OFFICE OF
TELECOMMUNICATIONS
MANAGEMENT

REPLY to BUREAU OF THE BUDGET LETTER OF JUNE 3, 1968 CONCERNING THE FEDERAL GOVERNMENT'S TELECOMMUNICATIONS ACTIVITIES

August 1968

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

OFFICE OF THE DIRECTOR

August 12, 1968

Mr. Howard Schnoor
Director, Government Organization Staff
Bureau of the Budget
Executive Office of the President
Washington, D. C. 20503

Dear Mr. Schnoor:

The attached report is forwarded in reply to your letter of June 3, 1968, which included descriptions for three telecommunications organizational models and a list of questions to be answered.

Advantage was taken of your invitation to expand on the list of questions and to add ideas for consideration. Four questions and an organizational concept have been added. The added questions, with their accompanying answers, I believe, will be of assistance in arriving at the heart of the telecommunications management problem. The organizational concept is a variant of your model 1; responsive to the thesis that unique characteristics of telecommunications preclude the President from responsibly delegating certain management functions outside of his office.

The uniqueness of telecommunications is evidenced by its all-pervasive nature, similar to that which may be observed in the field of research and development. Telecommunications functions as the central nervous system of our society. By reason of its availability, the President can be informed of events taking place throughout the world and order his resources to impact them. It enables him to provide for our national defense, for it is the essential capability that assures his command and control over our Armed Forces wherever they may be deployed. Other officials of the Government also are dependent upon telecommunications to discharge the responsibilities assigned to them by the President and the Congress. The dependence of contending officials for support from the existing telecommunication capability results in the need to manage this resource at a level above those who contend. This arrangement would be analogous to the control exercised by the Bureau of the Budget over the money resources used by the Executive Branch in the conduct

of its affairs. Departments and agencies develop strong and divergent positions regarding telecommunications. Resolution of disagreements among these officials is a Presidential responsibility. To arrive at decisions that are in the best national interest, the President requires expert and objective advice from an official closely identified with his office.

Objectivity in resolution of disputes among important officials can be made palatable to all disputants, only if advice on which the resolution is made, comes from one who is highly qualified and is not a party to the disputes.

Further, the advice should be provided by the official to whom the President has assigned the task of formulating and issuing national telecommunications policy, to assure that his decisions remain consistent with that policy.

The United States relies upon private enterprise for its domestic and much of its international telecommunications. Many of these services, regulated by the Federal Communications Commission, use the same radio spectrum as the Federal Government agencies. Under existing law and custom, the President is the only official who can properly take an over-view of both the Government and private enterprise.

The organizational concept is described in Section 2.8 of the report. It includes coverage of the interrelationships of the executive and legislative branches of the Federal Government to state and local jurisdictions and to industry. The concept clarifies the relationship of the President to his SAPT/DTM. The proposed arrangement will make it obvious to persons in government and industry that the Special Assistant to the President for Telecommunications speaks for the President on telecommunication matters.

Summarized, the principal tasks assigned to the SAPT/DTM are (subject to the authority and control of the President):

1. Formulate national telecommunication goals which will advance our national interests, and assure coordinated action to accomplish these goals.

2. Assure the availability of telecommunications to support national security.

3. Issue and assure compliance with telecommunications policy, procedures and standards developed in coordination with departments and agencies of the executive branch.

4. Assignment and control of use of frequencies by Federal Government agencies.

I am available to discuss my response to your questions and to provide additional explanation of the organizational arrangements which I recommend.

Sincerely,

J. D. O'Connell

Enclosure

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PART I - INTRODUCTION

1.1 The Nature of Telecommunications

To live--even to survive--modern mankind must communicate more, and more widely. Telecommunications has become the central nervous system of our civilization. Effective functioning of the complex structure of political, economic, and social organization which has evolved as a part of that civilization is possible because means are available to transfer rapidly massive amounts of information over great distances. If, for some reason, telecommunications were suddenly suspended, this complex structure would collapse. None of man's other instruments are as completely integrated into a working system nor as all pervasive as his telecommunications. For this reason they are unique and inherently different from all other services.

Telecommunications makes it possible for the President to keep instantly aware of worldwide developments, and to react to these developments by marshalling the diplomatic, economic, and military forces required. As a world leader this nation requires an extensive and responsive telecommunications system for these purposes. Other uses are to (a) constantly exert influence for peace, (b) respond to natural catastrophes, (c) interconnect the complex machine of a free enterprise economy, (d) coordinate assistance to underdeveloped areas of the world, and (e) make possible an increasingly better informed national and world public.

The complexity of civilization and its interacting parts continue to increase. Demands placed on telecommunications increase at a faster rate. The President and the people to whom he is responsible require the assurance that the demand for growth in telecommunications will be met in an orderly and adequate manner.

1.2 Telecommunications is a Resource

Telecommunications is an all pervasive servant that profoundly affects each individual person, the commercial world, and the Government. Telecommunications capabilities are basic resources. Not only do they provide for personal, business and government activities, they also (a) provide us with a warning system and the means to deal with hostile aircraft and missiles, (b) permit more aircraft to more safely use our increasingly crowded air space, (c) point the way to better police coverage of our growing crimes and civil disturbances, (d) enables skilled physicians and surgeons to save more lives, (e) when coupled with computers permits vast amounts of data to be moved rapidly, (f) provides correlation and broader coverage of meteorlogical information, (g) assure absolute command and control of today's devastating weapons, and (h) enhances the movements of ships and the safety of life at sea -- to state only a few.

Essential to all forms of radiocommunication is access to the radio frequency spectrum which in itself is a finite natural resource. The frequency spectrum must be managed with increased sophistication to assure essential growth of service in the national interest.

1.3 Management of Telecommunications

The United States is one of the few countries in the world which provides broadcasting, domestic communications, and international communications services through private enterprise. The Congress has enacted legislation and established the Federal Communications Commission to regulate the private enterprise segment of U.S. telecommunications. Except for radio frequency coordination, the Federal Government in general has depended upon the departments and agencies of its executive branch to handle their own telecommunications as they saw fit--until after World War II when it became apparent that the President, as the Chief Executive, had to step in. President Truman appointed a "Telecommunications Advisor to the President" to assist him. Each President since him has arranged in some way for a "Special Assistant" or a "Director of Telecommunications Management" to provide counsel and to formulate policy guidance. The problem now is to strengthen the management function to assure that telecommunications is best serving the needs and general welfare.

1.4 Responsibilities of the Presidency in Management of Telecommunications

The President has the ultimate responsibility for the management of telecommunications of the Federal Government. He has delegated certain of his authorities in this matter to heads of agencies to enable them to meet mission responsibilities. Certain other authorities he must retain at the Presidential level because there are unique characteristics about telecommunications which restrain him from responsibly making a

general delegation to heads of departments and agencies. Summarized these are:

a. Telecommunications is an instantaneous medium of primary essentiality to the President in receiving intelligence, communicating with allies and about to become enemies to enable him to avert war, if possible; and to alert his forces and then to command them.

b. The frequency spectrum is a critically short national resource which requires central management within the Federal Government.

c. Telecommunications are so critically important to mission accomplishment that heads of agencies develop strong and contentious positions which require resolution at the level of the Office of the President.

d. Continuing close coordination is required with an agency of the Congress, i.e., FCC. Thus a unified executive branch view is essential.

e. The pace of technology is so rapid that highest level direction of effort is required, to assure management in the best national interest.

f. Telecommunications is an even more all pervasive function throughout Government than is research and development. Thus there is at least as great a need for its coordination at the level of the Executive Office of the President.

PART II - ORGANIZATIONAL ALTERNATIVES

2.1 General Comments

The three basic models described in the enclosure to the Bureau of the Budget letter of June 3, 1968, give an indication of the range of

possibilities for organizational changes in the telecommunications field. There are, of course, pluses and minuses as regards the advantages offered by each and some variations of them are possible. Later in this part a concept based on Model 1 is recommended for adoption. The criteria used in analyzing all three Models and in proposing the concept herein is discussed first.

Experience over the past four years and a review of many studies over the past 20 years confirms the need for improvement in the telecommunications management organization of the Federal Government. The scope of telecommunications is tremendous and the fact that it is so interwoven with the private and public sectors of the "American way of life" has ramifications requiring that the President as the Chief Executive and Commander-in-Chief of the armed forces face and arrange for decision-making on critical aspects of this subject.

Probably nowhere is the story of the blindmen trying to identify by touch what was in fact an elephant in the jungle more applicable than in the field of telecommunicatinns -- aviation interests put their hand on the "telecommunications elephant," and it is an air traffic control system; to the shipping interests it is a maritime ship-shore radio system; to broadcasters it is radio and television stations; to scientists it is a tool for research; to the military it is

a tactical and strategic command and control system; to the business community it is to manage expeditiously taxicabs, delivery trucks, remote control cranes, etc.; to the economist it is a contribution to the Gross National Product ($27 billion per year); to the legislator it is a medium for communication with constituents; to the average citizen it is his telephone, television set, and "Western Union type" message service; to the hobbyist it is amateur radio. When pressed, each of these interests can be very vocal as to why telecommunications should serve him better or why the management of telecommunications is "terrible" because one interest is getting additional radio frequencies and the other thinks he is getting short-changed. Many interests think -- often quite sincerely -- that if given the job they could manage telecommunications better -- their colleagues would only have to come to them to get a "New Deal" in resolving their telecommunications problems. Obviously, such pat solutions would have been applied long ago if they were, or had been, realistic.

2.2 Evaluation Criteria

Evaluation of the three Models presented in the June 3, 1968 memorandum from the Bureau of the Budget was done with these seven factors in mind:

a. The aspects of single versus multiple telecommunications management, i.e., a single Administrator versus a Board.

b. The responsibility of the Director, Telecommunications Management, i.e., policy formulation, advance planning, leadership and coordination of agency activities, and assignment of radio frequencies.

c. The organizational identity of telecommunications management, i.e., placed so as to be responsive to the President and identified with the Presidency.

d. The interrelationships which should exist between the telecommunications manager, the President, Executive Branch departments and agencies, the Federal Communications Commission, the telecommunications industry and officials at other levels of Government.

e. Support to the telecommunications manager.

f. Radio frequency management.

g. Federal-State-local relationships.

Appendices A, B and C are submitted as detailed background in support of the evaluation criteria and rationale used in this report. Particular attention is invited to Appendix C which is a compendium of significant points from previous studies made over the past twenty or more years.

The formulation and monitoring of policy, development of standards, observance of trends, frequency management, determination and satisfaction of requirements, guidance of technology, attainment of good Federal and State relationships, preparation for and the meeting of emergency conditions depend upon the full and free exchange of information among all cognizant officials at the policy and technical levels. The President's telecommunications director should be informed and current so that he can act promptly and effectively. The telecommunications director will need access to officials and organizations having a telecommunications interest and capabilities. This should work in two directions. The departments and agencies of the Executive Branch, the Federal Communications Commission and industry should be encouraged to coordinate and consult with the President's telecommunications director on a full and free basis as well.

The staff of the telecommunications director should have two characteristics. That is, a portion of the staff should be relatively permanent in nature and a portion should be temporary in nature. The permanent portion would provide continuity and the temporary portion would be structured so as to permit the use of the most competent experts in varied fields as needed.

To meet the needs of temporary staff, the director should be provided invitational travel and consulting funds and research and study funds. He should also be able to call upon other agencies for personnel to be detailed to his staff for special and temporary assignments. This latter capability will conserve funds while assuring that use is made of experience, knowledge, and requirements of the detailing agencies.

Growing pressures on the radio frequency spectrum and the need for more effective use of this resource to meet the rapidly expanding telecommunications demands have been the subject of many studies. The most recent comprehensive study of this subject is the report of the Joint Technical Advisory Committee dated 1968, entitled, "Spectrum Engineering -- The Key to Progress." The need for a new order of frequency spectrum engineering and development is becoming more and more obvious. The radio frequency spectrum is a finite resource that is a common denominator to all telecommunications except those using wires, cables, wave guides, etc. The significance of radio frequency management was recognized as far back as 1922 when the Interdepartment Radio Advisory Committee (IRAC) was established to coordinate Government frequency assignments. The Communications Act of 1934 continued the President's responsibility for assignment of frequencies to Government radio stations previously established by the Radio Act of 1927.

The current spectrum studies prove again the need for frequency management at the Chief Executive level -- except more resources are needed to do the job.

More than 35 separate agencies within the Executive Branch are involved in the provision of more than $20 billion (1967) of assistance to State and local government. Throughout the more than 450 programs being administered, telecommunications plays an important role. But nowhere, other than in the Office of Telecommunications Management, is there an overall attempt being made to coordinate the expenditure and use of these telecommunications funds.

The modest success enjoyed to date in this area by the DTM and the measure of Federal response to the State and local governments' requests has been attributable primarily to the fact that the DTM, as Special Assistant to the President for Telecommunications, has been closely identified with the President.

2.3 Objectives of a National Telecommunications Organization

The organization -- any organization -- established to manage telecommunications must take into account the telecommunication functions devolving upon the President which he cannot

responsibly delegate to a new department or assign to an agency within an existing department. Certain essential objectives come to the surface when consideration in depth is given to the subject. These are outlined as follows:

a. To provide national visibility to the Office of Telecommunications Management to (1) stimulate recognition of the essential role of telecommunications in support of national goals, and (2) stress the importance of enlightened and rational development of national telecommunications policy.

b. To assure that the telecommunications organization proposed is administratively sound and structured so as to prevent usurpation of Presidential prerogatives, e.g., the organization should be responsive directly to the needs of the President without "going through" some other Department or Agency.

c. That the organization have the capability of being fully responsive to Presidential requirements without complicating or unduly enlarging the Office of the President.

d. That the organization be one readily identifiable and associated with the President.

e. To advance an organization capable of achievement with reasonable promptitude and with minimum disruption to the existing governmental structure and the functions being performed thereby.

f. That the organization have the authority to and be capable of coordinating effectively the views of the several Federal Government Departments and Agencies; resolve the differences in those views; and make decisions between conflicting views and interests when they develop.

g. To assure that adequate resources are marshalled and applied from the focal point of telecommunications management rather than function in an uncoordinated fashion throughout the Government.

i. That the organization be sufficiently flexible to respond readily to the dynamic and the unique characteristics of telecommunications.

2.4 Essential Elements of Telecommunications Organizations

To attain the objectives, experience leaves no doubt as to several essential elements that must go into a telecommunications management arrangement that would assure effective discharge of the President's responsibilities. Appendix C cites portions of several studies in this regard. These are summarized as follows:

a. Responsibility for telecommunications policy direction should be assigned intact to a single "Director," rather than split among a number of officials, and frequency management should be retained with other aspects of telecommunications management. (Hoover Commission and Landis Memorandum -- in Appendix C).

b. The "Director" should be appointed by the President, by and with the advice and consent of the Senate, and delegated adequate authority to act for the President in the discharge of the assigned functions.

c. The "Director" should be empowered, following consultation with the appropriate agencies, to state telecommunication objectives; enunciate policy; and establish rules, regulations, criteria, standards and procedures with respect to Executive Branch operations and use of telecommunications.

d. The "Director" should not be required to operate any communication systems or facilities, except those necessary to meet the requirements of his office. (Memorandum of June 9, 1961 conference convened by Mr. Feldman -- See Appendix C).

e. The "Director" should be authorized to consult the agencies with respect to their telecommunications programs and budgets, and to advise the Bureau of the Budget on consideration thereof. (This would be in implementation of BOB Bulletin 68-9)

f. The "Director" should be provided with adequate resources (personnel and funds) to discharge his assigned functions; he should be authorized to call upon the Government agencies for necessary information and assistance, including the detail of personnel, and to establish interagency and industry advisory committees as he may find them to be necessary.

g. The "Director" and the Chairman of the Federal Communications Commission should be authorized to assist and give policy advice to the Department of State

in the discharge of its functions in the field of international telecommunications policies, positions and negotiations.

2.5 Existing Authority of the Special Assistant to the President for Telecommunications/Director of Telecommunications Management

The sense of the two preceding sections is to identify telecommunications management with the Presidency and to establish a separate Office therefor as a recognized entity in the Executive Office of the President. Existing authority for the Special Assistant to the President for Telecommunications/Director of Telecommunications Management is derived from the following:

a. Subsections 305(a) and (d) and 606 (a), (c) and (d) of the Communications Act of 1934, as amended, and as delegated by the President through the Director of the Office of Emergency Planning.

b. The Communications Satellite Act of 1962, Public Law 87-624, 87th Congress, H.R. 11040, August 31, 1962.

c. Executive Order 10312, "Providing for Emergency Control Over Certain Government and Non-Government Stations Engaged in Radio Communication or Radio Transmission of Energy."

d. Executive Order 10705, "Delegating Certain Authority of the President Relating to Radio Stations and Communications."

e. Executive Order 10995, "Assigning Telecommunications Management Functions."

f. Executive Order 11051, "Providing Responsibilities of the Office of Emergency Planning in the Executive Office of the President."

g. Executive Order 11084, "Amending Executive Order 10995, Relating to Telecommunications."

h. Executive Order 11191, "Providing for the Carrying Out of Certain Provisions of the Communications Satellite Act of 1962."

i. The President's Memorandum of August 21, 1963, Subject: "Establishment of the National Communications System."

j. Executive Order 11092, "Assigning Emergency Preparedness Functions to the Federal Communications Commission."

k. Office of Emergency Planning Order 1100.1B, of May 1964, Subject: "Organization Manual."

Some of the foregoing will become superseded in any telecommunications reorganization and some will have to be amended, but the legislation, i.e., a and b above -- can stand fast.

2.6 A Lesson from the Past

The fact that there are advocates for consolidating Government telecommunication policy functions within an existing department or agency is cause to stop and reflect on history. In the early days of radio, the Department of Commerce handled most radio matters in the Federal Government. There was some fragmentation among other agencies as well. The situation finally came to a head in 1932 when the Congress passed legislation (Section 401, Economy Bill, 72d Congress) that provided guidelines to the President authorizing him to group, coordinate and consolidate Government agencies, to reduce their number by combining those with similar functions, to eliminate duplication and overlapping effort and to segregate regulatory agency functions from those of an administrative or executive character. By Executive Order 5892, the President then abolished the Radio Division of the Department of Commerce and transferred its functions

to the Federal Radio Commission. Two years later, the Federal Communications Commission replaced the Federal Radio Commission and was given complete jurisdiction over interstate telecommunications.

The legislative history of the Communications Act of 1934 establishing the Federal Communications Commission is replete with statements of reasons as to why a separate and independent agency, "Free of political influence or arbitrary control" (Senate Report 772, 69th Congress, 2d Session), should regulate radio. Accordingly, the concept of returning the telecommunications responsibility back to a Department would be going full circle. The philosophy of Government evolving from the Constitution has not changed and the reasons for removal of telecommunications responsibility from one of the Government Departments back in the early 1930's apply today.

The Interdepartment Radio Advisory Committee (IRAC) was established under the auspices of the Department of Commerce in 1922 to coordinate Government radio frequencies. In the ensuing years, the IRAC Secretariat was transferred from the Department of Commerce. For a long time it was co-located and administratively handled by the FCC. After World War II when, for the first time, an official was designated to handle telecommunications policy matters,

for the President, responsibility for the IRAC was transferred to that office and has functioned at the Executive Office of the President level ever since. The principal changes as regard IRAC were to have it report to the President's telecommunications manager for direction and to make its role advisory to him. The DTM has final authority on radio frequency assignments to Government departments and agencies, thus eliminating temptations for mutual self-serving interests among the members of the Committee. He has full authority to accept or reject the recommendations of the IRAC or disband it completely.

2.7 Analysis of Models

The telecommunications management problems of the United States require substantially more high level attention, emphasis, and resources than they have received in the past. Primarily, deficiencies have been felt by Congress, industry and past study groups to be due to lack of policy formulation, lack of sufficient coordination of and influence on the telecommunications plans, policies, and actions of the various Governmental departments and agencies. These deficiencies can be removed without a disruptive

reorganization such as that proposed by Models 2 and 3. Telecommunications is of such vital importance to mission accomplishment in many Government departments and agencies -- DOD and FAA to name but two -- that massive reorganization and centralization should be recommended, if at all, only after the most exhaustive and intensive in-depth studies. These studies have not been made as yet.[1/] Changes and improvements in the NCS organization and performance must necessarily be evolutionary. This evolution is taking place, albeit somewhat slower than this office considers possible and has recommended in the past.

Examination of the three models proposed leads to the conclusion that only Model 1 comes close to being responsive to the needs of the President for a telecommunication activity responsible and responsive directly to him. Proposed later in this Part is a concept for an organization based on this Model that can be accomplished in the immediate future and is most likely to be effective in correcting

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1/ In response to Presidential (Special Assistant to the President for Telecommunications) guidance to DOD (Long Range Plans) such a study is now being made by the NCS Manager and the Executive Agent.

management deficiencies than would be Models 2 or 3 in their present conceptual formats. It would enhance capabilities for accelerating improvements in the NCS. The Departments and Agencies of the Government will, we believe, be more amenable to this concept even though some of them have their own objectives for taking over the functions and responsibilities of the SAPT/DTM. As a matter of fact, it has been detected that a free flow of information and consultation has not always been forthcoming from them. This has mitigated against the high degree of cooperation important to achieve results and is reason to proceed with a model that is doable in the early future.

Model 1

This model offers two management proposals, namely, (a) the establishment of a "single administrator;" or (b) a "policy board." The former is an acceptable approach, but the latter is impractical. The establishment of a separate office within the Executive Office of the President, with responsibility for telecommunications management within the Executive Branch, would be a major improvement over the present arrangement. This could be effected by a simple reorganization plan and is most likely of early attainment.

A possible implication of Model 1 is the establishment of a separate agency within the Executive Branch and not responsive directly to the President who must retain the ultimate responsibility and authority. Experience has shown clearly that identification with the President is imperative to the meeting of telecommunications requirements within the Executive Branch. This need was recognized in a previous Bureau of the Budget study, [1/] in the Seidman and Moore Study, [2/] and by the then Telecommunications Advisor to the President. [3/]

A single Administrator (Director) instead of a Policy Board is recommended for the reasons that an individual can be more efficient and act faster than a board. This view is corroborated by the Hoover Commission, the pertinent portion of which is quoted in Appendix C.

1/
BOB Staff Report, "Organization for Telecommunications Management," July 20, 1961.

2/
Seidman & Moore Study, "Allocation of Radio Frequencies to Government agencies - Final Report, Project 46-40," June 21, 1946.

3/
TAP Letter to the President of May 21, 1953.

Pertinent extracts from these three references are quoted in full in Appendix C.

Model 2

Model 2 presents a concept that would have the net effect of downgrading the level of telecommunications management just at a time when high level policy guidance is needed more than ever before. Telecommunications is so intertwined with and sensitive to the primary missions of most Government Departments and Agencies that relegation of policy guidance on this subject to a component within an existing agency would invite further fragmentation rather than centralization. In this regard, telecommunications is different from such other functions as the Weather Bureau, Food and Drug Administration, Bureau of Standards, etc. in that the latter provide essentially an advisory type of service, whereas telecommunications is essentially operational. A component of an existing Department or Agency would be in a very awkward position if it attempted to interject its views and policies on matters affecting the manner and success with which another Department executed its mission.

Certain of the rationale and discussions under Model 3 would also pertain to Model 2, particularly as regards the NCS of which the Department of Defense provides 80% of the capability.

The idea of Model 2 and Model 3 has come up in the past. Appendix C quotes comments and conclusions from past studies that would pertain e. g. (a) "regulation of one department by another has been quite unsuccessful[1] and (b) "telecommunications management is Presidential in character"[2]. These observations are considered still to be valid.

Thus, in the over-all consideration of telecommunication policy and resource allocation (e. g. frequencies), there needs to be an office which understands well, through training and experience, the needs of our national security and of our industry and of the other Government departments, and which is capable of knowledgeable overview and objectivity in the resolution of conflicting requirements.

Not to be overlooked is the national security aspect of telecommunications. During times of international tension and in war, telecommunications is essential to the President in receiving intelligence, communicating with Allies, and about-to-become enemies. Telecommunications management must be adaptable in peacetime for quick transition to wartime conditions. An agency

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(1) Seidman & Moore - Final Report BOB Project 46-40.

(2) BOB Staff Report - "Organization for Telecommunications Management," July 20, 1961.

within an existing Department would be hard pressed to keep up with actions of the National Command Authorities and most certainly would be in an unrealistic position to be responsive to them.

In time of emergency or war, the telecommunications system of the Nation is a national military asset and normal peacetime procedures, rules, and regulations affecting telecommunications must be so controlled by the President as to focus them primarily on the safety, security, diplomatic and military missions of the Nation for which the President is uniquely responsible. In time of emergency or war, our national telecommunications system over-all is the facility most vital to our survivability as a Nation for which the President has the single, undivided responsibility under the Constitution. There is the need in this period of world instability, hazard, and nuclear weaponry that we be able to affect the world's peace-keeping machinery and if these efforts fail, to effect instant transition from peace to war in our telecommunications system.

Acceptance of the thesis that certain telecommunication functions are Presidential in nature and cannot be delegated below the Office of the Presidency, leads to the conclusions that Model 2 is unsatisfactory, because:

a. telecommunications management would be less responsive to the President than are present arrangements;

b. telecommunications management would be further removed from identification with the President and downgraded, making it ill-equipped to discharge the President's responsibilities;

c. telecommunications management would be in the untenable position of having to judge between satisfaction of its own requirements as opposed to satisfaction of other agency requirements when conflicts arise between demand priorities;

d. telecommunications management effort would be divided between policy and coordination and operation of systems, and would be in competition with those it manages;

e. the size of such an organization would continue to grow and would have a tendency toward wasteful duplication of functions of existing departments;

f. this arrangement would require legislation for its establishment and would be unlikely of early attainment.

The Bureau of the Budget Staff Report, "Organization for Telecommunications Management," July 20, 1961 cited above was most enlightening with respect to a Model 2 arrangement. Relevant extracts are quoted in Appendix C and the soundness of those observations has been confirmed by the experience of the present Director of Telecommunications Management.

2.8 Proposed National Telecommunications Organization

The need for prompt improvement in telecommunications management in the Federal Government is now clearly recognized. A series of studies going back to 1946, prior recommendations of this office, and current experience all support the need. The urgency of the need is emphasized by the fact that the President appointed a special Task Force in August 1967 to conduct a review of U. S. national telecommunications policy and at the same time directed the Bureau of the Budget to submit recommendations on organization of telecommunications within the Government.

A few simple criteria are particularly pertinent for your consideration. The organization should be: (a) capable of early implementation, (b) accomplished in a manner that minimizes disruption to the Government Departments and Agencies, (c) economical in terms of manpower and funds, consistent with effectiveness, and (d) invested with sufficient authority and resources to accomplish its tasks. Of great importance, the organization adopted should be consistent with the organization to be activated under conditions of national emergency and convertible instantaneously from peace to war conditions.

The National Telecommunications Organization shown in Figure 1 meets the criteria stated above, the objectives set forth in Section 2.3, and it contains the essential elements listed in Section 2.4. Possible long delays could be obviated by using the Presidential authority to reorganize.

Establishment of the proposed National Telecommunications Organization will impose little change on the Executive Office of the President and no change in the organizational structure of the White House. The Special Assistant to the President for Telecommunications and the Director of Telecommunications Management would be one individual as is the case now. The Director of Telecommunications Management would continue to function in the Executive Office of the President with a reduced complement of personnel. Significant organizational changes are that the Director and the small Office of Telecommunications Management would no longer be a part of the Office of Emergency Planning but a separate entity identified on its own as a part of the Presidency with a supporting agency organization to be created outside of the Executive Office of the President to meet needs for analysis engineering, science, economics, legal, and social applications studies.

To accomplish the needs discussed in this report, some additional authority will be required for the reconstituted Special Assistant to the President for Telecommunications/Director of Telecommunications Management to call on the resources of the Government Departments and Agencies for assistance. This added authority, plus the prestige of identity with the Presidency, will make it quite possible to use these resources without transferring them out of the Departments and Agencies where they are now located. Sufficient experience in obtaining assistance by this means has already been gained[1] and it is considered feasible to proceed further along this line. When necessary, it is recognized that funding may have to be provided by the DTM, particularly if a substantial amount of assistance is requested. With this authority it is anticipated that resources, such as the Department of Commerce Institute of Telecommunication Sciences (ITS), DOD's Electromagnetic Compatibility Center (ECAC), and NASA's BELLCOMM would become more readily available and more closely linked as to programs and projects in support of an overall Telecommunications program.

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(1) Resources used in the past four years include Lincoln Laboratories, Rand Corp, IDA, DOD, ECAC, NASA, and Department of Commerce capabilities in the Bureau of Standards and the Institute of Telecommunication Sciences. Use of these resources has been impeded and growth made difficult by lack of funding and the difficulty of marshalling authority.

Five actions of an organizational nature are recommended that would augment the resources of the Special Assistant to the President for Telecommunications, namely:

1. Establish a high level National Telecommunications Policy Council. The Council should most properly be chaired by the Vice President, with membership from the Government Departments and Agencies, the Chairman of the Federal Communications Commission, and the Special Assistant to the President for Telecommunications (Vice-Chairman). This Council would have as many panels as may prove necessary, but at least two--one to provide a forum and to obtain advice from the leaders of industry, and one to perform similar functions by leaders of science, engineering and technology. The Council, with at least these two panels, would overcome critical needs not met under present arrangements, i.e., introduce policy guidance into telecommunications management derived from the thoughts of the top political, industrial, and engineering talent of the United States--something that had been sought and obtained heretofore by this office by

repeated consultation. While such consultation informs, it does not achieve visibility and consensus to the needed degree.

Specifically, it is envisaged that the Council would perform as follows:

(a) Identify and state national goals and objectives which telecommunications can assist in achieving.

(b) To recommend guidelines for establishing national telecommunications policy.

(c) Provide for exchange of information between government and industry, science and education.

Secretariat for the Council would be provided by the Special Assistant to the President for Telecommunications.

2. Establish a Joint Advisory Committee for National Telecommunications. This Committee would be made up of senior communication officials and their research and

development counterparts from among the Government Departments and Agencies, including the Federal Communications Commission. This Committee would bring into its purview the several ingredients that go into making telecommunications responsive to the national policies of the United States Government, e.g., telecommunications engineering, economics, legal aspects, sociological aspects, electromagnetic compatibility, and research and development. It would provide:

(a) A forum for achieving coordinated scientific and technological support.

(b) Advice, assistance and a means for coordinating executive/legislative/technical communications support in meeting national objectives.

(c) Advice and assistance, and obtain cooperation in programs designed to achieve maximum results from developing technological advances and existing resources.

(d) Program guidance to and obtain advice from available Government telecommunications resources (ITS, BELLCOM, Lincoln Laboratories, MITRE, RAND, ECAC, IDA, etc.) and the National Telecommunications Institute.

(e) Advice on NCS matters as appropriate.

3. Establish a Federal Telecommunications Agency. This would be a field agency, outside of the Executive Office of the President, to support all the functions of the SAPT/DTM. The use of an agency would avoid enlarging the personnel count and budget of the Executive Office of the President. The immediate staff of the SAPT/DTM would be a small number of high level professional and policy personnel. The Federal Telecommunications Agency would consist of personnel qualified in the fields of engineering, economics, legal, social sciences, and accounting. The IRAC Secretariat would be transferred from the Executive Office of the President to the Agency and form its initial nucleus along with some of the present OTM personnel. Obviously, the Federal Telecommunications Agency would grow, but it would require nowhere

near the number of personnel as would the organizations under Models 2 and 3.

The Federal Telecommunications Agency would function under its own budget and not that of the Executive Office of the President. When augmented it will:

(a) Program support for the SAPT/DTM and the Joint Advisory Committee for National Telecommunications.

(b) Provide guidance to the National Telecommunications Institute and analyze the output therefrom.

(c) Provide in-house analyses, studies, reports, recommendations, contractural services and provisions of selected committee officers and secretariats.

The Special Assistant to the President for Telecommunications/Director of Telecommunications Management would be supported by an extensive "Advisory Structure" as indicated in Figure 1. These are mostly existing "part time"

Committees that would not require full time support personnel. Some are already in existence and in use.

4. Establish a National Telecommunications Institute. In order to make this resource available quickly, it would be established initially as a Government sponsored not-for-profit enterprise. It would be under contract to the Director of Telecommunications Management in his position as Head of the National Telecommunications Agency and at some future date could, if found desirable, be converted into a Government owned facility manned with civil service personnel. The Institute would be located in close proximity to Washington to assure quick reaction to requirements and access to Departments and Agencies. The Institute would function with policy guidance provided by the Director of Telecommunications Management derived from the National Telecommunications Policy Council and the Joint Advisory Committee for National Telecommunications. It could be started on a modest basis at an early date and expanded as experience and

workloads dictate. This Institute would satisfy the need for substantial and objective technical capability within the Executive Branch required to provide the basis for advice to the FCC, State Department, other Federal Agencies, State and local governments. It would also provide the technical capability required to improve the process in other telecommunications functions, such as frequency management, development of standards, and criteria for evaluation of industrial proposals.

Support to the Institute could be provided by a selected university with which a suitable contract would be negotiated, as a separate but related activity. For the past several years, the SAPT/DTM has advanced the concept of using university capabilities to study and recommend solution in technical and interdisciplinary matters, to educate managers -- particularly in interdisciplinary fields -- and to provide a noninvolved seminar atmosphere for exchange of information and advice among those involved

in telecommunications. The Institute will provide the ideal facility to interrelate with the University.

It has been our endeavor during the past year to obtain Foundation and Industry support of such a University concept rather than to depend on Government funding. Industry and Foundations have evinced interest but as yet the concept and the support have not been finalized.

5. University Based Training Programs. There is need for a program to assure that there is a steady flow of talent into the field of telecommunications. University programs to date have not produced the calibre of trained engineers, economists, lawyers needed to cope with formulation and implementation of telecommunication policy. This program would encourage Universities to train students to become future "decision makers" in telecommunication matters. Grants for graduate study would be one means of accomplishing this. Encouraging one or more universities to establish centers for telecommunications study integrated within the academic structure of the University would be another.

THE EXECUTIVE BRANCH TELECOMMUNICATIONS ORGANIZATION

THE PRESIDENT

EXECUTIVE OFFICE OF THE PRESIDENT

SPECIAL ASSISTANT TO THE PRESIDENT FOR TELECOMMUNICATIONS ✪ ★

NATIONAL TELECOMMUNICATIONS POLICY COUNCIL

(CHAIRMAN-VICE PRESIDENT OF THE UNITED STATES) ●

DIRECTOR ✪ FEDERAL TELECOMMUNICATIONS AGENCY ★

JOINT ADVISORY COMMITTEE FOR NATIONAL TELECOMMUNICATIONS

(CHAIRMAN - DIRECTOR, FEDERAL TELECOMMUNICATIONS AGENCY) ●

FEDERAL TELECOMMUNICATIONS AGENCY

(DIRECTOR-(DTM)) ✪

PURPOSE:

TO SUPPORT ALL FUNCTIONS OF THE DIRECTOR, FEDERAL TELECOMMUNICATIONS AGENCY/SPECIAL ASSISTANT TO THE PRESIDENT FOR TELECOMMUNICATIONS WITH STAFF - AND IN-HOUSE ANALYSES, REVIEWS, STUDIES, REPORTS, BUDGETING, RECOMMENDATIONS, CONTRACTUAL SERVICES, AND PROVISION OF SELECTED COMMITTEE OFFICERS AND SECRETARIATS.

NATIONAL TELECOMMUNICATIONS INSTITUTE

(NOT-FOR-PROFIT ORGANIATION)

PURPOSE:

TO CONDUCT ANALYSIS AND PROVIDE REPORTS ON SUCH ITEMS AS:

- FREQUENCY MANAGEMENT
- ELECTROMAGNETIC COMPATIBILITY
- SATELLITE COMMUNICATIONS
- DOMESTIC COMMUNICATIONS
- INTERNATIONAL COMMUNICATIONS
- TELECOMMUNICATIONS MOBILIZATION
- NATIONAL TELECOMMUNICATIONS RESOURCES
- PROGRAM ANALYSES
- NATIONAL COMMUNICATIONS SYSTEM
- TELECOMMUNICATION STANDARDS
- EXPERIMENTAL TELECOMMUNICATION PROGRAMS
- FEDERAL-STATE TELECOMMUNICATIONS PROGRAMS AND SYSTEMS

INTERDEPARTMENT RADIO ADVISORY COMMITTEE ★

COMSAT POLICY ADVISORY COMMITTEE

FEDERAL-STATE TELECOMMUNICATIONS ADVISORY COMMITTEE ★

INDIVIDUAL STATE TELECOMMUNICATIONS ORGANIZATIONS ★

FREQUENCY MANAGEMENT ADVISORY COUNCIL ▼ ★

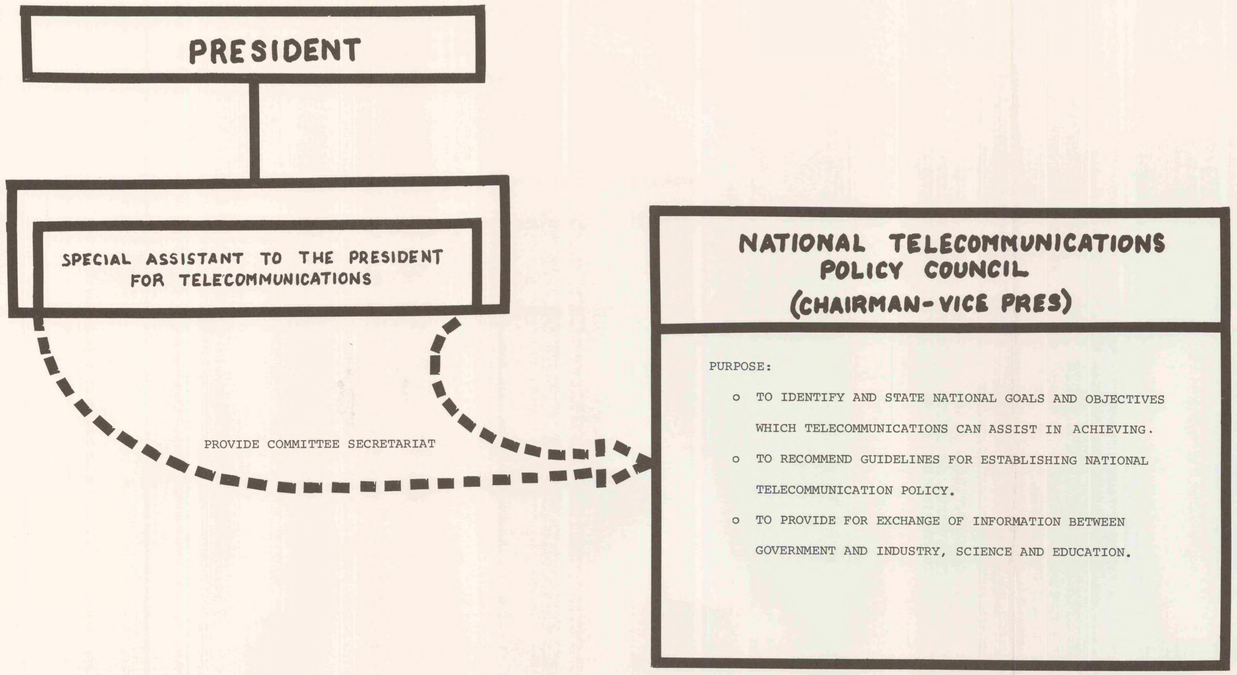
NATIONAL COMMUNICATIONS SYSTEM POLICY COUNCIL

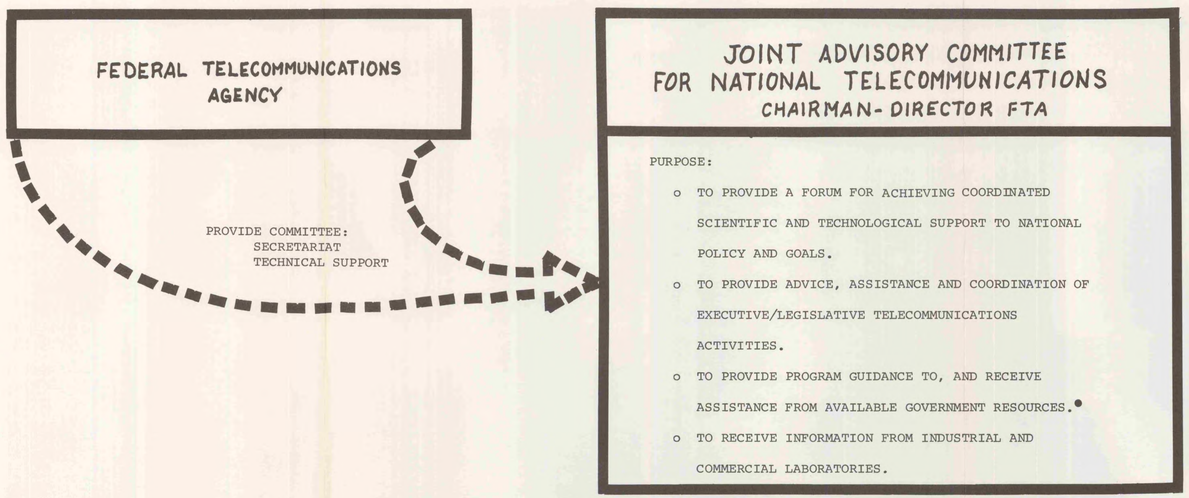
EXISTING FEDERAL TELECOMMUNICATIONS FACILITIES ★

L E G E N D:

NEW AND SEPARATE AGENCY IN THE EXECUTIVE BRANCH OF GOVERNMENT (NOT IN EXECUTIVE OFFICE OF THE PRESIDENT)	★
SAME INDIVIDUAL	✪
EXISTING ELEMENT	★
MEMBERSHIP PROVIDED BY COGNIZANT EXECUTIVE BRANCH AGENCIES - FCC PARTICIPATION	●
COMPOSED OF CIVILIAN EXPERTS	▼
COORDINATION	■ ■ ■

CHART #1 - DTM/August 1968





● AVAILABLE GOVERNMENT RESOURCES INCLUDE:
USA RESEARCH AND DEVELOPMENT LABORATORIES (Ft. Monmouth)
RESEARCH AND DEVELOPMENT LABORATORIES (Ft. Belvoir)
ELECTROMAGNETIC COMPATIBILITY ANALYSIS CENTER
ENVIRONMENTAL SCIENCES SERVICE ADMINISTRATION
WRIGHT PATTERSON AIR DEVELOPMENT LABORATORIES
BUSINESS AND DEFENSE SERVICES ADMINISTRATION
INSTITUTE FOR TELECOMMUNICATION SCIENCES
INSTITUTE FOR DEFENSE ANALYSES
RESEARCH ANALYSIS CORPORATION
AF CAMBRIDGE RESEARCH CENTER
USA LIMITED WAR LABORATORIES
DIAMOND AND FUSES LABORATORY
NAVAL DEVELOPMENT LABORATORY
NAVAL ELECTRONICS LABORATORY
NAVAL RESEARCH LABORATORY
LINCOLN LABORATORIES
BELLCOM
MITRE
RAND

PART III. ANSWERS TO QUESTIONS

3.1 Policy Formulation and Planning

1. What evidence is there to demonstrate failure of, or a need for change in, the executive branch's current system for policy formulation in telecommunications?

The President was sufficiently concerned about the executive branch's current system for policy formulation in telecommunications to appoint a Task Force of distinguished government officials to make a comprehensive study of communications policy. He evidently believed that there was a need to study the possibility of change in the following areas, as in his Message on Communications Policy, August 14, 1967, he directed the Task force to study:

> "Are we making the best use of the electro-magnetic frequency spectrum?
>
> How soon will a domestic satellite system be economically feasible?
>
> Should a domestic satellite system be general purpose or specialized, and should there be more than one system?
>
> How will these and other developments affect COMSAT and the international communication carriers?"

Additionally, the following evidence indicates other areas where policy formulation requires improvement:

a. There is a lack of complete codified national telecommunications policies.

b. Chaos is alleged in aviation (reference: A Crisis in Leadership, by Robert Hotz, AVIATION WEEK AND SPACE TECHNOLOGY, July 29, 1968,) caused partially by failure to exploit the capabilities of advanced technology in telecommunications.

c. The delays encountered in establishing a truly integrated National Communications System responsive to the needs of the Federal Government.

d. The lethargic pace evidenced in the application of telecommunications capabilities to improvement in the public safety sector (police and fire departments).

e. Failure to fully exploit the capabilities of telecommunications to transfer large masses of data generated by the advent of the computer age.

2. What types of telecommunications functions and authorities would you envision being located in a center for policy formulation and long range planning as depicted in the three organizational models? What minimal level of authority and functional activity would be needed by such a center in order to make it viable?

The telecommunications functions which this office envisions being located in a center for policy formulation and long range planning are the same for all three models. They are those contained in Appendix D plus:

1. Consult with departments and agencies with respect to their telecommunication programs and budget and advise the Bureau of the Budget on consideration thereof.
2. Coordinate Federal-State and local government telecommunications activities.
3. Accomplish such other tasks as may be assigned by the President.

Adequate authority to perform the listed functions is required. Inherent within this authority is the right to publish rules and regulations for the Executive Branch in the name of the President, to require compliance therewith, and to adjudicate disputes. Within the context of the inherent authorities stated above, it is recognized the heads of departments and agencies retain the right to request Presidential intervention. There is no lower level of minimal authority which will permit the proper functioning of a telecommunications policy formulation center for the Executive Branch.

3. If you find yourself in significant disagreement with other agencies in areas where policy decisions have to be made (e.g., spectrum allocation), how do you resolve these conflicts? Is this process effective? Could this resolution process be made more effective under any of the three organizational alternatives? How?

Significant disagreements in areas where policy decisions have to be made are resolved by exercise of the authorities vested in the SAPT/DTM. He has been provided with three categories of authority,

each applicable to a different area of his responsibilities.

First, he has decision-making authority on frequency management among claimants of the Federal Government. He is advised by the IRAC, but final decision rests with him. The resolution process in this area is effective; decisions have been made, overall policy determined and published, and disputes resolved. No direct appeals over disagreement have been made to the President. No appeals of decisions have been made to the DTM although many decisions made have overruled requests of the departments and agencies.

Second, for matters relating to the NCS he provides policy direction and serves as the Special Assistant to the President for Telecommunications. In this particularly contentious area, where telecommunication assets and capabilities are crucial to mission accomplishment and have long been considered the property of the operating department or agency, this level of identity has proven essential to make any progress at all toward development of an integrated NCS. The resolution process in this area is reasonably effective, but should be improved. The recommended organization provides for such improvement.

Third, for all other responsibilities he has coordinative authority as the Director of Telecommunications. The authority in this area is somewhat less than that granted in the NCS area, and the visibility of the position is lower, as clear identification with the President is lacking. It is believed that this situation contributes significantly to the long delays observable in resolution of disagreements in this area. Agency attempts

to settle disagreements among themselves become protracted arguments, which they carry out without serious concern about Presidential intervention. Extending recognition, clearly identified in the Federal Register, that the SAPT/DTM is the Assistant to the President for all telecommunication matters will clarify the situation, and create sufficient leverage to cause agencies to arrive at early resolution of disagreement or to refer them to the SAPT/DTM for determination.

Improvement in the resolution process could take two directions. The first, which this office identifies with Models 2 and 3, is to give the senior executive branch communication official across-the-board authority, similar to that now vested in the SAPT/DTM for management of the frequency spectrum. This is the "czar" approach. It is apparent that his authority would not include that which Congress chose to reserve to itself, would not extend to the state and local governments within our federated Government, and that it could not exercise directive powers over industry.

It would be unwise to attempt to use this approach within the Executive Branch. Requests for exceptions to this all pervading authority (all justified by mission peculiar needs) would harass the President. Since many of the requests might be "justified" by the powerful proponents, the "czar" might find himself "czar" over nothing. It is concluded that the resolution process may be less, rather than more, effective under Models 2 and 3.

The second, which this office identifies with Model 1, is to raise the visibility and credibility of the senior executive branch communication official so that the heads of Executive departments and agencies, Congressional agencies, State and local authorities and industry cannot help but accept his identity with the President. Adequately responsive cooperative coordination among all parts of Government and the telecommunication industry appears to be the one best way to resolve conflict and to make significant progress toward effective exploitation of telecommunications in the national interest. It is concluded that the resolution process will be improved by adoption of a Model 1 type organization. The SAPT/DTM recommendation on organization is contained in Part II of this paper.

4. From both a Government-wide and your own agency's viewpoint, which organizational alternative do you feel would best lend itself to becoming an effective center for policy formulation? Please provide the rationale underlying your choice.

From both a Government-wide and the SAPT/DTM's viewpoint, a Model 1 type organization will best lend itself to becoming an effective center for policy formulation. For the rationale underlying this choice and a concept for carrying it out, you are referred to Part II.

5. What role, if any, would you give to the telecommunications industry during the policy formulation process? How would you structure this under the organizational alternative of your choice?

Industry should play an advisory role in the policy formulation

process. To permit them to provide adequate advice, there must be assurance of an adequate flow of information to industry.

The SAPT/DTM recommends that this be accomplished by establishment of a National Telecommunications Policy Council patterned after the President's Scientific Advisory Committee and by other liaison. For a further discussion of this rationale, you are referred to the SAPT/DTM's recommendations contained in Par. II.

3.2 The Government as a User of Telecommunications Equipment and Services

1. Within the context of the three organizational models describe the decision making process, as you would envision it, involved in establishing a specific communications capability or system. How would you provide organizationally and procedurally for the following considerations?

a. utilization of existing assets in other agencies;

b. in-house vs. commercial operation (Circular A-76 considerations);

c. Interagency and industry ramifications?

Do you feel this process could be handled more effectively with any specific model? How?

The decision making process in establishing a specific communication capability or system should be a coordinated process involving the originator of the requirement, review and approval authorities and industry as a source of supply. The fundamentals of an effective process will remain the same, regardless of the organizational arrangements established.

In considering the decision making process it should be recognized that mission-oriented departments and agencies have vital interests which must be adequately presented, considered, and coordinated. There is a need for overall standardization to insure maximum utilization of common user systems; however, unique requirements for mission accomplishment must also be recognized. These fundamentals are under active study as a joint effort among the Executive Office (BoB-SAPT), the Executive Agent (NCS) and GSA. There is also in progress an NCS Concept Study in accordance with the guidance of this office to the Executive Agent (NCS) furnished in October 1966.

The purpose of these studies is to examine existing processes to identify areas requiring improvement. Any modification required to assure fully responsive procedure will be recommended.

The only specific improvement that is recommended at this time is to spell out in a successor to Executive Order 10995 the role of the SAPT/DTM in the budgetary process. In the response to question 2 under Policy Formulation and Planning (Page 41) it was recommended that the SAPT/DTM be assigned responsibility to, "consult with departments and agencies with respect to their telecommunication program and budget, and advise the Bureau of the Budget on consideration thereof. The purpose of this recommendation is to make the coordinating process more effective and less time consuming, and to assure that action is being taken to meet national telecommunications objectives.

With respect to subquestions:

a. Application of the recommendations of the above mentioned study group is expected to insure the optimum of existing assets of the Government.

b. The OTM Circular 3000.3, now being coordinated throughout the government and with industry specifies the procedures to be followed in making an in-house vs. commercial determination. Regardless of the organizational model adopted, the procedures will remain unchanged. Copy of the current draft of 3000.3 is at Appendix F.

c. Interagency ramifications were discussed in response to the question of how the decision making process should work. Industry ramifications are covered in draft OTM Circular 3000.3.

The process can be handled most effectively under a Model 1 type organization. As stated in response to question 3 under Policy Formulation and Planning, Model 1 is directed to coordinated cooperative action, an essential of the above process. An important element of this coordinate process is that taken between BOB and the SAPT/DTM. This coordination can be best made with both located in the Executive Office of the President. For explanation of how this process will work under a Model 1 type organization see the recommendation of the SAPT/DTM in Part II.

2. Do you find the current basis for organizing governmental telecommunications services in terms of the types of services provided (i.e., program-mission oriented versus common administrative systems) effective from the standpoint of your needs? What changes would you propose?

Which of the organizational alternatives would you prefer as a vehicle for such change? Please provide the rational underlying your choice. What contribution could your agency make to the success of such a revised organizational arrangement? In your own specific case, what functions would you gain or lose?

The current basis--or philosophy--is effective, i.e., use of the common-user system to meet requirements which can be so met; dedicated systems to meet mission requirements that impose needs beyond the capabilities of the common-user system.

No immediate change beyond the guidance already given the Executive Agent is recommended to the current basis for organizing governmental telecommunication services during the present evolutionary development of the NCS into an integrated unified system. Emphasis will continue to be made to improve the capability of the common-user system to the end that fewer needs will have to be met by use of dedicated systems.

Continued effort can be restated as further coordinated cooperation among departments and agencies; which can best be accomplished under a Model 1 type organization. The rationale for the choice of a Model 1 type organization to best accomplish coordinated cooperation was stated in response to question 3, Policy Formulation and Planning.

The contribution that the SAPT/DTM could make to the success of such a revised organizational arrangement is stated in the response to the question cited in the preceding paragraph and in Part II where the recommendations of the SAPT/DTM are presented.

The SAPT/DTM would neither lose nor gain functions under the recommendation which he makes. Rather, his functions will be restated in more positive terms, and implied functions will be identified. His position will be strengthened by this clarification of functional responsibilities, increasing the visibility of his position, and provision of resources adequate to accomplish assigned tasks.

3. Describe and provide specific examples of your agency's experience with the operation of the National Communications System (NCS) in satisfying your agency's telecommunications requirements. What do you conceive of as the future role of this system under the three organizational models? Would you subscribe to any one of them?

The telecommunication requirements of the SAPT/DTM are modest and have been met adequately by the NCS. From the overall viewpoint of the Executive Branch, no department or agency has presented a complaint to the SAPT/DTM that the NCS has failed to satisfy its telecommunication requirements. With this factual statement made, the SAPT/DTM fully subscribes to the position that much remains to be done to provide a truly integrated NCS. The responses to the other questions, particularly the preceding question, provide insight into the direction the NCS is being moved, and how the progress will be managed.

The future role of the NCS under any of the three models will remain essentially the same, i.e., the communication system which meets the need of the President and his national command and subordinate authorities and

meets the common-user needs of the Federal Government. Regardless of the organizational arrangements that evolve, management of the NCS should remain with the Defense Department because (a) communications for national security are most critical to national survival, (b) the DCS comprises over 80% of the NCS, (c) most of the dollar value of in-house capability is represented in the DCS, (d) nearly all of the Federal military and civilian persons operating in the NCS are to be found in the DCS component, and (e) most of the requirements for special communications equipment and capability are within in the DCS.

Thus, it becomes obvious to the SAPT/DTM that there is one role only for the NCS, regardless of how the Federal Government organizes.

4. From what sources do you receive your policy guidance in the procurement of your communication requirements (equipment and services)? What problems are you experiencing in this area? How would you improve the organization for procurement operations under the three organizational models, especially under the one of your choice? What would you propose be done to better relate the procurement process to the development of technology and standards in telecommunications?

The SAPT/DTM has no requirement for communications equipment. He has a minimum requirement for communications service other than the usual telephone. Immediate policy guidance in obtaining these services is laid down by the Office of Emergency Planning. The SAPT/DTM is experiencing no problems in this area.

No change in the existing organization for procurement

operations is envisioned, regardless of the model adopted. The basic structure that exists is sound. Policy on procurement of equipment and services in support of validated communication requirements in its broadest sense has its source in the SAPT/DTM. In its narrowest sense, each agency establishes its own guidelines which are developed as the result of issuance of Government-wide policies and regulations published by the General Services Administration governing the procurement of communication services in the Executive agencies. Certain exemptions to applicability are provided to the Department of Defense, Federal Aviation Administration, National Aeronautics and Space Administration, Veterans Administration, Bureau of Prisons, and the Tennessee Valley Authority. In the furtherance of the specific responsibilities of the SAPT/DTM, the issuance of guidelines in the form of a Manual of Regulations and Procedures for Radio Frequency Management provides procedures to procure frequencies for Federal Government use. In the evolution of a National Communications System (NCS), the SAPT/DTM has issued specific guidance to the Executive Agent, NCS, to apply more extensive management practices to the NCS in the correlation of NCS planning with agency planning, programming and budgeting (PPB) as described in BoB Bulletin No. 68-9. Its specific purpose is to develop procedures and techniques to assure that agency requirements for communication services would be consistent and compatible with NCS

plans and objectives. A significant part of this approach is development of guidance whereby the agencies would process their telecommunications service requirements through the NCS organization for implementation planning. Under the first model, recommended by the SAPT/DTM, policy direction would not be changed. This office would continue to issue broad policy guidance with more detailed and specific guidance being promulgated through the structure that is established.

The SAPT/DTM will use certain of the proposed increase in resources to become more involved and knowledgeable in the area of research and technology in the field of telecommunication. Application of advanced techniques is vital to the effective growth of telecommunications within both the national and international areas. As an indication of the direction in which the SAPT/DTM is moving, the NCS has been directed to institute an appropriate mechanism for maintaining knowledge of the more significant trends in research and development in telecommunications so that new technology is suitably considered in the planning stages to fulfill service requirements. Policy guidance of this nature will be broadened as the capability of the SAPT/DTM is strengthened. As the policy is applied to procurement actions, both the technology and procurement practices will interact to accelerate research and development in telecommunications technology, and to bring improved hardware into the Federal telecommunications systems

and capabilities. The entire process will be enhanced by improved flow of information and advice between Government and industry, discussed in question 5, Policy Formulation and Planning, and in Part II.

3.3 The Government's Research and Development Role in Telecommunications

1. What need, if any, is there for a substantial and objective technical capability within the Executive Branch in order to:

a. provide technical assistance to the FCC and State Department in support of their telecommunications responsibilities;

b. assist other Federal agencies, State, and local governments requiring technical expertise; and

c. support other telecommunications functions such as the frequency management process, procurement standards development, and the evaluation of industry proposals.

What resources now exist in your agency which could be used to form this technical resource, and how could they be organized to carry out the functions described? What additional resources (both existing which could be transferred and new which could be developed) are necessary?

(Note: It is assumed that the need within some departments and agencies -- e.g., DOD is not questioned. The following discussion is directed toward the need of the senior executive branch communication official (SAPT/DTM) for this capability)

1. There is a need for a substantial and objective technical capability within the Executive Branch in order to:

a. Provide technical assistance to the FCC and State Department in support of their telecommunication responsibilities because;

The SAPT/DTM is responsible to consult with and advise the FCC with regard to:

(a) the interface of frequency spectrum usage between Government and non-government operations;[1] (b) coordination of government requirements to be satisfied by lease of non-government facilities and services;[2] (c) coordination of standards for government and non-government use; and (d) the coordination of communications satellite matters to insure full exploitation of communications satelllite technology in the national interest.

The SAPT/DTM should offer the FCC objective evaluations of the diverse interests as among non-government telecommunication service organizations and government users. For example, the

---

1/ Presently accomplished on a daily basis.
2/ Presently accomplished on a frequency basis.

OTM participated with the Department of State and the FCC in studying the impact of the proposed TAT-5 undersea cable on the INTELSAT IV satellite program in the Atlantic Basin.

The SAPT/DTM is required to: assist the Department of State and give policy advice in the discharge of its functions in the field of international telecommunications policies, positions, and negotiations (E.O. 10995 and E.O. 11191).

Provide continuous assistance to the Department of State in the formulation of U.S. Government policy to the Comsat Corporation when Comsat represents the United States at International meetings.

Provide advice and assistance to the Department of State in the preparation of U. S. Government position papers for all international telecommunication conferences and for definitive arrangements which are used in negotiating the future charter for INTELSAT.

There is a need to assist other Federal agencies,* State and local governments requring technical expertise because dependence on telecommunications services and the impacts it causes (or prevents) pervades the entire national and international scene.

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* Example - Substantial advice was provided to the Department of Transportation during its formative period as to:

a. The technical and system problems which the Department should address.
b. The telecommunication organization which the Department should adopt.

Nearly every organizational element within our Federal, State and local governments require advice on telecommunication matters at one time or other. This means expert and objective advice. The sorry fact is that too frequently they do not get it, or get it from sources that are not fully competent or are directed toward self-interest.

Establishment of a substantial and objective technical capability at the apex of the Executive Branch will permit the President to take long strides toward his goal of fully exploiting telecommunications as a national resource.

A substantial and objective technical capability is required in the areas identified in paragraph 1C of the question because:

Frequency Management process -- The Federal Government, being the largest single user of the radio frequency spectrum, depends upon this resource for communications-electronics vital to the national defense and security, safety of life and property, management of resources, and advancement of science and technology. The Federal Government investment in communications-electronics is approximately $50 billion.

Basic goals toward sound frequency management are set as follows:

--Collection of necessary facts (technical parameters, extent of operational employment, management particulars, etc.), construction of an adequate data base that can be consulted rapidly on an electronic data processing basis.

-- Adequate engineering which can facilitate the elimination of interference, and when interference or conflicts occur, to engineer our way around them so as to accommodate more services in the same spectrum area.

-- Value analysis to determine values of the use of the spectrum to the Nation, to industry, to our public services, and relative values to the public and national interests.

-- Standards of use, establishment of "building code standards" for the use of the spectrum so that everyone knows what the standards are.

-- Measurement of the use and observance of standards.

-- An adequate body of policy and regulation so that people who wish to put money into development of the spectrum have a reasonable chance of getting a return from that investment.

To meet these goals there is need for considerable expertise in the technical field of frequency management in order to insure that:

(a) unfilled frequency requirements are met, noting that frequency assignment actions within the Executive Branch are increasing at the rate of 10% per year; (b) data are available as to how the spectrum is actually employed; (c) modern methods of management are applied in radio frequency matters (computerization, data communications, time/motion analyses, etc.); (d) increased engineering/management is effected at the national level and in the field, thereby permitting certain existing administrative limitations to be eliminated and sorely needed frequency resources to be made available; (d) full advantage is taken of advancements in the state of the radio art and accruing benefits to all users of the spectrum realized; (f) the findings/recommendations of past contractual efforts are evaluated, melded into national planning and advantages pursued to fruition; and (g) dynamic and forward-looking planning in the frequency area is effected in such a manner as to insure that the foreseen communications-electronics requirements of the Nation are met.

At Appendix E are examples of actions taken in the frequency management area, many of which are demonstrative of the technical nature of this activity.

Procurement standards development -- The development of standards for the procurement of telecommunications hardware and software of mission-oriented departments and agencies is an inherent responsibility of each separate organization. However, the organization responsible for managing the frequency spectrum must evaluate these standards to assure compliance of all Government organizations with spectrum criteria and plans and take the lead in standards development.

Evaluation of industry proposals -- The capability within a given organization to perform a technically competent evaluation of industry proposals for telecommunications equipment, systems and services is limited generally to the specific needs of the procurement activity. In the case of the Communications Satellite Act of 1962, the Director of Telecommunications Management (E. O. 11191) must possess the technical competence to provide advice to FCC and serve as "the" agent for the President in conducting a continuous review of all phases of the development and operation of such a system, including the activities of the Corporation. This function requires a technical capability to make independent judgments about the proposals of the Communications Satellite Corporation.

Communications Satellite Management -- There is a requirement for the Executive Branch to provide a technical management capability needed to conduct a continuous review of all phases of the development and operation of the Global Communications Satellite System including the activities of the Communications Satellite Corporation. (See Section 2(b) E. O. 11191). This management function is in a sense broader than that covered in the preceding paragraph for evaluating industry proposals.

The existing Frequency Management Directorate and Research and Technology Directorate of the Office of Telecommunications Management provide only the nucleus of the technical management resources needed to perform the expanding functions outlined above in an effective manner. Given sufficient funds, the SAPT/DTM could cope adequately with the complex policy issues and technical considerations to insure effective use of technological advances and the limited electromagnetic spectrum by calling upon other Government agencies (e.g., Institute of Telecommunications Sciences (ITS)) and industry. This would be in lieu of utilizing a much larger in-house capability. The organizational arrangements set forth in Part II depict the basic organization structure needed to perform the Frequency Management and Research and Development functions in the Office of the Director of Telecommunications Management.

In summary, a substantial and objective technical capability is required within the Executive Branch because:

a. Most telecommunications problems have a technical base.

b. Competitive technical proposals require technical evaluation.

c. Economy can be achieved by application of technical standards.

d. Long range planning must be made in consideration of technological trends.

3.4 QUESTIONS ADDED BY THE SAPT/DTM

1. What is unique about telecommunications which requires that certain Executive Branch responsibilities be retained within the Office of the President and not delegated to heads of departments or agencies?

a. Telecommunications is an instantaneous medium of primary essentiality to the President in receiving intelligence, communicating with allies and about-to-become enemies, to enable him to avert war, if possible; and to alert his forces and then to command them. Without his telecommunication system he is no longer in a position to exercise his office in time of emergency or war. During peacetime it might be assumed that commercial means of communication are adequate. Actually, this is not true; because his communications, even in peacetime, have a unique requirement for security and this feature cannot be provided by our commercial communications system.

In time of emergency or war, the telecommunications system of the Nation is a national military asset and normal peacetime procedures, rules, and regulations affecting our commercial communications must be so controlled by the President as to focus them primarily on the safety, security, diplomatic and military missions of the Nation for which the President is uniquely responsible. In time of emergency or war, our national telecommunications system overall is the most vital facility to our survivability as a Nation, for which the President has the single, undivided responsibility under the Constitution. There is the need in this period of world instability, hazard, and nuclear weaponry that we be able to affect the world's peace-keeping machinery; and if these efforts fail, to effect instant transition from peace to war in our telecommunications system.

This leads inevitably to the conclusion that if retained Presidential authorities over telecommunication policy are delegated to a department, that department must be the Department of Defense.

However, in time of peace there are other functional requirements which compete with that of readiness for emergency and war. The development of national policy; the Government's utilization of the frequency spectrum, the arbitration of differing views between Government departments, and between industry and Government must be compromised in an effective way; but always with due and highly knowledgeable consideration of our national security needs.

In peacetime our industry and our civilian departments of the Government are primarily concerned with the business, social, and economic conflicts and problems which are paramount and consuming. Their concern, their education and preparation for emergency and war are minimal. Their attitudes toward the Department of Defense are frequently antagonistic and competitive. But it is extremely doubtful that an office of overall telecommunications policy and management could be located in peacetime within the Department of Defense without serious Departmental, Congressional and industrial opposition. There needs to be both the image and the practice of objectivity in the resolution of differences between the military, the civilian departments of the Government, and industry.

Thus, in the over-all Telecommunications considerations of policy and resource allocation (frequencies), there needs to be an office which understands well, through training and experience, the needs of our national security and of our industry and of the other Government departments, and which is capable of knowledgeable overview and objectivity in the resolution of conflicting requirements.

b. A critically short resource is managed (frequency spectrum). Claimants within the Federal Government are many, and the resource is inadequate to the stated needs. Additionally, the needs of the civilian sector continually press to reduce Government spectrum use. Each user must be convinced of the complete objectivity of the spectrum manager-improbable if a major user were to be the manager-or we should probably find that the President would be personally involved in settling disputes among Cabinet-level claimants.

c. All departments and agencies have responsibilities and missions assigned by the Congress and require the use of telecommunications to perform them. Additionally, many operate extensive telecommunications facilities. Because the command and control capability provided by telecommunications is so important to

mission accomplishment, strong and contentious agency positions are the rule rather than the exception in the field of telecommunications. Resolution of these contentious matters will be made at the Presidential level -- necessarily by the President in the most important matters and to assist in making these decisions, he should have a personal advisor. However, many of the matters should be settled by the Special Assistant to the President for Telecommunications rather than consuming the precious time and effort of the President. The key point is: if strong departments contend and cannot agree, the decision must be made at the level of the Office of the President; and if the President is to become personally involved, he requires an objective source of expert advice to study the problems and make recommendations to him.

d. Continuing coordination must be made with an agency of the Legislative Branch (FCC). This process is improved by placing it at the Presidential level where it clearly represents the collective view of the Executive Branch.

e. The pace of technology is so rapid that highest level direction of effort should be the rule. For example, the current charge that the FAA has failed to exploit the capabilities of advanced telecommunications technology can best be corrected by efforts emanating directly from the Office of the President.

2. Is telecommunications management organized so as to exploit fully the potential of telecommunications in the best national interest?

The organization for telecommunications management should be changed to fully exploit the potential of telecommunications in the best national interests.

Telecommunications can be descriptively compared with the nervous system of modern society. The complex structure of international and national political, economic and social organization would collapse if satisfactory telecommunications support were not available. The accelerating pace at which these complexities multiply demands an equal or faster pace in the satisfaction of telecommunication needs. In satisfying them we create an intriguing interrelationship of the dynamic factor of technological development vs. the less than dynamic factors of frequency spectrum usage and human and economic adaptation. The apparently insatiable demand for telecommunications could be met by technological innovation if it weren't for the spectrum limitations we face,[1/] the lack of recognition of potentials in the technology and the economic cost of accelerating explotation (e.g., air traffic control can be improved if the cost will be paid; public safety mobile equipment operating in a metropolitan area can be better controlled if local authorities will work out the jurisdictional proble). To put the matter another way, a great many telecommunications problems can be resolved on a policy basis.

1/ Primarily because inadequate engineering and analytical capabilities are currently available.

Because we are faced with a resource shortage (frequency spectrum) and human intransigence, we must choose among alternatives. Too frequently events determine the choice by default and without prior policy guidance.

The national objectives and priorities should be analyzed to determine the communications support required to achieve them; conversely, those who establish the national objectives must be advised of telecommunications capabilities so that national objectives may be expanded or contracted accordingly.

The analysis of national objectives should lead to the development of national telecommunications objectives and from these objectives, programs (and industrial targets) should be developed and monitored.

To accomplish this in an orderly manner, to assure proper support to national objectives, and to monitor progress; a change is required in the telecommunications management structure of the Federal Government. The senior executive branch communication official (SAPT/DTM) should be readily identifiable to all as the principal advisor to the President; the one to whom the President turns when the word telecommunications is mentioned, and he should be provided resources adequate to his task. The civilian community and government should participate in joint consideration of how we support our national objectives. There should be an increase in the interplay between the civilian and government

sectors in determining how to meet the national telecommunications objectives. We have hard choices before us in the telecommunications area. The recommendations of the SAPT/DTM as to how we arrange the organization to make these choices is contained in Part II.

3. Can the current telecommunications management organization assure that appropriate resources are made available to the policy and mission needs of the Federal government departments and agencies?

The basic structure exists but there are critical weaknesses. The current structure provides for a Special Assistant to the President for Telecommunications but his authority is limited to National Communications System (NCS) matters only. The structure also provides for a Director of Telecommunications Management in the Executive Office of the President, but unfortunately, identity is lost because he is constituted as an element within the Office of Emergency Planning organization.

Telecommunications cuts across practically all of the Federal Government departments and agencies and, in most cases, is critical to the success of assigned missions. Accordingly, telecommunications policy formulation and direction will be effective only if it is responsive to national requirements and backed up with recognizable authority identified with the Presidency. Although it may be administratively convenient, the practical fact is that the

heads of departments and agencies do not give the same weight to guidance emanating from an "Assistant Director of the Office of Emergency Planning" as they would to a "Special Assistant to the President for Telecommunications."

Telecommunications are not sufficiently identifiable in the budgeting process. Implementation of the Planning, Programming and Budgeting process now under development by the Bureau of the Budget will improve this situation greatly. Presumably, the Director of Telecommunications Management will be directed to provide advice and assistance to the Bureau of the Budget under the new process.

The National Communications System (NCS) was first activated in 1963. During the past five years much progress has been made, but much remains to be done before full benefits can be obtained. When this has been achieved it can be said that telecommunications resources are being utilized to the best advantage as regards policy and mission needs. Neither Models 2 nor 3 offer any reasonable prospect of accelerating this progress. The recommended model was designed with this problem in mind and its application should prove beneficial.

4. How urgent is the need for change? How soon should it be accomplished? How much disruption can be accepted in accomplishing the change?

The need is urgent. This urgency is evidenced by appointment in August 1967 of a Presidential Task Force to make a comprehensive study of communications policy and the President's direction to the BoB that it concurrently study the Government's organization for telecommunications. Additionally, the response to the questions throughout and, particularly, to the first question asked by the Bureau of the Budget supports the contention that the need is urgent. The change should be made just as soon as possible (within this fiscal year).

The urgency of the need and the rapidity with which it should be accomplished rule out a disruptive change. Extensive reorganization would be disruptive, would introduce a substantial number of new organizational problems of adjustment, familiarization, and jurisdiction. A totally new set of relationships would be created within the Federal Government and with industry which would impede the progress now being made rather than provide acceleration and improvement. It could take years to shake down the new relationships and restore impetus.

Certainly, no action should be taken which would initiate extensive Congressional inquiry, or which would require enabling legislation.

The changes recommended by the SAPT/DTM in Part II are not disruptive, can be accomplished at once, and are believed to be the best long-range solution apparent at this time.

APPENDIX A

TO

NATIONAL TELECOMMUNICATIONS ORGANIZATION

THE NATURE OF TELECOMMUNICATIONS

A fundamental difficulty in attempting to deal with the "telecommunications problem" is the general failure to recognize its unique function and importance in 20th Century America.

Telecommunications serves everyone and every function. It is subservient to all. Its services are unbiased in regard to race, religion, political or geographic factors.

In 1951, the President's Communications Policy Board[1] stated:

> "One of the bulwarks of a free society is freedom of communications. Its commerce, its education, its politics, its spiritual integrity, and its security depend upon unimpeded and unsubservient exchange of information and ideas."

In the establishment of the President's Communications Policy Board, the President said:[2]

> "Communications services represent a vital resource in our modern society. They make possible the smooth functioning of our complex economy. They can assist in promoting international understanding and good will: they constitute an important requirement for our National Security. There is, accordingly, a major public interest in assuring the adequacy and efficiency of these services."

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(1) "Telecommunications, A Program for Progress"
(2) Presidential Letter, February 17, 1950, to Mr. Irvin Stewart

More recently, the Electronic Industry Association -- the trade association of the entire electronic industry -- said:

> "Today our telecommunications system is the central nervous system of our civilization. It maintains the integrity of the family and restrains nuclear annihilation. The system provides:
>
> -- the means for the transfer, conveyance or even detection of information over great distances.
>
> -- the means for interconnecting complex machinery and systems for maximum efficiency and return on installed capacity.
>
> -- the antennae or feelers by which we probe the unknown.
>
> -- the nerve system by which we can live closer in mind and spirit while pursuing individual desires in climate and geography.
>
> -- the nerve system of command-control of our worldwide security forces.
>
> "It is as much a tool for meeting the challenges of hunger, marginal living, poverty, international misunderstanding, exploding population, air and water pollution, and urban decay as the tractor, test tube or bulldozer. It is more than such a tool; it is the essential unifying system necessary to the mobilization of all other tools. Telecommunications, under creative leadership in policy, must lead the way to new system approaches to the crowded living problems of an industrialized world."

The Report further states that:

> "These views represent those of the industry that has been and will continue to be at the core of the development of telecommunications hardware and systems. It is hoped that the breadth and depth of the experience of the Electronics Industries will serve as a convincing underscoring of the seriousness of the issue being addressed by the President's Task Force and the nature, philosophy and magnitude of the opportunity for telecommunications not only in the future of the United States -- but also the world."(3)

Unlike other nations, the United States is one of the few countries of the world which continues to provide domestic and international telecommunications services through the operations of private enterprise which is subject to regulation. Most countries employ direct operation of both domestic and international services under a Government department or agency, although there is a distinguishable trend toward the organization of government-owned corporations (being established in Britain and operating in Japan) having many of the management and financial attributes of a United States public utility corporation.

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(3) Industry Views Re the Role of the Federal Government in Telecommunications -- EIA Ad Hoc Committee on Office of Telecommunications Management, Spring 1968.

Thus, while the Federal Government has regulatory and policy establishing functions over the Nation's telecommunications, the Government does not normally interfere with industry management although the Government does exert influence to assure viability of the resource and the development of telecommunications in the interest of the public.

At the same time, this technology is advancing at a rapid rate. When the Communications Act of 1934 was enacted, the broadcasting industry consisted solely of the standard broadcast system and a few high frequency broadcast stations. Sound broadcasting by that time had effected a revolution in public entertainment, but this effect was quite mild when we consider the profound changes in our way of life that have come about through the development of television and communications satellites. On November 6, 1967, as he signed the Public Broadcasting Act of 1967, President Johnson took note of this when he said:

> "...miracles in communications are our daily routine. Every minute, billions of telegraph messages chatter around the world; billions of signals rush over the ocean floor and fly above the clouds. Radio and television fill the air with sound. Satellites hurl messages thousands of miles in an instant. Today our problem is not making miracles -- but managing miracles...."

Since 1934, broadcasting has become a powerful political influence and the subject of an extensive body of law concerning copyright, censorship, equal time, network operations, and many other nontechnical matters.

In fact, the problems of broadcasting have imposed so many demands on the Federal Communications Commission staff that other services, particularly the common carrier and safety and special radio services which have grown to be so important to our economy and internal security, have necessarily suffered.

In 1934, the common carrier industry consisted of many thousand local telephone companies and a developing American Telephone and Telegraph Company. This industry at that time offered nothing compared to the present long distance services available which provide customer dialing of long distance calls using what amounts to a nationwide, and soon to be worldwide, computer. In 1934, the common carriers provided important services to Government, but they were not then providing the nerve system over which we now insure the Nation's survivability and economy.

Since 1934, the Congress has gradually increased the resources available to the Federal Communications Commission, but this support has not been provided commensurate with the level of effort required to meet the problems brought about by the exploding telecommunications technology. This condition is also true as it concerns the Office of Telecommunications Management which was established in 1962.

This then is the nature of telecommunications. It is a common use resource experiencing rapid technological advances; a resource creating an increasing number of complex problems; a resource not adequately monitored and guided. So far its problems have been considered primarily on crash bases. We now need to begin to cope with the resource problems and the technological developments of the 1970's and 1980's.

APPENDIX B

TO

NATIONAL TELECOMMUNICATIONS ORGANIZATION

RELATIONSHIP OF TELECOMMUNICATIONS TO THE PRESIDENT, THE EXECUTIVE DEPARTMENTS AND AGENCIES

An Office of Telecommunications memorandum, dated May 7, 1968, transmitted a study entitled, "National Telecommunications Management Responsibilities of the Presidency -- An OTM/OEP Staff Study, April 1968". The thrust of the study is that the President as head of the Executive Branch, as Commander-in-Chief of the armed forces, and as national leader of the economy and the society, has a continually growing concern with national telecommunications policy and planning. The importance and gravity of telecommunications to support his functions as Commander-in-Chief cannot be over-emphasized. And growing concern with the many civil aspects of telecommunications from the Corporation for Public Broadcasting to the promotion of communications satellites places additional burdens on his office.

The national attitude toward telecommunications has been characterized primarily by the term "regulation", while in other areas of comparable national significance the attitude has advanced to promotion, or even partnership, as in the development of aviation, the merchant marine, atomic energy, or space services. Present policy establishing

this attitude of regulation is based on the domestic and world situation of 1934 when the Communications Act was passed. If the telecommunications services are to meet the challenges of the 1970's and 1980's, the Government's policies must embrace the concept of promotion, guidance and joint planning. The Executive Branch must promote this change and assume greater responsibility for assisting the FCC in developing a better understanding of the needs for promotion and guidance within the industry.

The functions of the Presidency with respect to telecommunications are of two substantively different types: (1) management of telecommunications to effect control and direction of the Executive Branch and its activities; and (2) exercise of national leadership to foster the development of telecommunications as an essential economic and social service. Quoting from the study of the responsibilities of the Presidency previously supplied:

> "Generally, the functions of the Presidency for telecommunication from an Executive Branch user point-of-view have been distributed among the departments and agencies of the Executive Branch according to the primary functional area of each of those organizations. Thus, the telecommunication services required by the United States military services at home and abroad have been arranged for by each of the services for its own forces. Similarly, the Department of State has arranged for the telecommunications services it requires.

The Interdepartment Radio Advisory Committee has served all Executive departments and agencies in providing a forum for the negotiation of agreements on the use of radio frequencies within the Federal Government and maintenance of records pertaining to agreed usages. This decentralization of the President's functions is consistent with the generally well regarded philosophy of coupling mission responsibility (e.g., that of the Army, the FAA, the FBI, or the State Department) with the authority to acquire and utilize the resources essential to accomplishment of the mission.

"National leadership in the formulation of policies which foster growth of U.S. telecommunication capabilities to achieve Constitutional objectives is largely assigned by Congress to various Federal departments and agencies. The FCC, the Department of Commerce, Labor, HEW and HUD -- on the domestic scene-- and the Department of State internationally. If the international scene could be treated independently of the domestic, it could be said that the responsibilities of the Presidency for international telecommunication activities are adequately assigned. But the Department of State has neither authority nor responsibility for domestic telecommunication matters and domestic and international telecommunication activities are inextricably intertwined. On the domestic scene, total decentralization to departments and agencies of his function of fostering the development of telecommunications as an essential national resource would probably preclude the formulation of the necessary cohesive and consistent national policies and programs.

"Both as a vital force for achieving the objective of the Constitution and as a means for improving the efficiency of the Executive Branch, telecommunication is an essential national resource, in part natural and in part created by man. Because of the finite limits of the radio frequency spectrum, and because of the economies of scale inherent in its systems-oriented technology, the Federal and non-Federal, national and international elements of telecommunications interact dynamically; these elements cannot

fully and effectively be dealt with individually except within the context of the whole. Therefore, although the President can delegate some parts of his functions for national telecommunication management to various Federal departments and agencies outside of his functions which may be delegated, there is a need--because they interact with other parts and with each other--for central, well-informed advice to the President with respect to the delegated parts, if all are to be integrated into a comprehensive national policy framework.

"Thus, while Commerce, Labor, HEW, HUD, the FCC--and others--may formulate proposed national policies designed to foster the full growth and exploitation of the national telecommunication resource, each from its own respective mission frame-of-reference, it remains for the President--or his agent--to insure that these policies are mutually consistent, complete, and free of unwanted redundancy or conflict.

"Thus, while State is responsible--under the President--to formulate proposed foreign relations policies with respect to telecommunication, it remains for the President--or his agent--to insure that these policies and those directed toward the domestic scene are mutually consistent and reinforcing.

"Thus, while the Department of Defense, as at present, or some other Executive Branch department or agency in the future, might manage the National Communications System of the Federal Government, it remains for the President--or his agent--to insure that the NCS meets the legitimate needs of all users under all likely conditions.

"Thus, while the FCC may assign radio frequencies to non-Federal Government users and the Interdepartment Radio Advisory Committee may resolve most issues concerning radio frequencies among Federal users, it remains for the President--or his agent--to insure that best overall use of the radio frequency spectrum is made in the national interest.

> "Among the numerous Federal responsibilities for telecommunication, some (underlined above) devolve upon the President personally and cannot be delegated responsibly to a separate department or agency. These constitute the minimum telecommunication responsibilities of the Presidency, i.e., those which by their nature reside in the Executive Office of the President regardless of arrangements for their fulfillment which may exist at any given time."

To deal specifically with the BOB Memorandum of June 3 other general points need to be emphasized.

We must clearly understand and define the differences between generation and implementation of overall national policy and the promotion of long-range planning as contrasted to the curent management and conduct of telecommunications operations.

The FCC as a going concern, with long experience in the administration of the use of telecommunications in the private sector of the economy and with some clearcut policy definition by the President and the Congress and long range planning assistance by the President, can deal effectively with its share of these problems, provided it is given sufficient resources.

A much greater commitment on the part of the President and the Executive Office must be made to the resolution of

critical telecommunications problems on a continuing basis if the circumstances which led to our present lack of policy, lack of long range planning, and the state of confusion in relation to basic telecommunications objectives are to be remedied.

A complete treatment of the subject of Presidential responsibilities for Telecommunication is contained in the DTM Study, "National Telecommunications Management Responsibilities of the Presidency; forwarded to you by memorandum, this office, subject: National Telecommunications Management Organization, dated May 7, 1968.

APPENDIX C

TO

NATIONAL TELECOMMUNICATIONS ORGANIZATION

Significant Points from Previous Studies:

Hoover Commission-General Management of the Executive Branch:

-- "To put a full-time board at the head of a staff agency is to run the risk of inviting public disagreement among its members and of transplanting issues that grow up in the executive departments or in the Congress. It also makes cooperation with related staff agencies more difficult." pp16-17.

-- Re Senate confirmation tying the President's hands -- p16. "The Congress, when it enacted the Budget and Accounting Act of 1921, wisely made the Director of the Bureau of the Budget staff agent to the President, to be appointed by him without the Senate confirmation that properly goes with appointment of heads of the operating agencies."

Seidman & Moore, BoB June 21, 1946 - Project 46-40 "Allocation of Radio Frequencies to Government Agencies-Final Report Project 46-40:"

-- The President overruled IRAC questioning of an Army request for radio on the grounds of unnecessary duplication. p2.

-- Giving FCC authority over Government use of frequencies would force FCC to determine priorities between Government agencies which is incompatible with its present quasi-legislative status. pp7-8.

FCC operates as defender of non-Government interest. If charged with all frequency assignments, the FCC would be subjected to much greater political pressures and to accusations of bias from both sides. In turn FCC regulation of private radio would be made more difficult. p8.

It has been proved amply that Executive agencies will not allow a co-equal agency to control their internal operations. p8.

-- Re creation of a Department of Communications -- The regulation of one department by another generally has been quite unsuccessful. p8.

-- Re location of "Manager" -- President must retain ultimate authority; must have adequate staff; and staff must have status which will tend to obtain the cooperation and compliance of all Government departments. p8. Objectives require that the staff (Manager) should be located within the Executive Office of the President. p9.

Honorable Haraden Pratt, TAP, Letter to the President, May 21, 1953, Att. a.

-- Success in achieving high standards of telecommunication management within the Executive Branch of the Government will depend on teamwork and understanding among the heads of the interested agencies.

-- Programs to assure maximum security to the U.S. in time of national emergency are the fundamental responsibility of the President.

-- No agency relishes becoming accountable to an over-riding authority. My experience has been that an agency will hasten to retreat behind the protection of its "statutory responsibilities" or "Congressional mandate" the moment it feels unduly pressed. Here arises a fundamental conflict between the powers of the President and the powers granted agencies in the Executive Branch by the Congress.

Honorable Irvin Stewart, DTM, Memo to Honorable Myer Feldman, WH:

-- Telecommunications management cannot function effectively within the OEP framework -- TM must compete for funds and personnel; TM support is affected by Congressional attitude toward OEP.

-- White House staff attached less importance to TM than would likely have been the case had there been a separate organization.

-- White House staff by-passed the DTM on matters assigned to him by EO 10995.

Honorable Irvin Stewart, Telecommunications Management-The Strategy of Organizational Location, Public Administration, September 1963:

-- Re a single agency, e.g., FCC - It could be called upon to decide between a classified defense need and a private need (calling for an open hearing); probably both DoD and FCC would be unhappy.

A single agency might operate as an arm of the President -- no President has so suggested and it is difficult to imagine that the Congress would be receptive. There would remain the difficulty of reconciling national defense requirements for secrecy with those of broadcasting or common carriers for wide publicity.

-- Re location -- In view of the power to be exercised, it was desirable that the position (DTM) be located subject to the immediate control of the President.

-- Re staffing and funding -- Defense, space, aviation, and foreign affairs are big budget operations critically dependent upon telecommunications. Telecommunications Management should be at least as competent as those in the using agencies. The reluctance of support for telecommunications is in sharp contrast with the relative ease of support for telecommunication operations.

-- The removal of the function from OEP in favor of a separate operation reporting directly to the President and with its own clearly identifiable budget may be an essential step toward a significant improvement of the situation.

Judge James M. Landis, Memo for Lswrence F. O'Brien, WH, April 10, 1961:

-- The proposal to create an independent Commission to handle this situation (allocation of frequencies) is also unsatisfactory in that the President, as a part of his responsibility for national defense, must assure to the government those frequencies which are essential for the operation of our military establishment as well as other operations essential for governmental purposes.

The control of this situation must thus be lodged in the President. It would also seem best that the authority dealing with this problem should be lodged on one man rather than in a Commision of three or more, that one man naturally being responsible to the President.

Harold Seidman, BoB, Memo for Mr. Feldman, May 16, 1961:

-- The order (proposed) assigns an inappropriate operating function to an Executive Office unit. I believe that the Administrator (Manager) would be most effective as an agent of the President to provide leadership to the agencies, and to coordinate agency action with the goals and policy objectives developed with Presidential approval. The Administrator should not, even if he could, undertake the <u>administration</u> of the vast telecommunication programs of the executive branch. Rather, he should develop a relationship with

the agencies based on his responsibilities for setting policies and goals.

Honorable Jerome B. Wiesner, Memo to Mr. Myer Feldman, May 18, 1961:

-- Experience has shown that the OCDM is not an appropriate or desirable place for an Office of Telecommunications. This would be the case even if a strong leader could be induced to take the job.

Memorandum of Conference Convened June 9, 1961 by Mr. Feldman: (Feldman, Dr. Wiesner, Dr. Robinson, Mr. Beckler, FCC Chairman Minow, Mr. Cutler from Mr. Landis' staff and Messrs. Staats, Seidman and Jasper, BoB).

-- The function (TM) has been inadequately performed both in ODM and OCDM and is not appropriate to the role of OCDM or that planned for the OEP.

-- The Administrator (Manager) should concentrate on policy formulation, advance planning, leadership and coordination of agency activities, and assignment of frequencies. He should not be charged with responsibility for operating communications systems.

-- Effective performance of the TM job requires identification with the

President and access to him in order to develop the appropriate status and influence with the heads of important user agencies. The establishment of a new Executive Office unit would indicate the importance of the function to the President.

-- Conclusion 2. -- That the TM function should be reassigned to a new Office of Science and Technology in the Executive Office....

BoB Staff Report - Organization for Telecommunications Management - July 20, 1961:

-- The most difficult problem is the management of the Government's share of the radio frequency spectrum including assignments among competing agencies. A closely related problem is the necessity to divide the radio frequency spectrum between Government and non-Government users. p1.

-- A third problem is that the radio frequency spectrum is international in character, and U.S. allocation proposals are subject to international negotiation.... As in other cases, it is not clear whether the Department of State should merely represent the U.S. point of view or should influence domestic proposals because of its responsibilities for the conduct of foreign affairs.

-- A fourth major problem involves Government-wide requirements for planning and policy formation.

-- Telecommunications management is Presidential in character. In order to be effectively performed, it must be carried out at a high enough organizational level to be identified with the President. That relationship is necessary in order to provide the proper influence and status with numerous agencies having vital telecommunications interest. p11.

-- The Telecommunications Advisor (Manager) must be able to insure the acceptance of policies by all agencies, including those which during the policy formulation period may have opposed the ultimate result. Moreover, sufficient authority or status is required to resolve important disputes between users of the frequency spectrum. A recent conflict between DoD and FAA over the use of the same frequencies is an example of this type of dispute at its sharpest.

-- Leadership and decision-making in telecommunications can best be carried out by staff in an organizational location which reflects the President's responsibility for the management of the whole executive branch. Assigning the telecommunications management function to one of the major operating agencies would not meet this test. It would be extremely difficult to achieve effective control by one user agency over other users with conflicting interests.

-- The establishment of a separate unit for telecommunications in the

Executive Office would provide high level attention to the entire range of executive branch problems in this area. It would likely command greater Presidential oversight and backing for decisions than is presently the case (1961). There serious disadvantages -- would impose an unnecessary burden on the President and would further splinter and complicate the organization of the OEP. pp12-13. It is likely that the head of such a specialized unit would be able to command very little direct Presidential attention -- telecommunications relatively unimportant -- Manager's relatively infrequent requirements to confer with the President would make him appear unimportant. p13.

-- The expansion, allocation and usage of the frequency spectrum is essentially technological in nature. (i.e., would be compatible with OST. p14.

-- Re locating TM in OST -- It would give the Science Advisor an important grant of authority which might strengthen him in developing working relations with agency heads on other matters. Such an Office of Science and Technology would give the necessary Presidential stature to the performance of telecommunications management. p15.

-- It seems clear that many of the problems in telecommunications management are not to be solved by organizational arrangements, but rather by the application of sufficient resources both personnel and money, to their solution. p24.

APPENDIX D

TO

NATIONAL TELECOMMUNICATIONS ORGANIZATION

August 18, 1966

Dear Governor:

This is the action I have taken as a result of our discussion in your office when I introduced Mr. Cole Armstrong.

It is consistent with the strong opinions voiced by Chairman Pastore of the Communications Subcommittee of the Committee on Commerce.

J. D. O'Connell

Enclosure

Governor Farris Bryant
Director
Office of Emergency Planning

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

OFFICE OF THE DIRECTOR

August 18, 1966

Honorable Charles L. Schultze
Director
Bureau of the Budget
Washington, D. C. 20503

Dear Mr. Schultze:

During the two year period that I have served as Director of Telecommunications Management it has become increasingly apparent that Executive Order 10995, dated February 16, 1962, should be modernized and modified so as to be consistent with the functions that are actually being carried out by this office.

The comments of Senator Pastore, as voiced during the August 10 hearings of the Senate Commerce Committee, Subcommittee on Communications, have served to underline the need to bring Executive Order 10995 into conformance with the present concept of national telecommunications policy coordination.

I have attached for your consideration a revised version of Executive Order 10995 in which Section 2 through 6 of the Order are restated to more accurately represent current practice. I would very much appreciate your review of the attached draft and initiation of appropriate action to formally amend Executive Order 10995.

We have been advised that additional testimony from this office will be required during the current Senate Committee hearings on satellite communications. In view of Senator Pastore's stated interest in the activities of this office, I would very much appreciate advice concerning the outlook and tentative schedule for modifying Executive Order 10995 along the lines indicated in the enclosure.

If there are any questions concerning the enclosed draft Executive Order, Mr. John O'Malley of my legal staff (code 103 extension 5175) will be available to work with Bureau of the Budget representatives.

Sincerely,

J. D. O'Connell

Enclosure
cy Governor Bryant

Executive Order 10995 as amended

ASSIGNING TELECOMMUNICATIONS MANAGEMENT FUNCTIONS

WHEREAS telecommunications is vital to the security and welfare of this Nation and to the conduct of its foreign affairs;

WHEREAS it is imperative that the United States maintain an efficient and well-planned national and international telecommunications program capable of stimulating and incorporating rapid technological advances being made in the field of telecommunications;

WHEREAS the radio spectrum is a critical natural resource which requires effective, efficient and prudent administration in the national interest;

WHEREAS it is essential that responsibility be clearly assigned within the executive branch of the Government for promoting and encouraging effective and efficient administration and development of United States national and international telecommunications and for effecting the prudent use of the radio frequency spectrum by the executive branch of the Government;

WHEREAS there is an immediate and urgent need for an examination of ways and means of improving the administration and utilization of the radio spectrum as a whole;

WHEREAS there is an immediate and urgent need for integrated short and long-range planning with respect to national and international telecommunications programs, for continuing supervision over the use of the radio frequency spectrum by the executive branch of the Government and for the development of national policies in the field of telecommunications;

NOW, THEREFORE, as President of the United States and Commander-in-Chief of the armed forces of the United States, and by virtue of the authority vested in me by sections 305 and 606 of the Communications Act of 1934, as amended (47 U.S.C. 305 and 606), and by section 301 of Title 3 of the United States Code, it is hereby ordered as follows:

SECTION 1. There is hereby established the position of Director of Telecommunications Management, which position shall be held by one of the Assistant Directors of the Office of Emergency Planning provided for under Reorganization Plan No. 1 of 1958, as amended (72 Stat. 1799).

SEC. 2. Subject to the authority and control of the President, the Director of Telecommunications Management shall:

~~(a) Coordinate telecommunications activities of the executive branch of the Government and be responsible for the formulation, after consultation with appropriate agencies, of overall policies and standards therefor. He shall promote and encourage the adoption of uniform policies and standards by agencies authorized to operate telecommunications systems. Agencies shall consult with the Director of Telecommunications Management in the development of policies and standards for the conduct of their telecommunications activities within the overall policies of the executive branch.~~

~~(b) Develop data with regard to United States Government frequency requirements.~~

~~(c) Encourage such research and development activities as he shall deem necessary and desirable for the attainment of the objectives set forth in section 6 below.~~

~~(d) Contract for studies and reports related to any aspect of his responsibilities.~~

(a) Formulate, issue and ensure compliance with overall policies to guide the telecommunications activities of the Executive Branch of Government. Such policies are to be developed after consultation and coordination with the appropriate departments and agencies.

(b) Establish and ensure adherence to appropriate procedures necessary to promote and encourage the adoption of uniform policies and standards by agencies authorized to operate telecommunications systems. In the development of policies and standards for the conduct of their telecommunications activities within the overall policies of the Executive Branch, departments and agencies shall consult with and obtain the concurrence of the Director of Telecommunications Management.

(c) Develop data upon which to base policy studies, analysis and policy determinations and assign relative priorities of telecommunication requirements, including radio frequencies, of the Executive Branch of the Government.

(d) Review the research and development activities of the departments and agencies of the Executive Branch of Government in the fields of the telecommunication sciences and establish specific national telecommunications research and development objectives so as to promote and encourage such additional effort or realign such effort as may be necessary to attain the overall objectives and goals set forth in Section 6 below.

(e) Conduct and/or contract for studies and reports related to any aspect of his responsibilities.

(f) Formulate and recommend to the President national goals in telecommunication which will advance the national interest.

(g) Carry on essential long range planning studies for the most effective use of the frequency spectrum and to provide the necessary basis for overall telecommunication policy.

(h) Ensure fulfillment of the needs stated in the Preamble to this Order.

Sec. 3. (a) The authority to assign radio frequencies to Government agencies, vested in the President by subsection 305(a) of the Communications Act of 1934, as amended (47 U.S.C. 305(a)), including all functions heretofore vested in the Interdepartment Radio Advisory Committee, is hereby delegated to the ~~Director of the Office of Emergency Planning, who may redelegate such authority to the~~ Director of Telecommunications Management. Such authority shall include the power to amend, modify, or revoke frequency assignments.

(b) The authority to authorize a foreign government to construct and operate a radio station at the seat of government vested in the President by subsection 305(d) of the Communications Act of 1934, as amended (47 U.S.C. 305(d)), is hereby delegated to the ~~Director of the Office of Emergency Planning who may redelegate such authority to the~~ Director of Telecommunications Management. Authorization for the construction and operation of a radio station pursuant to this subsection and the assignment of a frequency for its use shall be made only upon recommendation of the Secretary of State and after consultation with the Attorney General and the Chairman of the Federal Communications Commission.

Sec. 4. The functions and responsibilities vested in the Director of the Office of Emergency Planning by Executive Order No. 10705 of April 17, 1957, as amended, ~~may be~~ are hereby redelegated to the Director of Telecommunications Management. Executive Orders Nos. 10695A of January 16, 1957, and 10705, as amended, are hereby further amended insofar as they are inconsistent with the present order. Executive Orders Nos. 10460 of June 16, 1953, and 11084 of February 15, 1963, are hereby revoked.

Sec. 5. The Director of Telecommunications Management shall establish such interagency advisory committees and working groups composed of representatives of interested agencies and consult with such departments and agencies as may be necessary for the most effective performance of his functions. To the extent that he deems it necessary or advisable to continue the Interdepartment Radio Advisory Committee, it shall serve in an advisory capacity to the Director of Telecommunications Management. Also, he may, in addition to staff regularly assigned arrange for the assignment of personnel from any agency by detail or temporary assignment.

SEC. 6. In carrying out functions under this order, the Director of Telecommunications Management shall consider the following objectives:

(a) Full and efficient employment of telecommunications resources in carrying out national policies;

(b) Development of telecommunications plans, policies, and programs under which full advantage of technological development will accrue to the Nation and the users of telecommunications; and which will satisfactorily serve the national security; sustain and contribute to the full development of world trade and commerce; strengthen the position and serve the best interests of the United States in negotiations with foreign nations; and permit maximum use of resources through better frequency management;

(c) Utilization of the radio spectrum by the Federal Government in a manner which permits and encourages the most beneficial use thereof in the public interest;

(d) Implementation of the national policy of development and effective use of space satellites for domestic and international telecommunications services.

SEC. 7. Nothing contained in this order shall be deemed to impair any existing authority or jurisdiction of the Federal Communications Commission.

SEC. 8. The Director of Telecommunications Management and the Federal Communications Commission shall assist and give policy advice to the Department of State in the discharge of its functions in the field of international telecommunications policies, positions and negotiations.

SEC. 9. The Director of Telecommunications Management shall issue such rules and regulations as may be necessary to carry out the duties and responsibilities vested in him by this order or delegated to him under this order.

SEC. 10. All executive departments and agencies of the Federal Government are authorized and directed to cooperate with the Director of Telecommunications Management and to furnish him such information, support and assistance, not inconsistent with the law, as he may require in the performance of his duties.

JOHN F. KENNEDY

THE WHITE HOUSE,
February 16, 1962.

[F.R. Doc. 62-1801; Filed, Feb. 19, 1962; 10:46 a.m.]

Reprinted from the Federal Register, February 20, 1962 (27 F.R. 1519)

APPENDIX E

TO

NATIONAL TELECOMMUNICATIONS ORGANIZATION

MEASURES TAKEN BY THE DIRECTOR OF TELECOMMUNICATIONS MANAGEMENT
TO OVERCOME DEFICIENCIES IN EXECUTIVE BRANCH FREQUENCY MANAGEMENT

The Presidency

Recognizing the need for prudent administration of the Government's use of the radio spectrum, the President has provided for a Director of Telecommunications Management/Special Assistant to the President for Telecommunications to act for him or under his authority:

-- in the discharge of his telecommunication functions under the Communications Act of 1934 and the Communications Satellite Act of 1962;

-- in the provision of policy guidance for the development and use of the National Communications System; and

-- in an emergency, in the exercise of certain of the President's powers over national telecommunication.

Measures Taken by the DTM

In seeking to discharge his responsibilities, the DTM was convinced that:

-- Decisions involving the use of the radio spectrum must be taken at an appropriately high policy echelon to ensure proper exercise of agency responsibility for prudent administration;

-- There must exist to a satisfactory degree at every decision level for effective frequency management:

1. Adequate facts and data base:--Facts about the nature and magnitude of requirements, technical parameters and engineering

details about equipment and terrain, propagation characteristics of the spectrum, and other suitable means of communication;

2. Adequate technical examination of the facts and value analyses of radio services:--that is, sufficient examination of the facts to determine the technical appropriateness of proposals and the benefits to the Nation which accrue from the various uses of the spectrum; and

3. Sufficient qualified staff and adequate tools:--that is, adequate means to perform the task.

To achieve these prerequisite capabilities and meet the more urgent needs, the DTM has -- to cite the more significant measures taken:

1. Provided for DTM personal consideration of radiocommunication problems and issues which involve policy, appreciable cost, significant impact upon the spectrum, or controversy, with the FCC Chairman included on matters of interest to the Commission. Matters of lesser importance or difficulty are handled by the Associate Director (Frequency Management) working with the agencies involved and the FCC Liaison Representative to the IRAC on questions of interest to the Commission.

   This action is significant in that: proposals and issues are considered at an appropriate policy level; the Government agencies are given an opportunity to explain their proposals and projects and bring out the facts; the FCC is a full participant in all matters of interest and can guard Non-Government

interests in instances where security classification otherwise would prevent public disclosure of the reasons for decisions; and prompt decisions are forthcoming.

2. Arranged for Government agency Heads to withhold obligation of funds for new projects, the development and procurement of communication-electronic equipments, or the selection, procurement and development of earth or terrestrial radio station sites and facilities until adequate frequency support is assured.

This action is significant in that the agencies carrying on most of the R/D or operating expensive installations have issued directives fixing agency responsibility and requiring assurance of frequency support before obligating funds, thereby avoiding expensive negotiations and adjustments after the fact.

3. Developed a proposed statement of National Objectives for the Use of the Radio Spectrum and initiated coordination with the FCC -- pending completion of coordination the proposed Objectives are being followed within the Executive Branch.

This action is significant in that one cannot plot and steer a course, measure progress on that course, or know when one has arrived unless the port is known. Neither can we develop sound policies for the use of the spectrum to achieve national goals nor tell whether the spectrum is being used effectively unless we know what benefits our people expect from the spectrum. There is, however, no official codified statement of U. S. objectives for the use of the spectrum in support of national goals.

4. Issued policy guidance, regulations, procedures and standards governing Government use of the radio spectrum in a Manual of Regulations and Procedures for Radio Frequency Management.

The issuance of this Manual in 1965 is significant because it is the first codification of the policies, criteria, technical standards, regulations, justifications, and procedures for the acquisition and use of radio frequencies by agencies of the Federal Government.

5. Given the Interdepartment Radio Advisory Committee (IRAC) official status, a mission and functions on which it reports directly to the DTM for consideration and possible approval of its recommendations, including the assignment of frequencies to Government agencies and changes to the Table of Frequency Allocations.

This action is significant in that, for the first time since the IRAC was formed in 1922, policy guidance and direction are regularly available from the Presidential Appointee level and basic decisions are taken at that level instead of by interested users of the spectrum.

6. Established a Frequency Management Advisory Council, composed of widely recognized knowledgeable persons, to give the DTM views of the private sector, fresh appraisals, objective judgments, and practical advice on the Government's programs,

concepts, procedures, and practices in frequency management. An FCC Commissioner or staff officials regularly meet with the Council.

This action is significant because it brings to the Government scientific, engineering and industrial advice which could not be obtained otherwise; and lets qualified persons outside of Government learn at first hand that poor management is not hidden under the cloak of security -- in fact several members have reviewed OTM frequency management and have commented favorably thereon.

7. Introduced automatic data processing techniques into frequency management, with the capability to store, retrieve, manipulate and analyze the technical facts and to produce management statistics in time to be of value to decision making. An ADP system with a UNIVAC 1108 is in current use in support of daily frequency assignment activities, information retrieval, file maintenance, related printing functions, and engineering analyses of point-to-point use of frequencies below 30 Mc/s. Contract work is in progress to develop logic and programs for: batch-mode data processing; data base development and improvement; engineering analysis improvement and extension to VHF and UHF bands; time sharing by agency teleprinter terminals; and improved statistical file analysis.

This action is significant because it gives the OTM the facts

essential to intelligent frequency management, releases people from routine tasks which ADP can do more accurately and vastly faster, and has enabled us to keep up with a workload which is increasing at a rate of about 10% each year without adding staff.

8. Approved five-year re-validation of Government frequency assignments as recommended by the IRAC. The FMD staff and the IRAC are now developing means to carry on the program within the resources of the agencies and the Directorate. It is estimated that authorizations older than five years will have been examined, re-justified or canceled and all assignments will be on a current basis by 1973.

This action is significant in that, heretofore, many assignments were without time limit and were reviewed infrequently.

9. Initiated study of periodic reporting of Government frequency usage by the agencies. The IRAC is developing the details of the program with respect to what data to report, when to report and on what operations to report. The FMD staff is working to incorporate the reported data into the frequency management and spectrum development process.

This program is a key element in Executive Branch frequency management and is considered to be one of the most important steps taken by the OTM because it will provide the "feedback" needed to find out if frequencies are being used and to correct the frequency assignment record.

10. Initiated a spectrum development program, to be carried on jointly by the OTM/FCC, to:

a. Obtain the essential facts;

b. Analyze and evaluate the facts; and

c. Draft a practicable long-range Table of Frequency Allocations.

The program, to be carried on continually by a Spectrum Development Division, FMD, and a Spectrum Planning Subcommittee, IRAC, established for this prupose, is being treated in three parts:

a. Regular review and planning for the allocation and use of the spectrum -- this includes review of the Table as necessary to meet changing national needs, preparation for international radio conferences, and recommending changes to the Table as appropriate.

The FCC staff and the DTM/IRAC have been working together as a matter of urgency to examine the FCC land mobile radio frequency problem in the ten largest metropolitan areas, to find ways to make more efficient use of the frequencies now available and to determine what additional frequencies might be made available to the land mobile service use in those cities. First priority has been given to the Los Angeles area where it was found that, by giving up intraservice allocations and coordinating and engineering uses locally, there would be enough Government and Non-Government channels to meet foreseen requirements for three to five years. Work is continuing on analysis of the other nine largest areas.

This review process and recently revised operational requirements of certain Government agencies have made it possible to return to Non-Government use one-half of the band 890 - 942 Mc/s obtained in 1958 to meet vital Government requirements. The specific frequencies to be returned are being discussed with the FCC.

Additionally, there were prepared the spectrum aspects of the U. S. Position to the 1967 ITU World Administrative Radio Conference with respect to the Maritime Service.

b. Special review with respect to the space radio services. The potential growth of the space radio services through 1980 has been examined and the spectrum needs projected. The contractor's report, "Impact of Projected Space Services Upon Utilization of the Radio Frequency Spectrum" is being evaluated to identify potential frequency problems and necessary changes to the Table.

Additionally, there will be developed support and proposals to a future international radio conference on space radiocommunication -- probably in late 1970 or early 1971.

As a part of this review, the IRAC/FCC has inventoried existing and planned equipments in the various frequency bands above 10 Gc/s and has tentatively selected two 3.5 Gc/s bands which might be used for communication satellite use in the expectation that frequencies above 10 Gc/s will be

suitable for satellite communication. These bands are being kept free of conflicting uses pending a decision.

c. Radio Spectrum Development. An OTM/FCC joint program of fact gathering, analysis and planning to provide a radio spectrum development plan to make continually available a guide for orderly development and exploitation of the spectrum, designed to ensure the satisfactory accommodation of present and foreseen frequency requirements found to be in the best national interest. The plan to be developed will include projections of changes in allocations thereby allowing a minimum of 10 years to plan ahead for orderly and gradual rearrangement of radio operations and amortization of investments.

A five-year development program has been developed and is being carried on as rapidly as funds and personnel permit. Study contracts have been let for such items as:

- Basic Factors Bearing on Future Use of the Radio Spectrum;
- Electromagnetic Side Effects;
- Radio Channel Characteristics;
- Alternatives in Spectrum Management (in conjunction with the President's Task Force on Communication Policy);
- Standards and Measurements for Improved Spectrum Utilization; and
- Spectrum Usage Reporting.

11. Developed a Space Interference Measurements Program to obtain facts from which to develop practicable and optimal criteria for the sharing of frequencies between communication-satellite and terrestrial radio systems, determine whether a greater density of satellite and earth stations can be accommodated without mutual harmful interference, and find out whether frequencies above 10 Gc/s can be used for communication-satellite systems. This program awaits about $6 million funding.

This program is especially important because the results may be the key to a decision on the use of satellites for domestic purposes, including both commercial and non-commercial TV, and U. S. preparation for the ITU Conference on Space Radiocommunication which will probably be convened in late 1970 or early 1971. To go ahead without these data is to court jeopardizing our nearly $1 billion microwave systems as well as satellite systems which might be established in ignorance.

12. Instructed the IRAC to investigate valuing or pricing spectrum usage. The possibility and desirability of establishing relative values or "shadow prices" among competing radio operations, or of leasing or selling frequencies in the market place, have been and are receiving much attention by economists and the President's Task Force on Communication Policy. Social values, productivity increases, capital investments, and annual contribution to the Gross National Product will be taken into account.

13. Developed a concept for local/regional frequency coordination/engineering as a major and serious step in national frequency management. It is expected that the efficacy of the concept will be tested with the assistance of the DoD Area Frequency Coordinator at Pt. Mugu, California, and the FCC Field Engineer at Los Angeles, with respect to telemetering in the frequency bands 1435 - 1535 and 2200 - 2300 Mc/s.

This project is significant in that it should make possible more efficient and intense use of the spectrum without harmful interference, save time in assigning frequencies, provide better communication, and in the absence of a high-capacity multiple access public land mobile system, may be the last recourse to solving the land mobile frequency problem.

14. Supported a study of the need for technological programs and the formulation of objectives for dealing with electromagnetic compatibility as a national problem by the Joint Technical Advisory Committee (JTAC) (sponsored by the Institute of Electrical and Electronics Engineers and the Electronic Industries Association) -- undertaken early in 1964 at the request of the Acting Special Assistant to the President for Telecommunications. The final report, resulting from the work of over 200 persons amounting to about 40 engineering man years, is expected in late July 1968.

This effort is especially significant because it brought to

bear the services of many of the country's best minds on a comprehensive study of the radio interference and pollution problem. The recommendations should be very helpful in coping with the many facets of electromagnetic compatibility and frequency management.

APPENDIX F

TO

NATIONAL TELECOMMUNICATIONS ORGANIZATION

WORKING DRAFT
November 1, 1967

TELECOM CIRCULAR 3000.3

TO: ALL FEDERAL DEPARTMENTS AND AGENCIES

SUBJECT: POLICIES FOR PROCUREMENT OF DOMESTIC TELECOMMUNICATIONS

Reference:

1. Bureau of the Budget Circular A-76, "Policies for Acquiring Commercial or Industrial Products and Services for Government Use," revised August 30, 1967.

I. Purpose.

This Circular supplements, for domestic telecommunications, the general statements of policy set forth in Reference 1 as applied to "lease-purchase" decisions involving the procurement of telecommunication services but is not intended to change the broad policy found therein.

It is often a complex process to develop valid comparisons for evaluating alternative ways of obtaining needed telecommunications services. Yet if management is to have a sound basis for decision making, it is necessary that an adequate and consistent method of analysis be used when comparing the cost of leasing service from a private enterprise source with the cost of Government ownership.

This Circular, together with its accompanying Manual of Procedures, provides Federal agencies with a standard means for evaluating relevant factors that should be considered in any lease-purchase decision and prescribes two acceptable methods (Annual Cost Method and Present Worth Cost Method) for conducting cost studies.

Failure to conduct the analyses prescribed by this Circular may result in the initiation of "new telecommunications starts" or the continuation or expansion of existing arrangements which cannot be economically justified when compared to alternative ways of procuring adequate service.

Geographically the scope of this Circular is limited to telecommunication facilities required by the Federal Government within, between or through either a state of the United States, or the District of Columbia, or the Commonwealth of Puerto Rico or a territory of the United States, as well as between the above entities and any foreign entities.

II. DTM Responsibility.

The Director of Telecommunications Management is assigned functions by Executive Order 10995, and Presidential Memorandum entitled, "Establishment of the National Communications System," dated August 21, 1963, that include the responsibility to coordinate telecommunications for the Executive Branch of the Federal Government and to formulate, after consultation with appropriate departments and agencies, over-all policies and standards therefor. The guidance provided by this Circular is in response to this assigned responsibility, consistent with the procurement and property management responsibilities and authorities of the General Services Administration and the Department of Defense as they may apply to telecommunications.

III. Definitions and Delineations.

For purposes of this Circular, the following definitions and delineations are useful and applicable:

1. Telecommunications are defined as all types of systems that employ electric or electromagnetic signals to transmit information between or among two or more points. Transmission media may be radio, light, or other portions of the electromagnetic spectrum, wire, cable, or any other medium. Included are telephone, telegraph, teletypewriter, telewriting, remote display, data in various formats, facsimile, telephoto, and television services, as well as the terminal devices, switches, private branch exchanges, transmission facilities and other components of the systems that supply these services. Also included are all post, camp, station local or long distance communications facilities, as well as all fixed or mobile facilities whether they are interconnected or not to systems providing these types of services. Pending any future Federal Communications Commission rulings or regulations, the guidelines of this Circular will apply to electronic computers only when they are interconnected to telecommunications networks at terminal or nodal points and are used only for communications circuit or message switching purposes.

2. Franchised and Regulated Communications Common Carriers (referred to hereafter as Common Carriers) are authorized by governmental authority to offer communications services, in a specified area and/or under specified conditions, through tariffs filed with and accepted or approved by a governmental regulatory agency. The services so offered are defined as "Common Carrier Services." These offerings are basically agreements to provide specified communications capabilities rather than to provide specified hardware or equipment. This is the case even though the method of determining the charges, as prescribed by the tariffs, may be in some way related to the equipment utilized for the purpose. The Common Carrier retains ownership title to the equipment used, accomplishes the necessary maintenance, replaces defective or worn out units of equipment and, if its standard methods of providing for the type of service being utilized so requires, replaces all or part of the equipment without additional charge therefor. The Carrier undertakes to meet all expressed demands for the offered services within a reasonable interval and does not have the option of refusing a particular demand for reasons of its own convenience.

3. Nonfranchised Communications Companies (referred to hereafter as Nonfranchised Companies) are commercial concerns that provide leased telecommunication services of a type that do not subject them to the franchise and regulatory requirements governing the operation of a common carrier service. Essentially the Nonfranchised Companies furnish private communications services through facilities that are not shared with other organizations furnishing similar service and which usually are not permitted to be interconnected with a Common Carrier communications system. Pricing of such services are not established through tariffs by regulatory bodies but instead are determined on an individual basis depending upon the nature of the service provided. Typical services may include terrestrial microwave, cable, closed circuit television and other private communication systems which support commercial, industrial and governmental activities. Nonfranchised Companies when providing lease service retain title to the facilities which are involved and furnish maintenance and operation of the equipment although in some cases maintenance and operation is provided

by the equipment lessee. A Nonfranchised Company can decline a particular request for service as its business judgment may indicate and termination of service is ordinarily controlled by the terms of the lease agreement.

4. Private Enterprise Source. Telecommunications are said to be procured from a private enterprise source when procured as "services" either from a Common Carrier or from a Nonfranchised Company. The significant characteristic is that ownership title to the mechanisms used to provide the service remains with the supplying organization and maintenance functions are provided by either the supplying organization or another private enterprise agency.

5. A Federal Government owned and/or maintained telecommunications activity (referred to hereafter as a Government owned activity) is one where the facilities used to supply the service are either owned or leased equipments and maintenance is accomplished by Government personnel. The distinguishing characteristic is that the Government is responsible for failure or obsolescence of equipment components or assemblies and maintenance is accomplished by personnel on a Government payroll.

6. A "New Telecommunications Start" is a newly established Government owned activity or a reactivation, expansion, modernization or replacement of such an activity involving additional capital investment of $25,000 or more, or additional annual costs of production of $50,000 or more. A reactivation, expansion, modernization or replacement of an activity involving additional capital investment of $50,000 or more, or additional annual costs of production of $100,000 or more are, for purposes of this Circular, also regarded as "new telecommunications starts." Consolidation of two or more telecommunications activities or services without increasing the over-all total amount of telecommunications services provided to the Federal Government by these activities or services should not be considered as a "new telecommunications start."

IV. General Policy.

It is the general policy of the Federal Government to rely upon the private enterprise system of the nation to supply its needs rather than to make capital investment for plant and equipment and directly employ the personnel needed to establish its own source of supply. As applied to telecommunications, the Government seeks to utilize services which adequately support its requirements at the lowest possible cost. Ordinarily this means that procurement of a full telecommunications service by lease arrangement is preferred to Government purchase and ownership of telecommunications facilities.

Within the United States it is possible to lease telecommunications services from regulated U.S. Common Carriers or from Nonfranchised Companies. Under certain circumstances it may be presumed, unless demonstrated to the contrary, that Common Carrier offerings described in filed specific tariffs provide such services at the lowest cost obtainable from private enterprise sources and should be procured therefrom. Such circumstances exist whenever the tariff offerings apply to plant facilities that are used in common for furnishing a number of services. In such cases, the common carriers can be expected to furnish services at minimal cost since rates are based on cost savings that are realized through economies of scale and common use of facilities. Examples of such offerings are public correspondence type facilities such as toll telephone and telegraph, and leased (dedicated) channels which are furnished from the Common Carriers' shared plant facilities, etc. The presumption of economy that applies to Common Carrier services furnished through the use of shared common carrier facilities does not extend to common carrier services offered under Special Arrangements State Tariffs or Special Construction FCC Tariffs.

When leasing telecommunications services not involving shared use common carrier facilities as described above, the policy of the Federal Government is to procure such services from any available private enterprise source including common carriers on a competitive bid basis.

For some specific programs, it may be in the national interest, under certain circumstances, for the Federal Government to own telecommunications facilities rather than to lease services from private enterprise sources. Such considerations and circumstances are set forth in Section V of this Circular. If these conditions and circumstances apply, the executive department or agency may provide directly for itself the telecommunications services that are required.

In accordance with the above general policies and conditions, no executive department or agency should either initiate a "new telecommunications start" or continue the operation of an existing Government owned activity except as specifically provided by law or as otherwise provided in Bureau of the Budget Circular A-76 as supplemented by this Circular.

V. Exceptions to the General Policy.

It is recognized that in some instances obtaining telecommunications by lease arrangement is not suitable or adequate to meet an agency's needs. Therefore, exceptions to the general policy of relying upon lease arrangements are made under the following conditions:

1. Procurement of lease service from a private enterprise source would disrupt or materially delay an agency's program.

2. A Federal Government owned activity is necessary for unusual purposes of communications security, or direct combat support, or to maintain or strengthen mobilization readiness, or in exceptional cases, for individual or unit retraining of military personnel.

3. Satisfactory lease service is not available from a private enterprise source and cannot be developed in time to provide the service when it is needed.

4. The telecommunications service is available from another Federal agency.

5. Procurement of lease service from a private enterprise source will result in higher over-all cost to the Government.

VI. Justification for Government Owned Telecommunications Activity.

Where an agency seeks to justify a "new telecommunications start" or continue an operation on the basis of the exceptions listed in Section V, a clear determination must be made that one or more exceptions does exist and an analysis as provided in the Manual of Procedures which accompanies this Circular indicates that the service provided by a Government owned telecommunications activity would be more advantageous than service leased from a private enterprise source.

It is recognized that in some cases policy considerations and other relevant factors may be sufficiently well known to make evaluation possible without the necessity of a detailed analysis. Also there may be instances where it is useful to conduct a detailed analysis of a typical situation rather than conducting such an analysis in every instance. The findings of such analysis may then be used as a basis for evaluating similar procurement situations. Such analysis should, of course, take into account any adjustments necessary to make the sample analysis valid.

Agencies are encouraged to conduct a systems analysis regardless of the cost of the system being considered, anytime that it would be useful or beneficial in making cost comparisons and evaluations of proposals for meeting telecommunications requirements.

VII. Administration.

Federal agencies utilizing telecommunication services or facilities should carefully review the requirements of Bureau of the Budget Circular A-76, paragraph 7(entitled "Administering the Policy")to insure that the provisions contained therein are applied to all appropriate telecommunications activities.

Any questions concerning the interpretation of this Circular should be referred to the Director of Telecommunications Management for consideration and recommendations. In certain cases, the Director of Telecommunications Management may wish to review telecommunications procurement actions for which this Circular applies. In those cases the responsible executive departments or agencies should be prepared to submit to the Director of Telecommunications Management, at his request, any material or analyses developed, under the guidelines of this Circular, and used as background for the actions under review.

VIII. Effective Date.

This Circular is effective on

J. D. O'Connell
Director of Telecommunications Management

MANUAL OF PROCEDURES FOR TELECOM CIRCULAR 3000.3

TABLE OF CONTENTS

APPENDIX I
PART I

WORKING DRAFT
November 1, 1967

SUBJECT: Manual of Procedures for Procurement of Domestic Telecommunications Pursuant to Telecom Circular 3000.3

References:

1. Telecom Circular 3000.3, "Procurement of Domestic Telecommunications."

2. BOB Circular A-76, "Policies for Acquiring Commercial or Industrial Products and Services for Government Use," revised August 30, 1967.

I. PURPOSE.

This Manual supplements References 1 and 2 and prescribes procedures which should be followed by Federal agencies when preparing and evaluating Government ownership and Government lease alternatives involving the procurement of domestic telecommunication services and facilities.

Although primarily intended as an aid in arriving at "lease-purchase" decisions, the procedures described herein should also be useful for comparing competitive bids in those cases where a Federal agency seeks to procure its telecommunications requirements exclusively through a lease arrangement.

II. OBJECTIVES.

A. Provide procedures for estimating the costs of telecommunications services.

B. Provide a uniform basis for making cost comparisons of alternative methods of meeting telecommunications requirements.

C. Provide a means for evaluating cost as well as noncost factors when procuring telecommunications services.

D. Identify cost elements whose magnitude or uncertainty may significantly influence program decisions.

III. BACKGROUND.

Bureau of the Budget Circular A-76 (Reference 2) provides, subject to certain exceptions, that it is the general policy of the Federal Government to rely upon the private enterprise system to supply its needs. Telecom Circular 3000.3 implements this policy with regard to domestic telecommunications and recognizes (Section V) those exceptions to the general policy which permit Federal agencies to meet their telecommunications requirements through a Government owned activity. Where program costs are the sole or primary reason, as for example V(5), for relying upon a Government owned activity for telecommunications services, Federal agencies are required to justify their decision upon the basis of a cost analysis which reveals the comparative costs of each of the alternatives considered.

Costs should also be taken into account when an agency seeks to justify Government ownership on the basis of other exceptions stated in Section V of Circular 3000.3. In nearly all cases, consideration of financial implications may be the decisive factor in influencing the final decision. For example, the applicability of the exception that "procurement of a telecommunications service from a private enterpise source would delay an agency's program" would be dependent upon the extent of the delay judged in the light of the differences in the costs involved.

The absence of uniform procedures for calculating and comparing alternative proposals for meeting stated telecommunications requirements has led to difficulty in evaluating the cost differences of leased or Government owned telecommunications systems. Cost comparisons become more difficult where the telecommunication requirements are extensive and where cost quotations are formulated on different bases. These procedures are intended to overcome existing difficulties by providing acceptable methods (Annual Cost Method and Present Worth Cost Method) for conducting "lease-purchase" cost studies.

Cost considerations, however, are not the only factors which may influence a decision involving the procurement of telecommunications services. Due regard must be paid to other relevant or noncost considerations which in a given case may be the controlling factor; hence, the procedures call for an integrated analysis so that all relevant factors can be carefully weighed before arriving at a lease-purchase decision.

WORKING DRAFT
November 1, 1967

SUBJECT: Manual of Procedures for Procurement of Domestic Telecommunications Pursuant to Telecom Circular 3000.3

References:

1. Telecom Circular 3000.3, "Procurement of Domestic Telecommunications."

2. BOB Circular A-76, "Policies for Acquiring Commercial or Industrial Products and Services for Government Use," revised August 30, 1967.

I. PURPOSE.

This Manual supplements References 1 and 2 and prescribes procedures which should be followed by Federal agencies when preparing and evaluating Government ownership and Government lease alternatives involving the procurement of domestic telecommunication services and facilities.

Although primarily intended as an aid in arriving at "lease-purchase" decisions, the procedures described herein should also be useful for comparing competitive bids in those cases where a Federal agency seeks to procure its telecommunications requirements exclusively through a lease arrangement.

II. OBJECTIVES.

A. Provide procedures for estimating the costs of telecommunications services.

B. Provide a uniform basis for making cost comparisons of alternative methods of meeting telecommunications requirements.

C. Provide a means for evaluating cost as well as noncost factors when procuring telecommunications services.

D. Identify cost elements whose magnitude or uncertainty may significantly influence program decisions.

IV. SYSTEMS ANALYSIS.

Where Government ownership is believed justified under one or more of the exceptions listed in Section V of Telecom Circular 3000.3, systems analyses of the type shown below should be made for each to determine whether or not the condition does indeed exist and to demonstrate the extent of its existence.

A. System Design.

System design for meeting telecommunications requirements can significantly influence the costs of obtaining such services. Care should, therefore, be taken to insure that the telecommunications system be designed to meet the over-all needs of the program it supports without providing service of a higher quality, and hence a service which is more costly than is actually required. The optimum telecommunications service, thus, will be one that adequately supports over-all program requirements at minimum cost.

System design should clearly identify the physical elements of the telecommunications system while recognizing that physical requirements for providing service of equivalent effectiveness are apt to differ for the Government ownership and Government lease alternatives. System design should take into account existing telecommunication capabilities as well as the needs which may later arise for system expansion. In addition to proper specification of the physical requirements attention should be given to performance factors such as system reliability, response time, emergency backup and system redundancy requirements.

Alternative types of service analyzed should be described and entered on Format I.

Services should be identified in the analysis as being either a continuing or a newly established service and, if appropriate, as being a reactivation, expansion, augmentation, modernization or replacement of an existing service.

For each alternative analyzed, an adequate description of system components and arrangements should be provided, including types and locations of equipment, interconnections, route maps, etc., as may be appropriate.

B. Availability of Service from a Federal Agency.

An agency should first determine through established procedures whether the service required is available from an operating agency of the National Communications System (NCS) or from any other Federal Government sources. NCS operating agencies should make this determination in coordination with the Manager, NCS. The fact that a Government owned telecommunications activity can be or is being provided by another agency does not itself justify such a service and must be supported by a cost comparison study of the type described below. The agency supplying the telecommunications service to another agency is responsible for compliance with all conditions of these Procedures. If a Government owned telecommunications activity is authorized, excess property available from other Federal departments or agencies should be used, as provided by the Federal Property and Administrative Services Act of 1949 and related regulations.

Telecommunications property or services which have not been reported as excess also may be provided by other Federal departments and agencies and unused telecommunications plant capacities of other departments and agencies may be utilized but only under the same conditions described above.

C. Analysis of Program Phasing.

The objective of this analysis is to determine the following:

1. The required date for initiation of a new telecommunications start, or in the case of continuing service, the required date of changeover to a new type or source of service and the availability date for:

    a. Private enterprise owned and maintained telecommunications service.

b. Private enterprise owned and Government maintained telecommunications service.

c. Government owned and maintained telecommunication service.

d. Other special types of service (specify).

This section should analyze and describe the losses in terms of program cost and effectiveness that would result if the telecommunications service availability date of any of the alternatives considered exceeds the required date of initiation of service. A statement of any liquidated damages for late delivery that would be paid by contractors in each of the alternatives considered should be provided.

On the basis of the above data and analysis, conclusions should be drawn that identify the extent of the disruption or delay that would result from the authorization of the various alternative types of service considered.

D. Analysis of Security and Preparedness.

The objective of this section of the analysis is to justify any proposal for Government ownership for the following reasons:

1. Communications security as defined in NSC5711. In special cases, dictated by security considerations, where there are requirements for communication security in certain vital parts of an activity, these considerations or requirements may be used as a justification for Government ownership of those parts of the activity, without consideration of alternatives.

2. Direct combat support to military units, such as tactical or field forces. Procurement of transportable, mobile or portable telecommunications facilities for this purpose may be used as a justification for Government ownership without considering alternatives.

3. To strengthen mobilization readiness, such as in cases where national emergency or enemy action may disrupt telecommunications vital to national security or such as cases where it is necessary to meet requirements of field maneuvers, exercises or practice alerts.

4. In exceptional cases, for individual or unit retraining of military personnel. There may be instances in which training of military personnel can be considered to be a governing factor in some telecommunications procurement decisions but such cases should be adequately justified. For training purposes, the effectiveness and cost of other alternatives, such as training schools, training with the cooperative use of U.S. communications common carrier facilities, etc., should be given consideration.

Any required analysis must show not only that a special communications security or preparedness requirement exists for the telecommunication service but also that the proposed type of service is either the only feasible method or that it is the least costly method of adequately satisfying the stated requirement for communications security, combat support, retraining or mobilization readiness.

E. Analysis of Costs.

Any decision to rely upon a Government owned telecommunications activity should be supported by a comparative cost analysis which reveals as accurately as possible the cost differences between lease services provided by a private enterprise source and Government owned services. It is essential that such analysis identify those elements of cost which, because of their magnitude or uncertainty, may have a significant bearing on the program decision.

Preliminary cost estimates should be made before issuing Requests for Proposal in order to minimize engineering and design costs that would be avoided if leased service is selected.

1. Incremental Costs. An incremental cost basis should be used in comparing all alternatives. For the purpose of the cost comparison methods described in 4 and 5 below, the only relevant costs for alternatives are those to be incurred in the future. Thus incremental costs seek to identify those additional costs to the Government specifically generated by the introduction

of a new telecommunications system and which could be avoided if it were decided to forego that system. Incremental costs are expressed as yearly expenditures in current dollars over a specified time. All costs should be estimated on the basis of an adequate sampling and cross section of present rather than anticipated or predicted improvements or changes in tariffs, operating costs, interest, system lines, depreciation rates, etc., should not be used in these cost comparisons. However, any uncertainties in these factors should be quantified wherever possible for the decision maker.

For purposes of economy and simplicity in making cost comparison studies, generally agreed costs that would tend to be the same under either lease or purchase alternatives need not be measured and included.

2. Major Cost Elements. The basic cost structure is comprised of 14 major cost elements divided into three cost categories: (1) "initial and follow-on investment costs," including all costs necessary to construct or otherwise bring into existence the plant and facilities required to furnish the desired service; (2) "recurring costs," including annual costs throughout the life of the activity or service for operations, maintenance, repair, taxes, insurance, etc.; and (3) "net termination costs of the activity or service." Each cost element is identified and described in Format I of Appendix I.

3. Recommended Cost Analysis Methods. Two cost analysis methods are recommended to improve cost comparison evaluations through the use of these procedures. They are the Annual Cost Method and the Present Worth Cost Method.

In those cases where the costs vary year by year by significant amounts, the Present Worth Cost Method should be used. Also, if there are discrepancies in the cost preference of the alternatives using the Annual Cost Method and the Present Worth Cost Method, the latter should be used as the basis for the integrated systems analysis leading to the program decision.

It is recognized that there may be some instances where the recommended procedures are not applicable because of special circumstances and other procedures are more suitable. In such cases, agencies are encouraged to conduct analyses according to their own design but should be able to clearly demonstrate why the procedures recommended herein are not suitable.

4. Annual Cost Method. Cost comparisons using the Annual Cost Method should be computed as follows. Formats, instructions, and tables for use in the computations are given in Appendix I.

   a. Compute the Composite Life of the telecommunications activity or service as described in Appendix I.

   b. Construct a Cost Category Table for all system elements over the period of the Composite Life of the system or until the system is expected to be no longer needed using Format I.

      NOTE: The cost category structure of Format I should be used as a guide and a checklist for insuring that all proper costs, direct and indirect, cash and noncash, are included. The structure is designed to include all real resource costs for comparison of the various alternatives. In all cases the costs sought are costs to the Federal Government.

      Cost elements 13 and 14 (Termination Costs and Net Salvage) are cost incurred only in the year the system is expected to terminate. It should be recognized that some cost elements will be blank (i.e., no cost incurred by the Government) for some or all of the years considered. Since the table is intended to show costs to the Government, credits should be indicated by a minus sign.

   c. Summarize the Total Costs for the life of the system on Format II as developed in Step b above.

d. Calculate the Annualized Cost Plus Margin for each alternative using Format III as follows:

(1) Determine the Annualized Initial Investment by multiplying Total Initial Investment Costs (Item 1, Format II) by the Capital Recovery Factor, taking account of the sign for charges or credits.

NOTE: Select the proper Capital Recovery Factor (CRF) from Table A using the Composite Life (developed in a above) together with the appropriate interest rate. (For example, if the Composite Life of the system is 16 years and the interest rate is 5% the CRF is .09227.) The interest rate for any new or additional capital to be invested is based upon the average rate of yield for long term Treasury Bonds as shown in the current monthly issue of the Treasury Bulletin.

(2) Add the charges or credits for Total Annual Recurring Costs (Item 2 of Format II) to the Annualized Initial Investment.

(3) Calculate Annualized Net Termination Costs (Item 3 of Format II) by multiplying Total Net Termination Costs by the appropriate Sinking Fund Factor.

NOTE: The Sinking Fund Factor (SFF) is equal to the Capital Recovery Factor minus the Interest Rate as determined (1) above. For example where the CRF is .09222 and the Interest Rate is .05 the SFF is .04222.

(4) Calculate Annualized Cost by adding together the values determined by (1), (2), and (3) above and enter as Item 4, Format III.

(5) Determine the Margin (for Government owned activities only) as per Item 5, Format III.

(6) Compute Annualized Cost Plus Margin by adding Item (5) to Item (4) above.

e. The alternative having the lowest Annualized Cost Plus Margin is the preferred alternative from the standpoint of cost alone.

f. Conduct an Integrated Systems Analysis as described in Part F below.

g. Complete Format VI, "Summary of Decision Factors."

5. Present Worth Cost Method. Cost comparisons using the Present Worth Cost Method should be computed as follows. Formats, instructions and tables for use in the computations are given in Appendix I.

a. Compute the Composite Life of the telecommunications activity or service following the instructions in Appendix I.

b. Construct a Cost Category Table of total systems costs using Format I for each year in which the costs would actually be incurred.

NOTE: The cost category structure of Format I should be used as a guide and checklist for insuring that all proper costs, direct and indirect, cash and noncash, are included. The structure is designed to include all real resource costs for comparison of the various alternatives. In all cases the costs sought are costs to the Federal Government.

Cost elements 13 and 14 (Termination Costs and Net Salvage) are costs incurred only in the year the system is expected to terminate. It should be recognized that some cost elements will be blank (i.e., no cost incurred by the Government) for some or all of the years considered. Since the table is intended to show costs to the Government, credits should be indicated by a minus sign.

c. Summarize, by year, the Total Annual Costs for the life of the system as developed in Format I and enter on Format IV.

d. Calculate the Net Present Worth for each year of the life of the system by multiplying the sum of costs or credits for each year (Column 15) by the appropriate Present Worth Factor for that year (Column 16) and enter under Column 17, Format IV.

NOTE: Select the proper Present Worth Factor (PWF) for each year of the life of the system from Table B using the appropriate Interest Rate. For example, if the Interest Rate is 5% the PWF for year one of the system life is .9524, year two is .9070, year three is .8638, etc. The Interest Rate for any new or additional capital to be invested is based upon the average rate of yield for long term Treasury Bonds as shown in the current monthly issue of the Treasury Bulletin.

e. Compute the Annualized Cost Plus Margin using Format V as follows:

(1) Determine the Total Present Worth for each alternative by summarizing the present worth values for each year of the life of the system (Column 17, Format IV) and enter this value as Item 1.

(2) Select the appropriate Capital Recovery Factor (CRF) for the Composite Life of the system (as determined in a above) from Table A using the same Interest Rate used in step d above. For example if the Composite Life is 20 years and the Interest Rate 5%, the CRF is .08024.

(3) Calculate the Annualized Cost of each alternative by multiplying Total Present Worth determined in (1) above by the Capital Recovery Factor selected in (2) above and enter as Item 2.

(4) Determine the Margin (for Government owned activities only) as per Item 3, Format V.

(5) Compute Annualized Cost Plus Margin by adding (4) above to (3) above and enter as Item 4.

f. The alternative having the lowest Annualized Cost Plus Margin is the preferred alternative from the standpoint of cost alone.

g. Conduct an Integrated Systems Analysis as described in Part F below.

h. Complete Format VI, "Summary of Decision Factors."

F. Integrated Systems Analysis.

When the above analyses of alternatives are completed and before a decision is made, all non-quantifiable, as well as quantifiable, factors bearing on the decision should be carefully summarized, weighed and cross evaluated. It should be remembered that comparative costs are not the only important considerations in reaching a decision on whether to meet service requirements through Government ownership, or where lease arrangement is preferred, in selecting between a common carrier service or a nonfranchised service.

The need, for example, for interconnection with other common carrier facilities, particularly the public message toll network, may be a controlling consideration. Tariffs of some of the U.S. common carriers may not permit the direct electrical connection of either Government owned or privately owned nonfranchised communication company facilities. The reliability, survivability, restorability, maintainability, conservation of the radio frequency spectrum, and economies of scale, etc., should be carefully weighed in considering the alternative ways of satisfying an agency's telecommunications needs.

In addition, Government ownership of facilities usually involve either removal or withholding of property from tax rolls, or reduction of revenues both from income taxes and from other taxes, and the diversion of management attention from the Federal Government's primary program objectives. Losses may also occur from such factors as obsolescence of plant and equipment, unanticipated reduction in requirements

or from difficulties in obtaining reasonable salvage credits for facilities at the time of disposal by the Government.

A new telecommunications start involving a Government owned telecommunication activity should not be proposed nor should existing telecommunications activities or services of these types be continued unless benefits are sufficient to outweigh uncertainties and risks of unanticipated losses involved in such activities or services.

The amount of benefits required as justification for such a new start or continuation of a service or activity will vary depending on individual circumstances.

Substantial benefits should be required as justification if a large new or additional capital investment is involved or if there are uncertainties regarding effectiveness of the service or maintenance and production costs or future Government requirements. Justification may be based on smaller anticipated benefits if either communications security is a governing factor for some part of a system if little or no capital investment is involved, and chances for obsolescence are minimal, and reliable information is available concerning maintenance, effectiveness, production costs, equipment prices and Government requirements.

In view of both the large investment costs associated with Government ownership and the uncertainties described above, and while no precise standard is prescribed in view of these varying circumstances, a "new telecommunications start" ordinarily should not be approved unless the annualized incremental costs of a Government telecommunications activity requiring capital investment will be at least 10% less than the annualized incremental costs of obtaining the telecommunications service by lease arrangement from private enterprise sources.

A decision to reject a proposed new telecommunications start for comparative cost reasons should be reconsidered if actual bids or proposals indicate that commercial prices will be higher than were estimated in the cost comparison study.

The quantifiable results of the above analyses of the conditions of exception should be tabulated on Format VI provided in Appendix I. A statement of any conflicting choice factors, as well as uncertainties should be included.

Description of Elements in Cost Category Table
Format I

Initial and Follow-on Investment Costs and Credits

(1) Project Administration includes all initial and follow-on investment required to cover general management, administrative and liaison costs and support from other departments and agencies which result either from phasing in a new telecommunications activity or service or from reactivation, expansion, modernization or replacement of an old one. Included are costs for scheduling, budgeting, accounting, administrative personal services and benefits, including costs of all elements of compensation and allowance for purposes of project administration for both military and civilian personnel, costs of retirement for uniformed personnel, contributions to civilian retirement funds, social security taxes where applicable, employees' insurance, health and medical plans (including services available from Government military or civilian medical facilities), living allowances, uniforms, leave, termination and separation allowances for personnel, travel and moving expenses and claims paid through the Bureau of Employees' Compensation, recruiting, security clearances, and training services connected with the telecommunications service, legal services on contracts, insurance and other costs for administrative support services or general overhead. If the Annual Cost Method is used, credit should be included in this element for any and all cost reductions in early years because of incremental phasing of a Government owned service (see Appendix I, Part II).

Average Governmentwide factors may be used in estimating items of administrative costs. Project administrative costs related to the initial procurement actions should be shown separately from similar costs related to any follow-on procurement actions.

(2) System Planning, Design and Testing includes all initial investment costs associated with studies which forecast and develop specific telecommunications service requirements, detailed planning and engineering design to meet these requirements with adequate effectiveness at lowest cost, preparation

of Requests for Proposal, letting of bids, acceptance testing, negotiations with vendors and contractors, and any special studies, document preparation, field inspections or evaluations.

(3) Equipment, Materials, Supplies and Installation includes all initial investment costs of equipment, material, and supplies, including the initial stock of major and minor spares and including any standby or auxiliary power facilities, alarm systems, etc. It also includes costs of general support facilities such as furniture and office equipment, and costs of utility services other than telecommunication services. It also includes all direct and indirect costs of personnel, materials, and facilities required for the installation, transportation, storage, handling, and expediting during the installation phase of the program as well as costs for custody of equipment for facilities and protection of property. Also included are contract services such as installation work, programming, orientation or initial operator or maintenance training, etc. The comparison should take into account both spare and growth capacity of the equipment utilized for each of the alternate types of services considered and all alternatives should be compared on the same basis with respect to spare and growth capacity. Normally these capacities should not exceed reasonably foreseeable requirements.

This item also includes, for Government owned systems only, a Federal tax credit for any Federal tax revenues that would result from sale of equipment, by a corporation or business entity, for use in a Government owned activity.

(4) Land and Buildings includes all initial investment costs incurred by purchasing or leasing the land, purchasing, leasing, or constructing buildings or other supporting structures needed for housing the telecommunications activity, and costs of rights-of-way or easements for these facilities. Land and building investments should be determined on the basis of the construction costs of the space assigned for the telecommunications activity utilized to supply the service. This should include equipment space; switchboard position space;

operators quarters, lounge and toilet facilities; plant operations office space; space for storage of materials, spare parts and equipment; space for maintenance room; and garage buildings for vehicle storage. Where partitions or other structural changes are necessary in adapting space for telecommunications purposes these costs should also be included. If discontinuance of a Government owned telecommunications activity is involved and will result in a facility being retained on a standby status by the Government for mobilization or other reasons, the costs of preparing the facility for standby should also be included in this element.

(5) Site Preparation includes all initial investment costs for professional services and architectural services for site preparation as well as costs for contracts and supplemental charges, site approaches and construction including clearing and grading, roads and utility access (other than telecommunications) as well as landscaping, utility construction (other than telecommunications) and transportation costs associated with site preparation.

(6) Initial Lease Service Charges includes all initial investment costs which form a part of a commercial service agreement including special construction or installation non-recurring charges, costs due to incentive or premium provisions in commercial contracts and expediting costs. If the Annual Cost Method is used, credit should be included in this item for any incremental phasing cost of the services (see Appendix I, Part II).

Annual Recurring Costs or Credits

(7) Operations, Maintenance and Repair includes all recurring costs for these purposes such as management, supervision, administration, engineering, direct labor and allowances required to operate the telecommunications activity (for types of allowance costs to include see cost element (1) above), training, spare parts, expanded materials, tool expense, test equipment, depot or shop maintenance expense, vehicles expense, maintenance of buildings and roads, cost of utilities (other than telecommunications) and fuel as

well as the cost of outside contracts and management engineering. The echelon of supervision included in this element should be identified, in order that an appropriate comparison may be made and that such supervision is not included in the project administration element (1). Also include other maintenance and repair expense or costs of utilities (other than telecommunications) for services incidental to the telecommunication activity that might be obtained as a service from a U. S. communication common carrier or other commercial carrier. Costs of maintaining displaced Government owned facilities on standby status (see paragraph (4) above) should also be included in this element.

(8) Federal Taxes includes income and other Federal tax revenues (except Social Security taxes) received from corporations or other business entities (but not from individual stockholders) if the service is obtained by lease from a private enterprise source. Estimates of corporate incomes for these purposes should be based upon the earnings experience of the industry if available, but if such data are not available either the Federal Communications Commission or the Quarterly Financial Report of Manufacturing Corporations published by the Federal Trade Commission and the Securities and Exchange Commission may be consulted.

(9) Damage or Loss of Property includes expected annual costs of uninsured losses due to fire or to other hazards, recurring costs of any insurance premiums, including any insurance against catastrophic damage or natural disasters, and expected annual costs of settling loss and damage claims.

(10) Lease Service Charges includes all recurring costs of all telecommunication services provided by either communications common carriers or other business entities. Also, recurring costs for incentive or premium provisions in contracts or for Government administration of commercial service contracts should be included in this cost element.

(11) Income Credits includes any recurring income or the equivalent, received for services that the activity or service supplies to systems or programs other than the one it is designed to support.

(12) Compensation for Government Equipment includes all recurring reimbursement by commercial service sources for the use of Government owned equipment where such facilities would otherwise be furnished by the commercial service source.

Net Termination Costs or Credits

(13) Termination Costs include charges which are expected to be incurred by the Government at the time of either premature termination or cancellation of a telecommunications service when provisions for such charges are contained in the contract. Termination or cancellation liability charges will include the expected unrecovered portion of the investment in the telecommunications facility or equipment that will be terminated or cancelled, as well as the cost of removal or restoration of equipment, facilities or buildings, and any other closing down costs. Where a building or other structure owned by the lessor has been constructed on Government property and must be removed from the premises when commercial services are terminated, the removal and restoration costs should be included in the termination cost of the system. Also included in this element are any charges that are expected to be incurred by the Government at the time of discontinuance of a Government owned activity such as any personnel relocation costs and personnel severance costs; as well as costs of removal of the telecommunications facility and/or restoration to its original state, if required. In computing termination costs, it should be recognized that there will be no termination liability charge for a leased telecommunications service that remains in service for the full period of termination liability. When termination charges do apply, they should be developed from termination liability charges for similar types of facilities or systems, based on the Government's past experience where possible, and taking into consideration obsolescence of equipment and pertinent long-range Government plans.

(14) Net Salvage includes any net return that results from sale or disposal of the land, equipment, buildings or other facilities used in providing a Government owned telecommunications activity. Net salavage is expected to decrease over time. It should be applied only at the value for the year the system is expected to terminate unless credited for a nonrecurring charge.

Format I
Cost Category Table

Type of Service or Activity: _____

Composite Life or Total Years Service Required: _____

Initial and Follow-on Investment Costs and Credits

(1) PROJECT ADMINISTRATION $_____

(1.1) Management and Liaison as well as support from other Departments and Agencies $_____

(1.2) Administrative Support, including Budgeting, Accounting, Personnel Administration, etc. $_____

(1.3) Personnel Services and Benefits $_____

(1.4) Initial Training $_____

(1.5) Travel Expenses $_____

(1.6) Legal Services on Contracts, Patents Insurance, etc. $_____

(1.7) Incremental Phasing Credit for Government-owned activity (For Annualized Cost Method only, See Appendix I, Part II) $_____

(1.8) Other $_____

(2) SYSTEM PLANNING, DESIGN AND TESTING $_____

(2.1) Research and Development $_____

(2.2) Telecommunications Equipment Requirements and Planning $_____

(2.3) Support Systems Requirements and Planning $_____

(2.4) Preparation of Requests for Proposals $_____

(2.5) Letting of Bids, Acceptance of Tests, and negotiations with Vendors and Contractors $_____

(2.6) Special Studies $_____

(2.7) Other $_____

(3) EQUIPMENT, MATERIALS, SUPPLIES, & INSTALLATION SERVICES $_____

(3.1) Telecommunication Equipment $_____

(3.1.1) Equipment for system (including royalties for patents) $_____

(3.1.2) Tools and Test Equipment $_____

(3.1.3) Spare Parts, Initial Stock $_____

(3.1.4) Materials for Installation $_____

(3.2) Telecommunications Support Equipment $_____

(3.3) General Support Equipment $_____

(3.4) Installation, Transportation, Storage, Handling, Custody and Protection of Property $_____

(3.5) Utility Services (other than telecommunications) $_____

(3.6) Federal Tax Credit (Government owned alternative only) $_____

(3.7) Other $_____

(4) LAND & BUILDINGS $_____

(4.1) Rights-of-way & Easements $_____

(4.2) Land $_____

(4.2.1) Government Owned $_____

(4.2.2) Government Purchased $_____

(4.3) Buildings $_____

(4.4) Other $_____

(5) SITE PREPARATION $_____

(5.1) Site Administration $_____

(5.1.1) Supervision $_____

(5.1.2) Support $_____

(5.2) Professional & Engineering Service $_____

(5.2.1) Personnel Services and Benefits $_____

(5.2.2) Architecture and Engineering, Survey and Design $_____

(5.2.3) Other $_____

(5.3) Site Approaches $_____

(5.3.1) Clearing & Grading $_____

(5.3.2) Access Roads $_____

(5.3.3) Utility Access (other than telecommunications) $_____

(5.4) Site Construction $_____

(5.4.1) Grading & Landscaping $_____

(5.4.2) Roads $_____

(5.4.3) Utility Construction $_____

(5.5) Transportation $_____

(5.5.1) Shipping $_____

(5.5.2) Vehicles $_____

(5.6) Other $_____

(6) INITIAL LEASE SERVICE CHARGES $_____

(6.1) Special Construction and Installation Charges $_____

(6.2) Incentive or Premium Payments $_____

(6.3) Incremental Phasing Credit for Lease Services (For Annual Cost Method Only, See Appendix I, Part II.) $_____

(6.4) Other $_____

Annual Recurring Costs or Credits

(7) OPERATION, MAINTENANCE & REPAIR $_____

(7.1) Management, Supervision, Administration and Allowances* $_____

NOTE: *In lieu of more accurate cost estimates this may be estimated as 15% of the total of cost items (7.2) through (7.13).

(7.2)	Engineering and Allowances		$_____
(7.3)	Direct Labor and Allowances		$_____
(7.4)	Personnel Training		$_____
(7.5)	Spare Parts Consumed		$_____
(7.6)	Materials Consumed		$_____
(7.7)	Depreciation Expenses for Tools, Test Equipment, Special Clothing		$_____
(7.8)	Vehicles		$_____
(7.9)	Buildings and Roads*		$_____
(7.10)	Utilities and Fuel		$_____
(7.11)	Outside Contracts and Management Engineering		$_____
(7.12)	Depot or Shop Maintenance and Repair Support		$_____
(7.13)	Other		$_____
(8)	FEDERAL TAXES		$_____
(8.1)	Federal Income Taxes		$_____
(8.2)	Other Federal Taxes		$_____
(9)	DAMAGE OR LOSS OF PROPERTY		$_____
(9.1)	Property Insurance		$_____
(9.2)	Personnel Insurance		$_____
(9.3)	Liability		$_____
(9.4)	Uninsured Losses		$_____
(9.5)	Other		$_____
(10)	LEASE SERVICES		$_____
(10.1)	Annual Lease Service Charges		$_____
(10.2)	Administration of Lease Services**		

NOTE: *In lieu of more accurate cost estimates this item may be estimated as a factor of the initial investment in buildings and roads.

**In lieu of more accurate cost estimates, this factor may be estimated as 3.5% of cost item (10.1).

(10.3) Other Annualized Costs $_____

(11) INCOME CREDITS $_____
(Deduct this item.)

(12) COMPENSATION FOR GOVERNMENT EQUIPMENT $_____

Net Termination Costs

(13) TERMINATION COSTS $_____

(13.1) Termination Charges $_____

(13.2) Restoration Costs $_____

(13.3) Personnel Relocation Costs $_____

(13.4) Other $_____

(14) NET SALVAGE $_____

(14.1) Land $_____

(14.2) Equipment $_____

(14.3) Buildings $_____

(14.4) Other $_____

Format II

Cost Summary

Type of Service or Activity: _____

1. Initial and Follow-on Investment Costs

(1)	Project Administration	$_____
(2)	System Planning, Design and Testing	$_____
(3)	Equipment, Materials, Supplies and Installation	$_____
(4)	Land and Buildings	$_____
(5)	Site Preparation	$_____
(6)	Initial Lease Service Charges	$_____
	Total Initial Investment Costs (Item 1)	$_____

2. Annual Recurring Costs or Credits

(7)	Operations, Maintenance and Repair	$_____
(8)	Federal Taxes	$_____
(9)	Damage or Loss of Property	$_____
(10)	Lease Services	$_____
(11)	Income Credit	$_____
(12)	Compensation for Government Equipment	$_____
	Total Annual Recurring Costs (Item 2)	$_____

3. Net Termination Costs

(13)	Termination Costs	$_____
(14)	Net Salvage	$_____
	Total Net Terminations Costs (Item 3)	$_____

Format I
Annual Cost Method
Computation of Annualized Cost

Type of Service or Activity: _____

1.	Annualized Initial Investment (Item 1 of Format II x CRF from Table A)	$_____
2.	Annual Recurring Costs (Item 2 of Format II)	$_____
3.	Annualized Net Termination Costs (Item 3 of Format II x SFF from Table A)	$_____
4.	Annualized Cost (Item 1 + Item 2 + Item 3 of this Format)	$_____
5.	Margin* (For Government owned activities only)	$_____
6.	Annualized Cost Plus Margin (Item 4 + Item 5 of this Format)	$_____

FORMAT IV

PRESENT WORTH METHOD
COST SUMMARY

System Year	COST CATEGORIES																
	Project Administration	System Design	Materials and Equipment	Land and Buildings	Site Preparation	Initial Charges	Operation and Maintenance	Taxes	Insurance	Lease Charges	Credits	Compensation	Termination Costs	Salvage	Net Cost	Present Worth Factor (Table B	Present Worth
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

Format V
Present Worth Method
Computation of Annualized Cost

Type of Service or Activity: _____

1.	Total Present Worth (Total of Column 17 of Format IV)	$_____
2.	Annualized Cost (Item 1 of this Format x CRF from Table A)	$_____
3.	Margin* (For Government owned activities only)	$_____
4.	Annualized Cost Plus Margin (Item 2 + Item 3 of this Format)	$_____

Format VI

Summary of Decision Factors

I. Quantifiable Factors:

Type of Service or Activity	Date Required	Date Available	Security or Preparedness Necessity	Expected System Effectiveness	Annualized Cost + Margin

II. Description of Uncertainties in Quantifiable Factors:

III. Description of Integrated Analysis

IV. Non-Quantifiable Factors:

V. Decision

Capital Recovery Factor

Where, n = number of years
for expected life of system

Interest Rate, r

n	3%	3-1/2%	4%	4-1/2%	5%	5-1/2%	6%	7%	9%	10%	n
1	1.03000	1.03500	1.04000	1.04500	1.05000	1.05500	1.06000	1.07000	1.09000	1.10000	1
2	0.52261	0.52640	0.53020	0.53400	0.53780	0.54162	0.54544	0.55309	0.56077	0.57619	2
3	0.35353	0.35693	0.36035	0.36377	0.36721	0.37065	0.37411	0.38105	0.38803	0.40211	3
4	0.26903	0.27225	0.27549	0.27874	0.28201	0.28529	0.28859	0.29523	0.30192	0.31547	4
5	0.21835	0.22148	0.22463	0.22779	0.23097	0.23418	0.23740	0.24389	0.25046	0.26380	5
6	0.18460	0.18767	0.19076	0.19388	0.19702	0.20018	0.20336	0.20980	0.21632	0.22961	6
7	0.16051	0.16354	0.16661	0.16970	0.17282	0.17596	0.17914	0.18555	0.19207	0.20541	7
8	0.14246	0.14548	0.14853	0.15161	0.15472	0.15786	0.16104	0.16747	0.17401	0.18744	8
9	0.12843	0.13145	0.13449	0.13757	0.14069	0.14384	0.14702	0.15349	0.16008	0.17364	9
10	0.11723	0.12024	0.12329	0.12638	0.12950	0.13267	0.13587	0.14238	0.14903	0.16275	10
11	0.10808	0.11109	0.11415	0.11725	0.12039	0.12357	0.12679	0.13336	0.14008	0.15396	11
12	0.10046	0.10348	0.10655	0.10967	0.11283	0.11603	0.11928	0.12590	0.13270	0.14676	12
13	0.09403	0.09706	0.10014	0.10328	0.10646	0.10968	0.11296	0.11965	0.12652	0.14078	13
14	0.08853	0.09157	0.09467	0.09782	0.10102	0.10428	0.10758	0.11434	0.12130	0.13575	14
15	0.08377	0.08683	0.08994	0.09311	0.09634	0.09963	0.10296	0.10979	0.11683	0.13147	15
16	0.07961	0.08268	0.08582	0.08902	0.09227	0.09558	0.09895	0.10588	0.11298	0.12782	16
17	0.07595	0.07904	0.08220	0.08542	0.08870	0.09204	0.09544	0.10243	0.10963	0.12466	17
18	0.07271	0.07582	0.07899	0.08224	0.08555	0.08892	0.09236	0.09941	0.10670	0.12193	18
19	0.06981	0.07294	0.07614	0.07941	0.08275	0.08615	0.08962	0.09675	0.10413	0.11955	19
20	0.06722	0.07036	0.07358	0.07688	0.08024	0.08368	0.08718	0.09439	0.10185	0.11746	20
21	0.06487	0.06804	0.07128	0.07460	0.07800	0.08146	0.08500	0.09229	0.09983	0.11562	21
22	0.06275	0.06593	0.06920	0.07255	0.07597	0.07947	0.08305	0.09041	0.09803	0.11401	22
23	0.06081	0.06402	0.06731	0.07068	0.07414	0.07767	0.08128	0.08871	0.09642	0.11257	23
24	0.05905	0.06227	0.06559	0.06899	0.07247	0.07604	0.07968	0.08719	0.09498	0.11130	24
25	0.05743	0.06067	0.06401	0.06744	0.07095	0.07455	0.07823	0.08581	0.09368	0.11017	25
26	0.05594	0.05921	0.06257	0.06602	0.06956	0.07319	0.07690	0.08456	0.09251	0.10916	26
27	0.05456	0.05785	0.06124	0.06472	0.06829	0.07195	0.07570	0.08343	0.09145	0.10826	27
28	0.05329	0.05660	0.06001	0.06352	0.06712	0.07081	0.07459	0.08239	0.09049	0.10745	28
29	0.05211	0.05545	0.05888	0.06241	0.06605	0.06977	0.07358	0.08145	0.08962	0.10673	29
30	0.05102	0.05437	0.05783	0.06139	0.06505	0.06881	0.07265	0.08059	0.08883	0.10608	30
31	0.05000	0.05337	0.05686	0.06044	0.06413	0.06792	0.07179	0.07980	0.08811	0.10550	31
32	0.04905	0.05244	0.05595	0.05956	0.06328	0.06710	0.07100	0.07907	0.08745	0.10497	32
33	0.04816	0.05157	0.05510	0.05874	0.06249	0.06633	0.07027	0.07841	0.08685	0.10450	33
34	0.04732	0.05076	0.05431	0.05798	0.06176	0.06563	0.06960	0.07780	0.08630	0.10407	34
35	0.04654	0.05000	0.05358	0.05727	0.06107	0.06497	0.06897	0.07723	0.08580	0.10369	35
40	0.04326	0.04683	0.05032	0.05434	0.05828	0.06232	0.06646	0.07501	0.08356	0.10226	40
45	0.04079	0.04445	0.04826	0.05220	0.05626	0.06043	0.06470	0.07350	0.08259	0.10139	45
50	0.03887	0.04263	0.04655	0.05060	0.05478	0.05906	0.06344	0.07246	0.08174	0.10086	50
55	0.03735	0.04121	0.04523	0.04939	0.05367	0.05805	0.06254	0.07174	0.08118	0.10053	55
60	0.03613	0.04009	0.04420	0.04845	0.05283	0.05731	0.06185	0.07123	0.08080	0.10033	60
65	0.03515	0.03919	0.04339	0.04773	0.05219	0.05675	0.06139	0.07087	0.08054	0.10020	65
70	0.03434	0.03846	0.04275	0.04717	0.05170	0.05633	0.06103	0.07062	0.08037	0.10013	70
75	0.03367	0.03787	0.04223	0.04672	0.05132	0.05601	0.06077	0.07044	0.08025	0.10008	75
80	0.03311	0.03738	0.04181	0.04637	0.05103	0.05577	0.06057	0.07031	0.08017	0.10005	80
85	0.03265	0.03699	0.04148	0.04609	0.05080	0.05559	0.06043	0.07022	0.08012	0.10003	85
90	0.03226	0.03666	0.04121	0.04587	0.05063	0.05545	0.06032	0.07016	0.08008	0.10002	90
95	0.03193	0.03639	0.04099	0.04570	0.05049	0.05534	0.06024	0.07011	0.08005	0.10001	95
100	0.03165	0.03616	0.04081	0.04556	0.05038	0.05526	0.06018	0.07005	0.08004	0.10001	100

NOTE: The sinking fund factor (SFF) may be obtained from this Table by subtracting the specified interest rate, r, from the appropriate capital recovery factor (CRF) (i.e., for n = 1, r = 5%; CRF = 1.05000 and SFF = 1.00000).

TABLE A

Present Worth Factor

Where, n = number of years
for expected life of system

Interest Rate, r

n	3%	3-1/2%	4%	4-1/2%	5%	5-1/2%	6%	7%	8%	10%	n
1	0.9709	0.9662	0.9615	0.9569	0.9524	0.9479	0.9434	0.9346	0.9259	0.9091	1
2	0.9426	0.9335	0.9246	0.9157	0.9070	0.8985	0.8900	0.8734	0.8573	0.8264	2
3	0.9151	0.9019	0.8890	0.8763	0.8638	0.8516	0.8396	0.8163	0.7938	0.7513	3
4	0.8885	0.8714	0.8548	0.8386	0.8227	0.8072	0.7921	0.7629	0.7350	0.6830	4
5	0.8626	0.8420	0.8219	0.8025	0.7835	0.7651	0.7473	0.7130	0.6806	0.6209	5
6	0.8375	0.8135	0.7903	0.7679	0.7462	0.7252	0.7050	0.6663	0.6302	0.5645	6
7	0.8131	0.7860	0.7599	0.7348	0.7107	0.6874	0.6651	0.6227	0.5835	0.5132	7
8	0.7894	0.7594	0.7307	0.7032	0.6768	0.6516	0.6274	0.5820	0.5403	0.4665	8
9	0.7664	0.7337	0.7026	0.6729	0.6446	0.6176	0.5919	0.5439	0.5002	0.4241	9
10	0.7441	0.7089	0.6756	0.6439	0.6139	0.5854	0.5584	0.5083	0.4632	0.3855	10
11	0.7224	0.6849	0.6496	0.6162	0.5847	0.5549	0.5268	0.4751	0.4289	0.3505	11
12	0.7014	0.6618	0.6246	0.5897	0.5568	0.5260	0.4970	0.4440	0.3971	0.3186	12
13	0.6810	0.6394	0.6006	0.5643	0.5303	0.4986	0.4688	0.4150	0.3677	0.2897	13
14	0.6611	0.6178	0.5775	0.5400	0.5051	0.4726	0.4423	0.3878	0.3405	0.2633	14
15	0.6419	0.5969	0.5553	0.5167	0.4810	0.4479	0.4173	0.3624	0.3152	0.2394	15
16	0.6232	0.5767	0.5339	0.4945	0.4581	0.4246	0.3936	0.3387	0.2919	0.2176	16
17	0.6050	0.5572	0.5134	0.4732	0.4363	0.4024	0.3714	0.3166	0.2703	0.1978	17
18	0.5874	0.5384	0.4936	0.4528	0.4155	0.3815	0.3503	0.2959	0.2502	0.1799	18
19	0.5703	0.5202	0.4746	0.4333	0.3957	0.3616	0.3305	0.2765	0.2317	0.1635	19
20	0.5537	0.5026	0.4564	0.4146	0.3769	0.3427	0.3118	0.2584	0.2145	0.1486	20
21	0.5375	0.4856	0.4388	0.3968	0.3589	0.3249	0.2942	0.2415	0.1987	0.1351	21
22	0.5219	0.4692	0.4220	0.3797	0.3418	0.3079	0.2775	0.2257	0.1839	0.1228	22
23	0.5067	0.4533	0.4057	0.3634	0.3256	0.2919	0.2618	0.2109	0.1703	0.1117	23
24	0.4919	0.4380	0.3901	0.3477	0.3101	0.2767	0.2470	0.1971	0.1577	0.1015	24
25	0.4776	0.4231	0.3751	0.3327	0.2953	0.2622	0.2330	0.1842	0.1460	0.0923	25
26	0.4637	0.4088	0.3607	0.3184	0.2812	0.2486	0.2198	0.1722	0.1352	0.0839	26
27	0.4502	0.3950	0.3468	0.3047	0.2678	0.2356	0.2074	0.1609	0.1252	0.0763	27
28	0.4371	0.3817	0.3335	0.2916	0.2551	0.2233	0.1956	0.1504	0.1159	0.0693	28
29	0.4243	0.3687	0.3207	0.2790	0.2429	0.2117	0.1846	0.1406	0.1073	0.0630	29
30	0.4120	0.3563	0.3083	0.2670	0.2314	0.2006	0.1741	0.1314	0.0994	0.0573	30
31	0.4000	0.3442	0.2965	0.2555	0.2204	0.1902	0.1643	0.1228	0.0920	0.0521	31
32	0.3883	0.3326	0.2851	0.2445	0.2099	0.1803	0.1550	0.1147	0.0852	0.0474	32
33	0.3770	0.3213	0.2741	0.2340	0.1999	0.1709	0.1462	0.1072	0.0789	0.0431	33
34	0.3660	0.3105	0.2636	0.2239	0.1904	0.1620	0.1379	0.1002	0.0730	0.0391	34
35	0.3554	0.3000	0.2534	0.2143	0.1813	0.1535	0.1301	0.0937	0.0676	0.0356	35
40	0.3066	0.2526	0.2083	0.1719	0.1420	0.1175	0.0972	0.0668	0.0460	0.0221	40
45	0.2644	0.2127	0.1712	0.1380	0.1113	0.0899	0.0727	0.0476	0.0313	0.0137	45
50	0.2281	0.1791	0.1407	0.1107	0.0872	0.0688	0.0543	0.0339	0.0213	0.0085	50
55	0.1968	0.1508	0.1157	0.0888	0.0683	0.0526	0.0406	0.0242	0.0145	0.0053	55
60	0.1697	0.1269	0.0951	0.0713	0.0535	0.0403	0.0303	0.0173	0.0099	0.0033	60
65	0.1464	0.1069	0.0781	0.0572	0.0419	0.0308	0.0227	0.0123	0.0067	0.0020	65
70	0.1263	0.0900	0.0642	0.0459	0.0329	0.0236	0.0169	0.0088	0.0046	0.0013	70
75	0.1089	0.0758	0.0528	0.0368	0.0258	0.0180	0.0126	0.0063	0.0031	0.0008	75
80	0.0940	0.0638	0.0434	0.0296	0.0202	0.0138	0.0095	0.0045	0.0021	0.0005	80
85	0.0811	0.0537	0.0357	0.0237	0.0158	0.0105	0.0071	0.0032	0.0014	0.0003	85
90	0.0699	0.0452	0.0293	0.0190	0.0124	0.0081	0.0053	0.0023	0.0010	0.0002	90
95	0.0603	0.0381	0.0241	0.0154	0.0097	0.0062	0.0039	0.0016	0.0007	0.0001	95
100	0.0520	0.0321	0.0198	0.0123	0.0076	0.0047	0.0029	0.0012	0.0005	0.0001	100

TABLE B

Computation of Incremental Phasing Credit for Government-owned Activity
(To be used only for Annual Cost Method, see Cost Item 1.7)

Assume a given telecommunication service is to be provided by the Government and the initial investments will be phased in over a three year period as shown in the example below:

Year	Investment	Present Worth Factor* (at 5% interest for this example)	Present Worth of Investment	Difference in Investment
0	$1,000,000	1.0	$1,000,000	$ 0
1	500,000	0.9524	476,200	23,800
2	500,000	0.9070	453,400	46,600
3	0			0
			Total Difference	$70,400

phasing credit = $70,400

Computation of Incremental Phasing Credit for Lease Services
(To be used only for Annual Cost Method, see Cost Item 6.3)

Assume a given telecommunication services is to be obtained by lease from a private enterprise source and that the service is to be phased in over a three year period as shown below:

Year	Annual Charge	Phase Savings
0	$ 0	$ 0
1	150,000	150,000
2	200,000	100,000
3	300,000	0
4	300,000	0

*NOTE: See Table B

After the third year, the annual tariff will be $300,000 per year. The incremental phasing credit may be calculated as follows, assuming a composite life of 15 years:

Year	Phase Savings	Present Worth Factor (at 5% interest for this example)	of Phase Savings
0	$ 0	1.0	$ 0
1	150,000	0.9524	142,300
2	100,000	0.9070	90,700
3	0	Total Present Worth	$233,000
4	0		

The incremental phasing credit is obtained by multiplying the total present worth by the Capital Recovery Factor (CRF) for 15 years.

phasing credit = $233,000 x 0.9634
phasing credit = $ 22,400

COMPUTATION OF COMPOSITE LIFE

Both the Annual Cost Method and the Present Worth Method of comparison require a careful estimate of the "composite life" of any proposed activity or service. The composite life factor is used in computing the amortization rate of the initial investment. This is derived from the expected average life of each major class of facility used by the activity or service. The facility lives are affected by several factors, including physical wear and tear on the plant, technological obsolescence and economic obsolescence.

All major telecommunications equipment manufacturers design and build their products to high quality standards to provide reliable service. Therefore, in any properly maintained telecommunications system, physical wear and tear on the facility is usually not the controlling factor in estimating its expected life.

The principle reason for retiring telecommunications facilities from service is usually technological obsolescence modified to some degree by economic considerations. As the state-of-the-art advances, technical alternatives become available which are either more superior in performance or more economical in operation than the existing system. For instance, transistorized equipment, microminiaturization, integrated circuits, communications satellites, millimeter waveguide transmission lines, laser beam transmission lines, high speed computer inputs, and high speed switching equipment are only a few of the technological advances that are now or will be making present telecommunications facilities obsolete.

Since it is extremely difficult to predict how technological obsolescence will affect Government owned activities, as opposed to lease alternatives, these guidelines provide that all comparisons of alternatives be based on present rather than anticipated or predicted experience factors. Therefore, in making estimates of the composite life for telecommunication activities or services the values shown in Table C for each category of plant should be used except where a shorter period is involved as described below. These values are based on nationwide telecommunications industry experience as reported to the Federal Communications Commission and will be updated by subsequent ODTM guidelines as needed.

In computing composite life, depreciation should not be allocated for facilities and equipment that will be utilized by the proposed activity or service but which are acquired by the Government before the proposed activity or service is approved. However, if reliance upon leased service will cause Governmental owned equipment or facilities to become available for other Federal use or for disposal as surplus, the cost comparison analysis should include, as a cost of the Government activity, an appropriate amount based upon the current market value of such equipment or facilities.

Exceptions to the use of composite lives derived from the facility lives shown in Table C are cases in which it is established that the telecommunications activity or service is expected to be required only for a short time period and that this time period is less than the composite life of the activity or service, should be used in selecting the Capital Recovery Factor.

Example Computation:

In order to determine the composite life of an activity or service, divide the investment cost of each category of facility by its expected average service life to obtain the annual depreciation expense. Then obtain the sum of all the depreciation expenses and divide this into the sum of the initial investments minus net salvage for all categories of facilities. This number will be the "composite life" of the activity or service. An example follows:

Category of Facility	Initial Investment Minus Net Salvage	Expected Life	Annual Depreciation Expense
Microwave Radio Relay Equipment	$ 637,500	12 years	$ 53,125
Multiplex Equipment	521,500	12 years	43,458
Microwave Towers	76,000	32 years	2,375
Microwave Antennas	203,000	12 years	16,917
Buildings and Roads	299,000	32 years	9,344
Power Standby Equipment	240,000	18 years	13,333
	$ 1,977,000		$ 138,552

$$\text{Composite Life} = \frac{\$1,977,000}{\$\ 138,552} = 14.3 \text{ years}$$

Estimates of Facility Lives

Category of Facility	Expected Average Facility Life
Pole Line Structures	25 years
Cable Lines	30 years
Wire Lines	20 years
Microwave Towers	32 years
Microwave Radio Relay and Multiplex Equipment	12 years
Microwave Antennas	12 years
Multiplex Equipment for Cable and Wire Lines	20 years
Central Office Equipment	20 years
Station Equipment, Apparatus and Connections	12 years
Private Branch Exchange (PBX)	15 years
Data Sets or Modems	6 years
Buildings	32 years
Furniture and Office Equipment	18 years
Roads	32 years
Other Items	Specify

TABLE C

Office Memorandum No. 68-15

September 18, 1967

BUREAU OF THE BUDGET

TO: Budget Bureau Staff

FROM: The Director

SUBJECT: Telecommunications task force and assignments

On August 14, 1967, the President in a message to Congress established a task force on telecommunications and assigned the Bureau responsibility for separate analysis and recommendations on the Government's organization in the telecommunications field. I have been named a member of the task force. The effort is scheduled to last one year. The charter for both assignments is broad.

The problems involved in the telecommunications area are both important and complex. The responsibilities for various parts of the problems are scattered throughout the Bureau. In order to cope properly with the Presidential assignments, the following actions will occur within the Bureau:

1. In addition to other duties, Mr. William A. Morrill of the National Security Programs Division will act as my special assistant on task force matters for the duration of the task force. In this connection, it may be necessary for Mr. Morrill to call upon the time and assistance of appropriate staff members in several organizations in the Bureau.

2. The organization study will be performed by the Office of Management and Organization. It will work in close coordination with Mr. Morrill.

3. In order to strengthen and centralize attention on domestic telecommunications policy, the assignment for review of the budget of the Director of Telecommunications Management is transferred from the General Government Management Division to the Economics, Science, and Technology Programs Division.

Task Force on Communications

President's Task Force on Communications

First meeting was held on Friday (9/8) at 3:30 in Rm. 7219 - State

Meetings are to be held <u>every other</u> Friday at 4:00 p.m. ----- beginning September 22.

They are on the calendar for:

9/22/67

10/6/67 (Mr. Morrill advised it was for staff representatives only)

10/~~20~~13/67

11/3/67

(Frank Loy was at the first meeting and is working on the materials for this meeting; they indicated they would be in touch in case of a cancellation -- Betty (182) 4118 or Mary.
(Mary is Mr. Loy's secretary)

v35 8/1-5

file?

THE WHITE HOUSE
WASHINGTON

Mr Carey

Tuesday, August 15, 1967

MEMORANDUM FOR

President's Task Force on
Communications Policy

Attached is a copy of the President's Message on Communications and the announcement of the creation of the Task Force.

W. DeVier Pierson
Associate Special Counsel
to the President

Attachments

FOR IMMEDIATE RELEASE AUGUST 14, 1967

Office of the White House Press Secretary

THE WHITE HOUSE

The President today named the following to a Task Force on Communications Policy:

Chairman:
Eugene V. Rostow, Under Secretary of State for Political Affairs

Vice Chairman:

James D. O'Connell, Director of Telecommunications Management

James Reynolds, Under Secretary of Labor

Charles Schultze, Director, Bureau of the Budget

Gardner Ackley, Chairman, Council of Economic Advisors

Leonard Marks, Director, United States Information Agency

James E. Webb, Administrator, National Aeronautics and Space Administration

Donald Hornig, Director, Office of Science and Technology

Anthony M. Solomon, Assistant Secretary of State for Economic Affairs

Solis Horwitz, Assistant Secretary of Defense

Donald F. Turner, Assistant Attorney General, Antitrust Division

Donald Agger, Assistant Secretary of Transportation

J. Herbert Holloman, Under Secretary of Commerce (Acting)

Dean W. Coston, Deputy Under Secretary of Health, Education and Welfare

Edward C. Welsh, Executive Secretary, National Aeronautics and Space Council

Ex Officio: Rosel Hyde, Chairman, Federal Communications Commission

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Telecommunications

THE WHITE HOUSE
WASHINGTON

April 6, 1965

MEMORANDUM FOR

THE PRESIDENT

Following our meeting last Thursday concerning the Office of Telecommunications Management, I discussed the matter with Kermit Gordon who concurs, as he has indicated in his previous memorandum to you, with the view that the Office should be set up independently in the Executive Office of the President. As you requested, I subsequently met with Mr. Elmer Staats and Governor Ellington, and we reviewed the past history and present problems of the Office.

The three of us concur in the same judgment--that the Office will be most effective and most able to perform its essential functions for you if it is located separately in the Executive Office. The details of the case are summarized in the Bureau of the Budget memorandum to you of February 26. A suggested text for the Reorganization Plan establishing the Office of Telecommunications Management in the Executive Office was transmitted by BOB with their memorandum. I have also discussed this question with Bill Moyers, who says he has no further objection to setting it up this way.

If you agree with this move, the Bureau of the Budget will be asked to proceed with the Reorganization Plan.

/s/
Donald F. Hornig

Concur:

/s/
Buford Ellington

/s/
Elmer Staats

Xerox copies made for:
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Director
Mr. Staats
Mr. Carey
Mr. Seidman
Mr. Broadbent