640 790 900 580 640 870 1010 1230 1200 1510 620 630 680 730 750 850 1040 1120 590 640 680	BBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBB	CKCY CFYN P CHNR CJET CJCS CHNO P CKSO CFBR CKPR P CBQ P P CJLB P CKOT CFCL P CKGB CKGB CKGB CKGB P CFCL P CKCT CFCL P CKGB CKGB CKGB P CFCL P	10 10 10 10 0.5 50 10 50 10 10 10 10 10 10 10 10 10 10 10 10 10	2.5 10 10 0.25 10 2.5 50 1 10 5 5 5 10 10 25 10 10 25 10 10 25 10 10 25 10 10 25 10 10 10 10 10 10 10 10 10 10 10 10 10	SASKATCHEWAN Estevan Gravelbourg Meadow Lake Melfort Moose Jaw Moose Jaw Moose Jaw Moorth Battleford North Battleford Prince Albert Prince Albert Regina Regina Regina Regina Regina Resina	1280 690 1240 1420 670 800 1410 830 1050 700 900 620 660 760 980 1210 1300 1330 600 640 650 750 820 860	BBCBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBB	CJSL CBKF-1 CJNS CJVR P CHAB P CJNB P CKBI CKCK P P CKRM P CKRM P CKRM P CKRM P CKRM P CJME CKKR CFQC P P	10 10 10 10 10 10 10 10 10 10 10 10 10 1	10 5 0.25 10 10 10 10 10 10 10 10 10 10 10 10 10
Sault Ste Marie Sault Ste Marie Sault Ste Marie Simcoe Smiths Falls Stratford Sudbury Sudbury Sudbury Sudbury Thunder Bay Tillsonburg Tillsonburg Tillsonburg Timmins	920 1050 1200 1600 630 1240 550 640 790 900 580 640 870 1010 1230 1200 1510 620 630 680 730 750 850 1040 1120 590 640 680 740	BBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBB	CKCY CFYN P CHNR CJET CJCS CHNO P CKSO CFBR CKPR P CBQ P P CJLB P CKOT CFCL P CKGB CKGB CKGB CKGB CKGB CKGB CKGB CKGB	10 10 10 10 0.5 50 10 50 10 10 10 10 10 10 10 10 10 10 10 10 10	2.5 10 10 0.25 10 2.5 50 1 10 5 5 5 5 0.25 10 10 25 2.5 10 10 25 10 10 25 10 10 25 10 10 10 10 10 10 10 10 10 10 10 10 10	SASKATCHEWAN Estevan Gravelbourg Meadow Lake Melfort Moose Jaw Moose Jaw Moose Jaw North Battleford North Battleford Prince Albert Prince Albert Regina Regina Regina Regina Regina Resedina Rosetown Saskatoon Saskatoon Saskatoon Saskatoon Saskatoon Saskatoon	1280 690 1240 1420 670 800 1410 830 1050 700 900 620 660 760 980 1210 1300 1330 640 650 750 820	BBCBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBB	CJSL CBKF-1 CJNS CJVR P CHAB P CJNB P CKCK P P CKRM P CKRM P CKRM P CJME CKKR CFQC P	10 10 10 10 10 10 10 10 10 10 10 10 10 1	10 5 0.25 10 1 10 10 10 10 10 10 10 10 10 10 10 1
Sault Ste Marie Sault Ste Marie Sault Ste Marie Simcoe Smiths Falls Stratford Sudbury Sudbury Sudbury Sudbury Thunder Bay Tillsonburg Tillsonburg Tillsonburg Timmins	920 1050 1200 1600 630 1240 550 640 790 900 580 640 870 1010 1230 1200 1510 620 630 680 730 750 850 1040 1120 590 640 680	BBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBB	CKCY CFYN P CHNR CJET CJCS CHNO P CKSO CFBR CKPR P CBQ P P CJLB P CKOT CFCL P CKGB CKGB CKGB CKGB P CFCL P CKCT CFCL P CKGB CKGB CKGB P CFCL P	10 10 10 10 0.5 50 10 10 10 10 10 10 10 10 10 10 10 10 10	2.5 10 10 0.25 10 2.5 5 10 10 25 10 10 25 10 10 25 10 10 25 10 10 25 10 10 25 10 10 25 10 10 25 10 10 10 10 10 10 10 10 10 10 10 10 10	SASKATCHEWAN Estevan Gravelbourg Meadow Lake Melfort Moose Jaw Moose Jaw Moose Jaw Moorth Battleford North Battleford Prince Albert Prince Albert Regina Regina Regina Regina Regina Resina	1280 690 1240 1420 670 800 1410 830 1050 700 900 620 660 760 980 1210 1300 1330 600 640 650 750 820 860 950 1000 1120	BBCBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBB	CJSL CBKF-1 CJNS CJVR P CHAB P CJNB P CKBI CKCK P P CKRM P CKRM P CJME CKKR CFQC P P P CBKF-2 P P	10 10 10 10 10 10 10 10 10 10 10 10 10 1	10 10 10 10 10 10 10 10 10 10 10 10 10 1
Sault Ste Marie Sault Ste Marie Sault Ste Marie Simcoe Smiths Falls Stratford Sudbury Sudbury Sudbury Sudbury Thunder Bay Tillsonburg Tillsonburg Tillsonburg Timmins Toronto Toronto Toronto Toronto Toronto Toronto	920 1050 1200 1600 630 1240 550 640 800 870 1010 1160 1230 1510 620 630 680 730 750 850 1040 1120 590 640 860 1010 1050	BBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBB	CKCY CFYN P CHNR CJET CJCS CHNO P CKSO CFBR CKPR P CBQ P P CJLB P CKOT CFCL P CKGB CKGB CKGB CKGB CKGB CKGB CKGB CKGB	10 10 10 10 10 50 10 10 10 10 10 10 10 10 10 10 10 10 10	2.5 10 10 0.25 10 2.5 5 10 10 5 5 5 10 10 25 10 10 25 10 10 25 10 10 25 10 10 25 10 10 10 10 10 10 10 10 10 10 10 10 10	SASKATCHEWAN Estevan Gravelbourg Meadow Lake Melfort Moose Jaw Moose Jaw Moose Jaw North Battleford North Battleford Prince Albert Prince Albert Regina Regina Regina Regina Regina Resedina Resedina Resedina Resedina Resedina Resedina Resedina Rosetown Saskatoon	1280 690 1240 1420 670 800 1410 830 1050 700 900 620 660 760 980 1210 1300 1330 600 640 650 750 820 860 950 1000 1120 1170	BBCBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBB	CJSL CBKF-1 CJNS CJVR P CHAB P P CJNB P CKBI CKCK P P CKRM P CKRM P CJME CKKR CFQC P P P P P P P P P P P P P P	10 10 10 10 10 10 10 10 10 10 10 10 10 1	10 5 0.25 10 1 10 10 10 10 10 10 10 10 10 10 10 1
Sault Ste Marie Sault Ste Marie Sault Ste Marie Simcoe Smiths Falls Stratford Sudbury Sudbury Sudbury Sudbury Thunder Bay Tillsonburg Tillsonburg Tillsonburg Timmins Timmins Timmins Timmins Timmins Timmins Timmins Timmins Toronto Toronto Toronto Toronto Toronto Toronto Toronto Toronto Toronto	920 1050 1200 1600 630 1240 550 640 800 870 1010 1230 1200 1510 620 630 680 730 750 850 1040 1120 590 640 860 1010 1050 1430	BBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBB	CKCY CFYN P CHNR CJET CJCS CHNO P CKSO CFBR CKPR P CBQ P CHOT CFCL P CKGB CKGB CKGB CKGB CKGB CKGB CKGB CKGB	10 10 10 10 10 0.5 50 10 10 10 10 10 10 10 10 10 10 10 10 10	2.5 10 10 0.25 10 2.5 5 10 2.5 10 10 25 10 10 25 10 10 25 10 10 25 10 10 25 10 10 25 10 10 10 10 10 10 10 10 10 10 10 10 10	SASKATCHEWAN Estevan Gravelbourg Meadow Lake Melfort Moose Jaw Moose Jaw Moose Jaw North Battleford North Battleford Prince Albert Prince Albert Regina Regina Regina Regina Regina Resina Res	1280 690 1240 1420 670 800 1410 830 1050 700 900 620 660 760 980 1210 1300 1330 600 640 650 750 820 860 950 1000 1120 1170 1250	BBCBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBB	CJSL CBKF-1 CJNS CJVR P CHAB P CJNB P CKBI CKCK P P CKRM P CKRM P CJME CKKR CFQC P P P CBKF-2 P P	10 10 10 10 10 10 10 10 10 10 10 10 10 1	10 10 10 10 10 10 10 10 10 10 10 10 10 1
Sault Ste Marie Sault Ste Marie Sault Ste Marie Simcoe Smiths Falls Stratford Sudbury Sudbury Sudbury Sudbury Thunder Bay Tillsonburg Tillsonburg Tillsonburg Timmins Timmins Timmins Timmins Timmins Timmins Timmins Timmins Toronto	920 1050 1200 1600 630 1240 550 640 800 870 1010 1160 1230 1510 620 630 680 730 750 850 1040 1120 590 640 860 1010 1050	BBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBB	CKCY CFYN P CHNR CJET CJCS CHNO P CKSO CFBR CKPR P CBQ P CKOT CFCL P CKGB CKGB CKGB CKGB CKGB CKGB CKGB CKGB	10 10 10 10 10 50 10 10 10 10 10 10 10 10 10 10 10 10 10	2.5 10 10 0.25 10 2.5 5 10 10 5 5 5 10 10 25 10 10 25 10 10 25 10 10 25 10 10 25 10 10 10 10 10 10 10 10 10 10 10 10 10	SASKATCHEWAN Estevan Gravelbourg Meadow Lake Melfort Moose Jaw Moose Jaw Moose Jaw North Battleford North Battleford Prince Albert Prince Albert Regina Regina Regina Regina Regina Resedina Resedina Resedina Resedina Resedina Resedina Resedina Rosetown Saskatoon	1280 690 1240 1420 670 800 1410 830 1050 700 900 620 660 760 980 1210 1330 640 650 750 820 860 950 1000 1120 1170 1250 1100	BBCBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBB	CJSL CBKF-1 CJNS CJVR P CHAB P CJNB P CKCK P P CKRM P CKRM P CJME CKKR CFQC P P P P P CKKR CFQC P P P CKKR CFQC P P P P CKKR CFQC P P P CKKR CFQC P P P P CKKR P P P P CKKR P P CKKR P P P CKKR P P CKKR P P P CKKR P P	10 10 10 10 10 10 10 10 10 10 10 10 10 1	10 10 10 10 10 10 10 10 10 10 10 10 10 1
Sault Ste Marie Sault Ste Marie Sault Ste Marie Simcoe Smiths Falls Stratford Sudbury Sudbury Sudbury Sudbury Thunder Bay Tillsonburg Tillsonburg Tillsonburg Timmins Timmins Timmins Timmins Timmins Timmins Timmins Timmins Toronto Toronto Toronto Toronto Toronto Toronto Toronto Toronto Toronto	920 1050 1200 1600 630 1240 550 640 870 1010 1230 1510 620 630 680 730 750 850 1040 1120 590 640 860 1010 1230 1240	BBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBB	CKCY CFYN P CHNR CJET CJCS CHNO P CKSO CFBR CKPR P CBQ P CJLB P CKOT CFCL P CKGB CKGB CKGB CKGB CKGB CKGB CKGB CKGB	10 10 10 10 10 0.5 50 10 10 10 10 10 10 10 10 10 10 10 10 10	2.5 10 10 0.25 10 2.5 5 10 10 25 10 10 25 10 10 25 10 10 25 10 10 25 10 10 25 10 10 25 10 10 25 10 10 25 10 10 10 10 10 10 10 10 10 10 10 10 10	SASKATCHEWAN Estevan Gravelbourg Meadow Lake Melfort Moose Jaw Moose Jaw Moose Jaw Moorth Battleford North Battleford Prince Albert Prince Albert Regina Regina Regina Regina Regina Resina Re	1280 690 1240 1420 670 800 1410 830 1050 700 900 620 660 760 980 1210 1300 1330 600 640 650 750 820 860 950 1000 1120 1170 1250 1370 1490	BBCBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBB	CJSL CBKF-1 CJNS CJVR P CHAB P CJNB P CKBI CKCK P P CKRM P CKRR CFQC P P P CKKR CFQC P P P CKKR CFQC P CKCR	10 10 10 10 10 10 10 10 10 10 10 10 10 1	10 10 10 10 10 10 10 10 10 10 10 10 10 1
Sault Ste Marie Sault Ste Marie Sault Ste Marie Simcoe Smiths Falls Stratford Sudbury Sudbury Sudbury Sudbury Thunder Bay Tillsonburg Tillsonburg Tillsonburg Timmins Timmins Timmins Timmins Timmins Timmins Timmins Timmins Toronto	920 1050 1200 1600 630 1240 550 640 790 900 580 640 870 1010 1230 1230 1510 620 630 680 730 750 850 1040 1120 590 640 860 1010 1120 1230 1120 1120 1120 1120 112	BBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBB	CKCY CFYN P CHNR CJET CJCS CHNO P CKSO CFBR CKPR P CBQ P CKOT CFCL P CKGB CKGB CKGB CKGB CKGB CKGB CKGB CKGB	10 10 10 10 0.5 50 10 10 10 10 10 10 10 10 10 10 10 10 10	2.5 10 10 0.25 10 2.5 5 10 10 5 5 5 10 10 25 10 10 25 10 10 25 10 10 25 10 10 10 25 10 10 10 10 10 10 10 10 10 10 10 10 10	SASKATCHEWAN Estevan Gravelbourg Meadow Lake Melfort Moose Jaw Moose Jaw Moose Jaw Moorth Battleford North Battleford Prince Albert Prince Albert Regina Regina Regina Regina Regina Regina Resina Re	1280 690 1240 1420 670 800 1410 830 1050 700 900 620 660 760 980 1210 1300 1330 600 640 650 750 820 860 950 1120 1170 1170 1170 1170 1170 1190 1490 570	BBCBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBB	CJSL CBKF-1 CJNS CJVR P CHAB P CHAB P CKBI CKCK P P CKRM P CJME CKKR CFQC P P P CKKR CFQC CKKR	10 10 10 10 10 10 10 10 10 10 10 10 10 1	10 10 10 10 10 10 10 10 10 10 10 10 10 1
Sault Ste Marie Sault Ste Marie Sault Ste Marie Simcoe Smiths Falls Stratford Sudbury Sudbury Sudbury Sudbury Thunder Bay Tillsonburg Tillsonburg Tillsonburg Timmins Timmins Timmins Timmins Timmins Timmins Timmins Timmins Toronto	920 1050 1200 1600 630 1240 550 640 800 870 1010 1230 1510 620 630 680 730 750 850 1040 1120 590 640 860 1010 1120 1200 1120 1120 1120 1120 11	BBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBB	CKCY CFYN P CHNR CJET CJCS CHNO P CKSO CFBR CKPR P CBQ P CJLB P CKGB CKGB CKGB CKGB CKGB CKGB CKGB CKGB	10 10 10 10 10 0.5 50 10 10 10 10 10 10 10 10 10 10 10 10 10	2.5 10 10 0.25 10 2.5 5 10 10 25 10 10 25 10 10 25 10 10 25 10 10 25 10 10 25 10 10 25 10 10 25 10 10 25 10 10 10 10 10 10 10 10 10 10 10 10 10	SASKATCHEWAN Estevan Gravelbourg Meadow Lake Melfort Moose Jaw Moose Jaw Moose Jaw Moorth Battleford North Battleford Prince Albert Prince Albert Regina Regina Regina Regina Regina Resina Re	1280 690 1240 1420 670 800 1410 830 1050 700 900 620 660 760 980 1210 1300 1330 600 640 650 750 820 860 950 1000 1120 1170 1250 1370 1490	BBCBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBB	CJSL CBKF-1 CJNS CJVR P CHAB P CJNB P CKBI CKCK P P CKRM P CKRR CFQC P P P CKKR CFQC P P P CKKR CFQC P CKCR	10 10 10 10 10 10 10 10 10 10 10 10 10 1	10 10 10 10 10 10 10 10 10 10 10 10 10 1
Sault Ste Marie Sault Ste Marie Sault Ste Marie Simcoe Smiths Falls Stratford Sudbury Sudbury Sudbury Sudbury Thunder Bay Tillsonburg Tillsonburg Tillsonburg Timmins Timmins Timmins Timmins Timmins Timmins Timmins Timmins Toronto	920 1050 1200 1600 630 1240 550 640 790 900 580 640 870 1010 1230 1510 620 630 680 730 750 850 1040 1120 590 640 860 1010 1230 1010 1010 1010 1010 1010 101	BBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBB	CKCY CFYN P CHNR CJET CJCS CHNO P CKSO CFBR CKPR P CBQ P CKOT CFCL P CKGB CKGB CKGB CKGB CKGB CKGB CKGB CKGB	10 10 10 10 0.5 50 10 10 10 10 10 10 10 10 10 10 10 10 10	2.5 10 10 0.25 10 2.5 5 10 2.5 10 10 25 10 10 25 10 10 25 10 10 25 10 10 10 10 10 10 10 10 10 10 10 10 10	SASKATCHEWAN Estevan Gravelbourg Meadow Lake Melfort Moose Jaw Moose Jaw Moose Jaw Moorth Battleford North Battleford Prince Albert Prince Albert Regina Regina Regina Regina Regina Regina Resina Re	1280 690 1240 1420 670 800 1410 830 1050 700 900 620 660 760 980 1210 1300 1330 600 640 650 750 820 860 950 1000 1120 1170 1250 1170 1250 1190 1490 570 840 840	BBCBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBB	CJSL CBKF-1 CJNS CJVR P CHAB P CHAB P CKBI CKCK P CKRM P CJME CKKR CFQC P P P CBKF-2 P P CBKF-2 P CKOM CJWW P CJSN CKSW P CBK	10 10 10 10 10 10 10 10 10 10 10 10 10 1	10 10 10 10 10 10 10 10 10 10 10 10 10 1
Sault Ste Marie Sault Ste Marie Simcoe Smiths Falls Stratford Sudbury Sudbury Sudbury Sudbury Sudbury Thunder Bay Tillsonburg Tillsonburg Tillsonburg Timmins Timmins Timmins Timmins Timmins Timmins Timmins Toronto	920 1050 1200 1600 630 1240 550 640 790 900 580 640 870 1010 1230 1510 620 630 680 730 750 850 1040 1120 590 640 860 1010 1120 1230 1120 1120 1120 1120 112	BBBBBCBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBB	CKCY CFYN P CHNR CJET CJCS CHNO P CKSO CFBR CKPR P CBQ P CJLB P CKOT CFCL P CKGB CKGB CKGB CKGB CKGB CKGB CKGB CKGB	10 10 10 10 0.5 50 10 10 10 10 10 10 10 10 10 10 10 10 10	2.5 10 10 0.25 10 2.5 5 10 10 25 10 10 25 10 10 25 10 10 25 10 10 25 10 10 25 10 10 10 10 10 10 10 10 10 10 10 10 10	SASKATCHEWAN Estevan Gravelbourg Meadow Lake Melfort Moose Jaw Moose Jaw Moose Jaw North Battleford North Battleford Prince Albert Prince Albert Regina Regina Regina Regina Regina Regina Resina Res	1280 690 1240 1420 670 800 1410 830 1050 700 900 620 660 760 980 1210 1300 1330 600 640 650 750 820 860 950 1000 1120 1170 1170 1250 1370 1490 570 890 540	BBCBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBB	CJSL CBKF-1 CJNS CJVR P CHAB P CHAB P CKBI CKCK P CKRM P CKRM P CKRM P CKKR CFQC P P P CKKR CFQC P CKCKR CFGC CFGC CKCR CCCC CCCC CCCC CCCCC CCCCC CCCCCC CCCCC	10 10 10 10 10 10 10 10 10 10 10 10 10 1	10 10 10 10 10 10 10 10 10 10 10 10 10 1

AM ALLOTMENTS									-		
CITY/	FREQ.	CL	CALL SIGN/	PO	WER	Medecine Hat	720	В	P	10	2.5
VILLE	kHz		INDICATIF		SANCE	Medecine Hat	1270	В	CHAT	10	10
				k		Medecine Hat Medecine Hat	1390	B	CJCY	10	10
			1			Peace River	610	В	CJMH CKYL	10 10	10
				D/J	N	Peace River	810	В	P	10	10
	•					Red Deer	850	В	CKRD	10	1
ALBERTA						Red Deer	870	В	P	50	50
Brooks	1340	l c	CKBR	1	0.25	Red Deer	1170	В	CKGY	10	5
Calgary	660	В	P	50	50	St. Albert	1070	В	CKST	10	10
Calgary	700	В	P	50	50	St. Paul	1310	В	CIOK	10	10
Calgary	760	В	P	50	50	Stettler	1400	C	CHOA	1	0.25
Calgary	810	В	CHQR	50	50	Taber	1570	В	CKTA	5	5
Calgary	820	В	P	50	50	Vegreville	1160	В	P	10	2
Calgary	960	В	CFAC	50	50	Westlock	1360	В	P	25	25
Calgary	1010	A	CBR	50	50	Westlock	1370	В	CFOK	10	10
Calgary	1060	В	CFCN	50	50	Wetaskiwin	1440	В	CJOI	10	10
Calgary	1140	В	CKXL	50	50	BRITISH COLUMBIA					
Calgary	1360	В	P	10	10						
Calgary	1520	В	P	50	50	Abbotsford	760	В	P	10	10
Calgary	1600	В	P	50	50	Abbotsford	850	В	CFVR	10	10
Camrose	790	В	CFCW	50	50	Ashcroft	740	В	P	10	2.5
Canmore	1230	C	P	1	0.25	Ashcroft	1340	C	CHNL-2	1	0.25
Canmore	1450	В	P	1	0.25	Burns Lake	1400	C	CFLD	1	0.25
Cardston	840	В	P	10	10	Campbell River	1490 750	В	CFWB	10	0.25
Coleman	1490 910	В	CJPR CJDV	1 10	0.25	Castlegar	760	В	P P	20	5
Drumheller	580	В	CKUA	10	10	Castlegar	1230	c	CKQR	1	0.25
Edmonton	630	В	CHED	50	50	Castlegar Chetwynd	1450	c	CHET	i	0.25
Edmonton Edmonton	680	В	CHED	10	10	Chilliwack	880	В	P	10	10
Edmonton	740	В	CBX	50	50	Chilliwack	1270	В	CHWK	10	10
Edmonton	880	В	P	50	50	Clearwater	1210	В	P	10	.6
Edmonton	930	В	CJCA	50	50	Clearwater	1400	١č	CHNL-1	ı	0.25
Edmonton	1110	В	CHQT	50	50	Courtenay	1440	В	CFCP	ī	1
Edmonton	1200	В	P	50	50	Cranbrook	570	В	CKEK	10	ī
Edmonton	1260	A	CFRN	50	50	Creston	1340	c	CFKC	0.25	0.25
Edmonton	1300	В	P	50	50	Dawson Creek	1350	В	CJDC	1	1
Edmonton	1480	В	CKER	10	10	Duncan	1500	В	CKAY	10	1
Edmonton	1530	В	P	50	50	Fernie	1240	c	CFEK	1	0.5
Edmonton	1580	В	P	50	50	Fort Nelson	590	C	CFNL	0.25	0.25
Edson	970	В	CJYR	10	10	Fort St. John	560	В	CKNL	1	1
Edson	1030	В	P	10	0.3	Fort St. John	1120	В	P	10	0.1
Fort McMurray	550	В	P	10	5	Golden	1400	C	CKGR	1	0.25
Fort McMurray	1230	В	CJOK	1	0.5	Grand Forks	1340	C	CKGF	1	0.25
Grand Centre	1340	C	CIOK-1	0.25	0.25		830	В	P	10	10
Grande Prairie	840	В	P	10	10	Hope	1100	В	P	10	0.3
Grande Prairie	1050	A	CFGP	10	10	Hope	1240	C	CKGO	1	0.25
Grande Prairie	1430	В	CJXX	10	10	Kamloops	550	В	CFJC	25	5
High River	1280	В	CHRB	10	10	Kamloops	610	В	CHNL	25	5
Hinton	1230	C	CIYR	1	0.25	Kamloops	660	В	P	10	1
Jasper	1450	C	CKYR	0.25	0.25	-	700	В	P	10	10
Lethbridge	750	В	P	10	10	Kelowna	630	В	ckov	5	1
Lethbridge	1090	В	CHEC	5	5	Kelowna	720	В	D D	10	10
Lethbridge	1220	В	CJOC	10	5	Kelowna	1150	В	CKIQ	10	10
Lloydminster	1080	В	CKSA	10	10	Kelowna	1580	В	P	10	10

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Quan.	Cat. No.	Description
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3	1310	4-way barn door
3	1226	Full single scrim
3	1530	Portable stand
3	DYS	600 W 3200°K lamp
1	1971	Case

Dimensions: 27" (686 mm) long

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Weight: 28 lbs. (12.7 kg.)

SPECIAL INTRODUCTORY PRICE \$1099.00 (Valid until April 30, 1982.)

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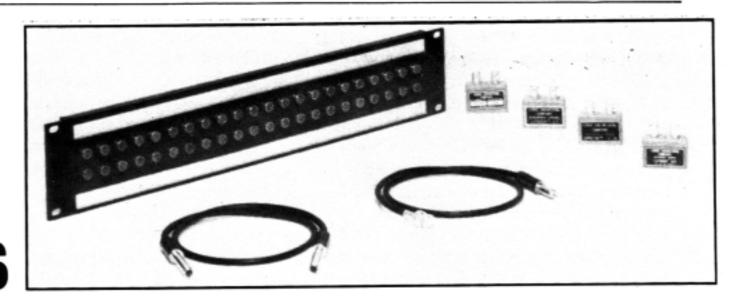
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Kimberley	1400	l c	P	1	0.25	Trail	610	В	CJAT	10	1
Kitimat	770	В	P	10	1	Trail	640	В	P	10	5
Kitimat	1230	В	CKTK	1	0.25	Vancouver	540	В	P	50	5
Langley	800	В	CJJC	10	10	Vancouver	600	В	CJOR	10	10
Mackenzie	1240	c	CKMK	1	0.25	Vancouver	650	В	P	50	25
Merritt	1230	C	CJNL	1	0.25	Vancouver	690	В	CBU	50	50
Nanaimo	1260	В	CKGS	10	10	Vancouver	730	В	CKLG	50	50
Nanaimo	1350	В	CKEG	10	10	Vancouver	1030	В	P	50	50
Nanaimo	1570	В	CHUB	10	10	Vancouver	1130	A	CKWX	50	50
Nelson	860	В	P	1	1	Vancouver	1180	В	P	50	50
Nelson	890	C	P	1	1	Vancouver	1320	В	CHQR	50	50
Nelson	1390	В	CKKC	1	1	Vancouver	1410	A	CFUN	50	50
New Westminster	980	A	CKNW	50	50	Vancouver	1470	В	CJVB	50	50
Oliver	1490	C	CK00-1	1	0.25	Vancouver	1520	В	P	50	50
Osoyoos	1240	C	CKOO	1	0.25	Vanderhoof	1340	c	CIVH	1	0.25
100 Mile House	1240	C	CKBX	1	0.25	Vernon	730	В	P	10	10
Parksville	1370	В	CHPQ	1	1	Vernon	940	В	CJIB	10	10
Penticton	780	В	P	10	10	Vernon	1050	В	CKAL	10	1
Penticton	800	В	CKOK	10	0.5	Victoria	830	В	P	10	10
Penticton	900	C	P	1	1	Victoria	900	В	CJVI	10	10
Port Alberni	1240	C	CJAV	1	0.25	Victoria	1070	В	CFAX	10	10
Port Alice	840	В	P	10	0.3	Victoria	1200	В	P	50	50
Port Hardy	1240	C	CFNI	1	0.25	Victoria	1220	В	CKDA	50	50
Powell River	1280	В	CHQB	1	1	Williams Lake	570	В	CKWL	1	1
Prince George	550	В	CKPG	10	10	Williams Lake	890	В	P	10	10
Prince George	620	В	CJCI	10	10						
Prince George	670	В	P	10	10						
Prince George	1040	В	P	10	10	YUKON TERRITOR	Y				
Prince Rupert	560	C	CHTK	1	0.25	Dawson	I 870	lв	l P	10	5]
Prince Rupert	720	В	P	10	10	Whitehorse	570	В	CFWH	1 1	1
Prince Rupert	860	A	CFPR	10	10	Whitehorse	610	В	CKRW	i	i
Prince Rupert	990	В	P	10	10	Whitehorse	740			10	10
Princeton	1400	C	CINL	1	0.25		•	•	1 -	1 10	10 1
Quesnel	920	В	CKCQ	10	1	NORTH WEST TER	RITORI	ES			
Revelstoke	1340	C	CKCR	1	0.25	Frobisher Bay	1210	В	CFFP	0.25	0.25
Richmond	940	В	CISL	2.5	2.5	Frobisher Bay	1230	C	P	1	1
Salmon Arm	580	В	CKXR	10	1	Inuvik	860	В	CHAK	1	1
Smithers	1230	c	CFBV	1	0.25	Inuvik	1100	В	P	10	1.5
Summerland	1450	В	CKSP	1	0.25	Tuktoyaktuk	600	В	CFCT	1	1
Terrace	590	В	CFTK	1	1	Yellowknife	1240	В	CJCD	1	1
Terrace		В	P	10	1	Yellowknife	1340	В	, CFYK	1	1
	_										

COAXIAL PATCHFIELDS AND ACCESSORIES



The Dynatech Coaxial Patching/Switching System provides normal-thru connections and self-termination within the jacks, as well as cross patching and non-interrupting on-line monitoring of live circuits.

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DISASTER IN DRYDEN

by Neil East

The city of Dryden, Ontario is a pleasant place along the Trans-Canada Highway between Thunder Bay and Winnipeg. Until November 7, 1981, Dryden had one of the nicest little radio stations you would find anywhere. (The *before* photo reveals CKDR's attractive and well-equipped air studio, built in 1979.)

CKDR is unattended after midnight, so the evening announcers attempt to tidy the studios a bit before they lock up and go home. On Saturday evening, the announcer performed his usual routine, which included emptying the ashtrays into the garbage can under the console. The rest of the pictures show you what the Sunday morning announcer discovered as he arrived. The fire chief reported that the entire building would have burned, except that the fire was starved for oxygen by the tight sound-proofing in the studio.

Virtually everything in the air studio was destroyed by the fire, and it will take six months and thousands of dollars before things are back to normal in the station. Fortunately, the adjacent pro-

duction studio was not severely damaged and CKDR is programming from that control room now.

Within a few hours of the emergency, CJOB and CFRW in Winnipeg and CFQX in Selkirk had volunteered cartridges, cartridge machines, tape machines, and a portable console to get the station back into operation, and a full commercial schedule was broadcast Monday. The actual off-air time was only 21/2 hours due to very quick action by station staff and Sound Broadcasting.

This is the fourth and worst radio station fire I've seen, all caused by the same darn thing, and one overriding lesson is clear: NEVER, NEVER empty ashtrays into garbage containers.

Ashtrays should be emptied into a sealed container and when it is full it should leave the building completely. Since the fire, we have discovered one station where the cleaners dump the ashtrays into plastic bags with the rest of the garbage, then store the bags in front of the station's only emergency exit. You might like to investigate how the

cleaning staff are disposing of ashtray contents in your station.

Some other things we learned from this nasty incident:

- Stations unattended all night are particularly vulnerable to this kind of fire.
 Smoke detectors and burglar alarms wired to a central monitoring service should be considered essential in these stations.
- If a door feels hot, don't open it! The sudden inrush of fresh air will cause the fire to roar up immediately.
- When the building is completely unlocked and the firemen arrive, try to discourage them from breaking in the plate-glass windows.
- You can wash a Revox easily, but it's hard to dry.

We won't feel so bad about our fire if somebody else can prevent one by learning from our experience.

Neil East is manager of Sound Broadcasting, Winnipeg, Manitoba.

Note the white ash which covers everything.









A view under the console where fire started.



Fire-damaged tape and cart equipment.



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EASIER ACCESS TO BIRDS

Canadian Satellite Communications (Cancom) will be the first to benefit from a new CRTC ruling which permits broadcast and cable operators to lease satellite facilities directly from Telesat Canada, the country's satellite monopoly. Until now, all satellite users have been forced to deal with Telesat only through approved common carriers—e.g., CN-CP and the Trans-Canada Telephone System. Cancom estimates it will save 4% on satellite costs.

Business users are still required to deal through the common carriers. Individuals and organizations wishing to receive business services are now eligible for TVRO licences.

Broadcast and cable operators will be able to own earth stations to receive services such as Broadcast News, which plans to use satellite distribution as soon as possible. The new rules also open the way for a satellite radio network.

Two new satellites are scheduled to be launched in 1982 for Telesat Canada.

SHOW WON'T GO ON

The CRTC has ordered Fergus-Elora Cable TV not to proceed with an American-style pay-TV experiment.

Jack Milligan, owner of the system, rented a channel to Canadian Subscription TV Limited, which holds exclusive Canadian rights to "Showbiz", a U.S. pay-TV channel. The project was encouraged by Ontario's communi-BROADCAST TECHNOLOGY

present federal rules.

The 3,000 subscribers on the Fergus system—40 miles west of Toronto—were asked to pay \$18 a month extra for the "Showbiz" package, relayed on videotape.

cations officials, but is illegal under

HE PAID FOR PAY-TV

The first Canadian conviction for theft of pay-TV signals was chalked up on February 3rd. The culprit was Albert J. Protzel of Moose Jaw, convicted of stealing Cablecom Corporation's Teletheatre.

A spokesman said Cablecom is able to detect from outside whether a house can receive the service. Protzel was placed on a year's probation and ordered to pay the unpaid fees; in addition, his legal fees were estimated at \$1,000.

CFMM GOES ON-AIR

The first FM station in Prince Albert, Sask., went on the air January 31. CFMM operates on 99.1 with a rock album format. Manager is Jim Scarrow; news director is Bill Armstrong.

CANDIDATES QUIZZED

Radio and Journalism students at Canadore College in North Bay had an opportunity to hone their journalism skills recently, during a press conference with candidates for the leadership of the Ontario Liberal party. The program, originated at Canadore and moderated by Journalism coordinator Don Curry, was aired on cable TV. Preparation included research by the students into the background of the five candidates.

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BROADCAST BEAT

by Phil Stone

Marlo Lewis, the producer who helped take the Ed Sullivan Show to its exalted place in the TV heavens, wrote a book in conjunction with his wife Mina Bess Lewis, called Prime Time. It is a good read for those interested in Sullivan and other performers, and in the machinations of the major U.S. networks. Many years before he appeared on television, Sullivan had his own radio talk show and bragged that he had discovered Jack Benny on one of those early programs-a fact that Ed never let Benny forget. In reply, Benny was wont to say, "This hardly puts Ed in a class with Moses, Columbus and Einstein." It is interesting to note that until the Sullivan show, most programs had one sponsor: for example, Benny and Jello, Bob Hope and Pepsodent, Dinah Shore and Chevrolet, Milton Berle and Texaco. Sullivan's show gave stature to "scatter advertising"-participating spots by several sponsors within a program. One time for a bond drive he emceed, Sullivan brought in a young performer with the surname, Fabares. Of French stock, she pronounced it Fah-bar-ah. Sullivan, squinting at his idiot cards, raised his arms in his traditional way and shouted, "And now-New York's newest sensation, Nanette Fah-bare-ass." The young woman changed her surname to Fabray ... 4

Maclean-Hunter Cable TV has passed the 500,000 subscriber level with 340,000 customers in Ontario and 160,000 in its U.S. franchises...Pldtonic love: love from the neck up...After some 15 years, ran into George Retzlaff, the producer who for many years was in charge of Saturday night hockey on CBC-TV, back when it was really a national viewing habit. George also produced the TV bowling show that this writer hosted for over two years, seen in Toronto, Ottawa and Montreal on Saturday afternoons...Worth reading is The New Communicators, practical information about cable community programming. Written by Dorothy Forbes and Sanderson Layng, it can be obtained for \$6.00 from Joanne Dugas of the Canadian Cable TV Association... Teenage girls have it rough these days: the fellows they go out with have nicer hair than they do... Have been reading Roy Bonisteel's book, In Search of Man Alive. Roy was with CJBQ Belleville and CKTB St. Catharines before gaining celebrity in the religious broadcasting field...It's difficult to win in business these days: do something wrong, you're fined; do something right, you're taxed...Old friend Joe Wren is now chairman and c.e.o. at Grant/Tandy Limited. Same agency made John Heinrich president; Robert Helwig executive v.p. and director of client services; Elliott Collins executive v.p., creative services; Nigel Pleasants senior v.p. and director of media services; Ken MacDougall senior v.p., director of broadcast services.

The headquarters of Standard Broadcast News moved to Ottawa from Toronto—serving 57 stations, it is, according to **Mac McCurdy**, the first and only Ottawa-based news network ... Estimates are that the Canadian home video games market will grow to \$120 million in 1982, compared to about \$55 million in 1981... The world TV rights for the 1988 Winter Olympics in Calgary will probably cost about \$1 billion. The rights for the 1984 Summer Olympics in Los Angeles went for

\$224 million, but four more years should add big cable and pay-TV possibilities...Trident TV in Britain bought nearly all of Playboy Enterprises' gambling operations there. Now if someone asks, "How's business?" they can readily answer, "A little dicey."...At least three Toronto deejays have records out: Scruff Connors of Q-107 issued The Christmas Mudley with flipside Bugs in My Pocket; Ted Woloshyn of CFNY-FM and CBC has a comedy album; and CHUM's Mike Holland—a pretty fair vocalist-put out his second album, Do She Want Love... Marta Portengen, an agency veteran, joined Straiton, Pearson & Martin as media director... An announcer I know has wonderful self control: he never drinks unless someone else is buying...Pam Freir moved from writer to creative director at O&M...Are video disc players the Edsels of the 80s? That seems to be the opinion of many in the home entertainment field.

Chatelaine chose a broadcaster as Woman of the Year: she's Barbara Frum as it used to happen before she moved to The Journal... Changes at the Geoff Stirling radio group: John Mackey left as g.m. of CKGM/CHOM Montreal to be replaced by Phil Parker, former sales manager; Mark Sherman is CHOM-FM retail s.m., he was once ski reporter, then promo director; Jim Welcher, formerly g.s.m. at CJMS/CKMF Montreal is CKGM local & regional sales manager; and Tim Pratt moved from Montreal to be g.s.m. at CKWW/CJOM Windsor...Alan Rae, president of Lever, is chairman of the Advertising Advisory Board committee on sex role stereotyping...Videotron Communications Ltee of Montreal was given \$750,000 by the federal government to develop a device that allows cable subsribers to switch to services such as pay-TV, Telidon or home computing; its potential market in Canada is 1.5 million units by 1986...Attractive Ann Tracey became account super at Loren Advertising... Saw a play the other night that really had a happy ending: everyone was glad when it was over...

Henny Youngman says he has his own talk show: his mother-inlaw...Kevin Marsh, son of the late Bruce Marsh, is a news voice with CBC Radio. Another son of a famous father, Farley Mowat, is Sandy Mowat, also on CBC Radio...Johnny Wayne & Frank Shuster doing fabulously well with edited shows from the past 14 years. Syndicated through CBC Enterprises, the reruns have earned \$1 million and are seen in 12 countries. For CBC Enterprises, a comparatively new venture, The Music Man has sold best, with W&S second; 1982 sales are expected to total \$6 million... The first TV spot was for Bulova watches and was seen on WNBT New York in the summer of 1941. It cost Bulova \$9.00!... Among the places that still don't have TV are Vatican City, Guyana, Laos, Andorra and the Solomon Islands... Thanks to jogging, more people are collapsing in perfect health than ever before...Brian Slaight, Allan's brother, is now chief operating officer at Thomson Newspapers ... A survey of 100 news anchormen and women in 24 major U.S. cities reveals that most would rather read than watch TV, when not working. In fact, more than 50% watch TV an average of only 10 hours a week, compared to the national average of 45 hours. Their favorite show: Hill Street Blues...Got a note from "Lonesome John" Holmes, who returned to CHML to take over Tom Cherington's role as 'phone show host, spelled curmudgeon. John assures me that he has remained personable, witty, urbane, handsome and humble in the process of advancing the BBM for the early evening program. Ah, there's no place like Holmes...Media Advertising merged its Vancouver office with Audrey Benson, now known as Audrey Benson Media Advertising...Cathee Chin, formerly with Grant/Tandy, now at Y&R...Altho' Canada has 2 million hearing impaired, McCann-Erickson reports that only 1,000 caption decoders have been sold by Sears.

Gordon Bell went from Global to CKVU-TV in Vancouver as technical director...Reminder: the TV Commercials Festival is due April 6 at Toronto's Sheraton Centre...We highly recommend **Steve Allen**'s book *Funny People* as a literate study of the better-known comics, many of whom made their mark in broadcasting...Congratulations to Charlie Fenton on his promotion to v.p., corporate development, at Mutuelcom. We go back a long way with Charlie and he was always one of our favorite, nice people... Early Wynn, dropped as play-by-play man for the Toronto Blue Jays, surfaces at the same task for the Chicago White Sox this season... Although retired as chairman of McKim after 29 years with the agency, Larry Foley is keeping busy as a consultant for some major accounts, including McKim... Robert Alter, president of the Cablevision Advertising Bureau, estimates that advertising will make up 20-30% of U.S. cable TV revenue by 1990... CFCF paid \$11.5 million to buy Cable TV, Montreal. They promised the CRTC to provide 35 channels by 1983... Angela Cameron, once of Lovell Advertising, now at Dade Hagemeyr & Monty as copy chief...Write a TV script that's accepted for U.S. production and you'll likely be paid \$7,500 for it; on the first rerun, you'll get 75% of that, with correspondingly lesser fees on further

reruns. To make money, you've got to create a series. CBS says that in 1981 it looked at over 2,000 ideas, ordered 70 scripts, 13 were made into pilots, and only two of the pilots got on the air...Bob Holiday parted from CFTR, where he had been news director for nine years. As we write this, we understand John Hinnen will take over-John was one of our outstanding students at Humber and joined CKLB (now CKAR) Oshawa before winning a place at CFTR as sports director. In another development, Bob Saint has become program director; he held that position at CKJD, Roger's station in Sarnia, before moving to CFTR...John Donabie moves from CHUM-FM to give CJCL Toronto another big name on its announce roster, handling a late evening music and news package. Rob Cowan parted company with CJCL, where he had been an announcer -ironically, Rob was succeeded by Dick Joseph, whom he had replaced back in 1974 when the station was CKFH...Our youngest pebble, Glen Stone, on the CJCL news staff, has a 5-minute science feature at 5:20 pm daily.

Enjoyed **George Bain**'s profile in *Saturday Night* of the CBC's man in Washington, Joe Schlesinger. Joe has gone through much on the way up, which is probably why he looks older sometimes than his 53 years... That attractive lady who is now BBM's v.p., member services, is Nancy Cunningham, once of Blair Broadcasting and Chatelaine magazine...CJAD Inc. named Pat Kiely v.p., finance...Sid Margles' assignment as g.m. of CJSB Ottawa meant his dropping the role he had held as g.m. of Standard Broadcast News. His successor is veteran Stu Morrison. John McFadyen, news director at CKFM, takes over Margles' active role with RTNDA...Jean Stevens left Standard to join Cockfield Brown as TV time buyer... Charlie Chimp, the character on CBC's News from Zoos, has a talented broadcaster doing his voice: Carl Banas... The Toronto office of Hayhurst ad agency is now being run by **Jeff Schur** and **Bill** Saul...Sandy Robertson moved to V&B from Doyle Dane, holding the same title, v.p., media director.





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- Broadcast News—Richard Crabb formerly of CKEY and CITY-TV Toronto, promoted to Ontario regional editor.
- CRTC—Ottawa lawyer Hank Intven appointed executive director, telecommunications; Patrick Tourigny, formerly a television producer with CKPR-TV Thunder Bay, CJOH-TV Ottawa and Ottawa cable TV systems, named senior planning officer, broadcast programs directorate.

appointments

- CFPL-TV London—Tom W. Bird promoted to marketing manager.
- CJOB Winnipeg—recent promotions include John Cochrane to station manager, CJOB; Peter Grant to station manager, CHMM-FM; Mitch Zalnasky to general sales manager.
- Hitachi-Denshi America—Richard Alexander appointed product/ marketing services manager.
- Mutuelcom—Terence A. Williams to executive v.p. & g.m., Kenneth Purdye to senior v.p., marketing & corporate development, Jacques R. Remillard to v.p., Montreal sales manager.
- Orrox Corp.—Philip B. Arenson named president, Larry Finley a director of Santa Clara, CA firm.
- Shure Bros.—Harry Waller appointed manager, OEM sales.

CENTRAL DYNAMICS LTD.



R.E. (Bob) Smith Regional Sales Manager

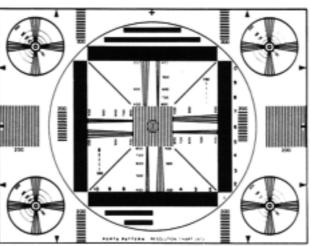
Raymond Quesnel, National Sales Manager of Central Dynamics Ltd., is pleased to announce the appointment of Bob Smith as Ontario Regional Sales Manager, operating from our newlyopened office in Toronto.

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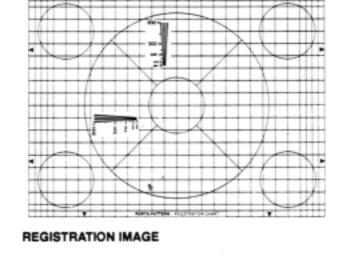
Bob Smith brings to this position a broad range of experience in the field of TV studio and closed-circuit engineering. His most recent position was with Motion Picture Video.

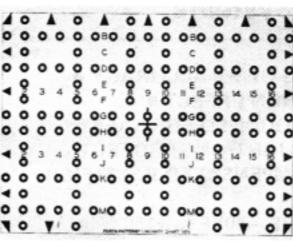
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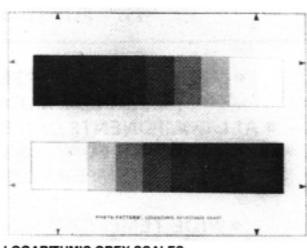


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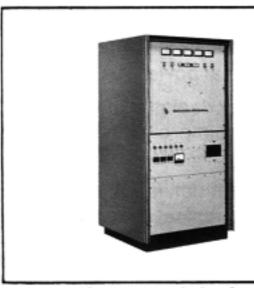
crtc

1982 HEARINGS

The CRTC has scheduled the following hearings re: broadcast. (Details are subject to change, and those planning to attend hearings should verify the exact time and place.)

April 20	Vancouver		
•	Hyatt Regency		
April 27	Moncton, N.B.		
•	Howard Johnson's		
May 4	Halifax		
•	Lord Nelson Hotel		
May 11	Winnipeg		
•	North Star Inn		
May 31	St. John's, Nfld.		
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APPLICATIONS

Carleton, Que.-Feb.24

A hearing was scheduled at Carleton to deal with a number of applications which concerned the Gaspé area; they included:

 Radio-Quebec rebroadcasters at— Anse-aux-Gascons, 108.2 kw, ch. 8
 Carleton, 428.2 kw, ch. 15
 Chicoutimi, 143.7 kw, ch. 8
 Gaspé, 2.6 kw, ch. 35
 Percé, 2.17 kw, ch. 40
 Rivière-du-Loup, 25.1 kw, ch. 2

- CBC—French TV rebroadcasters at 12 locations, English TV at 7 locations; French FM at 7 locations, English FM at Gaspé; also a change of parameters for CJBR-TV Rimouski to 100 kw on channel 2.
- CHAU-TV Carleton—decrease in ERP and changes in parameters for 10 rebroadcasters; also a change of affiliation from Radio-Canada to the TVA network.
- Radio CHNC Ltée—AM rebroadcaster at Murdochville, 50 w on 1450 kHz.
- Radio du Golfe Inc.—FM rebroadcasters of CJMC at Grande-Vallee, Marsoui, Mont-Louis and Murdochville, all 50 w.
- Community FM at Carleton—45.6 kw on 94.9 MHz.

Moncton, N.B.-March 1

Radio: applications include CIHI Fredericton for FM (45 kw on 93.1) and a transfer of ownership for CHTN Charlottetown.

Cable TV: numerous applications, some including Cancom, by Fundy Cablevision, A.C. Weatherby, others.

Hull, Quebec-March 15

Applications include Centrex Broadcasting for AM at Cornwall, Ont., 2.5 kw on 1600.

Hull, Quebec-March 16

Hearing on Review of Radio to be held.

Cobourg, Ont.-March 30

Three applications to be heard for FM at Cobourg to replace CFMX-FM, which ceased operations last September 30 after the CRTC refused to renew its licence. They are by CFMX Communications, North Shore Broadcasting and Stonehaven Communications.

DECISIONS

AM Radio

CKLM PURCHASE APPROVED

The purchase of CKLM Laval (Montreal) by Stereo Laval Inc. (CFGL-FM) has been approved by the CRTC. Also approved is a reorganization by which Stereo Laval will be wholly-owned by Placements Roland Saucier Inc., and CIEL-FM Longueuil will operate autonomously as Radio MF CIEL (1981) Inc.

Other AM approvals:

- CFNB Fredericton, N.B.—purchase by Bathurst Broadcasting Co. Ltd. (CFNB had been owned by the Neill family of Fredericton since going on the air in 1923.)
- CFGT Alma, Que.—transfer to G.
 Pedneault Ltée.
- CFVM Amqui, Que.—transfer of ownership.
- CKEF Ear Falls, Ont.—change of frequency from 1490 to 1450 kHz.
- CJPR Blairmore, Alta.—rebroadcaster at Elkford, B.C., 50 w. on 1340 kHz.
- CKYR Jasper, Alta.—power increase to 250 w.
- Copper Island Broadcasting Ltd. purchase of CKGR Golden, CKCR Revelstoke and CKXR Salmon Arm, B.C., from Hall-Gray Broadcasting.

FM Radio

KAMLOOPS FM ABORTED

The CRTC has denied a renewal of the FM licence granted to CHNL Kamloops, B.C., May 3, 1978. The licensee was ordered to show cause for renewal in July, 1981, when construction of the FM station still had not commenced. J. Skelly, president of NL Broadcasting attributed the repeated delays to financial limitations. The Commission is expected to issue a call for new FM applications shortly.

FM Approvals:

- CBC—power increase at Stephenville, Nfld. from 350 to 3,500 watts; rebroadcasters at Whitney, Ont. (162 w. on 98.5) and North Battleford, Sask. (4.3 kw on 96.9).
- Community FM at Rivière-du-Loup, Que.,
 60 kw on 103.7 MHz.
- Community FM for Indian reservations at Caughnawaga (33 w. on 103.5) and Lac Simon (1 w. on 95.3), Quebec.
- CKJY-FM Windsor, Ont. (formerly CKLW-FM)—change of format from C&W to "Big Band", jazz.
- Rebroadcasters at Big White Ski Village (18 w. on 98.1, ex-CKIQ Kelowna), and at Sorrento, B.C., (86 w. on 102.1, ex-CKXR Salmon Arm, and 86 w. on 107.1, ex-CHNL Kamloops).
- CFOX-FM Vancouver—decrease in ERP from 100 to 41 kw, changing antenna to directional, with vertical polarization.
- CFMS-FM Victoria—change of antenna site from Saturna Island to Triangle Mountain.

FM Applications Called: St. John's Nfld., deadline February 15; Halifax, N.S., deadline March 18, 1982.

Television

TO AREA STATIONS STILL FALL SHORT

The CRTC has again called on Toronto area TV stations to "spell out clear and realistic commitments" for increased production of Canadian prime time programming. Among the specific comments in the latest round of renewals:

- CBLT—bilingual production facilities in Sudbury to cover northern Ontario remain "a priority"; CBC commended for programming and closed-captioning efforts.
- CFTO-TV—has spent \$11 million on plant during past four years, but still has too few Canadian shows in prime time.
- Global—renewed only one year to end of 1982 with CRTC rejecting argument that debt load justifies delay in fulfilling program commitments.
- CITY-TV—plans competition for half-hour drama scripts, with best 3 or 4 to be aired.
 CHUM Limited says it has recently spent over \$2 million upgrading radio and TV facilities in Toronto.

- CHCH-TV—new integrated production facility to be built in downtown Hamilton.
- CBLFT—CRTC urges establishment of microwave network to relay regional French service from Toronto to rebroadcasters throughout Ontario. Microwave will replace off-air relay, and is considered preferable to satellite reception of Montreal feed, which would not include regional programming.

With the exception of Global, the licences were renewed to Sept. 30, 1984.

Other TV decisions:

- Radio-Quebec—CIVS-TV Sherbrooke channel changed to 24, 475 kw ERP.
- TVOntario—rebroadcasters approved at North Bay, 57 kw, ch. 6, and Owen Sound, 41 kw, ch. 12. (The CBC withdrew a competing application for channel 12.)
- CBC—rebroadcasters approved at Brochet and Shamattawa, Manitoba (both 10 w, ch. 9); power increase at CBKST-1 Stranraer, Sask., from 35.2 to 163 kw with change of tx site, eliminates need for rebroadcaster licensed at Marengo, Sask.

Cable TV

CFCF BUYS CABLE TV

The purchase by CFCF Inc. of Cable TV Inc., which serves 120,000 subscribers in the western part of Montreal and Laval, has been approved by the CRTC. The \$11.4 million deal was opposed by the Quebec government.

While in the past CRTC policy has been to avoid cross-ownership of TV and cable TV operations, the Commission says CFCF's stronger position should enable it to produce more Canadian programming. Also, Cable TV will now have access to 1,000 hours of CFCF programs, to be rerun on a separate channel. The cable system is to be updated to 35 channels by 1983, and is to devote at least 2% of gross operating income to research and development.

Other transfers approved:

- Cable West TV Ltd., licensee of systems in British Columbia and Red Deer, Alta., to Capital Cable TV Ltd., of Edmonton. Capital, which now has over 200,000 subscripers, will complete the rebuilding of Cable West systems with expanded channel capacity by 1985-86.
- Trillium Cable (formerly Borden Cable TV), purchase of systems in Barrie and Orillia, Ont., from Credit Valley Cable TV.
- Câblevision du Nord de Québec Inc. reorganized with increased holdings by R. Hamel.
- Transvision Magog Inc., to Câblestrie Inc.

NON-PROGRAMMING SERVICES EXPERIMENT TO CONTINUE

Experiments to provide various nonprogramming services, begun by a number of Canadian cable TV companies two years ago, are to continue for another two years, to the end of 1983.

Most of the experiments approved by the CRTC during the past two years have been in the area of security surveillance and the Commission notes that very little data has been produced to date by the licensees to assess the impact of these services. Proposed new services include energy meter reading, controlling and switching, video games, information services, videotex, viewership rating and opinion polling.

- Vidéotron and several other Quebec cable systems won approval for a home information service—a joint experiment with DOC—which includes teletext, videotex, fixed-image data banks (e.g., teleshopping, real estate), computer programs and monitoring/remote control services.
- Rogers Cablesystems will provide services such as surveillance, monitoring, controlling, switching, video games, teleshopping, opinion polling, and shared computer and information services.
- A dozen other operators will provide security surveillance.

Licensees must not oblige subscribers to take or pay for non-programming services, and must give equitable access to third parties wishing to provide similar services.

Denied is a request by Toronto-area cable operators to carry classified real estate advertising. It would have been paid for by real estate companies and provided free to all subscribers.

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