Thursday, May 13, 1971

OFFICE OF TELECOMMUNICATIONS POLICY

Witnesses

1. Clay T. Whitehead, Director
2. George F. Mansur, Deputy Director
3. Wilfrid Dean, Jr., Assistant Director
4. Walter R. Hinchman, Assistant Director
5. Charles C. Joyce, Jr., Assistant Director
6. Antonin Scalia, General Counsel

Mr. Steed. The committee will be in order.

The committee is in session now for ~~the~~ consideration of the budget request of the Office of Telecommunications Policy.

We are pleased to have the Director, Mr. Clay T. Whitehead, and his associates with us.

Introduction of Witnesses

Mr. Director, if you would like to identify your colleagues for the record, we would be happy to have you do so and to have a biographical sketch for those of you who are new here for the record. We welcome you to the committee and would be pleased to have whatever statement you want to make to us.

Mr. Whitehead. Thank you very much, Mr. Chairman.

First of all, I would like to introduce Dr. George Mansur, on my right, the Deputy Director of the office.

I have behind me Mr. Antonin Scalia, the General

Counsel of the office; Mr. Wilfrid Dean, Assistant Director for Frequency Management; Mr. Walter Hinchman, Assistant Director of the Office, and Mr. Charles Joyce, also an Assistant Director of the office.

We have biographical sketches on myself and the Deputy Director, which I will submit for the record.

We also have copies of my prepared statement, with exhibits, which I have with me and will submit ~~that~~ for the record.

Mr. Steed. Very well.

(Documents follow:)

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

DIRECTOR

Biography of

CLAY THOMAS WHITEHEAD, Director

Clay T. Whitehead was born on November 13, 1938, in Neodesha, Kansas, and graduated from Cherokee County Community High School in Columbus, Kansas. He received his B.S. and M.S. degrees in electrical engineering from the Massachusetts Institute of Technology, majoring in systems engineering. He later received his Ph.D. in management, also from M.I.T., with concentration on policy analysis and economics. While at M.I.T., he taught courses in electronics and political science and was elected to the engineering and science honorary societies of Tau Beta Pi, Sigma Xi, and Eta Kappa Nu.

Mr. Whitehead served in the U.S. Army for two years, attaining the rank of Captain, where he worked on Army chemical defenses and the threat to the U.S. from biological warfare.

Mr. Whitehead was at the Bell Telephone Laboratories for about a year during his undergraduate studies as a part of the M.I.T.-Bell Laboratories cooperative program. Prior to obtaining his doctorate, he was a consultant at the Rand Corporation, where he worked on studies and arms control, air defense, and the space program. After completing his Ph.D., he joined Rand full-time to plan and organize a policy research program on health services and other domestic policy areas. He has also served as a consultant to the Bureau of the Budget.

Following the election in 1968, Mr. Whitehead served on the President-elect's task force on budget policies and assisted on transition matters. He joined the White House staff in January 1969. As Special Assistant to the President, his responsibilities included space, atomic energy, maritime affairs, communications, liaison with regulatory agencies, and several specific economic and organizational matters. Mr. Whitehead was nominated by the President to be the first Director of the Office of Telecommunications Policy and, following confirmation by the Senate, took office on September 22, 1970.

PREPARED
STATEMENT BY

CLAY T. WHITEHEAD, DIRECTOR

OFFICE OF TELECOMMUNICATIONS POLICY

Before the

Subcommittee on Treasury, Post Office

and General Government

The Honorable Tom Steed, Chairman

Appropriations Committee

U.S. House of Representatives

MAY 13, 1971

Mr. Steed. That includes the exhibits attached thereto.

Mr. Whitehead. I thought if it would be convenient, and if you wish, rather than read through this statement, I will talk to the general content of it in an informal way if that would be more helpful.

Mr. Steed. Just at the outset, if it is helpful to you, it would be to us, to outline the over-all concept of the ~~Commission~~ Office, its activities, its mission, what you have been doing, what you presently are involved in, what you see in the immediate future.

Mr. Whitehead. Yes, sir, I will do that.

Since we are so new, that is basically what I had endeavored to do in this prepared statement.

In very broad terms, it is our responsibility to develop over-all communications policy, electronics

communications policy. That breaks down into three broad areas.

First of all, the Director of the office is the President's principal advisor on telecommunications. This includes working with the other elements of the Executive Office, working within the White House staff structure to make sure that any matters pertaining to telecommunications are effectively covered from the staff standpoint.

Secondly, the office permits the Executive Branch of the government to be a more effective partner with the public, with the Congress, and with the FCC in dealing with matters of broad national communications policy.

Finally, the office formulates new policies and coordinates the management and operation of all federal electronic communications.

I thought I might start by laying out some of the

history of the office, how it came about, then get into a summary of some of the specific areas we are into.

One of the first things I would like to point out is that communications has been growing at quite a rapid rate over the last 20 years. In fact, over the last 20 years it has grown well over 500 percent. That is shown in the first chart that you have at the end of my prepared statement.

You see that the growth rates in communications have been more extensive than any other major segment of industry. That 500 percent or more works out to an annual rate of nine percent growth as compared with six and a half percent annual growth for the average of all industries.

That average rate of growth has continued about the same in recent years. However, electronic communications is now growing at an annual rate of about eleven

percent. Not only is it growing faster than most other industries in the United States, but that rate of growth is picking up.

Communications is an industry that is requiring an increasingly large proportion of our new capital investment. ~~That is shown on~~ the second chart, ~~which~~ shows how the new capital investment in plant and equipment stacks up for communications compared to other major industries.

Mr. Steed. Perhaps at this point it would help if you put in more detail about what you mean by the word "communications", just to give the total electronic picture of what we are talking about.

Mr. Whitehead. Yes, sir.

The word "telecommunications" is really another way of saying electronic communications. This includes all manner of electronic communications. It ranges from

simple services that we use and think about every day, such as telephone and telegraph, ~~and~~ radio ~~broadcasting~~, and television broadcasting, to other more specialized services, like some of the military uses of communications, for instance, data communications, computers talking to other computers over wires, etc.

Telecommunications also commonly ~~It commonly~~ is used to include electronic navigation devices, systems, radar, and so forth. That is a very broad and very short answer.

Mr. Steed. Would it also include all those facilities that are utilized in air traffic control?

Mr. Whitehead. Yes, sir. However, it ~~would~~ does not include the computers, per se. It ~~would~~ includes all the devices around the computers, how they talk with one another and how people use them.

It is also important to realize, I think, that communications in a sense has sneaked up on us in terms

of its social importance.

The numbers I have been talking about suggest its size and importance in our economy, but communications has grown from something that not too long ago we just thought of as a technology, to something that we begin to think of in terms of services, and only began to think of it in terms of what impact it has on us as a people.

There is ~~We see~~ a lot of discussion these days about ~~what is~~ the effect on the younger generation of ~~growing up with~~ exposure to television throughout their formative years. The answer to these questions are highly uncertain and in many cases speculative, but there is very little disagreement that the effect has been profound and strong.

Also, as I have suggested from some of these figures and what I have just said, communications is a force that

changing very rapidly. This is brought about by the very rapid rate of technical change, and also the rapid rate at which we have integrated various kinds of communications into our economy and into our society. As a result, ~~of this, it is creating~~ a new series of ~~new and~~ important policy issues and ~~policy~~ questions ~~that~~ have to be dealt with. They have to be dealt with in a fairly prompt way because the rate at which they are popping up is very great.

~~To show,~~ we have tried to show how the various communications developments have been coming into practical application in the country. ~~We try to show this~~ on chart No. 3, in this chart ~~which~~ we have taken some of the most important developments in electronic communications and shown ~~along the line there~~ ~~the date which~~ ~~at~~ when they first came into ~~first~~ practical application, not the date at which the technology

was first invented, but rather when the technology resulted in some practical service or other application for the public.

As you can see, a large percentage of these developments have been crowded into the years just since the war, basically. As we look at the directions the technology has taken, we do not see any sign that this rate is going to slow down. Rather, the practical side of this seems to be growing even faster.

The costs are coming down and the technological innovations are coming along even faster.

~~Now~~ all of ~~these things I have been talking about~~ this has ~~have~~ been recognized for some time. ~~The recognition of that, however, has been proving~~. Presidents Truman and Eisenhower conducted studies about this accelerating rate of change and the need for improved executive organization to deal with it ~~some of the existing problems then and some of the problems that were foreseen~~

even ~~back~~ then.

President Kennedy ordered a limited reorganization of the Executive Branch of government to deal with some of these problems.

President Johnson established a large Presidential task force to study this whole range of questions and to make recommendations.

One of the recommendations of that task force was that an office be established within the Executive Branch of the government to do basically what the OTP is now doing.

When the present Administration came into office, we reviewed all of these studies that had been done over the past 20 years, and we had discussions with a large number of industry people, people in the Congress, and the public generally. As a result of that, President Nixon

submitted last year reorganization plan No. 1 of 1970, which the Congress approved, establishing the OTP.

The functions of the office were further specified in Executive Order 11556, and I have copies of both the reorganization plan and the executive order, which I will submit for the record.

(The documents follow:)

91st Congress, 2d Session - - - - - House Document No. 222

REORGANIZATION PLAN NO. 1 OF 1970

MESSAGE

FROM

THE PRESIDENT OF THE UNITED STATES

TRANSMITTING

REORGANIZATION PLAN NO. 1 OF 1970

FEBRUARY 9, 1970.—The message and accompanying papers referred to the Committee on Government Operations and ordered to be printed

U.S. GOVERNMENT PRINTING OFFICE
87-011 WASHINGTON : 1970

standards for the mobilization [illegible] tions resources in any emergency, and be prepared to administer such resources in any emergency under the overall policy direction and planning assumptions of the Director of the Office of Emergency Preparedness.

Mr. Whitehead. I thought it might be most useful in talking about the functions of OTP to describe some examples of the broad communications areas ~~that~~ we deal with and some examples of the specific programs and problems and issues ~~that~~ we get into.

The three broad areas I want to talk about are government communications, ~~first of all; secondly, the~~ national communications policy for our domestic communications, and ~~finally,~~ international communications.

The Federal Communications System serves a variety of very important purposes. We use ~~them~~ it for things such as fire prevention in national forests, ~~we use~~ common telephone service, ~~as every large organization does,~~ ~~we use them for~~ and strategic control of our nuclear missile forces.

The government's investment in communications equipment

is estimated to be about $50 billion. The annual expenditure for new systems and operation of systems is estimated to cost the FederalGovernment between $5 billion and $10 billion annually.

With such big numbers, the imprecision of that estimate is of some interest, I think. The fact that we are not able to pin that number down more closely I think is testimony to the fact that there has never been within the Executive Branch any place that could oversee all of these communications activities and bring some kind of focus on them as a whole.

The first example I would talk about is the National Warning and Alert System. The recent failures we experienced in the emergency broadcast system brought the importance of this to the public eye and forced us to raise some questions about how effectively this system performs along with our other national warning systems.

My office now has a review under way in which we chair an interagency committee to examine the emergency broadcast system and all of our national warning systems to ascertain their reliability and their responsiveness to national needs.

A second area that we are involved in, in government communications, is oversight of all federal communications expenditures. Here we work very closely with the Office of Management and Budget.

It is just essential, if we are going to have any effective control over there, that the OMB is to have effective control over it; that we have some kind of management system which permits us to know what ~~our plans~~ the plans of the federal agencies are, how they relate to one another, how are they spaced out over time, if there are ~~there~~ less expensive ways to do them, and if ~~do~~ they need to be done at all?

An example of this is a study we are doing right now on federal telephone systems. The Department of Defense runs its own telephone system called AUTOVON, whereas the General Services Administration runs the federal telephone system which provides telephone service to most of the other federal agencies.

By and large, these two systems cannot connect with one another. In some cases they overlap. This is not only inconvenient in terms of various agencies wanting to communicate with one another, but we also suspect it is very costly.

There have been a number of studies done on this subject over the last five years, but nothing done from the standpoint of making a decision, a management decision, about whether the Federal Government should continue this arrangement, merging the two systems, using direct

distance dialing provided commercially, or what.

My office has undertaken a review to determine, within the next few months, what decisions the government should make about procuring that kind of service and to review the arrangements ~~that we have~~ for leasing these systems ~~that~~ we now have.

The third example in the area of government communications that I wanted to touch on is the allocation of the radio frequency spectrum. Approximately half of the radio frequency spectrum is now used by the Federal Government. The other half is used by private users. That half is allocated by the FCC. My office has the responsibility for making ~~both the~~ broad allocations ~~to agencies~~ of the spectrum to government agencies and also for making specific assignments for specific uses.

As I indicated, the kind of things the government uses the spectrum for are in many cases very sensitive

and very important.

The decisions we have to make about how this limited spectrum space is to be allocated are often quite difficult and ~~often quite~~ complex.

One of the things we are doing here is looking for new methods of frequency assignment.

In that regard, we are working very closely with the Federal Communications Commission to see if we cannot find more flexibility between federal and private uses.

The second broad area I want to talk about is private domestic communications. The U. S. has the largest communications industry in the world, and I think it is generally conceded that we have the best communications industry in the world.

Our total per capita communications expenditures exceed the per capital income of a large number of countries. Almost fivepercent of our gross national product

is devoted to electronic communications.

The only two sectors of our economy that are growing faster than communications are health services and education.

OTP is responsible for clarifying the significant policy issues that arise from all of this, for formulating the administration's recommendations and presenting them to the Congress and to the FCC and also to the public.

Some examples of these problems are as follows: A whole new field of specialized communications carriers is growing up to provide communications services of various specialized kinds other than the conventional telephone and telegraph that we think about.

For instance, data communications, facsimile communications are becoming important very rapidly. We have some very fundamental questions.

[illegible] there is considerable

debate about, ~~especially in the industry~~. Should we extend the common carrier monopoly we now have for telephone services and allow only the telephone company to provide these specialized services or would it be better to establish new common carriers or quasi-common carriers to provide these services, or should we allow competition, treating this as basically just anohter business, for provision or specialized services to specialized users?

We think it is important to resolve these question that one at least, fairly promptly, because the number of appliations to theFCC for these kinds of specialized services is just mushrooming and needs to be straightened out fairly quickly.

A second aspect of domestic communications that is very important is mobile communications. It is commonly said that ours is a mobile society, people move around

frequently, they spend more and more time in transportation. Business is increasingly mobile. We have radio-dispatched vehicles in small businesses and in large businesses. We have paging devices for doctors, and now other people are using these devices. Technology permits car radios very simply; technology could easily permit pocket telephones and car telephones that we could carry around with us, that would give us access to the telephone system and to each other in a very flexible way.

However, the regulatory framework does not permit this kind of thing to develop. One of the things we are looking at is new technical concepts and new institutional concepts that will suggest the kinds of policies that we need to permit this kind of mobile communications service to be actually brought to the public.

A third area is, in the broadcasting area, the fairness doctrine. The fairness doctrine has been

evolved by the FCC over the years to deal with the fact that the spectrum is limited, there are a limited number of broadcast channels available, and to try to establish standards for fairness in the presentation of controversial issues.

This is a different approach than we apply in the area of the print media.

There has been considerable concern and considerable criticism that the fairness doctrine has evolved into a very detailed and very confusing and some even say, conflicting set of rules and decisions.

There is some concern that the purpose of this doctrine, which is to encourage active public debate in this country, has actually had the opposite effect; that broadcasters are afraid to bring up public issues for discussion

because they are uncertain about how the FCC is going to apply the fairness doctrine to them.

The time has come, we think, for an over-all reassessment of the doctrine, how it grew out of the spectrum limitation matter, how it fits into the broad scope of regulatory policy, to see if we cannot find some more common, some simpler theme for resolving this very complicated area.

A fourth area, in the area of national communications again, is the protection of private rights in what is becoming a computer age.

We all know that computers make it possible to accumulate and store large quantities of information, some of it having great proprietary value, much of it having great personal value.

Electronic communications has been developing at the

same time. It is now making it possible for people in physically remote locations to have immediate access to this information.

Computers, as I said, are now beginning to talk to computers. People across the country, through simple terminal devices, and a telephone wire, have access directly into computers.

We think it is very important, and a number of other people think it is very important, to review this for privacy and for access to decide what kinds of restrictions should be imposed on the communications carrier, or what kind of procedural and privacy safeguards should be required generally.

Still another area of domestic communications involves the growth of cable TV and its impact on over-the-air television broadcasts. The cable appears to be the

potential to develop a very, very large number of television channels directly into the home. This potentially makes possible a new diversity, a wider scope in television programming, and it makes possible the provision of a whole range of other services into the home. Once you have that cable running into the homes, it becomes possible to offer facsimile reproduction of newspapers directly into the home, it makes it possible for the homeowner to have access to accounting information services, banking services, shop-by-mail services.

This is a policy issue that deals, on the one hand, with very sensitive issues of broadcasting; at the same time it has implication for a wider range of services.

The current debate centers on copyright provisions and on the importation of distant signals from other television stations in distant markets, but there are

longer-run issues that have to be sorted out.

Is this to be developed as a new medium, operating in its own right, originating programs, or should it be kept as an adjunct to an over-the-air system?

It is very clear that cable television technology does not fit either the common carrier mold that the FCC has developed or the broadcasting mold.

Some kind of new policy is going to have to be developed and we suspect it will require new legislation.

The final area in domestic communications that I want to talk about is domestic satellites.

American technology has developed the communications satellite to the point where it is commercially feasible. In 1965 we launched the first satellite for commercial use, but this was only for international use. Six years have passed and even though industry has been willing and

able to put up a system for domestic use, the government has not yet sorted out the policy by which they will be allowed to do it. Therefore, they have not been allowed to do it. It has resulted in six years of delay.

The Administration made recommendations over a year ago as to the policy whereby domestic satellites could be fitted into our national structure. The FCC has moved in part to accept that policy and adopt it, but there still has been no effective action to permit people to establish systems.

The third broad area I wanted to discuss is international communications. Thisagain is another very rapidly growing and very important aspect of the communications industry.

Americans now spend more than $500 million a year for international communications. That is projected, conservatively we think, by the industry, to grow to a

$5 billion per year rate by 1980. This is very important to U. S. business, in the international arena; it is also very important to the development of an open world philosophy on information flow which this country is seeking to have accepted.

There are two very important areas here in the international area that I thought I would discuss with you briefly. One is that the structure of this industry has evolved rather piece-meal over a very long period of time. It is a very complex industry structure and it has conflicting incentives built into it. These conflicting incentives and this complexity not only make life very difficult for the communications carriers in dealing with one another and in dealing with the public, but make it very difficult for them in dealing with the communications entities abroad.

With this tenfold increase in international commu-

cations, ~~we are talking about~~, there has been growing

concern that this industry structure should be sorted

out and simplified to permit it to do this job effecti-

and efficiently.

~~The second~~ Another area aspect of international communications ~~I~~

~~wanted to touch on~~ involves the balance between satelli-

and undersea cables. There have been rather sharp dis-

putes within recent years as to what the appropriate

mix is between these two technologies. These questions

are very complex, they throw the government into a very

tailed examination of industry plans, ~~industry~~ and investm-

and they arise I think primarily from a failure of the

government to address the appropriate long-term policy

issues.

My office is actively involved in addressing thes-

policy issues right now and discussing them with other

government agencies and with industry, and we hope to have some suggestions before too very long.

Finally, I would like to discuss international negotiations. These are very important to the United States because international communication is inherently a two-way process. You have to have cooperation at both ends before you can communicate.

~~These~~ international negotiations are important also ~~have direct implications for us in this country, through the device~~ with regard to the radio frequency spectrum. There has to be cooperation among the nations as to how this spectrum is used or we will have interference, and it will not be useful for anyone.

My office is responsible for providing communications policy guidance to the Department of State in conducting these international negotiations.

I would like to clarify one point before going any further ~~thing, in all of this~~ in this testimony.

In all the previous discussion about the three major areas of our concern — ~~I have gone through, the carrier of~~ the government's own communications, domestic communications and international communications, I have been talking almost exclusively about the OTP's role in developing policy.

I want to emphasize that our role is not to dictate policy. Our focal point is policy, to be sure, but it is our role to try to work effectively on behalf of the Executive Branch, with the Congress, with the FCC, with the industry and with the public to see that the whole governmental process regarding communications ~~in this country~~ works effectively, and takes into account the many long-range considerations involved. ~~as I said,~~

as I said, our purpose is to be a more effective partner in those forums. To be sure, in the area of the government's own communications, sitting in the executive office as we do, we do have rather considerable authority there. However, insofar as possible, our approach is to try to work with

the other agencies and to bring about these efficiences and improved effectiveness through cooperation.

Finally, I would like to give you two examples of the kinds of specific actions my office is taking. As you know, we are only about six months old. It is rather difficult to show a lot of progress, a lot of tangible accomplishment in that time period.

The most important thing we have done in those first six months I think quite frankly is that we have established the office as a going organization. We have built our relationships within the executive office, with other government agencies, with the Congress and with the industry.

I would like to talk about two particular policy areas that we have tackled, and I think have made a contribution to in this short time.

One deals with the provision of satellites for aeronautical communications. The Federal Aviation Administra-

is responsible for air traffic control in this country. Through international agreements, they are responsible for air traffic control over the Pacific Basin.

The National Aeronautics and Space Administration last year was working with a number of European nations to develop an experimental aeronautical communications satellite for use over the Atlantic Basin.

At the same time, the FAA was working to develop a system for actual working use over the Pacific Basin. At the request of the Office of Management and Budget, we became involved in this on a very timely basis to permit decisions to be made in the fiscal year 1972 budget.

We discovered that these two programs were largely overlapping and in many ways conflicting.

We began a work program dealing with industry, with

the agencies concerned, with the OMB and, as a result of that, we came up with a policy statement. The effect of that policy statement was to cancel the NASA program and to modify the FAA program so that the time frame would be moved up, so that the satellite system they develop would be useful over both the Pacific and the Atlantic Basin.

I think this resulted in a rather substantial saving to the government.

The second major project ~~that~~ we have been involved ~~in that we~~ and have substantially completed so far is the U. S. preparation for the World Administrative Radio Conference on Space Communications, which convenes in Geneva next month.

Here my office coordinated the activities of all the federal agencies. Almost all agencies were involved in it, from HEW to DOD. We worked with industry and of course

very closely with the State Department.

The decisions taken at this conference will largely determine the frequency allocations for satellite communications over the next decade. Because of the important U. S. role in satellite communications, this is very important to the United States.

The decisions taken at this conference will form the basis for a treaty that will be submitted to the Senate for ratification later this year.

___ To give you a little more flavor of the kinds of active projects we are involved in right at this moment, I will mention three ~~and~~ that we ~~that we have not yet completed but we~~ expect to complete within the next month or two. ~~there are three.~~

One is the development of proposed legislation for the long-term financing of the Public Broadcasting Corporation.

The second is the development of an Executive Branch policy statement on the mix of cables and satellites for

trans-Atlantic communications, and the third is an updating and amplification of the Administration's policy proposals on domestic satellites.

I realize I have covered a lot of area in this statement. I would like to emphasize that I have not gone into much detail on each one although it may have seemed that I did. Nor have I made mention of everything that we are involved in. I tried to select a representative range of things that would give the committee a feel for what we are doing, what we are meant to do, what our role is, ~~to do.~~

I would be pleased to reply to any questions that you have.

Mr. Steed. Right off, there is one reference you made that strikes a note with almost everybody currently. After listening to [illegible] rather impressive outl[illegible]

the volume of electronic communication, when you get into this matter of privacy, the next thought that comes is that of eavesdropping. Have you been making studies or will you be trying to develop this area so that perhaps policy for restricting manufacture and use of these drop-in devices or to make wide use of these communications services possible and still maintain privacy, or are we going to have to come to the time when, if we communicate electronically, we just throw privacy to the wind?

Mr. Whitehead. Yes, sir.

Mr. Steed. This is a trouble spot, is it not?

Mr. Whitehad. Yes, sir, a very important and very sensitive trouble spot, one that we are very concerned with. We plan to devote a substantial amount of resources to looking into that area.

Mr. Steed. There used to be a lot of noise about

tapping telephones. Now they have gone so far beyond that, that that is not the problem any more; there are worse problems. I do not know whether you will ever be able to devise any effective way to permit wide use of all these new devices to communicate and still maintain privacy, unless all the users thereof develop their own codes like the military has been doing and then there probably would come into existence a lot of code-deciphering devices.

You have a sizable field to study in considering this whole problem. How much new development in the field of electronic eavesdropping is there? Are they still coming up with better and more effective devices for it?

Mr. Whitehead. One of the themes of my talk here today was the technical innovation. The technical

innovation is proceeding apace in that area, of course, as you well know, as in all the others.

Mr. Steed. They have lately come into the capability of miniaturizing the devices so that it makes it even more difficult to detect than ever, does it not?

Mr. Whitehead. Yes. Some of the devices, I think it is fair to say, are essentially impossible to detect.

Mr. Steed. Are we doing as much in the technological field of developed uses of telecommunications that cannot be eavesdropped on or is that possible?

Mr. Whitehead. That is also possible.

There is a lot of concern and a lot of work being done ~~One of the most active areas there is in the data~~ by industry in the data communications field to insure that ~~communications area where procedural safeguards to~~ there are procedural safeguards to prevent people from having ~~permit people from having unauthorized access, there~~ unauthorized access to data. ~~is a lot of work by industry there.~~

Of course, the Defense Department has done an awful lot of work in secure communications; that could be made

applicable to civilian domestic communications as well.

Mr. Steed. I get the feeling as I listened to you that some of the problems we have stem from what appear to be either economics or omission on the part of the Federal Communications Commission to move in and make determinations. Is this because they are lacking in authority or lacking in policy direction which would justify their moving?

Has the state of the art gone beyond the enabling legislation that set up the FCC and outlined its rights and powers? Is that one of the problems that we have?

Mr. Whitehead. I think that is one of the problems.

The major enabling legislation for the FCC is extremely bad and, as a result, the Commission finds little guidance from the Congress on many policy issues that were not even foreseen at the time the 1934 Communications Act was passed.

Mr. Steed. Do you contemplate, among other things, that you may be able to devise suggested legislation that would firm this up, modernize it, make it more effective for a commission to deal with recurring problems?

Mr. Whitehead. Yes, sir, that is one of the things we are actively looking at.

Mr. Steed. Take a matter you work on and see if you can get a handle on what working on it adds up to.

Take this matter of the spectrum. I guess that is one of the oldest problems that the FCC has had to deal with.

I remember a long time ago having been involved with some people in getting a license, wave lengths, this sort of thing; when you go into that matter, how many man-years, how many people, what is the physical evolvement or such a study?

Mr. Whitehead. Well, I suppose I should take some

particular study that we have under way.

Let me talk about the study we are beginning with the Federal Communications Commission on finding more flexibility between the government use of the spectrum and private use of the spectrum.

Mr. Steed. I am trying to get down to the physical detail of what you mean when you say you go in with them to make a study.

Mr. Whitehead. Right. The first thing we did was to sit down and write them a letter, saying we would like to begin to do this. Once we had agreement between the Commission and myself, we began to talk about what kind of man-levels of effort were required to do this.

The Commission is still working on their side of it.

Let me describe what we have done in that regard.

The first thing I did was to turn to my Assistant Director for Frequency Management and say, "I need to know

what the Federal Government is now using the spectrum for; how important it is, what kind of uses, who is using it."

We have much of that information in our office, but much of it we do not have.

He in turn turned to a committee called the Inter-department Radio Advisory Committee. This is made up of representatives of some 17 departments that make use of the spectrum.

So Mr. Dean and two or three of his staff people were involved in taking to this committee the question of how does the Federal Government use the spectrum and for what purposes? So we have two or three people within my office, professionals, working for a period of some weeks on trying to define that question a little more precisely so that the committee could reasonably answer

it.

We then had ~~this~~ a 17-man committee that worked for 90 days on this subject, among other things, and of course not full-time, but that kind of effort. Each one of these people, in turn, has access to all of the communications activities of his department, all of the communicating people, and so forth.

Each of them did an intensive review of what uses they were making of the spectrum, where they had transmitters, how much space ~~did~~ they used up, how much power ~~did~~ this used, and why were they being used. Just because it is in Defense does not mean it is a defense-related function.

The Corps of Engineers uses radio frequencies for their administrative use. All of this activity ~~out there~~ that was put to work through this chain of command then began to come together. Each man from each department

collated the activities of his department in the use of the spectrum.

The Interdepartment Radio Advisory Committee then met and tried to put all of these various things into a common format so that it would be understandable as a whole.

Again Mr. Dean pulled all that together into a form that would be readily understandable by someone such as myself, someone such as the Congress or the FCC Commissioners.

As a result of that, we have about a 20-page statement that was produced in about 90 days, which I think is a comprehensive and accurate statement of why and for what does the Federal Government use the radio frequency spectrum. As I said, one of the purposes of this is to inform the Congress.

We do have copies of that report which I would be

pleased to make available to the committee if you like.

Mr. Steed. In the spectrum assigned to the government, let me give you a couple of instances and see if we have two things: one, the broad use of it. For instance, telecommunication from the Pentagon to Vietnam would be a long-range frequency use.

Last Saturday I saw a sham battle at Fort Sill in which we were able to listen in to the field commanders giving instructions to the helicopter gunships, the support artillery, the tank groups, and to the infantry observers on the field. Obviously this is a short-range thing.

Then at an SAC base, where they were on the round-the-clock alerts, the commanders were required to have with them constantly a communications facility with headquarters of the base, no matter where they were. This was a short-range thing.

I have tried to illustrate the two kinds of uses, in the short-range field. Is that a problem of shortage of spectrum or does the one frequency, for instance, serve most of those purposes, since it is short-range?

Mr. Whitehead. No, there are a large number of frequencies required for that purpose, because within any geographical area there are large numbers of activities that are going on that just cannot afford to interfere with one another.

~~You cannot have~~, for instance, the platoon leader talking to his men over his radio system, ~~you~~ could not have that interfere with the communications going on to, say, the Air Force fighter plane providing ground support. Those have to be able to talk independently in the same geographical area.

Mr. Steed. So the very fact that it is short-range in its application does not necessarily mean it does not

make a heavy impact on the need for spectrum?

Mr. Whitehead. That is correct.

Mr. Steed. Now in the domestic end of it, the commercial end of it, the public, you get into a taxicab and you hear him getting instructions from his home office; you get in a car with a friend and you hear him using his telephone to communicate with his office. Is that what you call local application?

How big a drain is this on the available wave lengths?

Mr. Whitehead. This is a rather considerable drain, although it is not as big a drain as many people would like to make it. The demand for those mobile frequencies is much greater than what we can make available, but the fact that they are local, on the one hand, does not alleviate it, because there are some purposes that people want to use them for locally.

On the other hand, those frequencies are used, reused

in Chicago, New York, and so forth.

Mr. Steed. Let me pose my interest by describing my own congressional district and some of its telecommunication facilities or lack thereof.

I just happen to have a geographical area where you have to go on six television stations, in three different towns, to be sure you are saying hello to everybody in the district.

I also have a few radio stations that presumably could be received in all areas of my district but, for obvious reasons, they are not necessarily that widely listened to.

As a result, I have about 19 small town radio stations that are very small in their coverage, but in those particular communities are very important to the local residents, especially in the kind of climate we have there. Last weekend I was on the tornado alert most of the time.

It is kind of comfortable when you are driving along to have the local radio station advising you what the situation up ahead might be. So the local people do make a very extensive use, for all sorts of reasons, of this little local station.

Then I have some areas that the only reason they get good television is because of cable television. Yet I have other areas that, for the economics of it, are not able to have cable television. So the only television they get is by the broadcast station. There would be no way that either one could adequately serve all the area that I represent.

Is this the kind of problems you take into account when you make studies, as to how much of the country is in categories where no one system or the other can do the job and you need more than one way to make sure that all the people have adequate service?

Mr. Whitehead. Yes, sir. I think you have hit on a very important problem ~~in the~~ concerning cable television ~~area~~ ~~night~~ today. Many people feel that if cable is allowed to grow too big, it will undermine the economics of over-the-air television. If you were to have the over-the-air television industry go out of business, then there would be large numbers of people in areas that cannot economically be reached by cable that would not have anything. So you have to be very certain that you avoid that kind of situation.

Mr. Steed. We have had a new development. I have urban and rural. That is why I get all these kinds of problems.

We have another service that has become very important in the field of agriculture. With the wide development of the rural electrification program, then rural telephone service became very achievable and has become

widely used which, of course, has added quite a bit to those people in the isolated areas, as far as communications are concerned, who use rural telephone services, and I assume that as these techniques and technologies advance, since the wire connections exist for the simple telephone service, that additional services might be possible.

For instance, it would be helpful to a number of constituents I know if they had a way to receive market reports at the scene of their agricultural activities, because sometimes this can be very important to a large agricultural operator and saves him the time of having to quit whatever he is doing, go in and get on his rural telephone and try to acquire the kind of information he thinks he needs before he makes certain decisions affecting his activities.

It seems to me that any policies you develop must,

of necessity, keep in mind that there are all these sorts of situations and not let the big payoff in the urban areas preclude the use of a lot of this facility, so that these isolated sections can continue to have, even, as much as they now have.

Whether a lot of the new facilities will become important enough to enter into those more isolated areas, I do not know, but certainly the opportunity for it to should exist, if they can make economic use of it.

There is one thing about that type of the use of communications, it has to have an economic value to these people before they will use it at all. To the extent they are nowusing it, they think it is a good investment for them.

I would think that point-by-point, or family-by-family, or telephone-by-telephone, that the use of this sort of communication, per capita, is much more valuable

to the isolated areas than it is to the crowded urban areas.

There are many other ways that people in a community can have more than one way to keep up with certain things they wnat to know; whereas, the person out in the isolated area may be fortunate to have even one that he could rely on.

I thought I would make a guinea pig out of myself and try to outline to you the sort of problem that can and does exist and, since I had such a mix of all of these types of problems, you might be interested in having me outline some of them to you.

Mr. Whitehead. That is very interesting. In fact, you have hit upon a number of things that we have been thinking about. I cannot say we have resolved them yet.

Mr. Steed. Mixed right in this area I described are three large military installations, and a heavy use

of the spectrums assigned to the federal sector goes on right in the middle of all this other use. As a matter of fact, I doubt if you could find any other place in the whole United States where as much or all of it is mixed together as it is right in that area.

If you need a good place to send a task force sometime, why I think they could come home with a first-hand sampling of about every kind of a problem that exists, or at least every kind of a customer that you might expect to get involved in these sorts of things.

What is going to be your guess as to the future of CATV? Is it going to be restricted to the now-accepted communications like radio, television, and so forth, or will it expand into all sorts of commercial uses?

You mentioned facsimile, this sort of thing. There is this problem. I am frequently contacted by interested parties on both sides of the issue who have wide differences

of views about it.

Do you think that a long-range policy to set the metes and bounds of these two problems will be devised within the foreseeable future?

Mr. Whitehead. Yes, sir, I think it can be.

As I said, I think it probably will ultimately come up to the Congress for a fundamental decision about how this should go.

In our examination of the problem so far, we think that once the country becomes wired for cable television that it is relatively inevitable that these kinds of new services will develop.

The question then is really one of timing. How long is this going to take?

Mr. Steed. This may not be a good analogy, but when you take a highway road project, if you wait until it

builds up on both sides, then the traffic builds up too, and you need then to build a wider and a better facility, and the right-of-way acquisition costs become very high; whereas, had we had the foresight to have acquired the right-of-way and made these long-range plans way back, it could have been done with a very moderate cost.

I use that to illustrate that if we wait and let this thing grow like Topsy until a whole lot of things become a fact accomplished, then the matter of dealing with them and putting them back in metes and bounds would be enormous as compared to what they would be if definite policies were made before we got that far, is that not so? Is this something like the goal you are aiming for?

Mr. Whitehead. Absolutely, that is precisely it.

Of course, there is a very important transition problem here. We have a large system of over-the-air

television broadcasting that I think by and large serves this country very well and has served it very well.

It is important that you not develop a long-term policy that will result in tearing that existing system down without replacing it with something over the short run. We do have to worry about this transition, but I could not agree with you more that it is most important to look ahead and set the course of where you think you are going in the long run. Then it becomes, I think, much simpler to address this transition problem.

Mr. Steed. Getting into the matter of partiality, or impartiality, or propaganda, or whatever you want to call it, by the use of media, and since I am in a business where this sometimes can become a matter of personal concern, I have always taken comfort in the fact that as long as the constituent, who is my end

product, can just flip that button and turn it off or switch to some other source of information or entertainment, that I did not have to be too concerned as to how biased or prejudiced the operator might be.

I am very reluctant to think that the government ought to get into anything approaching control of the actual material, itself, that is offered to the public.

Certainly some general guidelines are needed, but I am an old newspaper man and freedom of the press is an old and dear philosophy. I would rather take the unfair abuse, I think, heaped upon me sometimes. I think the cure to protect me from that would be worse than the thing I am having to put up with.

I hope Congress always feels that way because if you have a broadcaster that you think as little of as I do of some of them broadcasting today, you can always comfort yourself that maybe he will get fired, or drop

dead, a nd another guy with a different type of mind will be running it tomorrow.

I would rather for the guy to take his place have this freedom than to put him in a straitjacket just because I do not like the current pundit who is poisoning the air with his venomous words. These things do run their course, but the service goes on forever.

I think there are a lot of things we have to take into account when we begin to think about this sort of thing.

I believe as long as there are other sources of information -- as long as there is the printed word, and other ways -- that the public generally can pretty well be its own judge of things. I think in television, the way they rate themselves, as sensitive as they are to ratings, when enough of my constituents flip that button and turn them off, it is not very long until I am going

to be relieved of any of the abuses they may be engaging in. This is the best censorship I know anything about.

I know in my newspapers when they did not like my policies they just quit buying their subscription. That always got my attention. It was very effective and I think always has been and still will be. So I think some of these fields, we may resent them as an individual thing, but as a broad policy we just do not need to be too worried about them.

Mr. Robison?

Mr. Robison. Thank you, Mr. Chairman.

Mr. Whitehead, you tell us somewhere that this is your first budget presentation, the first presentation of the Office of Telecommunications Policy. Yet you have been operating during the current fiscal year and you had an appropriation, if I read it correctly, of [illegible]

Mr. Whitehead. Yes, sir. That was an appropriation that was originally requested by the Office of Emergency Preparedness.

Mr. Robison. For the old Office of something or other.

Mr. Whitehead. Office of Telecommunications Management.

Mr. Robison. Office of Telecommunications Management, which was then under the Office of Emergency Preparedness.

Mr. Whitehead. That is correct.

Mr. Robison. That was a function that was, so I am told, largely confined to the Federal Government's use of telecommunications and almost exclusively as that use pertained to emergency planning?

Mr. Whitehead. That is correct.

Mr. Robison. You also were funded, are funded for the current fiscal year at $500,000 for studies and research

in the telecommunications field. So this current year you have, or you received through the transition process somehow a total of $2.0 million, and your budget request is now before us as $2.702 million, of which $1 million would be available for studies and research in the telecommunications field until expended, correct?

Mr. Whitehead. That is correct.

Mr. Robison. Now, looking at people on board, I am trying to straighten out in the justifications exactly what the situation was.

I do not know what the page is, but you can find it with help, the personnel summary, relating again to the Office of Telecommunications Policy; there we are shown a total number of permanent positions actual for 1970, of 63, which drops down then to an estimate of 48 for 1971 and then rises, as you have told us, in the 1972 estimate

to 65.

Now those 63 were with the old Office of Telecommunications Management, is that right?

Mr. Whitehead. Yes, sir.

Mr. Robison. Somewhere along the way they lost some bodies because now you have somewhere around 48. How many do you actually have at the moment?

Mr. Whitehead. We actually have 49 people on board. That includes some military details.

Mr. Robison. They are being paid out of the old appropriation for the old office?

Mr. Whitehead. That is correct.

Mr. Robison. And of that $500,000 that was appropriated for studies by virtue of contract, how much of that, if you can tell us, has now been put to use, or will be put to use by the end of the fiscal year?

Perhaps I ought to say it that way.

Mr. Whitehead. I think I can give you both figures.

We somehow slipped the actual remaining amount. At the current time there is actually remaining about $330,000. However, we have a number of contract that are in process. That would result in a balance remaining at the end of the fiscal year of approximately $34,000.

Mr. Robison. You give us in the summary, relating to the 1972 budget request, an overview of the kind of contractual studies and research projects you might conduct outside of your own office operation. Since those probably have not yet gotten off the drawing board, could you nevertheless, for the record, give us some detail relative to the contractual studies you have already entered into for the fiscal year and insofar as it is possible, if these are still in the negotiating process, give us some detail for these remaining studies that might be let, if that is the word, during the balance of this fiscal year.

(The information follows:)

INSERT A

We have not negotiated any contracts for FY1972 but have several currently active contracts in FY1971. The following is an analysis of our contract activities for FY1971:

Funds appropriated	$500,000
Unobligated balance brought forward	$121,875
Adjustments	$ 73,615
Total available for obligation	$695,490
Reprogrammed for salaries and pay raises	- $130,000

Contracts

1. General Electric (in progress) - orbital utilization studies for satellite systems.	- $ 53,227
2. VERSAR, Inc. (in progress) - methods to improve frequency management.	- $ 29,000
3. Quantum Science (completed) - forecast of data communication requirements.	- $ 39.100
4. HRB Singer (in progress) - development of computer software for frequency management.	- $111,724
5. Frequency Management Computer Programming Contract (proposed) - expansion of computer program to provide for remote terminal access.	- $175,000
6. Urban Communications Pilot Program (proposed) - project definition for urban communication pilot program.	- $ 50,000
7. Domestic Satellite Study (proposed) - study of future domestic satellite systems and their interaction.	- $ 75,000
Net Balance	+ $ 32,439

Mr. Robison. Now generally these contracts for research work, are they going to universities, to industry segments, to private research groups, or what?

What will be the pattern?

Mr. Whitehead. It is a mixture of those. We have four contracts here that we have actually funded for this fiscal year. I think that will give you a flavor for the kind of things we do.

We have a contract with Versar Corporation for $29,000 to perform a specific study of electromagnetic compatibility.

Mr. Robison. Whatever that may be. I am not going to ask.

Mr. Whitehead. In very simple terms, when a number of people are all transmitting audio signals, what keeps them from interfering with one another. We have a study contract of $39,100 with the Quantum Science

Corporation specifically to draw on a number of very long-range and very extensive analyses they had done on future trends in data communications. This was very important to use to be able to assess how actively we should be involved in this area, how soon we should get involved, and in which particular areas of data communications we should focus our efforts.

The third contract is with HRB Singer Corporation to establish an automatic data processing file for frequency management records. This is getting increasingly important as we have more users of the spectrum, trying to keep track of who is using what in a flexible way so we can make the changes that are necessary.

I see there are actually only three contracts. One is an expansion of the HRB Singer contract to update that ADP file.

Mr. Robison. Over what period of months or years,

possibly, do these contracts that you have already let run?

Mr. Whitehead. Again that varies. The first two I mentioned were very short-run kinds of things, to get specific information very quickly.

The latter one is something that is a continuing effort, to improve the management of our frequency assignment process and files.

Mr. Robison. That gives us some general understanding of your contractual pattern and you will provide more information, as you said, for the record so we can look at that later. You tell us somewhere throughout the justifications, and I think you should tell us this, that the office is going to be very aware of the problem, or the possible problem of duplication in the research field with other existing federal agencies or departments

or bureaus, or whatever, that might be doing work in this same field.

Does FCC, for instance, have a research capability, an authorizationof its own in this same general area?

Mr. Whitehead. Yes, sir. They have an appropriation request, I believe, of $200,000 for fiscal 1974.

Mr. Robison. How do you relate what you wish to do with what they might want to do?

Mr. Whitehead. We work very closely, on a very direct basis with them, talking about what kind of information the government needs to address these policies issues.

We jointly man our research activities so there specifically is no overlap.

Mr. Robison. Does the DOD have some research authorization and research moneys in the telecommunications field? I suppose they have a lot?

Mr. Whitehead. They have a tremendous amount.

Mr. Robison. Again, how do you dovetail what you want to do as compared with what they might want to do?

Mr. Whitehead. By talking with the senior level people in the Department and staff level people in the Department about what their plans are and how that relates to what we are going to do.

Mr. Robison. Are you getting the kind of cooperation and coordination we would like you to have with both FCC and DOD in this regard?

Mr. Whitehead. Yes, sir.

Mr. Robison. No doubts in your mind that it is going to work out?

Mr. Whitehead. No, sir.

Mr. Robison. Because federal research, it seems to me, almost knows no bounds. It has been a problem for

every subcommittee that looks at a piece or part of the over-all federal budget, and this research is a great thing. Yet on a subcommittee level, we have no idea, quite frankly, what other subcommittees are being asked to provide for projects and programs that may at least overlap, with certain gray areas in between, into the same general subject matter.

So I think we would want to make sure that you follow through on this as best you can with quite a bit of precision.

Mr. Whitehead. I might point out that most of the other federal agencies doing research in this area are focusing on hardware research, extending the technology.

Mr. Robison. I can understand why DOD would be in that category, but it seems to me FCC might be in a policy field or areas approaching the policy field in their research interests.

Mr. Whitehead. ~~Between the two of us,~~ we have so little money, $1.2 million between the two of us, that we shepherd our resources quite closely and do work together quite well.

Mr. Robison. We do have the GSA budget and I ought to know the answer, but I do not remember it. They have supervision of the FTS system. Do they do any research in this field?

Mr. Whitehead. I do not know. I can find out if you would be intersted.

Mr. Robison. Yes.

(The information follows:)

GSA does research in the telecommunications field and, in fact, according to their budget submission to the Congress for fiscal year 1972 they are expanding their technical capability "to develop and implement a more comprehensive and aggressive program of research and development in the field of telecommunications and automatic data handling." Research conducted by GSA is oriented toward system [illegible] and system operations for their voice and data systems whereas OTP activity in this area concerns broader issues such as the feasibility of an integration of FTS and AUTOVON.

Mr. Robison. If the full 1972 budget request is granted for your operation, that would permit you to have 65 personnel, permanent positions, as compared to the 49 you now have. How many more is that?

Mr. Whitehead. We are now authorized 48 so that is a net addition of 17.

Mr. Robison. Net addition of 17.

Can you give us a rough idea of what professions or interests or occupations these net additions of 17 might be?

Mr. Whitehead. Yes, sir. I think I can give you a pretty fair appreciation of that.

About five to seven of them would be in the clerical area, research assistants, secretaries, and so forth.

Of the ten professionals we are talking about hiring, we would be talking about two to three attorneys, probably, one really first-rate scientist in the area of the

the technology of communications and electronics, probably two economists, and one or two people of broad communications system engineering background.

The remainder would be made up of people with general business management and analytic backgrounds.

Mr. Robison. Are the kind of people you want fairly readily available?

Mr. Whitehead. No, sir. It is very hard to get them.

Mr. Robison. So you will have to go out and do some recruiting, right?

Mr. Whitehead. Yes.

Mr. Robison. I think we are told, and I hope it proves out to be the case, that when you get up to the level of 65 people that that might be a plateau of sorts. You do not really see at the moment, anyhow, in your best judgment that you are going to be ever an agency or

an office that is a great deal larger than that; is that correct?

Mr. Whitehead. That is correct.

I would not want to commit us in the future to an exact 65 number, but certainly no significant growth beyond that.

Mr. Robison. I never knew any agency head who did so want to commit himself.

Going back into history a little bit, trying to skim through the justifications to get some additional background knowledge about all this, we are told on page 6 of some caution, here in the justifications, about the management of government communications, which is a study area you want to look into.

We are also told that in 1963 the President, whoever it was at the time, "created the National Communications System (NCS) as a vehicle to integrate the various

communications systems of the Federal Government into an efficient whole, capable of meeting critical emergency needs. Although there has been much coordination since that time, the creation of the NCS has had little visible impact on the structure of existing networks or on agency planning for new systems.

I want to know, is NCS still in existence or is that gone?

Mr. Whitehead. It is still in existence.

Mr. Robison. Where is it?

Mr. Whitehead. It is alive and running all over the Federal Government.

Mr. Robison. Well, is it under some department?

Mr. Whitehead. Yes, sir.

Let me tell you just briefly the structure of this thing.

Mr. Robison. It is like a letter saying, "Am alive and well and living in Bayonne, New Jersey," is that it?

Mr. Whitehead. The head of the old Office of Telecommunications Management was responsible for providing the policy guidance for this system.

The Secretary of Defense was designated as his executive agent to oversee the actual planning. Under that the Director of the Defense Communications Agency was named the manager of the NCS.

This National Communications System, so-called, included most of the permanent long-distance, long-haul communications systems the Federal Government owned. Its purpose was to pull all these systems into one common management framework so that precisely the kind of efficiencies and improvemetns and effectiveness I have been talking about could be brought into being.

Mr. Robison. But it is a system we are talking about

now, I guess, rather than an office or an agency, with bodies on board; is that right?

Mr. Whitehead. It is a loose amalgam of systems run by the individual departments. It is not a physically integrated system, it is not even a system integrated in terms of its actual management personnel.

Mr. Robison. We appropriate no money therefore directly for its operation?

Mr. Whitehead. Not to my knowledge.

Mr. Robison. Somebody else seems to be in the field, the Office of Telecommunications of the Department of Commerce. Is there one there, too?

Mr. Whitehead. Yes, sir.

Mr. Robison. Is that still in existence?

Mr. Whitehead. That was just recently established.

Mr. Robison. Just recently established? What is the relationship between it and you?

Mr. Whitehead. There are two. In this reorganization that set up my office, the Secretary of Commerce was directed to provide broad technical support to my office. In assessing how the Department of Commerce was going to provide that support, the Secretary reviewed all of the existing activities going on within the Department in communications and elected to set up an Office of Telecommunications.

That combined some facilities and some activities already going on in the Department under the Secretary"s charter, and it also provided an organization and a vehicle within which they could provide the support to us which they were directed to do. So it is a combination of policy support staff for the OTP and some telecommunications research laboratories that were already existing within the Department of Commerce.

Mr. Robison. You would not want to hazard a

prediction as to how things will work out here as your office, which is supposed to be a permanent agency, goes along?

Mr. Whitehead. Predictions of what sort?

Mr. Robison. Well, whether there will continue to be an Office of Telecommunications in the Department of Commerce? Is it too early to say if we need that separate body?

Mr. Whitehead. That is a question that the Secretary is looking at specifically.

Mr. Robison. The Secretary of the Department of Commerce?

Mr. Whitehead. That is right.

Mr. Robison. What would you most compare your operation with? Rather, what would you compare it to within the Federal Government?

It seems to me it is neither fish nor fowl in some ways.

I think there is a need for somesting like this, but it is not a regulatory agency, it is not a department, it is not like the FPC or theAEC or a whole lot of other executive agencies of one kind or another I can think of.

Is yoûrs sort of a new device?

Mr. Whitehead. I think it is. In setting it up, we looked, of course, for appropriate anàlogies. We really found none. The activities we have in terms of overseeing the communications activity of the government departments, in that regard we are something akin to what the Office of Management and Budget might do, although we get into that in a much more intensive way because of our spectrum assignment properties.

On the other hand, when you are dealing with national communications policy matters, that is something typically done in the Executive Branch through a Cabinet-

level department. In fact, a number of people suggested there ought to be a Department of Communications. We felt that that was premature. We felt that while the Executive Branch needed this capability to focus on communications, that it did not make sense to establish a large bureaucracy just because you wanted to establish an agency.

So, quite frankly, I think it is a somewhat new type of organization that just seemed to be the best for the problems we saw the country facing.

Mr. Robison. Now you mention OMB. Let's think about the Domestic Council for just a second, which is sort of a policy-making arm of long-range value for the President. How do you fit under their umbrella if you do at all, or is yours a separate umbrella?

Mr. Whitehead. Ours is a separate umbrella. In that regard, we should be considered like another agency of the Executive Office or of the Executive Branch generally.

Of course the long-range policy-planning responsibility is one of ours; we also have some very real day-to-day management responsibilities.

Mr. Robison. With the Domestic Council people?

Mr. Whitehead. No, I am talking about the government generally. The Domestic Council was established to give the President a vehicle for formulating his program, his legislative program specifically. The purpose of that group is to coordinate the preparation of the Administration's programs, so that if the President's program were to include some major communications policy proposal, we would work within the Domestic Council framework in making that a part of the President's over-all program.

The responsibility for that would be entirely our own and not the Doméstic Council's responsibility.

Mr. Robison. Thank you, Mr. Chairman. I have no

more questions.

Mr. Steed. Mr.Stokes?

Mr. Stokes. Thank you, Mr. Chairman.

Mr. Whitehead, does our domestic telegraphic system fall within the category of your communications system or network?

Mr. Whitehead. Yes, sir.

Mr. Stokes. Have you as yet had an opportunity to undertake a study of it and its present relevancy to the total communications picture in the country?

Mr. Whitehead. No, sir, not in any formal way. We have of course talked to a number of people about it.

Mr. Stokes. This will be one of the areas in which you will undertake some study?

Mr. Whitehead. We do not have any major study planned at this time.

Mr. Steed. Will the gentleman yield?

Mr. Stokes. Certainly.

Mr. Steed. Right on that subject, you know the Post Office Department has been carrying on some experimentations. In your study, would the use of the telegraph system for that sort of thing also come within your purview?

Mr. Whitehead. Yes, sir, we are following that development quite closely. We are very interested in that.

As it gets to be more of an operational system than an experiment, then we would be working with both the Post Office Department and the telegraph people to find out what sort of policies that would fall in to. That is part commercial and part government, and it is not clear how it would fit existing regulatory policies.

There is an area where I think we would become actively involved.

Mr. Stokes. To what extent will your agency be concerning itself with aiding and assisting local communities

with respect to their communication problems as they relate to police department communication problems, or generally those of the community?

Mr. Whitehead. We plan to become very involved in that. It is specifically an art of our charter to provide assistance to state and local governments. We think it is a very important part.

A number of government agencies, us included, get requests constantly from state officials, from local officials, as to what kind of assistance the government can provide them. The government provides a number of grant-in-aid programs that include money for communications to these people, but again, here is another case of no one ~~has stopped~~ stopping to look at how ~~do~~ the communications parts of all these varied programs fit together, and ~~are~~ if we are really providing the kind of assistance to these people in the communications area specifically that they need?

We have included a study of some $50,000 in this budget estimate to specifically address those questions: What are the biggest problems of state and local government authorities in the communications area and how can the government marshall its resources to be most effective in helping them?

Mr. Stokes. So then eventually, out of this should come some form of policy recommendations, perhaps, to Congress in this area?

Mr. Whitehead. Yes.

Mr. Stokes. I was particularly struck by the section of your formal presentation where you make reference to protection of private rights in the computer culture. For reasons I can very easily envision, with the growth of the communications media in this area, certainly will come some violations of perhaps First Amendment rights, 14th Amendment rights. I suppose this is the perspective from

which you have undertaken some study in this area, is that it?

Mr. Whitehead. We start with that perspective, although it is an important part of our approach that we also look at the technology and economics of these things. We think it is important in developing a policy to see what is possible to do, technologically, what kind of things are feasible economically, and then say which of those things, within your general objective, as you speak of the First and 14th Amendments, which of those things are technically and economically feasible would you want to do to further those objectives the best?

We look at it from both perspectives and try to pull them together.

Mr. Stokes. You seem to recognize in your presentation that with the compilation of this kind of computer data, both in governmental sector and in the private sector

of the country that along with it can come certain violations of these private rights?

Mr. Whitehead. Yes, sir.

Mr. Stokes. I think, as the Chairman was saying in a different context, here is an area where you really should look at this thing in advance before these systems get too widespread and sort out how you want them to develop in the policy interests of the country.

Mr. Stokes. The last area of concern I have is one which I am sure you must have given a great deal of attention to. It would seem to me that in some of these areas there is a very serious question as to how far the government can go, legally, and that of course there is some feeling in the country the government has gone too far in areas of this kind.

I can readily envision a great deal of litigation emanating from certain of these areas. Is that a reasonable

assumption?

Mr. Whitehead. Would you clarify which areas you have in mind? I am not quite sure I understand.

Mr. Stokes. Particularly, I think you recognize, with reference to international communications here, that there is a very serious problem as to who has the rights, and particularly with reference to the question of monopolies, et cetera; it would seem to me that those are the kinds of areas in which you are probably going to encounter a great deal of litigation.

Mr. Whitehead. I think you are certainly right. You see a lot of litigation.

One of the things we are hopeful of is that by addressing these things from a policy standpoint, and, where appropriate, bringing them to the attention of the Congress, that you can set out some clear definitive and fair and objective policies that will reduce rather

considerably the amount of litigation.

Litigation tends to arise where there is great uncertainty as to who has what rights and what are the policies.

Mr. Stokes. Thank you very much. You have had a very enlightenting kind of testimony here today. It has certainly been appreciated by me.

Mr. Robison. Mr. Chairman, before you get ready to close, Mr. Riegle left some questions that he would like to submit to Mr. Whitehead and have you provide the answers.

Mr. Steed. Yes, provide those answers when you correct the record.

Mr. Whitehead. For the record, yes, sir.

Mr. Steed. You outlined some rather titanic jobs that you want to take on and responsibilities that you feel you are faced with. You have given the committee

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Re answers to Mr. Riegle's questions follow:

Re: 1. How will your own role in the telecommunication industry differ from the FCC and will not two offices working in the same area create a certain amount of ambiguity as to the Administration's communication policy?

Ackerhead: The question of our relationship with the FCC is frequently raised. As in any case where two organizations are working within the same field, I suppose there is some possibility of overlap, but basically, our functions are quite different. The FCC does not speak for the Administration, but is technically an arm of Congress. It is primarily concerned with the regulation of the communications industry pursuant to the general policies and principles prescribed by the Congress. Although it inevitably must take policy matters into account in its regulatory activities, policy implementation, rather than policy making, is its basic function.

My Office, on the other hand, is not concerned with the details of regulating the communications industry. Rather than contributing new ambiguities concerning the Administration's position in communications matters, it eliminates the great degree of ambiguity which existed when there was no primary spokesman for the Administration.

I may add, while we are on this general topic, that the creation of OTP was strongly endorsed by the FCC. Although I expect we may disagree on specific matters now and again, we have been working -- and will continue to work -- in a spirit of cooperation and harmony.

Re: 2. It is my understanding that the number one problem in the telecommunications industry today is the policy that will govern the growth of CATV. When can we expect some clarification on this area?

Ackerhead: As my prepared statement indicates, I share your estimate of the importance of cable television to the country. It is, unfortunately, one of the most complex areas in addition to being one of the most important.

you are aware, the FCC is expected to make a revision of its current CATV regulations in the near future. I understand that Congress intends to hold hearings on cable this summer as well.

We are actively studying the matter, and ultimately -- as I indicated -- we expect to propose new policies for the long-run. I am not sure when that will be.

Q: How do you see public broadcasting being financed? Do you expect them to continue to come to the Hill for their annual appropriation or do you expect that a more permanent arrangement will be found?

A: As the President indicated in his budget last January, we will be submitting legislation for improved financing of the Corporation for Public Broadcasting this year. The drafting of the bill is now in its final stages, and I expect it to be referred to the Congress by July. It will be long-term financing.

Q: As you know, there has been some talk of suspending the equal time rule prior to the 1972 elections. Will you be involved in the decision to suspend this rule or temporarily lifting it as they did for the Kennedy-Nixon debate of 1960?

A: Suspension or repeal would require action by the Congress. We would expect to make our views known on the policy implications of a repeal if that becomes a serious issue. The Administration feels that this provision should be repealed or retained equally for all Federal elective offices and not selectively repealed for Presidential office only.

Q: It's been suggested that we need a Laboratory of Urban Communications to experiment with citizen communication in the inner city. Would you care to comment on this concept?

A: I think there is no doubt that there is a need for some experimentation with the new technologies available for mass communication within metropolitan areas. Private investment in such new technologies would certainly be accelerated by some demonstration of their utility and of the existing demand

them. Furthermore, we find surprisingly little useful thinking about how people actually do communicate or how new ways of communicating might be beneficial in a social or political sense.

Q: The government has been and will probably continue to be heavily dependent on the radio networks for the broadcasting of national defense alerts. Is there any chance that the one-to-a-market rule could impair this capability by forcing owners out of business?

Schmidt: There is no doubt that a healthy and reliable radio broadcast system is essential to our country -- not merely for defense purposes, but also as a medium on which millions of citizens rely as a principal source of news and entertainment. I do not believe that the one-to-a-market rule alone will drive radio stations into insolvency. The figures show that radio remains a profitable business enterprise, whether or not it is joined with the operation of a television station. So, in answer to your question, I will state that I do not believe the one-to-a-market rule alone would have the effect you suggest. Other considerations do, however, raise questions about the net desirability of the rule.

Q: I realize that it's a highly controversial subject but wouldn't the wiring of television be a partial solution to the frequency squeeze? I have police and firemen in my district today who can't get a license for their mobile units because of this problem.

Schmidt: There is no doubt that one of the major benefits that would be achieved by use of wire communications is the freeing of spectrum for use by other services -- and most notably those services which cannot practically be wired, such as mobile services. Actually, if there were some market device whereby portions of radio frequency spectrum could be auctioned off to those who wish to use it, we might well find that the bid price for some portions now used by broadcast services would be so high that those now using them would find it cheaper to go to wire.

You have indicated that you are interested in a thoughtful public debate on telecommunication policy. How do you propose getting such a debate underway?

Michael: Since undertaking the duties of my job, I have made a serious effort to undertake speaking engagements in forums where I hope some provocative ideas might take root. These have included, for example, the Alfred I. DuPont-Columbia University awards in broadcast journalism and the Howard University workshop on CATV for minority municipal officials. I have encouraged my staff to be just as eager to take ideas and problems outside the Office and into the public arena.

I have also tried to convey to the private sector the idea that our doors are always open for whatever ideas they might wish to contribute. Because we have no direct power over the grant or denial of their licenses, I am hopeful that much useful thought which will, as a practical matter, not be discussed frankly with the FCC will be available to me and my staff, and through us can be spread more widely and brought more directly into the policy process.

Finally, as the Office begins to make policy statements on more issues and to suggest legislation, public attention will be directed to the more understandable policy issues rather than to the technical and regulatory details.

an outline of how you plan to approach these and will try to cope with them.

Assuming that at some point down the road you are on top of all these matters, you have finished all these studies, you have made your recommendations and policies have been formulated therefrom, would you visualize your agency as one that would run its course or are you going to have an ongoing need for such service as this to the President and the policy-makers?

Mr. Whitehead. We think for the foreseeable future there is going to be a continuing need. In an area as sensitive as this is, there are always going to be policy problems. The rate of innovation and growth, as I said, just seems to continue out in the future as far as we can see. So I think we are likely to be a permanent part of the scene for a while.

Mr. Steed. You have made a very impressive record on the great growth in this technology and practical application of it, both at the government level and in the private sector. Obviously this adds up to an enormous economic interest and impact.

As you develop policies affecting these things, obviously some of them may have far-reaching consequences in an economic sense. Are you going to be able to give, one, the people who produce electronic equipment; two, those who operate communications facilities for profit and commercial benefit -- in other words, all those concerned with and affected by it financially and otherwise, an opportunity to have a hearing with you before you promulgate policies that might affect their business?

Mr. Whitehead. Yes, sir, absolutely.

Mr. Steed. Will you do this both from the trade associationapproach as well as the individual owner

approach?

Mr. Whitehead. Yes, sir.

I think I mentioned that the concept of this office is really based on the leverage we have in tapping the expertise and the talents and the resources of many other agencies and industry.

We feel very strongly that to develop policies in this area we need the assistance and the advice of a lot of people beyond ourselves. That is one way we, I think, are able to address this range of problems with such a small staff. It is another reason that we make it a point to get out and talk with people in the industry.

I made it a point to talk with people in, for instance, small rural telephone companies, ~~I have visited the people --- president of~~ AT&T in New York, ~~with~~ network people, trade associations, state and local officials. I have visited with them. We just have to stay in

contact with these people and know their thinking if we are going to be effective.

Mr. Steed. Since the American people have seen fit to encourage and support this very rapidly-growing genera l electronic industry in communications, and since it lends itself to the advertising of merchandise, services, and it also entertains, it informs, serves many purposes that people are interested in, it raises the question of who can own and operate various facets of it for profit, how much of any one given area can one owner control?

Will you get into whether I could own two television stations on two different channels in the same community? Or could I also own a television station if I own a radio station? If I own both of those, could I also own a newspaper?

Are these problems you are going to deal with and do you expect along the line to develop recommendations

regarding policies as to what should be done with it?

Mr. Whitehead. Yes, sir. We are very much concerned. We talked with the Antitrust Division of Justice about it, we have talked with the FCC about that. We are very concerned.

Mr. Steed. You get into this problem in all industries, something that affects all the independent television station owners in the country, for instance. Once you get into it, you will find, I think, that the same condition exists there, that the big guys will think about it one way and the little guys will think about it in another way.

If you adopt policies that put the big guys into upper control, it may create problems that the little guy cannot stand. So you in effect put him out of business.

Are you going to be able to maintain a broad enough spectrum of contact to understand these things so that

we will not create any new problems with solving other problems, that sort of thing?

Mr. Whitehead. We are going to maintain the broad enough contact to be aware of those problems. I hope we will be successful in avoiding them, but that requires a lot of wisdom and judgment.

Mr. Steed. I think you have a bear by the tail, myself, before you get all your problems solved. It is not going to be made any easier by the fact that it still grows and expands itself all the time, is it?

Mr. Whitehead. That is right.

Mr. Steed. I do not think that anybody yet has any notion of the impact that this has made on the young mind.

Do you agree that probably all that answer will not be available until a whole generation has grown up which has had total exposure?

Mr. Whitehead. I think that is right and the answer may not be available even then because it is hard to see what kind of communications advances are just around the corner that may bring a new type of influence to bear on these young people. So it is going to be a problem that I think is going to be with us for a long time, one that is going to require a lot of thought to try to sort out.

Mr. Steed. This may not be of any concern to your work but you note a liberalizing of television. They show a scene, use a phrase, or we will have a thing on television now that would have been regarded as very risqué just a few years ago. This could become quite distasteful in some homes and might be considered nothing at all in others.

How would you ever cope with a thing of that sort? We have had the problem on pornographic literature with the court's rulings that there is almost no restriction on it

whatsoever. Every once in a while there will be a judge who will have sense enough to admit that children should not be exposed to it, but he does not say how you are going to let the adults have it and not have the children be exposed to it.

It goes beyond the photograph or the printed word, it can enter into both radio and television and apparently has to some degree.

Would your kind of policy-making involve this phase of it?

Mr. Whitehead. Yes. We would be involved in it insofar as the government chose to try to do something about the obscenity and pornography on television. Of course, as you have just indicated, it is one of the most sensitive areas that we have in our society and it is very sensitive because it is very hard to keep children away from the

television screen. You may be able to keep them away from printed matter, but how do you keep them away from the television screen?

Mr. Steed. I have always thought that perhaps the best control if it was the fact that when you grant licenses, they have a term to them, and you have a quasi-judicial, quasi-independent Federal Communications Commission that passes on the renewals, and when the charter is issued, the license is issued, it provides that they operate with fairness and good taste. Then you just leave it up to the operator to hope that he is within their concept of fairness and good taste, and maybe his fear of losing his license, if he got too far out, would be the best deterrent of all.

I do not know how you can maintain these rights we have, especially under the First and 14th Amendments, if you

get too much into the content-regulation field. I do not know of any better way to keep it under some kind of discretionary control than the fact that licenses should all have a life term to them where the renewal deterrent is always present.

Would you agree with that?

Mr. Whitehead. I think that is certainly one way. I think it has been proven an effective way. There may be other ways that we might look at it.

—— For instance, the Congress might wish to consider some kind of legislation addressing specifically obscenity on television.

Mr. Steed. Just to sum up, with all the very wide field you have covered, what do you consider, at the moment, the most urgent areas where you need to get some results?

Mr. Robison. His budget.

Mr. Stokes. In toto.

Mr. Whitehead. Aside from that --

Mr. Steed. What, if any, are the critical problems we are immediately confronted with that you think should be dealt with?

Mr. Whitehead. There are so many that I would be hard-pressed to name one. If I were to name one that I thought was probably the most important in terms of its potential impact on the country, I would say it is probably ~~the~~ cable television, ~~area~~, because it ultimately ~~goes~~ gets in to the question of how we distribute information. It is public debate in this country, that is, I think, just terribly significant ultimately.

There are others I think are more time-sensitive than that one, but I think I would have to put that one first.

Mr. Steed. Would this international problem you touched on impress you as being another critical type in the field in which action would be desirable just as soon as possible?

Mr. Whitehead. Yes, sir, I think it would be. We have hopes that we can provide some recommendations on that front later this year.

Mr. Stokes. Will the Chairman yield to me for a question?

What about the category in which you spoke of the national defense situation with reference to communications, Defense Department and the other department you mentioned? Where would you place those in the order of priorities?

Mr. Whitehead. Those are very important, of course. I think I would put those in the category of things that you have to keep constantly in mind, rather than something

that presents ~~an~~ a specific which needs issue ~~where you have to come to some~~ resolution ~~of a specific issue~~ because it is very important right at this point in time.

The oversight of expenditures in this area, for instance, offers the potential to free up I think rather significant amounts of money for other kinds of expenditures. That is of course a very important thing.

Mr. Steed. You are differentiating in that way then as against what you would call a landmark movement or an ongoing problem that mostly is administrative?

Mr. Whitehead. Yes, sir.

Mr. Steed. Any further questions?

Mr. Robison. No, Mr. Chairman.

Mr. Stokes. Nothing further, Mr. Chairman.

Mr. Steed. Well, gentlemen, it is a very long day, not a very comfortable room, but you have been very patient.

You gave a good presentation. The committee appreciates your presentation and your cooperation. Thank you for helping us.

As you can tell by the questions, we are being introduced to an entirely new subject here. Your patience in helping us try to get a general grasp of your work and your problems and your needs has been very helpful.

Mr. Whitehead. Thank you very much, Mr. Chairman.

If there is anything else we can do to provide assistance, we would be pleased to do so.

5:06