DOC/PSD

U.S. DEPARTMENT OF COMMERCE
Office of Telecommunications
Washington, D.C. 20230

Date: November 23, 1973

To: Dr. Richardson

From: Scott Lothrop

Subject: Weekly Staff Meeting Item, 11/16/73

At the subject meeting, you inquired as to the status of Dick Gabel, vis-a-vis his support within the PSD program. This memo documents and amplifies my oral response.

Our FY-74 Baseline Program Plan (BPP-74) includes some dozen tasks in which Dick Gabel was either the leader or participant. With but a few exceptions, it is apparent to me that Dick Gabel because of his background and experience (and lack of same in our junior staff), has functioned principally as a resource person for the other task team members. That is, on each task on which he was working, his main immediate contribution was to put each task in its historical perspective. In addition, he has made himself available to PSD staffers on many of the other tasks to which he had not been directly assigned. As a temporary change in operating mode, then, it was decided in conjunction with OTP to bring together as many of these tasks as feasible and produce an historical summary of many of the pertinent facts. By synthesizing the multiple issues into a single effort, not only the PSD staff, but also the OTP staff, could benefit.

Thus, this operating procedure is not a major deviation from the Baseline Program Plan, but merely a rationalization and synthesis of some of its parts. Hank Goldberg and Walt Sutter were aware of Dick's reorientation; indeed, after your expression of interest, I found Tom Whitehead had been fully briefed on it as well. He considers it significant work, and agrees with me that it fits well within the context of the presently extant BPP-74.

cc: C.T. Whitehead

OFFICE OF TELECOMMUNICATIONS POLICY
WASHINGTON

June 29, 1972

Tom:

Checked with Hinchman's office to see if this had been resolved. They indicate it has -- so we will just file the papers.

Eva

Doc, PSD

OFFICE OF TELECOMMUNICATIONS POLICY
EXECUTIVE OFFICE OF THE PRESIDENT
WASHINGTON, D.C. 20504

June 20, 1972

To: Mr. Whitehead

From: Walter Hinchman

Subj: Lothrop memorandum re proposed European travel for Richard Gabel

It is obviously too late to make any change in Gabel's travel plans, so there seems no point in further debate on that score. However, this exchange highlights a number of issues regarding OTP/PSD coordination which should be resolved with Lothrop before our relationship with him degenerates into the usual morass:

1. To my knowledge, the OTP was never consulted on either the necessity, desirability or objectives of the Gabel trip, nor on its probable impact on other priority tasks. I learned of the possibility of such a trip (informally) about 2-3 months ago, at which time I objected (also informally) on the above grounds. Since then Gabel has become centrally involved in the PSD support for our several common carrier studies, with no further mention of the European trip, leading me to believe it had been cancelled or rescheduled. This failure to inform or consult with the OTP on such important matters has been characteristic of OT personnel from the start, but it should be made very clear to Tad that it is unacceptable.

2. This is not the first instance where Tad has elected to continue unchanged all actions set in motion by his predecessors. I refer you to the decision to continue the CATV Manpower Study under Ed Roth, and the apparent intention of continuing ITS support at the 250 K annual level, among others. While I recognize the need to maintain some continuity and amicable working relations with prior interests, I am beginning to wonder when we can expect some reorientation of the PSD effort which has been and still remains largely counterproductive?

SENSITIVE

3. Finally, I must take exception to the concept that anything Gabel will learn from this trip will have more relevance to continued analyses of the U. S. domestic or international communications industry than would his participation in the common carrier studies now underway. In the first place, I have yet to see any substantive, analytic output from Gabel, even with his unquestioned knowledge in the field. His participation in the current studies was envisioned as the most likely means of obtaining such output. I fail to see how further education of Gabel on totally irrelevant matters (e. g., how a government-owned telephone and telegraph system functions? ?) will contribute much to our understanding or modification of U. S. common carrier operations -- particularly if said knowledge is as hard to extract from Gabel as has heretofore been the case.

What do I suggest you do? Absolutely nothing. Like others in the OTP, I have become firmly convinced that Commerce cannot be counted upon to provide any useful support to this Office, and will only continue to be a counterproductive drag on the whole operation. My only request is that I not be unduly burdened with requests for guidance (which is never followed); for program plans (ditto); for information (which is used to thwart our own efforts); for personnel interviews (which do not prevent the recruiting of incompetent staff); and for education (which is impossible to impart).

Walt

Walter Hinchman

OFFICE OF TELECOMMUNICATIONS POLICY

Log In No. 6-620

INFORMATION MEMORANDUM

To: The Director, OTP

From: Scott Lothrop, Chief
Policy Support Division

Brief Summary of the Material:

Response to W. Hinchman memorandum of June 15 regarding the proposed European travel of Richard Gabel (PSD).

Why it is worthwhile to read:

Disparity of views (SL/WRH) on timing and necessity of Gabel trip vs. apparent impact on PSD support.

Form OTP 11
January 1972

U.S. DEPARTMENT OF COMMERCE
Office of Telecommunications
Washington, D.C. 20230

June 19, 1972

MEMORANDUM FOR Walter Hinchman

From: Scott Nothrop

Subject: Richard Gabel - Europe Trip,
June 22 - August 18, 1972

Responding to your June 15 memo on Dick's absence, the commitment was dated February 25, 1972, the date of signature approval on the travel request.

My position on taking over May 1, 1972, was, and is, that the decisions made by my predecessors will be honored by me, short of destructive consequences. In this instance, my decision to let Gabel's travel orders stand as written was based on multiple factors, developed below. On receipt of your June 15 memo, these factors, plus your expression of concern--a concern I, too, had felt and to some degree still share--were reconsidered as you requested.

On balance, the reconsidered decision still makes good sense and will stand.

The factors previously considered, and now reconsidered, coupled with my comments thereon, were:

a. Purpose of the trip. As stated in my June 13 memo, the purpose is a fact-gathering trip on European common carrier operating policies, tariff policies, investment policies, pricing practices, operational features, facility commitments and planning, and research developments. The countries on the itinerary, and officials being visited follow:

London, U. K.

Mr. C. E. Lovell
Ministry of Post and Telecommunications
Telecommunications and Radio Regulatory Department

Paris, France

Mr. M. Varloot, Telecommunications Engineer
Special Assistant to the Chief of Service for Programs and Economic Studies

Bern, Switzerland

Mr. F. Keller
Office of the Director-General des PTT

Hague, Netherlands

Mr. H. J. Wijers
Deputy Director-in-Chief for Economic Affairs
Telegraphs and Telephones Department
Netherlands PTT

Bonn, Germany

Mr. Mohr and Dr. Kaiser
Office of the Ministry for Postal Affairs, Information and Communications

Copenhagen, Denmark

Mr. Romer
Department of Administration for Telecommunications

Farsta, Stockholm, Sweden

Mr. B. Aakesson
Swedish Telecommunications Administration
Farsta, Sweden

Kjeller, Oslo, Norway

Mr. N. Knudtzen
Director of Research
Norwegian Telecommunications Association
Research Establishment

Vienna, Austria
Austrian PT&T Officer

b. Dilemmas posed by the trip. As implied by your June 15 memo, these were multiple, but had to be faced and resolved:

1) At the present time, PSD is single person sensitive, not only with respect to Dick, but also others. As you know, we are trying to recruit additional support capability in the common carrier field, complementary to Dick's unique encyclopedic background knowledge both in telephony technology and economies, e.g., William Sullivan, now with AT&T. (Still have not heard back from you on your check of your sources re Sullivan.)

2) We need to retain Dick's services for the long term, in the face of attractive offers from industry. It is a fact that he is in possession of offers from DATRAN and other telecommunications concerns at considerably higher salary.

3) The need for monitoring by PSD of the four OTP contracts in your area of interest, in Dick's absence. It has been reported to me that you have publicly said the success or failure of these contracts is a PSD responsibility, probably an overstatement of your actual words and intent, garbled or misinterpreted in the relay. But I share what I gather to be your actual meaning, viz., that the material to be gathered, organized and analyzed by these contracts, if properly done, will be invaluable to both OTP and PSD. In context, please confirm your actual meaning. Dick has spent full-time, two and three days a week, for the past several weeks, in debriefing and educational sessions for the analysts on these contracts. In an orderly fashion, with full knowledge of his upcoming trip, he has now moved them on from need for his personal involvement to study, in his absence, of his extensive relevant file holdings. In addition, John Parla has been assigned responsibility for filling Dick's previous role in his absence--granted, that John is not a one-for-one replacement for Dick, but a top quality man, nonetheless, with considerable relevant background experience and expertise of his own.

4) A change by me of such a long-standing commitment has to be weighed against its adverse impact on the individual's morale, interest, productivity and loyalty, not to forget the same attributes for other PSD individuals and the group as a whole. If the individuals are pushed around in a capricious and cavalier fashion, they will in my experience degenerate into a second-rate

group of shirking technicians as opposed to having the eager, state-of-the-art, profoundly interested attitudes I am determined to build by leadership and example into the PSD group.

5) Superficially, the data, facts, opinions, observations and perspectives gained from Dick's European trip would be of value only in support of Bromley Smith. On examination, however, these will have equal relevance in the continued analyses of the U. S. domestic communications, specific to the U. S. common carrier environment. They will have bearing on marginal cost analyses, economy of scale studies, and rate of return analyses. In addition, surface points may be surfaced relevant to the competitive vs. non-competitive issue, as one examines the services and offerings of totally state-controlled, hence truly non-competitive, telecommunications systems of the now nine European countries being visited. In addition, we were mindful of the role of your directorate in facilities planning in support of Bromley Smith in the international area.

6) Much advanced scheduling of appointments through State and embassy channels had already occurred, confirmed as recently as June 15 in some instances. Examination of subparagraph a. above will show that these appointments range from highly placed telecommunications policy officials through administrative, engineering and technical personnel.

7) Timing of any such trip at first glance is at best a difficult choice, given the dilemma cited in 1) above, and the continuum of effort now in momentum and foreseen. As the positive benefits emerge on examination, however, the choice of timing is now perceived as near optimal, with careful planning.

8) Lastly, an examination was even conducted of Dick's leave schedule. Related to 1) above, it is noteworthy that he has had three days off in 1972. Such pleasure aspects as may be attributed to the trip are well-deserved.

In sum, the decision considerations appear thorough and complete and force the conclusion I have reached.

cc: ✓Mr. Whitehead
Mr. Smith

OFFICE OF TELECOMMUNICATIONS POLICY
EXECUTIVE OFFICE OF THE PRESIDENT
WASHINGTON, D.C. 20504

Dd'd 5 p.m. 6/16

June 15, 1972

TO: Scott Lothrop

FROM: Walter Hinchman

SUBJECT: Economies of Scale Study (Common Carrier Area)

In response to your memo of June 13, there are no critical time constraints affecting the specific project involving economies of scale in telephone operating companies.

However, I am quite concerned about Dick Gabel's pending departure and its effect on our common carrier program in general. We look to him to do the great bulk of the analysis, and management of analysis, in this area, and there is no suitable replacement for him available. I had heard, conversationally and unofficially, some months ago that a two-month European trip was being discussed, but in the absence of any further discussi on with me on the matter I had assumed that the idea had been dropped. In view of the profound effect his absence will have on our common carrier program, I am wondering if it might not be well to reconsider having him make such a trip at this time.

Walt

Walter R. Hinchman
Assistant Director

Log No. 4-831

OFFICE OF TELECOMMUNICATIONS POLICY

INFORMATION MEMORANDUM August 31, 1972

SUBJECT: Proposed PSD Work Statements for FY 73

TO: Mr. Whitehead

FROM: Walter Hinchman

BRIEF SUMMARY:

WHY IT IS WORTHWHILE TO READ:

FYI.

GPO 931-271

OFFICE OF TELECOMMUNICATIONS POLICY
EXECUTIVE OFFICE OF THE PRESIDENT
WASHINGTON, D.C. 20504

ASSISTANT DIRECTOR

August 31, 1972

To: Mr. Whitehead

From: Walter Hinchman

Subject: Proposed PSD Work Statements for FY 73

Tad Lothrop has provided the attached draft of proposed PSD work statements for FY 73 for review and comment. With a few exceptions (e.g., structure of pay-cable?) I don't find this objectionable as a set of general objectives. However, as indicated in my response to Tad (attached), I am concerned about the detailed processes by which this work will be accomplished.

When I have received the additional information requested from Tad, I will advise you further concerning the acceptability of the complete plan.

Walt

Walter Hinchman

cc:
Scott Lothrop
Bromley Smith
Bryan Eagle
Charles Joyce

August 30, 1972

To: Scott Lothrop

From: Walter Hinchman

Subject: Proposed PSD Work Statements for FY 73; August 17 Draft

As a general statement of objectives, I find little fault with your August 17th draft. It is by no means as comprehensive nor incisive as one might wish, but with a few exceptions the projects described seem worth pursuing.

I am, however, concerned over what is missing from this plan -- namely, evidence that there exists for each project a responsible member of the PSD staff who understands the objectives and context of the proposed study, the methodology to be employed, the data to be examined, the output expected, and the working relationship to be developed with responsible OTP staff. Absent this type of information, this document will have no more operational significance than its predecessors generated by both OTP and OT.

Before making any commitment as to the acceptability of this plan, I would appreciate having it augmented with the above information. I am particularly interested in pinning down the specific individuals who are expected to work on each project, the proposed allocation of their time among projects, and their individual concepts of the methodology to be employed in each project. This information would be of immense value to me in evaluating the total program proposed.

Please let me know as soon as possible when this information might be available.

WRHinchman:dc
DO Records
DO Chron
Mr. Whitehead
Subj. RF.

SIGNED

Walter Hinchman

PROPOSED

PSD

WORK STATEMENTS

(Non-Government)

FY-73

August 17, 1972

D R A F T

NON-GOVERNMENT PROGRAM AREA

Proposed

- Mass Communications Media
- Common Carrier Regulation
- Specialized Carriers
- Spectrum Policy
- Miscellaneous

NON-GOVERNMENT

The attached work package represents effort proposed to be expended in FY 73 by OT/PSD in accomplishing its objectives in the Non-Government area in (a) developing an extensive technical competence in telecommunications (b) providing support to the OTP in the Non-Government area, and (c) support the objectives of the Department of Commerce. Approximately 16 man-years of effort is accounted for.

The major areas of support include the common carrier, specialized carrier, and cable TV industries, and questions of spectrum policy and plans. Some additional effort will be expended to keep abreast of new technology, to understand the capital structure of the telecommunications industry, and to develop profiles of the major companies.

In the area of common carriers, effort will be expended developing technical competence and supporting development of methods and institutional incentives for more effective and/or efficient regulation of common carrier monopolies. This will be pursued by studying cost accounting, and depreciation procedures and economies of scale, both in the United States and abroad. Efficient tariff structures and incentives for efficient performance on the part of the common carriers will also be studied.

For specialized services, effort will be expended developing technical competence and to identify areas in the overall communications industry where competition from specialized suppliers is feasible and economically beneficial. This will be pursued by defining communications brokerage/marketing applications and by supporting a study to determine the gains to the ultimate users and how these might be brought about. Data will be collected from which the impact of both terminal and system interconnection can be estimated.

Broadband (cable) effort as applied to mass communications media will be continued in FY 73, reflecting the high potential impact of this service both to the telecommunications industry and to the public. Cable TV is expected to expand rapidly in the next few years and it is considered desirable to set policy in this area before the large scale introduction of systems freezes the options. This area will be supported by development of a handbook for municipal and state officials about cable TV, audience segmentation studies

to see what size audiences could be developed, and subscriber demand studies for cable TV. The impact and alternative structures for pay cable TV will be studied. Alternatives for bringing cable TV to underdeveloped/underpopulated areas will be studied. Finally, support will be furnished to a pilot program as needed.

The use of the radio spectrum is important to the needs of the nation. This area will be supported by studying methods for using frequency assignment data to calculate and display available spectrum resource as function of actual usage, units of measure for spectrum occupancy, and methods for quantifying the amount of spectrum resource used in economic and/or social terms.

By studying the capital structure of the telecommunications industry and appropriate company profiles and documenting the data base the objectives of supporting the OTP and those of the Department of Commerce will be pursued.

NON-GOVERNMENT

Mass Communications Media

Project: Cable TV

Description: Cable TV is expected to expand rapidly in the next few years and it is desired to set policy in this area before the large scale introduction of systems freezes the options. The services ownership, capitalization, rules and regulations, etc., are all of interest.

This project will, as a part of PSD's on-going data base activity, prepare periodic reports briefly giving the status of key FCC Dockets, legislative bills, and committee hearings. As a predictor by analogy, audience segmentation in the radio and magazine industries will be documented. Audience segmentation has implications for the size of future cable systems, their total revenues, and the industry structure that may develop. As an aid to local government officials in making decisions concerning the regulation of CATV systems, a handbook will be prepared in question-and-answer format. This handbook will assay the advantages and disadvantages of the varying types of CATV regulation. As an aid in anticipating the structures and growth patterns of the cable industry and its viability as a competitive industry, a survey of existing studies will be made relative to new cable service demand.

Major Outputs:

(1) Periodic reports on status of FCC Dockets, etc.
(2) Report on audience segmentation.
(3) Survey of new Cable Services Demand Studies.
(4) CATV Handbook for local governmental officials.

Major Milestones:

(1) Status of FCC Dockets, etc. - monthly.
(2) Audience segmentation - draft report August 1972.
Final Report Equivalent to PRE - September 1972.
(3) New Cable Services Demand - draft report August 1972.
Final Report Equivalent to PRE - October 1972.
(4) CATV Handbook - draft August 1972.

Resources Required:

Engineer/Lawyer	10,000
Marketing Analyst	5,000
Marketing Analyst	6,000
Mass Communications Specialist	7,000
Marketing Statistician	7,000
Research Analyst	5,000
Travel	2,500
TOTAL	42,500

Non-Government

Mass Communications Media

Project: Alternative structures for pay cable TV.

Description: Pay cable TV has alternative structures and services under consideration and experimentation. Both the hotel and home consumer markets are being considered. Some promotors of pay cable have opted for one-way systems as the mode of carriage and are currently seeking to line up systems for their service. An examination must be made of the economic benefits and costs, and public interest impact, of alternative structures for development of pay cable TV. This will include alternatives for the type of sports and entertainment programs permitted or denied pay cable TV distribution, and alternative means of distributing pay cable TV programming.

Work done by PSD on this project in FY-73 will include generation of a detailed work statement, project monitoring and synthesis of project results.

Major Outputs:

(1) Detailed work statement.

A three month study, scheduled to coincide with the first measurable results of initial installations will yield a final report in May 1973.

Major Milestones:

(1) Detailed work statement - October 1, 1972
(2) Synthesis of project results - Draft April 1, 1973.
(3) Final report - May 1, 1973.

Resources Required:

Marketing Analyst	9,000
Contract	50,000
Travel	1,200
Research Assistant	1,800
TOTAL	62,000

Non-Government
Mass Communications Media

Project: Broadband for rural areas.

Description: Cable systems will find their greatest application in built-up areas both in the affluent parts of cities and in shadowed areas. The poor and the sparsely populated areas (Appalachia, Rocky Mountains, Alaska, etc.) will be delayed in enjoying the fruits of the current technology. This project will study alternative technological, economic, institutional, and policy means for introducing broadband systems to underdeveloped areas in the United States. The system costs and revenue possibilities will be established. Work done by PSD on this project in FY-73 will support contractual effort in this area, and also establish a data base for effort in this area.

Major Output:

(1) Support of contractual effort.
(2) Data base.

Major Milestones:

(1) Effort will commence late in FY-72 and carry through May 1973.

Resources Required:

Marketing Analyst	9,000
Mass Communications Specialist	3,000
Travel	600
Research Assistant	1,400
TOTAL	14,000

Non-Government
Mass Communications Media

Project: Subscriber demand for services.

Description: One uncertainty attendant to the introduction of new services on cable systems is the demand elasticity. A study is already underway to test subscriber demand for conventional CATV services.

Work done on this project by PSD in FY-73 will assay subscriber demand (and therefore potential revenue generation) versus the incremental cost of introducing new services. This will be done for individual services and the results presented in parametric form. Before a useful piece of research can be done in this area, the results of consumer tests must be available. This is anticipated in the late spring of 1973. At this point, a three month project will be undertaken yielding a final report in late August of 1973. Additional effort will be expended to observe industry experiments in this area and synthesizing the results.

Major Outputs:

(1) Reports describing the likely demand for individual service as a function of cost.
(2) Trade-off study indicating probable maximum returns.
(3) Report synthesizing the results of industry experiments.

Major Milestones:

(1) Initial effort to commence in early spring 1973.
(2) PRE on demand versus cost - July 1973.
(3) PRE on maximum returns - August 1973.
(4) Synthesis of results - June 1973.

Resources Required

Marketing Analyst	9,000
Mass Communications Specialist	6,000
Travel	1,000
Research Assistant	1,500
TOTAL	17,500

Non-Government
Mass Communication Media

Project: Pilot demonstration programs.

Description: A proposal has been made to introduce a pilot demonstration program in two-way interactive cable.

This project will establish the resources for coordination and for consulting in support of the potential demonstration.

Major Outputs:

Monthly summary reports as applicable.

Major Milestones:

To be determined after receipt of OTP statement of need.

Resources Required:

To be determined.

Mass Communication Specialist	9,000
Analyst	10,000
Travel	1,000
TOTAL	20,000

NON-GOVERNMENT

COMMON CARRIER REGULATION

Project: Common Carrier Regulation

Description: The common carrier industry is undergoing significant changes in its structure due in part to the demand for new services and to the possible entry of new competition. The probable impact of proposed new regulations can only be assessed if the broad aspects of the telecommunications industry are understood. Past and proposed cost and operating procedures must be studied and their ramifications understood.

Work done in this project will include an analysis of the Long Run Incremental Cost (LRIC) procedure. In the LRIC study, the sampling procedures and the origin of the expense ratios of the actual cost items will be investigated. Additional work under this project will include an analysis of the accounting practices of West European PTT's.

Major Outputs:

(1) Report equivalent to a PRE/POF on the accounting practices of European PTT's.
(2) Report Equivalent to a PRE on cost procedures.
(3) Reports equivalent to PRE's condensing and analyzing the LRIC procedure.

Major Milestones:

(1) PRE's on European Cost Procedures - as completed, finish by end of FY 73.
(2) PRE on cost procedures - September 1972
(3) PRE condensing LRIC - August 1972
(4) PRE analyzing LRIC - September 1972

Resources Required:

Economist	30,000
Telecommunication Eng.	7,000
Engineer	6,000
Engineer	6,000
Engineer	6,000
Research Assistant	6,000
Travel	4,000
TOTAL	65,000

NON-GOVERNMENT

COMMON CARRIER REGULATION

Project: Accounting, depreciation

Description: The likely benefits of competition and new services can only be assessed if the accounting and depreciation procedures are known and can be related to tariffs.

This project will support a study to provide data on the mechanics of existing book accounting and depreciation procedures for major Class A telephone carriers, i.e., what are the underlying accounting transactions which ultimately determine the values for various accounts in the Uniform System? Among other things, cost and revenue allocation procedures, expense vs. capitalize decisions, revenue recognition rules, and transfer pricing transactions will be looked at in detail. In the case of depreciation policy, emphasis will be on the current procedures for determining depreciable lives, disposition of salvage, and treatment of deferred tax liabilities arising from differences in book and tax depreciation accounting.

Major Outputs:

(1) Report on accounting and depreciation procedures for major common carriers.

Major Milestones:

(1) Report on accounting and depreciation - November 1972

Resources Required:

Economist	$5,000
Travel	$200
Analyst	1,800
TOTAL	7,000

Non-Government
Common Carrier Regulation

Project: Common Carrier Economics I

Description: This project will support effort to develop cost functions (investment and operating costs) for several basic telephone common carrier network operations: transmission, switching, local distribution, terminal operations. It will assist in defining these operations and segregating associated equipments in such a way that costs can be related to reasonable production output measures. Cost functions will be developed under various assumptions as to:

- types of transmission throughputs
- alternative technologies
- capacity files
- common and joint cost allocations
- depreciation policy
- etc.

Major Outputs:

(1) Contractual relating operations and equipments to output measures.

(2) Report equivalent to a PRE identifying candidate sectors of the common carrier industry for detailed study.

Major Milestones

(1) Report relating costs to outputs - Nov 1972
(2) PRE identifying candidate sectors for further study - Dec 1972
(3) Selection of candidate sectors - Jan 1972

Resources Required:

Senior Economist	15,000
Contract	25,000
Travel	1,000
Analyst	1,500
TOTAL	42,500

NON-GOVERNMENT

COMMON CARRIER REGULATION

Project: Multi - Part Tariffs

Description: The difficulties of marginal cost pricing in the presence of economies of scale, joint and common costs are well known. In addition to the complex imputation problems arising from closely interrelated costs, there is also a basic conflict between pricing to recover all costs and pricing to encourage efficient use. Pure marginal cost pricing will fail to raise sufficient revenue to cover all costs. On the other hand, pricing at average cost will result in too little of the service being used since the price for an additional unit exceeds the cost of providing it. Multi-part tariffs represent a compromise between the needs to raise revenue and to provide incentives for efficient use. Typically, such a tariff consists of a fixed charge (independent of use) and one or more variable charges. The fixed charge is designed to recover "capacity" costs that do not depend on use, while the variable charges cover marginal cost.

This project will support an on-going study to examine the feasibility and desirability of using efficient multi-part tariffs for selected services offered by the Bell System. "Efficient," means a tariff that comes as close to the use/capacity pattern that would have been generated by pure marginal cost pricing as is consistent with covering all costs. The feasibility of a particular methodology for computing multi-part tariffs depends on the costs of collecting and interpreting the information necessary to set rates, metering and billing costs, and the costs imposed on customers by the complexity of the tariff structure. The feasibility of the proposed methodology will be judged by its success (or lack thereof) in generating appropriate tariff structures for selected services offered by the Bell System. These "case studies" will illustrate the method.

Effort in this project will also undertake a follow-on study to define in detail selected multi-part tariffs. Here (for selected case studies of common carrier services) it will be necessary to distinguish the costs of customer dedicated equipment and common capacity from variable service usage costs. This distinction will serve as the basis for designing tariffs which approximate the use/capacity pattern that would be observed under pure marginal cost pricing, but would also

cover all costs in a context of decreasing average costs. Of particular concern in this study will be existing and alternative procedures for allocating joint and common capacity and operating costs both among equipments and also among services (the case study services and other related services).

Major Outputs:

(1) Report on proposed methodology for multi - part tariffs.

(2) Report equivalent to a PRE proposing candidate multi - part tariffs for detailed study.

(3) Report equivalent to a POF detailing the impact of selected multi - part tariffs.

Major Milestones:

(1) Proposed methodology for multi - part tariffs - Dec 1972

(2) PRE proposing candidate multi - part tariffs for study Jan 1973

(3) Selection of candidate multi-part tariffs for study - Feb 1973

(4) POF on multi - part tariffs - July 1973

Resources Required:

Economist	15,000
Analyst	1,400
Travel	600
TOTAL	17,000

NON-GOVERNMENT

COMMON CARRIER REGULATION

Project: Economies of Scale

Description: Traditionally firms exhibiting strong economies of scale are awarded monopoly franchises (a de jure admission of their monopoly position) and subjected to rate of return regulation (to protect the public from abuses of their monopoly power). Preliminary investigation indicates that this condition may not obtain in the area of non - toll service. Should this be the case, it would call into serious question the rationale for a horizontally integrated Bell System. This effort will produce a policy research estimate which will convincingly document the economies of scale for non-toll or local companies, including Bell operating companies, rural telephone companies, and independent, non-rural companies.

The initial effort will establish the study methodology, establish alternative econometric measures of system efficiency (effects of scale, with an evaluation of the advantages and disadvantages of each measure, and size the required effort. Using a selected efficiency versussize of telephone operating companies.

Major Outputs:

(1) Study methodology, and evaluation of alternative econometric measures of efficiency and analytic models

(2) Data base and relationships between company size and various measures of efficiency and productivity

(3) Analysis of the significance of the data, probable reason for the results obtained, and possible hidden biases which could have affected these results

Major Milestones:

(1) Study methodology - July 27, 1972

(2) Evaluation of alternative economic measures of returns to scale and analytic models. August 31, 1972

(3) Selection of measures of efficiency. September 15, 1972

(4) Data base and relationships between efficiency and company size. November 30, 1972

(5) Analysis and final report. December 31, 1972

Resources Required:

Economist	10,000
Statistician	3,000
Travel	500
TOTAL	13,500

NON-GOVERNMENT
COMMON CARRIER STUDIES

Project: Performance incentives and alternatives to rate of return regulation for Common Carriers.

Description: Common Carrier Profits are currently limited to a rate of return of invested capital (rate base) sufficient (as determined by the regulatory authority) to attract necessary new capital for service expansion. The economic literature has suggested that this method of regulation may not offer the regulated firm proper incentives for efficient performance (e.g., the A-J effect). In addition, the current mode of regulation appears deficient in other important respects: there is no consensus on rate making principles (despite protracted investigations), the adversary process in rate determinations serves to distort and obfuscate critical issues, service quality in many areas has deteriorated significantly, the backlog and delays in rate cases has depressed earnings, and accordingly inflated outside capital costs. There is clearly a need for a fresh view of regulation which focuses on designing broad policies and economic incentives to encourage efficiency and innovation rather than on cumbersome surveillance of common carrier operations detailed scrutiny of operation which most properly fall within management prerogative. To the extent systematic incentives can be self regulating without sacrifice of effectiveness, so much the better.

This project will investigate the practicability of various incentive structures including, but not limited to the following list. For those which look promising, it will also consider in detail means of implementation.

1) Franchise bidding and review. Under this concept a franchising authority for a given local operating area could award operating franchise for provision of telephone service to any party that

bids the lowest service rates over some fixed time, subject to explicit and rigidly enforced quality of service standards (see Sec #3 below). When the bid winner differs from the encumbent, provision would have to be made for the transfer of and payment for assets, and for controls against harmful endgame strategies (depletion of plant). There would be no limit on profits, but the bid service rates could not be exceeded.

2) Management Franchise bidding or performance contracting, This approach avoids the asset valuation problems of a strict franchise bid; here a transfer of franchise does not necessarily involve a change in ownership.

3) Yardstick competition. Here the objective would be to design a comprehensive set of weighted performance standards (a la the Bell System Service Attitude Measurement plan but including service rates as a parameter and certain financial control ratios) to compare the operations of companies franchised in different areas. For reasonable comparisions, it might be necessary to group (or restructure) operating areas into classes of similar characteristics -- subscriber densities, business/residence proportions etc. Rate of return bonuses, etc. could be awarded to the high performers. Since AT&T is the common stockholder for all the major operating companies, it might be necessary to use absolute performance measures rather than relative performance spreads between companies. This approach, as with others above which depend on service quality guidelines, should consider a mechanism of using customer responses for assessing service quality. Sample questionnares along the lines of SAM should be formulated and their effectiveness as a regulatory tool estimated.

4) Cooperative ownership. In this case any profits of the utility would be shared with the users directly through consumer ownership. This sharing might be effected by giving the consumer voting interest in the regulated utility or placing consumers on the board of directors.

5) Regulatory lag. This approach would rely on more effective and deliberate use of regulatory lag to induce efficiency and innovation by allowing (predictably) the possibility of earnings temporarily in excess of the rate of return ceiling. This would, of course, have to be combined with quality of service controls.

6) Regulation by capital markets. Covered elsewhere, in the Capital Requirement Study.

Major Outputs:

(1) PRE on the practicability of performance incentives for rate of return regulation for common carriers.
(2) POF on the effectiveness of questionnaires as a regulatory rule.
(3) POF on the implementation of selected promising incentive structures.

Major Milestones:

(1) PRE on the practicability of performance incentives - March 1973
(2) Selection by OTP of promising incentive structures for detailed study - April 1973
(3) POF on questionnaires - May 1973
(4) POF on implementation of selected incentives - June 1973

Resources Required:

Economist	20,000
Mass Communications Specialist	8,000
Travel	2,000
TOTAL	30,000

NON - GOVERNMENT

COMMON CARRIER STUDIES

Project: Cross Subsidization.

Description: The essence of this study is to find the increase in cost associated with an increase of an output. Output must be defined as homogeneous from users' point of view. This probably requires time of day, place, and quality dimensions. The costs here should be opportunity costs to society (often the same as cost to the producer). These incremental costs should probably be computed with a long run perspective. This implies that the producer has time to adjust so as to produce the extra output as cheaply as possible. If this time period is longer than several years, it might be well to use a time period of several years as well as the long run time period.

Whenever an output is priced below the long run incremental cost of supplying that output, the output may be regarded as being cross-subsidized.

If the prices of all the outputs of a producer were equal to their respective long run incremental costs, it's conceivable that total revenues would not cover total cost. To cover any residual cost (in some cases called common cost) with revenues some prices would then have to be greater than incremental cost.

Another issue arises in the special case in which two (or more) outputs occur in fixed (or nearly fixed) proportion. The classic case being that of hides and mutton. In this case the simple application of the incremental cost discussed above may be misleading. The extra cost of another hide is the cost of a sheep, but this overlooks the fact that one automatically gets mutton when that hide is produced. Hides and mutton are usually said to have joint costs. To address this issue one must ask if the cost of producing a sheep (one mutton and one hide) is greater than the sum of prices for hides and mutton. If so, then there is cross-subsidization.

Thus, the study of cross-subsidization involves comparisons of prices and incremental costs.

This study will measure the extent of cross-subsidization in areas jointly selected with OTP. Of particular concern will be cases of cross-subsidization by monopolies (regulated common carriers) of services they provide to competitive markets. It will be necessary for study personnel to have close familiarities with the OTP multi-part tariff study.

Major Outputs:

(1) PRE identifying homogeneous outputs and opportunities, cost of inputs.
(2) POF identifying alternative methods of producing extra outputs.

Major Milestones:

(1) PRE identifying homogeneous outputs, etc. - March 1973.
(2) Selection jointly with OTP of cross-subsidization cases for detailed study - April 1973.
(3) POF identifying cross-subsidization in selected cases - June 1973.

Resources Required:

Economist	14,000
Engineer	6,000
Research Assistant	2,800
Travel	1,200
TOTAL	24,000

NON-GOVERNMENT

Specialized Services

Project: Specialized Carriers

Description: Activity in the specialized common carrier industry has accelerated due to the demand for new services, such as data communications, the change in regulations which in effect ended the AT&T monopoly, and the advent of domestic satellite communications. The approval of private line services, if indeed the service proves to be competitive, may point the way to reducing or eliminating the need forregulation. Additional effort may be expended to enlarge upon the results of the study. The land mobile effort will be completed. An effort will be mounted to keep abreast of developments in the domestic satellite issue and new satellite designs.and applications. Effort in this task will contribute to the data base in the specialized carrier area and finish efforts started in the previous year.

Major Outputs:

(1) Land Mobile Study

Major Milestones:

To be determined

Resources Required:

Economist	6,000
Engineer	12,000
Engineer	16,000
Engineer	4,000
Engineer	17,000
Analyst	1,500
Travel	1,500
TOTAL	58,000

NON-GOVERNMENT

SPECIALIZED SERVICES

Project: Brokerage

Description: This project will study communications brokerage/ marketing applications (existing and potential) from which to select reasonable candidates for further study. The first step will be to define in detail the possible classes of communications commodities which might be marketed independently of the ownership and operation of facilities used to produce such commodities; that is, marketed by some form of intermediary.

A second step will be to identify a full range of existing and potential applications for the marketing of communications commodities by intermediaries. These applications will range from "pure" brokerage (where the intermediary has no ownership interest in any of the facilities which provide the commodity or service he markets retail), and intermediary function which is linked to the supply or sale of terminal equipment, and cases where the intermediary owns some of the facilities.

The third step will be to specify generally the types of major technical constraints that might operate as obstacles to implementation; in what way, and how seriously. This will include a definition in broad terms of the types and numbers of end-users (retail purchasers) that can be expected for each application, and the anticipated structure of the intermediary market. The structure anticipated will be discussed in terms of:

- The nature of brokerage transactions: necessary turn around times, transaction costs, middleman fees, arbitrate possibilities (price equilibrium mechanisms), types of rules and enforcement vehicle 3, short/long selling, anticipated degree of price volatility (level changes over time).

- Information flows, necessary vehicles

- Number of intermediary levels between initial supply and retailing of communication commodities.

- Generally, the nature of lease or purchase terms of commodities.

Major Outputs:

(1) A report equivalent to a PRE which will define communications brokerage/marketing applications (existing and potential) in sufficient detail so that a choice may be made of reasonable candidates for further study
plus another detailing the rationale for selection.

Major Milestones:

(1) The report defining the communications brokerage/marketing applications will be targeted for delivery on September 15, 1972, but may be delivered as late as October 1, 1972.

(2) The project will include support for a further contractual study in detail of the selected candidate or candidates. This study is intended to be completed by January 1, 1973.

(3) Further effort may be required to both clear up ambiguous portions of the study and to prepare the details of the study in an appropriate form.

Resources Required:

Economist,	12,500
Policy Analyst	3,500
Contract	50,000
Travel	1,200
TOTAL	67,200

NON GOVERNMENT
SPECIALIZED SERVICES

Project: Common-Carrier Economics II

Description: As a follow-on contract study to Common Carrier Economics I, it will be necessary to identify in detail these sectors of the existing common carrier where competitive supply is justifiable (on a cost basis and feasible (in the sense that any newly carved 'markets' can sustain viable competitive enterprise. This follow-on study should a) posit the types of new economic entities that are possible, the range of (specialized) services (markets) they would supply, the risks and costs of entry, availability of capital, probably carrier responses to competition, the opportunities created by new technology, b) should propose removal of appropriate legal, regulatory and other barriers to restructure of the industry and c) set ground rules for the behavior of monopoly carriers in competitive markets.

PSD Support Tasks:

In the same mode that PSD will be required to support the ongoing SAI effort, support will be needed here in defining competitive, specialized service markets and supply entities. Of primary concern will be estimates of demands and costs for specialized services and realistic market shares around which competitive entities can be established. Among other things, this will treat specifically the costs and opportunities for specialized long haul carriers operating on physically separate facilities (both terrestrial and satellite), and local distribution systems separate from the telephone network.

Major Outputs:

(1) Report equivalent to a POF detailing sectors of the common carrier industry where competitive supply is justifiable.

Major Milestones:

(1) POF identifying feasible competitive areas - April 1973. Initiation of effort December 1, 1972.

Resources Required:

Senior Economist	5,000
Travel	600
Engineer	3,000
Analyst	1,500
TOTAL	10,100

NON-GOVERNMENT

Specialized Services

Project: Terminal Interconnection Historical Summary - I

Description: In order to estimate the possible impacts on the carriers of alternate terminal interconnection policies, an accurate data base is needed of common carrier separations.

This project will provide an accurate historical summary for the past 10 years of the actual common carrier separations between interstate and interstate jurisdictions. This summary will include both nationwide and several selected states and cover all major expense and plant accounts.

Major Outputs:

(1) Historical summary equivalent to a PRE.

Major Milestones:

(1) PRE - December 1, 1972

Resources Required:

Senior Economist	7,500
Travel	300
Research Assistant	1,200
TOTAL	9,000

NON-GOVERNMENT

Specialized Services

Project: Terminal Interconnection Historical Summary - II

Description: In order to estimate the possible impacts on the carriers of alternate terminal interconnection policies, an accurate data base is needed of common carrier separations.

This project will provide an accurate historical summary for the past 10 years of the results of the toll settlements between Bell and the independents and between inter and intra state jurisdictions.

Major Outputs:

(1) Historical summary equivalent to a PRE.

Major Milestones:

(2) PRE - November 1, 1972.

Resources Required:

Senior Economist	5,000
Travel	300
TOTAL	5,300

Non-Government
Specialized Services

Project: Terminal Interconnection Tariff Trends

Description: Data on recent carrier tariff trends for various terminal equipment is needed as part of the data base for determining possible economic impacts on the carriers, and their response to, particular interconnection situations.

This project will provide data on recent carrier tariff trends for various terminal equipment. This will provide a basis for anticipating carrier responses to particular interconnection situations. The types of terminal equipment to be investigated will be determined jointly by OTP, Dittberner and PSD.

Major Outputs

(1) Report equivalent to a PRE on recent carrier tariff trends for various terminal equipment.

Major Milestones

(1) PRE - Nov 15, 1972

Resources Required:

Analyst	3,000
Research Assistant	3,000
Travel	300
TOTAL	6,300

NON-GOVERNMENT

Specialized Services

Project: System Interconnection

Description: Interconnection at the system level between and among common carriers and specialized carriers is becoming an increasingly important issue. It is desired to establish in general terms the economic importance of system interconnection in terms of the opportunities it might present to new competitive supply entities. Consideration must be given to networking local broadband distribution systems for the provision of both broadcast and other specialized services.

This project will assist OTP in defining a study which addresses the major technical, legal, regulatory, and economic issues. The study will also focus on the economics of various networking arrangements, the types of services networked, and the impact of possible end-to-end competition with the common carriers in certain service areas (Digital Data Transmission, e.g.).

Major Outputs:

(1) Draft study definition equivalent to a PRE.

Major Milestones:

(1) Draft study definition - March 1, 1973

Resources Required:

Telephone Engineer/Economist	10,000
Travel	400
TOTAL	10,400

NON-GOVERNMENT

Project: Spectrum Allocation Plans and Policy Studies

Description: Growing demands on our limited spectrum resources require, in the near term, reallocation of spectrum among users and services with improved spectrum engineering techniques which more explicitly include social and economic considerations. In the longer run, a more flexible and responsive mechanism for allocation and assignment may be required. In both cases, a comprehensive definition of the spectrum resource and a quantitative unit for measuring its use are required. Alternative systems for allocation must be defined and evaluated. Such definitions are the objective of this project.

Major Outputs:

(1) A method for using frequency assignment data to calculate and display the percentage of the spectrum resource used in congested metropolitan areas. The method will be illustrated by making calculations for the Chicago metropolitan area.

(2) A paper containing precise definitions for units of measure of the amount of the spectrum space used and a discussion of the property rights implied by the measure.

(3) Alternative objectives and procedures for introducing economic considerations into the government frequency management process.

(4) Work statements for contract studies needed to develop specific information required to implement the options described in (3).

Major Milestones:

(1) Metropolitan spectrum availability report, Phase 1 September 1, 1972

(2) Unit of measure report, October 1, 1972.

(3) Alternative objectives and procedures, preliminary description, September 1, 1972.

(4) Work Statements for contract studies, November 30, 1972.

(5) Metropolitan spectrum availability report, Phase 2, June 1, 1973.

Resources Required:

Mathematicians	50,000
Economists	40,000
Engineer	15,000
Programmer	14,000
Research Assistant	5,000
Computer	4,000
Travel	3,000
TOTAL	131,000

NON-GOVERNMENT

Project: New Telecommunications Technology

Description: Non-Government telecommunications technology is rapidly changing. A need exists to evaluate the effect of new technology in terms of possible new services and the impact on existing distribution and manufacturing facilities. Policy makers should be forewarned of possible technological innovations so they can devise responsive and responsible policies.

This project will develop a comprehensive list of possible innovations in video distribution, especially in the next decade, and will estimate their impact on consumer choice, on the broadcasting and manufacturing industry, and on spectrum allocation policies. Contractual effort in this area was initiated late in FY-72. Additional data on innovations in the general area of non-government communications will be prepared and will include technical data, service information, probable user acceptance of new services and possible regulatory problems.

Major Outputs:

(1) Support of contractual effort in new video distribution.

(2) As required, studies of the impact of new technology items applicable to the non-government area.

Major Milestones:

(1) Evaluation of contractual effort - January 1973

(2) Individual study reports - as required.

Resources Required:

Engineer	7,000
Engineer	3,500
Engineer	7,000
Marketer	2,000
Analyst	3,000
Travel	1,500
TOTAL	24,000

Project: Feedback and Analysis

Description: Policy positions are taken and decisions relative to telecommunications services are often made under the pressure of external events. The objective of this task is to review past decisions to see whether the assumptions made are still applicable, whether the results obtained are consistent with the basis of the original decision. It is anticipated that the perspective so acquired will contribute to more effective policy-making and suggest ways to improve on previous decisions.

Major Outputs:

Reports including:

(1) Historical review of previous decisions (the scenario)

(2) Comparison of basis for decision and the result.

(3) Suggested new directions.

Major Milestones:
Semiannual status reports on activities in this area will be delivered to OTP in December and June of each year. Individual studies will be issued as completed.

Resources Required:

Research Assistant	5,000
Policy Analyst	5,000
System Analyst	5,000
System Engineer	6,000
Travel	300
TOTAL	21,300

NON - GOVERNMENT

SPECIALIZED SERVICES

Project: Capital Requirements and Sources for the communications-industry.

Description: In general this study is concerned with the sources and costs of financing the development of various sectors of communication industry. It is also concerned with the impact of government policy (regulatory, taxation, etc.) on the availability and costs of both external and internal capital and emerging ownership patterns in the industry.

In the common carrier area, the study should go beyond the traditional rate-case type determination of reasonable debt/equity ratios or interindustry comparisons of capital cost (although these should not be ignored) and focus on such things as:

- the distinction between business and financial risk in overall common carrier operations with some quantification. This is particularly important as more and more traditional carrier markets are being opened to competition

- ratios of external to internal capital, comparisons with other rapidly growing, capital intensive, technologically dynamic industries (IBM and the computer industry). These considerations are tied closely to our current depreciation study.

- double leverage possibilities through holding company relationships

- the opportunities for using capital markets in part to regulate (force rationing of) common carrier investment. To the extent that a real or perceived capital scarcity exists and regulatory lag prevents earnings from keeping pace with increasing marginal capital costs, the A-J effect is diminished, and regulatory "policy" may in fact be dictated in a sense by money markets. How important and effective a substitute

(or supplement) is this for formal FCC regulation? What happens during a period when there is no perceived capital constraint? How does the time pattern of interest rates affect common carriers' short term and long term investment decisions?

In the CATV area it will be necessary to consider how government policy regarding vertical integration (ownership, operation, networking and program supply), copyright, taxation and other issues, as well as how the demand and costs for conventional and new cable services impact on the external capital requirements and capital availability for cable development. This study will examine the risk classes of various forms of cable investment, the associated capital costs, possible degrees of financial leverage, available financial vehicles, overall external capital requirements, timing of investments, capital sources and implied patterns of ownership within the industry. Varying assumptions as to government policy and demand/cost for services will be made and their respective impacts assessed. One important objective here is to determine how sensitive (and in what ways) cable development is to the use of selected government policy levers; for example, corporate and trust income tax requirements.

The specialized services area should be dealt with in the same way as cable.

Major Outputs:

(1) Detailed work statement equivalent to PRE.
(2) Contractual report on capital requirements.
(3) POF analyzing alternative capital sources.

Major Milestones:

(1) Detailed work statement - January 1973.
(2) Report on capital requirements - April 1973.
(3) POF analyzing capital sources - June 1973.

Resources Required:

Economist	12,000
Contract	50,000
Research Assistant	5,000
Travel	1,000
TOTAL	68,000

Non-Government

Project: Company Profiles

Description: Decisions on telecommunications policy must be based on knowledge of the impacts on the industry and probable reactions. This project will provide a data base on selected companies in the telecommunications industry. The companies will include major common carriers, equipment manufacturers, specialized carriers, cable operators, program suppliers, and interconnect companies. The data requirements will vary according to the nature of company operations; however, in general, it will be desirable to have information on: the nature of products, services & markets

sales by product or service wire and division (10 yr summary & growth rate)

sales by various market breakdowns (eg, gov't, industrial consumer, common carrier, major individual customers where relevant, geographic sectors, etc.) (10 yr summary & growth rates)

operating expenses by product or service and division (10 yr summary & growth rate of major components)

Internal markets (for vertically/horizontally integrated firms) (% sales by product/service line)

Capital structure (10 yr history of changes, parent/subsidiary capital transaction, including double-leverage effects for rate-base regulated companies)

Historical summary of basic financial ratios: current ratio, asset turnover, etc

Tax history: tax credits, carryforward, carryback potential (capitalized sale value), etc.

Most of this data will be available from public financial statements, SEC registration forms (10 K & annual reports to SEC), and FCC records.

Major Outputs:

(1) Company Profiles

Major Milestones:

(1) Company profiles deliverable within 3 months of company selection by OTP.

Resources Required:

Analyst	3,000
Research Assistant	5,000
Travel	300
TOTAL	8,300

Doc
OT

POINTS FOR DISCUSSION ON OT

OT has its basis for existence in E.O. 11556. The statutory responsibility for radio wave propagation research was shifted by Department of Commerce from National Bureau of Standards to OT. The legislation establishing the Department of Commerce is so broadly worded that it is possible to interpret the Secretary's role as embracing anything to do with commerce and industry. On the other hand, E.O. 11556 gives OTP even broader responsibility for telecommunications. Thus, Commerce's concerns become a sub-set of OTP's concerns, and not outside of or in addition to OTP responsibilities.

The 45-day study resulted in OMB directing specifically that OTP support funding be increased, and that the technology program be reduced to $900,000, and be redirected and focused to be more responsive to national needs. Implicit in this is that OTP is the one who determines national needs. Also implicit is the need to reduce the size of the ITS at Boulder.

Much of the work currently done there is probably better done in the private sector. New work planned in cable television, data transmission and mobile communications duplicates work being done by companies in those fields. Much of the work done for other agencies is of questionable value, and could probably be done either elsewhere in the government or by the private sector. Some small portion of ITS work is probably worth continuing. With the technology program funded at $900,000, the other agency portion should not exceed $2-$2.5 million.

The Spectrum Management Program needs to grow to expand Electromagnetic Compatibility Programs. A stronger case must be made to OMB to demonstrate pay off in other programs.

The Policy Research Program should remain at about the $2,000,000 level over the next few years. This depends in large measure on the OTP appropriation levels.

The Technology Program should be brought into line with OTP objectives and should be directly responsive to OTP. Future growth in direct funding should not be planned. Other agency activities should be kept to a bare minimum -- perhaps only to serving other parts of the Department of Commerce.

OT itself should be reorganized, with a Director and two Deputy Directors.

One Deputy Director for Spectrum Management Support and one Deputy Director for Policy Support would replace the current deputy director and two division chiefs. ITS would continue to need a director and possibly a deputy. Overhead personnel should be drastically reduced. People to 'sell' work to other agencies would no longer be required nor would the large program development staff.

1-620

Doc Budget

OFFICE OF TELECOMMUNICATIONS POLICY
EXECUTIVE OFFICE OF THE PRESIDENT
WASHINGTON, D.C. 20504

June 19, 1972

To: Mr. Whitehead, Mr. Dean, Mr. Hinchman, Mr. McCrudden

From: Antonin Scalia AS

Subject: Allocation of Department of Commerce Funds

John Richardson called me this morning concerning the necessity of establishing some tentative breakdown of anticipated FY 73 funds among the three Commerce activities. He wanted to have some rough figures from us by the close of business tomorrow, but I put him off until Friday.

The situation is essentially as follows: The FY 72 base was 4.9M, increased to 5.1M by compulsory pay raises. It is expected that the 73 appropriation will be compromised out at 6.5M--an increase of 1400K instead of the 2500K requested.

The question Richardson wants answered is how shall an assumed increase of 1400K be distributed? Richardson began to describe what the breakdown would be on the basis of the priorities that were set forth for the Appropriations Committee. I refused even to consider those as a basis for discussion, recalling the fact that it was clearly agreed those priorities would in no way be used to determine division of the ultimate appropriation.

Ideally, this matter should be determined after the precise amount of the actual appropriation is known--but Richardson is reasonable in insisting that some "target figures" must be given to their people well before July 1. There may be some risk involved in fighting this matter out on the basis of an assumed figure--perhaps making some consessions with respect to any surplus--and then finding that the actual figure is substantially higher. I do not see any way to avoid this, however, and I do think it desirable to bring the matter to a head well in advance of Tom's departure date, so that his personal intervention can be used if necessary.

I have placed a meeting on Tom's calendar for Wednesday, June 21, at 9 a.m., and hope you will all attend.

May 12, 1972

Dr. James H. Wakelin, Jr.
Assistant Secretary for Science
and Technology
Department of Commerce
14th and Constitution Avenue, N. W.
Washington, D. C. 20230

Dear Jim:

I understand that the National Academy of Engineering has established a standing committee for the purpose of reviewing the program and work to be conducted by the Office of Telecommunications, Department of Commerce. A meeting is scheduled for June 1, 1972, and the agenda calls for a report on OT's support in the Frequency Management and Policy Support areas.

I recognize the desire of OT to have available the valuable perspective which recognized experts can provide with regard to the statutory responsibilities which OT must carry out for the Secretary of Commerce. I also appreciate your interest in promoting a healthy dialogue with the members of the committee.

However, in so far as DOC activities in support of this Office are concerned, I do not consider it appropriate for an outside organization to critique our joint endeavors. Rather, I think that the time and effort involved could be spent more profitably in developing and improving our objectives on an in-house basis.

Sincerely,

Signed
TOM
Clay T. Whitehead

MJM:cjc
cc:
Do Chron
Do Records
Whitehead (?)
Subject
Reading (ADM)
Reading (MJM)

PANEL ON EVALUATION OF DEPARTMENT OF COMMERCE
OFFICE OF TELECOMMUNICATIONS
Dr. Ed Jordan, Chairman

Dr. George H. Brown
Executive Vice President,
Patents and Licensing
R.C.A.
David Sarnoff Research Center
Princeton, New Jersey 08540
(609) 452-2700

Dr. William L. Everitt*
Dean Emeritus
College of Engineering
University of Illinois
Urbana, Illinois 61801
(217) 333-2154

Dr. Robert M. Fano
Ford Professor of Engineering
Associate Head of the Electrical
Engineering Department
M.I.T.
Cambridge, Mass. 02139
(617) 864-6900 ext. 6021

Mr. Richard P. Gifford
Vice President and General Manager
Communications Systems Division
General Electric Company
Mountain View Road
Lynchburg, Virginia 24502
(703) 846-7311

Dr. Edward C. Jordan
Professor and Head
Dept. of Electrical Engineering
University of Illinois
Urbana, Illinois 61801
(217) 333-2300

Dr. Kenneth G. McKay
Vice President
American Telephone & Telegraph Co.
195 Broadway
New York, N. Y. 10007
(212) 393-4555

*Ex Officio as Chairman of
the Committee

Dr. Allen E. Puckett
Exec. Vice President and
Asst. General Manager
Hughes Aircraft Company
Centinela at Teale
Culver City, California 90230
(213) 391-0711 ext 2028

Mr. R. V. Mrozinski, Secretary
Executive Secretary
Committee on Telecommunicatio
National Academy of Engineeri
2101 Constitution Ave. NW
Washington, D. C. 20418
(202) 961-1414

DEPARTMENT OF COMMERCE CONTACT

Dr. Armig Kandoian
Director
Office of Telecommunications
Department of Commerce
1325 G Street NW
Washington, D. C. 20230
(202) 967-5172

Dr. John M. Richardson
Deputy Director
Office of Telecommunications
Department of Commerce
1325 G Street, NW
Washington, D. C. 20230
(202) 967-5171

D R A F T

AGENDA

Telecommunications Advisory Subcommittee Meeting
June 2, 1972
IRAC Conference Room 283
1325 G Street, Wash., D.C.

9:00 Executive Session of Committee

10:00 OT Management on Call

11:00 Executive Session of Committee

11:30 Oral Report of Committee to OT Directorate

D R A F T

AGENDA

Telecommunications Advisory Subcommittee Meeting
June 1, 1972
IRAC Conference Room 283
1325 G Street, Washington, D.C.

8:30	Executive Session	Jordan
9:00	Welcome and OT/DOC Role	Wakelin
9:15	Support Required by OTP	Whitehead
9:45	Purpose of Meeting	Kandoian/Richardson
10:00	Organization	Lowe
10:20	Program Management - present structure	Powell
10:30	Coffee Break	
11:00	Frequency Management*	Cohn
11:30	Policy Support*	Lothrop
12:00	Lunch	
2:00	Technological Base*	Crombie
3:00	State and Local*	Lathey
3:20	Issue Study	Kandoian
3:45	Areas Needing Especial Attention	Kandoian/Richardson
	Evolution of Future Program Structure	Lowe
4:15	Executive Session	

* Approximately half time for presentation and half time for discussion

Mr. Whitehead

Commerce
OT

May 1, 1972

MEMORANDUM FOR ALL EMPLOYEES, OFFICE OF TELECOMMUNICATIONS

The following personnel assignments are announced effective May 1, 1972.

1. Mr. Scott Lothrup will assume the duties of Chief, Policy Support Division. He is located in Room 294 at 1325 G St., N.W. and can be reached on 967-4481.

2. Mr. Robert Lowe, who has been serving as Acting Chief of the Policy Support Division, has assumed the duties of Special Assistant to the Director, OT. He is located in Room 257 at 1325 G St., N.W. and can be reached on 967-5181.

3. Mr. Paul Polishuk will continue to perform in his present capacity as Assistant Chief of the Policy Support Division. He is located in Room 296 at 1325 G St., N.W. and can be reached on 967-4481.

/s/ Armig G. Kandoian

Armig G. Kandoian
Director

JRits/dkl 5/1/72
cc: subject
chron
Admin chron
reading

cc: Mr. Whitehead
Mr. Wakelin

July info

4/28/72

Mr. Clay T. Whitehead

Personnel for Commerce -------

Dr. Robert M. Langelier

Dr. John F. Egan

Mr. H. R. Brockett

Mr. Clifford Nelson

Mr. Gerry Truszynski

E. Rechtin

EYES ONLY paper in safe in Personnel file (Eva's)

Commerce

OFFICE OF TELECOMMUNICATIONS POLICY
EXECUTIVE OFFICE OF THE PRESIDENT
WASHINGTON, D.C. 20504

April 26, 1972

To: Tom Whitehead

From: Will Dean

Subject: Department of Commerce Appropriations Hearings

I got wind of difficulties experienced by the Department of Commerce in their Budget Hearings before the Senate Appropriations Subcommittee on April 24, 1972. A check with John Richardson disclosed the following:

a. Although the Subcommittee is chaired by Senator McClellan, Senator Hollings actually chaired the session.

b. Senator Ellender, Chairman of the Appropriations Committee, attended the DOC hearings and gave Mr. Wakelin and company a "very rough time," evidencing a hostile attitude. The Senator's main points were that i) he perceived the office as being created without Congressional approval; ii) the Office of Telecommunications was engaged in duplication of functions of pre-existing and legitimate organizations, such as the FCC. In this regard, the Senator touched on spectrum and policy support matters, but the primary focus was on Boulder Laboratory activities, e.g., "Why can't the FCC laboratory meet the needs currently proposed to be met by the Boulder Laboratory?" iii) The OT organization, and particularly the Boulder Laboratory, was viewed as a cover for bootleg DOD activities. The point was made that the Congress had been working for some time to get extraneous organizations out of the DOD support function (presumably referring to RAND, etc.) and it now pops up in a Government agency. The Senator's concern in this area undoubtedly stems from the extent to which ITS is engaged in other agency work. The Senator questioned why the Laboratory had to be devoted to DOD problems and asked specifically how many military officers were currently located at Boulder.

c. DOC is currently building a counter to the foregoing--an explanatory report to the Subcommittee and contact with other Senatorial interests such as Pastore (Nick Zapple), Senator Allott, and Senator Inouye.

d. One of the difficulties would appear to be that Senator Ellender chaired the recently completed FCC hearings and obtained a good briefing and understanding of FCC activities. As reported in Telecommunications Reports, the FCC hearings were "mild and sympathetic." No prior coordination was effected by DOC with cognizant Senate members.

It is recommended that:

a. OTP develop any help that might appropriate in countering Senator Ellender's views (John Richardson would welcome such help), and

b. The above situation be taken into account in readying for OTP Senate Hearings.

W. Dean, Jr.

cc: Mr. Scalia
Mr. Hinchman
Mr. Joyce
Mr. Smith
Mr. McCrudden
Mr. Lamb

3-7

OFFICE OF TELECOMMUNICATIONS POLICY
WASHINGTON

April 6, 1972

TO THE SENIOR STAFF

FROM: Michael McCrudden

SUBJECT: Biographical Sketches for Policy Support Division

Attached is a completed copy of the latest biographical sketches on PSD Employees through March 30, which was sent by Anne Andrews.

FYI - Mr. Whitehead

Commerce - PSD

POLICY SUPPORT DIVISION

BIOGRAPHICAL SKETCHES

March 1972

ROBERT M. LOWE

EDUCATION:

B.A.	Southern State College, Magnolia, Arkansas	1948
LLD	University of Arkansas Law School, Fayettville, Arkansas	1953

PRESENT ACTIVITIES:

Acting Director, Policy Support Division; Management and Long-Range Planning

EXPERIENCE:

- While on Senator Fulbright's staff, served as press secretary (was organizer and founder of the U. S. Senate Press Secretaries Association) and was director and general coordinator of Senator Fulbright's campaign for reelection in 1962.

- As special counsel for Senate Commerce Committee, conducted study of application and enforcement of Fairness Doctrine and Section 315 in broadcasting. Included detailed investigation of FCC, network and station policy, practices, standards and operations affecting public affairs broadcasting. Wrote report published by the Committee.

- Duties at the Department of Transportation included staff responsibility for Department's participation in the President's Task Force on Communications Policy, staff responsibility for study of U. S. Government organization for telecommunications management and regulation and recommendations for reorganization in cooperation with the Bureau of the Budget, and directed the organization and operation of the Department's Office of Telecommunications.

- Served as Consultant to the Assistant Secretary of Commerce for research and technology in the development of a long-range communications policy for the State of Alaska.

PAUL POLISHUK

EDUCATION:

B.S.	Physics	M. I. T.	1956
M.S.	Physics	Ohio State	1962
Ph.D.	Physics	Ohio State	1964
S.M.	Management Science	M. I. T. Sloan Fellow	1971

PRESENT ACTIVITY:

Acting Deputy Director, Policy Support Division; Management Studies, Telecommunications Technology, Long Range Planning.

EXPERIENCE:

U. S. Air Force, WPAFB, Ohio

Director of Long Range R&D Planning and Management for 700 man laboratory with annual budget of 50 million dollars. Developed and implemented planning, resource allocation, and forecasting models.

Established function to perform analyses of potential application of new technologies to major weapon systems.

Group leader of applied physics organization involved in nuclear, atomic and solid state physics application studies. Involved in development of R&D programs for telemetry and control instrumentation.

Participated in major systems analysis studies for large Air Force weapon systems.

RICHARD GABEL

EDUCATION:

B.A.	Economics	City College of New York	1940
M.A.	Economics & Statistics	Columbia University	1941
Ph.D. (incomplete)	Mathematics & Statistics	American University	1956
Brookings Fellow			1967 - 1968

PRESENT ACTIVITIES:

Interconnection, Standards, Specialized Common Carriers

EXPERIENCE:

U. S. Department of Commerce

Preparation of engineering and market plans for providing economical total communication needs to State of Alaska. Establishment of program for assessing future communication requirements, alternative methods, (satellite, microwave, cable switching) to accommodate long distance network; providing top State government officials a set of operational alternatives and methods of meeting these costs. Providing assistance and guidance on all aspects of public utility communication regulation.

White House Staff - on loan from U. S. Department of Transportation

Provided narrative on technical background and policy alternatives for Domestic Satellite Policy, which was issued by Peter Flanigan, Presidential Assistant. Prepared discussion of functional role of government-wide telecommunications requiring research and development, policy research, spectrum management, government usage, network management. This was modified and adopted as Administration Reorganization Plan No. 1.

U. S. Department of Transportation

Responsible for planning and coordinated department communication needs--research and development effort in air (FAA), sea (USCG), and land mobile communication.

Generate and review technical proposals put forth by model administrations on switching, transmission, data modems, network assignment and consolidation. Work on aeronautical and maritime satellite cost/benefit studies. Preparation of policy alternatives including service-cost evaluation.

President's Task Force on Communications Policy

Provided research information to staff, wrote papers and recommendations on government communications policy questions (i.e., common carrier regulation, switching applications, terrestrial vs. satellite transmission modes). Staff papers published and distributed by Commerce Clearinghouse.

General Services Administration, Transportation and Communications Services

Represented U. S. Government in State/Federal negotiations and litigation in utility matters. Organized and managed professional staff of engineers, accountants and economists to protect Federal Government interest. Organized requirements and developed engineering plans for civil government user network-FTS. Negotiated for equipment and for charges. Represented Federal Government in rate problems for both civil and military government.

Rural Electrification Administration, U. S. Department of Agriculture

Provided technical instruction on design and construction standards for rural telephone systems. Member, Technical Standards Committee, Telephone Feasibility Committee. Prepared telephone loan standards (still in use). Telephone Depreciation Committee.

Federal Communications Commission

Prepared staff evaluation and recommendation on communication (domestic and international) common carrier issues and proceedings.

ROGER K. SALAMAN

EDUCATION:

B.S.E.E.	Rensselaer	1955
M.S.E.E.	Polytechnic Institute of Brooklyn	1956

PRESENT ACTIVITIES:

Policy Support Division at Boulder. (Concerned with definition of technical requirements and opportunities in telecommunications).

EXPERIENCE:

U. S. Department of Commerce, Washington, D. C.

Commerce Science Fellow, 1970 - 1971.

CRPL, Boulder, Colorado

Received award for contributions to DASA Nuclear Handbook and for developing short-term HF forecasting program.

Program Editor, IEEE International Conference on Communications.

DECO Electronics, Inc.

Helped determine the performance of VLF through HF communications systems and was Assistant Director for Technical Planning and Coordination.

CRPL, Boulder, Colorado

Worked on HF propagation and communications.

JACK E. COLE

EDUCATION:

B.S.	Electrical Engineering	University of Washington, Seattle	1954
M.E.A.	Engineering Administration	George Washington University	1971

PRESENT ACTIVITIES:

International Telecommunications, Satellite Communications, Broadband Communications.

EXPERIENCE:

Office of Telecommunications Management/Policy, Washington, D. C.

Assisted and advised the Associate Director, International Telecommunications and Advanced Technology in matters pertaining to the planning, establishing and operation of international and satellite telecommunications systems.

Page Communication Engineers, Inc., Washington, D. C.

Served in various engineering capacities. As Assistant Director was responsible for the design of multi-channel troposcatter, diffraction and line-of-sight systems.

Collins Radio Company, Tucson, Arizona/Richardson, Texas

Employed as an engineer. Was responsible for conducting troposcatter and diffraction propagation tests and system performance evaluations, and designing troposcatter systems.

JOHN J. PARLA

EDUCATION:

B.S.	Mathematics	Boston College	1951
M.A.	Mathematics	Univ. of California at Berkeley	1957
	Mathematics	Harvard University	1952

PRESENT ACTIVITIES:

The performance of analysis which contributes to the identification and investigation of policy issues.

EXPERIENCE:

GTE, (General Telephone and Electronics Corporation)

Operations Research Group Manager; performed a variety of technological, economic planning and research studies for all segments of the corporation, including operating telephone companies.

West German Ministry of Defense

Assisted in the structuring of an Operations Research Group in Munich; involved project engineering and training of personnel.

Mitre Corporation, Bedford, Mass.

Member of the technical staff where the emphasis was on the analysis, evaluation and design of Air Force systems.

Lockheed Missiles and Space Co.

Performed design analysis of Discover generation of satellite vehicles.

AVCO Corporation

Analysis of various re-entry systems and new concepts.

Redstone Arsenal

On assignment in the Military, pursued extensive analysis of Army missile systems relative to cost and effectiveness.

STEPHEN S. KARP

EDUCATION:

B.S.E.E.	Tufts University	1961
M.S. (Computer Science EE)	Northwestern Univ.	1968
Ph.D. (Systems Analysis)	Northwestern Univ.	1972

PRESENT ACTIVITIES:

On detail to Assistant Secretary Wakelin's office for a project, "Analysis of Technology Enhancement Programs In Selected Countries."

EXPERIENCE:

National Bureau of Standards, Technical Analysis Division - Project leader of team developing digital computer simulation of the Search and Rescue activities of the U. S. Coast Guard.

Bell Telephone Laboratories, Electronic Switching Systems Division - Project leader of a team conducting systems analysis for the development of a program management system to improve interface problems. Previously developed growth programs and procedures, including the organization and design of program and hardware techniques to add equipment and subsystems to in-service stored program control telephone switching systems. Conducted traffic engineering study for a proposed international network. Developed concepts and algorithms for network path hunting using associative memories (patent pending).

U. S. Navy

- U. S. N. Communications Station, Washington - Evaluation and planning of advanced military communications systems.
- NSA - Classified assignment; concerned advanced concepts in communications systems.
- AEC - Division of Reactor Development, Office of Adm. Rickover - Nuclear systems analysis and development of testing program.

E. G. & G., Inc. - System design of digital information systems; also electronic circuit design.

PAUL G. LAMBIDAKIS

EDUCATION:

B.S.E.E. Catholic University 1955

PRESENT ACTIVITIES: Reporting about April 17.

EXPERIENCE:

Rural Electrification Administration, Telephone Standards Division - VF Transmission Engineer - Planning, directing and implementing technical programs and research for the purpose of meeting present and future needs of the R.E.A. telephone program.

Rendering of consulting engineering service to other engineering divisions of R.E.A., other organizations outside R.E.A., including Government, R.E.A. borrowers, R.E.A. field engineers, consulting engineers, and contractors, on all phases relating to the design and construction of telephone systems.

Development of standards and specifications. Writing of Engineering and Construction practices (R.E.A. Telephone Engineering and Construction Manual sections) and Maintenance practices on all phases relating to the design, construction and maintenance of telephone systems.

Field investigation, analysis and correction of technical problems in operating telephone systems of R.E.A. borrowers and connecting companies. Advises and works very closely with equipment manufacturers for developing new electronic equipment needed in the telephone program or the improvement of existing equipment. Evaluation also, by measurements, of electronic equipment in the field under actual operating conditions.

Development and testing of new systems having advantageous characteristics for rural communication. Development of standards for the design of Subscribers' Loop Plant.

LESLIE A. BERRY

EDUCATION:

B.A.	Colorado State College	1955
M.A.	University of Kansas	1960

PRESENT ACTIVITIES: (at Boulder)

National Emergency Warning System.
Spectrum Policy Studies.

EXPERIENCE:

1960 joined CRPL as an Applied Mathematician/ Radio Propagation Theorist. Has served as leader of various programs since 1965. Studies have included the degradation of LF-VLF system performance under nuclear attack; ground effects of HF antennas; and propagation of radio waves over irregular, inhomogeneous terrain.

EDWARD F. KOVANIC*

EDUCATION:

B.S.	Electrical Engineering	University of Pa.	1952
M.S.	Electrical Engineering	New York University	1959

Bell Laboratories, Communications Development Program 1957 - 1960

Princeton Fellow in Public and International Affairs 1970 - 1971

PRESENT ACTIVITIES:

911 Emergency Number Study

EXPERIENCE:

U. S. Army, Ft. Monmouth, New Jersey

Program Manager responsible for (1) cost effectiveness studies between reliability, maintenance and test equipment alternatives for Project Mallard; (2) studies and recommendations for tradeoffs in system design, and (3) development and implementation of an integrated logistic support plan.

Bell Telephone Laboratories

Vulnerability analyses for Nike-X anti-ballistic missile system.

System design of digital (PCM) commercial telephone systems.

Components selection and application.

*On part-time detail from U. S. Army, based at Fort Monmouth, New Jersey

DALE N. HATFIELD

EDUCATION:

B.S.E.E.	Case Institute of Technology	1960
M.S.	Purdue University	1961

PRESENT ACTIVITIES: (at Boulder)

Domestic Satellite Studies.

EXPERIENCE:

ITS, Boulder, Colorado

Worked as an Electronic Engineer. Been involved in three major projects: classified project for the U. S. Navy; after a year of government sponsored full-time study, became involved in the development of a computer-based service to supply timely forecasts of radio conditions to military, private, and other government agencies; and has worked on a project sponsored by the U. S. Coast Guard's National Data Buoy Project. Served as Project Leader on that project and also on a general consulting contract with the USCG Office of Communication. Then was Chief of Electromagnetic Compatibility Analyses Development Group.

Steward-Warner Electronics, Chicago, Illinois

Production Engineer and subsequently promoted to Assistant Chief Inspector.

TERENCE J. McCORMICK

EDUCATION:

B.S.	Electrical Engineering	Johns Hopkins University	1965
M.S.	Operations Research	George Washington Univ.	1971

PRESENT ACTIVITIES:

Computer Communications Policy Studies

EXPERIENCE:

Defense Communications Agency, System Engineering Facility

As telecommunications modelling specialist in the Systems and Operations Analysis Division develop cost, traffic, and network models for alternative future Defense Communications Systems. Synthesize management tools relating technical design criteria to operational requirements and DCA goals. Long-range planning.

U. S. Army Management School

Instructor, Operations Research/Systems Analysis Executive Course, an intensive survey of OR/SA methodology including probability and statistics.

Presearch, Inc., Silver Spring, Maryland

Systems engineering and naval operations analysis.
Math modelling and computer simulation.

HAROLD MILLIE

EDUCATION:

B.A.	Economics	Claremont Men's College	1955
M.A.	Economics	Claremont Graduate School	1959
Ph.D.	Economics	Brown University and (incomplete) Georgetown Univ.	1961

PRESENT ACTIVITIES:

Land-mobile communication

EXPERIENCE:

Federal Supply Service GSA

Economist studying industry practices and organization to provide alternative procurement strategies for the Federal government.

Institute for Applied Technology, National Bureau or Standards

Operations research analyst conducting and supervising projects contracted with the Bureau by other agencies. Subject areas included information system design, cost-benefit analysis, urban systems studies and policy studies.

National Planning Association

Research economist analyzing the diffusion of technical information in American industry and its role in significant industrial innovation.

Brown University

Teaching Fellow in the Department of Economics.

Space and Information Systems Division of North American Aviation

Engineering planner performing engineering programing and scheduling techniques and associated manpower control methods to establish and administer control systems for space-oriented projects.

JEROME E. PARTCH

EDUCATION:

B.S.	Electrical Engineering	Stanford University	1961
M.S.	Electrical Engineering	University of Colorado	1967

PRESENT ACTIVITIES: (at Boulder)

Broadband Communications and National Emergency Warning System.

EXPERIENCE:

ITS, Boulder, Colorado

Involved in both theoretical and experimental aspects of a program to determine buried antenna performance. Participated in the development of surface-wave transmission lines for use as a non-radiating communication link to high-speed trains.

A.R.F. Products, Inc., Boulder, Colorado

Served as project engineer for the development of a line of chemical instrumentation. Responsible for design of airborne instrumentation.

Martin-Marietta Corporation, Denver, Colorado

Electronic design engineer on the Titan Missile Program.

JOSEPH D. CRUMLISH*

EDUCATION:

B.S.	Economics	Georgetown University	1946
M.A.	Social Science	Catholic University	1948
Ph.D.	Political Science	Georgetown University	1954
J.D.	Law	Catholic University	1966

PRESENT ACTIVITIES:

Collection and analysis of Data on Long Range Telecommunications Policy Issues

EXPERIENCE:

Office of Invention and Innovation, National Bureau of Standards

Responsible for: public policy studies, analyzing technological change and the effect thereon of tax, anti-trust patent, regulatory, and other government policies; technological forecasting; planning, programming and budgeting; participating in the AD HOC INTERAGENCY COMMITTEE ON FUTURES RESEARCH, and other relevant conferences.

Technical Analysis Division, National Bureau of Standards

Responsible for Systems Analysis, measurement of effectiveness, evaluation of alternatives, benefit-cost techniques, problem solving, planning and implementation for government programs. Worked with the Department of Commerce, Transportation, Justice, the Veterans Administration and National Institutes of Health.

Area Redevelopment Administration, U. S. Department of Commerce

Evaluated, coordinated and implemented studies requiring original material and conclusions in solving economic development problems; responsible for overall economic development plans for all States in the Northeast and Appalachian areas; performed on-the-spot studies of

* On detail from National Bureau of Standards

J. Crumlish Cont'd

selected depressed areas in Pennsylvania, Tennessee, and Michigan; developed training program for State economic development officials; wrote paper on economic benefits of tourism.

Ford Motor Company

Initiated, designed, executed and monitored research projects relevant to the Company's public image and marketing position. Wrote reports on socio-economic conditions, traffic safety, morality of business, etc. Developed business improvement programs for 51 top management committees throughout the U. S. Designed "Community Climate Inventory" of key indicators by which the strength and growth of localities could be gauged. Tested pilot inventory and directed committees in completion thereof.

JOHN C. MESSERSCHMITT

EDUCATION:

B.A.	Communications	C. W. Post College, Greenville, N. Y.	1968
M.B.A.	Marketing	Wharton School Univ. of Penna.	1971

PRESENT ACTIVITIES:

Broadband Communications of Demand for Various Modes of Telecommunications.

EXPERIENCE:

American Academy of Broadcasting, Philadelphia, Pa.

Taught all aspects of broadcasting.

WAXR Radio, New York, New York

Produced, wrote script, interviewed, and announced for one-hour weekly radio program for Chappell Music.

WGLI Radio, Long Island, New York

Executive News Director, Disk Jockey.

ABC Television

Film Traffic Director, Special Projects.

DONALD R. EWING

EDUCATION:

B.A.	Mathematics	University of Colorado	1962
M.A.	Mathematics	University of Colorado	1965
Ph.D.	Candidate (Thesis in progress)		
	Mathematics	University of Colorado	

PRESENT ACTIVITIES: (at Boulder)

Spectrum Policy Studies
Population (Date Base)

EXPERIENCE:

ITS, Boulder, Colorado

Part-time 1961-1965, 1969-1970
Full-time 1966-1969, 1970 - Present

Television Assignments by Computer (parameter sensitivity analysis)
General Computer Programming
Model for Microwave Scattering by Rain - computer program
Population - Computer Routines to Access the Census Master Enumeration District List

Western Illinois University

1965-1966, Instructor, Department of Mathematics

WARREN R. ASHER

EDUCATION:

B.A.	Communications - Political Science	Univ. of Okla.	1969
M.A.	Public Policy	Univ. of Okla.	1971
Ph.D.	Public Policy (incomplete)	American Univ.	1971

PRESENT ACTIVITIES:

Research Assistant to Dr. Paul Polishuk;
Working on federal expenditures on telecommunications.

EXPERIENCE:

U. S. Department of Health, Education and Welfare

Intern in the Office of the Secretary. Worked on the "National Right to Read Program"

U.S. Congressman Tom Steed

Staff assistant. Working as his liasion man between his office and the House Appropriations Committee.

GUILLERMO W. ARNAUD

EDUCATION:

B.S.	Electrical Engineering	M.I.T.	1967
M.E.	Electrical Engineering	R.P.I.	1972

PRESENT ACTIVITIES:

International Telecommunications

EXPERIENCE:

U.S. Army Combat Developments Command Experimentation Command, Ft. Ord, Ca.

Aided in preparation and operation of instrumentation used in experiments conducted by C.D.C.E.C.

Page Communications Engineers, Inc. Wash., D.C.

Participated in survey of the communications requirements of Pennsylvania State Police.

THOMAS E. WILL

EDUCATION:

B.A. Political Science University of Dayton 1967

M.A. Radio-Television University of Maryland 1972

PRESENT ACTIVITIES:

Concerned with ownership and control in broadcasting and cablecasting---also studies into the changes in traffic and tariffs in international communications.

EXPERIENCE:

Graduate Assistant, Dept. of Speech and Drama, University of Maryland

Taught courses in Speech Communication.
Assisted in courses of mass communication: regulation, production, industry structure, international telecommunications, and advanced forms of telecommunication.

Channel 26, WETA, Public Broadcasting

Worked as a cameraman on evening news show, news show was broadcast nationally on educational network.

Hecht Company, Washington D.C.

Hired as an Executive Trainee for this large retail store, duties included buying, administration, and sales.

ROBERT H. FLEMING

EDUCATION:

B.A. Broadcast Journalism American University 1971

PRESENT ACTIVITIES:

Concerned with social and policy considerations of broadband communications and government and public response.

EXPERIENCE:

Desk Assistant and Production Assistant at WTOP-AM.

Honors Internship in Public Affairs Television at WRC-TV.

Reporter, writer and editor, WAMU-FM.

Commerce

March 24, 1972

Honorable James H. Wakelin, Jr.
Assistant Secretary for Science and
Technology
Department of Commerce
Washington, D.C. 20230

Dear Jim:

In response to your letter of March 15, 1972, I am returning a signed copy of the Memorandum of Understanding concerning the interaction between OTP and PSD/OT.

I have taken the liberty of incorporating minor revisions which I have discussed with John Richardson. The revisions are mainly editorial rather than substantive, and it is my understanding that John concurs.

As you know, I plan to return to industry in early April. I would like to take this opportunity to say that I have enjoyed working with you, and that I personally am very appreciative of your efforts in successfully bringing about the formation of the Policy Support Division.

Sincerely,

George F. Mansur

George F. Mansur

Enclosure

GFMansur/tw
DOChron
DO Records
Mr. Whitehead (2)
Dr. Mansur
Mr. Scalia
Mr. Hinchman

MEMORANDUM OF UNDERSTANDING
BETWEEN THE OFFICE OF TELECOMMUNICATIONS POLICY
AND THE OFFICE OF TELECOMMUNICATIONS
CONCERNING THE WORK OF THE POLICY SUPPORT DIVISION

1. Program Development

Program development as to content and budgetary requirements will be carried out by the Chief, Policy Support Division. He will assure that the program plan as developed is in support of the needs of the Director, Office of Telecommunications Policy for technical research and analysis within the intent of Executive Order 11556, as determined by the Deputy Director, OTP.

Program content and budget level will be approved by the Director, OTP and by the Assistant Secretary of Commerce for Science and Technology, the latter being advised by the Director, OT.

2. Program Execution

Program execution will be by the Chief, Policy Support Division under the authority of the Director, OT. In carrying out the program, the Chief, PSD will consult with the Director, OT. The Director, OT will review the work of the Division for compliance with the program plan approved by the Director, OTP and the Assistant Secretary of Commerce. The Director, OT will also review the work for compliance with the intent of appropriation acts and other legislation.

To facilitate the implementation of the program to the greatest benefit to the Director, OTP, the lines of communication between the staffs of OTP and PSD for the exchange of programmatic information may be direct.

3. Program Evaluation

Evaluation of program performance will be carried out by the Director, OTP.

4. Program Responsibility

Responsibility as to satisfactory execution of the activities described above will rest with the Assistant Secretary of Commerce for Science and Technology.

Acceptable to the Department of Commerce

James H. Wakelin, Jr. — Date

Acceptable to the Office of Telecommunications Policy

George F. Mansur — 3/29/72

George F. Mansur — Date

THE ASSISTANT SECRETARY OF COMMERCE
Washington, D.C. 20230

MAR 15 1972

Honorable George F. Mansur
Deputy Director
Office of Telecommunications Policy
Executive Office of the President
Washington, D.C. 20504

Dear George:

We have reached some agreements in principle in our various conversations, I believe, as to desirable relationships surrounding the policy support work of our Office of Telecommunications on behalf of the Office of Telecommunications Policy.

The principal points are, I think, accurately set down in the enclosed Memorandum of Understanding. These points should be helpful in assuring a smoothly functioning program--the more so the more clearly we communicate our principles of operation to the working staffs of both agencies.

Thus, if you find the ideas acceptably expressed, would you endorse them, too, for the benefit of those conducting the program.

Sincerely,

James H. Wakelin, Jr.

Enclosure

Here - Tom asked me to see if the attachment causes you any grief.

GM.

OFFICE OF TELECOMMUNICATIONS POLICY
EXECUTIVE OFFICE OF THE PRESIDENT
WASHINGTON, D.C. 20504

Commerce

OFFICE OF THE DIRECTOR

March 8, 1972

MEMORANDUM TO THE SENIOR STAFF

FROM: Michael McCrudden

SUBJECT: Scott Lothrop

Mr. Lothrop will be coming on board as the Acting Manager of PSD during the week of March 13. He will be calling you directly either today or tomorrow to set up a meeting at your earliest convenience to discuss your program activities in general, and the support which PSD supplies to your specific program areas.

It will be extremely helpful if these meetings could be conducted at your earliest convenience.

cc: Mr. Whitehead ✓
Dr. Mansur

office Conf

Corres OT

February 23, 1972

MEMORANDUM TO FILE

SUBJECT: OT Organization and Scott Lothrop

I spoke with Jim Wakelin on 22 February. He stated that he had informed Armig Kandoian and John Richardson of his intent to change the management of OT and PSD. Armig will be moved to Wakelin's technical staff and John Richardson will be promoted to Director of OT. Presumably, this paves the way for Bob Lowe to assume a position in OT.

We agreed that Scott Lothrop can now be brought in as Acting Manager of PSD. We further agreed that Lothrop would be brought in as a consultant for a trial period of 120 days, but that he would be given the responsibilities of Manager, PSD.

Mr. McCrudden is requested to inform Lothrop of these decisions and to contact James Ritta in OT to confirm administrative arrangements for Lothrop. I believe John Richardson will also call Lothrop to confirm his position and to extend him an invitation to attend the OT Seminar at Airlie House.

Wakelin and I also confirmed earlier discussions concerning sharing of Kandoian in new technology areas. This, of course, would not include sharing of Armig's salary.

George F. Mansur

cc: Do Records
DO Chron
Mr. Whitehead
Mr. McCrudden
Mr. Dean
Mr. Hinchman
Mr. Scalia
Mr. Thornell
Col Jiggetts
Mr. Joyce
Mr. Lamb
Mr. Smith

GMansur:slr/2/23/72

FCC

2/17/72

TO: Charlie

FROM: Tom

It seems to me that kind of thing should be set up as a subcommittee under the council, and the subcommittee could have membership from agencies such as HUD and HEW, who are not represented on the council.

Just a thought.

cc:
DO Records
DO Chron
Mr. Whitehead

OFFICE OF TELECOMMUNICATIONS POLICY
EXECUTIVE OFFICE OF THE PRESIDENT
WASHINGTON, D.C. 20504

February 10, 1972

To: Memorandum for the Record

From: Charlie Joyce CJ

Subject: Commerce Advisory Committee

I received a telephone call today from Mr. Kirby at Commerce. As a result of the Issues Panel review there has been a recommendation that the Commerce Department set up an interagency committee to review its program in support of Federal Agencies. Kirby has a meeting with Dr. Wakelin at 2:00 today to discuss this committee. He raised the question of whether it would be appropriate to have the Council on Government Communications Policy and Planning, chaired by Dr. Whitehead, serve this function instead of setting up a separate Commerce Committee.

I responded that it was certainly worth discussing, that it could be embarrassing if numerous committees in communications are set up, especially if they are close in time to one another. I explained that the CGCPP was something of an umbrella group and that we envisioned most of the work getting done by panels or other means under the group. Kirby responded positively to this, and continued the discussion in terms of some kind of a panel which would focus on the Commerce work program. He raised the question of representation, since he would like to have HEW, HUD, and other agencies involved with respect to the Commerce program. I told him of our initial agency list, but said that we were not opposed to expanding it in the future. I also pointed out that we envisioned that representatives of other agencies could be invited to participate by the chairman whenever a subject of interest to that agency was on the agenda. I indicated that this would probably permit a panel to have broader representation than the Board as a whole, and that we could certainly include the principals whenever the Commerce program was being discussed.

Kirby said that he would discuss this with Wakelin at 2:00, and that he planned to recommend that we discuss this further before

Commerce takes any action. I indicated that I certainly thought that was called for, and said we would be waiting to hear from him.

It may turn out that we don't want to include this function under the CGCPP, but I thought it better to stall Commerce from setting up their own Board until we have a chance to think about this and discuss it among ourselves and with them.

cc: Mr. Whitehead
Dr. Mansur
Mr. Hinchman
Mr. Dean
DO Records
DO Chron