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CONSULTANTS

D.O.C. STUDY

Re:

THE EFFECTS OF LICENSING ON  
INDUSTRY STRUCTURE

Part III

July 7th, 1978

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A STUDY INTO  
THE EFFECTS OF LICENSING ON INDUSTRY STRUCTURES  
FOR  
THE DEPARTMENT OF COMMUNICATIONS  
OTTAWA  
PART III  
Contact Reports, Literature References  
and Bibliography

InTel Consultants Ltd  
Suite 709  
77 Metcalfe Street  
Ottawa, Ontario

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Ottawa, July 7th, 1978

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Although every reasonable precaution was taken to ensure faithful transcription of the information provided during interview work, it is possible that errors or misunderstandings have occurred in isolated instances. Any errors in transcription or interpretation should therefore be attributed to the consultant rather than the parties interviewed.

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CONTACT - A-1

SUBJECT: Market Board Operations

CONTACT: Tom Bennett  
Market Development & Trade Policy  
Dept. of Agriculture

DATE: Dec. 1st, 1977

TEL: (613) 994-5571

Except in the case of EGG Marketing, the agricultural product market board are essentially sales and information organisations. No quotas, per se, are placed on producers, and selling operations are carried out in the atmosphere of a free market. Producers are members of these boards, hundreds of which exist across the country.

EGG market boards are an exception, membership is restricted to those with more than 1000 hens. Occasionally the board/s will accept the entry of new producers; member production quotas are based on previous productivity records.

Mr Bennet advised he will send info on market board operations. Advised contacting Dr J.F. Scott (995-3397) for more detailed information with regard to EGG marketting.

CONTACT - B-1

SUBJECT: Broadcast - US

CONTACT: Mr Roscoe Long  
Chief - Broadcasting (FCC)  
2025 M St Nw Washington

DATE: 20 March 1978

TEL: (202) 632-5414

There are approximately 10,000 broadcast undertakings in the USA, some 900 of which comprise television installations. Three major networks (CBS, ABC and NBC) each have a total of about 200 affiliated stations which distribute programming across the nation.

Monopoly control in the broadcast media is inhibited by FCC rules which limit any one individual or corporation from owning more than one fulltime station (AM, FM or TV) in any one locality. FCC regulations also limit the total number of stations in the same service which may be owned within the nation by any individual or corporation to a total of 7. Only 5 of any group of television installations may be in the VHF band, and ownership of more than two VHF and one UHF in the 50 largest markets is only permitted under exceptional circumstances.

The FCC is pre-eminent in the field of broadcast regulation; State administrations have no regulatory control over broadcast undertakings other than those which may apply to the business aspects of the operations. State administrations are however, eligible for licensing in the field of educational broadcasting.

Broadcast licensing procedures are essentially the same for AM, FM or TV. Once the applicant has decided upon the type of service he wishes to provide, and the place where it is to be located, he then:

- 1) researches the programming needs of the area he plans to serve by means of public surveys.
- 2) applies to the FCC for a construction permit
- 3) completes construction within a specified period (following receipt of the construction permit)
- 4) applies for the actual operating license (the FCC issues a station license and program test authority when construction has been completed in accordance with the original application and construction permit).

The application for a construction permit includes information relative to:

a) Citizenship:

The applicant must be a US citizen, or a corporation's directors must be US citizens and not more than 20% of the financing may be derived from alien sources.

CONTACT - B-1  
(cont'd)

b) Financial Capability

The applicant must demonstrate that he is financially capable of constructing the broadcast facility and of operating it for at least one year without revenue support.

c) Technical Qualifications

The applicant must demonstrate that he is technically qualified to construct and operate the installation.

d) Installation & Other Data

The applicant must provide all technical information relative to the proposed installation and its performance characteristics; information relative to the service proposed and the nature of the programming content must also be provided together with the results of the survey of the area's programming requirements.

The applicant must give local notice of his plans to establish a broadcast service in order to give the public the opportunity to comment on his application. The Commission issues a public notification when the application is initially received, and again when it is accepted for filing. If there are no engineering problems, and no valid protests have been received before the cut-off date, the applications will be granted without hearing, and a construction permit is issued.

In the event that an application does not conform with Commission rules, or there is a protest of merit, or there are competing applications, then an hearing is held.

The processing of broadcast applications is subject to the provision of Section 309 of the Communications Act of 1934; this requires that the Commission grant the broadcast license if "the public interest, convenience and necessity is served by the granting thereof".

The Communications Act requires that the broadcast licensee program in the public interest; the Commission makes no attempt to prescribe the time devoted to various types of programming, this is expected to vary according to community needs. Responsibility for ascertaining public entertainment preferences rests with the licensee; the Commission reviews station performance in this regard each time the license comes up for renewal. Codes governing programming and advertising practices are administered by the National Association of Broadcasters for the guidance and voluntary compliance of stations subscribing to the codes.

A number of problems exist in the industry, not the least of which is one related to censorship. Section 32 of the Communications Act specifically divests the FCC of any powers of program censorship. This has made it difficult

CONTACT - B-1  
(cont'd)

for the Commission to deal with public complaints about the amount of sex and violence contained in entertainment programs; the Commission's only recourse in dealing with this type of complaint has been in its mandate to ensure that licensees provide the type of programs which the communities desire.

Limitations placed on the number of stations which can be controlled by any individual or corporation has led to difficulties in areas when there has been a high proportion of ethnic groups; the ownership ruling has limited their ability to obtain adequate outlets to serve their needs.

The broadcast business is highly competitive and it is estimated that less than 75% of the undertakings can be classified as "acceptably profitable" in the US. Once outside the top 100 markets, broadcasters are getting into very thin market areas, in consequence many are marginal.

Ownership rulings have resulted in the industry being segmented amongst a large number of operators.

CONTACT - C-1

SUBJECT: Licensing

CONTACT: Mr Demers  
District Radio Office

DATE: 12 Jan. 1978

TEL: (613) 992-4677

Licensing Requirements:

- in no case do licensing requirements extend beyond compliance with the Radio Act and Regulations
- originally a requirement existed to demonstrate financial competence etc, however even this has been dispensed with

General:

- Essentially all applications for radio frequencies are processed on a first come first serve basis at the district office level
- DOC HQ sets up overall plan with frequency distributions to be used for each licensing area. These are passed on to the various regions who adapt them to their particular situations. Since this type of co-ordination was not in force from the start, frequency allocations for a given type of service are not always consistent across the country. This is particularly true of the 150 MHz band.
- Frequency allocations are made from the group of frequencies set aside for various licensing categories; federal, provincial and municipal agency requirements should therefore not conflict with those of a commercial applicant.
- in cases where applicants are competing for a private commercial frequency, license processing and frequency allocation are always on a first come first serve basis.
- large companies and people such as Bell will submit applications to the Regional office. Regional offices will obtain specific assignments from the District Offices; hence in such instances the District offices are effectively told what to do.

CONTACT - C-1  
(cont'd)

- US policy (1975) has been to assign frequencies and issue licenses for all services except the GRS from Washington. GRS licenses are issued from Gettysburg.

Comments:

Larger companies have the advantage of "knowing the ropes" better than smaller applicants, hence tend to come out better in any situation where frequencies are at a premium. Also in the case of government agency assignments, the order of priority tends to be: federal, provincial, municipal.

CONTACT - C-2

SUBJECT: Paging - US

CONTACT: Mr Jim Bennet  
FCC Common Carrier Services  
Washington

DATE: 28 Jan. 1978

TEL: (202) 254-6810

Only common carriers can provide public paging services. A state certificate of public need and necessity must be obtained and be submitted to the FCC along with the applications.

Once the FCC is satisfied with the technical acceptability of the proposed installation public notification is made of the fact that the applicant intends to provide paging services in the area concerned.

If no objections or alternative applications received within 30 days, the license will be issued.

CONTACT - C-4

SUBJECT: Mobile Radio System Policy - USA

CONTACT: Mr Sam McConoughey  
Rules & Legal Branch  
Common Carrier Services Division  
FCC Washington

DATE: 30 Jan. 1978

TEL: (202) 632-6400  
(Mrs Bothwick)

Within USA, the term "Radio common carrier" is used to distinguish between wire-line (telco) type common carriers and those not providing wireline services in their own right, however Telco assignments are drawn from a separate frequency pool from that used for RCC's.

In the mobile radio field both RCC and Telco applicants are treated in a similar fashion,

Step 1: obtain a certificate from local or state authorities indicating a public need for the service

Step 2: file engineering and interference brief with the FCC for technical evaluation

Comment: stated that many people seem to prefer telco services, however frequently telco waiting lists are long resulting in re-application to RCC's for mobile radio services.

CONTACT - C-5

SUBJECT: Private Commercial MRS License Policies - US

CONTACT: WM Zears  
Safety & Special Services  
FCC - Washington

DATE: 30 Jan. 1978

TEL: (202) 632-6475  
(202) 632-6940

Land mobile services are divided in 3 primary areas:

- 1- Public Safety: - police, fire, local govt, special emergency services, etc.
- 2- Land Transportation: - railroad, taxis, motor carriers etc.
- 3- Industrial: business, power, petroleum etc.

Spectrum limitations in the US are such that land mobile service users must expect to share their frequencies if necessary; where sharing is necessary,

## CONTACT - C-5

similar services are grouped generally according to the three main classifications noted above, and according to sub categories within those classifications. Most services have volunteer co-ordination groups which represent various types of radio users. Their function is to endeavour to maintain minimum standards and to ensure that radio systems don't interfere with each other. They provide assistance to applicants in choosing the best of the available frequencies in any given area.

Business services are available to any commercial entity. In the 150 MHz and lower bands, business services can obtain any frequencies available for business use; however it is usually up to the applicant to determine which specific frequency is relatively clear in his proposed operational area. Co-ordination is required in the case of UHF (because of expensive repeaters) in order to make sure that the best of the available channels are selected for this purpose.

Within the area of specialized industrial services such as power (available to gas plants, electrical generation people, petroleum operations etc), there are fewer users; hence the chances of having to share with other similar users is less. No-one, however, is guaranteed an exclusive channel. Comparatively recently, frequencies above 460 MHz have been opened up in the 13 largest cities in the US. 450-572 MHz, TV channels 14-20 and some in the 800 MHz band. Since these new bands are virgin territory, business users with more than 90 mobile units on one frequency may adopt the assignment as their own (trial policy only). Processing is done in order of receipt. In some circumstances where an applicant makes a showing of special need, his applications may be pushed forward, or temporary authorisation may be issued. Basically it is first come first serve in the processing of applications.

Public safety applications are processed by public safety processors, industrial applications by industrial processors, etc. Typically processing priorities are within the various groups involved, eg a police application is in the same priority grouping as a fire application. A special section exists for the processing of business because of the large number of applications involved; this is where maximum delays occur, and up to 60 days may be required to clear a business application.



CONTACT - C-6

SUBJECT: Paging &amp; MRS - US

CONTACT: Mr J. Bennet  
Common Carrier Paging  
FCC Washington

DATE: 31 Jan. 78

TEL: (202) 254-6810

Both paging and mobile radio applicants must first obtain a certificate of public need for service prior to application to the FCC for the requisite license. FCC's concern is threefold:

- 1) technical
- 2) operational and financial
- 3) public need

Following receipt, FCC issue public notification of the application; intervenors have 30 days to raise objections. Unless objections raised no public hearing is involved and the license is issued.

CONTACT - C-7

SUBJECT: Satellite Communications

CONTACT: Mr. Heavenor  
Dept. of Communications

DATE: 31 Jan. 78

TEL: (613) 995-3141

At the moment Canada does not have many different types of satellite service. We have those which Telsat operate in the fixed satellite service; these are all licensed, applicants for such facilities are required to submit all technical information etc for approval. We also have the CTS satellite, a developmental model which is licensed to the Department, and others which CRC has put up to obtain information on propagation, etc.

All earth station licenses are issued in the name of Telsat Canada, the operating agency; there is some question at the moment as to the viability of this approach to earth station licensing and it may be changed.

For information with regard to the specific types of services being provided by existing satellites, contact Don Weiss at Telsat (746-5920 Ext. 405).

CONTACT - C-8

SUBJECT: Telecom Licensing

CONTACT: Mr Demers  
Dist Radio Inspection Office  
Ottawa

DATE: 1 Feb. 78

TEL: (613)

Visit primarily for purpose of obtaining list of licensing categories and to determine what frequency reservation policies existed, particularly within the private commercial field.

The only fixed frequency assignments within the private commercial area are those allocated for railroad use. Frequencies are reserved for other industries in the private commercial category, but policy in this regard varies to some extent from region to region. Quebec appears to be better organized than other regions, however such reservations are used only as a guide and assignments outside the tentative spectrum distribution formats set up by each region are not unusual.

Typical areas for which frequencies may be reserved in the private commercial category include the following:

Taxis	Towing
Construction	Broadcast (adjunct services)
Veterinary Services	Paging
Private Ambulance	Airlines (adjunct services)
Trucks	Press
Buses	Oil Spill Operations
Railroad	Power Line Carriers

The actual listing will vary with the region, and in most cases the same frequencies will not be reserved for the same purpose (railroads excepted).

A listing of the license categories issued is attached. The most instances, specific frequencies or bands are set aside for each.

#### LICENSE CATEGORIES

1. Licence for a coast station performing:
  - a. Limited Maritime Mobile Service
  - b. Private Maritime Mobile Service
2. Licence for a land station performing:
  - a. Public Commercial Service
  - b. Restricted Public Commercial Service
  - c. Private Commercial Service
  - d. United States of America Military Service
  - e. Provincial Government Service

CONTACT - C-8  
(cont'd)

2. License for a land station performing: (cont'd)
  - f. Municipal Service
  - g. Experimental Service
  - h. Amateur Experimental Service
  - i. Public Commercial Receiving Service
  - j. Private Commercial Receiving Service
  - k. Public Commercial Automatic Repeater Service
  - l. Private Commercial Automatic Repeater Service
  - m. Aeronautical Mobile Service
  - n. Amateur Relay
3. License for a mobile station performing:
  - a. Public Commercial Service
  - b. Private Commercial Service
  - c. United States of America Military Service
  - d. Provincial Government Service
  - e. Municipal Service
  - f. Experimental Service
  - g. Public Commercial Receiving Service
  - h. Private Commercial Receiving Service
  - i. Aircraft Navigation Service
  - j. Aeronautical Mobile Service
4. License for a ship station fitted with:
  - a. Transmitting and Receiving Apparatus
  - b. Receiving Apparatus for Navigational Purposes

## CONTACT - C-9

SUBJECT: Entry to Common Carrier Services

CONTACT: Mr Coutts  
Licensing Requirements  
Dept. of Communications

DATE: 8 Feb. 78

TEL: (613) 995-3141

Essential requirements for obtaining licensing as a common carrier include the need to demonstrate that:

- 1) the company is Canadian
- 2) any existing facilities cannot satisfy the requirement
- 3) the technical characteristics of the proposed installation meet acceptable standards.

## CONTACT - C-10

SUBJECT: DOC Licensing - General

CONTACT: District Radio Office  
Ottawa

DATE: 8 Feb. 78

TEL: (613) 992-4677

Limited maritime mobile: - ship to shore operation interconnecting with land line (Government operation).

Public commercial automatic repeater service: - Bell Canada MTS type of operation.

Public commercial receiving station: - used to permit telcos to monitor commercial automatic repeater frequencies (none licensed in Canada).

Restricted public commercial licenses are limited to applications such as the RCCMRS licensing of paging and MRS installations; in all other types of common carrier services public commercial licenses are involved.

CONTACT - C-12  
(cont'd)

DOC's present communications responsibility is essentially limited to that of licensing radio systems and it is difficult to visualize the Department relinquishing any of this - at least not from a technical viewpoint. In the case of broadcasting, the CRTC is really licensing the broadcast enterprise per se, but the license has no effect until and unless the DOC have issued a technical certificate. Therefore the DOC still has full control over the technical aspects of the broadcasting undertaking. Perhaps this is the manner in which future licensing will be done insofar as the microwave services are concerned. In other words, applicants will obtain a technical certificate of some kind from DOC, but the final authority to operate a system will depend on satisfying the relevant authority that "public convenience and necessity" will be served. This procedure is similar to that presently obtaining in the US in the licensing of common carrier radio applicants; whereas the FCC may grant a license, operation of the system is dependent on obtaining a state certificate of public need.

From the viewpoint of the federal minister who must work out arrangements with the provinces (they are doing this with cable television right now) what is there to fall back on other than "native savvy" and talent in determining what should be done? It therefore makes sense to look at parallels in other areas because these may have already been tested in the public arena, and survived the test of time as being reasonable approaches to the problem.

In order to get some measure of federal control over the provincially regulated carrier operations some form of federal legislation would be necessary; in such cases however, this control would be limited to those situations where telecommunications services extend beyond provincial boundaries. This parallels the US situation where federal authority generally extends over inter-state operations, anything going on within a state is usually outside federal jurisdiction. We have no equivalent to this in the communications field in Canada. Typically, the TCTS is an unregulated arrangement; it is merely an organisation formed voluntarily by the various provincial carriers who decide amongst themselves what the toll rates will be, the bases of interconnect, etc. Everything is accomplished on a self regulating basis.

It is possible that some federal people believe that in return for giving more authority to the provinces to regulate things within their own jurisdictions, the provinces will agree to recognize federal pre-eminence in the inter-provincial field. Unless the federal government does something along these lines, they are not going to accomplish very much in spite of the new act since they only have control over part of the situation.

CONTACT - C-12  
(cont'd)

Anyone wishing to establish a microwave service between two points must demonstrate to the DOC that no existing services are being paralleled, or if they are that the available services cannot accomodate the requirement; hence DOC do have control over what services are provided. However this policy (covered in RSP 113) is supposed to apply only to systems above 890 MHz. Our customers have found that the Department is insisting on the type of socio-economic information called for in RSP 113 where frequencies below 890 MHz are involved. Over and above this the Department requires at least one quotation from a carrier which operates in the area to determine what their charges would be for the equivalent service; the applicant must show how he arrives at his cost figures so that comparisons can be made. It is felt that the Department is doing this because there are federal people who have successfully forced the policy that the carrier will be favoured in all radio services. Possibly it is felt that the common carrier is the best way to go; however the Department has been pushing the carriers very hard to provide service in remote areas, etc. and as a result some horse trading has probably gone on.

There are problems connected with this approach. Firstly the common carriers have been protected for years because they were considered very important and necessary, however we have passed the point where carriers are providing a simple straight forward telephone service. The communications entity today is very sophisticated; because of the way the phone companies are structured and controlled, they are really only geared to handle a basic type of service. As soon as this point has been passed we are getting into areas which are no longer commonly used by people. For example, the number of people requiring data terminals are very few compared to the number of telephone subscribers in a system, hence we have a lot of specialized facilities tacked on to common carrier services. However these extra services are included in the equity upon which the rate base and other charges are going to be determined, and the resulting cost picture becomes confused.

A cost separation study has been going on for years in an attempt to separate out regulated carrier costs in such a manner that a more realistic method of price regulation can be adopted; this hasn't been settled yet. The difficulty is that the carrier's tariff is based on an estimate of the value of the services rendered and not on true cost per se. The only figures related to cost are total costs; total costs and total revenue are compared on the basis of the rate-of-return. Measurements are therefore effected on a totalized basis only, hence don't reflect the true situation with respect to specific types of service. At the present time the CRTC is taking a more detailed look into these anomalies than was ever attempted by the CTC. The federal carriers are expected to, and are required to, provide some kind of supporting information to show how the tariffs are arrived at. In some manner, the carriers will have to put together something which convinces the CRTC that the tariffs are reasonable.

CONTACT - C-12  
(cont'd)

Interconnection is needed in order to enable the public to obtain communications services they need and cannot have simply because the carriers won't provide them. I therefore feel that we are getting to the point where we no longer require a fully regulated and protected carrier system; carriers should only be regulated on the basic part of their service (typically switching equipment, trunk lines etc). The rest of the services should be opened up, at the same time the carriers should have access to the terminal end of the various services on an unregulated basis. If this is done, then the need for the restriction on putting in microwave services is removed because the rates carriers would be charging for the toll services would very likely be much more in line with true costs. Under such circumstances it is possible that would-be competitors (typically for microwave services) would find it difficult to provide equivalent services at less cost than those of the carrier because the carrier will not charge the high rates formerly necessary to cover other unprofitable areas of operation; this could lead to a higher demand for carrier services than otherwise because the services should have become less expensive. Common carrier services should be cheaper; if an individual finds it more economical to provide his own system than to obtain it from the common carrier it indicates that something is wrong with the carrier's rates.

I believe that the support given to common carriers has been permitted to be extended into areas that the common carrier is not already into. In other words, it's not that they now have the service available in the area, but rather that they will come along and say "we'll put this in for you and we'll rent it to your customer for less money than the equipment supplier"; this is a ridiculous situation. In the past customers have obtained system quotations from both ourselves and the common carrier in the area, and we have been the low bidder; subsequently the carrier requotes a lower figure than our own. This has been used by the Department as evidence to show that they should license the user to the carrier rather than to a private commercial system. It has been impossible to assemble all this in such a way that it could be proved once and for all, but from information obtained through our own sales organisation, and from carrier regulatory people in Alberta and elsewhere, there is enough which can be put together to see what is happening. This has been put to some DOC people in the national branch and I believe that they find that is what is going on.

It will be some time before the carriers can be restructured so that they are doing what they should be doing - and are out of those fields in which they should be competitive. One of the first things which will have to be done is to determine what is going on within the various provinces so far as carrier regulation is concerned.



CONTACT - C-12  
(cont'd)

Sometime ago I decided to find out for myself to what extent an individual could influence carrier operations within a province. A letter was sent to the secretary of the Alberta Utilities Commission asking on what basis I might be informed of any time that AGT file a radio communication tariff for approval. The reply indicated that AGT file tariffs for record purposes only, not for approval; since there are no public hearings, there is no way in which one could appear in opposition to such filings. I was also sent a document which was a transcript of hearings held in Alberta relative to challenges put forth with regard to the manner in which AGT was operated. During these hearings (held by the Alberta Utilities Commission) issues such as interconnect were brought out. The commission chose not to alter the situation and ruled in favour of AGT. In fact AGT does virtually anything it wants to as far as tariffs are concerned, the public effectively has no say. In theory, I suppose one could appeal to the Public Utilities Commission, but it is doubtful that they would do anything about it.

On the other hand, Bell must apply to the CRTC for tariff changes; public hearings are subsequently called and there is the opportunity for individuals or groups to raise objections; however there is no equivalent opportunity in Alberta or Manitoba. I feel that somebody has to take up these issues and bring them out into the open. Why should we criticize Manitoba when it has the lowest telephone rates in Canada? This is a good point, however it should not be interpreted to imply that their methods are not subject to scrutiny or criticism; the only apparent input is through the government itself.

Hitherto DOC licensing policies, particularly as they apply to RCC operations, have been wide open. Anyone can obtain an RCC license providing a frequency is available, and this regardless of the number of similar RCC services which may already be licensed within the community. In actual fact, it is only the lack of frequencies per se which has imposed a limit on the number of RCC operators in any one area and not the (fact that there may be an unreasonable) number of operators providing similar services. The US has avoided this situation in bands below 800 MHz by requiring the applicant to obtain a state certificate of public need for the service as part of the overall licensing procedure.

With the opening of the 800 MHz band, FCC Docket 18262 made provision for the licensing of a new type of service to be established by "specialized mobile radio" or "SMR" operators; these installations are similar but not limited to the types of operations normally associated with Canada's RCC's. FCC policy permits the licensing of SMRs without the usual requirement to certify "public need", furthermore the number of such systems will be allowed to be self-limiting on a commercial basis.



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This new policy has led to problems with state regulatory agencies, however it would appear that the FCC is pre-eminent in its field and that individual states have no authority to regulate people who operate SMRs. The possibility for regulation probably only occurs when an operator interconnects his system with the telephone company.

Apart from reserving specific frequencies for cellular telephone use, the FCC have dispensed with the block allocation system in the administration of the new 800 MHz band. In the old block system, once the available channels were used up additional users were simply added to channels already allocated. When the new 800 MHz band opened the FCC originally intended that each channel would be added to until about 70% of what was considered to be full loading had been reached; at this point the FCC planned to begin assigning in the next free channel. In effect all the users were going to have to face virtually fully loaded conditions at the outset; there were user objections to this approach so new channels are being allocated as applications come in, when all available channels are in use then additional applicants will be gradually distributed and added to channels already assigned.

Canada does not regulate RCC's other than through DOC's licensing arrangement, and the RCC's are not interconnected at the moment other than for some paging services which are connected on a "store and forward" basis. I personally don't favour regulating entry to these types of businesses if there is any way in which it can be avoided. I believe that the problem with regulation of common carriers is that they tend to sit on a service once they get it going and don't really develop it. This is one of the problems now with the present RCC's; not too many are keen on developing the mobile services, they prefer paging because a greater return on investment can be realized. If the ability to get into a community repeater service were regulated (and it was necessary to obtain certification of public need from some independent body) opposition from carriers and others could result in the stagnation of service and thus keep it from developing; this no doubt happens to some extent in the US.

Without RCC regulation, anyone wishing to put in community repeaters and offer the service can do so, if a frequency can be found. The DOC like the RCC arrangement because it involves sharing of frequencies; furthermore the concept of "sharing" is actively promoted by the RCC operator himself. At the moment the situation is regulated by lack of frequencies; once these have been completely exhausted then some other method of regulation will be required. The first approach is to try and get the people who have the common interest to regulate themselves as in the case of the TCTS. The US concept of co-ordinating committees is also very interesting, it has and still is working well for the block allocation system; these committees know what frequencies are available and who is using each for the particular services in which they are interested. For example, if you were in business in Ottawa and wished to use radio, you would ask the co-ordinating committee for a frequency recommendation; this frequency would appear in your application for the necessary license. In the US, the FCC generally accept the frequency recommendation without question because it has in effect already been cleared by the committee. The co-ordinating committees have done a good job in the US and I would like to see

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the development of similar organisations in Canada to assist applicants, and to work on behalf of the DOC.

In Chicago, the FCC set up the "Chicago Experiment" to determine whether it was practicable to assign frequencies by using a computer, to aid the normal selection process. After some years they arrived at the conclusion that it was costing many times as much to use a computer as it was to accomplish the task in the traditional manner, hence the idea was abandoned. When the new 800 MHz band opened it was again felt that co-ordination might be handled on a computer, however this proved to be too much of a task and the decision was again made to revert to the local co-ordinating committees.

In Canada, the DOC make the frequency selections; however when difficulties arise it is seldom that the user or equipment supplier is made fully aware of their nature and extent. It is felt that there should be more dialogue between users and the Department on frequency policies and problems since there is a limit to what the Department can do on its own. In Canada, the applicant can resort the political route if he feels he is not being treated properly by the Department. I feel that the FCC has the advantage in this respect since no political feedback route exists to upset the system which has been carefully developed over the years.

CONTACT - C-13

SUBJECT: RCC Frequencies - US

CONTACT: Mr M. Peck,  
Chief-Legal Section  
Mobile Services Division  
FCC Washington

At the present time there are frequencies set aside for telephone companies and non-telephone companies. These originated in a docket which was issued in 1949.

Very recently the commission has received several applications from two non-telephone company common carriers in California asking to use frequencies specifically set aside for wireline carriers. Their argument is that no other frequencies are available, that there is a need for additional frequencies and that the telephone companies are not using those allocated to them.

To date the commission has not acted on those two applications, the pleadings are not yet in on the petitions which have been filed against it.

CONTACT - C-14

SUBJECT: Mobile Common Carriers - US

CONTACTS: J.A. Konecni (Licensing)  
M. Peck (Chief-Legal)  
Mobile Services Div-FCC  
2025 M St. Nw., Washington

DATE: 15 Mar 78

A first step required of mobile common carrier applicants (in states where common carriers are regulated) is to obtain a certificate of public need and necessity for the proposed services. State regulatory bodies, where they exist, are interested in the activities in the local market areas; although there are still some administrations which display little or no interest in the regulation of common carriers, more and more are getting into the act.

A major problem right now in the US is the lack of frequencies, there is a big demand for spectrum space and this demand grows day by day. With the shortage of available assignments, and the number of carriers in the market place, the frequency situation is becoming more and more acute.

The common carrier mobile services division licenses both wireline (Telco) and non-wire line (RCC) common carriers. The degree of interest shown by individual state administrations in common carrier activities varies from virtually nil in Connecticut, to a high degree of concern as in the case of states such as Texas and New York. In processing Connecticut applications, the FCC ignore the

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requirement for certificates of public need because operators are not subject to local regulation; in the case of applications originating in Texas or New York, for instance, the FCC are particularly concerned with the attitude of local administrative bodies relative to the applications concerned. In between, varying degrees of control are applied, some states only having interest when the radio common carrier is interconnected with the public telephone network.

A great deal of judgement is involved in the licensing of common carriers because each applicant has a unique set of problems. There are frequent requests for the waiver of certain of the FCC rules, many of which are automatically granted because some of the rules relate to outdated modes of operation. In other instances however, the requests are for higher antenna heights, higher power, etc and should not be readily granted because of their implications from the viewpoint of interference with other systems. There is however, a lack of consistency with regard to the handling of such requests in that some FCC members adopt a relaxed attitude towards allowing such waivers, while others are reluctant to permit any at all.

Common carrier applicants must meet company corporate requirements, and must be able to demonstrate a good financial posture. Again, there is some degree of variation within the commission as to opinions on demonstrating the financial competence of the applicant. Some administrators adopt a strict attitude towards this requirement, while others are satisfied if the applicant is able to demonstrate that he is capable of obtaining the loans necessary to acquire the installation and the associated equipment, and commence the business operation.

Leasing arrangements for the proposed sites must be assured prior to the granting of any licenses; in the past much of the FCC's work has had to be duplicated because the selection of sites had not been covered by adequate agreements during the system planning period, leading to the need for subsequent site changes, etc.

The applicant must also conduct a study for co-channel interference, generally this is for 75 mile separation. Shortly the FCC will be in a position to accomplish interference studies with the aid of a computer, as of the moment all co-ordination is accomplished on a manual basis.

Common carrier assignments are not necessarily exclusive. With the present shortage of frequencies, applicants willing to accept some measure of interference from others are managing (with carefully designed radiation patterns, etc.) to fit themselves in wherever possible. FCC Rules define the degree to which the commission is committed to protect existing service areas, and new systems capable of operating within these limits, and willing to accept any resulting interference to their own systems, may be licensed.

The RCC market per se, is highly competitive, and because of the large number of operators involved there just aren't enough frequencies. In the case of the wire-line carriers, the situation is relieved by two factors; firstly, separate groups of frequencies are available for telco use, and secondly the number of telcos operating in any given area is generally limited to one or two. Furthermore, the telcos co-ordinate with their sister companies and function in a much more professional manner than the RCC's.

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Paging is more efficient from a frequency usage point of view, furthermore it is less expensive than two-way, and consequently more people are in a position to afford the service. At present there is considerable discussion going on as to how frequency relief might be obtained for paging operations. Although the FCC allow one-way operation on two-way channels on a secondary basis, the two-way channels are primarily intended for two-way operation; excessive use of these frequencies for one-way operation could be discouraging two-way communication on the frequencies concerned. There are measures for frequency relief in the offing; for example, the use of TV channels, the use of two-way frequencies for one-way purposes, and the potential use of cellular systems.

Competition in the RCC field is severe, and widespread use is made of petitions to fight new applications; even the RCC's are petitioning the telephone companies. Any potential RCC operator has the right to establish an operation providing frequencies are available, however new applications will frequently run into opposition because they usually threaten the revenues of existing operators. Almost any argument will be used in petitions against new services, in most instances however they are based on economic considerations.

Normally hearings do not occur unless there is some form of petition; however whenever an applicant is attempting to break into a highly competitive area, or where potential exists for interference, then the FCC receives a large number of formal objections. If the problems cannot be resolved at the license processing level, the matter will be taken over by the legal branch of the FCC division concerned. They will co-ordinate between the parties involved and make every effort to resolve the conflict. If this is not successful, the matter goes to a hearing before a judge; at this point the proceedings become a very costly because of the legal time involved.

One of the problems the FCC are experiencing at this time between telcos and RCC's is with interconnect. There are many possibilities for difficulties to arise; interconnection may be unduly delayed, charges to the RCC operator may be higher than normal, etc.

CONTACT - C-15

SUBJECT: Cellular Systems - US

CONTACT: Michael Ferranti  
Chief-Cellular Systems (Mobile Services Div)  
2025 M St NW - Washington

DATE: 15 Mar 1978

The cellular mobile system is associated with common carrier operations of both the wireline and radio common carrier types. The original docket (18262) visualized that this type of service would be provided by wire-line common carriers only because of the large financial investments involved in system development. For competitive reasons, it was later decided to extend this type of service into the RCC field as well.

The Bell system is being developed with AT & T backing, while one is being developed for the American Radiotelephone Service (an RCC) by Motorola. The Bell system was authorized back in March 1977, and total system (10 sites) and equipment tests are scheduled for this July. The Motorola system was only authorized a couple of months ago and as yet little has been done in the way of on-site construction. The Bell activity is a two-pronged operation: a developmental system in Illinois, and a special but very simple system in New Jersey.

The basic difference in concept between the Motorola and Bell systems lies in the fact that the latter employs a 60 degree antenna beam, while the former uses a 105 degree beam. With the higher gain and more directional configuration of the Motorola system, frequencies can be re-employed at closer physical intervals; this was done because Motorola anticipate the use of small low power portable units.

FCC standards for cellular systems are scheduled to be out in 1979; however, because of program delays caused by litigation, it is doubtful whether this timing can be met.



CONTACT - C-16

SUBJECT: Specialized Mobile Radio Systems (SMRS) - US

CONTACT: Mr G. Petrutsas  
Safety & Special Systems  
Mobile Radio - FCC  
Washington, D.C.

Until recently, people who wanted to go into the business of providing radio services to others had to obtain common carrier licensing. When the commission allocated radio spectrum between 806 and 947 MHz in docket 18262, it decided to create a new eligibility class: specialized mobile radio systems (SMRS).

This new class would comprise people who would be licensed, not as common carriers, but as private services; however they would provide services and equipment on a commercial basis to those who were eligible (typically public safety, industrial people, etc). The SMR operations would be unregulated.

The theory was that adequate demand existed for such a type of service, and at the time it was felt that there would be sufficient frequencies available to permit the operation of competitive services. To distinguish these operators from the RCC's, the acronym SRMS was used. To date, a few SRMS operations have been authorized. This type of licensing is more appropriate for the trunk systems which will eventually be provided; we are just beginning to see the development of trunking equipment here; but we haven't seen too much of this type of operation being proposed in SMRS applications as yet. It will take a little while to see how the trunking scheme will take hold.

In summary then, the SMRS operations are intended to be unregulated profit making entities; and their numbers will be limited by the market and/or by the availability of frequencies. Licensees will be required to have their systems operative within eight months so as to prevent applicants from sitting on their frequencies. Furthermore, if operators fail to adequately load their channel/s within a given period, the assignments will have to be shared with others.

CONTACT - C-17

SUBJECT: Common Carrier Licensing - US

CONTACT: Mr Latker  
Common Carrier Bureau  
Facilities & Services Div.  
FCC  
1229 - 20th St NW  
Washington, DC

Common carriers must file their radio licensing requirements under Sections 309 and 214 of the Communications Act of 1934. The precise method of filing is outlined in Part 21 of the commissions rules and regulations, instructions being specific according to the service type involved.

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To obtain a license, common carrier applicants are required to demonstrate

- 1) public need and convenience for the service
- 2) that frequencies are available, and are co-ordinated with other existing services.
- 3) that they have the necessary financial and technical qualifications.

Any telco requiring additional channel facilities must file applications under Section 214 of the Communications Act of 1934, whether or not they intend to employ radio for this purpose.

Certain aspects are unclear with respect to Section 214 as to the extent which it may or may not be invoked in authorizing certain services. Recent legal cases have challenged the issues involved, and some judgements have been ruled in favour of the commission while others have not. Enquiries are now being conducted into the question of whether or not message type telephone services should be considered a monopoly.

A new period of evolution has been reached in the common carrier domain, and the final outcome may result in significant changes in the structuring of services now provided by the common carriers.

CONTACT - C-18

SUBJECT: Common Carriers - US

CONTACT: Mr David Irwin  
Chief-Policy & Rules Branch  
Common Carrier Bureau - FCC  
1919 M St  
Washington 20554

DATE: 20 Mar 78

TEL: (202) 632-9342

As opposed to the interprovincial system in Canada where the companies making up the TCTS system regulate their own rates, etc - the FCC regulates all interstate and foreign rates, services and practices as contained in carrier tariffs which must be on file with us. The states regulate the wholly intra-state aspects; furthermore there is an economic separation as between the investment inter-state and investment intra-state.



CONTACT - C-18

The amount of regulation imposed at the state level varies, some states having regulatory bodies which are on a level with those of the FCC while others either lack the necessary resources or for other reasons just don't have very effective regulatory agencies; the net effect in certain states is therefore that carriers enjoy an abnormal amount of freedom insofar as intra-state activities are concerned.

New York and California are delving down into the costs of providing intra-state service within a service category, typically the cost of business oriented terminal equipment as opposed to the cost of residential oriented terminal equipment etc.

Basically, the independent telephone companies don't own any of the interstate long distance facilities; they have a partnership with Bell insofar as settlement on tolls and division of revenues and the sharing of costs are concerned. Bell has all the inter-city facilities; traditionally it has always owned and controlled all the WATS and inter-city message telephone toll services. Inter-connection between Bell long lines services and the independents is usually effected at some point within the independent's territory. At the moment, GTE and Bell are sharing a satellite which is used for MTTTS and WATS services; however, it is difficult to say how long this arrangement is likely to last.

In the original "grabbing up" of the available service territory, Bell managed to lay claim to all the prime areas, leaving the independents with those which showed limited potential for the future. However, as the population has grown and moved about (typically into the great southwest, and down to the swamps of Florida) regions which weren't particularly viable in earlier years have since become so. Probably one of the most successful independents is the Winter Park Telephone Company in central Florida. Within their own operating areas, some independents have extensive land line facilities; typically GTE, the second largest telco in the US, have widespread installations in the Tampa Bay area.

The Communications Act of 1934 requires any common carrier wishing to establish or expand communication channel facilities to obtain a certificate in accordance with Section 214 of the Act. Since the FCC regulates by rate base rate-of-return, the 214 procedure provides them with a means of controlling investment in such facilities. In the case of radio systems, applications must be approved in accordance with the provisions of Section 309 of the Act; once radio approval is given, then 214 authority must also be provided for the multiplex derived circuits.

Although Section 214 of the Act gives the FCC control over investment in channel facilities, there is no equivalent form of control which can be applied over switching investment. Hence Bell can install large electronic switching offices without FCC approval, and as far as we know without any form of state approval. The Commission therefore only has control over part of the situation, however it has the right to control Bell's earnings to a 9.5% rate-of-return.

## CONTACT - C-18

MCI came in the late 1960's and first got a grant for what was characterized as a point-to-point private line service between Chicago and St Louis. Their grant stimulated applications for similar private line microwave systems among any number of city pairs. Simultaneously, DOMSAT carriers arrived on the scene and started establishing earth stations in private line service between a large number of city pairs. MCI became one of the principal private line carriers and realized a coast-to-coast network quite early on in the development of specialized common carrier activities.

MCI first fought for and won interconnection of their facilities with Bell offices which provide foreign exchange and common control switching arrangements, (CCSA). When MCI came up with the EXECUNET service, it so happened that they didn't identify EXECUNET specifically in the tariffs which they had to file with us; they had what became known as a "modular" tariff. Later it became evident that EXECUNET essentially represented a long distance telephone service rather than a private line offering.

MCI got the EXECUNET service going just by ordering 10 lines here and 15 lines there from Bell, but Bell didn't realize what they were going to do with it. Subsequently the FCC tried on a couple of occasions to stop the activity, however the Court of Appeals held that the FCC had not properly conditioned the 214 certificate (which authorized the service) to prevent MCI from providing non-private line services as they had been traditionally conceived. Too late the FCC had realized that EXECUNET was in fact similar to MTTS which was Bell's monopoly territory.

Thus the position we find ourselves in today is simply this: MCI have established the right in court to provide EXECUNET service, Bell have already given MCI the local service, and the tariffs under which MCI is taking the service come under local jurisdiction.

MCI is making as much out of it as possible, and is fighting for more EXECUNET terminations; these basically put the company in the inter-city message toll telephone business using Bell's or the independent's facilities at either end. It puts them in the long line business and perhaps this is a good idea; the FCC, which has inter-state jurisdiction, has now again tried to hold the present status quo by denying further EXECUNET type services pending an hearing into the extent (if any) to which Bell should be allowed to enjoy monopoly rights in the MTTS or WATS type services.

Specialized carriers include such people as MCI, Southern Pacific, ITT as a domestic company, etc. Then there are a number of satellite carriers who provide what are traditionally known as private line services; for example inter-city trunks for organisations such as Westinghouse. There is Western Union, and a consortium made up of IBM, COMSAT and AETNA which is supposed to be getting into the inter-city digitized transmission business with small stations located on customers' premises using 12 and 14 gigahertz bands. RCA also has an on going satellite.

## CONTACT - C-18

AT & T share a satellite with GTE which is used for MTTS, this is used for inter-city MTTS and WATS traffic as well as for government private line services. Wire line common carrier satellite service 214 certificates were conditioned against entry into the commercial private line business; at the time the FCC believed that because Bell had all the traffic it was in a position to manipulate loadings, hence they were in a position to introduce rates which other carriers could not get along with.

I believe that the terminal interconnect wars are over, but it looks as though the inter-city wars will continue to rage for a while yet. There are anti-trust suits which are pending not only for damages in the case of MCI, but also against Bell in the case of DATRAN (the first inter-city private line company) which went bankrupt and whose assets were taken over by Southern Pacific. The US Government has also filed an anti-trust suit, (using the same evidence, and also evidence related to the early days of competition in the terminal business) requesting the break up of part, or all of the Bell system. These issues are unlikely to be settled in the immediate future.

I don't think we can stop technological development. Technology is driving the system, and the system is driving the institutions, and this situation is likely to continue. There are major problems to be faced in the future; there are things which are regulated today as if they are monopolies and yet they are subject to direct and indirect competitive threats.

Congress has jumped into the act and stated that it is time to rewrite the Communications Act of 1934. My speculation is that Congress will surely leave terminal interconnect alone, although Bell has made a last ditch attempt to hang on to some of the terminals using a "primary instrument" sort of concept. I believe that competition will be allowed in the area of inter-city services because there is too much promise from systems like those of the IBM-COMSAT-AETNA consortium. It is politically desirable for Congress to permit competition, furthermore, in order to stay in the forefront with technology, there has to be competition - otherwise the Japanese will take over everything!

The future will see radical changes in the structure of carrier services. I think the manner in which microprocessors and computer technology have been wedded with telecommunications terminals, intermediate terminals, central switches, etc. heralds the quantum leaps in technological improvisation which will be witnessed in the years to come. With the varying bandwidth, the economics of light, heavier and more powerful satellites which can be lofted into orbit with the space shuttle, the developments of the future have to be interesting.

The end effect will, however, leave the telephone well within affordable access of the general public.

CONTACT - C-19

SUBJECT: Safety & Special Services - US

CONTACT: Mr Jay Jackson  
Land Mobile Services  
Safety & Special Services Bureau - FCC  
Washington, D.C.

DATE: 20 March 1978

This division licenses land mobile stations, other divisions within the bureau handle licensing in areas such as marine, aviation etc. We deal with the licensing in the safety, industrial and transportation areas.

The spectrum is divided up into blocks of frequencies, each service having a segment. Some services share identical frequencies on a channelized basis. All services have some form of eligibility provision, and we ensure that all licensees are coherent with others in the same service, and therefore compatible. The philosophy is that the same user types should be grouped together, and that all should be permitted to share what spectrum space is available.

We are experimenting with non-block allocations in the 475-512 MHz band. This is part of the UHF-TV spectrum (Channels 14-20) which is being assigned for land mobile use in 13 major US cities; I mention it only because it is a unique situation in that we started out with a blank spectrum. Industrial users are assigned sequentially from one end of the band, and public safety users from the other. In general, the public safety users don't like this policy because local governments are unable to mobilize their resources as quickly as industry, hence the spectrum tends to become dominated by the business radio services.

There is a spectrum management program in the Chicago area where a number of methods have been tested. For a while they were using a computer for this purpose, frequencies being assigned on the basis of co-channel occupancy levels (determined by monitoring). This practice has been discontinued, and the selection process has reverted to the old co-ordinating committee approach which is used in the rest of the country in the private land mobile services.

These co-ordinating groups are non-governmental advisory committees which are sanctioned by the FCC, but which have no form of authority. Committees functioning on behalf of the safety services and power utilities are operated by volunteers. The business and special industrial land mobile co-ordinating groups are commercially oriented. Special industrial co-ordinators (SIRSA) are membership oriented, thus involving annual dues upon which they depend for continued operation. In the case of business co-ordinators, typically the National Association of Business and Educationnal Radio (NABER), a fee is charged for the services provided; the transient nature of their business services makes this a more practical approach than attempting to maintain membership lists.

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The FCC does not require applicants to go through these committees, they have the alternative of performing their own field studies; however this would be a difficult and time consuming process for the average individual. The business co-ordinators have quite a problem as it is, the radio service having become so congested in the urban and metropolitan areas that their task of finding an acceptable frequency is almost impossible.

Some of the specialized service co-ordinators, such as industrial manufacturers etc., are having problems with adjacent channel considerations. In the business area there are no adjacencies because of the way the spectrum was divided up; however, other co-ordinators have to consider stations within 10 miles which are on adjacent assignments. This has the effect of limiting the movement of an existing licensee; this was the trade off for splitting the channels the way we did in order to provide more frequencies.

Licensing per se, is still accomplished by means of a computer, however it is strictly a "batch and weigh station" operation. Applications come in on FCC form 425 which is a long and complicated thing with three pages; essentially, it is an engineering data form. Chicago started out as an experiment under the auspices of the chief engineer, and the form found its way into the Safety and Special Services Bureau. Information on the application is punched out on to cards and it is run in a batch; there is a verification process using a video screen by means of which the examiner can correct any information which is wrong. Once the information is known to be correct, then the computer takes over and either generates a return or a license. As previously noted, the actual frequency selection/assignment process is no longer a computer function, this is now accomplished by the co-ordinating committees.

When an application comes into this office, a frequency has already been selected by the applicant. If the co-ordinating committee has approved the frequency, and if the frequency is available in the service applied for, and the eligibility criteria are met, we issue a license.

In Chicago they would originally depend on the computer for a decision on the frequency. The method had its advantages and disadvantages. The main advantage was the high degree of accuracy in the data base, and the fact that it was also possible to do some compatibility work amongst the licensees. The disadvantage was that the applicant didn't know what crystals to order until the license has been processed.

The mobile services division of the common carrier bureau anticipate being able to make frequency selections by means of a computer aided process in the near future. In their case, the RCC's, as common carriers, are limited both in number and in the areas which they serve, hence their operations are very predictable. In our case, in the business radio service for instance, the situation is totally random; hence there is no way in which to predict what frequency is going to be in use in what place too far into the future; the service is too amorphous. Public safety is not quite as bad because the city hall generally remains in situ, and also applications are filed in accordance with the state plans for their respective public safety services; hence there is more order than in the case of the industrial services.



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The committee approach to frequency selection has advantages and disadvantages. A major advantage is the fact that the FCC is relieved of the work associated with frequency assignment, furthermore the committees are in a position to exercise a greater degree of flexibility in setting up their data base. The FCC have internal problems which cause them to pool resources, typically a frequency master file set up to accomodate the broadcast bureau would not be adaptable to land mobile use and vice versa. On the other hand, the committee co-ordinator has only one area of concern, hence he can set up his computer data base any way he likes.

Many co-ordinating bodies still use the manual map system; while, there is nothing wrong with this approach it can become voluminous. Co-ordinating groups such as NABER, NAM and API all use computers. UTC is regionalized and each has their own method of doing things, however they all draw upon the computer resources of a Washington firm.

NABER's centralized computer facilities cover frequency selection throughout the country. Although I am not in a position to speak for the organisation, we suspect that most of the grass roots co-ordination is done at the local level. Hence NABER with their central computer are able to process a large number of requests by using their fast print capability, and they are able to store a lot of data using the computer as a storage medium.

NABER's co-ordination procedure is such that if they want to know where a particular frequency exists in an area, they can probably punch it out and display it on a screen; the final decision still remains a value judgement so far as final frequency selection is concerned. The company employs 13-14 people at its computer center, and their processing time is about 14 as opposed to our 51 days. It should be remembered that business applications are only co-ordinated from 450 MHz up, no co-ordination is required in the high and low VHF bands. Here at Safety and Special Services, we receive between 13 and 14 thousand land mobile applications each month, some 6-7 thousand of which are from business; a certain percentage of the business applications would have already been processed by NABER prior to reaching us.

All the land mobile services believe that they have a frequency shortage. Some believed there's a spectrum problem because they are reaching the point where they are hearing other people on their frequency; some areas such as New York are congested beyond useability. In actual fact there is no frequency shortage in that the 800 MHz band is wide open to anyone willing to buy the equipment necessary to operate in it.

Canada still lacks the crunch imposed by the number of land mobile applicants we have, hence they see no reason to domestically re allocate or adopt a shared position with broadcast (Chs 14-20 TV); they wish to maintain their broadcast spectrum intact and not give it over to land mobile. In co-ordinating applications along the Canadian border, I notice that Canadian stations are much lower powered than ours typically they run 16-30 watts, with the occasional 60 watt; I almost never see a 100 watt Canadian station. On the other hand, the US systems are in the 90-110 watt range. Along the border, Canada's standard for co-ordination is quite severe; in order to co-ordinate co-channel you have to be over the radio horizon, or use a very low power.

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We get a lot of requests for relief from congestion, but congestion is an amorphous quantity - it is hard to define who is really suffering. If you could examine them on an equal basis - the number of licensees and the amount of spectrum they have, you might turn up some interesting numbers. However, the modes of operation, message lengths etc., are all different and all these factors enter into the situation making it very difficult to analyze. I personally don't feel that there is a frequency shortage, I feel that there is a big marketing push in the land mobile industry; the pressure is really coming from the land mobile industry itself, not from the applicant. In essence, the business users don't know there's a congestion problem and if you told them they would say "yes, I've heard other people in the channel" and leave it at that. The problem of congestion is brought to our attention by equipment vendors looking for more spectrum so they can sell more equipment.

Channel occupancy in Canada is no doubt substantially less than in the US. Here there are no exclusive assignments as such, and applicants are required to share the available spectrum. Typically the mobile channel loading here in the Washington area would be in the order of 60-70 mobiles; it is worse in some places than others.

In the 475-512 MHz band the FCC is trying an experiment known as "mobile loading criteria". Basically, it amounts to the vertical loading of each new channel frequency as it is opened for use, until a predetermined degree of loading has been realised. Only then will the next channel frequency be opened for service. This is a forced condition since one would normally expect horizontal loading to occur. (This policy is understood to facilitate spectrum management in the case of community repeater systems; such operators are prone to adopt various subterfuges in order to gain operational control of as many frequencies as possible).

Eligibility for land mobile licenses in the Safety and Special Services branch is governed by the rules which specify that the applicants must be engaged in one of the particular services subject to licensing by the bureau.

NOTE: NABER, NAM, UPI and UTC are acronyms for some of the frequency co-ordinating groups providing frequency selection services in the US. NABER is the acronym for the National Association for Business and Educational Radio.

CONTACT - C-20

SUBJECT: Communications Policy

CONTACT: Mr W. Wilson  
Formerly of DOC

DATE: May 25, 1978

TEL.: 733-2205

Economic briefs are submitted in accordance with procedure 113 which asks for quite a bit of information. It also asks the applicant to get quotes from one of the common carriers. The applicant goes to the common carrier feeling hostile because he knows the common carrier is going to "soak" him; he sees the common carrier as a competitor in the business, and he feels that DOC is in the common carrier's pocket. Hence there is considerable hostility in the situation.

If the common carrier's quotation for service is very high, the applicant doesn't feel too badly. The applicant's estimates for the monthly rates on his own system are generally based on a basic installation lacking backup, and the assumption that existing tower facilities etc at the broadcast site can be used for the terminal equipment, etc. The end result will be that estimates for the private system will be substantially less than those for the common carrier service. DOC comparison of the estimates frequently leads to questions with regard to the high rates proposed by the carrier and the low rates estimated by the applicant; adjustments result in bringing the two figures more in line with each other. At this point, the situation begins to be of concern the applicant. One of the problems is that the applicant doesn't know how the DOC is going to treat his application; he doesn't know what the ground rules are for the assessment of his application. This type of situation primarily involves the broadcasters, and to some extent other people; the hydro people have been able to negotiate their way out of this sort of thing in some regions. However, DOC is still demanding economic briefs from the hydro companies; their main argument is that their standards of performance must be above those of a common carrier microwave system in order to adequately protect their power systems.

The strength of the national common carriers' microwave systems should be maintained, however this can be carried to an extreme. If the ground rules for the assessment of private microwave systems were better known, then the private applicant would be in a better position to cope with the situation. In most instances, the ground rules are pretty straight forward except when you get into the microwave.

Speaking now in terms of dealing with competition at the RCC level where the selection of an applicant may be necessary because of a frequency shortage: suppose the selection problem were turned over to the municipality. Small regulatory bodies already exist in some provinces to regulate the small independent telephone companies, etc. If we recommend turning such decisions over to provincial regulatory boards, the Department may become concerned because they might look on it as being the thin edge of the wedge. Possibly they wouldn't mind so much in provinces where the telephone companies are provincially incorporated. However, it is probable that the provincial boards



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would like this sort of thing because it would get them into the common carrier business, DOC might not like it. Involving a provincial board in the regulation of a carrier might trigger something which would ultimately result in some loss of federal control or authority over something which had previously been fully regulated by the DOC.

On the other hand the DOC might welcome such an approach; probably as many views on this point could be obtained as there are people in the Department. The places where the major problems would occur would be in the larger centers, such as Toronto. There are several ways in which this might be done, however. The Department could ask for advice, or it could request a recommendation which it would more or less stick with. This is the way Pickersgill handled the BBG in his day; the BBG made recommendations which Pickersgill generally accepted. On the other hand if the DOC reserves the right to turn down advice or recommendations, then it does not free itself entirely from the responsibility for making the selections. Your recommendation may well be that the DOC consider handling these situations in the same way as the FCC, or some variation of it. The municipality has the local knowledge not only of the businesses which exist today, but also of the manner in which they want businesses to develop in the years to come. The arrangement would have the further advantage of precluding the need for DOC to assign frequencies simply because they have been applied for and no valid reason exists for refusing an application; while idle frequencies can be recalled by the Department, this is seldom done.

In summary then, competition between major carriers is largely the responsibility of the CRTC. Section 56 of the proposed new telecommunications act also enables the Minister of Transport to call on CRTC support for rulings in situations where there is potential or actual competition between or among telecom undertakings which is not in the public interest. The responsibility for resolution of competitive problems in the RCC area could possibly be transferred to the municipal government levels.

The cost effectiveness of becoming involved in policy changes relates to situations where an application for licensing does not fit with existing policies, rules and regulations. The cost effectiveness of obtaining the necessary changes is a major issue, also the speed with which the changes can be effected is a further issue. An important objective here would be to simplify the revision of new policies, or the development of new policies so that those interested can afford to participate, and secondly so that an answer may be obtained fairly rapidly. To this end, it would assist if people were better informed of the manner in which policies are revised or developed so that they could participate more effectively.

The complexity of the policy changing process should be related to the complexity of the technology and the changes needed. Arrangements should be made to streamline policy development to save time, and to get the benefits of the new technology on stream earlier. Policy revision and development procedures should be made known so people can take part as cost effectively as possible. Policy development consultation should be restricted to those actually affected by the possible revisions.

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In dealing with the issue of competence, one approach might be to ensure that the technical and administrative requirements are adequately complete; thus a particular system, be it a common carrier or an RCC, could be evaluated without calling into question the applicant's competence. This presumes that afterwards the applicant can be held to the performance specifications upon which his original application was based. However, there is more than one type of competence; there's also financial competence - the question arises as to whether the applicant has enough money to build an adequate system.

Your concern over the competence issue arises because your work has suggested that applicants who are familiar with the licensing process may have a better chance of success than those who don't, primarily because this could possibly lead to the favouring of an individual or company which is known over one which isn't. In other words, your real concern is that applicants with equal or adequate competence should be assured of equal opportunities in the licensing process.

I think that this situation could be partially rectified if the Department issued descriptive leaflets, directed to applicants of various types, defining what is involved in the licensing process. These would be similar to the various booklets and other matter which you obtained from the FCC, ICC and others in the US. These would comprise simple brochures defining the "do's" and "don'ts", and providing other relevant background information of value to the potential entrant. My impression is that the newcomer doesn't know the ropes. If you are a taxi driver and you buy from Motorola, you hardly need to worry about the licensing issue. On the other hand, if you plan to take over someone else's equipment, you may be up against a problem.

Consumer input is frequently an important consideration in policy development. Do consumers know how to get information into the department, and are they aware of the manner in which policies are developed? Policy revision and development procedures should be made known so that consumers can take part as cost effectively as possible.

The Department should consider using exemptions as extensively as possible as a means of simplifying control of entry to the use of radio. Exemptions exist for a wide variety of equipments, typically remote control facilities, microwave ovens, diathermy equipment, etc., etc. Why should this not be extended to citizens band equipment?

Present C.B. operations in the 27 MHz band can communicate over considerable distances, furthermore harmonic radiation frequently causes interference with television receivers; consequently there is justification for the present need for licensing. However, if C.B. were located in a higher band where its interference potential is minimized, and propagation is effectively limited to near horizon distances, there would appear to be less need for concern over formal licensing.

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Canada has made more efficient use of the spectrum by avoiding the block allocation system used in the US. As a result, a greater degree of frequency assignment flexibility has existed in this country. It is believed that some 32 subdivisions exist in the 152-162 MHz band in the US; in Canada the regions have sub allocations for various services, however except for one or two specific applications, there is nothing rigid about any of these. At one time New York City's taxi frequencies were jammed, yet the sub allocation for the forestry department in that area was not used; in Canada the forestry frequencies would have been given over to other services.

It is significant that during the "Chicago Experiment", the number of blocks was reduced from 23 to 7 with substantially improved results; furthermore, the number of blocks set aside in the new 800 MHz band have been limited to those necessary to provide for cellular, trunk, and conventional systems.

CONTACT - C-20-1

SUBJECT: Communications Policy

CONTACT: Mr W. Wilson  
(Formerly of DOC)

In dealing with the matter of exemptions the Department must consider many things. Typically, a small company in Windsor at one time had a viable operation because of the limited market in Canada. A revision in exemption regulations permitted the use of a higher band for certain equipment which had previously functioned at 27 MHz. As a result of the policy change, the Canadian manufacturer was faced with an influx of equipment from the US, and he was unable to compete.

Delays in dealing with exemption policies also frustrate Canadian industry, and there are examples of situations where the tardiness on the part of government in modifying the standards have had a negative effect on industry development.

A further factor which bothers industry today is the fact that the licensing process varies to some extent between regions. In 1970 the DOC suddenly decentralized without establishing any ground rules for decentralisation and the manner in which the regions should behave in the new situation. If you talk to anybody today who has a country-wide operation, you will find that each region has a different way of doing things. The problem is more administrative than technical; in some regions frequencies are quite easy to obtain, while in others it is much more difficult. We've had a great many complaints about these inconsistencies between our five administrative areas.

At one time Department policies limited the number of RCC operators which could function in area; the number was related to community size. This type of restriction on RCC licensing was eventually wiped out, largely because the Department didn't wish to get involved in resolving some of the competitive issues which developed.

When the land mobile service commenced the telcos got into the business with relatively sophisticated facilities and charged what were considered exorbitant rates. At the other end of the scale, the private individual purchased a base station and a few mobiles, and thereafter his operating costs were relatively minor. The Department felt that between these two extremes there was the need for the RCC who could more economically serve people with a requirement for only a limited number of mobiles, and save on frequency needs in the process. The restriction on the number of RCC's which could operate in any community was finally eliminated where objections were raised to the fact that Motorola, an American company, was licensed to provide RCC services in Cranbrook, BC. Some new arrangements should be developed to solve competition problems between RCC operators.

It must be recognised that in there are several levels of political concern in the telecommunications industry in Canada. The broadcasting issue for example, is highly political; and there are the public groups which are concerned about telephone costs. Political problems which used to be generated by the

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Department's policy of restricting RCC's were sorted out within the Department. The difficulties involved in resolving competitive situations depends on the sensitivities of the issues concerned.

A great number of the licensing conflicts encountered in the Department result because the evaluation fails to fit with existing policies, regulations and standards. In the case of the multi-point distribution system application, existing policies failed to provide for such a service and licensing was never able to go ahead. While policy could have been suitably modified, the process would have involved the resolution of competitive issues with the common carriers which the Department didn't feel in a position to deal with.

However, unless there is a dynamic program for sorting these types of issues quickly and effectively, the whole licensing process (indeed the development of communications in the country itself), fails to progress.

CONTACT - C-20-2

SUBJECT: Communications Policy

CONTACT: Mr W. Wilson  
(Formerly of DOC)

Consulting cabinet in order to obtain direction in situations where a precedent is being set for competition in the telecommunications field is one route the DOC can take. (eg CN/CP when they established their Trans Canada microwave system). It is a procedural issue, there is no question of frequencies or resources.

Policy can include ownership, and of course control: Canada, U.S., etc. It may concern control of ownership, it can include competition, need, frequency availability. Another thing that is really important is related authorities. CRTC is the related authority for broadcasting, the CTC for air transport, rail, etc. and there are also the related provincial authorities; licenses can't be issued without obtaining the proper authority from some of these agencies.

This question of related authorities is not to be confused with the question of need; this gets back to the applicant in U.S. who must obtain a certificate of public need from the State before applying to the FCC for a license. For example, in Canada should we license an oil drilling rig for radio before all necessary drilling licenses have been obtained? Should we hold the frequencies open for him if he lacks the drilling permit? Should we license an aircraft that hasn't an air worthiness certificate?

This is a very ethereal thing, but we should consider whether we are making the best use of our capital in the licensing of a microwave system. For example, if we license a microwave, is the applicant going to buy all components from the U.S., is it going to be a drain on our foreign reserves, or could we better use existing microwave equipment and thus make better use of our resources? What would be the economic implications?

When a microwave system is licensed, the applicant must compare the costs of the services he is going to provide for his own use with those to which he could be subjected if common carrier facilities were to be used. If the common carrier can provide the service at comparable cost, the Department would probably prefer that the service be obtained from the common carrier. There is also another ethereal thing called "strengthening the national telecommunications system". In other words if a system is going to parallel the existing Trans-Canada system, then why not an additional RF channel; however if a branch away from the national system route is required, then there is no problem since the short hop away from the main route means nothing to the national systems and it is better to license the installation if the cost is not too bad.

We have found that in the situations where licenses must be refused because of existing policies, or policy deficiencies, one of two things happen: the applicant either drops the matter altogether, or he develops a real interest in promoting the development of a new policy. In the case of the multi-point



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distribution system, the applicant became very interested in policy change. The big factor in such situations is the delay involved because of the complexity of policy development. Often, there is the problem of a self-serving bureaucracy, and the small man suffers. The complexity involves not so much the fact that bureaucracy may be self-serving, but the fact that you may have to become involved in so many things in order to get a new policy brought forward.

Fifteen years ago obtaining policy approval was simple, you simply went to the Deputy Minister and did it. Now there is a greater tendency to move things up to cabinet, consequently there are horrendous consultative processes involved. In the face of this is a great deal of lethargy, and people are simply overwhelmed by the complexity of the thing.

When the DOC licenses a system in Canada, the department expects that it will work. During the evaluation process, certain co-ordination takes place in the selection of frequencies; this should ensure that they can be introduced into the environment without harmful interference. Once licensed, you can go on the air, and although there will be other people on your frequency, and probably some inter-mod problems in congested areas, generally your system will be successful.

The applicant becomes frustrated when he introduces something new which is not provided for by existing policy. To be in a better position to deal with such situations, the Department should keep its policy development procedures simple and well organised so that new needs and technologies can be satisfactorily accommodated. The problem is further complicated by the fact that the general public do not understand the policy development process.

The DOC has a protective attitude towards the common carrier systems, and tends to fight the common carrier's battles. Its microwave policy for example, tends to protect the common carrier without really bringing the common carriers into the fray. An MCI type system in this country would automatically be turned down without the common carriers becoming involved in the picture; there would be no hearing or anything like that. Possibly when the new bill is introduced, there would be provision for some sort of discussion of the issues; there is a section which gives the CRTC power to deal with questions of competition in respect of the common carriers.

At the present moment the DOC doesn't feel secure in trying to deal with the question of competition, and that is the basic reason for not putting forward the multi-point distribution system. An MCI proposal would be very much in the same category; the competitive complications of such a proposal would have to be resolved by the CRTC. Competition is a stumbling block in the licensing process in particular types of applications.

The present method of resolving priorities (application processing, etc.) is based on a policy of first come, first served. However your findings suggest that this priority determining procedure may tend to be brushed aside in certain situations; in this respect, the applicant who is familiar with the licensing process and whose competence may be respected by the Department may have distinct advantages over the entrant who may be unknown.

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Competence is an important consideration, and enters into management, technical, financial and other areas. It's effect is particularly noticeable in the broadcasting business where some operators are just not able to make a success of it. A similar situation exists in cable television where technical and financial competence is the key to success in small areas. In broadcast, the CRTC takes care of the competence issue in the managerial and programming areas. Technical competence is obtained by hiring the services of broadcast consultants.



CONTACT - C-21

SUBJECT: Communications

CONTACT: H.J. von Baeyer  
Formerly: Director,  
Canadian Computer/Communications Task Force

DATE: Mar 1978

TEL: (819) 422-3534

The US and Canadian situations differ in that all interstate communications are under federal regulation, and all intrastate telecommunications come under state regulation. Over a period of time, entry barriers to common carrier activities have been slowly liberalized, and specialized carriers have been admitted. However these erosions of the traditional carrier fields have always been permitted with the idea that the basic telephone network would not be touched.

Typically, such specialized carriers as MCI started off by providing private line services to business. Initially such activities were limited to the provision of dedicated facilities between city pairs; however as time went on, access was gained to the switched telephone systems and the private line facilities expanded into what came to be considered a direct duplication of the message toll services provided by the traditional carriers.

This situation gave rise to proposed legislation known as the Consumer Communications Reform Act which is being actively supported by the AT & T. This Act is essentially an instrument to establish a monopoly for practically everything in the telephone business other than terminal connections. The thrust is to limit the ability of the FCC from being too liberal with their licensing policies. The Act seeks to establish by definition the monopoly areas of some basic telecommunications systems, and thus prevent the erosion of those systems by new entrants. The problem is primarily that of defining what areas should be considered to make up the basic monopoly system.

On the other side are MCI and all the other specialized carriers in the US who are pushing for liberalization; they want interconnection with the public system. The FCC have adopted almost open entry policies, extending to some extent beyond the private line services per se. Competition in communications has always been tied to the concept that it would be in the form of novel services; novelty as such extends beyond "technical" novelty, including for example such things as novel billing practices or novel methods of conducting business. The proof of novelty is of course difficult to define; Execunet was accused of just being a duplication of existing services, lacking any form of novelty.

According to Dr Rostow, in the current CN/CP hearings, present trends towards greater liberalization will lead to complete chaos. Dr Rostow favors a very liberal definition of monopoly; in his opinion, traditional carrier operations should be a monopoly, with exceptions to that monopoly specially defined; whereas the FCC position places competition first, with monopoly rights subsequently defined.

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Supporters of monopoly in the US say it is absolute chaos in the States, while supporters of competition say it has been good for the States. There are a lot of good aspects; not only does competition come up with new services, but the competition also makes AT & T much sharper. In effect, if you have a monopoly, the apprehension is that the monopoly become rigid and ceases to be inventive, doesn't react to consumer problems - it becomes stagnant. I feel that the element of competition which has existed between CN/CP and the telephone companies has been very healthy for Canada. CN/CP introduced the telex system and the counter system introduced by Bell is the TWX; TWX uses the telephone switched facilities, and it is nonsense to use the telephone system for 50 band. There was virtually nothing in the way of teletype traffic until CN/CP introduced telex.

In Canada, there are people like Sharpe who introduced the mail bag service. If you are a customer of Sharpe's network, you can place a message in the system and he delivers it into a mail bag in some other city; this is accomplished by means of leased lines. He has no special license to carry on this sort of business, so there you have a case of de facto entry. If the carriers who supply the lines had any objections to his business operations, he wouldn't get the lines; hence he must not do anything which would detract from carrier business, and thus maintain their interest in supplying the lines. In the US, Sharpe's operation would be classified as a "value added" carrier service, but such operations have no formal recognition in Canada.

The specialized carriers in the US build their own transmission facilities. Bertrand was the first, but went bankrupt; AT & T have been accused of predatory pricing and bringing about Bertrand's collapse. Specialized carriers are not recognized in Canada, however you will recall the Johnson microwave system which was established in the Kenora area; permission was obtained to build that facility, so it is possible to establish carriers of a specialized nature. Though there are no statutes to define such installations either way, it is now practically impossible to operate anything where existing carrier networks are being by-passed.

For a long time, the frequency spectrum has been used as a means of controlling entry in Canada. In the first place the purpose of frequency licenses is to permit people to use certain frequencies, and if an applicant is interested in a band which is not used by anybody else, then there is no reason to withhold the license; however licenses have been withheld in many instances. On other grounds, there is an entry negation to limit the number of people. The licensing process is not an entry regulation at all, it is only a technical permission to use certain frequencies; nevertheless it has been used to control entry.

If the licensing situation were opened up in Canada, special carrier facilities would bring about a straight duplication of many existing microwave installations, and that would be too much. TCTS, Telesat and CN/CP should be competitive systems, and though the CRTC favoured this arrangement cabinet over ruled it by allowing Telesat to join TCTS; the cabinet ruling was made on the basis of a certain tendency to interpret monopoly to be of higher priority than competition. Now everyone waits on the CN/CP decision; although CRTC favors competition, they could be over ruled again.

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Nobody in Canada has paid too much attention to data communications. Today computer services represent about 4% of the communications business, and about 8% if telex is taken into account; data communications growth is about double that of telephone. The interesting aspect of computer services is that they are unregulated, access to the public switched network is possible, and no entry controls other than the normal business license is involved.

In summary then, the following points should be noted:

- 1) that the opening up of licensing in Canada to carriers of the specialized type would lead to too much duplication of existing facilities in Canada.
- 2) that the licensing process per se, should only be concerned with the technicalities of an application; the desirability of entry should be controlled by an established and clearly defined policy. In other words, there should not be an ad hoc approach to policy, otherwise the ad hoc process will force policy.
- 3) that provincial bodies should exist which watch over the types of "value-added" carrier services which should be permitted. The ideal situation would be one in which uniform policies were adopted across the country.

Existing provincial bodies are rudimentary except in provinces where telephone operations are provincially owned; in such instances however, the regulatory body is practically controlled by the operating body. In the case of the CRTC, the agency is new and nobody knows what its powers really are; furthermore, it only has control over federally chartered telecommunications companies.

When government announces policy decisions, the underlying reason for those decisions are not always made public. Policy decisions should therefore be kept distinct from the responsibilities of agencies concerned with technical detail. Regulatory bodies have the instrument of public hearings, and all their decisions regarding applications should be clear and above board.

CONTACT - E-1

SUBJECT: Oil &amp; Gas

CONTACT: W. Toms  
Energy Mines & Resources  
Ottawa

DATE: 27 Jan. 78

TEL: (613) 995-9351

Whenever foreign capital is involved, the Foreign Investment Review Board becomes involved. However FIRA requirements are not particularly stringent at the exploration stage; exploration permits will be issued to Canadian citizens, or companies which have been incorporated in Canada. Once the production stage has been reached, the company must be able to demonstrate that it is a least 25% Canadian owned. Petroleum marketing boards prorate production from each producer, and function in essentially the same manner as egg marketing boards.

Uranium exploration requirements are relatively easy to meet, however once the production stage has been reached the Canadian participation requirements are raised substantially. As a result we have a lot of West German companies carrying out exploration; once into the production phase they will have to draw more Canadians into their enterprises.

In the case of coal all provincial regulatory requirements must be met, and in Alberta these are pretty stringent. Foreign capital used to buy into coal operations involves the Foreign Investment Review Board.

The current tax system does tend to act as a barrier to entry, particularly in the oil and gas areas. Generous provisions of the tax system such as write-off of exploration costs, depletion allowances etc. are very attractive to a company which has a resource income, but without that income, advantage can't be taken of making expenditures. The object is to encourage existing industries to go out and explore but is of no help to a new operation. When the tax system is set up to encourage expenditure, it becomes more difficult for others entering the industry to compete. Only going businesses can avail themselves of the tax sheltering effect of spending new money, hence they are in a better position than others starting out. No industry other than oil and gas can make a full write off of capital expenditure plus the earned depletion on it as well. Entry is possible but because of the tax set-up the barrier tends to be somewhat higher.

CONTACT - E-2

SUBJECT: Dept. of Energy - US

CONTACT: Mr Reed  
Dept of Energy  
Washington

DATE: 2 Feb. 78

TEL: (202) 566-9855

The Department of Energy is made up of the former Federal Energy Administration, the Federal Power Commission, the Energy Resource and Development Agency, and pieces of other agencies which had to do with energy.

The Federal Power Commission have authority to regulate prices on interstate gas and the Federal Energy Administration had authority to regulate crude oil prices; the Energy Resource and Development Agency have the money to promote pilot plants of various types for fuel recovery. Included under the administration are uranium, coal, and exotics in the geothermal field.

The Department of Energy sets the level of energy production activity while the Dept of the Interior carries out the policies. For example, the Dept decides upon the rate of leasing, the method of leasing and the rates of production; the Dept of the Interior is responsible for the mechanics involved in maintaining the leases.

CONTACT - E-3

SUBJECT: Energy - Oil/Gas

CONTACT: Mr R. Priddle  
Senior Adviser  
Petroleum Utilization  
Energy Sector  
Energy Mines & Resources

DATE: 16 Feb. 1978

TEL:

A peculiarity of the industry is that it tends to acquire its personnel at a relatively young age; it tends to be an industry which breeds its own people. There is a high proportion of engineers because it is a high technology industry, a lot of specialists in law and finance, and it is an industry which on the oil side has tended to give its people a very broad training from the production side, through to refining and to marketing. It is not unusual to find people who have worked in refineries working on marketing, and people who have worked on production will rise to the highest levels of the company.

The basic government policy is designed to ensure that the best use is made of the available petroleum resources. It has done this by progressively increasing

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prices to foster resource development, by very attractive tax incentives, by limiting the access of foreign oil to the Canadian market, and by adopting a generally benevolent attitude towards the industry. As a result, Canada has a relatively large oil industry which provides for about 75% of the nation's needs, and all Canadian needs for gas.

From the viewpoint of the new comer, it is an extraordinarily difficult industry to break into. In the downstream end (refining, marketing and distributing) it is particularly difficult because it is extremely capital sensitive. To enter the downstream end as a refiner would involve investments in the order of hundreds of millions of dollars, nevertheless there have been new entrants but they have all been new foreign entrants. The established companies which were formerly represented in the Canadian market (British American, White Rose, Frontenac Oil etc) have been taken over; the newcomers are all foreigners who have come here with the backing of parent company capital. Substantial Canadian entrepreneurship in the oil business is limited. There are of course a lot of people on the fringes of the industry selling oil products but the rapid and certain growth of past decades has now ceased.

On the upstream end of the business, entry is simpler because prospective land can be leased. If the entrant is properly equipped with the necessary geophysical and geological technology, and he is fortunate, he may find something; however present taxation policies favour companies which are already in production, producing operators can write off enormous amounts in exploration expense. In spite of this independent companies do find a lot of oil and gas.

In the upstream end of the business there are literally hundreds of companies involved in exploration, development and production; as a result the environment is highly competitive. This is reflected in the competition for land and the offers made to the provincial governments for petroleum land; land is the raw material of the industry. In the downstream end competition has been absolutely "cut-throat"; the industry is particularly depressed at the moment because there has been no growth in the past four or five years.

Federal-provincial conflict has existed over pricing. If the provinces had been able to obtain an adequate price for their oil they would have been satisfied. The federal government intervened in 1973 to hold the price of oil down and taxed exports so that provincial jurisdictions couldn't get the full value on exports. 90% of the Alberta oil is produced from Crown leases, in Saskatchewan approximately 60-70% and in British Columbia it probably close to 100%. As oil prices have risen, the provincial revenue intake has increased and substantial reserves are being built up. At the recent prime minister's conference in February of this year Prime Minister Blakeney indicated that he felt satisfied with the revenues.

A second area of conflict exists over the fact that provincial royalties are not deductible when companies calculate their federal income taxes.



CONTACT - E-4

SUBJECT: Energy - Uranium

CONTACT: Mr R.N. Williams  
Energy Sector - Uranium  
Energy Mines & Resources

DATE:

TEL: (613) 995-9351

Resource industries come under the jurisdiction of the provinces, uranium is an exception in that it comes under federal regulatory control by virtue of the Atomic Energy Control Act. This control extends over every activity from exploration to export, compliance with both provincial and federal regulations as they apply is necessary for prospecting, exploration, or removal, production and export.

Generally speaking there are a lot of aspects in the uranium industry which are treated in the same manner as other minerals. Prospectors require provincial prospecting licenses, and all methods of land acquisition must comply with the requirements of the particular province in which an individual or company is operating in; claim staking, production etc., are subject to provincial controls. However, overriding all of this is federal jurisdiction through the Atomic Energy Control Act which doesn't begin at the prospecting stage, but does begin at the exploration stage. Federal permits must be obtained from the AECB, the agency which administers the Atomic Energy Control Act, e.g. permits for exploration, or removal, production, export etc.

The situation is becoming more complex now because there is the whole new level of environmental requirements both at the provincial and federal levels. This is true for all minerals at the provincial level, but also at the federal levels in the case of uranium because of the radiological health and safety environmental implications.

There are a number of other associated federal policies which are peculiar to the uranium industry which come under the overall umbrella of the act. The two most important other than routine type regulations governing operations are:

- 1) the federal ownership policy which limits the degree of foreign equity that can exist in any new uranium production venture. The principle element in new legislation (the Uranium & Thorium Mining Act) presently before the house will limit foreign equity in any producing operation to 33%. When passed the Act will be administered by FIRA. Mineral exploration is defined as a business under the Foreign Investment Review Act; and under part 2 of the Act any foreign company which has not previously operated in Canada must apply to FIRA if it wishes to explore in Canada.
- 2) The other major federal policy is that which relates to exports. There are a number of federal guidelines which must be adhered to if one wishes to obtain an export permit. Typical criteria include:

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- a) the importing country has to have a nuclear safeguards agreement with Canada.
- b) the total quantity of the uranium contract is limited by a formula which is related to the company's resources which are annually audited by the Dept of Energy, Mines and Resources. The objective of the formula is to ensure that sufficient uranium remains in Canada to provide for all existing and planned domestic reactors to operate for a life-time of 30 years. The responsibility for this domestic requirement is distributed amongst all the companies (who are marketing uranium) in an equitable way which is related to their share of the total Canadian resources. Part of this responsibility rests with the utilities which must demonstrate that they have contracted for fifteen years supply necessary to meet their own needs.
- c) No contracts will be approved for longer than a ten year term; customers cannot have contracts for uranium which guarantee deliveries beyond then years. However, provisional approval can be given for an additional five years but this approval is subject to recall in the event that the uranium is required in Canada.

In summary, uranium prospecting and exploration is open to anyone, and FIRA requirements with respect to foreign operators are very largely a formality. At the present time more prospecting and exploration activities are going on in Canada in the uranium field than in any other. At the production stage controls become tighter, the main intent being to ensure that uranium resources remain largely under Canadian control.

Market environment is competitive; there are six producing companies in Canada at this time, three of which are relatively new entrants to the business. To understand this it is necessary to know something of the history of the resource and its development. In 1940 there was no uranium produced because there was no demand for it; subsequent discoveries led to a demand for defence purposes which began in the early 1940's. Since uranium was then considered a strategic commodity it was tightly controlled by governments and the industry commenced in Canada as a government monopoly; private individuals were not allowed to acquire or export the resource. In the late 1940's this restriction was removed and industries developed in response to an effectively unlimited demand for the defence needs of the US and the UK; during this era Canada had a very high level of exploration activity during which important discoveries were made. Most of the discoveries were developed under a crash program such that by 1969 Canada had about 23 uranium mines which were producing some 16000 short tons of uranium oxide annually; except for Eldorado, a crown company, all other uranium operations were in private hands.

In 1966 the US announced that it would sign no more uranium procurement contracts, and in 1959 both US and the UK announced it would not take up options open under existing contracts. Thus after Canada had developed a very subs-



CONTACT - E-4  
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tantial industry, the demand for the resource ceased. Three substantial towns had been developed by the industry, one in particular was Elliot Lake, a community of 20 to 30 thousand people. Canada's production level fell from a level of 16,000 tons a year in 1959 to its low point in 1966 to about 3,500 tons; many mines closed, of those remaining many were consolidated.

By the mid 60's only three companies remained, one of which was a crown operation; the demand for uranium for utility power generation purposes did not begin until 1966. No exploration went on between 1956 and 1966; exploration commenced in 1966 and increased until 1969 then declined again because demand was less than anticipated because nuclear power development had problems during its early stages.

Prior to 1966, uranium demand had been for defence purposes and no serious federal-provincial conflict existed over the manner in which the industry was controlled. Since 1966 when the commercial market was born, some provinces have felt that the federal government should not be involved with regulation at the exploration and production level. Since the resource is no longer considered a strategic material in the sense that it is required for defence purposes, it is sometimes felt that it should be treated like and other commercial commodity. Federal-provincial conflict over policies relating to the taxing of mining operations applies equally to the uranium industry; typically royalties paid to the provinces are not deductible when computing the federal income taxes.

Broadly speaking, the US administration of the uranium energy field is similar to our own. For a very long time everything came under the US Atomic Energy Commission, whereas in Canada everything was split up between a variety of agencies. Recently the Americans separated the regulatory function from the commercial, developmental and promotional functions; a regulatory commission was formed within the Energy, Research and Development (ERDA) Administration into which a number of other energy forms were included. Since the new president came into power, everything has been put under the Department of Energy.

CONTACT - E-5

SUBJECT: Energy - Coal

CONTACT: Mr L.P. Christmas  
Energy Sector (Coal)  
Energy, Mines & Resources

DATE:

TEL: (613) 995-9351

Coal resources in Canada, other than those found in federally administrated territories, belong to the provinces. For the most part therefore, provinces have control over the development of new coal mines in their respective areas. The federal government gets involved through the Department of Industry Trade & Commerce and the Foreign Investment Review Agency.

Any company wishing to acquire coal lands to explore would require permission from a provincial agency; they would go through the various steps of exploration, feasibility studies etc. which would finally lead up to an application to mine. The federal government could be involved in environmental aspects to some extent. Mining and safety aspects of environmental control come within provincial jurisdiction, as well as the surface environment. The federal government could become involved where such things as water pollution are of concern, or air pollution on the consumption side.

The federal government is involved in actual coal mining. One crown corporation exists in Nova Scotia (The Cape Breton Development Corporation) where we have coal lands and mines that are producing; this came about as the result of a social problem where private industry decided to cease production and shut down the mine. The federal government also holds coal lands in south east British Columbia, hence there is the possibility for future federal mining activities in that area; approximately 50,000 acres are involved and studies are at present under way to determine what is to be done about developing the resource.

An important aspect from the viewpoint of this study is the fact that the federal government, in order to assist in this development of the industry, will become involved in the infrastructure. For instance, a number of companies over the last three or four years have been exploring for coal in north eastern BC where geologists have found coal. Feasibility studies have been carried out and underground testing has been done to confirm the deposits; however in order to realize the resource, substantial support is required in the form of the rail and port facilities, town site, labour force etc. The project has been carefully reviewed but the federal government came to the conclusion that in view of the amount of expenditure associated with ancilliary facility requirements, the operation would not be a very good investment; development has been deferred. Thus, from the viewpoint of a private company seeking to establish itself in the coal business, it is vitally important that resource be located near populated areas able to provide the necessary infrastructure.

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The federal government is presently endeavouring to establish a coal policy for Canada; the government is concerned both with the means of expanding the coal industry itself, and expansion of the use of coal. Coal will become one of the major industries in Canada in the future, tremendous increases are forecasted in production and consumption; this is of course related to the problem of self sufficiency and the need to decrease dependency on imported fuels. Policies are still being formulated, the process being complicated by the need for co-ordination with the provinces.

Within Canada there is extensive involvement on the part of both the private and public sectors in the coal industry. Utilities such as BC Hydro and Nova Scotia Hydro are starting their own coal mines, also some of the larger oil companies because their oil and gas reserves are being depleted and it is apparent that coal is a resource of growing importance within the country. Coal operations range from very small companies producing 25,000 tons a year to large operations such as Kaiser Resources who have an annual output of six million tons. There is a trend toward greater involvement of foreign countries in our industry, a large percentage of the resources and reserves being held by non-Canadian companies.

Specific problems within the industry at the moment include those created by taxation policies, (e.g. the taxing of royalties paid to the provinces); also the fact that much of our export market goes to Japan makes it largely dependent on the demand of that market for its success. Provincial administrations are interested in seeing their producers obtain reasonable prices for their product; in 1968, when some mines first started up in the west, coal was sold for very low prices and as a result difficulties were encountered. Alberta and British Columbia now look very carefully into applications for new mining operations to ensure that a promising market exists, and that the prices for which coal is sold are compatible with the costs of production and provide a good return to the province.

The market environment is competitive, typically individual producers go abroad to negotiate their own contracts with foreign importers. Competition between producers is also accentuated by the fact that various mines produce different qualities. Entry to the coal production business is not easy because most of the resource areas have been identified during the past ten years, and are already under lease. Hence about the only means of entry is through the purchase of existing leases.

CONTACT - E-6

SUBJECT: Hydro Electric Power

CONTACT: Mr C.E. Zwicker  
Generation & Transmission Div.  
Energy, Mines & Resources

TEL: (613) 995-9351

Any organisation wishing to generate power from water resources would likely be required to obtain the right to do so from provincial authorities. Since most provinces have their own hydroelectric operations, it is unlikely that they would release any water rights which could be economically beneficial to their own generating systems. Ontario Hydro provides virtually all the electrical power consumed in Ontario, however investor owned generating facilities such as Great Lakes Power have hydro plants, however it is probable that the water rights stem from long standing royalties on the particular waters on which their plants are situated.

Provincial administrations are anxious to maintain control over their water resources because they have a direct bearing on the province's ability to attract new industry. Except possibly in instances where the resources have limited economic potential from the viewpoint of a major electrical utility, would water rights be turned over private industry for development.

Only in Alberta is there very much in the way of investor owned utilities. Calgary Power and Alberta Power are the two largest electrical utilities (both investor owned) which provide between 80% and 85% of the province's needs.

Newfoundland Light was the major power supplier in Newfoundland until ten or fifteen years ago when Newfoundland and Labrador Hydro was given the sole authority for producing all additional power. Since that time Newfoundland Light has fallen off as a power generator and for the past decade has functioned mainly as a distributor.

Maritime Electric in Prince Edward Island is investor owned. Originally power was steam generated, but power is now being supplied from the mainland via underwater cable. The province of Nova Scotia took over Nova Scotia Light, Heat and Power in 1972 and the Nova Scotia Power Commission now provides for all electric power generation and distribution in the province.

In Quebec, Alcan have their own hydro network. It is understood that the company have made a deal with Quebec whereby they will be permitted to retain their hydro leases, and sell excess power to Hydro Quebec.

No investor owned utilities exist in Manitoba or Saskatchewan. In BC there is a small company known as West Kootenay Power which was developed specifically for the purpose of supplying the industrial power needs of its parent company; it also sells excess power to BC Hydro.

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Although entry into the power business is limited for a number of reasons, there would appear to be nothing to stop anyone generating power from fossil fuels for instance. In the future, there will no doubt be some industrial groupings (or even single industries) which will set up their own thermal generating plants to provide steam and electrical energy for their own use. While such installations may arrange to sell excess power to a public utility, it is unlikely that there will be any direct sale of the power to the public. In fact everything is going the other way; in Newfoundland for instance the Bowater Paper Company had their own hydro system to provide power to their mills; just last year both Newfoundland Light and the Newfoundland Power Commission bought portions of their distribution systems. Gradually more and more is going over to the provincial utilities.

Future trends in some industries will be toward the generation of their own power requirements. There are a lot of economies to be realized by generating steam and electricity together where the industry has need for both; at present many companies are providing their own steam needs, but buy their electrical needs - by generating these together, much better utilization of the oil, coal or other energy bases is realized. There may be a 40% efficiency from generating steam from oil or coal, but this increases to 80% when both are generated together; however the complex involved would have to be relatively large, a typical situation would be that in Prince George where several paper mills exist and wood chips can be used for fuel.

Major hydro sites would be impossible to obtain, but a small hydrosites capable of providing in the order of 10 Megawatts may be useful to an industry but not to a large utility - might be made available for industrial purposes. Water resources not capable of generating more than 30 megawatts are unlikely to be of interest to large utilities.

Industry structure is therefore oriented toward provincial control of public electrical utilities. Alberta is the only province where investor owned utilities are in the majority; in other provinces where private capital is involved, it is largely concentrated on the distribution side of the power business. Although the trend is toward provincially owned and operated electrical utilities, there will be some development of thermal power systems by larger industries.

CONTACT - E-7

SUBJECT: Independent Oil Producers - US

CONTACT: Mr L Unsell  
Executive Vice President  
Independent Oil Association  
1101 - 16th St NW Washington

DATE: 17 March 1978

TEL: (202) 466-8240

There are about 10,000 independent producers in the USA, and this is about half what there once were; in the mid 1950's there were approximately 20,000.

In 1954 the Supreme Court interpreted the Natural Gas Act of 1938 (which had been in effect for 16 years at that time), to mean that the federal government should regulate the price of natural gas at the well head. At that time, the Federal Power Commission took over the price regulation of natural gas. With the federal government holding natural gas prices at around 16 cents per MCF, this placed an automatic limit on crude oil prices.

Thus from the mid 1950's to the time of the Arab oil embargo, the domestic independent petroleum industry in the United States was virtually dismantled. The industry lost about half the petroleum producers. About 60% of its drilling rigs were cannibalized and junked in the US, and the total number of well drilling operations was reduced from some 57,000 to less than 27,000.

With the Arab embargo, we felt the event would prove to the political community what we had been saying for a decade and a half - that the nation could not have economic and military security without an energy supply.

Politicians being politicians, they began a hunt for a scapegoat rather than accept the fact that it was the fault of government policy which got the USA into its present situation. For the past four or five years therefore, the domestic industry has been in an adversary fight with Congress - the liberal majority in Congress wanting to control the industry from stem to stern, and the independents wanting to find some means of getting out from under federal controls. The Carter program which was sprung last spring will continue and intensify all the mistakes which have heretofore been made, e.g. rigid well head price control of both natural gas and crude oil.

Congress has been debating the issue for the past year, and the industry has been endeavouring to present from its viewpoint the fact that regulation is what killed America on gas and crude oil supplies. The situation which developed was unnecessary because the nation still has hundreds of billions of barrels of oil, according to the geological community, in the continental USA and its continental shelf. Furthermore there are still hundreds of trillions of cubic feet of gas waiting to be discovered. Most of the easy deposits have already been located; the new discoveries will be less accessible, hence will be more costly than in the past.



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Price controls make less sense now than they ever did because for every 6000 cubic feet of gas we don't produce from our own sources, we have to import a barrel of oil at a unit cost of \$14.50.

Congress has yet to set the price of natural gas, and we also have a highly counter-productive method of crude oil pricing. The bulk of the US crude production comes from wells discovered prior to 1973, and it is priced at \$5.00 a barrel; upper tier oil (discovered since 1973) sells at \$9 a barrel. Stripper well oil is deregulated and sells for \$12 a barrel.

The US administration proposes to put about \$14 billion a year in taxes on domestic crude in order to equalize it with existing world prices. Canada started out in this direction initially, but found it to be counter productive; the tax arrangement has since been modified to create greater incentive for exploration. What we have at the present time are controls which the industry is fighting to get rid of, and which Congress is bound and determined to extend.

One thing that makes the US unique from most other nations is the fact that mineral rights are owned largely by private individuals. Unlike Saudi Arabia or Canada where large land tracts can be leased for exploration purposes, most of the traditional oil and gas deposits are privately owned. Hence the leases are for small holdings and it is a ready made situation for small operators.

For this reason, individuals, partnerships, and small companies are primarily explorers for, and producers of, gas and oil at the well head. They do not have refineries, service stations, or marketing facilities; they are just gas and crude oil producers.

However the independent cannot be defined as an operator who merely produces at the well head. Sun Oil, for instance, call themselves an independent - but 99% of our members are non-integrated small operators. It just happens that these independents have drilled 90% of the exploratory wells in the US. The other side of the situation is the fact that whenever the government does something which is "wrong-headed", it is the independent who falls by the wayside since he is the most vulnerable. The big timers can survive government regulatory programs far more readily, yet it is the combined efforts of 10,000 small operators which has been the backbone of the producing industry in this country.

In the US there is a financial accounting board which is a quasi-government agency for establishing accounting standards for the corporate business community in America. They have come out with a recommendation that henceforth all accounting be accomplished on a "successful-effort" as opposed to a "total cost" basis. It just happens that the small independent producer, if forced to go the "successful-effort" route, is very much at a disadvantage; this is particularly true if he is just starting out. This FASB recommendation affects oil & gas companies according to their size and their resources. Major oil companies do not like to, and do not need to capitalize dry holes. However, if the small operator cannot capitalize his dry holes it reflects poorly on his earnings and his potential, thus making it more difficult for him to raise money.

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The domestic gas and oil industry is the most competitive industry in America. Typically medium and small companies in the US produce 70% of the crude oil, while in the cigarette industry medium and small companies supply only 3% of the market, in steel it is about 13% etc. Thus viewing the oil situation in terms of numbers, and the contributions small companies make, there is no question that oil production is by far the most competitive industry.

The future of the industry is wholly dependent on what Congress does in terms of pricing and regulatory controls. What the politicians don't seem to realize is the fact that nobody has to be in the oil business. During the 1960's half our members left the oil business and built hotels, motels, shopping centers and bowling alleys! Nobody has to spend their dollars drilling holes in the ground; hence if there are more attractive investment opportunities, then the energy resources will not be developed and the country will become ever more dependent on oil imports.

NOTE RE DRILLING COSTS:

For every 2800 feet of drilling the cost is doubled. In other words, a 10,000 foot hole extended to 12,800 feet will be double the cost of a 10,000 foot drilling. It is for this reason that the average well cost in this country is \$150,000 - offshore the average is \$1 million. Deep gas wells being drilled in Oklahoma cost \$5 million; that's where the gas is these days but US government pricing policies don't recognize this.

CONTACT - E-8

SUBJECT: Energy Administration - US

CONTACT: Mr R. Lyman  
Energy Sector  
Canadian Embassy  
Washington, D.C.

DATE: March 14, 1978

The oil and gas industries in the US are regulated by two bodies. The first is the Federal Energy Regulatory Commission, the successor to the former Federal Power Commission, which has general responsibility for gas transmission, pricing and production. This commission also has responsibility for oil pipelines which formerly came under the Interstate Commerce Commission. In a sense, the FERC is the pre-eminent body in the oil and gas area.

Within the Department of Energy however, there is also a Department of Economic Administration which has a policy responsibility relative to the oil and gas industries - much more so with regard to the oil industries than with regard to gas. There are also other regulatory boards of one sort and another which have



CONTACT - E-8  
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been established to deal with electrical utility industry, and the nuclear power industry.

In the case of the oil and gas industry, market entry from the perspective of anti-trust considerations is largely under the authority of the Department of Justice; they undertake a number of studies in that regard as does the Department of Energy from the perspective of its mandate.

Gas produced and consumed within a state is subject only to state regulation; only if the gas is shipped to another state is it subject to FERC regulation. In the case of oil however, federal regulation commences at the well head.

For the most part, mineral rights in Canada are retained by the provincial governments; consequently producers pay royalty fees to provincial administrations. In the US, mineral rights are more generally in the hands of the property owners, hence the royalty fees are paid to those controlling the surface rights; while variations exist, this is usually the situation which obtains in the oil producing states.

CONTACT - E-9

SUBJECT: Natural Gas

CONTACT: Mr M. Schwarz  
Natural Gas Adviser  
Energy, Mines & Resources

DATE: May 5, 1978

TEL.: (613) 995-9351

Gas distribution operations must be franchised. Investment requirements generally include those necessary for installation of the distribution piping, metering, storage facilities etc. Typically, Consumers Gas here in Ottawa have a large area with a great deal of pipe in the ground, and they have built a liquefaction plant to store gas transported during the summer months for use during peak load periods in the winter.

There are some small operations in the business, typically the cities of Kingston and Kitchener; however distribution companies are generally large. Gas distribution enterprises are publicly owned in Saskatchewan, about 80% publicly owned in BC, and privately owned in Alberta, Manitoba, Ontario and Quebec.

Thus opportunities for entry into the gas distribution business exist, however they would be limited to new franchise areas. New entrants may compete for new franchises, however those already in the industry have the advantage of being more familiar with the business, its complexities and the safety requirements involved.

CONTACT - E-10

SUBJECT: Natural Gas

CONTACT: Mr Jack Spence  
General Manager  
Ottawa Gas

DATE: 5 May 1978

TEL: (613) 741-5800

Gas distribution franchises come under (in the case of Ontario) the Municipal Franchises Act.

Franchise applicants approach council with an offer outlining the terms and conditions for a gas distribution service in the community, together with a proposed franchise agreement. The local council considers the application, and if it is agreeable to the terms, rates etc., it is then forwarded to the Ontario Energy Board where it goes before a public hearing. If the outcome of the hearing is favourable, the franchise is approved and returned to the Municipal Council for incorporation in local by-laws.

CONTACT - E-10  
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The Energy Board regulates prices and rate-of-return on investment. The natural gas industry is probably the most highly regulated industry that there is. Operators must obtain rate approval, must show that the capital investment is consistent with requirements, and that the consumer will not be charged unreasonable rates.

The natural gas business is not a monopoly because there is competition with oil and electricity, however the competition factor has been much reduced owing to the progressively increasing cost of oil, etc. Over the past three or four years, natural gas has had a 10-15% advantage over oil; however natural gas is regulated and every time the industry wishes a rate increase, it must go before the Energy Board to justify it. This is the same in provinces other than Ontario.

Ottawa Gas have 43 franchises in eastern Ontario which are good for twenty years. During the course of visits to these communities to commence franchise renewal proceedings, it was learned that Bell Telephone and the natural gas companies are the biggest tax payers in many of the townships through which their lines pass. Gas companies are assessed on basis of the pipe they have in the ground. In Ottawa alone, the annual tax paid on the gas distribution systems is in the order of \$300,000. Taxes represent a significant proportion of the industry costs, and have a direct bearing on its ability to compete with electrical utilities which are not subject to the same tax load.

An investment of 100 million dollars in a natural gas distribution system in a city the size of Ottawa is not inconceivable, however it is a direct function of the number of consumers involved. Entrants to the distribution side of the natural gas business must therefore be in a position to invest a significant amount of capital.

Small installations exist, typically Kingston and Kitchener are municipally owned and operated, and there are also a number of small operators in Alberta. Municipally owned systems have an advantage in that they are not subject to taxes.

CONTACT - E-11

SUBJECT: Oil Pipelines - US

CONTACT: Mr G.D. Riley  
Secretary Director of Research  
Assocn of Oil Pipelines  
1725 K ST NW  
Washington, DC

DATE: March 1978

TEL: (202) 331-8228

The association represents a total of 94 pipelines in the USA, most of them being inter-state operators regulated by FERC, an independent agency within the Department of Energy. Prior to October 1977, these pipelines had been under the jurisdiction of the ICC.

Approximately 85% of the pipelines fall within the inter-state category and therefore subject to regulation at the federal level. The remaining 15% are intra-state, hence subject only to state regulatory bodies. Inter-state pipelines are common carriers subject to the Interstate Commerce Act, and as such they are required to submit regular financial reports to the Federal Energy Regulatory Commission, adopt standard accounting systems in accordance with the Federal Energy Regulatory Commission requirements, and file tariffs for FERC approval.

The Commission publishes annual evaluations of the pipelines under its jurisdiction, and in each instance establishes rates on the basis of an 8% rate of return for crude oil lines, and 10% for product lines.

At present the methodology used in evaluation proceedings is undergoing review; the methods used for oil are different from those used for natural gas. Gas pipelines are utilities whereas oil are not, hence oil transport systems involve a much greater element of risk. There have been instances where existing oil systems have been duplicated by competing pipeline operators, and there is also significant competition with other transport modes.

Oil companies tend to co-operate in the construction and use of pipeline facilities hence they are frequently owned by those who share in their use; in some instances, railroads own and operate oil pipeline installations.

The association feels that a more realistic point of view has to be taken with respect to the rates of return allowed pipeline operators. The present guidelines used by FERC are outdated and should be adjusted to take into account the amount of risk involved, the effects of inflation and the increased costs of investment capital.

Oil pipelines are administered under the Interstate Commerce Act, and are treated quite differently from their natural gas counterparts. Natural gas pipelines come under the Natural Gas Act; they are treated as utilities, and are recognized as monopolies.

CONTACT - E-12

SUBJECT: Natural Gas Pipelines

CONTACT: Mr Kiely  
Federal Power Commission  
Washington, DC

TEL: (202) 275-3967

Two systems of pipelines exist within the US, intra-state and inter-state. What is now the Federal Energy Regulatory Commission has jurisdiction over inter-state pipeline systems, and the sale and re-sale of gas in inter-state commerce.

Any new natural gas pipeline must obtain a certificate of public need and necessity from FERC to construct, operate, deliver or transport gas; hence all phases of the pipeline operation are controlled. The safety aspects of pipeline operation come under the jurisdiction of a special agency within the Department of Transport.

Natural gas pipeline transport systems function as separate commercial entities, wholly independent of both the production and distribution phases of the business.

In the case of oil pipelines, rate jurisdiction had originally come under the ICC, however market entry and exit was uncontrolled. Unlike natural gas pipelines, oil transportation systems are not classified as utilities, hence don't have the same domain rights when it comes to acquiring land during the construction phase.

The rate section for oil pipeline regulation has been transferred to the FERC, and personnel now handling oil rates are generally those who have also been responsible for natural gas transport rate setting. An oil board has been set up within the commission which comprises natural gas rate makers.

Natural gas transport systems require a high degree of regulation because of the monopoly situation which exists; it is economically impracticable to provide competition on an efficient basis. Once a market has been developed by a given pipeline installation, there is no opportunity for a second transport system to provide competition.

CONTACT - E-13

SUBJECT: Commodity Pipelines - US

CONTACT: Mr Michael  
Interstate Commerce Commission  
Washington, DC

DATE: March 1978

TEL: (202) 275-7846

The ICC originally had jurisdiction over pipelines carrying oil and petroleum products; this has now been transferred over to the Dept of Energy.

Oil pipeline operators have never been required to provide a certificate of public need and necessity. The ICC exercised jurisdiction over rates, and it had an evaluating section for the researching of pipeline costs so that reasonable rate limites could be determined. There was also some economic activity which had to do with the unlawfulness of rebates and concessions (restraint of trade type activities).

Insofar as entry and exit controls were concerned, none whatsoever existed; oil pipeline operators were free to enter on abandon pipeline activities without reference to the ICC. From the viewpoint of construction, most of the domain rights for pipelines were exercised by the states through which the pipelines passed.

The ICC still have control over slurry coal lines, only one of which exists in the US. Oil pipelines now come under the Federal Energy Regulatory Commission (FERC), an agency within the new Department of Energy; this agency is supposed to be an independent entity functioning under the Secretary of Energy.

CONTACT - E-14

SUBJECT: Energy (Oil &amp; Gas)

CONTACT: Mr D.L. Tough  
Resources Development  
Energy, Mines & Resources

DATE: 12 May 78

Tel: (613) 995-9351 Ext 415

Prospective oil and gas land within a province in which the federal government may have a mineral interest is issued on the basis of public tenders. The prices received for such leases depend on the region concerned; recent leases in Alberta have run from \$10 to \$200 an acre. There have been instances in Ontario where the federal government has issued leases for \$1 an acre. Most parcels run from 100 to 200 acres.

Several million acres have been issued in oil and gas permits in off-shore areas to anybody who wanted to apply for them. Under former regulations, a company or an individual could acquire a permit for a grid area which was bounded on east and west by lines of longitude 15 minutes apart, and on the north and south by lines of latitude 10 minutes apart. In the Nova Scotia region, such a parcel would cover about 90,000 acres, decreasing as you progress further north.

Permits would be issued for \$250. on the basis of a first come first serve system. In the first three years, companies were obliged to do work worth five cents an acre, escalating to fifty cents an acre in the fourth year. Hence such leasing was effectively non competitive, however half the land had to be returned to the Crown when production commenced.

About a year ago, they moved to amend the regulations so that nobody could obtain off-shore leases except by way of public tender, hence free access has now disappeared. The off-shore leasing arrangement which Canada put into place in the 1960s was quite a bit different from that in the States for the simple reason that there was no on-shore interest to which people could expand their on-shore activities into off-shore activities.

For example, in the US, all of the development off-shore progressed from on-shore developments, hence the prospectivity was there. In Canada there was no prospectivity attached to the off-shore rights, hence to attract companies to become involved in this type of operation, the land was made available at low cost and with low obligations. The theory was that once companies got involved, they would be hooked, and any rewards which might be gained by Canada would come at the rear end of the project in terms of royalties. The returned land, if prospective, would then qualify for the high bonuses received for off-shore rights in the US.

The system is in the process of changing; rights will be put out for tender, and the requirement for returning half the land will be eliminated but all discoveries will be subject to increased royalties. Now there will be a fixed royalty of 10%, plus a progressive incremental royalty based on the productivity of the field. Thus the financial benefits in addition to the resource



CONTACT - E-14  
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benefits would come to the public purse. It would be easier to obtain off-shore rights in Canada than in the US; in the US, if the rights are at all prospective, the entrant will be facing some very high bidders. However, while Canadian off-shore land costs may be less at the moment, the costs associated with being there and conducting the exploration are exceedingly high.

Most mineral rights in Ontario are held by private owners, hence most producers must deal with private individuals. In Alberta, Saskatchewan, and to a lesser degree in Manitoba and BC, the mineral rights are held by the provinces. These are made available through exploration permits, drilling reservations, etc. by way of public tender. Recent sales in Saskatchewan have gone for \$3 an acre, however this province has offended the industry with some of their more recent legislation, hence bidders have not been interested in generating too high a bid for oil and gas rights in that area.

CONTACT - F-1

SUBJECT: Forest Products (Ontario)

CONTACT: Mr. Patterson  
Asst. to District Forester  
Provincial Govt Services  
Kemptville, Ontario

DATE: 13 Feb. 78

TEL: (613) 258-3413  
Ext.228

Regional offices of the provincial forestry administration are responsible for ascertaining which stands are to be cut, and the identification of mature wood within those stands which is to be removed in order to perpetuate forest regeneration.

Harvesting rights on provincial crown lands are put out to tender by the regional offices concerned, and subject to certain provisos, go to the highest bidder. To qualify, successful tenders must demonstrate that a market exists for the wood; either they must own milling operations capable of converting the harvest to lumber, paper, etc. or they must have customers with the necessary processing facilities.

In addition, certain requirements are to be met with regard to housekeeping and cleanup in the lot areas during and following cutting operations.

CONTACT - G-1

SUBJECT: FIRA Administration

CONTACT: Mr Dewhurst  
Div. of Research & Analysis  
Foreign Inves. trust Review Agency

DATE: 3 Feb. 78

TEL: (613) 995-3847

Any business operation operation within a provincial area of jurisdiction which is being started by (or transferred to) an ineligible person within the meaning of Foreign Investment Act is subject to review by FIRA. The final decision is federal, however it is worked out in conjunction with provincial authorities.

CONTACT - L-1

SUBJECT: Taxi Licensing (Ont)

CONTACT: Mr Beatty  
By Law Enforcement  
Township of Nepean

DATE: 13 Feb. 78

TEL: (613) 829-1510

Municipal by laws are based on guidelines provided by the Municipal Act govern taxi licensing in each area. Variations exist according to the size of the communities involved. Three types of licenses exist:

- 1) Taxi Brokers: The management element consisting either of an individual or group of partners which provide taxi stands, base station radio, telephone lines, parking areas etc. Eligibility is dependent on being known within the municipality as being of reliable character and as having the requisite radio, telephone, buildings, approved parking areas etc.
- 2) Owners: comprise the element providing suitably equipped vehicles of the types approved for taxi use e.g. four door cars, radio, metering equipment etc. Eligibility is dependent on a minimum of two years service as a driver in the region prior to being placed on a municipal waiting list for new driver plates. Owners may hold more than one plate.
- 3) Drivers: individuals whom brokers/owners are willing to employ, whose character record and driving qualifications are satisfactory to the police and chief by law enforcement officer, and who are capable of passing the requisite tests.

Brokers are frequently owners, and owners frequently hold a number of plates. The number of new plates issued each year is dependent on population growth and the type of community involved, Nepean allows one cab plate for every 450 people, a total of 90 are presently in force; by contrast Ottawa has issued 600 and Kemptville only 2.

CONTACT - L-2

SUBJECT: Municipal Licensing (Ont)

CONTACT: Mr Walker  
Chief By Law Officer  
Township of Nepean

DATE: 15 Feb. 78

TEL: (613) 829-1510

In most instances, municipalities set limits on the number of taxis allowed to operate within their jurisdictional areas; this is the only licensing area where specific limits (based on the population) are imposed. Authority also exists under the Municipal Act for local councils to restrict the number of gasoline retail outlets, largely to ensure that such facilities exist where they are needed; "spot zoning" is the only alternative method of controlling this type of operation, and it is not effective.

In the past, certain types of activity within an area could be prohibited by local councils, however new legislation (Bill 119) now before the Ontario parliament, will make it impossible for municipalities to prohibit any type of business which is legal.

The new bill will revamp antiquated municipal licensing authority contained in the statutes. It will give the municipalities power to license, regulate and govern any business; hitherto the Act has been specific as to those areas which council had power to license or regulate, now blanket authority over all business operations is proposed. The Bill also proposes that fee structures for everything other than taxis be eliminated; previously revenue itself had been an acceptable justification for the imposition of licensing.

CONTACT - M-1

SUBJECT: Mining - Jurisdiction

CONTACT: R.J. Jones  
Industrial Mineral Div.  
Resource Industries (IT & C)

DATE: 1st Dec. 77

TEL: (613) 992-1581

Mineral resources come under provincial jurisdiction-except for NWT & Yukon. Applications for prospecting, mining permits etc obtained from provinces; foreign investment agency becomes involved if party/company not of Canadian origin.

CONTACT - M-2

SUBJECT: Mining - Minerals

CONTACT: Bill Beard  
Energy Mines and Resources

DATE: 26 Jan. 78

TEL: (613) 995-9351  
Ext. 173

Procedures indicated essentially same as researched from statutes. Individuals or companies with 50% canadian ownership are free to go anywhere on crown lands for exploration purpose; however staking licenses are generally required. A certain minimum must be spent each year on claims. Some provinces provide mining leases good for 21 years which are renewable, others may attach conditions to the leases requiring production within a fixed period of time.

If company is less than 50% owned by Canadians then the Foreign Investment Review Board becomes involved, however they are generally not too difficult to satisfy where exploration is involved.

In 1972 major tax reforms started coming into effect. Tax exemption policies, which effectively freed mines from taxation from 3-5 years following the start of production, were removed. The period between 1974 and 1977 saw large increases in taxes imposed on mining by the provinces, resulting in a 60/40 split in favour of the provinces of the tax funds available; prior to this the split had favoured the federal treasury. As of Jan. 1977 mining taxes ceased to be deductible for income tax purposes, but royalties were. In computing taxes, write off at the rate of 25% a year must be applied before earned depletions (\$1 for every \$3 spent on eligible assets) can be applied.



CONTACT - M-3

SUBJECT: Land Leasing - US

CONTACT: Mr Waldo  
Dept of the Interior  
Washington DC.

DATE: 2 Feb. 78

TEL: (202) 343-7753

It is not difficult to participate in the oil and gas exploration business under the "simultaneous filing" system. Effectively this is a lottery conducted each month by field offices of the Department of the Interior for non-competitive leases located mostly in the Western states. A number of tracts are made available each month for exploration purposes, these are listed and applicants may "take their chances" by filing a \$10 fee. Entrants are required to be US citizens and have the capability to pay \$1 per acre per year rental on the tracts should they "win" the exploration rights.

At the production stage leases are transferred to the US Geological Survey branch of the Dept of the Interior; oil and gas exploration is the only area where the simultaneous filing system is employed. All oil and gas exploration and production activities within the US are administered at the Federal level.

In the case of minerals, there is no universal policy with regard to jurisdiction, except where the federal government either owns the land or has patent rights to it. Outdated mining laws enacted in 1872 are still in force, and Congress is in the process of trying to change them so that all minerals will come under leasing arrangements; as the law now stands, anyone may stake claims, the only requirement being that they be registered with the local county offices and the federal government.

Jurisdiction over coal production is undergoing changes and both the federal and state governments are becoming deeply involved in the control process.

CONTACT - M-4

SUBJECT: Energy Management

CONTACT: Mr Crosby  
Resource Management  
Energy, Mines & Resources

DATE: 3 Feb. 78

TEL: (613) 995-9351

Within provincial boundaries provincial resource laws are operative. On federally owned lands within the provinces, provincial operational and conservation laws are allowed to apply; from the viewpoint of leases, these are treated in the same manner as any other leases in federally owned territory. If

CONTACT - M-4  
(cont'd)

an individual has freehold rights to a given property, the individual would determine the terms of the lease issued to any potential producer, otherwise the provincial laws would apply. The percentage of productive federal oil and gas land within the provinces is very small compared to that which is provincially owned. In 1930 all mineral rights which had not been alienated were turned over to the western provinces by the federal government.

The provincial governments proration production in accordance with market nominations. Prorationing is gauged according to the amount of oil and gas which is required for consumption within the province and the amount required for export purposes. The actual quantities produced for provincial consumption is a provincial decision only, that provided for export is dependent upon the amount authorized by the National Energy Board at the federal level.

There is apparently some doubt as to the rights of the provinces to proration since their effective control over production is limited to that produced for provincial consumption.

CONTACT - M-5

SUBJECT: Mining - Ont.

CONTACT: Dr Kluguman  
Mining Co-ordinator  
Ministry of Natural Resources  
(Province of Ontario)  
Kemptonville, Ontario

DATE: 18 Feb. 1978

TEL: (1) 258-3413

Policy objectives of the Ontario Dept of Natural Resources are to ensure that provincial mineral potential is exploited to the benefit of the maximum number of people. It is strictly a matter of economics but with the environmental constraints which exist today. Through various vehicles the department encourages and assists the development of minerals.

The department's role is essentially consultative; it interfaces between the individual and the professional consultant. Assistance can be provided under the mineral exploration assistance (MEAK) program under which the government will provide some degree of financial assistance.

CONTACT - M-5  
(cont'd)

The department also encourages mining activity by identifying certain mineral commodities which are not of the "glamour stock" variety. Locations are identified where preliminary tests have indicated that production would be economically feasible; private companies are then encouraged to take over the properties and produce.

Mineral resources of a province are the mandate of the province in which they are located, except in the case of uranium. In order to explore for uranium, a prospector requires a permit both from the Atomic Energy Control Board and from the province; from that point on the province is the principal monitoring agency although the AECB still maintains an interest since it is considered a critical commodity. Licenses are required to prospect on Crown land, claims must be staked and assessments must be done. On private land (where mineral rights are also the property of the surface owner) prospecting is a matter to be worked out between the individual and the land owner. Pit and quarry operations are not subject to licensing as mining operations, however they are subject to environmental controls.

In mining the situation is unique, operators are dealing with venture capital; in most other industries there are significant assets to show where capital is spent, however if the ore isn't present the money invested endeavouring to locate it is for the most part lost. For this reason venture capital is more difficult to come by and substantially more expensive. The reason Canada has such a good mining base is the fact that in the past the taxation structure looked upon mining as a high risk industry. The dual taxation scheme presently in effect is considered by many in the industry to be the largest single factor in discouraging its further development and expansion. For the first time in history no new mines have been opened in Ontario in over a year.

In Canada resources within the provinces are recognized as being within the jurisdiction of the provinces, and it is the mandate of the provinces to accentuate or highlight the local interests as they pertain to their economy. This is a healthy environment because provincial administrations are closer to the people. Although many of the states have departments of mines or their equivalent, they are relatively small organisations when compared to those of the Canadian provinces. The two major entities concerned with mining in the US exist at the federal level: the Dept of Geological Surveys and the Bureau of Mines.

Conflict between federal and state governments does exist, in fact there is more potential for chaos in the US than there is in Canada; a typical instance was the case where Minnesota endeavoured to tax ore inventories (unmined) and nearly killed the industry. In Canada the provincial government is the lowest administrative level which can collect royalties; by contrast such powers in the US are extended down to the county and the equivalent of the Canadian township governments.

CONTACT - M-6

SUBJECT: Mining - US

CONTACT: Doris Koivula  
Chief - Upland Mineral Leasing  
Department of the Interior  
Washington, D.C.

DATE: 21 March 1978

TEL: (202) 343-7753

Uranium is a locatable mineral and a prospector can go on certain of the federal lands and initiate a mining claim by staking it out; he can actually mine and extract the ore without further permission from the federal government. The government is presently in the process of controlling surface use, and regulations are being set out which will cover environmental restrictions.

Congress is working on an ammendment to the outer continental shelf bill. On-shore oil and gas regulations are not being changed, the only restriction in this case is that minerals cannot be purchased outright, they can only be leased. Leases are available to US citizens or US corporations; aliens may, however, have interests in American corporations. Typically, an American company wholly owned by Canadians could obtain such leases. This privilege is, however, limited to aliens whose countries allow similar priveleges to Americans. Italy, for instance, has nationalized its coal; hence Italians would not be allowed to hold a sizeable amount of stock in an American company in the coal mining business.

The Department of the Interior is responsible for checking applicants' qualifications, doing all the necessary environmental assessments, and finally issuing the lease. Once the lessee wishes to commence drilling operations, he must obtain a permit from the geological survey department which thenceforth supervises the operation.

Although much of the present oil and gas development has been on privately owned land, there is a lot of federal land open for exploration and development purposes. Prior to the OPEC crisis the federal lands were being leased and people were making money just trading in leases; not more than 10% of these were ever developed. There were approximately 100,000 leases and some 90 million acres under lease, but the percentage of activity was very small. However, things are changing because, with the increase in oil prices, people are now looking into areas where development and production had not previously been an economic proposition.

To encourage oil and gas exploration and development, there has been a 22  $\frac{1}{2}$ % depletion allowance in effect; however Congress proposes reducing this over a period of time, there has even been talk of eliminating it altogether. Our fear is that oil companies are holding back production. On other minerals there has been a 15% depletion allowance on non renewable resources; what the allowance is for locatables is not known.

The main problem the mining industry has to deal with today is public concern over the impact all this development will have on the environment. There are now a great number of pollution related laws (eg clean air, water pollution,

CONTACT - M-6  
(cont'd)

etc). Congress has now asked the Department to review all lands which are federally owned, and which are 5000 acres or more in size, to see if they have characteristics suitable for reservation as wilderness areas. This is in addition to all the lands already set aside for national forests, national parks, national monuments etc. Thus so much of the land that was open for mineral development before is no longer available for this purpose. This is curtailing activities right now; the end effect will be to restrict the potential of the domestic mining industry to the point where the country will have to start looking abroad for its minerals.

In the case of off-shore oil exploration and development, a nomination system is employed. Nominations are called for and the department lets the industry tell them the specific regions which they wish to develop. These nominations are carefully reviewed in co-operation with other agencies; there are a great number of regulations which must be adhered to during this process. Individual states become involved, and although they do not have any direct authority over activities in off-shore areas the federal government must ensure that the state administrations concerned will be co-operative from the viewpoint of getting the resources ashore, etc. The state administrations do not share in the revenues derived from off-shore activities, their major concern is with the potential effects on the environment.

In the case of on-shore development, individual states share in the revenues. The federal government has arrangements with them concerning land use, methods of development, etc. It doesn't matter so much about oil and gas, but coal mining, for instance, is very surface destructive. The states receive a share of the revenues collected from activities on federal lands; in the case of minerals which are not on federal lands, the state administrations have control.

All mining activities in the US are considered to be operating in a competitive environment, this being particularly true in the area of oil and gas.

NOTE: The term "locatable minerals" refers to those minerals included in the Mining Act of 1872 which may be prospected for and subsequently developed on Federal lands without obtaining prior authority to do so from any agency. The only requirement is that a claim must be staked and filed with the relevant authorities. Typical locatable minerals include uranium, copper, silver, zinc etc.

CONTACT - M-7

SUBJECT: Mining

CONTACT: Mr Spalding  
Mining Development  
Energy Mines & Resources

DATE: 12 May 1978

TEL: (613) 995-9351

Basically the metal mining industry in Canada is a mixture of large and small operations. We have a number of large integrated industries such as those which operate smelters as well as mines, and sometimes metal fabricating and metal forming activities. In terms of total assets, these larger companies predominate, and those which were large 15 years ago are still the large companies of today.

There are many other small operations also, including some 2,300 small mining supply companies, consultants etc. On the exploration side there is a large number of small companies as well as many major entities which probably carry out the bulk of the exploration.

In many cases the smaller exploration outfits have developed their finds and brought them into production; however the basic problem for them is to find the ore bodies, and the smaller groups just don't have the financing.

The success of the small prospector is diminishing, but there is always the possibility that they will find something. The department knows of cases where small prospectors have located valuable minerals and subsequently either developed them, or sold out to the major companies. The small prospector is still given encouragement, however he is no doubt finding it more difficult than in the past; it is probable that many of the small operators are concerned more with surface type exploration, while many become involved in the search for uranium using simple equipment.

The general trend is to the more expensive methods of exploration. Geophysical sophistication is difficult for the small operator to handle, particularly where deep ore bodies may be involved. Land is still available for prospecting purposes, licensing costs are nominal, and many provinces encourage exploration by operating schools for new prospectors.



CONTACT - T-1

SUBJECT: Road Transport Regulation

CONTACT: H. Upton  
Motor Carrier Regulation  
Transport Canada

DATE: 1st Dec. 1977

TEL: (613) 992-9107

Transport Canada no direct regulatory function over motor carriers except in case of extra-provincial sales situations. Result of Federal Transportation act of 1954 which passed administration of motor carriers to provinces along with intra administration.

Inland water, railways and air transport come under Federal jurisdiction; regulatory aspects are handled by CTC.

CONTACT - T-2

SUBJECT: Extra-provincial Transport - CTC

CONTACT: Mr Upton  
Regulatory Review & Impact  
Transport Canada

DATE: 26 Jan. 78

TEL: (613) 992-9107

CTC only involved in extra-provincial transport to the extent of:

- 1) approving the sale of existing extra-provincial transport operations, and
- 2) administering the Lord's Day Act.

Note: licensing per se, is handled by the provinces.

C ONTACT - T-3

SUBJECT: Road Transport - Ont.

CONTACT: Mr Thompson  
Highway Carrier Licensing,  
Govt of Ontario  
1570 Walkley Road, Ottawa

DATE: 26 Jan. 78

TEL: (613) 731-1760

PV and PCV Licensing of Highway Carriers

Application procedure for service within the province:

1. complete transportation application form specifying desired route/s
2. submit application to the Ontario Highway Transport Board
3. the application is gazetted
4. hearing is held requiring applicant to justify the need for the service and providing others with the opportunity to file objections to the proposed service.

In the case of extra-provincial applications, the same basic procedure is followed however the granting of the license by the OHTB is subject to complementary authority being granted by the other provinces.

A prior requirement is that the applicant have the necessary rolling stock to satisfy the proposed service.

In the case of extra-provincial operations, Mr Thompson indicated that the licensing is independent of the CTC and strictly a matter between the provinces.

CONTACT - T-4

SUBJECT: Truck & Bus - Operation USA

CONTACT: Mr Hughes  
American Trucking Association  
Washington

DATE: 2 Feb. 78

TEL: (202) 797-5241

A certificate is required from the ICC to operate more than two trucks in inter-state commerce. Intra-state operations are under the jurisdiction of individual states, the policies governing entry and operation varying from state to state.

In the past there have been complaints that ICC processing of interstate rights are slow and tedious, particularly in the case of new services. Attempts are

CONTACT - T-4  
(cont'd)

being made to improve the situation by the elimination of frivolous protests; typically a company could not enter a protest if it was not operating. Now the ICC is granting about 83% of the requests.

Requirements for intrastate operation vary but in most cases a certificate of public need for the service is an essential entry requirement. Once a prospective operator has obtained a certificate, he is given 30 days to comply with other requirements such as insurance, licensing, filing of tariffs etc.

Insofar as the carriage of commodities is concerned, ICC certificates are usually written the way the applicant applies for it, or in some cases they may be made a little narrower. Some states follow the federal requirements regarding commodity carriage by intra-state operators, while others have their own arrangements. However the legal structure within the US differs from that in Canada in that the states have no jurisdiction whatsoever over the type of commodity carried by inter-state truckers. Trucking companies do however, have to conform to state laws regarding vehicle licensing, size weight etc.

CONTACT - T-5

SUBJECT: Road Transport - Freight

CONTACT: A.K. Maclaren, Pres.  
Canadian Trucking Association  
Ottawa

DATE:

TEL: (613) 239-9426

The trucking industry is regulated at the provincial level and even though there is federal jurisdiction (decided by the Winter Case in the 1950's) Ottawa was not in a position to regulate. The Motor Vehicle Transport Act of 1954 was passed to provide the federal government with regulatory powers; the federal government adopted the provincial laws, then delegated the authority to the provincial boards to regulate extra-provincial in the same manner as they did intra-provincial trucking.

The National Transportation Act of 1967 provided for direct regulation of trucking by the Federal Government. The philosophy of the act recognised that there was then a significant amount of intermodal competition between rail and truck, bus and rail, air and rail etc. so that the railways no longer required the degree of regulation which they had been subjected to up to that time. The 1967 act freed the railways from rate regulation, there wasn't much of an issue on entry regulation because it was not apt to be a frequent event. Thus railways were freed from direct rate regulation and included Part 3 of the Act to deal with the regulation of trucking, but it was never implemented.

CONTACT - T-5  
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At one point the trucking industry wanted federal intervention in the regulation, then subsequently for a variety of reasons decided against it. As the situation presently stands trucking is regulated at the provincial level and there is a wide degree of disparity between the regulatory requirements from province to province. It varies from free entry, to regulated entry, to regulated entry with rate regulation. Alberta allows free entry to intra-provincial trucking operations, BC, Sask. Man., Que. and Nfld regulate both entry and rates in one way or another. Ontario and Maritimes regulate entry, but don't regulate rates - rates are only filed. In extra-provincial operations, only Quebec attempts to regulate rates into and out of the province.

The problem was probably greatest in the late 1950's and 1960's when the industry was expanding and operators were moving out from local to extra-provincial services. However, in spite of the difficulties encountered in operating in such an environment, extra-provincial trucking flourished and grew; today it accounts for 42% of the freight revenue dollar for all modes.

There is now a new transportation bill (C-33 in the last session) which purports to change things back again and more or less intends to do what the communications bill is supposed to do for the CRTC. It gives the discretion back to the bureaucracy to issue directions etc. and introduces a measure of rate regulation. That bill was very heavily attacked by every mode of transportation and virtually all the shipper groups for the same reasons: the nebulous principles which were set out as to how the law was to be implemented, and the discretionary powers given to the minister which would make the regulatory process ineffectual in terms of certainty. A regulatory agency is necessary and it should be provided with guidelines, however if the minister is free to change the guidelines at will it removes the main value of the regulatory process - that of providing a degree of certainty to the guideline which will be used in arbitrating disputes when they arise.

In the trucking industry, the question of entry is an important aspect of regulation. In rail, entry is not important, in air transport it is still important for the third and fourth level carriers. From the viewpoint of rate regulation - well many transport economists have attempted to show that non regulated provinces have lower rates than regulated provinces; some of our regulated provinces such as Saskatchewan have the lowest rates of all but the mix of freight, distances between cities, degree of rail competition etc vary so much from province to province that it is virtually impossible to reach any meaningful conclusions.

These problems have not prevented growth in the industry, there are now 13000 truckers in Canada. During the past year, select committees have been looking into regulations in Alberta and Ontario; in Alberta the committee concluded that intra-provincial transport did not need regulation because the provincial economy is good and there's enough business for everybody. On the extra-provincial side, regulation is necessary in order to have some control over who is going through the province.

In Ontario, the committee started off the review because of the illegal operators who were managing to get around the regulatory system. After detailed

CONTACT - T-5  
(cont'd)

examination the committee decision favoured regulation of intra-provincial transport because although it is an entrepreneurial type business it is an utility also because of its service to communities; no assurance of continued service to communities can be given unless entry is regulated. Most truck lines subsidize one part of their business with another, hence operations functioning between major cities provide services along the route to smaller centres as part of their service requirement.

If the regulatory system were to be abolished, the very large truckers would benefit because they could avoid handling freight which is not profitable to them. They are well established, with large efficient terminals and distributing arrangements in all the major centers, and sophisticated communications networks etc. which would tend to isolate them from ruinous competition. The difficulties would occur at the medium level of the industry. Half the capital in the industry today has been acquired on the basis of long term loans. By and large truckers pour everything back into the business, the basic incentive is to build their franchises into something which will have a high resale value. The crippling thing for the small operator is insurance; the large operator gets a rate based on his performance. Operators are taxed and licensed in all the jurisdictions and there are spill over problems there involving extra payments, and the provinces don't have reciprocity on fuel payments.

Now with the threat of the federal government entering the picture, the provinces are finally getting together for the purpose of dealing with some of these issues. Finally, for instance, extra-provincial truckers have an uniform bill of lading, previously every province had their own. The trucking industry feels that extra-provincial licensing should be handled by the provinces working in co-operation with each other. The road transport industry has finally convinced the federal government to back off on Part 3 of the Act, and it is now working with the provinces. The provinces have grown less parochial in their attitudes towards the problems of the industry, and are now starting to work together well.

In the US, interstate transport is administered by the ICC, an agency which is presently under attack by deregulators. ICC regulation is comprehensive but over a period of time it has been encrusted with judicial interpretations which limit the commission's ability to be flexible. Motivators of policy changes relating to new entries talk in terms of turning things around by requiring existing operators to demonstrate that new entries are not in the public interest, rather than to require the applicant to produce evidence to the contrary.

The courts have ruled that Canadian federal jurisdiction over extra provincial operations is over the transport undertaking; by contrast, ICC's jurisdiction is over the commerce. If any business crosses provincial boundaries, the entire transport enterprise is subject to federal regulation in Canada; ICC regulation only applies to the individual trucks and commerce which actually cross state boundaries. Up to five years ago only 25% of truck transport revenue was derived from extra

CONTACT - T-5  
(cont'd)

provincial revenues yet more than 65% of the industry's revenue total came under federal jurisdiction.

Regulation is not the kind of closed door thing it is sometimes reputed to be. In Ontario there are now more for-hire truckers of every licensed class than ever before, a rare situation in a regulated industry which has reached maturity. Recent indications are that the Ontario Highway Transport Board approve about 80% of the applications for new franchises; some 13000 for-hire trucking operations exist in Canada, between 200 and 300 of which account for half of the road transport freight revenue dollar.

CONTACT - T-6

SUBJECT:

CONTACT: G.H. Collison  
Licensing & Inspection Div.  
Air Transport Committee  
Ottawa

DATE: 22 Feb. 1978

TEL:

The CTC is responsible for the administration of the National Transportation Act of 1967, the main objective of which is to provide the Canadian people with an economic and efficient system which makes optimum use of all available transport modes. The Commission is made up of a number of committees, one of which is responsible for air transport.

A major concern of air regulations is that of ensuring that a reliable and acceptable grade of air service is maintained on all established air routes, and that the resulting revenues provide the degree of viability necessary for their continued operation. These objectives are realized by controlling access to the industry.

Six "levels" of air carriers exist, comprising the following:

- Level 1: Air Canada and CP Air which operate on the transcontinental routes.
- Level 2: Regional carriers which include PWA, Transair, Nordair, Quebecair and Eastern Provincial Airways.



CONTACT - T-6  
(cont'd)

Levels 3, 4, 5: Carriers which do not belong to Levels 1, 2 or 6, their specific level being determined by the amount of their annual gross revenues. These include all other carriers licensed to provide passenger, freight or other forms of specialized service.

Level 6: Carriers licensed as flying clubs whose activities are largely devoted to flying training.

No one is denied the right to apply for an air franchise, however it is up to the applicant to convince the commission that public need for the proposed service exists. New air companies must be incorporated in Canada, two thirds or more of their directors must be Canadian citizens, and the CTC must be satisfied that they are financially capable of providing and maintaining the equipment, facilities etc essential to the proposed services.

CTC regulation does not protect all levels of air service to the same degree, more attention is given to the more important carriers. Typically the level 1 and 2 operators receive maximum protection in or to ensure that vital national and regional routes are not allowed to depreciate as a result of competition. At lower levels, the degree of protection is not as great and access into the industry is more readily realized.

CONTACT - T-7

SUBJECT: Extra-Provincial Motor Transport

CONTACT: Mr Robert Martin  
Motor Vehicle Transport - CTC

DATE: Feb. 1978

TEL: (613) 997-1080

The main motivation for entry control is "public convenience and necessity" however none of the regulators are really in a position to give a classical definition of "public convenience and necessity".

Until 1954 the motor vehicle industry was going but was not really significant in Canada in terms of competition, but it became so shortly after. Until 1954 all motor vehicle regulations in Canada, both intra-provincial and extra-provincial, were handled by provincial governments. Then a man by the name of "Winner" got caught in New Brunswick on some form of offense; he fought the issue by informing the New Brunswick government that they had no control over him because he was an American bus operator. The case went to the Supreme Court and it was actually the final Canadian case handled by the Privy Council in London - since known as the "Winner Case".

CONTACT - T-7  
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The Privy Council determined that extra-provincial transportation, whether of goods or passengers, was a federal government responsibility. The decision caught the federal government off guard. At that time there could have been anywhere from 5 to 10 thousand extra-provincial truckers who, ipso facto, came under federal rule, and the government was neither ready nor interested in taking over this type of jurisdiction.

The result was the Motor Vehicle Transport Act of 1954. In this Act, the federal government in effect turned over their responsibility (not their jurisdiction) to the provincial transport boards; the provincial boards thus became agents of the federal government. The Act is short and simply states that the provincial boards are to administer or regulate the extra-provincial trucking industry going out of or coming into their provinces in the same way that they would administer or regulate their intra-provincial transports. Thereafter the provinces merely maintained their normal procedures but they were acting under federal law when dealing with extra-provincial transport. It has been that way ever since, except that in 1967 the National Transportation Act was adopted. Part 3 of the Act governs the regulation of extra-provincial motor vehicles.

Ostensibly at that time the federal government had brought all modes of transport in Canada under one umbrella (the Canadian Transport Commission), and was in a position to assume responsibility for extra-provincial motor vehicle carriers; however the provinces objected. The provinces have some fairly strong arguments on their side. The provinces have complete jurisdiction over the construction of the highways, hence they feel that they should have a major say in matters relating to who should be allowed to use them - and this has been the essential basis of the provincial argument ever since 1967.

Entry control is primarily based on "public convenience and necessity" as interpreted by the provincial boards; however provincial regulations affecting various types of motor transport operations vary from province to province. Typically some provinces may not regulate farm produce carriers, while others will not only if the producer provides his own transportation. Provincial regulatory differences have greatly complicated the licensing of extra-provincial motor carriers, however these are slowly being reconciled through the CCMTA. The Canadian Conference of Motor Traffic Administrators is an association which includes individuals in all provincial agencies related in any way to the authorisation of motor transport operations. Meetings are held once or twice a year or more; their major objective over the past fifteen years has been to develop and put into effect a uniform code for the regulation of extra-provincial motor transport across Canada.

CONTACT - T-8

SUBJECT: Pipeline Transportation

CONTACT: Mr G. McLaughlin  
Chief-Bulk Freight Studies  
Canadian Transport Commission

DATE: 9 Mar 78

TEL: (613) 997-6541

In discussing pipelines it is necessary to make a distinction between those which carry liquid or gaseous hydrocarbons which are directly used as an energy, and lines which carry solid commodities in granular form in a liquid. Pipelines carrying any form of energy product across provincial boundaries are regulated by the National Energy Board, while commodity lines crossing provincial boundaries come under CTC regulation where the content of the line may be a combination such as granular coal and oil, then the regulatory jurisdiction would be shared by the CTC and the NEB.

Any control of ability to construct or invest in pipelines would end up in one or others of the aforementioned regulatory bodies if the installation was of any consequence or size. Any commodity pipeline across provincial boundaries would make application under Part 2 of the National Transportation Act. The application requirements are essentially the same as those for a company applying for the right to construct and operate an energy pipeline; typically these would include a certificate of public need and convenience which would be subject to a number of public interest tests. The applicant must demonstrate that he is financially viable, that his proposed rates are reasonable, that the installation will be acceptable from an environmental point of view etc.

In any application for a certificate of public need and convenience, notice would be put in the Canada Gazette; anyone interested in intervening could bring forth such arguments as they see fit, and the commission would look at anything it deems necessary to assess the public interest. Typically intervenors such as the railway unions could claim that the pipeline is not labour intensive. There has been one such case in Canada; a proposal was made by Shell-Canada to build a sulphur pipeline. It was primarily to form a company which had the right to construct and operate such a line, however it never developed.

In the case of oil and gas pipelines, the operating companies are generally owned and controlled by the oil company or companies making use of the line.

Oil companies want to treat the pipeline as a cost center and generally want to have an investment in the pipeline company. Generally the percentage of a company's interest is at least proportional to the amount of use made of the line by the company concerned. A company is in a bad position if its percentage interest is low, and good if its high because it can place the organisation in an advantageous position relative to its competitors.

There have been a number of proposals to build commodity lines in Canada: coal lines in the Kootenay area, sulphur lines in Southern Alberta, iron ore lines down the Labrador through area down to Sept Iles, etc. However none have been realized to date, although in some cases the proposals have acted as good rail

CONTACT - T-8  
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rate levers. This was particularly true in the 1960's when the railways weren't quite familiar with the capabilities of commodity lines; as a result there were many cases where rate advantages were obtained from the railways.

During the early 1970's both CN and CP became involved with pipelines. CP formed a research and development company, and it was through this company that CP became well aware of what the advantages and shortcomings of a pipeline operation were. At the same time CN formed a parallel group, internally to itself, and they developed the same expertise.

At the present it doesn't appear that anything significant will happen in the commodity pipeline field in Canada for some time to come. Competing transport modes are well aware of the fact that pipeline viability is dependent on a very high volume of movement, and mining operations in Canada just don't have the sustained production volume needed in most instances. The potential for using pipelines was examined in the case of moving coal from western to eastern Canada for Ontario hydro; to be competitive with other transport modes at that time approximately ten million tons a year would have had to be carried. As it turned out, only three million tons were required annually, with the potential for five or six million in future years.

From an economic point of view, the pipeline is capital intensive and not flexible to varying load conditions. It has to be designed for the highest capacity that will be required of it over the life of the installation, all capital expenditures being made at the time of initial construction. Unless an adequate and sustained throughput can be maintained, financial disaster will result; hence it is only viable in situations where high volumes can be brought on quickly and maintained.

There are two coal slurry lines in the US. One is 273 miles in length and carries about five million tons a year. It is from a mine in the middle of the Mojave desert with virtually no access. When first built five or six years ago, the only alternate was for the railway to construct about 120 miles of feeder line. There are a lot of lines in other areas of the world however, where no infrastructure has been developed and the terrain is rough; typically in Chile a line for copper, Tasmania lines for iron, two coal lines in the Soviet Union, etc. The potential in Canada is for 40-50 mile lines running from mine areas which do not have rail access because of muskeg or rough terrain; coal slurry would be transported to the nearest railhead only.

From the viewpoint of investors, pipelines are high risk ventures and unless there was something in the order of 40% return on equity it is unlikely that many would be interested. Since the capital investment involved is extremely high, there are few in a position to initiate such enterprises. The biggest potential investors are either the oil companies, who are already in the pipeline business, who consider for corporate reasons it would be good to get into the pipeline business; oil companies are already in the coal business. The other potential investors are the railways; the Mojave desert pipeline is operated by the Southern Pacific Railway, companies such as CP would become involved in Canada simply for the purpose of maintaining freight revenues.

It is possible that provincial and federal government energy policies might do well to include provision for a capital intensive transportation system for the purpose of maintaining low costs for thermal energy on a long term basis, typically by providing a pipeline to transport coal from the west into eastern markets.

CONTACT - T-8A

SUBJECT: Commodity Pipelines

CONTACT: Mr C. McLaughlin  
Chief - Bulk Freight Studies  
CTC

DATE: 18 April 78 TEL: (613) 997-6541

The certificate of public need for a commodity pipeline is treated somewhat differently from the method used by the NEB in granting a certificate for a gas or oil pipelines; this is primarily because the mandate of the commission is somewhat different from that of the NEB.

The CTC's concern is primarily with the safety and public interest aspects of the new construction; the commission is less interested in the implications of competition, export information, and the rate structure. The certificate to construct is a soft type of requirement, primarily because the CTC has no engineering staff to handle this aspect.

The Commission would require fairly detailed information on how the line is to be designed - one of their main concerns being that applicants are sincere and are not simply using the application as a means of leveraging freight rates in other transport modes. There would be the requirement to demonstrate that the application is from a responsible applicant who is serious about constructing the lines. In such instances, the certificate would be somewhat similar to what the NEB would issue, but there would be limited direction with regard to the engineering design, route location, etc., which the NEB are generally very much concerned with. The Commission would require information re environmental factors, and co-ordination with other relevant agencies.

In brief, the CTC technical requirements would not be particularly stringent, the main concern being that pipeline applications are genuine and are not being used as an instrument for upsetting existing rate structures of other transport modes. Since the Commission has responsibility for other transport modes, hearings would also be concerned with the effects of the pipeline on other methods of transportation. Interventions against the project would arise primarily on issues relating to the effects in other methods of transportation.

Competition exists primarily at the outset, however once the decision has been made and the shipper has committed himself to the pipeline, there is no opportunity for competition to develop in the immediate future. Ultimately improved technology may lead to cheaper and more efficient techniques, at which time further hearings may be held on the grounds that competition was developing, much in the same way that hearings would be held for propositions involving the construction of slurry lines which parallel existing rail services.

From a practical viewpoint, commodity lines must be considered to be monopolistic once established. If such installations are not owned by a transport entity such as the railway, then the chances are that the shipper and/or the consumers will be financially involved. Typically, an utility might have equity ownership in such a venture; in such circumstances the facility would be treated as a cost center.



CONTACT - T-9

SUBJECT: Transportation - US

CONTACT: A. Brown  
Chief - Public Relations  
Interstate Commerce Commission  
12th & Constitution Ave.  
Washington, D.C.

DATE: 21 March 1978

TEL: (202) 655-4000

In the transport field, the ICC exercises jurisdiction over road and rail operations, and over some areas of pipeline and water transport. Former jurisdiction of the oil and gas pipeline industry has been transferred to the Department of Energy.

Truck and bus companies for the most part require ICC approval to operate in interstate commerce as common or contract carriers. Private carriers require no approval, nor do other carriers whose operations are confined within state boundaries; separate state agencies exist to regulate all intra-state carriers.

In the case of interstate transport, applicants for common and contract type authorisations must file with the ICC. They are required to satisfy the commission that the proposed operations are in the public interest. Applications identify the points between which transportation is to be provided, and include some form of shipper support to indicate to the commission that the applicant will have a market for his services if ICC authority is granted. The operator must also file his rate structure.

Protests may be filed against any application; it is up to the ICC to weigh these together with other factors such as public need for the service, economic feasibility, etc. in deciding whether or not the application should be approved.

At the moment, the ICC is reviewing its methods of regulating the trucking industry with a view to simplifying entry. A major problem is created for potential newcomers by larger operators who automatically file protests against any new service; the Commission is seeking ways to eradicate the delays caused by indiscriminate use of petitions.

Generally speaking, the road carrier industry is financially healthy. The major problems relate to the heavy opposition met by prospective truckers wishing to enter the business, and a rather widespread and erroneous attitude that the Commission itself is not encouraging new applications; in actual fact, statistical data indicates that 80% of the applications filed with the ICC are approved.

ICC authority over oil and gas pipeline transportation has been transferred to the Department of Energy. The Commission is still responsible for the administration of interstate commodity pipeline operations, only one of which presently exists.



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The Commission approves the issuance of securities for all transport modes under its jurisdiction. It approves rate requests from the railway companies, regulates the utilisation of freight cars, and deals with requests for line abandonment and the construction of new tracks.

In the US, some railroads are prospering while others are fighting for their existence. Those in worst shape are in the northeast corridor, the former Pennsylvania Central and other companies which have since been amalgamated into CONRAIL. By contrast, western railroads such as the Chesapeake & Ohio, Southern Pacific etc. are doing well. All revenue is derived from freight.

AMTRAK now runs most of the nation's rail passenger services. When AMTRAK legislation was enacted in 1970, the railroads were given the choice of either handing over their passenger equipment and services to AMTRAK (a quasi-government operation) or of continuing to run it themselves on the stipulation that the services involved could not be discontinued for a period of five years, regardless of profitability. At that time, all railroads were discontinuing passenger service because of unprofitability; Southern Railroad was the only one which retained its passenger service and did not hand over to AMTRAK.

Some AMTRAK routes are profitable while others are not; the basic problem lies in the public's lack of interest in rail passenger services. Routes such as the Washington-Chicago, New York-California, etc. are not and never will be profitable because of air and road competition. On the other hand, routes such as Washington-New York are very profitable because the trip takes less time than air transport.

From a regulatory point of view, entry into the railroad business is not a matter of concern; occasionally short extension spurs may be constructed. The major problem the industry has to face today is the high cost of maintaining rolling stock and tracks.

In the case of water transport, there is overlapping jurisdiction between the ICC and the Federal Maritime Commission. The FMC has most authority over water transport, the ICC is limited to control over intercoastal barge lines which represent only a minor portion of the overall water transport activity.

CONTACT - T-10

SUBJECT: Air Transport - US

CONTACT: Mr McCarthy  
Air Transport Association  
1709 New York Ave., NW  
Washington, DC

TEL: (202) 872-4205

US Airlines are presently involved in a debate that ranges from the local community level through to Congress, the Administration, and among the airlines themselves on the question of "regulatory reform".

Since 1938 we have been regulated on routes and rates by the Civil Aeronautics Board, and on technical matters by the Federal Aviation Administration. Present laws require that the CAB certificate any inter-state carrier; not only do you have to prove that you are fit, willing and able, but you must also meet the tests of public need and necessity.

The ATA represents virtually all of the certificated scheduled airlines; 24 US airlines are members, Air Canada and CP are associate members.

If a city wants a new service which an airline wishes to provide, or additional service on a route on which a carrier already exists, an hearing would be held before the CAB at which the applicant would be required to establish the requirement for the service. There would probably first be an evidentiary hearing before an examiner, and subsequently before the CAB itself.

In addition to the certificated carriers, there are the supplemental (2nd level) carriers; an example would be WORLD AIRLINES which deal mainly in charter operations in both the passenger and freight fields. There is also the "third level" category of carriers; for the most part these comprise the "commuter" or "air taxi" operators. The "commuters" are smaller aircraft which operate on a more or less regular schedule. Third level carriers are not subject to the same stringencies with regard to entry and exit controls as are the Level 1 carriers.

When the airlines are in agreement on any issue, the ATA is then able to represent the industry's position; however, when the airlines are split the association is unable to take a position. When de-regulation of the airline industry was first proposed some three or four years ago, there was unanimous opposition and the ATA was able to speak out. Now the airlines are split, some would say "yes, give us deregulation". Others would say "No, we don't want it, keep the present system"; and in the middle are some who would accept part of the proposals but not all of them.

The Cannon-Kennedy Bill provides for automatic entry, a certain number of new routes in the first year, more in the second year etc. This would be a great step towards deregulation, and one which provides flexibility on rate structure. Rates can be raised 5% in a given year without CAB interference and you can drop them by nearly 50% when discounts are allowed for.

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No clear line of demarcation exists between airlines supporting deregulation, and those which don't. "UNITED" (the largest private airline in the world) and WESTERN (one of the smaller airlines) both favour the Cannon-Kennedy proposals; AMERICAN AIRLINES and DELTA are against the bill. There is no economic line of demarcation from the viewpoint of airline size which could be used to separate proponents from opponents. Supporters of the bill refer to it as "regulatory reform", while those in opposition refer to it as "deregulation"; in terms of automatic entry and in terms of rate flexibility it is to be considered a sweeping step away from the present system.

At present there is a widespread network of scheduled services, and there is a quasi-utility nature about the service. Some feel that under deregulation, rates would be cheaper hence more people would travel and maintain the profitability of the airlines; on the other hand if everyone rushes in to provide service on the more lucrative routes, the nationwide system will suffer.

It is difficult to say how proposed changes will affect the industry. However, regardless of what the fate of the Cannon-Kennedy bill may be, it should be remembered that jet fuel costs have risen from 11¢ to 38¢ a gallon since the oil embargo in 1973, each penny of increase costing the airlines about \$100 million a year; labour costs have risen 61% in the past five years; and landing fees are up 69%. Deregulation will not reduce these costs, hence it is highly problematical what the end results will be in terms of rate and fare levels, and what the results will be in terms of who will be in a position to enter.

CONTACT - T-14

SUBJECT: Motor Bus Operations - US

CONTACT: Mr F.H. Mueller, V.P.  
National Assoc. of Motor Bus Owners  
1025 Connecticut Ave NW  
Washington, DC

DATE: March 1978

TEL: (202) 293-5890

One of the most critical problems facing the industry today is the long-term decline in traffic carried on scheduled regular route services. During 1976 a total of 112 million passengers rode regular route intercity services of Class I carriers; this volume of business compares to approximately 154 million for the same carriers in 1966, a decline of some 27 percent during that 10 year period. Passenger miles dropped 20 percent during that decade.

The causes for this decline lie in social, economic and political trends over which the industry has had no control. Rising affluence eroded the traffic base of the intercity bus industry as multiple car ownership by each family increased; trends toward urbanization reduced the traffic from rural communities, and in recent years high inflation rates and unemployment have adversely affected those people who make up the bulk of the bus travel market.

The deterioration of the inner city in large urban areas has obsoleted station locations, and the costs for relocating and rebuilding bus terminals are exorbitant relative to the average fares charged. Competition from alternative subsidized modes has been particularly significant, and has adversely affected companies operating on parallel routes.

Both of the two public modes of transportation which compete with the intercity bus industry receive substantial federal subsidy. The regularly scheduled airlines do not pay fully their share of the expenses of operating the federal airways system. In addition, local service airlines receive direct subsidy to enable them to provide service to smaller communities throughout the country. Intercity rail services provided by AMTRAK receive substantial operating subsidies as well as capital grants to permit the acquisition of new and improved locomotives and trains and to improve roadbeds to permit faster service.

In 1976 AMTRAK generated 4.3 billion passenger miles of traffic and, along with baggage, sleeping car, dining car, and other services and state and local assistance for commuter and other service, generated \$287.2 million in revenue. Its total expenses were \$756 million, or 17.7 cents for each passenger mile carried. With revenue from all services averaging 6.7 cents per passenger mile, it incurred a deficit of 11 cents per passenger mile.

The nation's local service airlines receive approximately \$70 million annually in subsidies, and provide air service only to about 200 communities, including many of the largest cities in the country. Despite these federal payments, since 1965 the local service airlines have suspended flights at 130 locations while adding service only at nine. Legislation has been proposed recently to extend the subsidy program to commuter airlines. This would further heighten air competition to the bus industry.

CONTACT - T-14  
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On the other hand, not only is the bus industry not subsidized but according to studies on federal aid made by the Department of Transportation, the intercity bus industry pays approximately 25% more in user charges for use of the nation's highway system than the highway costs attributed to it.

Current preoccupation of the federal government with proposals to increase competition in the transport industry is of vital interest to bus carriers. While many bus operators would not be opposed to deregulation, they would strongly object to the removal of entry requirements if controls were to remain on exit and pricing. Even if exit controls were removed at the federal level, problems would still remain at the state level. Since most bus companies carry intrastate and interstate traffic on the same vehicles, permission to discontinue one does not absolve the operator from continuing to provide the other.

CONTACT - T-15

SUBJECT: Oil/Gas Pipeline

CONTACT: Mr Tom Walton  
Pipeline Group  
CTC

DATE: 18 April 1978

TEL: (613) 996-0271

Pipeline approval is contingent upon the issue of a certificate of public need by the NEC. Applicants must demonstrate public need, economic feasibility and that a market exists for the transported product. In the case of gas pipelines, sufficient gas must have been contracted for to serve the life of the line; oil pipelines are exempt from this requirement because oil is not purchased on a long term basis. Essentially similar controls exist at the provincial levels, however company's do not need to be federally incorporated.

In the case of the natural gas, pipeline ownership is largely independent; typically, oil and gas industry financial equity in Trans-Canada Pipelines is only incidental. By contrast, oil pipeline ownership is frequently in the hands of oil company consortiums.

Oil pipeline activities are essentially monopolistic because duplicate or parallel lines must be justified from a public interest viewpoint before they can be constructed. Such approvals are unlikely to be granted in cases where lines exist which are capable of transporting the volumes required over the routes concerned.

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A similar argument applies to natural gas lines; in the case of Trans-Canada Pipelines however, a franchise has been granted to the company to transport natural gas between Alberta and Ontario, hence they have a monopoly along the route. In spite of this monopoly however, the Saskatchewan Power Company was allowed to construct a parallel line to carry gas from Alberta; permission was granted only because it was demonstrated that the second line was cheaper than effecting the extensions necessary to feed to gas to TCP in Alberta and picking it up again in Saskatchewan.

Although oil and gas pipelines are effectively monopolies once in situ, there is nothing to prevent a new entrant from applying for permission to construct lines in areas where none presently exist, and where oil and gas are presently needed.

CONTACT - T-16

SUBJECT: Natural Gas Pipelines - US

CONTACT: Mr Lathom  
Office of Pipeline & Producer Regulation  
Federal Energy Regulatory Commission  
Washington, DC.

DATE: 18 April 78

TEL: (202) 275-4493

Interstate commerce in natural gas pipelines is regulated both in terms of certificate authorization and rate treatment. US pipeline companies are jurisdictional companies, but they are not utilities like distribution utilities, although they are close to it. In the case of oil lines, no federal authority is required to construct, however there are environmental and other similar regulations which they must adhere to; in other words there is no equivalent to the NEB authorization necessary for gas pipeline construction.

There is no bar to entry per se; anyone can form a company and apply to the FERC to build an interstate gas line. The application is actually for a certificate of public convenience. However, a new entrant to the business would be carrying a heavy burden to show why the project is in the public interest. The entrant would find particular difficulty in meeting the "ready, willing and able to construct and operate" conditions if he has limited experience in the field; it would be difficult to demonstrate financial adequacy, and that he had the ability to manage and run a pipeline corporation.

Hence the major applications which come before the FERC are corporations which are already in the business. In the US there is a wide range of corporations which know the business; inevitably run applications are from existing corporations, or consortiums of existing companies. While there is theoretically no bar to entry, as a practical matter the resources, the talent, the tradition, product acceptance etc., would present an immense problem to anyone starting into the business. Entry into intrastate operations is a "mixed bag" inasmuch as regulations vary from state to state.



CONTACT - T-16  
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The most important public needs tests which are applicant must meet relate to demonstration of the fact that the proposed project is an economically viable proposition. In dealing with the marketing aspects of his plan, he must define what the ultimate extent of the market for the gas is, and what customers exist. In the case of inter-state pipelines the customers are the local distribution companies, municipalities and/or other pipelines.

The company's financing plans must be laid out in detail, and must be integrated with current economic conditions to ensure that they are realistic.

An engineering plan covering system installation must also accompany the application. This is expected to be as close to the final design filing as it is possible to make it at the time of the application; in general these plans will show the pipeline location within plus or minus one half mile of its ultimate location.

Detailed tariffs must be filed together with breakdowns showing the method in which they have been structured.

An environmental statement must be filed in accordance with the National Environmental Policy Act to permit an assessment to be made on potential environmental effects; the Act specifies five major areas which must be covered, and a whole body of techniques have grown up for developing an impact statement which is quite formalized and very comprehensive. This creates a front-end cost; preparation of the statement itself is expensive because of the consultant work involved in the collection of data and its preparation. Typically to study of historical sites along the route alone involves thousands of dollars.

The Department of Transport has jurisdiction over pipeline safety. Any pipeline operation wishing to cease operation must file to abandon with the FERC.

Basically, in the vast majority of cases the US industry is broken down between producer, pipeline, and distribution companies. The producers are the major oil companies plus the dozens of small independents; 95% of the gas flowing in interstate commerce would be produced by major oil companies. Then we have the pipeline industry which is made up of 100-120 jurisdictional entities who stay largely with natural gas transmission; these operators purchase the gas from the producers and subsequently sell it to the local distributors. Finally, there are the local utilities, which are franchised municipal or private distribution companies, which buy from the pipelines and distribute the product to local industry.

The gas pipeline industry is essentially monopolistic, and this is the reason why they are so heavily regulated. However there is some degree of competition in that there are so many lines coming up the east coast that there is overlap; hence multiple situations exist where distribution companies obtain gas from more than one line. There is no franchised territory granted to a pipeline equivalent to that granted to a local utility. However, once a pipeline is established and is serving a specific region, then it would be extremely difficult to show the public need for a parallel pipeline; thus such installations are essentially monopolies.



CONTACT - T-17

SUBJECT: Oil Pipelines - US

CONTACT: Mr Leon Slavin  
Office of Pipeline & Producer Regulation  
FERC - Washington, DC.

DATE: 21 April 78

TEL: (202) 275-4420

Within ten days of commencing oil pipeline operations, the operating agency is required to file rates with the FERC. There is no control over the initial rate, control exists only in subsequent situations where rate changes are being applied for.

A typical case arose in the Trans-Alaska Pipeline situation. The initial rate set by the pipeline company was accepted then subsequently protested. Following an ICC hearing into the case, the ICC suspended the rate and devised an interim rate. That action on the part of the ICC (which formerly controlled oil pipelines) is being challenged in the Supreme Court on the basis that the ICC only had jurisdiction over rate changes. Under the certification concept used in the case of natural gas lines, the initial rate is considered to be sure that it is in line with "public need and convenience"; if the rate appeared unreasonably high, then certification would be denied.

Generally speaking, oil pipeline companies are subsidiaries of the major oil companies. Observations here, since administration of oil pipelines was taken over from the ICC, suggest that this factor limits the opportunities for new entrants into the oil pipeline business unless they are themselves associated with the production end of the business.

CONTACT - T-18

SUBJECT: US Air Carrier Industry

CONTACT: Mr Frank Murphy  
Chief - Western Hemisphere  
Bureau of International Aviation  
Civil Aeronautics Board  
Washington, DC

DATE: 25 April 78

TEL: (202) 673-5990

The CAB is required issue certificates of public convenience and necessity to anyone who engages in commercial air transportation. The board's decision is final in the case of domestic services and is reviewable only by the courts; the board makes recommendations in the case of international services, final authority being subject to presidential approval.

There are various breakdowns of carriers; originally all carriers were subsidized, mail payments being made to make up the differential between operational costs and a reasonable rate of return. Thus during the 1930's and 1940's the taxpayer was covering about 80% of carrier flying costs.

Controlling legislation stated that there should be "competition to the extent necessary", hence as the years passed more carriers were certificated. It should be noted that once a carrier is certificated the board has no effective way of seeing that he provides the quality of service which the board may feel to be necessary; in the early days the carrier had an obligation to provide a service, but the definition of its adequacy was always a very debatable point. The board cannot instruct airlines to buy particular types of equipment, specify frequencies of operation etc.

Hence the board was reasonably helpless when a community complained about the services provided by a monopoly carrier. To counter this situation, the regulatory authority began putting more carriers in to provide competition, and large numbers of them were certificated to supply direct and indirect services; for example along the northeast and west coasts of the US there are probably nine to twelve carriers which provide the services by a variety of routings.

When the air taxi industry developed the board decided to exempt these operators from the normal certification process; licenses were issued through a rule making which was a class action extended to everybody, however the board's power over these operations remained intact. The board merely declined to exercise the jurisdiction which it had, hence no tariffs, schedule filings, etc were required.

The air taxis were exempted at a certain size, then aircraft got bigger and the regulations were changed permitting exemptions to be extended in certain instances to large irregular air carriers. In fact for the past 20 years the board has been trying to avoid taking jurisdiction because it was felt that free entry and competition is the best way to develop the industry. As these smaller carriers grew bigger, they formed the commuter association and approached the

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board for the same type of protection which was afforded to the larger carriers. While the operators didn't desire subsidies from the government they wished to be recognised; they proposed that the board issue grandfather rights to existing operators and subsequently limit entry. The board has been successfully rejecting this ever since the commuter association was formed.

To provide a greater degree of consumer protection, the board did tighten up regulatory requirements in some of the air taxi and commuter areas; typically, insurance requirements were made more stringent, etc.

Local service carriers were a breed of carriers going into small points with equipment which formerly belonged to larger carriers. The larger carriers were upgrading their equipment, hence they wished to dispose of the smaller terminals which they had previously served. The local services thus commenced operation on a subsidized basis into smaller areas; they developed as a result of the larger problem of trying to bring better service into smaller areas.

Hence as a national policy, all the large carriers were removed from subsidies, and subsidies were transferred to the local service carriers. Subsequently, in order to reduce these subsidies, the board went through a program of what was called "route strengthening". This involved giving local service carriers routes which had previously been the preserve of the large trunk carriers; typically a local service carrier would be authorized to fly from Philadelphia through a group of small communities up to Chicago; this was designed to reduce the need for subsidies, and has proved reasonably successful.

There is also the "charter" or "supplemental" carrier which is normally assigned a large territorial area in which to operate (typically continental US); such operators are normally authorized for both passenger and cargo flying, however they are not eligible for subsidy. These enterprises are free to operate anywhere and at any time within the regions which have been assigned to them.

The all-cargo specialist is a further classification, however many operators appear to be only marginally successful. Finally there are the indirect carriers which are made up of freight forwarders and tour operators who are subject to CAB jurisdiction and the need for certification.

The structure of the air-carrier industry in the US is therefore made up of:

- trunk carriers
- local service carriers
- supplemental (charter) carriers
- cargo carriers
- commuters
- air taxis, and
- indirect air carriers. (freight forwarders and tour operators);

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With the passage of time, the distinction between some areas has become less clear; typically, some local service carriers are operating equipment as big or bigger than the trunk operators do in certain sectors.

Entry at all levels down to and including cargo carriers is very difficult at the moment; entry at the commuter, air taxi and indirect carrier levels is wide open. Trans-Caribbean and Northeast are the only two airlines which have managed entry as trunk carriers, while Air New England managed entry as a local service carrier about three years ago.

Entry is too difficult, and the CAB have been criticized for this; the biggest debate now going on in terms of legislative proposals centers on the entry question. Present proposals include permitting existing licensed carriers to enter a limited number of routes (of their own choice) each year, and to place the burden of proof that new entrants would be "against the public interest" on existing operators.

Individual states have the right to exercise jurisdiction over intra-state air carrier operations as they relate to certification, route make up etc. For the most part State administrations are happy to be free of such responsibilities, and only in California and Texas is there an extensive amount of activity in this field going on. Safety still comes under the FAA.

The air industry operates in a highly competitive atmosphere; although there is no open entry or price competition, there is keen service and market share competition. Typically, there are eleven operators providing air service between Washington and New York, six between New York and Chicago. While this gives a nice product, it is probably considerably more expensive than it should be because the public is paying for the empty seats, as well as for the amenities. Also it has resulted in a smaller selection in terms of price and quality options.

Charter operators are not limited by price, frequency or service, hence operate in a fully competitive environment. Commuters and air taxis are wide open from a regulatory point of view, hence function on a fully competitive basis.

Domestically, the CAB has never had a scandal. The board is made up of 5 members picked from representative geographical regions. There is a mixture of Democrats and Republicans with never more than three of the five from any one political party. Appointments are for a six year period, each being staggered so the board cannot be packed by any one president or political party. There has never been any "buying" of a franchise.

By regulation, the commuter is subject to certification if he uses aircraft with more than 30 seats. However, this is not a hard and fast rule; if an applicant can present a good case he will be permitted to function as a commuter operator from a regulatory viewpoint. By the same token, the board can always be challenged in the courts should they carry this policy too far.

CONTACT - T-18  
(cont'd)

The general status of the industry is good; it is expected that this year will show record profits for most operators. However, within the mixture of airline companies there are always some not doing so well as others. Although no accounting requirements exist in the case of commuters, board people have looked into this area from time to time, and the impression has been that they are doing quite well. There are enormous savings as a result of not being regulated, there is better competition and the operators are free to deploy their energies and capital into areas which will do their operations the most good.

In international dealings in the air carrier field, people think us strange! We have no national airline as such, we've never really liked IATA, we're against capacity and pooling agreements etc. The speeches which were being made 20 years ago at the European Civil Aviation Conference etc., are still being reiterated today; their keywords continue to be "destructive competition", "bankruptcy" etc. There is no doubt that the CAB in the US has the loosest hand of any country in the world with regard to these matters, and we in the US believe that the result has been one of the better products at one of the cheaper prices.

CONTACT - T-19

SUBJECT: Canadian Air Carrier Industry

CONTACT: Mr H.K. Chaudry  
Air Transport Services  
Dept. of Transport

DATE: 25 April 78

TEL: (613) 996-5231

The primary divisions within the air carrier industry include:

- 1- national carriers (AC & CPA)
- 2- regional carriers (Quebec air, PWA etc)
- 3- all others.

Air operations not included within the national or regional classification are frequently referred to as "Third Level" carriers. Various kinds of licenses exist, the specific type issued in any one instance being dependent on the size and nature of the service engaged in. Typically license Class 4 is for charters, Class 9 for international operations, etc. Licenses may be blanket, route, point to point, and with or without restrictions of various types. In all instances the air carrier must be licensed in one or other of the available license categories.

The DOT is responsible for certifying equipment licenses, and ensuring that airport facilities along a proposed route are capable of handling the aircraft to be used safely. Once satisfied, the department issues an operating certificate. The DOT also has responsibility for the licensing of air crews, maintenance personnel etc.

The primary responsibility of the CTC is that of determining that any proposed service is in the public interest, and that the applicant has the financial capability to provide and maintain the equipment and services associated with the proposed operation. In general, where major decisions with regard to air carrier operations are necessary or interventions have been made with respect to a service, public hearings are required.

International route licensing is usually accomplished by means of bilateral agreement with the countries concerned. Usually External Affairs become involved, and negotiations are frequently lengthy and drawn out.

National carriers are protected to the extent that entry into mainline trunk operations is essentially limited to Air Canada and CPA. However, in situations consistent with local route development, regional carriers are permitted to provide service along sections of the national route. Typically, Transair had a route between Winnipeg and Toronto which also served certain intermediate points.

Hence the two national carriers compete in terms of service quality, and also in terms of market sharing to the extent that the traditional 75/25 split between the two permits. Both national carriers are subject to a limited degree of regional competition along certain route sectors.



CONTACT - T-19  
(cont'd)

Up until the present, third level carriers have not really been protected, although it is understood that a study has been going on relevant to this. For the most part, this category of licensees is made up of very small carriers who frequently pioneer and develop routes only to have the CTC license them out to larger operators. A typical case in point was the Ottawa-Pembroke-North Bay-Sault route which was developed by small operators with provincial government assistance; subsequently it was taken over by Air Canada. Another small air line started flying from the Toronto Island airport via Kingston to Ottawa; now with the announcement that the Toronto Island airport is to become a STOL port, the existing small operator is left with little opportunity to compete. This type of thing goes on all the time; the problem is that the CTC's prime concern is in providing the type of service which best serves the public interest.

About the only protection the third level carrier has is the fact that the regionals like to get away from the smaller equipment. Thus service limitations imposed by airport size and facilities, and the market size itself, are their best forms of protection. The CTC does however, afford protection of third level carriers from other carriers of the same category if the market demand is not considered adequate to support more than one operator.

From the viewpoint of the new entrant therefore, the best opportunity for third level type operation is to endeavour to find a route when service is needed but none exists. Providing the applicant can demonstrate the necessary degree of financial competence, it is unlikely that the application will be refused.

Two basic types of charter flying exist. The first is the "AFFINITY" type where a group or a club may charter the use of a whole aircraft; the second is the "UNIT TOLL" type, more generally known as the "ABC" charter, where charges are based on unit rates per passenger or per pound of freight. Until recently unit toll charters were limited essentially to the international routes, while domestic charters were of the "affinity" type.

For the most part domestic charter licensing has been limited to the small operators, typically those providing transportation for groups flying into the north country, etc; normally these operators have been given fairly broad operating rights which permitted them to fly from a given point to anywhere in Canada. Regional operators were also licensed for charter services of the "affinity" type; if regionals had been allowed to fly unit toll, this could have resulted in this flying direct competition to the national and other scheduled routes within the country.

Since the beginning of 1978 the CTC has opened up domestic unit toll charters; however the situation is controlled by limiting the number of flights each operator is permitted to make during the course of a season. Charter operations are confused by the fact that most of the larger airlines are also charter operators; Wardair is Canada's largest charter service, the next seven are the regionals and the national carriers.

CONTACT - T-19  
(cont'd)

The difficulty of obtaining entry to the charter market is a function of the particular market an operator is endeavouring to access, and whether or not other operators are already licensed to provide chartered or scheduled services over the same route.

The environment in which the larger carriers operate varies to some extent according to the route areas being considered. Essentially the regional carriers can be generally described as regulated monopolies, however as previously noted, a degree of competition with the national carriers exists over some routes.

Third level carriers enjoy a measure of protection from the CTC in situations where a route is not capable of supporting either further third level carriers, or a regional operator. In other words, as long as route revenues are only sufficient to support a single third level carrier, the operator is effectively protected from competition.

Provincial control over operations within their own jurisdiction is theoretically non-existent. In practice, the provinces can make representations to the minister, and take part in CTC hearings as intervenors.

Assuming selection of an area where there is reasonable hope of gaining access, finance would be the major hurdle which the applicant would have to overcome. Demonstrating economic capability to perform the desired service is half the requirement for obtaining CTC certification.

CONTACT - T-20

SUBJECT: Canadian Air Carriers

CONTACT: Mr F.S. Steele  
Supervisor-Western Region  
Licensing & Inspections Division  
C.T.C.

DATE: 28 April 78

TEL: (613) 997-6645

Regionals operating within their own areas don't have competition from other carriers of their own stature. Such competition as exists is from the smaller carriers who may parallel portions of the regional routes.

The committee may authorize an operator using a Twin Otter, Aztec or Apache to parallel a regional route some part of the time, however they must be careful to avoid any possibility of causing significant damage to the regional operator's revenues. Hence in order to maintain the viability of the regularly scheduled Class I services, the committee must always keep this fact in mind.

It is extremely difficult to pinpoint the direct effect of the competition which does exist. People have airline preferences, typically some will consider Air Canada a bureaucratic type of crown corporation and point out that CPA is a commercial operation which has to show a profit; they feel, therefore, that they get better service from CPA.

CPA is currently allowed 25% of the transcontinental traffic capacity between Montreal and Vancouver; Mr. Lang has stated that this will be increased to 35% in 1978, and 45% in 1979. It would therefore appear that competition between the two mainline carriers is having no detrimental effects, however it is difficult to pinpoint what have been the improvements in terms of service quality. No doubt the policy serves to keep both carriers on their toes.

From the viewpoint of ease of entry into the air carrier business, Class I operations are the most difficult to access, while Class 3 would be the easiest. Class 1 relates to any form of regularly scheduled service, while Class 3 relates to flights which operate only when traffic exists, and conditions permit.

Class 4 (charters) type service applications generally run into severe opposition unless the applicant is seeking authorisation in a relatively remote area. Anyone wishing to commence such an operation in a medium sized community where a carrier already exists is unlikely to be successful if the existing operator is only realizing partial utilization of his fleet.

REFERENCE - B-1

SUBJECT: CABLE TELEVISION - US

TITLE: Cable Television: A Handbook for Decision Making (1974)

AUTHOR: Walter S. Baer

PUBLISHER: Crane, Russail & Co. (NY)

This volume presents basic information about cable television in the USA and outlines the political, social, economic, legal and technical issues communities must face in cable decisionmaking. It will serve as a reference and guide for government officials, educators, citizen groups, and other concerned with the development of cable television in their communities. It can also be used as an introductory text on cable television for students of communications. The Handbook was written by a senior analyst in Rand's Communications Policy Program and is based on a Rand Corporation study of cable television, supported by a grant from the National Science Foundation. The issues discussed in this Handbook are explored in more detail in the three volumes that follow.

WALTER S. BAER, a senior analyst at The Rand Corporation, is editor of the Rand CABLE TELEVISION SERIES and author of this volume. He has been a communications consultant to the United Nations and to a number of major corporations. He also directs the Aspen Workshop on Uses of the Cable. Previously he served on the White House science advisory staff and as a White House Fellow. He received his B.S. in physics from the California Institute of Technology and his Ph.D. from the University of Wisconsin.

REFERENCE - C-1

SUBJECT: MCI & EXECUNET - US

PUBLICATION: Telephony (Jan 23/78)

ARTICLE TITLE: Appeal for Review of EXECUNET Case Turned Down  
by High Court.

The Supreme Court was asked to review an earlier decision by the US Court of Appeals for the District of Columbia circuit in effect supporting MCI's EXECUNET service; however, petitions for a writ of certiorari (review) filed by the FCC, the US Independent Telephone Association and the AT & T Co. relative to the EXECUNET case were turned down.

The Supreme Court's action allows the D.C. appeals court decision that the FCC lacked authority to reject the EXECUNET tariff to stand. The Commission had held that MCI was authorized to offer only private line services, but that EXECUNET essentially represents a switched public message service (long distance service) rather than a private line offering.

The D.C. court held that the FCC may reject a tariff as unauthorized only if it determines that such action is required by a finding in keeping with what it determines to be the public convenience and necessity. It said the final test of the structure of the telecommunications industry must be the public interest, rather than "the private financial interests of those who until now have enjoyed the fruits of de facto monopoly."

The Supreme Court's action - or lack of it in refusing to review the EXECUNET decision - turns the proceeding back to the FCC. The commission thus is placed in the position of having to implement a decision it not only rejected, but carried to the highest court in an unsuccessful effort to press its position.

Among options open to the FCC at this time, presumably, is a further proceeding to reexamine the public interest in this regard, and how best it may be met.

REFERENCE - C-2

SUBJECT: Communications Industry Competition - US

PUBLICATION: Telephony (Mar 13/78)

ARTICLE TITLE: Senators Hollings, Kennedy Voice  
Pro-Competition Sentiments.

The annual Washington caucus of the Computer & Communications Industry Assn was told that the question of monopoly versus competition is not the basic issue facing the data processing or communications industries. One senator indicated that increased competition has not hurt the AT & T while the other said that a major goal of the Dept of Justice anti trust suit against AT & T is to ensure that the company competes fairly with new entrants to the telecom field.

Hollings stated that the real question is how to define and administer the information age; with the change in technology, there must be a restructuring of institutions by government to allow the best of our existing (telecommunication) network to survive and grow while also fostering new corporate activity, the lifeblood of continued innovations.

Government must come to grips with communications and information policy, however Hollings indicated that no policy exists and no one is in control of it. He stated that a revision of the Communications Act of 1934 would play a significant but limited role in the restructuring of institutions, but pointed out that many do not come within the jurisdiction of this statute. In discussing possible sources for the necessary national policy, Hollings said that the type of government-wide planning and co-ordination required could not be provided by the FCC, and that it remained to be seen what the new National Telecommunications and Information System within the Department of Commerce would be able to do.

In Hollings opinion, the development of a coherent national policy will require years; the ultimate goal is to find ways to eliminate regulatory friction by defining areas of competition, and by creating an environment for fair competition.

Senator Kennedy said that while there are some natural monopoly characteristics in the provision of telephone service, the growth of the telecommunications industry has created areas without those characteristics. Kennedy said competition has resulted in improved new products and services at lower costs, and made AT & T more responsive to user needs; and added that there is ample evidence to indicate that AT & T has not been harmed in any way by competition. The company, he said, has been forced to explore demand elasticity through price reductions, and early evidence shows that at least in the terminal equipment market, this may have greatly increased demand.

Kennedy concluded that competition offers great and obvious benefits over industry regulation. He said that the FCC if anything, should be prodded to increase competition at a more rapid rate.



REFERENCE - C-3

SUBJECT: The New Telecommunications Act (Bill C-24)

PUBLICATION: In Search (Fall 1977)

ARTICLE TITLE: New Communications Legislation Explained

AUTHOR: J. Buchan  
(Former Senior Policy Adviser to Deputy Minister of Communications)

The first part of the new telecommunications act came into force in April 1976. It changed the name of the Canadian Radio Television Commission to the Canadian Radio-television and Telecommunications Commission; simultaneously the responsibilities of the former telecommunications committee were transferred over to the new CRTC.

A second phase of the new legislation was presented as Bill C-43 in March of 1977 for first reading; it is before the current session as Bill C-24. The purpose of this new statute is to "consolidate, clarify, and update existing federal legislation so as to establish a single coherent embodiment of federal telecommunications law."

#### Part I - General

The most important aspect of the legislation is set out in Part I of the bill; it consists of 16 policy objectives to assist the regulators in dealing with telecommunications systems and services, broadcasting, radio communication and research. This is the first time that Parliament has ever defined policies to be adopted with regard to the supervision of the non-broadcasting aspects of telecommunications.

Another important aspect of the bill is the new power given the Governor-in-Council to issue directions to the Commission respecting the implementation of Canadian telecommunication policies. This new provision is broadly worded in order to ensure that the responsibility for important telecommunications policies will rest upon the shoulders of politically accountable representatives, rather than on those responsible for regulation per se.

This feature of the bill finds favour with the provinces since it will enable them to deal with significant issues at the ministerial level rather than having to appear as supplicants at Commission hearings. While it is not anticipated that the power of direction will be frequently used, the fact that it exists will ensure that federal-provincial agreements can be implemented without being thwarted by regulatory agency policies.

The existing power of the Governor-in-Council to set aside, or refer back, decisions of the commission for policy reasons is carried forward from the Broadcasting Act and the National Transportation Acts. The existing right of appeal to the Federal Court of Appeal on questions of law or jurisdiction are not affected by the proposed new legislation.

REFERENCE - C-3  
(cont'd)

#### Part 2 - The CRTC

Part 2 of the bill provides for the continuation of the enlarged CRTC and also deals with the Commission's powers and responsibilities with regard to the public hearing process.

#### Part 3 - Broadcasting

Part 3 deals with the Commission's regulatory powers in the broadcast field. The Commission will continue to regulate broadcast licensees both by regulations passed pursuant to the statute and by the conditions attached to individual licenses, as it does under the Broadcast Act.

#### Part 4 - Canadian Broadcasting Corporation

Part 4 covers the role and status of the CBC which will remain essentially unchanged.

#### Part 5 - Telecommunications Carriers

Under this part of the act, the CRTC will be given more precise powers than were provided for in the Telegraph and Railway Acts. Specific powers will be given the Commission to order such things as pole attachments, terminal and systems interconnection, or limited trials of new services or equipment. However, broader powers such as ordering a carrier to extend his services into new areas, or prohibiting new competitors from providing telecommunications carrier services will be subject to approval of the Governor-in-Council.

#### Part 6 - Radiocommunications & Submarine Cables

Part 6 contains an updated version of the Radio Act and parts of the Telegraph Act relating to submarine cables. One new provision provides for delegation by the minister of the power to suspend certain radio licenses for 30 days; this is intended to counteract problems created by increasing misuse of the GRS band frequencies.

#### Parts 7 and 8

Part 7 deals with "Offences and Prosecution"; Part 8 provides for the continued existence of the CBC and CRTC and their rules, regulations and by-laws.

#### Conclusions

The proposed Telecommunications Act will:

- 1) provide a more flexible and socially responsive regulation of all interrelated aspects of telecommunications under federal jurisdiction.

REFERENCE - C-3  
(cont'd)

- 2) provide clearer demarcation between the respective functions and responsibilities of the Governor-in-Council, the federal ministers and the CRTC.
- 3) contribute to the increasingly constructive dialogue going on between federal and provincial communications ministers, and provide for the harmonization of federal and provincial communication objectives.

REFERENCE - C-4

SUBJECT: The New Telecommunications Act (Bill C-24)

PUBLICATION: In Search (Fall 1977)

ARTICLE TITLE: The Achilles'Heel of Regulatory Policy

AUTHOR: H N Janisch, Law Professor  
Dalhousie University, Halifax

The author claims that there is growing evidence of structural defects in the design of Canada's regulatory mechanisms, particularly as they relate to telecommunications policy; he feels that the currently proposed telecommunications act (Bill C-24) is no exception.

The Canadian regulatory system has never relied on the fully independent model as used in the US. Basically there are two reasons why some of our agencies have, in the past, enjoyed a high degree of independence: firstly because regulation has been looked on as a matter best left to the experts, and secondly because elected representatives have been happy to remain disassociated with unpopular regulatory decisions.

Attitudes have been changing and many regulatory issues are now recognized as having a high degree of political sensitivity which cannot be ignored. For instance, broadcasting is now viewed as a means of moulding and maintaining cultural entities, and such things as telephone rate decisions are also becoming sensitive in social terms. This is leading to a greater degree of sophistication in provincial involvement in federal regulation; and politicians functioning in this new environment recognize the risks of not becoming actively involved in regulation.

Confusion in telecommunications policy matters (such as occurred in the recent issue over whether or not Telesat should become part of the TCTS), are caused by lack of clarity as to the function of the regulatory agency in policy making, and indicate a need for restructuring. Regulatory processes are sufficiently complicated without the problems introduced by conflicting sources of government policy.

REFERENCE - C-4  
(cont'd)

Janisch's main criticism of the new telecommunications act relates to the power of direction given to the cabinet. He points out that regulatory policies cannot be separated from regulatory experience and that openness and public participation cannot be dispensed with when it comes to directions. In other words, he fears that cabinet directions will lack the background of understanding necessary to originate directions which will be effective and which it will be practicable for the commissions to implement. Furthermore, such directions will lack any structured public input.

Since a cabinet direction must be published, political accountability is taken care of. However Janisch questions the value of this in a Parliament dominated by strict party discipline, and elections which are seldom fought on concrete issues. He offers suggestions for improvements in the telecommunications legislation which are based on the following premises:

- 1) that regulation must be recognized as political since it involves choices between competing social and economic values.
- 2) that regulation must be credible and requires open procedures to be effective.
- 3) that the basic policy framework of regulation should be contained in the statute.
- 4) that the foregoing items still leave adequate scope for ongoing policy making.
- 5) that a major responsibility for policy making rests with the regulatory agencies which should make full use of their rule-making powers.
- 6) that ultimate responsibility for policy rests with elected officials whose views must prevail, but in such a way as not to compromise the credibility of the regulatory process.

Janisch's specific proposals are as follows:

1. Before a direction is issued to a regulatory agency, that agency should be given an opportunity to participate in policy formulation.
2. Provision should be made for public participation in direction-making.
3. Proposals 1 and 2 can be most readily met as follows:

Before a direction is issued, the matter involved shall be referred to the commission which shall hold public hearings on the matter and make a report to be laid before Parliament within 60 days of its receipt.

4. The Governor-in-Council will not be bound by the report, and will be entitled to make an entirely independent decision although it will not be able to ignore the report, as it will be made public.

The proposals will blend together the three crucial elements - regulatory experience, public participation and political accountability.

REFERENCE - C-5

SUBJECT: Regulation & Entry

TITLE: Regulation and Entry: Energy, Communications & Banking

EDITORS: M.W. Klass & W.G. Shepherd

PUBLISHER: Michigan State University

The subject matter of the book assesses the extent to which potential competition and new entry might be used to replace the more orthodox regulatory processes, particularly as they relate to regulated utility markets. The authors summarize the conditions affecting the net benefits from entry as a new capacity added by a new firm to an existing industry. The more significant of these include the following:

- 1) entry has market effects only if the entrant rises above 15-25% of the available market.
- 2) if entry does not remain open after an initial entry, little industry change may result from the episode.
- 3) for entry to induce increased efficiency by prior firms, it must reduce profits so substantially that prior firms must strain to reach permitted profit rates.
- 4) where entrants are open to retaliatory entry by an utility, entry to the utility market will be inhibited and possibly excluded.

An effective entry policy aims at a series of entrants whose eventual shares will constitute a large share of the market, gain large excess profits for a period, and continue to behave competitively in the long run. By contrast, limited entry resulting in a tight co-operative oligopoly still dominated by the original utility will yield little or no benefits.

The authors conclude that entry offers little prospect for constraining utility behaviour as a regulatory substitute. It can yield beneficial effects in secondary markets under properly managed conditions, but should not be regarded as a constraint which can simply be invoked while regulation is withdrawn. This view derives from several specific points which can be condensed into five propositions:

- 1) Entry is a complex matter: - empirical tests of entry's effects have barely begun, and thus far the results are not conclusive. Entry could have importance, but its actual nature is unclear and its role unproven.
- 2) Each utility sector has its own specific entry possibilities which differ in kind and scope:- in electrical power, entry would have vertical attributes and arise from mutual penetration of service areas; in telephones, technology is critical to entry. In some sectors entry has little or no possible scope, in trucking the potential scope is large.

REFERENCE - C-5  
(cont'd)

- 3) Genuine open entry is small and peripheral to the main utility markets:- despite exaggerations by utility spokesmen, new entry poses no severe threat to core activities in communications and power.
- 4) Genuine open entry is incompatible with conventional regulation:- open entry involves changes which conflict with the franchise basis of regulation.
- 5) Open entry requires specific regulatory actions:- entry must usually be made by regulators, not just permitted; this is because regulation makes the regulators responsible for service and identifies them with the established suppliers interests.

The conventional objectives of an open-entry policy, as part of deregulation, appear to be largely unobtainable except in trivial or odd cases.



REFERENCE - E-1

SUBJECT: Energy (Coal) - US

PUBLICATION: Business Week (Nov. 28/77)

ARTICLE TITLE: The Gloom in Coal

Congress will force coal on industry. The new energy bill is expected to contain some form of tax on gas and oil for industrial users. Coal-conversion legislation is also likely to contain a ban on use of oil or gas by new power plants and larger new industrial plants.

From the viewpoint of the coal producer, the major regulatory hurdle is the Surface Mining Control and Reclamation Act of 1977 which provides for strict federal control of strip mine reclamation unless the states apply standards at least as strict as Congress has decreed. The cost of the new act varies from \$1 per ton in the West where rules are already strict, to \$8 per ton in states where small mines have had less scrutiny. The producer's greatest worry is the manner in which the new act will be interpreted, and how it will be enforced; coal operators could be put out of business.

On the user side most industries show little enthusiasm for coal; the cement industry where coal conversion is well advanced, is an exception. The argument simply reduces to the fact that coal is too expensive. Much of the difficulty lies with new amendments to the Clean Air Act of 1977. Though their effective date has been delayed, regulations require utilities and factories to use "the best available technology" to limit sulphur emissions. As defined by the Environmental Protection Agency, this is expected to mean costly scrubbers - which in the case of utilities works out to about \$1000 per installed kilowatt.

REFERENCE - E-2

SUBJECT: Energy (Oil & Gas Exploration) - US

PUBLICATION: Business Week (Oct. 10/77)

ARTICLE TITLE: FASB Ruling Hurts Oil Exploration

Independents in the oil and gas industry oppose an FASB (Financial Accounting Standards Board) draft which favours "successful - efforts accounting" for oil and gas companies. Independents favour "full cost accounting" on the grounds that other methods unfairly understate earnings. The battle of full-cost vs successful-efforts has been raging for years, with the major companies lined up on one side and the independents on the other.

Independents complain that "successful-methods" forces are under statement of net worth and earnings. Typically, a company spending \$20 million in exploration might spend 75% of the total on dry holes. Even though with the remaining \$4 million, it found oil and gas worth \$40 million, it would have to write-off \$16 million for an after tax charge of \$8 million. Under "full-cost" accounting, the entire \$20 million expenditure would be capitalized and amortized over the life of the reserve.

In effect, companies with aggressive, successful exploration programs are penalized, while those that hold large reserves but do little exploration are rewarded. Critics of "full-cost" accounting contend that unsuccessful exploration expenses are similar to research and development costs which now must be written off as they are incurred.

"Successful-efforts" is seen by many as a disincentive to increased exploration; some feel this is not the intent of Congress. If it goes through, some independents may be forced out of the oil and gas business.

REFERENCE - E-3

SUBJECT: Energy - Oil & Gas

PUBLICATION: Business Week (Sept. 12/77)

ARTICLE TITLE: Why Big Refineries Aren't Expanding

Major US refiners face a difficult problem: demand for their prime product, gasoline, is starting to flatten and could begin dropping in the next few years. Meanwhile demand for other crude-oil products, the so called middle distillates and residual oil, is growing.

REFERENCE - E-3

(Cont'd)

To cope with this changing demand, refiners should be spending to adapt and replace their refining facilities; however construction costs have doubled since 1973 and there is continuing industry concern about government price controls.

Industry faces an hefty bill just to revamp existing refining capacity. There are three mains reasons:

- 1) With dependence on imported "sour" crudes increasing, domestic refineries will require greater desulphurizing capacity.
- 2) Removal of lead increases refining process complexity, and means the construction of additional catalytic "crackers".
- 3) Demand for more fuel oil and residual oil to replace natural gas will push producers to take more of these products out of every barrel. This also means additional facilities.

The cost of these changes could be as much as \$4 billion annually to the industry between now and 1985; this is double the industry's present spending and it is doubtful whether corporate officials will risk the money. One reason is price controls on gasoline, the product on which oil refiners traditionally built their profits; under controls instituted in May of 1973, refiners' margins were frozen. This means that refiners cannot increase profits by making capital improvements and many cost reductions must be passed to the consumer. Typically, Standard Oil invested \$140 million to convert half its processing capacity to handle high sulphur crude; soon after conversion began the FEA ruled that any savings from using lower cost crude had to be passed along to the consumer. There is therefore no incentive to do the obvious thing.

Projections for the distillates and heavy oil products run as high as 7% annual growth; most of this would go to industries converting from gas to oil. However this growth is really dependent on how rapidly the conversion to coal will be accomplished. Future refineries will produce about 20% gasoline, 20% middle distillates and the remainder heavy products such as residual fuels. Present production is typically 50% gasoline and 20% distillates.

REFERENCE - M-1

SUBJECT: Mining - US  
PUBLICATION: Business Week (Oct. 3/77)  
ARTICLE TITLE: Mineral Rights Raise New Dust

### Mining

Recently introduced legislation to the US Congress proposes revisions to the mining law of 1872.

The industry and its supporters in Congress are opposed to provisions in the bill which proposes scrapping of the existing claim-patent system of mineral discovery and production; it is to be replaced with a two-stage leasing system under which the government would retain title to the land and any minerals discovered. Even if the mining industry wins the leasing battle, the new legislation will have a major impact on an industry which has hitherto been remarkably free of federal controls considering most of its operations are on federal land. Changes would include:

- 1) new federal standards on mining and reclamation. The lack of such controls in the past has resulted in large amounts of federal land being withdrawn from mining.
- 2) royalties to the federal government will be paid by producers.
- 3) Currently, a claim holder has to perform only token work each year in order to retain the property. This requirement would be raised to a meaningful level to prevent claim holders from speculating on the future value of the property.

Under the existing system, a prospector who has staked a claim to land can gain title to it by proving that it contains valuable mineral deposits. A leasing system, the industry argues, would introduce an element of uncertainty that would discourage mineral exploration at a time when the US is growing ever more dependent on mineral imports of everything from bauxite to platinum.

The Administration is not without leverage. It still has broad support for its own plans, and it can point to the robust exploration for oil, natural gas, and coal on federal lands, all of which are governed by a leasing system.

REFERENCE - T-1

SUBJECT: Transportation-Trucking - US

PUBLICATION: Business Week (Dec. 5/77)

ARTICLE TITLE: Truck Deregulation-Rolling

Critics say trucking companies have prospered for more than 40 years under route-and-rate regulation by the ICC. Recent efforts in Washington to deregulate the trucking industry has taken on new strength and the outcome could result in a vastly different freight transport system. Carter wants to see substantial deregulation of the industry; senate sub committee hearings are being held on the issue by the same chairman whose hearings 3 years ago started the current drive for airline deregulation (Senator Edward M. Kennedy), and a senate commerce committee has commissioned a study of truck shipments to small communities, a crucial political consideration in the deregulation debate.

Only 40% of trucking companies are regulated by the ICC, of the remainder a large group carries exempt commodities. An even larger proportion of unregulated trucking is carried on by manufacturers, wholesalers and retailers who are free to pick up new routes. Licensed carriers claim that entry protection enables other sectors of business to compete more efficiently; they state that while they are not monopoly operations, they are like a public utility. Many deregulators take the view that there is no fundamental difference between trucking and any other business to justify entry protection and joint price setting. Antitrust's Shenefield says there are no economies of scale in trucking, and costs are variable; furthermore he indicates that what would be a felony in most industries is not only condoned but affirmatively encouraged in the trucking business.

The administration advocates easier entry, greater freedom for carriers to set their own rates, and doing away with or limiting the powers of rate bureaus. ICC chairman O'Neil feels the changes would damage the industry because he fears deregulators unfamiliar with the trucking business don't know what they are doing. He points out that Congress has said legislatively that trucking is part of a network of product distribution organized so that other businesses can compete; he is not so sure that Congress has decided that competition - the goal of deregulators - should be the goal of regulation. O'Neil feels the administration is going too far too fast, and the end result may be fewer and more efficient companies, and this isn't necessarily what is wanted.

At the lower end of the business there are thousands of small, marginal trucking operators who say they could not even afford to publish their own rates if bureaus were abolished.

REFERENCE - T-2

SUBJECT: Transportation - Air - US  
PUBLICATION: Business Week (Nov. 14/77)  
ARTICLE TITLE: A Commanding Voice in Air line Reform

The provisions contained in the proposed Cannon-Kennedy Bill relating to airline regulatory revision are:

- 1) Airlines can enter one new market per year without CAB approval in the first two years after the legislation passes, and then two markets per year.
- 2) Carriers can protect three of their own routes each year from automatic entry by others, however this provision will be phased out over five years.
- 3) Carriers can exit unprofitable markets more easily, and the bill provides subsidies for commuter airlines to serve them.
- 4) Airlines can revise fares without CAB permission by 35% downwards, and 5% upwards.

REFERENCE - T-3

SUBJECT: Transportation - Air - US  
PUBLICATION: Business Week (Nov. 21/77)  
ARTICLE TITLE: Deregulation arrives for cargo flights

Air cargo services in the US have, in effect, been deregulated by a new Bill recently signed by Carter. Under the old law the CAB was required to determine public need and convenience. Under the new law, existing cargo carriers, including passenger lines with cargo services, will be issued a certificate by the CAB which gives them permission to fly anywhere at anytime. New applicants for all-cargo services will be able to file applications in a year's time. Additionally, air freight rates will be deregulated, including those charged on combination passenger cargo flights. The CAB still retains the power to change rates should they be found to be discriminatory.

Proponents of the bill claim shippers will get better service; all cargo planes can carry a wider variety of freight than those also carrying passengers can. They also claim that many companies that have forced their operations to conform to daytime passenger flights can now revert to normal schedules built around night freighter flying.



REFERENCE - T-3  
(cont'd)

Opponents fear that without CAB regulation, freight operations will become unprofitable and that carriers will not invest in cargo services. While some routes will realize lower rates, they feel that for others the rates will go up and the service will deteriorate.

REFERENCE - T-4

SUBJECT:           Transportation-Rail - US  
PUBLICATION:       Business Week (Oct 10/77)  
ARTICLE TITLE:    A Railroad Acquisition

Burlington Northern Inc. agreed in principle to acquire the St Louis-San Francisco Rly for about \$91 million; the agreement is waiting on stockholder and ICC approval. The acquisition would give the St Paul based Burlington Northern routes from the Northwest to the Gulf Coast.

Frisco's chairman believes that bigness is going to prevail in the railroad business, and predicts that the number of Class I railways will shrink to a dozen or fewer from today's 60.

REFERENCE - T-5

SUBJECT:           Transportation - Air - US  
PUBLICATION:       Fortune Magazine (August 1977)  
ARTICLE TITLE:    Pros & Cons of Airline De-regulation

The Cannon-Kennedy Bill presently before the US Senate seeks to prevent the CAB from setting prices and allocating routes and to force airlines to compete in the open market. As the law now stands, applicants to the CAB for new routes must demonstrate that the "convenience and needs of the public" will be served by such awards. To reverse this pattern, the Cannon-Kennedy Bill would guarantee every airline automatic entry into at least one new route each year.

REFERENCE -T-5  
(cont'd)

Airlines provide networks of routes with integrated schedules. Carriers maintain that regulation of prices and route entry is essential if such networks are to continue to exist; while agreeing that the added competition would lead to lower prices, they point out that this would also result in less frequent and dependable service - and eventually to slimmer safety margins. Some also argue that airline mergers may eventually be necessary, thus resulting in a more concentrated and effectively less competitive industry.

The author concludes that the bill, except for the automatic entry provision, is basically good; he feels that entry should be eased by making it more difficult for the board to reject such applications.

## REFERENCE - T-6

SUBJECT: Transport Policy

PUBLICATION: Centre for Transportation Studies - UBC

TITLE: Transportation Policy: Regulation, Competition and the Public Interest (1976).

EDITORS: K M Ruppenthal and WT Stanbury

The subject publication comprises a collection of papers by different authors who present a variety of viewpoints on the Canadian transport industry and its ramifications. Several of the more significant papers are briefly summarized below.

## REFERENCE - T-6.1

PAPER TITLE: CTC Freight Rates & Public Interest

AUTHOR: Professor Martin W. Westmacott

Westmacott examines the structure, organization, and statutory mandate of the CTC, then looks at specific freight rate cases to see how the Commission has interpreted its responsibility to regulate in the public interest. His analysis of the Commission's ability to "operationalize" the public interest criterion and to be responsive to consumer interests provides "still more evidence of regulatory failure".

Section 23 of the National Transportation Act is known as the "public interest" clause, and any party who considers that a rate levied by the railway "prejudicially affects the public interest" may apply to the Commission for its repeal provided the Commission is satisfied that a "prima facie" case has been established.

Since 1967 there have only been nine applications for rate investigations. Commission officials indicate this is because the costing regulations used for interpreting various sections of the act weren't finalized before 1970; and because the provisions of the legislation give adequate protection to shippers in all areas, hence there is limited need for appeals. Interviews in the Western provinces revealed additional reasons for this situation:

- 1- the time lag between initial presentation of the case and the final decision is a deterrent.
- 2- the estimated cost of bringing such appeals before the Commission is in the \$25-30,000 range.

REFERENCE - T-6.1  
(cont'd)

- 3- Westerners feel that the CTC is too closely identified with railway interests, and does not adequately represent Western views.

A review of cases considered by the Commission in connection with Section 23 indicates that proceedings have been dominated by manufacturing interests. The failure of consumer groups to participate in proceedings is in part due to the complexity of the subject of freight rates, and the difficulty of keeping informed; a second factor is the cost of retaining legal counsel to appear before the Commission.

The Honourable John Turner suggested that "public interest lawyers" should be retained to represent consumer interests in their dealings with regulatory agencies. In his view, agencies tend to be dominated by the industries they were established to regulate, hence the implementation of such a proposal could result in a larger input of consumer views into the decision-making process.

Other recommendations include:

- 1- the appointment of some commissioners to the CTC with as broad and diversified a background as possible; this with a view to having more commission members sympathetic to the social aspects of transportation policy.
- 2- the provision of a more rigid definition of "public interest" in order to assist consumer groups in bringing their views to the attention of the Commission.
- 3- the provision for a greater degree of leadership by the federal government by requiring the CTC to obey clearly stated government policy guidelines.

## REFERENCE - T-6.2

PAPER TITLE:       The National Transportation System:  
                  Restructuring for Effective Regulation.

AUTHOR:            Professor J.W. Langford

Langford asserts that the CTS does little positive regulating, noting that there are few appeals from its decisions, that it has tended routinely to approve requests for fare increases and that it has not really addressed the issue of intermodal competition. The result is that we have neither effective competition nor effective regulation.

Langford proposes to restructure the responsibilities of the CTC and the Ministry of Transport so that the CTC would act primarily as a quasi-judicial agency on regulatory matters, and the Ministry would take full responsibility

REFERENCE - T-6.2  
(cont'd)

for policy promotion and for investment objectives. He also recommends changes in relevant statutes and organizational procedures to permit greater public participation in the regulatory process.

The CTC has not been popular with most provincial governments, and has exercised its rate regulation powers in a manner unsatisfactory to many provinces, in particularly the Western ones.

Until recently, the railways, airlines and the CTC have been reluctant to place data on costs before the provinces in a form which they are capable of digesting and interpreting. Furthermore, the provinces are made uneasy by their lack of power in specific areas where they are pursuing active promotional policies; typically, the Ontario and Alberta governments are having to accede to the fact of exclusive CTC control over licensing and rate setting with respect to their own airlines (Norontair and PWA).

Restructuring of the CTC to allow for adequate provincial involvement would provide a structural foundation for the integration of provincial promotional and regulatory efforts with federal level transportation regulation. It would assist regulatory decisions in areas of intermodal competition where provincially regulated for-hire trucking and railways are involved. Finally it would ease transition of extra-provincial trucking and bus services over to the federal level.

REFERENCE - T-6.3

PAPER TITLE: The Consumer Interest & The Regulated Industries

AUTHOR: Professor WT Stanbury

Stanbury expands on recent criticism that regulatory agencies have failed to allow for greater consumer participation in their decision making. The agencies are perceived as not responsive and as failing to represent consumer interest; he offers three reasons for this:

- 1- failure of commission's staff to articulate consumer interests.
- 2- the commissionners have become "judges" in cases where the "defendent" (consumer) is unrepresented.
- 3- the consumers themselves cannot voluntarily organize to represent their interests.

Stanbury formulates some operational consumer interest criteria by which regulatory decisions can be appraised, and amongst other things points out that:

REFERENCE - T-6.3  
(cont'd)

- a) The task of the commission is to define what level of costs is technically attainable by good management; performance cannot be evaluated until potential is defined. Agencies have become obsessed by the spectre of excess profits; this obsession should be transferred to costs and to the technical efficiency of the regulated firm.
- b) Regulatory agencies are hard put to define the potential for technological change and innovation; however they can move firms under their jurisdiction toward the best practices of firms in similar industries in other jurisdictions. By rewarding technological innovation (by allowing higher profits), regulators should encourage firms to innovate, thus benefitting consumers in the form of lower prices and better products.
- c) Price discrimination occurs when various buyers pay different prices for the same commodity, and when price differences are not proportional to cost differences; the essence of price discrimination is that it involves "cross subsidization". Stanbury indicates that some degree of discrimination may be acceptable to those who are "taxed" to finance it; the point is to ensure that such arrangements are overt and approved by the relevant "taxpayers".
- d) It is not enough to set rates, prevent price discrimination, and eliminate monopoly profits. The failure to set service standards provides the regulated firm with an "out". Regulatory authorities should therefore specify and enforce service standards.

Stanbury concludes that the consumer voice must be "institutionalized" in the regulatory process so that consumer interest is at the forefront of regulatory proceedings. The most desirable format for a consumer advocate agency is one which is publicly financed, but privately produced. It should remain outside both the agencies and the government so that they cannot be compromised.

## REFERENCE - T-6.4

PAPER TITLE: Air Fares, Inflation and the Costs of Regulation  
in the US.

AUTHOR: Dr George Eads

Dr Eads challenges the role of the US Civil Aeronautics Board in allowing sharp increases in air fares in 1974 and 1975. He notes that it has been easier to get fare increases from the CAB than it has been to get fare decreases.

One of the results of the CAB's imperfect economic regulation of the airlines is the non-price competition particularly in the form of additional flight frequencies which increase total costs and thus promote a high level of fares.



REFERENCE - T-6.4  
(cont'd)

When the CAB decided that AIR NEW ENGLAND (a self-supporting airline), should be regulated, its costs increased so much that a subsidy was required for its continued operations.

Ead contends that rate-of-return regulation tends to ignore the level of costs and production efficiency; using the different cost levels of EASTERN and DELTA as an example, Ead argues that the amount of price competition among the airlines can be increased to reduce the burden on consumers. He demolishes the "cross subsidization" argument, and advocates selective deregulation.

Ead feels that allowing substantial flexibility in airline rates, and reducing controls over entry and exit from individual city pair markets, will not bring about the collapse of the existing air transportation system. He points to the commuter carrier segment of the industry where a deregulated air transportation system already exists. Those carriers are free from rate regulation and from control of entry and exit so long as they operate aircraft with no more than 30 passenger seats. They serve hundreds of markets at fares which they select on the basis of their own assessment of market conditions; this sector of the industry has been characterized by a high rate of new entry and a high rate of exit, including a healthy number of business failures.

The fact that so many firms have entered the business illustrates two points:

- 1- given free entry, a substantial number of entrepreneurs would enter air transportation.
- 2- entry will take place not only in the lucrative markets, but also in small markets capable of supporting no more than a single carrier.

The story of commuter carriers teaches other lessons as well states Ead. For example:

- unregulated carriers will publish schedules and adhere to them.
- they will publish and adhere to fares.
- they will interline passengers and luggage with certificated carriers.
- they will utilize sophisticated reservation networks.

In conclusion, Dr Ead states that he feels the Nation's domestic air transportation system would be vastly improved if CAB control over rates, entry and exit were substantially curtailed or eliminated.

REFERENCE - T-7

SUBJECT:           Transportation

PUBLISHER:       Center for Transport Studies  
                  UBC, Vancouver

TITLE:            Transportation Competition and  
                  Public Policy in Canada

AUTHOR:           Dr H.L. Purdy

TRANSPORT COMPETITION AND PUBLIC POLICY IN CANADA is the first book to examine contemporary forces of intermodal competition as they relate to the inter-city transport picture. It features an introduction to the various modes of transportation and the competitive interrelationships that exist among them. It also features an analysis of the considerable inequality in public treatment of the intermodal competitors, based on a comparison of government subsidy programs; and an appraisal of how public regulation of rates and services has affected and continues to affect intermodal competition.

In outlining the major policy issues facing inter-city transportation, the book includes careful consideration of the extent to which competitive forces can be relied upon to regulate the industry. This involves an incisive discussion of the National Transportation Act of 1967 - federal legislation aimed at modernizing public transport policy. The Act provides opportunities for a substantial decrease in government regulation of the pricing, investment, and service policies of respective transport modes. TRANSPORT COMPETITION AND PUBLIC POLICY IN CANADA stresses that the optimum balance between regulation by statute and regulation by competition has yet to be determined. In this regard, the book suggests what must still be done to realize the Act's potential.

This thorough survey, which includes numerous tables and charts, will be of value for students of transportation economics. In addition, it is seen as a useful reference tool for transportation economists, transportation lawyers, and other interested readers.

REFERENCE - T-8

SUBJECT:           Transportation

PUBLISHER:        MacMillan - Toronto

TITLE:            Issues in Canadian Transport  
                  Policy (1972)

EDITOR:           Dr K.W. Studnicki-Gizbert

This volume is a collection of the papers and discussions from the Conference on Canadian National Transport Policy held at York University, Toronto in May, 1972. Research results of an intensive inquiry into the nature of Canadian Transport Policy by economists, lawyers and political scientists are presented in the form of an interdisciplinary symposium directed toward a functional analysis of the continued conflict between the ideals of competitive efficiency and the use of transport as a policy tool.

The papers are grouped into four parts:

- I. The Emergence of the National Transport Policy
- II. Some International Comparisons
- III. Economic and Regulatory Issues
- IV. Policy Instruments

and together provide a comprehensive interdisciplinary policy study of the current issues in Canadian Transport.

APPENDIX IBIBLIOGRAPHYTRANSPORTATION"TRANSPORTATION POLICY: REGULATION, COMPETITION AND PUBLIC INTEREST" (1976)

Ed. Ruppenthal and Stanbury

Pub. Center for Transportation Studies, UBC Vancouver

"THE OWNER-OPERATOR INDEPENDENT TRUCKER" (1975)

Auth. D. Wyckoff

Pub. Lexington Books

"ORGANIZATIONAL FORMALITY & PERFORMANCE IN THE MOTOR CARRIER INDUSTRY"

Auth. D. Wyckoff

Pub. Lexington Books

"TRANSPORTATION RATES AND ECONOMIC DEVELOPMENT IN NORTHERN ONTARIO"

Auth. N.C. Bonsor

Pub. Ontario Economic Council, U of T Press.

"CIVIL AVIATION STRUCTURE"

Auth. Canadian Transport Commission

Pub. Canadian Government

"FRAMEWORK FOR TRANSPORTATION IN CANADA" (1975)

Auth. Transport Canada

Pub. Canadian Government.

"TRANSPORT IN CANADA" (1972)

Auth. H.L. Purdy  
Pub. Center for Transportation Studies, UBC Vancouver

"TRANSPORTATION OF SOLIDS IN PIPELINES"

Auth. Energy, Mines & Resources

"URBAN TRANSPORT PROBLEMS" (US)

Auth. Meyer, Kain & Wohl

"ISSUES IN CANADIAN TRANSPORT POLICY" (1972)

Auth. Studnicki-Gizbert

"STRUCTURE AND GROWTH OF CANADIAN AIR (1962) TRANSPORT POLICY"

Auth. Studnicki-Gizbert  
Lib. DOT: HD9711.C258

"AIR TRANSPORTATION" (1972)

Auth. Kane & Vose  
Lib. DOT: 9803.A3K3

"TRANSPORTATION COMPETITION & PUBLIC POLICY" (1972)

Auth. H.L. Purdy  
Lib. DOT: HE 215P87

"AIR TRANSPORT (US): FIGHT FOR COMPETITIVE ADVANTAGE" (1962)

Auth. Fruhan  
Lib. DOT: HE 9803.A4 F77

"AUTOMOTIVE TRANSPORT - US FREIGHT" (1977)

Auth. D. Wyckoff

Lib. DOT: HE 5623 W89

\* The National Transportation Act of 1966-67

ENERGY (OIL & GAS)"THE BROTHERHOOD OF OIL" (1977)

Auth. Robert Engler

Pub. University of Chicago Press

"THE CONTROL OF OIL" (1976)

Auth. John Blair

Pub. Vintage Books

"HISTORY OF CANADA'S OIL & GAS"

Auth. E. Gould

"FAILURE OF US ENERGY POLICY" (1974)

Auth. R.B. Mancke

"ANALYSIS OF PROPOSED US ENERGY PLAN" (1977)

Auth. U.S. Congress

Pub. Office of Technology Assessment

"AN ENERGY STRATEGY FOR CANADA" (1976)

Auth. Energy, Mines & Resources

Pub. Govt of Canada

"THE NATIONAL ENERGY BOARD" (1977)

Auth. Law Reform Comm.

"WESTERN CANADIAN OIL & GAS INDUSTRY" (1969)

Auth. Alberta Conservation Board

Lib. NEC: HD 9574.5 W52

"THE NATIONAL ENERGY PLAN" (1977)

Auth. Executive Office of the President

Pub. US Government Printing Office

MINING"COMPARATIVE STUDY OF CANADA/US RESOURCE PROGRAMS" (1975)

Auth. US Geological Survey

Lib. (Energy Mines & Resources Library)

"THE MINERAL POSITION OF THE US 1975-2000" (1973)

Auth. Eugene Cameron

Lib. (Energy Mines & Resources Library)

"IS OUR ACCOUNT OVERDRAWN"

Auth. G. Bennethum & L.C. Lee

Pub. (Mining Congress Journal published by the American Mining Congress -  
undated).

"STATEMENT OF CONCERN" (1977)

Auth. Mining Association of Canada (pamphlet)

Lib. (Energy, Mines & Resources library)



"FACTORS INFLUENCING THE MINERAL ECONOMY OF CANADA" (1970)

Auth. Dept of Energy, Mines & Resources  
Lib. (Energy, Mines & Resources Library)

"POLITICS, MINERALS AND SURVIVAL" (1974)

Auth. Ralph Marsden  
Pub. Society of Economic Geologists Foundation, Inc.

"CONFLICT AND ITS RESOLUTION IN THE ADMINISTRATION OF  
MINERAL RESOURCES IN CANADA" (1976)

Auth. R.M. Burns  
Pub. Center for Resource Studies, Univ. of Kingston

"CLAIM AND SURVEY PROCEDURES - HARDROCK PROPERTIES"

Auth. Energy, Mines & Resources

COMMUNICATIONS AND BROADCAST"CABLE TV: A HANDBOOK FOR DECISION MAKING" (1974)

Auth. W.S. Baer  
Pub. Crane, Russail & Co.

"FEDERAL REGULATIONS RELEVANT TO THE STRUCTURAL DEVELOPMENT OF  
TELECOMMUNICATIONS INDUSTRIES (1977)"

Auth. FCC  
Pub. US Dept of Commerce: Pub # PB-275238

"MEMORANDUM OF EVIDENCE BY E.V. ROSTOW"

Auth. Dr. E.V. Rostow  
Pub. CRTC: CN/CP Hearings March 1978.

"BROADCASTING & CABLE TV REGULATORY HANDBOOK" (1973)

Auth. P.S. Grant

Pub. Upper Canada Law Society

"TELECOMMUNICATIONS FOR CANADA" (1973)

Ed. H.E. English

Pub. Methuen - Toronto

"REGULATION & ENTRY: ENERGY, COMMUNICATIONS & BANKING" (1976)

Ed. Klass and Shepherd

Pub. Michigan State University

- \* Bill C-24
- \* Broadcasting Act and relevant regulations
- \* Canadian Radio-television and Telecommunications Commission Act
- \* The Communications Act of 1934 (USA)
- \* Miscellaneous FCC pamphlets and folders concerning the organisation of the US telecommunications and broadcast industries.



