MEMORANDUM

THE WHITE HOUSE

WASHINGTON

September 17, 1969

FOR: Tom Whitehead

Herewith, a copy of the memorandum from Director O'Connell for your information. We should take this into consideration when we reach our final conclusion.

Peter M. Flanigan

September 17, 1969

Dear Mr. O'Connell:

Many thanks for the excellent memorandum to the President regarding telecommunications management. I have submitted the memorandum for his consideration. You can be assured that the President will give your memorandum careful consideration at such time as any additional recommendations are made to him. Through this office he is cognizant of the fact that, while there has been over the past year a great deal of discussion of the problem of telecommunications, your office has most effectively carried out its important responsibility.

Sincerely,

Peter M. Flanigan
Assistant to the
President

Mr. J. D. O'Connell
Director
Office of Telecommunications Management
Office of Emergency Preparedness
Washington, D. C. 20504

cc: General Lincoln
Tom Whitehead

PMF:ltd

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

OFFICE OF THE DIRECTOR

September 11, 1969

MEMORANDUM FOR THE PRESIDENT

Subject: Telecommunications Management

The Presidency and the Congress have long recognized the importance of telecommunications as a national resource. (The Communications Act of 1934, the Communications Satellite Act of 1962, and numerous executive orders and Presidential memoranda implement this concern.) Telecommunications pervades our society in peace; it is the nerve system of all national security and emergency activities.

Within the past year, four studies have addressed reorganization of telecommunications within the Federal Government. These are:

1. The Bureau of the Budget's "Study of Federal Communications Organization" of December 1968.

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4. The recommendation of Secretary Stans by memorandum to you of February 3, 1969, that the telecommunications management be transferred to the Department of Commerce.

Each of these studies has arrived at varying conclusions and recommendations, thereby creating confusion and delaying vital decisions in the management of this resource. Consequently, I have given this matter careful study and recommend your early endorsement of the following course of action:

a. That telecommunications management within the Executive Branch be continued within the Executive Office of the President, preferably as an independent office or alternatively remain as part of the Office of Emergency Preparedness.

b. That further efforts toward reorganization be terminated so that an environment is created wherein the Office of Telecommunications Management and the Federal Communications Commission can operate effectively.

c. That recognition and support be given for reasonable increases in manpower and budget for the Federal Communications Commission and the Office of Telecommunications Management, commensurate with the escalating requirements for national telecommunications policy and planning.

d. That current applicable directives be revised as necessary to define with greater clarity the responsibilities of the Director of Telecommunications Management.

These recommendations are supported by:

a. Numerous studies over recent years as to how telecommunications might be better organized within the United States. The majority of these studies have concluded that the present structure is conceptually sound, but that clearer definitions of authority and responsibility and adequate budget and personnel support are required.

b. The present concept for dealing with national telecommunication matters stems from the Communications Act of 1934, as amended, which provides essentially that non-government use of radio shall be regulated by the Federal Communications Commission and government use of radio shall be as directed by the President. (The President's responsibilities within the Executive Branch have been assigned by Executive Orders 10995 and 11191, as well as pertinent Presidential memoranda.)

c. The needs of the Presidency for extensive telecommunications support of his national security responsibilities which can only be served effectively by retaining and strengthening the Executive Office organizational structure in this area. This is a matter of such importance that I recommend a personal conversation between you and the Secretary of Defense on the subject.

d. The fact that, notwithstanding certain claims to the contrary, the present organizational structure for the guidance of telecommunications activities within the United States has given the nation the largest and finest telecommunications facilities and services in the world

at the lowest cost to the user, including the Federal Government. As far as use of the radio spectrum by government departments and agencies is concerned, we have taken action to increase the efficiency of spectrum use by the Federal Government. Also, action has been initiated looking toward the development of a truly viable National Communications System, responsive to the needs of the Federal Government during normal times as well as in a national emergency, and at the lowest cost consistent with good service. Further, the office has influenced significantly the development of telecommunications in support of urban renewal, law enforcement, education, health, welfare, research and conservation.

The establishment of a Director of Telecommunications Management within the Executive Office of the President in 1962 was a progressive move. Inadequate recognition and resources, however, have impaired the full development and implementation of policies which would enable telecommunications to be even more responsive to national needs.

My experience indicates that today an even closer identification with and recognition by the Presidency would enable this office to more effectively assure adequate communications through full development and implementation of needed policies. Additionally, this would give added emphasis to the importance of good telecommunications to our modern society, the United States Government and the free world.

In view of the foregoing, I am convinced that the relocation of the Director of Telecommunications Management outside of the Executive Office of the President would be a retrogressive step.

J. D. O'Connell

cc: Mr. Peter M. Flanigan
General George A. Lincoln

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J. D. O'Connell

cc: Mr. Peter M. Flanigan
General George A. Lincoln

Please return to Eva

DFM

THE WHITE HOUSE

WASHINGTON

September 17, 1969

Dear General O'Connell:

I accept with regret your resignation, effective September 30, 1969, as Special Assistant to the President for Telecommunications and Assistant Director of the Office of Emergency Preparedness.

Telecommunications Management has grown to become one of the most important functions of Government. The accomplishment and performance we have all come to expect is due in large part to the competence of people like yourself who have worked so hard to achieve that performance. Your willingness, after having retired from a career of thirty-seven years as an Officer of the United States Army, to return to the Federal Service for over five years to work in your current demanding positions is appreciated by all.

You have had a most distinguished career of nearly a half century of contribution to the development of your country's communications capabilities and to our national security. On behalf of all, I thank you for that service and wish you the very best happiness in the retirement you have earned so well.

Sincerely,

Richard Nixon

General James D. O'Connell
Director, Office of
Telecommunications Management
Office of Emergency Preparedness
Washington, D. C.

9/19/69

The original of this was delivered to O'Connell about 9:20 this AM.

WH Press Office will put to making an announcement — They say that OEP will be doing so.

Tom Jones

SEP 17 1969

Dear General O'Connell:

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Sincerely,

RICHARD NIXON

General James D. O'Connell
Director, Office of
Telecommunications Management
Office of Emergency Preparedness
Washington, D. C.

cc: Mr. Flanigan
Mr. Whitehead
Central Files

CTWhitehead:ed

9/18/69

Amelia Leukhart in Mr. Flemming's office called to say they were looking for General O'Connell's resignation letter. Told her that we didn't have it -- did have a copy of it, which had been sent to Mr. Flanigan on July 11 -- and that we had sent the letter to General O'Connell (for President's signature) accepting his resignation on 9/16 and that we had had word from Flanigan's office 9/17 that he had O.K.'d and sent it on.

2781

9/16/69
sent to
Flanigan

9/17/69
Flanigan's
office called to
say he
OK'd it
sent it
forward

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Director, Office of
Telecommunications Management
Office of Emergency Preparedness
Washington, D. C.

cc: Mr. Flanigan
Mr. Whitehead
Central Files

CTWhitehead:ed

MEMORANDUM

THE WHITE HOUSE

WASHINGTON

Eva:

Go with Gen.
O'Connell retirement
letter – resign effective
Sept. 30 ~~Oct. 1~~

Tom:

O'Connell actually has three titles --

Special Assistant to the President
for Telecommunications

Director, Office of Telecommunications
Management

Assistant Director, Office of
Emergency Preparedne ss

Without thinking that we had not mentioned
it in the letter above, I used the title
of Director, OTM, in the address ---
and we have not listed that in the 1st paragraph.

Do you want me to rewrite?

Ask Col. Segal
proper address title.

THE WHITE HOUSE

WASHINGTON

July 23, 1969

MEMORANDUM FOR PETER FLANIGAN

I think we should make some arrangements for acknowledging General O'Connell's contribution on the occasion of his impending retirement. General Lincoln expects to award him the Distinguished Service Award of the OEP, and I think the attached letter from the President would be appropriate. As you know, the office has not been terribly effective, but General O'Connell is an extremely fine person and has gone out of his way to play ball with us and to try to be helpful.

| yes
| OK

General Lincoln also suggests some kind of short ceremony at which the award would be presented and the letter from the President read. Would you like to participate in this?

| yes

Clay T. Whitehead
Staff Assistant

Attachment

Good idea

Thursday 9/11/69

2:40 Col. Segal called. Said there were a couple of pieces of factual information that he wanted to give you.

Gen. O'Connell reaches his 70th birthday on September 21st and must therefore retire by the 1st of the month following -- which would be October 1st.

General Lincoln would like to consult with Gen. O'Connell prior to recommending who would be named Acting DTM if they get to that -- if that becomes an operative problem.

General Lincoln will be in touch with you on the second point.

Hopkins 2594

Call and say we are
waiting for
O'Connell's replace-
ment to be named.

Wednesday 9/3/69

4:15 Hazel in Mr. Flanigan's office had a call from Mr. Hopkins re a draft letter for the President's signature re Gen. O'Connell's retirement.

Told her that we had sent a memo over to Mr. Flanigan and that we were holding it -- at her request I called Mr. Hopkins' office and advised that I would check with you tomorrow and be back in touch.

holding for replacement

When is O'Connell leaving?

Anything we should be doing on this?

Lolling

Do you want
to call
Gen. Lincoln?

HOLD

Do you want
the letter
prepared first?

Personal

July 23, 1969

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cc: Mr. Whitehead
Central Files

CTWhitehead:ed

DRAFT

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You have had a most distinguished career of nearly a half century of contribution to the development of your country's communications capabilities and to our national security. On behalf

of all, I thank you for that service and wish you the very best happiness in the retirement you have earned so well.

Sincerely,

The President

July 10, 1969

MEMORANDUM FOR HONORABLE PETER M. FLANIGAN
ASSISTANT TO THE PRESIDENT

SUBJECT: General O'Connell's Resignation

I attach General O'Connell's resignation together with a draft of an acceptance by the President.

General O'Connell prefers to retire on July 31. However, at my request he has written his resignation so that it is open ended from the standpoint of time.

General O'Connell is retiring again, this time in the Civil Service. He did retire in 1959, after 37 years in the Army, as (I understand) the only officer of the Signal Corps ever to attain the rank of Lieutenant General. After five years as a civil consultant, he was persuaded to return, at some personal sacrifice, to the Federal service. As we have discussed, he has had a difficult and highly responsible task. Considering the difficulties, I believe he has done well and deserves a commendation.

During my six months in office, General O'Connell has impressed me and has given me and the remainder of OEP great support and cooperation.

I do not know what the practices are for recognition in these circumstances:

a. Since General O'Connell does not really work for me in a significant part of his responsibilities -- he is a Special Assistant to the President -- the President may wish to see him for a few minutes. If not, I suggest that you see him to communicate the President's thanks; and

cc: Mr. Thomas Whitehead
The White House

b. There is a matter of a possible press release which might be phrased to underline the importance which the Administration gives to telecommunications. There has been considerable mention of "upgrading" and of "reorganizing" Telecommunications. A release can be made from my own Information Office. A White House release would give more weight.

SIGNED

G. A. Lincoln
Director

Attachments

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

OFFICE OF THE DIRECTOR

June 30, 1969

The President
The White House
Washington, D. C.

Dear Mr. President:

In view of the fact that I am approaching mandatory retirement age and in view of the many ongoing, important telecommunication studies and issues with which a new incumbent should become involved at the earliest possible time, I wish to submit my resignation as Special Assistant to the President for Telecommunications and as Assistant Director of the Office of Emergency Preparedness

For a number of personal reasons it has been my hope that my resignation could be effective on July 31, 1969. However, if it is considered that pending official matters would cause this date of separation to be premature, I would not wish to create any problems which a few weeks' deferment might avoid.

I feel a deep sense of appreciation for the opportunity and the honor which I have had of serving in your Administration.

Respectfully yours,

James D. O'Connell

James D. O'Connell
Lieutenant General, USA (Ret.)

DRAFT/7/9/69

Dear General O'Connell:

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Assistant Director, Office of Emergency
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Special Assistant to the President
1800 G Street, N. W., Room 749
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J. D. O'Connell

cc: Mr. Peter M. Flanigan
General George A. Lincoln

Communications

Sept. 15, 1969

To: Karen Harper

From: Eva Daughtrey

These are the letters in further reply to the August 11 letter to the President from Sen. Gravel, Sen. Stevens, and Cong. Pollock (your interim reply of 8/19).

Sorry it took so long but Mr. Whitehead has been "up to his ears" in work; couldn't get around to looking them over until this morning. Sorry.

THE WHITE HOUSE

WASHINGTON

September 12, 1969

MEMORANDUM FOR

Dr. Myron Tribus
Assistant Secretary of Commerce
for Science and Technology

Subject: Analytic Support for
Telecommunication Planning

As you know, I am much concerned with the problems of effectively coupling the wealth of technical and economic research and skills available in both Government and industry to telecommunications policy-making and systems planning processes. I am increasingly convinced that present arrangements (including, for example, my own commuting schedule) are inadequate to the near-term task, and that reorganization (of whatever form) while needed, offers little hope for immediate action. Finally, I also doubt that the simple detail of additional bodies from Boulder to Washington -- and the emerging competition for responsibility between NBS and ESSA -- will provide the comprehensive analytic support needed.

With these thoughts in mind, I recently suggested to R. C. Kirby (and discussed briefly with C. T. Whitehead) the concept of a small ad hoc Task Group, reporting directly to the Office of Telecommunications and comprised of selected individuals from ITS, NBS, other Commerce agencies, or other Departments to provide the required mix of skills. The function of this group would be to provide the immediate analytic support -- on technical, operational, economic, and general issues -- needed in the policy and planning processes. It would have no long-range mission, charter, nor research program, nor would it be staffed or organized on any permanent basis; it would only serve as a simple interim arrangement to meet the immediate need.

As such, and being fully independent of both NBS and ESSA, it should pose no special concern to either agency while still drawing effectively on the skills of both.

As I have envisioned it, the nucleus of this group would be in Boulder, where it could interact effectively with the technical programs and staff of both the NBS and ITS radio groups. It would, however, certainly include at least one member from TAD in Gaithersburg, and perhaps Richard Gabel from Transportation. Furthermore, each member of the Boulder contingent would be expected to make frequent trips to Washington -- perhaps on rotation -- so as to (a) develop and maintain a broad and continuing group awareness of current issues, and (b) provide the on-call support needed by the Office of Telecommunications and yourself.

Obviously, the success of such a group would be critically dependent on the breadth and competence of the individuals selected, the free flow of information to and within the group, and the confidence it could win. This requires, in my opinion, the full-time detail of about six persons for a 6-12 month period. My proposal to Dick Kirby was that my responsibilities as Group Chief be delegated to another person in ITS, in order that I might pull together such a group building on the experience gained in the past few years in D. C.

Some examples of specific tasks the group might lead would be:

1) the Alaskan communications study;

2) planning and programming for NECAF;

3) technical, economic, and service implications of alternative domestic satellite policies;

4) ditto for cable television development;

5) ditto for computer/communications utility development;

6) monitoring of the planning, development and operation of pilot domestic satellite systems.

Should this concept have any appeal, the Alaskan study is probably the best opportunity for getting it launched in the near future. In any event, I have also informed Dick Kirby of my great interest in developing the Alaskan study effort, if this were agreeable with all concerned. As you may have heard, my planned trip to Geneva for the CCIR meetings has been cancelled (at Tom Whitehead's request) in order that the domestic satellite policy issue can be resolved. This may occupy most of my time until about the second week in October, though I should have time to begin collecting and briefing an Alaskan study team and getting them underway if that were desired.

I would like to discuss this further if you feel the concept has any merit.

Walter Hinchman

EXECUTIVE OFFICE OF THE PRESIDENT
BUREAU OF THE BUDGET
WASHINGTON, D.C. 20503

SEP 12 1969

MEMORANDUM FOR MR. CLAY T. WHITEHEAD

Subject: Federal Communications Organization

Now that we have reviewed comments from the various departments concerning the Bureau's study of last December, I believe we should get together for a review of what action we should take. I regard the study as basically sound, but some of my views do not coincide with the specific recommendations.

Dwight

Dwight A. Ink
Assistant Director for
Executive Management

ASSISTANT SECRETARY OF DEFENSE
WASHINGTON, D. C. 20301

ADMINISTRATION

September 10, 1969

MEMORANDUM FOR Mr. Clay T. Whitehead
Staff Assistant
The White House

You are correct, Tom, I did back off a little bit after I touched base with some of my colleagues.

I do understand that you are talking about not only the current office of OEP but also national communications policy generally.

Bob

Robert F. Froehlke

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

OFFICE OF THE DIRECTOR

September 10, 1969

MEMORANDUM FOR THE DIRECTOR:

In accordance with our current procedure, I am pleased to transmit this report of the significant activities of this office for the period ending September 9, 1969.

J. D. O'Connell

Encl.

September 9, 1969

WEEKLY ACTIVITY REPORT NO. 82

TELECOMMUNICATIONS EMERGENCY PREPAREDNESS

* 1. Industry Liaison

On August 28, the Vice President, Government Operations, American Telephone and Telegraph Company, advised the Director, OEP, that a meeting would be held in Dallas, Texas, during the period September 10 through 12, on communications common-carrier and state government emergency telecommunications requirements and preparedness. The letter also requested that Mr. Charles E. Lathey attend the meeting for participation in a seminar to be conducted on this subject with Bell Telephone Account Managers from about 44 states. General Lincoln approved Mr. Lathey's participation in the meeting and Mr. Lathey departed for Dallas on September 9.

* 2. Hurricane Camille Study

During the past week the OTM member of the OEP Hurricane Camille Study Group made arrangements for information collection from the telephone industry, the National Communications System, and the Federal Communications Commission. The OTM member is working as an integral part of the study group which is headquartered in Room 201, EOBA. A briefing on the planned study program was presented to the Bureau of the Budget by the OEP Study Chairman on September 5.

* 3. Communications Warning Study

On September 8, members of OTM met with a representative of the Institute for Defense Analysis (IDA) for the purpose of arranging for an exchange of information on communications warning studies being conducted both by the DTM and IDA. These studies are directed toward differing objectives. Information on warning developed in each study will be of mutual benefit to each agency.

4. CAMILLE Airlift

On August 21, the OTM, after receiving approval of the Director, OEP, coordinated with the Director for Telecommunications Policy, Department of Defense (Installations and Logistics) for American Telephone and Telegraph Company vehicles, equipment and personnel to be flown into the Gulfport, Mississippi, area to aid in telephone service restoration. This movement was by USAF aircraft and at the

expense of AT&T. The total movement included airlift of 49 trucks and drivers from Pennsylvania Bell, 49 trucks and drivers from Illinois Bell, 24 trucks and drivers from New Jersey Bell, 10 trucks and drivers from Ohio Bell, and eight "cherry pickers" from Indiana Bell. The foregoing equipment was transported during the period August 23-24. On September 9, the Director, OEP, affirmed that a return airlift of the equipment, vehicles, and drivers was approved. OTM made the necessary arrangements for the return airlift which is to be accomplished during the weekends of September 13-14 and September 20-21.

FREQUENCY MANAGEMENT

1. Side Effects of Electromagnetic Radiation

One of the items being followed closely by the DTM in connection with his responsibilities in the management of the radio frequency spectrum has to do with the "side effects" of electromagnetic radiations. On September 3, OTM staff representatives met with Dr. S. Koslov of the RAND Corporation to review this matter in depth and determine the appropriate course of action for future efforts in this area. A positive recommendation will be developed as to experimentation necessary, over and above those currently being undertaken under DOD and HEW auspices, to determine the effects of electromagnetic radiations on human beings, as a first order of priority, and upon electronic systems as a follow-on effort.

2. Development of Mathematical Models for Frequency Management

On September 4, OTM personnel met with members of the Sachs/ Freeman Corporation who are currently engaged in support of the OTM under OEP Contract SE-70-101. The primary purpose of the meeting was to insure that this newly undertaken effort is oriented properly so that substantive results will ensue. After extensive discussion, five milestones were developed for the course of the contract which will result in the production of analytical techniques, with associated data base requirements, so that the management and engineering aspects of the radio frequency work may be effected with increased efficiency. The results of this effort will be major inputs to the National Electromagnetic Compatibility Analysis Facility.

* 3. Panel 1 Meeting

On September 5, a meeting was convened of Advisory Panel 1 to consider the question of U. S. policy on satellite broadcasting. Attendees included representation from OTM, USIA, DOS, DOD, GSA, FCC, FAA, HEW and NASA. The general feeling of participants was that the U. S. should

seek to permit demonstration and development of broadcast satellites on an experimental basis, while working to keep open our options regarding any possible future operational system. A course of action was developed looking toward a long-range policy, taking into account the various foreseen pitfalls -- technical, political and economic.

4. U. S. Delegation Meeting

On September 9, the U. S. delegation, composed of representatives of FCC, DOS, NASA, DOC, DOD and OTM, met to complete planning with respect to U. S. participation in the forthcoming Canadian/UK/US meeting scheduled for London, 9/18-22, as well as the Civil/Military Meeting of the Allied Radio Frequency Agencies of NATO to be held in Athens, Greece, on 9/24-26. The agenda was reviewed, U. S. spokesmen were selected and positions were agreed upon.

5. Interdepartment Radio Advisory Committee Meeting

On September 9, the 973rd meeting of the Interdepartment Radio Advisory Committee (composed of major Government agencies using the radio frequency spectrum) met under the chairmanship of OTM. Items on the agenda included the following:

a. Resolution of difficulties with respect to NASA's proposed use of radio in support of Applications Technology Satellites F&G. A problem had developed between NASA and DOD on this matter.

b. Consideration of additional technical characteristics, particularly with respect to antennas, necessary to "engineer" uses of the radio spectrum.

c. Additional proposals for improving and expanding the applicability of the OTM Manual of Regulations and Procedures for Radio Frequency Management.

d. U. S. preparatory efforts for the World Administrative Radio Conference on Space Telecommunications.

e. Consideration of several proposals from Canada having to do with use of VHF frequencies in the Canadian/U. S. Border area.

* Items considered of special interest to the Director, OEP

Copy for Mr. Whitehead

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

OFFICE OF THE DIRECTOR

September 3, 1969

MEMORANDUM FOR THE DIRECTOR:

In accordance with our current procedure, I am pleased to transmit this report of the significant activities of this office for the period ending September 2, 1969.

for
J. D. O'Connell

Encl.

September 2, 1969

WEEKLY ACTIVITY REPORT NO. 81

TELECOMMUNICATIONS EMERGENCY PREPAREDNESS

* 1. Communications Warning Study

On August 28, the OEP Ad Hoc Working Group on Communications Warning held its first meeting in Room 732 at 2:00 p. m. Representatives from the following agencies were present: OEP(DTM/NRAC/ Government Readiness Office/Field Operations Office); Agriculture Department; Commerce Department; FCC; GSA, Interior Department; National Communications System; OCD(DOD); Transportation Department; and Office of Science and Technology. A memorandum from Committee Chairman Charles E. Lathey was discussed and approved by the ad hoc working group. This memorandum set forth the approach to be taken during the study, listed the elements of information to be supplied by the committee members, a study program schedule, and a list of questions to be answered by the committee in its final report. Ad hoc committee members are now developing their respective reports which will contain the data base needed for analysis.

* 2. Exercise HIGH HEELS

On August 26, OTM and National Communications System representatives held a discussion to work out the details on how the exercise communications inputs will be played in the forthcoming EXERCISE HIGH HEELS.

* 3. NATO Civil Communications Planning Committee

During the past week, OTM representatives coordinated with OEP and State Department representatives on a policy paper providing guidance to all communications users, military or civil. The resulting U. S. paper was forwarded to the Civil Communications Planning Committee so that it could be coordinated with other NATO member nations.

NATIONAL TELECOMMUNICATIONS

* 1. Improvement of International Telecommunications Restoration Planning

OTM staff personnel met on August 29 with Mr. Strassburg, Chief of Common Carrier Bureau, FCC, to solicit FCC support. Mr. Strassburg agreed there are currently several weaknesses in restoration planning. It was decided that the problems required OTM-FCC effort and the two offices would jointly attempt to solve or improve the situation.

The various options available to correct the deficiencies were discussed and a plan of action was agreed upon. Initiating correspondence to FCC was prepared and sent by DTM.

2. Assistance to Common Carrier

The DTM received a request for assistance from the Council Grove Telephone Company, Council Grove, Kansas. They were seeking help in disposing of outdated telephone plants. The requested assistance was provided on August 26.

FREQUENCY MANAGEMENT

1. Economic and Social Values of RF Spectrum

On August 28, OTM staff members met with a representative of the National Academy of Engineering to discuss progress made by the Academy's Committee on Telecommunications toward defining economic and social values of the radio frequency spectrum. This task, undertaken with OEP contractual support, is oriented toward meeting the recommendation of the Academy of Engineering, the Electronic Industries Association and the Institute of Electrical and Electronics Engineers, plus others, that economic and social values should be taken into account to a greater degree in the allocation and assignment of radio frequency resources. As a result of the meeting under report, it was agreed that the NAE representative would meet with the heads of the respective divisions within the Frequency Management Directorate, and receive a briefing as to their activities to obtain a better appreciation of day-to-day functioning in the frequency management area. The Academy has just completed its first year's effort on the OEP contract and expedited progress is necessary if the objective is to be met by the end of the present contractual period (June 1970).

2. Land Mobile Problem

One of the most pressing problems facing the country in the area of radio frequency management has to do with the demands of civilian land mobile radio users (police, fire, small businesses, educational institutions, etc.) for additional radio frequency resources. On August 28, OTM personnel met with AT&T representatives to exchange views with respect to certain aspects of this problem. From an engineering standpoint there is no question that the needs associated with the foreseen proliferation in the use of radio by the "nation on the move" can best be accommodated by a common user radio service, preferably tied to the existing land line structure. There may be objections to this approach, however, on the grounds of monopoly, anti-trust measures, etc.

* 3. National Electromagnetic Compatibility Analysis Facility

On August 28, OTM representatives met with OEP personnel for the purpose of defining an electromagnetic compatibility problem to be used as a "precursor" in obtaining a better understanding as to the parameters involved in solving problems of electromagnetic compatibility. The experience gained by all parties in this undertaking will be beneficial in speaking to and supporting the joint OTM/OEP proposal for a National Electromagnetic Compatibility Analysis Facility. As a result of this meeting, a joint working group was constituted to define more clearly the problem and determine what data are necessary in order that analysis may be effected.

4. ADP Development and Data Flow

A serious problem within the frequency management area of OTM has to do with coping with the ever-increasing information and data flow related to effective management of the radio frequency resource. During the period under report, a three-phased approach has been developed on this subject -- (a) determine what can be done now to improve existing procedures -- this will involve a time/motion type analysis of data flow, workload, function and task performance within the respective divisons of the organization, (b) develop what measure, and in what time frame, must be taken to support the data collection, processing, storage and retrieval requirements of programs coming into being (frequency usage, reliance on the spectrum, planned equipment/investment, and Space system technical/operational characteristics) and finally (c) determine what needs to be done to prepare for and phase into the foreseen establishment of a National Electromagnetic Compatibility Analysis Facility. Development of an overall plan with respect to this undertaking is expected to take sixty to ninety days.

* 5. Military Frequency Planning

On September 2, OTM personnel met with the Joint Frequency Panel of the DOD to discuss matters of mutual interest with respect to national and international frequency management problems. The Joint Frequency Panel consists of membership from the Army, Navy, Air Force, Joint Chiefs of Staff, Defense Communications Agency, and the National Security Agency. Items treated included certain aspects of military planning with respect to the use of radar devices and particular emphasis was placed on preparation for the forthcoming meeting of the Allied Radio Frequency Agency to be held in Athens, Greece, with the 15 member NATO nations in attendance, in the latter part of September.

SATELLITE COMMUNICATIONS

1. Conference on Satellite Communications for Alaska

A representative of OTM attended a two-day conference (August 28-29) in Anchorage, Alaska at the invitation of Senator Ted Stevens. The conference, chaired by Mr. George Sharrock (recently appointed Chairman of the Federal Field Committee for Development Planning in Alaska), served to bring together knowledgeable individuals from Government and industry and Alaskans who are interested in the development of improved telecommunications to and from and within the State. The conference should help Alaskans in their long-range planning and hopefully will inject a greater degree of realism in their expectations concerning the timing of commercially viable satellite communications.

* Items considered of special interest to the Director, OEP

Telecommunications

September 9, 1969

To: Robert Froehlke

From: Tom Whitehead

My impression was that off-the-record you were more flexible on point 2 as to which department got the responsibility -- given the decision to go to an executive department. Also I want to make sure you are clear we are talking about not only the current Office of Emergency Preparedness responsibilities but also a new responsibility for national communications policy generally.

Enclosure

cc: Mr. Whitehead

CTWhitehead:ed

ASSISTANT SECRETARY OF DEFENSE
WASHINGTON, D. C. 20301

September 5, 1969

ADMINISTRATION

MEMORANDUM FOR Mr. Laird

Subject: Communications

Tom Whitehead of the White House Staff called this morning to determine our position relative to the Commerce Department being assigned the responsibilities for national communications policy which are presently assumed by the Office of Emergency Preparedness. He did not want any official position but was just interested in our preliminary thoughts. I told him our position was:

1) We believe that the policy responsibilities should remain as a White House function, and preferably as a separate Office for Telecommunications. We think the office is sufficiently important that it needs that status. In addition, there are a number of axes to be ground and we like the responsibilities to be in the hands of an "honest broker."

2) If the decision were made that one Cabinet member were to be assigned the new responsibilities, we would want to consider the proposal carefully before stating our position as to which Executive Department should assume the function.

3) Tom and I discussed the fact that the Boulder, Colorado operation of the Department of Commerce was being used by them as a basis for assuming these new responsibilities. I told Tom that, based strictly on heresay, I was very unimpressed with the Boulder operation. He indicated he shared my lack of enthusiasm and added that should Commerce get this new assignment it would have to be entirely separate from the Boulder operation.

****

Mr. Clay T. Whitehead

If you or any of the others receiving a copy of this memo disagree with my stated position, let me know. Otherwise, I will assume that I correctly reported the present thinking.

RFF

Robert F. Froehlke

Is this an accurate report, Tom?

Bob: My impression was that off-the-record you were more flexible on point (2) - given the decision -- as to which Department got the responsibility. That decision has not yet been made, but we are getting down to the wire & the President needs all the flexibility we can muster at this stage.

(complete package in Donuset (outside) ~~Telecommunications~~ file

September 5, 1969

Dear Mr. Ross:

Thank you for your letter of September 4th informing me of your new firm and the qualifications of you and the other officers.

However, the nature of our review of communications satellite policy and the short time we have set make it infeasible to utilize outside assistance. I was pleased to learn about your firm and wish you the best success in your new endeavor.

Sincerely,

Clay T. Whitehead
Staff Assistant

Mr. Dan C. Ross
President
Ross Telecommunications Engineering Corporation
1750 Pennsylvania Avenue, N. W.
Washington, D. C. 20006

cc: Mr. Whitehead
Central Files

CTWhitehead:ed

tape

ROSS TELECOMMUNICATIONS ENGINEERING CORPORATION
1750 PENNSYLVANIA AVENUE, N. W.
WASHINGTON, D. C. 20006

DAN C. ROSS
F. RICHARD ZITZMANN

TELEPHONE
202 298-7476
CABLE "ROSSTEC"

4 September 1969

Dr. Clay T. Whitehead
Executive Office of the President
17th and Pennsylvania Avenue, N.W.
Washington, D.C.

Dear Dr. Whitehead:

I have read about your current activities in the telecommunications policy area with considerable interest and wondered if I, or one of my colleagues, might possibly be of some assistance to you in the near future.

We opened this firm on 16 July 1969 and plan to work in the system design field, particularly in those applications involving both communications and computers. All of the principals of this firm have had extensive experience in the satellite communications field as you will see by reference to the enclosed resumes. Mr. Zitzmann joined our staff on 11 August, leaving his position of Director of Systems Analysis at COMSAT. Mr. Sampson is joining us on 8 September 1969; he and I were responsible for most of the work on the "Electromagnetic Interference Study of the BNS System" in connection with the Ford Foundation falling in FCC Docket 16495. While I was still with IBM, I headed a Corporate Task Force which investigated, inter alia, the use of satellite communications as the backbone of the internal communications network of the Corporation.

We feel that our background of experience puts us in a good position to be of service to you and your staff in your current study of domestic satellite communications and other key problems of

telecommunications policy. I would be very pleased to meet with you or your staff at your earliest convenience to discuss any of these problem areas which may be of mutual interest, or to explore further any possible service that we might provide.

Sincerely yours,

Dan C. Ross
President

Enclosures:

"Electromagnetic Interference Study of the BNS System"

Resumes of: Dan C. Ross
F. Richard Zitzmann
Charles E. Sampson

DCR:se

ELECTROMAGNETIC INTERFERENCE

STUDY OF THE BNS SYSTEM

This study of potential interference between a domestic satellite system and the terrestrial microwave services was performed in connection with FCC Docket 16495 by the Communications Systems Department of the IBM Center for Exploratory Studies. This work was supervised by Dr. Dan C. Ross who managed the department at that time. Mr. Charles E. Sampson was the principal investigator on this study. Both Dr. Ross and Mr. Sampson are now officers of RossTEC.

ROSS TELECOMMUNICATIONS
ENGINEERING CORPORATION

WASHINGTON D.C. 20006

Telecommunications

THE WHITE HOUSE

WASHINGTON

September 5, 1969

MEMORANDUM FOR

Dr. Myron Tribus
Assistant Secretary of Commerce
for Science and Technology

Communications capabilities are particularly important to Alaskans, and significant expansion of communication facilities will take place in the near future, with or without adequate planning. Alaskan state government officials have requested assistance in developing costs and evaluating alternative plans for development of intrastate communication services. This should include a survey of needs and opportunities for telecommunications services, alternative technologies and systems for providing those services, and their costs.

However, the type of planning needed is not commonly done in the communications industry because of the incremental growth of the already highly developed communications systems in the continental United States. Because of the increasingly rapid technological and economic change in the telecommunications field, such planning will become increasingly necessary for U. S. communications generally. This situation, therefore, offers an opportunity to stimulate within the communications field more thinking about such problems, as well as being of assistance to the state of Alaska.

I would appreciate it if you would undertake to organize and chair an interdepartmental study to achieve these ends. The study should be organized under the auspices of the Office of Intergovernmental Relations and in cooperation with the Federal Field Committee for Development Planning in Alaska.

Some time this week you should discuss with Governor Boe how coordination with state officials can best be effected. Following that, I would like to introduce you to the Alaskan Congressional delegation so that you can explain the direction of your effort.

Clay T. Whitehead
Staff Assistant

cc: Mr. Flanigan
Governor Nils Boe
Eugene Cowen (WH)
Mr. Kriegsman
Mr. Gabel
Mr. Hinchman
Mr. Whitehead
Central Files

CTWhitehead:ed

Telecommunications

Thursday 9/4/69

3:15 Walter Routson called. Would like to come in today or tomorrow to see you.

He is with Consumers TVC 293-4292
1733 N Street, N. W.

(He had called on May 13th and offered to meet with you -- has a suggestion that he thinks would greatly assist in the communications field.)

Said he talked with some of Mr. Finch's aides last week and they thought he should talk with people in the White House. Talked with Bob Odle at one point who suggested getting in touch when he returned. Thought perhaps he should talk with you. Mr. Odle will be back on Monday -- so Mr. Routson will call him on Monday and then will probably want to arrange an appointment with you.

MEMORANDUM OF CALL

TO: Tom

☒ YOU WERE CALLED BY— Mr Boutson ☐ YOU WERE VISITED BY—

OF (Organization)

☐ PLEASE CALL → PHONE NO. CODE/EXT. 5

☐ WILL CALL AGAIN ☐ IS WAITING TO SEE YOU

☐ RETURNED YOUR CALL ☐ WISHES AN APPOINTMENT

MESSAGE

RECEIVED BY | DATE 3/13 | TIME 2:00

STANDARD FORM 63
REVISED AUGUST 1967
GSA FPMR (41 CFR) 101-11.6

GPO : 1969—643—16—80341-1 232-389

63-108

MEMORANDUM OF CALL

TO:

☐ YOU WERE CALLED BY— ☐ YOU WERE VISITED BY—

OF (Organization)

☐ PLEASE CALL → PHONE NO. CODE/EXT.

☐ WILL CALL AGAIN ☐ IS WAITING TO SEE YOU

☐ RETURNED YOUR CALL ☐ WISHES AN APPOINTMENT

MESSAGE

Walter Routson

Dr. Whitehead

RECEIVED BY | DATE | TIME

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REVISED AUGUST 1967
GSA FPMR (41 CFR) 101-11.6

Consumers TVC

1733 N 58th NW

293-4292

Cyst

AT&T Comsat

MEMORANDUM OF CALL

TO:

☐ YOU WERE CALLED BY— ☐ YOU WERE VISITED BY—

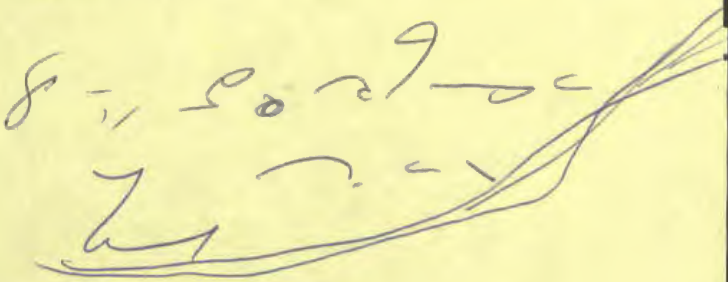
OF (*Organization*)

☐ PLEASE CALL → PHONE NO. CODE/EXT.

☐ WILL CALL AGAIN ☐ IS WAITING TO SEE YOU

☐ RETURNED YOUR CALL ☐ WISHES AN APPOINTMENT

MESSAGE



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REVISED AUGUST 1967
GSA FPMR (41 CFR) 101-11.6

2 or 3 -
14 for
Comsat /
Customer
Ohio N Y
N.J. Bell

MEMORANDUM OF CALL

TO:

☐ YOU WERE CALLED BY— ☐ YOU WERE VISITED BY—

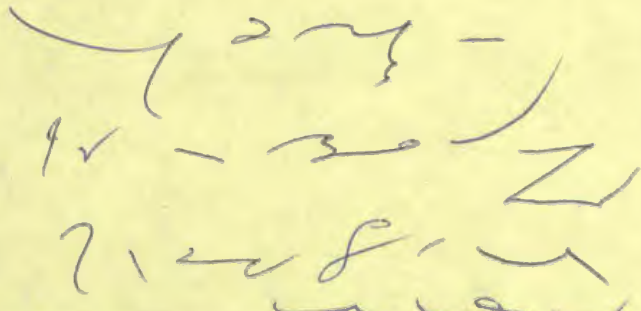
OF (*Organization*)

☐ PLEASE CALL → PHONE NO. CODE/EXT.

☐ WILL CALL AGAIN ☐ IS WAITING TO SEE YOU

☐ RETURNED YOUR CALL ☐ WISHES AN APPOINTMENT

MESSAGE



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REVISED AUGUST 1967
GSA FPMR (41 CFR) 101-11.6

GPO : 1969—048—16—80341-1 332-889

ATT

MEMORANDUM OF CALL

TO:

☐ YOU WERE CALLED BY— ☐ YOU WERE VISITED BY—

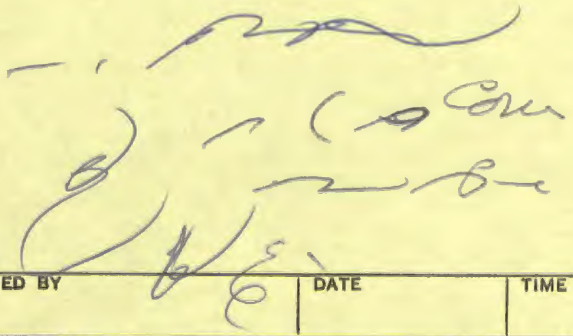
OF (*Organization*)

☐ PLEASE CALL ⟶ PHONE NO. CODE/EXT.

☐ WILL CALL AGAIN ☐ IS WAITING TO SEE YOU

☐ RETURNED YOUR CALL ☐ WISHES AN APPOINTMENT

MESSAGE



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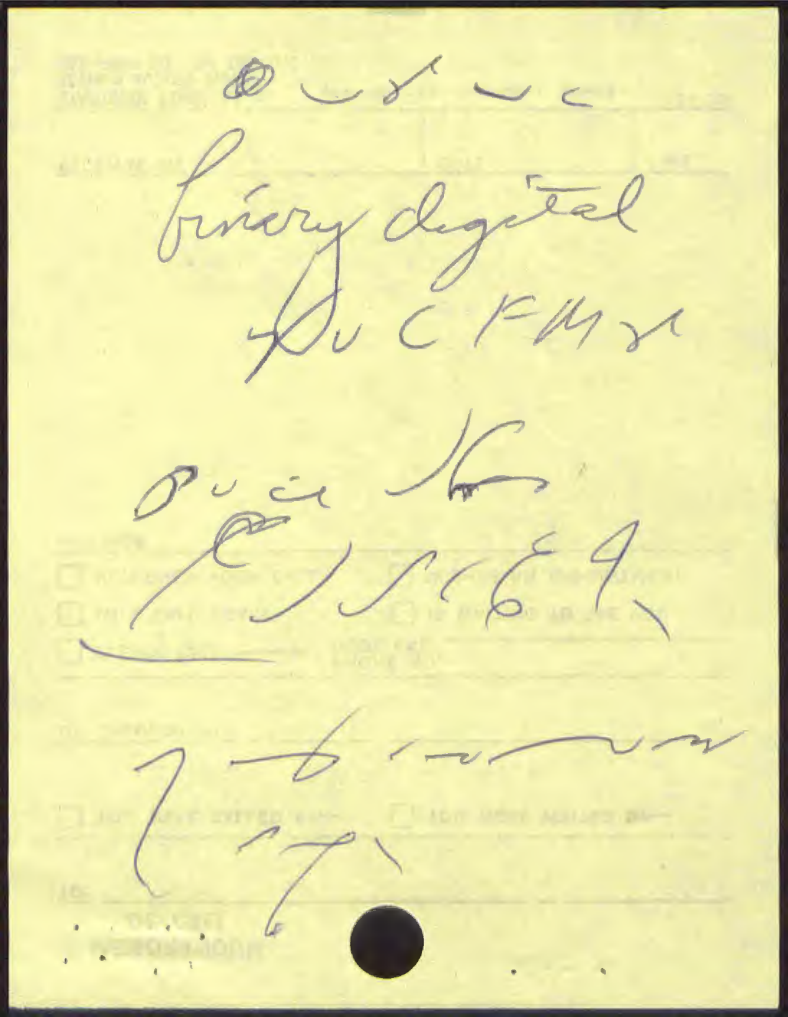

MEMORANDUM OF CALL

TO:

☐ YOU WERE CALLED BY— ☐ YOU WERE VISITED BY—

OF (*Organization*)

☐ PLEASE CALL → PHONE NO. CODE/EXT.

☐ WILL CALL AGAIN ☐ IS WAITING TO SEE YOU

☐ RETURNED YOUR CALL ☐ WISHES AN APPOINTMENT

MESSAGE

RECEIVED BY	DATE	TIME

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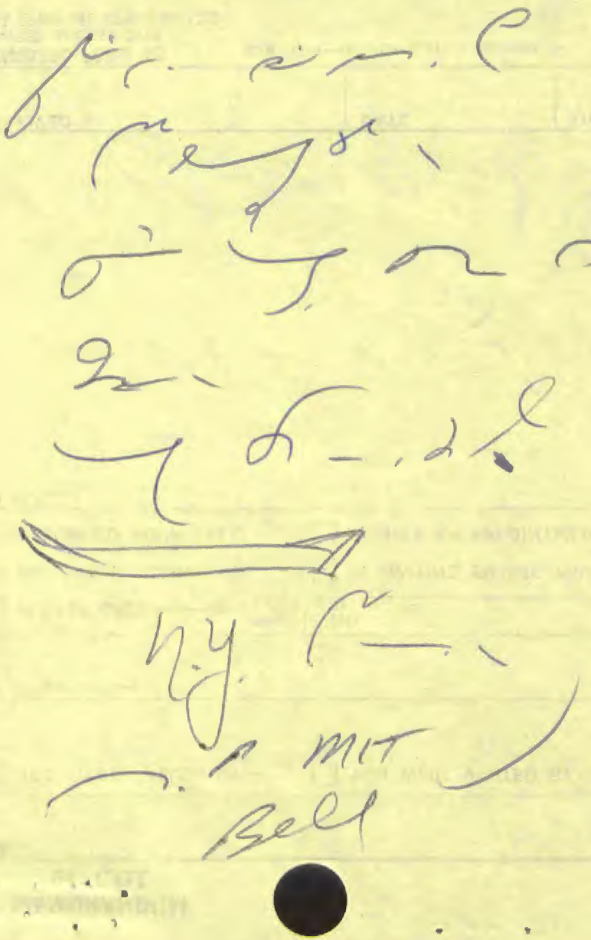
MIT
Bell

MEMORANDUM OF CALL

TO:

☐ YOU WERE CALLED BY— ☐ YOU WERE VISITED BY—

OF (*Organization*)

☐ PLEASE CALL ⟶ PHONE NO. CODE/EXT. _____

☐ WILL CALL AGAIN ☐ IS WAITING TO SEE YOU

☐ RETURNED YOUR CALL ☐ WISHES AN APPOINTMENT

MESSAGE

RECEIVED BY	DATE	TIME

STANDARD FORM 63 63-108
REVISED AUGUST 1967
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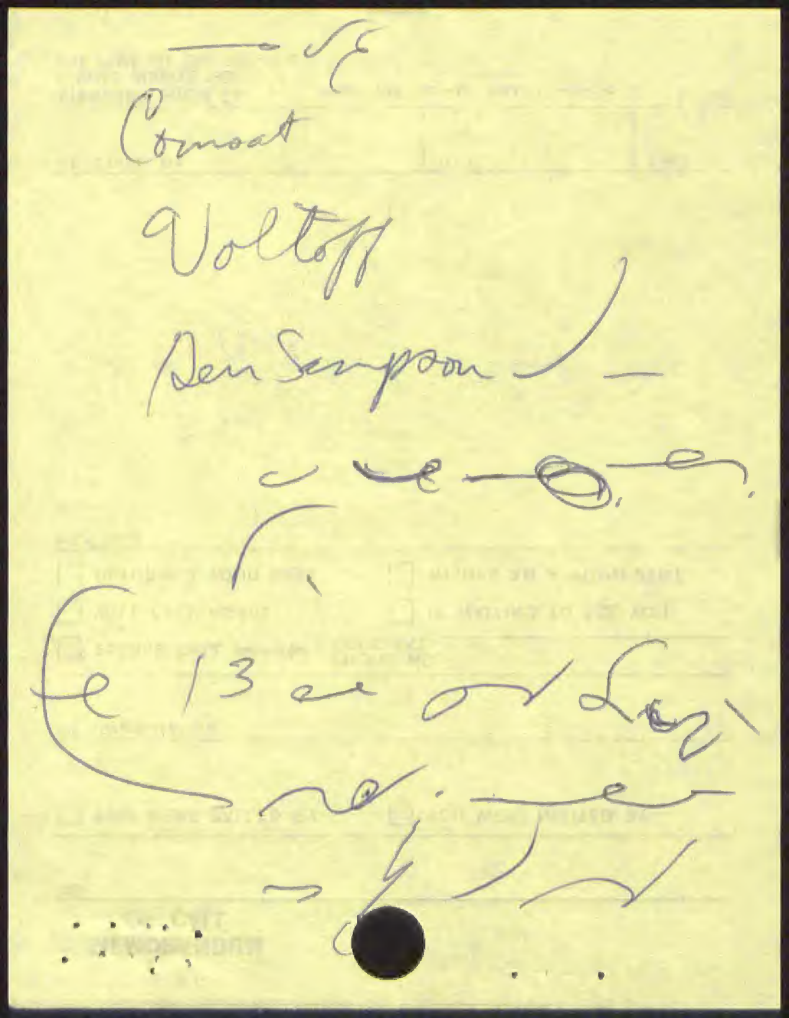


MEMORANDUM OF CALL

TO:

☐ YOU WERE CALLED BY— ☐ YOU WERE VISITED BY—

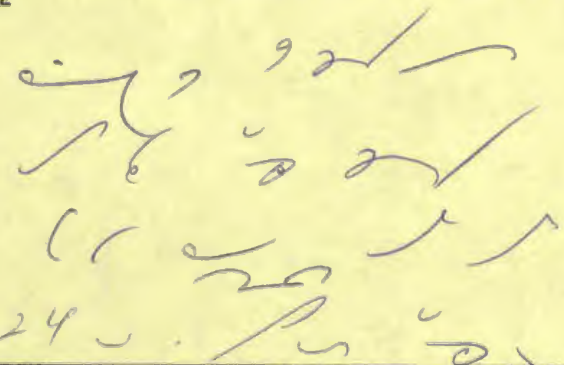
OF (*Organization*)

☐ PLEASE CALL ⟶ PHONE NO. CODE/EXT.

☐ WILL CALL AGAIN ☐ IS WAITING TO SEE YOU

☐ RETURNED YOUR CALL ☐ WISHES AN APPOINTMENT

MESSAGE



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REVISED AUGUST 1967
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GPO : 1969—048—16—80341-1 332-389

THE WHITE HOUSE
WASHINGTON

Date 9/4

TO: Tom Whitehead

FROM: Peter Flanigan

FYI ✓

Draft reply _____

Please Handle _____

File _____

Other remarks

Telecommunications

THE SECRETARY OF COMMERCE
Washington, D.C. 20230

SEP 2 1969

Honorable Melvin R. Laird
Secretary of Defense
Washington, D. C. 20301

Dear Mel:

This is a follow-up to our meeting of July 24, 1969, when we discussed federal administration in the telecommunications field and a proposed role for the Department of Commerce.

During the meeting you stressed your concern whether, under telecommunication policy and electrospace allocations management by the Department of Commerce, the mission requirements of the Department of Defense and other government agencies would receive adequate priorities in relation to the needs of the business sector. You also inquired about our proposed concept for a frequency assignment process.

I am enclosing a discussion paper which is primarily concerned with the Department of Commerce approach to the electrospace assignment process for Federal Agencies. Other important telecommunications policy problems are not discussed in this paper. Briefly, we propose a policy officer at the Assistant Secretary level with continuing supporting staff, and a new permanent interagency policy advisory committee to consider all important questions of government policy in telecommunications, including allocations of the electrospace.

In establishing its organization on telecommunications functions, the Department would vest responsibility for allocations, assignments, standards and regulation for Federal uses of the electrospace in a new Federal Electrospace Administration. We propose introducing to the electrospace assignment process a central engineering assignment staff with a substantial computer facility. It would provide capability for rapid analysis and assignments, and allow greater decentralization of decisions by remote access from Agencies and regional centers. The Interdepartment Radio Advisory Committee (IRAC) would be retained, with responsibility for oversight of this

cc: Peter Flanigan
The White House

process rather than the day-to-day assignments. The principal role of IRAC would be to focus upon broader questions of the process and on coordinated planning of Agency requirements. Provisions for review of decisions are outlined. An important component of the over-all new functions will be a research and engineering program. This program will include activities of the Institute for Telecommunication Sciences of the Environmental Science Services Administration, the Radio Standards Divisions, the Technical Analysis Division and other units of the National Bureau of Standards, and other appropriate Government and private resources. Additional technical and economic capabilities will be established within the program as necessary to support telecommunications policy-making and electrospace management.

On August 14, 1969, Dr. Tribus met with General G. B. Cauble, Mr. Willie Moore, and Captain Shugart, of the Department of Defense, to discuss the substance of the enclosed paper. He emphasized that the Department of Commerce regards full and proper provision for defense and other government agency telecommunication requirements as an essential feature of an adequate over-all telecommunication system for the nation. I understand that he did have a fruitful discussion, and your representatives felt that the enclosed paper would be a useful basis for review in your Department. We would appreciate having your comments as soon as is convenient for you, since we would like to move forward with these plans as rapidly as possible.

Please let me know if you have additional questions.

Sincerely,

Maury

Secretary of Commerce

Enclosure

PROPOSAL FOR FEDERAL AGENCY PARTICIPATION IN TELECOMMUNICATIONS POLICY COORDINATION AND IMPROVED ADMINISTRATION OF THE ELECTROSPACE FOR THE FEDERAL AGENCIES

1. Introduction

Responsibilities proposed for a new executive telecommunications authority, under present legislation would include:

--Policy, e.g., policies and programs of the Executive Branch affecting domestic and international telecommunications; responsibilities of the Executive under the Communications Act and the Communications Satellite Act; liaison with and representations to the Federal Communications Commission on policy issues; federal-state activities; national allocations of the electrospace* in cooperation with the Federal Communications Commission; and, with the Department of State, international coordination of telecommunications matters.

--Telecommunications Management for Federal Departments and Agencies; allocation, assignment and regulation of Federal use of the electrospace; guidance and coordination of Government systems development, standards, and procurement criteria; interagency and federal-state telecommunications coordination.

--Research and Engineering; studies of electromagnetic waves and information transmission needed for efficient utilization of

*The term "electrospace" is used rather than "spectrum" or "frequency" as it projects better the multidimensional character of the radio resource.

the electrospace resource; economic and technical analyses to provide a basis, in part, for telecommunications policy and allocations; provide technical assistance to government agencies.

Until such a new scope of telecommunications responsibilities is clarified and assigned, it would be premature to attempt to describe organizational structure or detailed procedures. This document, rather, outlines certain features of the Commerce Department's approach toward (a) obtaining adequate interagency participation in policy development, and (b) providing continuity and improvement of processes for administration of electrospace utilization by Federal Agencies. The Department of Commerce regards proper provision for government telecommunications operations and electrospace utilization as an essential feature of an adequate overall telecommunications "system" for the nation.

2. Administration of Telecommunications

Overall responsibility for telecommunications policy, management and research would be vested in an Assistant Secretary for Telecommunications. He would manage the necessary agency structure, including that for electrospace administration for Federal Agencies.

A small carefully selected policy staff, headed by a Deputy Assistant Secretary, would draw upon the resources of all the major programs of the new telecommunications administration, and upon an external advisory structure, in gathering information and drafting proposed policy positions. The output would include among other forms, draft legislation, representations to the Federal Communications Commission, draft Executive Orders and Circulars.

The Department of Commerce would represent the coordinated Executive Branch position on major telecommunications policy issues before the Federal Communications Commission, with other Government Agency assistance as appropriate.

Responsibilities and processes for Federal electrospace administration are discussed below.

Another major division of functions and responsibilities would relate to matters of Federal telecommunications operations other than questions of electrospace. This would include, with the assistance of the Departments and Agencies, the provision of policy guidance for the National Communications System (NCS), Federal-State technical coordination, promulgation of Federal telecommunications technical specifications, standards, and procurement policies, and a continuing review of Agency telecommunications programs for policy, coordination and advisory purposes.

A third major component of the new program to be based at Boulder, Colorado, would provide technical and economic research, engineering assistance, and studies and development of standards for possible promulgation by the telecommunications administration. The policy development, telecommunications management and electrospace administration programs would rely heavily on this research and service-oriented engineering program for technical support in the conduct of their activities.

3. Telecommunications Advisory Process

For a long time there has existed no continuing broadly based, interagency body to advise on telecommunications policy for the Executive Branch. The Telecommunications Coordinating Committee of the Department of State has not functioned for years; the Director of Telecommunications Management has established ad hoc groups for certain issues.

We propose early establishment, by the Secretary or the President, of a permanent interagency Telecommunications Policy Advisory Committee (TPAC), the Chairman to be appointed by the Assistant Secretary for Telecommunications. Examples of major policy issues which should be considered by such a committee

include: allocations of the electrospace, and policies on overall efficient use of the electrospace resource; satellite communications; many international aspects of telecommunications; federal-state relationships; effects of new technology; federal procurement policies and telecommunication programs.

A non-government Telecommunications Advisory Board, with appropriate panels on electrospace administration and research would provide advice of experts from industry and academic areas.

4. Electrospace Administration for Federal Agency Telecommunications

The present system for allocation and management of frequency utilization for Federal Agencies uses the long established Interdepartment Radio Advisory Committee (IRAC), which reports to the Director of Telecommunications Management.

While the IRAC presently serves as a coordinating body for Executive Branch allocations policy, much of its activity concerns the day-to-day assignment of frequencies to government radio stations. This is handled principally by the Frequency Assignment Subcommittee (FAS) of the IRAC. Considerable time is routinely required to coordinate and complete government assignment

actions; the FAS must consider up to several thousand such items on the agenda of its regularly scheduled monthly meeting which normally requires several days. Many hours are spent in advance by IRAC members coordinating radio frequency requirements in preparation for these meetings.

4.1 Federal Electrospace Administration

Questions of policy and management for electrospace utilization would be dealt with by a new agency within the Department of Commerce, the Federal Electrospace Administration (FEA). The FEA would be responsible for the allocation and assignment of Federal electrospace and for day-to-day cooperation with the FCC in the management of the electrospace. The TPAC would advise on major allocations and policy issues, and allocations decisions would be subject to ratification by the Assistant Secretary for Telecommunications. The FEA would also be responsible for promulgation of electrospace utilization standards and regulations for Federal agencies.

4.2 Electrospace Assignment Process

It is proposed that the new FEA would establish a computer-based electrospace assignment system. An "electrospace assignment staff" would be organized, (see chart) utilizing a substantial central computer facility and master data file to make rapid assignments. In addition, regional assignment facilities and

processes would be established, using smaller computers and remote access to the central computer. Direct access to the computer system and the assignment process would be provided from remote data consoles at each of the agencies. Particularly concerning Department of Defense uses, the data of the Electromagnetic Compatibility Analysis Center (ECAC) would be accessed in such an overall system, with appropriate safeguards. The kinds of technical data files maintained by ECAC would be extended as appropriate to other uses of the electrospace.

All agencies would be kept informed of electrospace assignment actions and would have an opportunity to object if problems arose. The IRAC would now have oversight responsibility for this process, rather than day-to-day processing responsibility--one or more of the IRAC subcommittees might give close attention to particular aspects of the process.

4.3 Interdepartment Radio Advisory Committee (IRAC)

It has already been indicated that IRAC should be retained, with an oversight function over the assignment process rather than day-to-day operating responsibility. It would function as a panel of TPAC, along with other appropriate panels, such as a panel on the National Communications System. The Chairman

of the IRAC would be appointed by the Administrator of the FEA. IRAC is now and would remain an important source of information on Agency plans and requirements, and a vehicle for interagency coordination of electrospace utilization.

In the event that an electrospace assignment cannot be accommodated routinely, the IRAC would consider and make a recommendation. In case of Agency dissent from a decision regarding an electrospace assignment by the FEA staff, the decision would be reviewed by the Director of FEA, with the advice of IRAC. If the using agency desired, the FEA Director's decision on review, or any of his other actions, such as in allocations or regulation matters, could be brought before TPAC for comment and appropriate further decisions by the Assistant Secretary for Telecommunications.

4.4 Some Electrospace Management Priorities

While the coordination and advisory role of IRAC is a necessary one, it is by itself insufficient to assure developing maximum overall efficiency of use of the electrospace by the Government. The FEA will need to develop a substantial program to obtain accurate information, measures, and improved techniques for electrospace management. It will be the responsibility of the FEA to follow up on the most significant proposals for improved electrospace management arising in recent years from

studies of the President's Task Force on Communications Policy, the Bureau of the Budget, the Joint Technical Advisory Committee, the Commerce Technical Advisory Board, and other advisory groups. Some priorities, including the improved assignment process are recapitulated below.

MANAGEMENT INFORMATION SYSTEM

-- Develop adequate measures of electrospace utilization.

-- Obtain useful data on actual usage of electrospace to supplement bookkeeping records.

-- Establish shared data base and computational processes for regional and national electrospace management system.

MANAGEMENT OPERATIONS

-- Establish central Electrospace Assignment Engineering staff, supplemented gradually by regional management centers.

-- Develop comprehensive computer systems for electrospace assignment engineering and records, to facilitate both central engineering assignment processes and remote access by agencies and regional management centers.

-- Apply operations analysis techniques routinely to electrospace utilization to increase efficiency of use of the resource.

RESEARCH

Effective development of future electrospace utilization, for increased yield to meet growing needs and to permit new services, will depend in large part upon a first rate research program, using not only the laboratories of the new telecommunications authority, but a broad program including other government laboratories, industry, and universities.

-- Operations analysis studies should be made of increasing intensive electrospace-sharing possibilities, including electromagnetic-wave considerations, and the various information transmission (modulation, coding, power, bandwidth) parameters.

-- Extension of the useable electrospace to higher frequencies, i.e., millimeter waves and beyond.

-- Examination of possibilities for improved standards for receivers and transmitters.

-- Study of potential impact of new technology on electrospace utilization.

-- Study of economic factors in electrospace allocation, e.g., "the value at the margin" of various uses of the spectrum; costs and benefits to various services,

and studies of alternatives; simulation of development of the overall system under certain policies--such studies should be made with a view to providing in part, a valid basis for allocations or other administrative steps in electrospace management.

5. Review of Decisions

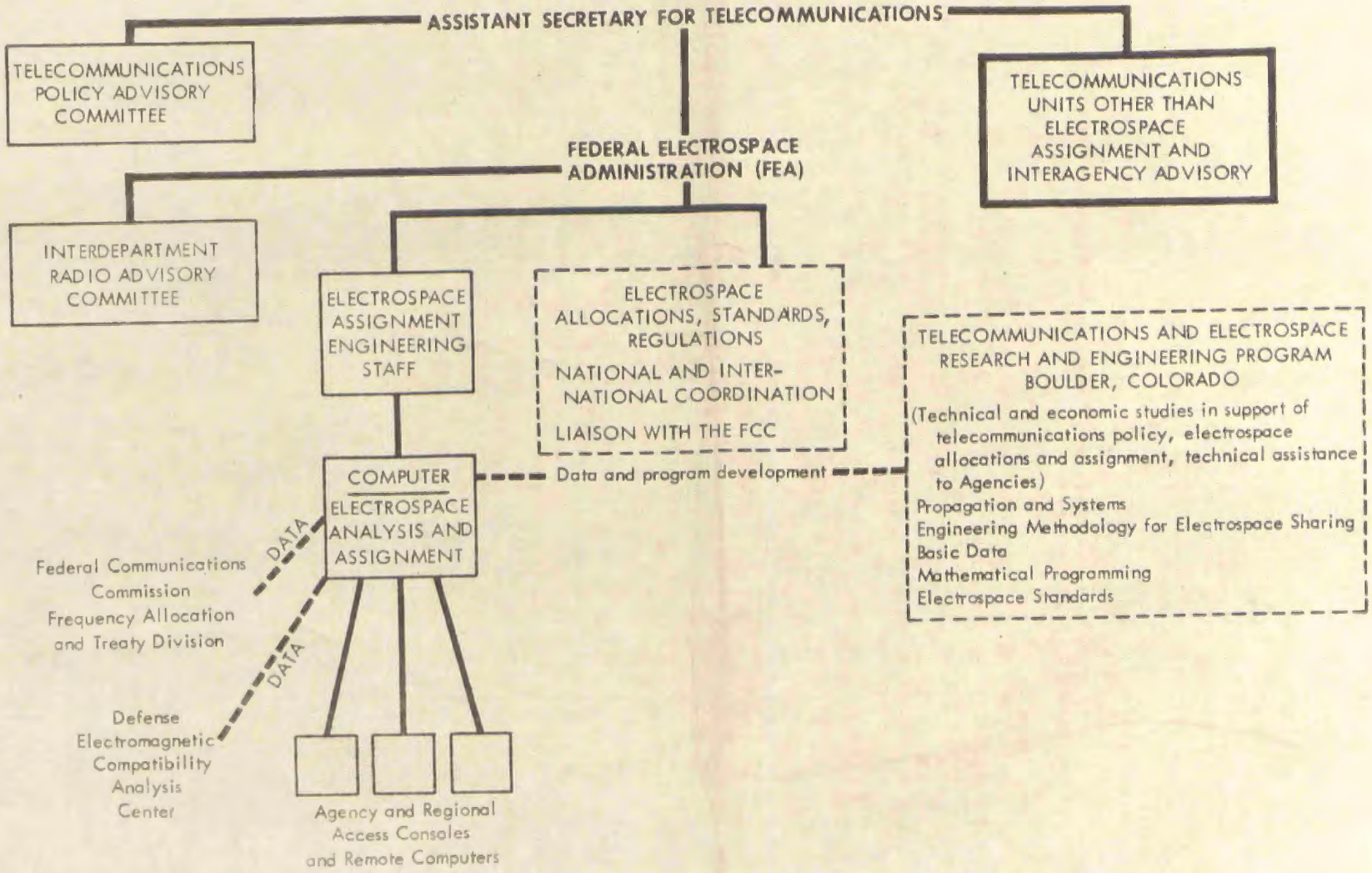
A process was described above for review of FEA electrospace assignment decisions upon dissent of an Agency. Similar processes would be established for review of decisions in other areas of responsibility of the new telecommunications authority. Rarely, an important issue in which there is ultimate disagreement between Agencies or between the authority and an agency, might, as at present, have to be resolved by the President. In order to assist the President in such an issue, it is desirable that he designate a staff assistant to be responsible in the telecommunications area. The Department of Commerce would recommend that such a White House Staff member be designated, and that he participate in the meetings of the Telecommunications Policy Advisory Committee and the Telecommunications Advisory Board.

Office of the Assistant Secretary
for Science and Technology
Department of Commerce

August 22, 1969

Proposed Department of Commerce Structure for

FEDERAL ELECTROSPACE ASSIGNMENT and INTERAGENCY ADVISORY FUNCTIONS



Telecommunications

November 7, 1969

Dear Mr. Comstock:

Mr. Whitehead has asked me to thank you for the reprint from the May 1969 issue of the Minnesota Law Review entitled "Radio Spectrum Regulation: The Administrative Process and the Problems of Institutional Reform."

Sincerely,

Eva Daughtrey
Secretary to
Clay T. Whitehead

Mr. Paul B. Comstock
Vice President for
Government Affairs
National Association of Broadcasters
1771 N Street, N. W.
Washington, D. C. 20036

EDaughtrey

NATIONAL ASSOCIATION OF BROADCASTERS
1771 N STREET, N.W., WASHINGTON, D.C. 20036 293-3500

PAUL B. COMSTOCK
VICE PRESIDENT
FOR GOVERNMENT AFFAIRS

November 3, 1969

Mr. Clay T. Whitehead
The White House
1600 Pennsylvania Avenue, N. W.
Washington, D. C. 20500

Dear Mr. Whitehead:

Enclosed is a reprint from the May 1969 issue of the Minnesota Law Review entitled, "Radio Spectrum Regulation: The Administrative Process And The Problems Of Institutional Reform." The author, Glen O. Robinson, is an associate professor of administrative law at the University of Minnesota.

Although NAB does not subscribe to all of Professor Robinson's views, I believe he makes a compelling argument that allocation of the frequency spectrum should remain a function of a regulatory agency, independent of the executive branch of government.

Sincerely,

Paul B. Comstock

PBC:ch

Enclosure

B.B. FORM NO. 34

UNITED STATES GOVERNMENT

Memorandum

Executive Office of the President
Bureau of the Budget

TO : Mr. Clay T. Whitehead
White House Office

DATE: December 29, 1969

FROM : Seymour D. Greenstone
Office of Executive Management

SUBJECT: Telecommunications organization

Pursuant to your request, I visited Dr. Richardson of Assistant Secretary of Commerce Tribus's staff and discussed Commerce's plans for implementing the telecommunications organization proposal. While I did not go into the details of the problems we've had, I did describe the reorganization plan-executive order approach and the techniques involved so that they could do a more realistic job of planning and not make any rash moves. I also warned of thedangers involved in broadcasting our strategy and requested that he keep the information to himself and his immediate staff if he wanted Commerce to end up with anything.

Dr. Richardson made three principal points which constitute the Commerce (Tribus) position on their implementation of the organization proposal and I pass these on for your consideration.

1. Commerce (Tribus) doesn't want to establish an organization which is strictly technological in orientation. He doesn't see where such an organization would represent any improvement over the current situation. He believes that the Office of Telecommunications Policy needs an economic analysis capability to support Commerce's technological work and that this capability should be in the Commerce organization since the staffing indicated for OTP in the proposal appears to be inadequate for this purpose.

2. Dr. Richardson stressed the need for adequate resources to keep the new activity afloat and indicated that Commerce certainly didn't have the resources needed within its own budget. I tried to side-step this one gingerly and pointed out that every consideration would be given to Commerce's valid requirements. Richardson had little faith in the direct appropriation route and suggested as an alternative that there be a tacit understanding of a favored relationship between OTP and the new activity in Commerce. This relationship would be like the DOD-MIT arrangement, with OTP providing continuing lump sum financing for the Commerce activity.

3. I had problems with Commerce's third point but they feel quite strongly about it. In the executive order delineating the responsibilities of the OTP Commerce wants language providing it with a "systems analysis" responsibility in support of each of the OTP responsibilities where Commerce clearly has a role. They want this in order to avoid any questioning of their participating in any given activity.

OUT

OUT TO	FILE NUMBER OR NAME OUT	DATE	OUT TO	FILE NUMBER OR NAME OUT	DATE	OUT TO	FILE NUMBER OR NAME OUT	DATE
DSS								
9/11/12								

Box 8 (Jackie's labels), Folder "Telecommunications November-December 1969"

5) Memo to Peter M. Flanigan and Clay T. Whitehead fm Charlie McWhorter dtd. 12/23/69, subj: Reorganization of the Office of the Director of Telecommunications Management, 2 pp., "Confidential" - **2 copies**

THE WHITE HOUSE

WASHINGTON

December 20, 1969

ACTION

Office of Telecommunications Policy

MEMORANDUM FOR THE PRESIDENT

In spite of the rapidly growing importance of telecommunications to the Nation and for the government's own missions, there is no effective policy-making capability for telecommunications in the executive branch. The Administration is therefore largely unable to exert leadership or take initiatives in spite of vulnerability to criticism for FCC policies. Government-wide coordination of its own telecommunications activities has not been adequate. There has been widespread dissatisfaction with executive branch organization for telecommunications policy and operations for many years.

There are many important, complex, and quite fundamental issues that will have to be resolved in the telecommunications industry during your Administration; there are also many issues related to the government's own communications procurement and operations. Since January, we have been dealing with the most important issues largely on an ad hoc basis and simultaneously studying how these capabilities could be strengthened.

Among the alternatives examined were a Department of Communications, an independent agency, assignment to an existing Cabinet department, and the status quo. Each of these was found to have serious drawbacks organizationally or to cause unacceptable disagreements among executive branch agencies.

We have now concluded that the following organizational arrangements, together with several first-rate new people in the key positions, offer a significant improvement and will be widely accepted as a valuable step forward.

1. A small new Office of Telecommunications Policy (OTP) would be established in the Executive Office of the President, replacing the more narrowly defined functions of the Office of Telecommunications Management in the OEP. All Presidential responsibilities in the telecommunications area would be delegated to this office.

2. A Telecommunications Research and Analysis Center would be established in the Department of Commerce to provide research, engineering, economic, and frequency assignment support to the OTP and to other executive departments as needed.

3. No FCC responsibilities would be affected, but planning for eventual consolidation of government and civilian radio spectrum management would be started.

4. One of the first responsibilities of the OTP would be a major review in conjunction with the National Security Council of the objectives and management arrangements for the government's own telecommunications operations.

The cost of this arrangement would be $1 to $2 million annually above current levels for the next few years.

The Bureau of the Budget, the Office of Emergency Planning, the Office of Science and Technology, and the major departments and agencies affected by this plan agree with this proposal. The President's Advisory Council on Executive Organization has seen this proposal and decided not to consider this issue in their work. We expect no significant opposition from industry or Congress.

RECOMMENDATION

That you approve the preparation of a reorganization plan and associated executive order implementing the above plan as soon as possible.

Approve _____ Disapprove _____

Peter M. Flanigan

December 20, 1969

To: Peter Flanigan

From: TomWhitehead

Ken Cole apparently had some problems with the short version of this memorandum. I have therefore prepared a somewhat longer version. I trust to your judgment as to which is the more appropriate.

Also note the cover memo for the Staff Secretary and the timing involved.

Attachments

cc: Mr. Kriegsman
Mr. Whitehead
Central Files

CTWhitehead:ed

December 20, 1969

MEMORANDUM FOR THE STAFF SECRETARY

The attached memorandum regarding a reorganization for telecommunications should be sent to the President for his reading over the weekend. The Budget Director expects to discuss the budgetary implications of this reorganization, to which they fully agree, with the President on Monday. He should be apprised of the situation before it is raised by Mr. Mayo.

Signed

Peter M. Flanigan
Assistant to the President

Attachment
cc: Mr. Flanigan
Mr. Whitehead
Mr. Kriegsman
Central Files

CTWhitehead:ed

ACTION
Office of
Telecommunications
Policy

December 20, 1969

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RECOMMENDATION

That you approve the preparation of a reorganization plan and associated executive order implementing the above plan as soon as possible.

Approve_____ Disapprove _____

signed
Peter M. Flanigan

cc: Mr. Flanigan
Mr. Whitehead
Mr. Kriegsman
Central Files

CTWhitehead:ed

MEMORANDUM

THE WHITE HOUSE

WASHINGTON

12/20/99

Howard

OK but

note "OTM" appears

in many places where

it should be OTP.

See attached.

Tom

BB FORM 4

Bureau of the Budget
ROUTE SLIP

TO Mr. Whitehead

Take necessary action	☐
Approval or signature	☐
Comment	☐
Prepare reply	☐
Discuss with me	☐
For your information	☐
See remarks below	☐

FROM Howard Schnoor DATE 12/19

REMARKS

A tentative draft of a reorganization plan on telecommunications per our conversation in Art Focke's office.

SPECIAL SERVICE

NOTE: This draft is exploratory and of a highly tentative nature. 12-19-69

REORGANIZATION PLAN NO. OF 1970

Prepared by the President and transmitted to the Senate and the House of Representatives in Congress assembled, , 1970, pursuant to the provisions of chapter 9 of title 5 of the United States Code.

OFFICE OF TELECOMMUNICATIONS MANAGEMENT

Section 1. Transfers of functions. The following functions are hereby transferred to the Director of the Office of Telecommunications Management hereinafter provided for:

(a) Those conferred upon the President by the provisions of section 305(a) of the Communications Act of 1934, 47 U.S.C. 305(a) (relating to the assignment of frequencies to radio stations belonging to and operated by the United States or to classes thereof).

(b) To the extent that they are with respect to telecommunications, those conferred upon the Administrator of General Services (i) by section 201(a)(1) of the Federal Property and Administrative Services Act of 1949, 40 U.S.C. 481(a)(1), (relating to prescribing policies and methods of procurement and supply of personal property and nonpersonal services, including relating functions, and repairing and converting), and (ii) by section 201(a)(4) of that Act, 40 U.S.C. 481(a)(4), (relating to representation before Federal and State regulatory bodies).

NOTE: It appears that either section 1(a) or section 1(b) (together with the abolition which would be effected by section 5 of the reorganization plan) would constitute sufficient reorganizations to sustain the reorganization plan.

Sec. 2. Establishment of Office. There is hereby established in the Executive Office of the President the Office of Telecommunications ~~Management~~ Policy, hereinafter referred to as the Office.

Sec. 3. Director and deputy. (a) There shall be at the head of the Office the Director of the Office of Telecommunications ~~Management~~ Policy, hereinafter referred to as the Director. The Director shall be appointed by the President by and with the advice and consent of the Senate and shall be compensated at the rate now or hereafter provided for Level III of the Executive Schedule Pay Rates (5 U.S.C. 5314).

(b) There shall be in the Office a Deputy Director of the Office of Telecommunications ~~Management~~ Policy who shall be appointed by the President by and with the advice and consent of the Senate and shall be compensated at the rate now or hereafter provided for Level IV of the Executive Schedule Pay Rates (5 U.S.C. 5315). The Deputy Director shall perform such functions as the Director may from time

to time prescribe and, unless the President shall designate another person to so act, shall act as Director during the absence or disability of the Director or in the event of vacancy in the office of Director.

(c) No person shall while holding office as Director or Deputy Director engage in any other business, vocation, or employment.

Sec. 4. Personnel. The Director may appoint employees necessary for the work of the Office under the classified civil service and fix their compensation in accordance with the classification laws.

[MORE]

Sec. 5. Abolition of office. That office of Assistant Director of the Office of Emergency Preparedness which is on the date of the transmittal of this reorganization plan to the Congress held by the Director of Telecommunications Management under Executive Order No. 10995 of February 16, 1962, as amended, is abolished. The foregoing abolition of office shall become effective when the person first appointed as Director of the Office of Telecommunications ~~Management~~ Policy (under section 3 hereof or by recess appointment, as the case may be) enters upon office as such Director. The Director of the Office of Emergency Preparedness shall make such provisions as he may deem to be necessary with respect to winding up any outstanding affairs of the office abolished by the foregoing provisions of this section.

Sec. 6. Incidental transfers. (a) So much of the personnel, property, records, and unexpended balances of appropriations, allocations, and other funds employed, held, or used by, or available or to be made available to, the Office of Emergency Preparedness in connection with functions affected by the provisions of this reorganization plan as the Director of the Bureau of the

Budget shall determine shall be transferred to the Office of Telecommunications Management at such time or times as he shall direct.

(b) Such further measures and dispositions as the Director of the Bureau of the Budget shall deem to be necessary in order to effectuate the transfers provided for in subsection (a) of this section shall be carried out in such manner as he shall direct and by such agencies as he shall designate.

Sec. 7. Interim Director. The President may authorize any person who immediately prior to the effective date of this reorganization plan holds a position in the Executive Office of the President to act as Director of the Office of Telecommunications ~~Management~~ Policy until the office of Director is for the first time filled pursuant to the provisions of section 3 of this reorganization plan or by recess appointment, as the case may be. The President may authorize any person who serves in an acting capacity under the foregoing provisions of this section to receive the compensation attached to the office of Director. Such compensation, if authorized, shall be in lieu of, but not in addition to, other compensation from the United States to which such person may be entitled.

COPY

December 19, 1969

MEMORANDUM FOR THE PRESIDENT

Peter Flanigan has submitted the attached memorandum regarding a reorganization and strengthening of executive branch telecommunications activities. It proposes:

(1) a small new policy office in the Executive Office and

(2) an expanded research, analysis, and spectrum assignment office in the Department of Commerce. FCC responsibilities are not affected.

John Ehrlichman

COPY

Office of
Telecommunications
Policy

December 19, 1969

MEMORANDUM FOR THE PRESIDENT

There has been widespread dissatisfaction with executive branch organization for telecommunications policy and operations for many years. There are many important, complex, and quite fundamental issues that will have to be resolved in the telecommunications industry during your Administration; there are also many issues related to the government's own communications procurement and operations.

Since January, we have been dealing with the most important issues largely on an ad hoc basis and simultaneously studying how these capabilities could be strengthened. We have concluded that the following organizational arrangements, together with several first-rate new people in the key positions, offer a significant improvement.

(1. A small new Office of Telecommunications Policy (OTP) would be established in the Executive Office of the President, replacing the more narrowly defined functions of the Office of Telecommunications Management in the OEP. This office would be delegated all Presidential responsibilities in the telecommunications area.

2. A Telecommunications Research and Analysis Center would be established in the Department of Commerce to provide research, engineering, economic, and frequency assignment support to the OTP and to other executive departments as needed.

3. No FCC responsibilities would be affected, but planning for eventual consolidation of government and civilian radiospectrum management would be started.

4. One of the first responsibilities of the OTP would be a major review in conjunction with the National Security Council of the objectives and management arrangements for the government's own telecommunications operations.

The Bureau of the Budget, the Office of Emergency Planning, the Office of Science and Technology, and the major departments and agencies affected by this plan agree with this proposal. The President's Advisory Council on Executive Organization has seen this proposal and decided not to consider this issue in their work.

RECOMMENDATION

That you approve the preparation of a reorganization plan and associated executive order implementing the above plan as soon as possible.

Approve _____ Disapprove _____

Peter M. Flanigan

December 19, 1969

MEMORANDUM FOR THE PRESIDENT

Peter Flanigan has submitted the attached memorandum regarding a reorganization and strengthening of executive branch telecommunications activities. It proposes:

(1) a small new policy office in the Executive Office and

(2) an expanded research, analysis, and spectrum assignment office in the Department of Commerce. FCC responsibilities are not affected.

John Ehrlichman

Office of
Telecommunications
Policy

December 19, 1969

MEMORANDUM FOR THE PRESIDENT

There has been widespread dissatisfaction with executive branch organization for telecommunications policy and operations for many years. There are many important, complex, and quite fundamental issues that will have to be resolved in the telecommunications industry during your Administration; there are also many issues related to the government's own communications procurement and operations.

Since January, we have been dealing with the most important issues largely on an ad hoc basis and simultaneously studying how these capabilities could be strengthened. We have concluded that the following organizational arrangements, together with several first-rate new people in the key positions, offer a significant improvement.

1. A small new Office of Telecommunications Policy (OTP) would be established in the Executive Office of the President, replacing the more narrowly defined functions of the Office of Telecommunications Management in the OEP. This office would be delegated all Presidential responsibilities in the telecommunications area.

2. A Telecommunications Research and Analysis Center would be established in the Department of Commerce to provide research, engineering, economic, and frequency assignment support to the OTP and to other executive departments as needed.

3. No FCC responsibilities would be affected, but planning for eventual consolidation of government and civilian radiospectrum management would be started.

4. One of the first responsibilities of the OTP would be a major review in conjunction with the National Security Council of the objectives and management arrangements for the government's own telecommunications operations.

The Bureau of the Budget, the Office of Emergency Planning, the Office of Science and Technology, and the major departments and agencies affected by this plan agree with this proposal. The President's Advisory Council on Executive Organization has seen this proposal and decided not to consider this issue in their work.

RECOMMENDATION

That you approve the preparation of a reorganization plan and associated executive order implementing the above plan as soon as possible.

Approve_____ Disapprove_____

Peter M. Flanigan

December 19, 1969

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Approve_____ Disapprove_____

Peter M. Flanigan

extra copies
from
Jimmie

Bill - from D.L. Solomon

THE SECRETARY OF DEFENSE
WASHINGTON, D. C. 20301

DEC 24 1969

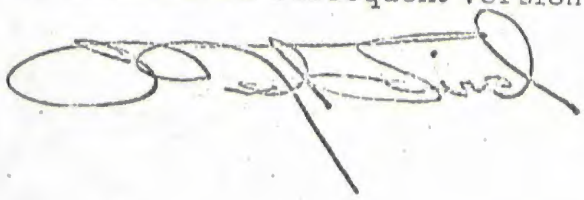
MEMORANDUM FOR MR. PETER M. FLANIGAN
ASSISTANT TO THE PRESIDENT

This is in response to your memorandum of December 6th soliciting comments on a proposed reorganization of Executive Branch telecommunications.

I am in general agreement with the structure and responsibilities described in the attachments to your memorandum, recognizing that final missions, tasks and functions will require clarification prior to implementation. I feel, however, that certain changes would help clarify aspects of the proposal which deal with the relationships and responsibilities of the Office of Telecommunications Policy (OTP), Telecommunications Research and Analysis Center (TRAC), and the National Communications System (NCS). It is also recommended that the new policy organization be vested with well defined statutory authority inasmuch as the responsibilities described for the OTP appear to duplicate certain statutory responsibilities of the General Services Administration and possibly other agencies.

With reference to the NCS organization, despite the Bureau of the Budget recommendation on the need for a reorganized and strengthened NCS, (cited on page 3 of your discussion paper), both attachments treat the NCS either on a tentative basis or fail to recognize the management and supportive roles that are likely to survive under any constructive reorganization of NCS activities. Such weak treatment would tend to dilute the already tenuous authority being exercised by the Executive Agent and Manager, NCS.

I believe my enclosure suggests some specific changes which, while preserving the integrity of the organizational scheme, provides the clarification which your draft requires in certain areas. I would appreciate having an opportunity to comment on subsequent versions.



Enclosure

COMMENTS

Attachment:

"EXECUTIVE BRANCH ORGANIZATION FOR TELECOMMUNICATIONS"

- Page 6, second sub-paragraph, insert the following words at the beginning: "Acting as Chairman of the Interdepartment Radio Advisory Committee (IRAC) and...." These words should be added to the present statement since the proposal is silent on this point.

- For reasons stated in my covering Memorandum, Page 6, last paragraph should be changed to read as follows:

  "In performing these functions, the Director, Office of Telecommunications Policy, will be assisted by a small staff, augmented as required by: (1) the resources of the Executive Agent and Manager, NCS, (2) ad hoc, interagency and nongovernment task groups, (3) independent consultants, (4) contract studies, (5) a new Telecommunications Research and Analysis Center, (6) the Interdepartment Radio Advisory Committee and (7) a new Telecommunications Advisory Committee composed of experts from outside of the government." Note added (1) and deleted last sentence. This change is suggested since the NCS has a viable organization and on-going procedures and working relationships with 11 departments and agencies of government. This organization is devoted to Federal telecommunications planning, emergency operations, technical, operational and procedural standards, research and development, performance testing and evaluation and program review. It has and should continue to provide valuable support to the telecommunications policy organization.

- Page 7, lines 5 and 6, the phrase "...and such other areas as may be required." should be deleted, since this is already a sufficiently broad charter. Page 2, paragraph 2 of this Attachment recognizes that "The Department of Commerce has a telecommunications research capability, but no responsibility or familiarity with telecommunications policy." Therefore, the TRAC should be confined to the functions outlined in the three sub-paragraphs which follow line 6 of Page 7.

- Page 7, second sub-paragraph. Concur with the establishment of this facility. It should be recognized, however, that there will be a continuing need, within the DoD, for my Electromagnetic Compatibility Analysis Center (ECAC) to perform the necessary research and analysis of direct concern to the military, much of which is highly sensitive.

- Page 8, last sentence of paragraph. Suggest deletion of all words following "(NCS)", for the reasons addressed in my covering Memorandum.

Attachment:

"RESPONSIBILITIES OF THE OFFICE OF TELECOMMUNICATIONS POLICY"

- Page 1, sub-paragraph (1) at bottom of page, should be rewritten as follows to recognize the importance of performance standards and compatibility:

  "(1) Development of government-wide standards for performance, equipment, and procedures, as required, in the interest of compatibility, economy, or effectiveness."

- Page 2, following sub-paragraph (4), add new sentence: "He is assisted in the above responsibilities by the resources of the Executive Agent and Manager, NCS." in order to be consistent with the designation in the following paragraph of TRAC to assist him in radio frequency matters.

- Page 2, end of first full paragraph (ending with OEP), add new sentence: "The Director, Telecommunications Policy will not be responsible for day-to-day operational matters of the White House Communications Agency or the Interagency Communications System unless directed by the President."

- Pages 2 and 3, with regard to the statement of the Director's qualifications, it appears somewhat surprising to find selection criteria for an individual in an organizational responsibilities charter. Moreover, the stated scope and responsibilities for the new office outlined on Pages 1 and 2 would sufficiently dictate the personal qualifications of the Director.

ELECTRONIC INDUSTRIES ASSOCIATION

2001 EYE STREET, N. W.
WASHINGTON, D. C. 20006

659-2200

October 20, 1969

TO: Members, EXECUTIVE COMMITTEE
LAND MOBILE COMMUNICATIONS SECTION
SATELLITE TELECOMMUNICATIONS SUBDIVISION
COMMUNICATION TERMINALS & INTERFACES SECTION
FIXED POINT-TO-POINT COMMUNICATIONS SECTION
Industrial Electronics Division

Gentlemen:

In the mailing of October 17, we sent you a copy of a letter concerning telecommunications policy from the Secretary of Defense to the Secretary of Commerce. We indicated we had not been able to obtain the letter from the Secretary of Commerce to which the attachment was an answer. Attached is that letter signed by Mr. Stans, Secretary of Commerce, along with a proposal for federal agency participation in telecommunications policy coordination. This letter should be read in connection with our mailing of October 17.

Sincerely,

John Sodolski
Staff Vice President
Industrial Electronics Division

JS/gr

Attachment

69-1471

THE SECRETARY OF COMMERCE
Washington, D.C. 20230

SEP 2 1969

Honorable Melvin R. Laird
Secretary of Defense
Washington, D. C. 20301

Dear Mel:

This is a follow-up to our meeting of July 24, 1969, when we discussed federal administration in the telecommunications field and a proposed role for the Department of Commerce.

During the meeting you stressed your concern whether, under telecommunication policy and electrospace allocations management by the Department of Commerce, the mission requirements of the Department of Defense and other government agencies would receive adequate priorities in relation to the needs of the business sector. You also inquired about our proposed concept for a frequency assignment process.

I am enclosing a discussion paper which is primarily concerned with the Department of Commerce approach to the electrospace assignment process for Federal Agencies. Other important telecommunications policy problems are not discussed in this paper. Briefly, we propose a policy officer at the Assistant Secretary level with continuing supporting staff, and a new permanent interagency policy advisory committee to consider all important questions of government policy in telecommunications, including allocations of the electrospace.

In establishing its organization on telecommunications functions, the Department would vest responsibility for allocations, assignments, standards and regulation for Federal uses of the electrospace in a new Federal Electrospace Administration. We propose introducing to the electrospace assignment process a central engineering assignment staff with a substantial computer facility. It would provide capability for rapid analysis and assignments, and allow greater decentralization of decisions by remote access from Agencies and regional centers. The Interdepartment Radio Advisory Committee (IRAC) would be retained, with responsibility for oversight of this

process rather than the day-to-day assignments. The principal role of IRAC would be to focus upon broader questions of the process and on coordinated planning of Agency requirements. Provisions for review of decisions are outlined. An important component of the over-all new functions will be a research and engineering program. This program will include activities of the Institute for Telecommunication Sciences of the Environmental Science Services Administration, the Radio Standards Divisions, the Technical Analysis Division and other units of the National Bureau of Standards, and other appropriate Government and private resources. Additional technical and economic capabilities will be established within the program as necessary to support telecommunications policy-making and electrospace management.

On August 14, 1969, Dr. Tribus met with General G. B. Cauble, Mr. Willie Moore, and Captain Shugart, of the Department of Defense, to discuss the substance of the enclosed paper. He emphasized that the Department of Commerce regards full and proper provision for defense and other government agency telecommunication requirements as an essential feature of an adequate over-all telecommunication system for the nation. I understand that he did have a fruitful discussion, and your representatives felt that the enclosed paper would be a useful basis for review in your Department. We would appreciate having your comments as soon as is convenient for you, since we would like to move forward with these plans as rapidly as possible.

Please let me know if you have additional questions.

Sincerely,

Secretary of Commerce

Enclosure

PROPOSAL FOR FEDERAL AGENCY PARTICIPATION IN
TELECOMMUNICATIONS POLICY COORDINATION
AND IMPROVED ADMINISTRATION OF THE ELECTROSPACE
FOR THE FEDERAL AGENCIES

1. Introduction

Responsibilities proposed for a new executive telecommunications authority, under present legislation would include:

--Policy, e.g., policies and programs of the Executive Branch affecting domestic and international telecommunications; responsibilities of the Executive under the Communications Act and the Communications Satellite Act; liaison with and representations to the Federal Communications Commission on policy issues; federal-state activities; national allocations of the electrospace* in cooperation with the Federal Communications Commission; and, with the Department of State, international coordination of telecommunications matters.

--Telecommunications Management for Federal Departments and Agencies; allocation, assignment and regulation of Federal use of the electrospace; guidance and coordination of Government systems development, standards, and procurement criteria; interagency and federal-state telecommunications coordination.

--Research and Engineering; studies of electromagnetic waves and information transmission needed for efficient utilization of

*The term "electrospace" is used rather than "spectrum" or "frequency" as it projects better the multidimensional character of the radio resource.

the electrospace resource; economic and technical analyses to provide a basis, in part, for telecommunications policy and allocations; provide technical assistance to government agencies.

Until such a new scope of telecommunications responsibilities is clarified and assigned, it would be premature to attempt to describe organizational structure or detailed procedures. This document, rather, outlines certain features of the Commerce Department's approach toward (a) obtaining adequate interagency participation in policy development, and (b) providing continuity and improvement of processes for administration of electrospace utilization by Federal Agencies. The Department of Commerce regards proper provision for government telecommunications operations and electrospace utilization as an essential feature of an adequate overall telecommunications "system" for the nation.

2. Administration of Telecommunications

Overall responsibility for telecommunications policy, management and research would be vested in an Assistant Secretary for Telecommunications. He would manage the necessary agency structure, including that for electrospace administration for Federal Agencies.

A small carefully selected policy staff, headed by a Deputy Assistant Secretary, would draw upon the resources of all the major programs of the new telecommunications administration, and upon an external advisory structure, in gathering information and drafting proposed policy positions. The output would include among other forms, draft legislation, representations to the Federal Communications Commission, draft Executive Orders and Circulars.

The Department of Commerce would represent the coordinated Executive Branch position on major telecommunications policy issues before the Federal Communications Commission, with other Government Agency assistance as appropriate.

Responsibilities and processes for Federal electrospace administration are discussed below.

Another major division of functions and responsibilities would relate to matters of Federal telecommunications operations other than questions of electrospace. This would include, with the assistance of the Departments and Agencies, the provision of policy guidance for the National Communications System (NCS), Federal-State technical coordination, promulgation of Federal telecommunications technical specifications, standards, and procurement policies, and a continuing review of Agency telecommunications programs for policy, coordination and advisory purposes.

A third major component of the new program to be based at Boulder, Colorado, would provide technical and economic research, engineering assistance, and studies and development of standards for possible promulgation by the telecommunications administration. The policy development, telecommunications management and electrospace administration programs would rely heavily on this research and service-oriented engineering program for technical support in the conduct of their activities.

3. Telecommunications Advisory Process

For a long time there has existed no continuing broadly based, interagency body to advise on telecommunications policy for the Executive Branch. The Telecommunications Coordinating Committee of the Department of State has not functioned for years; the Director of Telecommunications Management has established ad hoc groups for certain issues.

We propose early establishment, by the Secretary or the President, of a permanent interagency Telecommunications Policy Advisory Committee (TPAC), the Chairman to be appointed by the Assistant Secretary for Telecommunications. Examples of major policy issues which should be considered by such a committee

include: allocations of the electrospace, and policies on overall efficient use of the electrospace resource; satellite communications; many international aspects of telecommunications; federal-state relationships; effects of new technology; federal procurement policies and telecommunication programs.

A non-government Telecommunications Advisory Board, with appropriate panels on electrospace administration and research would provide advice of experts from industry and academic areas.

4. Electrospace Administration for Federal Agency Telecommunications

The present system for allocation and management of frequency utilization for Federal Agencies uses the long established Interdepartment Radio Advisory Committee (IRAC), which reports to the Director of Telecommunications Management.

While the IRAC presently serves as a coordinating body for Executive Branch allocations policy, much of its activity concerns the day-to-day assignment of frequencies to government radio stations. This is handled principally by the Frequency Assignment Subcommittee (FAS) of the IRAC. Considerable time is routinely required to coordinate and complete government assignment

actions; the FAS must consider up to several thousand such items on the agenda of its regularly scheduled monthly meeting which normally requires several days. Many hours are spent in advance by IRAC members coordinating radio frequency requirements in preparation for these meetings.

4.1 Federal Electrospace Administration

Questions of policy and management for electrospace utilization would be dealt with by a new agency within the Department of Commerce, the Federal Electrospace Administration (FEA). The FEA would be responsible for the allocation and assignment of Federal electrospace and for day-to-day cooperation with the FCC in the management of the electrospace. The TPAC would advise on major allocations and policy issues, and allocations decisions would be subject to ratification by the Assistant Secretary for Telecommunications. The FEA would also be responsible for promulgation of electrospace utilization standards and regulations for Federal agencies.

4.2 Electrospace Assignment Process

It is proposed that the new FEA would establish a computer-based electrospace assignment system. An "electrospace assignment staff" would be organized, (see chart) utilizing a substantial central computer facility and master data file to make rapid assignments. In addition, regional assignment facilities and

processes would be established, using smaller computers and remote access to the central computer. Direct access to the computer system and the assignment process would be provided from remote data consoles at each of the agencies. Particularly concerning Department of Defense uses, the data of the Electromagnetic Compatibility Analysis Center (ECAC) would be accessed in such an overall system, with appropriate safeguards. The kinds of technical data files maintained by ECAC would be extended as appropriate to other uses of the electrospace.

All agencies would be kept informed of electrospace assignment actions and would have an opportunity to object if problems arose. The IRAC would now have oversight responsibility for this process, rather than day-to-day processing responsibility--one or more of the IRAC subcommittees might give close attention to particular aspects of the process.

4.3 Interdepartment Radio Advisory Committee (IRAC)

It has already been indicated that IRAC should be retained, with an oversight function over the assignment process rather than day-to-day operating responsibility. It would function as a panel of TPAC, along with other appropriate panels, such as a panel on the National Communications System. The Chairman

of the IRAC would be appointed by the Administrator of the FEA. IRAC is now and would remain an important source of information on Agency plans and requirements, and a vehicle for interagency coordination of electrospace utilization.

In the event that an electrospace assignment cannot be accommodated routinely, the IRAC would consider and make a recommendation. In case of Agency dissent from a decision regarding an electrospace assignment by the FEA staff, the decision would be reviewed by the Director of FEA, with the advice of IRAC. If the using agency desired, the FEA Director's decision on review, or any of his other actions, such as in allocations or regulation matters, could be brought before TPAC for comment and appropriate further decisions by the Assistant Secretary for Telecommunications.

4.4 Some Electrospace Management Priorities

While the coordination and advisory role of IRAC is a necessary one, it is by itself insufficient to assure developing maximum overall efficiency of use of the electrospace by the Government. The FEA will need to develop a substantial program to obtain accurate information, measures, and improved techniques for electrospace management. It will be the responsibility of the FEA to follow up on the most significant proposals for improved electrospace management arising in recent years from

studies of the President's Task Force on Communications Policy, the Bureau of the Budget, the Joint Technical Advisory Committee, the Commerce Technical Advisory Board, and other advisory groups. Some priorities, including the improved assignment process are recapitulated below.

MANAGEMENT INFORMATION SYSTEM

-- Develop adequate measures of electrospace utilization.

-- Obtain useful data on actual usage of electrospace to supplement bookkeeping records.

-- Establish shared data base and computational processes for regional and national electrospace management system.

MANAGEMENT OPERATIONS

-- Establish central Electrospace Assignment Engineering staff, supplemented gradually by regional management centers.

-- Develop comprehensive computer systems for electrospace assignment engineering and records, to facilitate both central engineering assignment processes and remote access by agencies and regional management centers.

-- Apply operations analysis techniques routinely to electrospace utilization to increase efficiency of use of the resource.

RESEARCH

Effective development of future electrospace utilization, for increased yield to meet growing needs and to permit new services, will depend in large part upon a first rate research program, using not only the laboratories of the new telecommunications authority, but a broad program including other government laboratories, industry, and universities.

-- Operations analysis studies should be made of increasing intensive electrospace-sharing possibilities, including electromagnetic-wave considerations, and the various information transmission (modulation, coding, power, bandwidth) parameters.

-- Extension of the useable electrospace to higher frequencies, i.e., millimeter waves and beyond.

-- Examination of possibilities for improved standards for receivers and transmitters.

-- Study of potential impact of new technology on electrospace utilization.

-- Study of economic factors in electrospace allocation, e.g., "the value at the margin" of various uses of the spectrum; costs and benefits to various services,

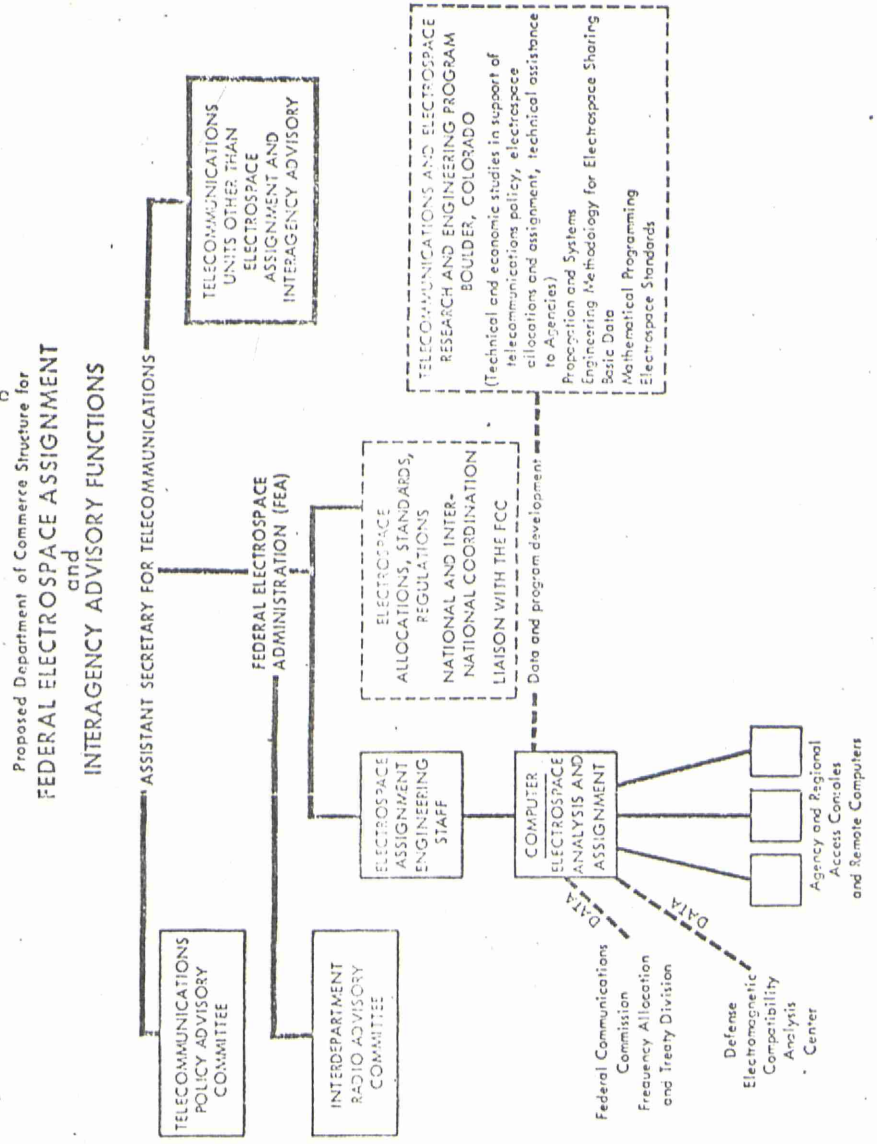
and studies of alternatives; simulation of development of the overall system under certain policies--such studies should be made with a view to providing in part, a valid basis for allocations or other administrative steps in electrospace management.

5. Review of Decisions

A process was described above for review of FEA electrospace assignment decisions upon dissent of an Agency. Similar processes would be established for review of decisions in other areas of responsibility of the new telecommunications authority. Rarely, an important issue in which there is ultimate disagreement between Agencies or between the authority and an agency, might, as at present, have to be resolved by the President. In order to assist the President in such an issue, it is desirable that he designate a staff assistant to be responsible in the telecommunications area. The Department of Commerce would recommend that such a White House Staff member be designated, and that he participate in the meetings of the Telecommunications Policy Advisory Committee and the Telecommunications Advisory Board.

Office of the Assistant Secretary
for Science and Technology
Department of Commerce

August 22, 1969



ELECTRONIC INDUSTRIES ASSOCIATION

2001 EYE STREET, N. W.
WASHINGTON, D. C. 20006
659-2200

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October 17, 1969

TO: Members, EXECUTIVE COMMITTEE
LAND MOBILE COMMUNICATIONS SECTION
SATELLITE TELECOMMUNICATIONS SUBDIVISION
COMMUNICATION TERMINALS & INTERFACES SECTION
FIXED POINT-TO-POINT COMMUNICATIONS SECTION
Industrial Electronics Division

Gentlemen:

Through the diligence and perserverence of Pat Forte, we have managed to obtain the first officially released copy of a letter concerning telecommunications policy from Secretary of Defense Melvin Laird to Secretary of Commerce Maurice Stans. Mr. Laird's letter is in response to a proposal from Secretary Stans -- a proposal we have not yet been able to obtain.

Mr. Stans' proposal concerns the assumption by the Commerce Department of certain telecommunication responsibilities currently in the hands of the FCC and the Office of Telecommunication Management. It is part and parcel of a continuing struggle within the federal establishment for telecommunications responsiblity.

The attached letter refutes many of the contentions made by those who would like to centralize telecommunications power in one or another of the cabinet departments. Mr Laird says in the final paragraph of his letter ".... I do not consider your proposal offers any significant advantages but does present many disadvantages." Mr. Laird further proposes that a clarification of the status and responsibilities of the ODTM and provision of the FCC and the ODTM with more resources, as well as elevating ODTM to a separate office status within the Executive Offices of the President would be ".... far more effective" than the suggestion that telecommunications authority be transferred to a cabinet department.

We will continue our attempts to obtain a copy of the Stans proposal. Organization and responsiblity changes within the telecommunications establishment of the federal government can have deep and lasting impacts on our industry, and we urge you read carefully the attached.

Sincerely,

John Sodolski
Staff Vice President
Industrial Electronics Division

JS/gr

Attachment
69-1468

THE SECRETARY OF DEFENSE
WASHINGTON

OCT -1 1969

Honorable Maurice Stans
Secretary of Commerce
Washington, D. C. 20230

Dear Maury:

Thank you for your letters of September 2nd and July 31st and their attachments outlining your views on how the Department of Commerce would effect leadership in the telecommunications management area. As you can appreciate, the character and source of national telecommunications policy and radio frequency spectrum management are of vital concern to the Department of Defense.

This concern stems from our wide-ranging national security interests and responsibilities on both a national and international level. It is also due to our pluralistic character as owner and operator of vast international communications networks, assignee of over 67,000 radio frequencies, largest lessor of commercial communications services, sponsor of approximately three hundred million dollars of R&D annually in the communications field, and provider of essential communications services to other government elements that have responsibilities for national security and continuity of government. Moreover, I also serve as Executive Agent of the National Communications System (NCS), and my Defense Communications System constitutes 80% of that system; thus, telecommunications policy concerning the NCS and its eleven Operating Agencies is of vital interest to me in even a broader sense than just my Departmental role. With these interests in view, I have given your proposal considerable thought.

In comparing the September 2nd proposal with the correspondence and study previously provided on July 31st, I find it significant that your Department no longer proposes transfer of certain statutory responsibilities of the FCC to the Executive Branch. I am gratified by this change since I did not consider it appropriate for

the Executive Branch to propose that Congress transfer responsibility to regulate interstate and foreign commerce, insofar as telecommunications is concerned, from the FCC to the Executive Branch. Congress' delegation of this responsibility to the FCC, is, of course, contained in the Communications Act of 1934, as amended. That Act also reflects the intent of Congress that the radio frequency management powers of the FCC and the President be separate rather than in a single organization. Concentration of all radio frequency allocation and assignment authority wholly within the Executive Branch could have led to the President adjudicating frequency disputes between civil claimants in much the same manner, but on a more frequent basis, than he now does in settling air route controversies among international air carriers.

With the matter of continued separation of FCC and Executive frequency management responsibilities no longer at issue, I fail to see why the remaining functions, which are essentially those of the Director of Telecommunications Management (DTM) only, should be transferred from the Executive Office of the President. Indeed, I believe there are numerous cogent reasons for not placing total, or near total, Federal telecommunications management responsibilities within the Department of Commerce, or, for that matter, within any other Executive Department.

I do not believe that a Departmental location could provide the requisite perspective for national or Federal policy making. Only the Executive Office of the President provides the proper environment for adequate consideration and development of telecommunications policy. Retention of these functions in the Executive Office permits discussion and consideration of policy by all individuals and organizations concerned in examining the national interest, such as the President, National Security Council, Bureau of the Budget, Council of Economic Advisors, Office of Science & Technology, and Office of Emergency Preparedness, and provides access to the heads of all Departments and agencies. This broad perspective does not exist within an Executive Department.

Further, integration of national level policy functions into an organization having departmental operational responsibilities could lead to serious conflicts. Your Department, for example, vies with other Federal agencies for frequency allocations. I believe you have some 3000 frequency assignments and an investment of almost

$100 million in communications-electronics equipment. Furthermore, your Weather Bureau networks are designated as assets of the NCS, and your Department is an NCS Operating Agency. Should a difference of view arise within the NCS, I, as Executive Agent, would attempt to resolve it. Presumably, if I were unable to effect resolution, under your proposed arrangement I would go to an Assistant Secretary of Commerce for a policy decision, rather than to the President as I do now. Moreover, in instances where your networks were party to the dispute, your agency's dual role as disputant and adjudicator would be a most difficult one.

Such questions aside, I do not believe that one Department of government should ever be put in the position of formulating or directing the policies of other Departments when those policies vitally affect the Departments' ability to perform their missions. I would have especially grave misgivings about such an arrangement in the telecommunications area since communications is so inherent a part of military command and control. I strongly believe that, from the viewpoint of the Department of Defense, the Executive Office provides the only viable location for telecommunications policy development and frequency management.

Most importantly, I cannot see how the President, as Commander in Chief, could delegate telecommunications management functions, which vitally affect the Armed Forces and other national security agencies, to one of the Executive Departments, particularly one that is not primarily concerned with national security matters.

With respect to existing coordination arrangements for spectrum management, I consider that the cooperative procedures between the President and the FCC, which have evolved over a period of years, are effective. Activities relating to Federal frequency management within the Office of the DTM, the President's delegate, are fully coordinated with the FCC through the Commission's liaison representative in that office. Any differences of view that arise in the coordination process are resolved by the DTM and the Chairman of the FCC.

To the extent that improvement in the present management of the frequency spectrum is needed -- and this need has been widely appreciated in recent years, I believe that the more promising course of action would be to provide additional technical and research

capabilities to the Office of the DTM and the FCC that would enable them to more effectively fulfill their responsibilities for allocating and assigning frequencies.

The fact that the Department of Commerce has certain radio research and analytical resources is not, to my mind, a compelling argument for the relocation of telecommunications management to Commerce. These same resources, together with complementary resources of other government agencies and industry, could work for the FCC and DTM just as effectively as they could for your proposed Assistant Secretary for Telecommunications, provided that the FCC and DTM were permitted adequate staffs and funds to contract for research and other support activities. The DTM's past efforts to obtain funds for increased technical and analytical support, I understand, have not been wholly successful, but this apparently was not due to his organizational location. Both your National Bureau of Standards (NBS) and Institute for Telecommunications Sciences (ITS) have contracted with the DTM in past years, which would indicate that proper utilization of Department of Commerce resources and the resources of other government agencies and industry could provide, on an expanded scale, a feasible means of supporting telecommunications policy and frequency management research.

In view of the foregoing, I do not consider your proposal offers any significant advantages but does present many disadvantages. Sharing your concern that national telecommunications management needs strengthening, I believe that clarifying any contradictions that might exist in the authorities relating to the status and responsibilities of the DTM; providing the FCC and DTM with more resources; and elevating the DTM to separate office status within the Executive Office of the President, as has been recommended by the Comptroller General, would be far more effective.

Sincerely,

Industrial Communications

Weekly Information Service

Robert E. Tall, Editor
561 National Press Bldg.
Washington, D.C. 20004

Telephone 783-2482

No. 50 December 19, 1969

Index

* * * * * * * * *

This fiftieth issue of Industrial Communications completes our service for the year of 1969. There will be no issue of this publication dated December 26. News developments which occur next week will be covered in our next scheduled issue, to be dated January 2, 1970. We would like to take this opportunity to thank you for your continued support of our service, and for your friendship, and to wish you the happiest of holiday seasons, and a prosperous New Year.

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. . .Dr. Gardiner L. Tucker, at present Principal Deputy Director, Defense Research & Engineering, in the Department of Defense, has been nominated by President Nixon to be Assistant Secretary of Defense for Systems Analysis, succeeding Dr. Ivan Selin, who has resigned as Acting Assistant Secretary of Defense for Systems Analysis effective at the end of January. Dr. Tucker, 44, had served as Director of Research for International Business Machines Corp. before joining the Defense Department in 1967.

. . .James Hodgson, who has been Vice President of External Telecommunications for the British Post Office since 1967, has been named Director of External Telecommunications to succeed C. J. Gill, who retires on Dec. 24. Mr. Gill closes out a 43-year career with the Post Office, or in related assignments.

. . Roger H. Klich, Vice President of the Teletype Corp., has been elected President of the National Electronics Conference for 1970.

. . .Appointment of Irving K. Kessler as Executive Vice President, Defense & Commercial Systems, effective Jan. 1, was announced last week by RCA President Robert W. Sarnoff. Mr. Kessler assumes operating responsibility for RCA's Commercial Electronic Systems activity formerly headed by Barton Kreuzer, recently named Executive Vice President, Consumer Electronics. Mr. Kessler will have management responsibility for most of RCA's major manufacturing facilities in the Camden, N.J., area.

. . .Retiring National Cable Television Association Frederick W. Ford has announced that he will, on Jan. 1, join the law firm which will be known as Pittman, Lovett, Ford, Hennesey & White.

. . .Robert B. Snyder, previously with Allied Chemical and RCA, has joined DuMont Electron Tubes, a division of Fairchild Camera & Instrument Corp., as Manager of Industrial Relations. Mr. Snyder will direct all industrial relations activities of the division, "which is the world's leading manufacturer of display tubes", the company said.

. . .Roger R. Bettin, formerly Executive Vice President of R F Communications, Inc., of Rochester, N.Y., and a founder of the firm, has been appointed President of the company to succeed Elmer W. Schwittek, it was announced by Dr. Joseph A. Boyd, Executive Vice President-electronics of Harris-Intertype Corp., parent company of RF Communications. Mr. Schwittek is becoming Vice President-product planning, for Harris-Intertype's Electronics Group, which accounted for more than 40% of last year's corporate sales of $340,000,000. Mr. Bettin was formerly associated with General Dynamics Corp. and Collins Radio Co. prior to the founding of R F Communications in 1961.

. . .The departure of Jack Wayman from the staff of the Electronic Industries Association last week--he was Vice President for the Consumer Products Division--exploded in the press this week as a case of conflict between Mr. Wayman and EIA President George Butler, who said "you could say" Mr. Wayman had been "fired". The EIA President said Mr. Wayman "spread his wings broader than EIA, and made overt moves which couldn't be ignored. He overtly tried to encourage member companies to depart from the organization and form a separate organization"--the quote comes from TELEVISION DIGEST. The fight has been brewing for some time, and speculation was rife that anywhere from a few to a number of EIA member companies might be pulling out to join a new organization.

. . ITT Corp. is being issued a $9,257,600 modification to an Army contract for AN/GRC-143 radio sets.

FCC SCHEDULES ORAL ARGUMENT ON SPECTRUM RELIEF DOCKETS FOR JAN. 22-23

FCC Chairman Dean Burch's expressed "hope" earlier this month that the Commission would meet the Senate Appropriations Committee's expectation that the agency come out with a decision providing frequency relief for the land mobile radio services by the middle of December (IC, Dec. 5), did not materialize this week.

The two major spectrum dockets were taken up by the Commission at its meeting this week, to be sure, but the outcome of the agency's deliberations was the scheduling of an "oral argument", to be held on Jan. 22 and 23, at which interested parties are to sharpen the focus of their positions, and after which the Commission will presumably act.

While the agency's election to defer its decision in Dockets 18261 and 18262 was viewed as a disappointment by the land mobile field, which has certainly provided the Commission with sufficient information over the past 20 years to justify the allocation of additional frequency space, the early scheduling of the oral argument was seen as an indicator that the agency does intend to reach its decision with some dispatch following the argument.

The oral argument is scheduled to begin before the seven FCC Commissioners at 10 a.m. on Thursday, Jan. 22, and both that day and the following day have been fully set aside to hear the opposing parties in the two spectrum proceedings.

"Parties desiring to present argument", the agency said, "shall file a written notice of intention to appear and participate" within ten days following release of the announcement, Friday, Dec. 19. "Such notice", the Commission said, "should specify the party or parties represented, whether argument will be addressed to Docket No. 18261 or to Docket No. 18262, or to both Dockets, and the amount of time requested. After submission of such written notices," the agency said, "the Commission will issue an order allotting time to the parties who will present argument, and may allot time jointly to parties representing the same or similar interests."

The action was taken this week by all seven Commissioners, and with no dissenting views noted. Docket 18261, the Commission recalled, "provides for sharing the use of UHF TV channels 14 through 20 with land mobile radio services in 25 major urban areas." Docket 18262, it said, "would allocate a total of 115 megacycles of additional spectrum space in the 806-960 megacycle band for common carrier (75 mc) and private systems (40 mc) in major urban areas."

Both proposals, the order said, "represented significant steps in the Commission's continuing attempt to provide relief from increasing congestion in the land mobile radio services, particularly in the larger metropolitan areas." It pointed to "the extreme importance of the questions involved in both proceedings," and the "sharp diversity of views presented in the written comments", in concluding that the oral argument should be held.

The Commission said it "invites participation in the oral argument by all interested parties, particularly those who have already shown major interest in the proceedings. In order to make most effective use of the limited time available," it said, "interested parties are urged to coordinate their presentations and, to the extent feasible, to designate joint spokesmen for groups of parties wishing to present substantially similar views."

-End-

WHITE HOUSE MEMO WOULD REMOVE FCC'S AUTHORITY TO ALLOCATE AND ASSIGN FREQUENCY SPECTRUM TO NONGOVERNMENT USERS, BUT NOT IN ANY HURRY; WOULD SET UP NEW OFFICE OF TELECOMMUNICATIONS POLICY IN EXECUTIVE OFFICE OF PRESIDENT WITH MORE POWERS

A White House staff blueprint for the reorganization of the government's communications management structure, which includes the recommendation that the authority to allocate and assign frequency spectrum to nongovernment users, now vested in the Federal Communications Commission, be eventually consolidated in the executive branch of government, came to light Friday, Dec. 19, during a Congressional hearing.

A White House memorandum, with a covering letter from Presidential Assistant Peter M. Flanigan, pinpointed the status of the reorganization proposals as being in the last stage of review by the White House staff before submission to President Nixon. Its principal recommendation is that a new Office of Telecommunications Policy be established as an independent entity in the Executive Office of the President with broader powers than the present Office of Telecommunications Management has.

The hearing from which the memorandum emerged was being conducted by the House subcommittee on space science and applications, to explore the question of whether advancing technology in the field of satellite communications is being properly exploited to the best interests of the American taxpayers.

The specific reference to the removal from the FCC of its authority to allocate and assign frequency spectrum to nongovernment uses was a relatively minor section of the overall reorganization recommendations, and did not indicate that there should be any hurry in accomplishing the move.

"Consolidation of spectrum allocation authority", it said, "would permit greater flexibility in assignment policies and eventually, even more efficient spectrum use. However, such a move requires legislation, it raises concern about political interference in the assignment of frequencies, and it would inundate the new (Office of Telecommunications Policy) with a highly routine workload. The FCC now processes 800,000 applications yearly, compared to 37,000 now handled by the Director of Telecommunications Management", the memo said. "For these reasons, immediate consolidation of these responsibilities is not recommended, but planning for eventual consolidation should be started."

The memorandum pointed out that both the Bureau of the Budget and the staff of the President's Advisory Council on Executive Organization assisted in its preparation. Mr. Flanigan asked for comments from the recipients of the memo "by Dec. 13", prior to his "submitting a final recommendation to the President."

The opening discussion in the memorandum made clear that the White House regards the land mobile radio frequency congestion situation as a problem, and that it is, in fact, "a crisis."

In analysis of the present government structure, it observes that "In spite of the rapidly growing importance of telecommunications to the nation and for the government's own missions, there is no effective policy-making capability for telecommunications in the executive branch. The Administration is therefore largely unable to exert leadership or take initiatives in spite of vulnerability for criticism for FCC policies. Government-wide coordination of its own telecommunications activities has not been adequate. These problems have been manifested in several ways:

"(1) There is a serious lack of effective machinery for dealing expeditiously

with domestic telecommunications issues. The government has been grappling for several years, with only limited success, with such issues as 'foreign attachments' to the public telephone network, cable TV and pay TV, the possible uses and industry structure for a domestic satellite communications system, and policies for computer communications. There is a current tendency to resolve such issues by past precedents and by compromises between the FCC and various agencies in the executive branch, but the increasingly rapid rate of technological change and introduction of new services makes policy-by-precedent increasingly less relevant, more restrictive, or counter-productive. Neither the FCC nor the executive branch has a significant capability for systematic economic and technical analysis.

"(2) Efforts to coordinate the procurement and use of telecommunications and services by the federal government have had limited success. The current coordination arrangements, embodied in the National Communications System (NCS) structure, have achieved certain desirable interconnections and operating procedures, but have not produced the desired assurances that the government is procuring the services needed in an efficient manner. Although present policies call for a 'unified' NCS, there is little agreement on what further unification is needed, or what it would cost or accomplish.

"(3) The current procedures for spectrum allocation are highly inflexible and are increasingly creating a spectrum shortage crisis. The shortage is especially severe in the land mobile radio allocations, which are becoming increasingly important to local police and fire protection services, among many other claimants."

Discussing the present operation of the Director of Telecommunications Management in the Office of Emergency Preparedness, the memo says "the history of the organization reveals that attempts by the DTM to exercise leadership in communications policy have been largely ineffectual. The responsibilities and authority of the DTM are questioned by agencies with operating responsibilities. This situation results from a number of factors including organizational location, inadequate staff, and lack of clear authority."

"There is now no office in the executive branch with the responsibility or the capability to review the whole range of national telecommunications policies as expressed in legislation and in FCC policies," the discussion went on. "The Anti-trust Division of the Justice Department has occasionally filed briefs on the competitive aspects of decisions before the FCC, but these derive largely from antitrust considerations rather than from familiarity with communications issues. The Commerce Department has a telecommunications research capability, but no responsibility or familiarity with communications policy. Neither the Council of Economic Advisers nor the Office of Science & Technology are equipped to address the fundamental economic and institutional problems of the communications and its regulation by the FCC, or the problems of the government's own telecommunications."

None of the studies of federal communications organization, or changes made, since World War II has "proved particularly satisfactory", the memo goes on, "and, indeed, there is no ideal solution. This is due in part to the quasi-independence of the FCC from the executive branch and in part to the conflicting individual agency mission responsibilities within the executive branch."

The memorandum points out that "There are a variety of possible ways in which the telecommunications responsibilities could be reshuffled or strengthened. As a starting point, there is widespread agreement that a single office should bear ultimate responsibility for: (1) analyses and formulation of overall telecommunications policy for the executive branch; (2) policy-level coordination of federal government

procurement and use of telecommunications services and equipment; and (3) allocation and assignment of spectrum resources to government users."

It was in a discussion of "several further issues" that the FCC's authority to allocate and assign frequency spectrum to nongovernment users was brought up. The matter was preceded by a discussion of "where a single office should be located."

"There are two competing sets of considerations", it said. "Further expansion of telecommunications activities within the Executive Office of the President would force undesirable growth in the size of the Executive Office of the President, while telecommunications does not require the frequent direct Presidential attention implied by a location within the Executive Office. On the other hand, placing the central office within an executive department (e.g., Commerce or Transportation) raises serious questions about the impartiality of frequency allocation and assignment among government users and assurance of vital national security interests. Both sides of this issue have considerable merit, but from the standpoint of practicality and the need to minimize even temporary disruptions of our policy machinery, the policy functions should for the time being remain in the Executive Office. However, as much of the operational and research responsibilities as possible should be carried out in the departments and agencies."

The principal recommendation of the memorandum was that "An Office of Telecommunications Policy should be established as an independent entity in the Executive Office of the President. The Director of this office, appointed by the President, would have primary executive branch responsibility for both national telecommunications policies and federal administrative telecommunication operations.

"The responsibilities of the Office of Telecommunications Policy", it said, "would include:

--economic technical and systems analysis of telecommunications policies and opportunities in support of national policy formulation and US participation in international telecommunications activities.

--developing executive branch policy on telecommunications matters including, but not limited to, industry organization and practices, regulatory policies, and the allocation and use of the electromagnetic spectrum for both government and nongovernment use.

--advocating executive branch policies to the FCC, and through the President to the Congress; and representing the executive branch in FCC proceedings.

--exercising final authority for the assignment of the spectrum to government users, and developing with the FCC a long-range plan for improved management of the total radio spectrum.

--reviewing and evaluating the research and development for, and planning, operation, testing, procurement, and use of all telecommunication systems and services by the federal government; developing appropriate policies and standards for such systems; and making recommendations to the Bureau of the Budget and responsible departmental officials concerning the scope and funding of competing, overlapping, or inefficient programs.

--exercising the functions conferred on the President by the Communications Satellite Act.

--under the policy guidance of the Director, Office of Emergency Preparedness, coordinating plans and programs for testing of and preparing for the use of telecommunications resources in a state of national emergency.

--test, review, and report to the President, through the National Security Council, on the ability of national communications resources to meet established national security requirements efficiently and responsively.

--coordinating federal assistance to state and local governments in the telecommunications field."

"In performing these functions," the memo noted, "the Director, Office of Telecommunications Policy, will be assisted by a small staff, augmented as required, by: (1) ad hoc, interagency and nongovernment task groups, (2) independent consultants, (3) contract studies, (4) a new Telecommunications Research & Analysis Center, (5) the Interdepartment Radio Advisory Committee, and (6) a new Telecommunications Advisory Committee composed of experts from outside of the government. So long as the NCS structure is retained, he will also be assisted by the Executive Agent of the NCS."

The new Telecommunications Research & Analysis Center mentioned in the plan, the memo notes, "should be established in the Commerce Department, reporting to the Assistant Secretary for Science & Technology. The TRAC would provide a centralized research, engineering, and analysis capability in support of spectrum management and such other areas as may be required. Specific functions of the TRAC would be to:

--conduct research and analysis in the general field of telecommunication sciences in support of other government agencies or in response to specific directives from the Office of Telecommunications Policy, with particular emphasis on radio propagation, radio systems characteristics, and operating techniques leading to improved utilization of the radio resource.

--develop and operate a national electromagnetic compatibility analysis facility under the general policy guidance of the Director, OTP.

--provide the administrative and technical support required by the Interdepartment Radio Advisory Committee. This support will operate in accordance with policies and criteria laid down by the OTP, and will be responsive to OTP requests for information and special frequency assignment actions."

"The Office of Telecommunications Policy," the memo says, "should be established with an initial strength of up to 30 professionals, including up to 15 at super-grade levels. The position of Director, Office of Telecommunications Policy, should be established at executive pay level III. Provision should be made within the budget of the office for adequate consulting fees and contractual support, and for administrative support to, and space for, task groups and personnel on short-term detail."

The present Office of Telecommunications Management, the memo recommends, "should be abolished," with all of its policy functions not directly related to emergency preparedness being transferred to the Office of Telecommunications Policy, "along with appropriate emergency planning functions, final spectrum management authority, and NCS responsibilities. The major portion of the Frequency Management Directorate of the OTM should be transferred to the Department of Commerce to provide the technical and clerical support functions described above. The position of Special Assistant to the President for Telecommunications should be abolished."

-End-

PREPARATION OF DISSENTS HOLDS UP FCC ANNOUNCEMENT ON AIR/GROUND DECISION

The preparation of dissenting statements by FCC Commissioners Nicholas Johnson and Kenneth A. Cox at the end of this week was apparently holding up the Commission's release of its decision, reached this week, to regularize the public air/ground radiotelephone service. Release of the agency's announcement was expected Monday, Dec. 22.

The Commission's proposals in the proceeding, issued in late August, 1968, were designed to put some life in the public air/ground communications service by providing for expansion of the present developmental system to a national network of ground stations on a regular basis and resuming the licensing of stations for the airborne customers. Bell System companies have in recent months filed for a number of new stations, but on a "developmental" licensing basis.

During the rounds of comments on the FCC proposals, the radio common carrier industry made a strong bid to be able to provide at least some of the public air/ground service, and it is understood that the Commission's decision provides that the RCCs may participate in the service.

The American Telephone & Telegraph Co., the US Independent Telephone Association, and the General Telephone & Electronics Service Corp. took the position in the proceeding that the RCCs had not shown public need for their own air/ground service, and this should be the subject of a separate FCC proceeding, so it would not hold up the broadening of the existing telephone company-operated service (IC, Feb. 7, 1969).

-End-

LAND MOBILE COMMUNICATIONS COUNCIL HONORS SENATOR ALLOTT WITH GOOD GOVERNMENT AWARD

Colorado Senator Gordon Allott, who has been one of the members of the Senate to express his interest a number of times with respect to FCC action to alleviate the radio frequency congestion problems of the land mobile radio field, was presented the Land Mobile Communications Council's "Good Government Award" in ceremonies in his office in Washington last week.

LMCC President Max Guiberson, of the State of Washington Department of Natural Resources, lauded Senator Allott for his "dedication as a member of several key committees in the Senate," and observed that the Council is aware, "in particular, of the great amount of time you have spent learning about land mobile radio communications, how they serve the public, and the need radio users have for additional frequency space."

Senator Allott's "tireless efforts" in this regard, Mr. Guiberson said, "are serving the public well." -End-

FCC REMINDS ON FREQUENCY COORDINATION CHANGE IN TAXICAB RADIO SERVICE

The FCC this week issued a "public notice" formally reminding affected parties of the agency's recognition of the International Taxicab Association as the Frequency Advisory Committee for the taxicab radio service.

ITA, the Commission said, "will begin to coordinate taxicab radio station applications on Jan. 2, 1970, but applications with frequency rdcommendations from previous coordinators will be accepted until Feb. 1, 1970." Requests for frequency recommendations, it said, "should be addressed to the International Taxicab Association, 222 Wisconsin Avenue, Lake Forest, Ill. 60045." -End-

BRIDGE, TUNNEL & TURNPIKE ASSOCIATION SUPPORTS TRI-STATE HIGHWAY PETITION

The first set of comments to emerge in connection with the early-September joint petition from highway officials of the States of Connecticut, Massachusetts and Rhode Island which seeks FCC public safety radio rule changes "to provide for the operation of a national emergency highway communications system utilizing frequencies in the local government radio service reserved for possible future use for communications related to safety on highways" (IC, Sept 12), expressed the "firm support" of the International Bridge, Tunnel & Turnpike Association for the petition.

IBTTA, however, asked that several revisions or clarifications be made: that eligibility to use the four 450 megacycle frequency pairs involved include "all state agencies, including a state authority or commission"; that such use of the frequencies "be considered as a separate function in addition to other state and local functions for the purpose of frequency allocation and assignment"; and that the FCC "allocate additional frequency channels for the uses under consideration in this proceeding."

The petition which had been filed by the three states, the association recalled, asks rule changes "to make four specified frequency pairs available to governmental entities which have the responsibility for protection of life and property on highways and to designate the use of these frequencies to provide for the rendition of emergency aid to those requiring assistance on the highway and to provide for the dissemination of information to those using the highway for the purpose of increasing safety of travel."

For emphasis, the IBTTA noted that the Director of the Ohio State Highway Patrol has pointed out that the Ohio Turnpike is "a city of 300,000 people all going 70 miles an hour", and "The critical consequences of any event or condition which impairs the flow of this traffic is clearly indicated by the fact that on a four lane limited access roadway approximately one car per second traveling at 60 miles an hour or more may pass a disabled vehicle," and "In such a situation, there is the possibility every second of a serious accident."

"In addition to the need for the substantial use of land mobile communications to prevent further accident or injury to those requiring assistance on the highway", the association said, "there is also the need for such communications to provide them with direct assistance", including "medical attention which may be required as a result of an accident, carbon monoxide poisoning, a heart attack or other illness, the activation of warning signs for patches of fog, stopping intoxicated or wrong-way drivers, apprehending criminals and providing a wide variety of other aid and information to motorists."

The extent of aid provided to motorists on just six stretches of toll highways in 1966 amounted to 259,814 individual cases, excluding accidents, IBTTA pointed out, and the total number of accidents on the same stretches was more than 263,000. The roads covered by the figures were the Illinois Tollway, the Indiana East-West Toll Road, the New Jersey Turnpike, the New York State Thruway, the Pennsylvania Turnpike, and the facilities operated by the Delaware River & Bay Authority. In "almost every instance", the association said, "multiple radio communications were involved" in dealing with the 263,000 accidents.

In putting the petition out for comments, the association suggested, the FCC should "ask for comments on the most effective methods and procedures for coordinating the use of the frequencies" involved. -End-

December 19, 1969

HOUSE PASSES 'VESSEL BRIDGE-TO-BRIDGE RADIOTELEPHONE ACT', REQUIRING VHF RADIOS

The House of Representatives this week passed H.R. 6971, cited as "the Vessel Bridge-to-Bridge Radiotelephone Act", which is designed to "provide a positive means whereby the operators of approaching vessels can communicate their intentions to one another through voice radio, located convenient to the operator's navigation station."

The bill provides that "(1) every power-driven vessel of 300 gross tons and upward while navigating, (2) every vessel of 100 gross tons and upward carrying one or more passengers for hire while navigating, (3) every towing vessel of 26 feet or over in length at the water line while navigating, and (4) every dredge and floating plant engaged in or near a channel or fairway in operations likely to restrict or affect the navigation of other vessels -- shall have a radiotelephone capable of operation from its navigational bridge or, in the case of a dredge, from its main control station and capable of transmitting and receiving on the frequency or frequencies within the 156-162 megahertz band using the classes of emissions designated by the (FCC), after consultation with other cognizant agencies, for the exchange of navigational information."

The radiotelephone required by the Act, it specifies, "is for the exclusive use of the master or person in charge of the vessel, or the person designated by the master or person in charge to pilot or direct the movement of the vessel, who shall maintain or cause to be maintained a listening watch on the designated frequency. The master or person in charge may permit the use of the radiotelephone on other authorized frequencies within the maritime mobile band whenever there is no risk of collision."

The legislation provides that the Secretary of Transportation "may, if he considers that marine navigational safety will not be adversely affected or where a local communication system fully complies with the intent of this concept but does not conform in detail, issue exemptions from any provisions of this Act, on such terms and conditions as he considered appropriate."

The FCC, the Act says, "shall, after consultation with other cognizant agencies, prescribe regulations necessary to specify operating and technical conditions and characteristics including frequencies, emission, and power of radiotelephone equipment required under this Act." The Secretary of Transportation, it says, "shall, subject to the concurrence of the FCC, prescribe regulations for the enforcement of this Act."

The above references to the Secretary of Transportation, the measure points out, are in the legislation because of Transportation's status as "the Department in which the Coast Guard is operating."

The Act is written to be effective Jan. 1, 1970, "or six months after the promulgation of regulations which would implement its provisions, whichever is later."

Discussion of the bill on the floor of the House Tuesday, Dec. 17, pointed out that the legislation "is intended only to provide for communication between the bridges of ships for the exchange of navigational information", and "is not intended to replace existing radio facilities for safety or such radio officers carried aboard vessels as are required under existing law or agreements."

The bill came to the House Merchant Marine & Fisheries Committee "by way of Executive communication", it was pointed out, "and during the hearings received

almost universally favorable comments."

While there are no statutory exemptions from the provisions of the bill, such as for the Mississippi River System or the Great Lakes, it was explained, exemption authority which the measure gives the Secretary of Transportation could provide exemption for these areas or others "which now have radiotelephone systems under regulations which insure that the system will function effectively."

While "local customs and procedures cannot be replaced overnight," it was said, "statutory exemptions would, on the other hand, tend to inhibit progress toward a nationwide uniform system and would not cover all areas where exemption, at least on a temporary basis, is warranted."

The radio equipment involved, it was noted, "need not have a significant range, and could consist of a compact handset." The House was advised that "Hopefully, the work of the International Maritime Consultative Organization will soon lead to an international radiotelephone convention which will require the presence of this equipment on all vessels in international waters." -End-

FEDERAL COAL MINE HEALTH & SAFETY ACT, PASSED BY CONGRESS, THREATENED BY VETO

The House of Representatives early this week passed by the overwhelming margin of 333 to 12 the Federal Coal Mine Health & Safety Act of 1969 in a rewritten version stemming from a House-Senate conference on differences between versions which had been passed separately by the two houses, and the Senate followed suit later in the week by agreeing to the conference report, sending the legislation to the White House.

The Administration, however, was expressing strong opposition to one provision of the bill which would compensate miner victims of black lung disease, and was threatening to veto the measure, despite what appeared to be enough strength behind the measure for Congressional override of such a move by the White House.

The bill, as previously reported in this publication (IC, March 7), contains a number of provisions which call for improved and expanded communications facilities in the nation's coal mining operations, and these have remained intact throughout Congressional consideration of the measure.

The Administration's position was that the black lung compensation program would cost the federal government $385,000,000 a year, and that the states should handle the program, rather than the federal government. The Democratic manager of the bill in the House, Representative John Dent, of Pennsylvania, said federal costs would not exceed $60,000,000 a year, and would soon drop. -End-

FCC SENDS OUT PILOT QUESTIONNAIRES IN BROADCAST-CONGLOMERATE INQUIRY

The FCC reported this week that it has sent pilot questionnaires to the parent companies of six major radio and television broadcast station licensees as part of its study of "broadcast operations of companies with substantial non-broadcast interests."

The companies selected--Avco Corp.; Chris-Craft Industries, Inc.; Cox Enterprises, Inc.; Fuqua Industries, Inc.; E. W. Scripps Co.; and Travelers Insurance Co. --the Commission said, "appear broadly representative" in connection with the agency's exploration of problems "raised by the ownership of broadcast stations by conglomerate companies and other with large scale interests in a wide variety of

non-broadcast enterprises." The conglomerate notice of inquiry was launched by the Commission earlier this year.

FCC Chairman Dean Burch dissented to this week's action, and Commissioners Robert E. Lee and Robert Wells dissented and issued statements, as the four-man Democrat majority of the agency prevailed. Commissioner Lee's dissent said the procedure adopted "by-passes the Bureau of the Budget", and further, that the letter to the six pilot companies is "inadequate". Commissioner Wells' first dissent as a Commissioner said the information which the questionnaire will gather "will not be sufficient to warrant the expense of time and money", and that the procedure adopted "will be of questionable value." -End-

COMMON CARRIER RULE REVISIONS EXPECTED EARLY NEXT YEAR, HEISTER TELLS RCC GROUP

The total of 9779 outstanding FCC authorizations for domestic public land mobile radio, rural radio, and developmental operations administered by the Domestic Radio Division of the Commission's Common Carrier Bureau as of the end of October, 1969, represented a growth of 33% in those areas during the preceding 29-month period, Division Chief C. Fred Hesiter reported to a Southeastern Regional meeting of the National Association of Radiotelephone Systems at Fort Lauderdale, Fla.

In reversing a previous trend in which the common carrier land mobile radio application backlog was steadily mounting, Mr. Heister pointed out that during the past 29 months, the staff of his division received 26,433 applications and disposed of 27,640, dropping the backlog by more than 1000 requests.

Of some 385 applications for common carrier one-way radio signaling stations to use newly available "guardband" frequencies in the 150 megacycle band which have been received by the Commission, the division chief noted, 116, or about 30%, have been disposed of, and "we have now caught up with these applications to the point where they are incorporated into the regular processing line."

"A great number of" the "guardband" applications, he noted, "are inextricably intertwined with the current hearing involving Airsignal International, Inc., or have been protested by other parties", and "It is gratifying to me that the staff has been able to process one-way applications without materially affecting the time period of processing for two-way applications." As of early December, he said, "the interval between date of filing and date on which applications are first reviewed by the professional staff is approximately 100 days, a significant improvement over the 180 or more days required 30 months ago. While we have not yet reached the 90-day goal I had hoped for," he said, "I make no apologies for the progress we have made in this area."

On another matter, Mr. Heister told the radio common carrier operators that he "hopes" that a "finalized document" can be presented to the Commission by the first of February, in connection with outstanding rule proposals for comprehensive revisions of Part 21 rules. The project would have been completed by now, he said, "if it had not been necessary to take a senior attorney off that project so she could act as Bureau counsel in the Airsignal hearing."

Along with the common carrier rule revisions, he said, "it seems logical to contemplate some revisions in the application forms to remove ambiguities and redundancies," and "this is also in the works at the moment."

As he had at the time the Commission approved the "time-sharing agreement" for the use of the guardband paging frequencies by a number of radio common carriers

in the San Francisco Bay area, Mr. Heister strongly commended such an approach, and recalled that the Commission has instructed the staff to take similar action in other areas where competing applicants for the two new RCC paging frequencies could reach mutual agreement.

There are "two situations" within the NARS Southeastern Region, he said, that "might lend themselves to a similar solution. I cannot discuss the Miami-Ft. Lauderdale possibility at this time because of a recent development involving Airsignal. However," he said, "I am in a position to urge those six applicants for guardband frequencies in central North Carolina to try to reach some agreement which would permit the Commission to issue an authorization similar to that for San Francisco.

"It is pertinent to point out", the FCC official said, "that the alternative to such an agreement would be a lengthy and costly hearing which, in the long run, would deprive the public in that area of an apparently much desired service."

-End-

INTERGOVERNMENTAL RELATIONS GROUP HAS IMPACT FOR COMMUNICATIONS PLANNING

The Advisory Commission on Intergovernmental Relations, releasing a report containing recommendations for the "drastic changes in our governmental institutions, programs, and procedures" which it says are necessary "to deal effectively with urban problems in time to avert domestic chaos", listed a number of steps which could, and definitely would, involve communications planning and implementation by the Nation's communities.

The report--"Urban America and the Federal System"--presents in a single volume a selection of findings and recommendations arrived at in individual reports by the Advisory Commission over the past nine years, dealing with such subjects as race relations, civil disorder, rising taxes, deteriorating services, escalating crime and the growing pollution and congestion of the urban environment. Copies of the publication, the Commission said, are available from the "Advisory Commission on Intergovernmental Relations, Washington, D. C. 20575."

Chairman Robert E. Merriam, who was an Assistant to President Eisenhower, said the "purpose" of the new report "is to outline the drastic and painful steps necessary to restore balance among levels of government in a way that will permit local, state and national governments to deal meaningfully with urban difficulties. A great many of the Commission's proposals are directed toward the States", which "have life-or-death legal and fiscal authority over their local governments and should exercise a pivotal a role in urban affairs."

Among other recommendations is one calling on the States to "overhaul their constitutions and statutes so as to arm local communities with an 'arsenal of weapons' for meeting the challenges of urban growth by: facilitating city-county consolidations; authorizing counties to perform urban functions and to establish subordinate service and taxing areas; authorizing formation of metropolitan charter commissions to revamp local government structure in metropolitan areas; empowering major cities and urban counties to create neighborhood 'sub-units' of government in order that disaffected citizens may be brought closer to and involved in the process of local government; providing for metropolitan functional authorities that offer services requiring areawide handling; and authorizing creation of regional councils of elected officials."

One specific step recommended is "grant consolidation and overhaul at federal

and state levels", while another calls for "increasing the capability of State legislatures in the field of State planning and legislative oversight, including annual sessions, year-round professional staffing, and adequate compensation."

The 26-member Advisory Commission is composed of private citizens; members of the US Senate and House of Representatives; Cabinet officers; state governors; city mayors; members of state legislative bodies; and elected county officials. -End-

CHRIS HAYES NAMED NATIONAL SALES MANAGER-COMMUNICATION EQUIPMENT FOR MELABS

Chris Hayes, who has been Marketing Manager for Secode Electronics, a Dallas, Tex., based division of Communications Industries, Inc., has been named National Sales Manager- Communications Equipment, for Melabs, Inc., a Palo Alto, Calif. based subsidiary of SCM Corporation.

Melabs Communication Products Group Manager Jack Gorry said Mr. Hayes' "long experience in the radio common carrier field should serve to strengthen Melabs position in both marketing and service for its growing line of communications equipment. His responsibilities," Mr. Gorry said, "will include the structuring of an expanded national sales organization backed by a network of factory-trained service agencies, assuring Melabs communication equipment owners of prompt and dependable service wherever they may be."

Melabs makes, among other things, the Attache Phone, a portable, two-way radio-telephone housed in a standard sized attache case, and the VE-2000 Encoder. Plans call for the introduction of "additional mobile communication equipment in the near future," Mr. Gorry said.

Prior to his association with Secode, Mr. Hayes was with Motorola, which he joined as an Administrative Assistant after serving in the US Army Signal Corps.
-End-

SMITH HEADS ALLEGHENY POWER CONTROLS, COMMUNICATIONS ENGINEERING IN RESTRUCTURING

Expansion of the Greensburg, Pa., field operations of the Allegheny Power Service Corp., which performs services for the three major operating subsidiaries of the Allegheny Power System, is scheduled to become effective at the beginning of 1970 under a re-structuring program reported by the company.

The three subsidiaries involved are West Penn Power Co., which has also announced the election of several new officers, the Monongahela Power Co. of Fairmont, W.Va., and The Potomac Edison Co., of Hagerstown, Md. Expansion of the Allegheny Power Service Corp. is in line with the trend in the electric utility field to consolidate service functions in the rapidly expanding inter-dependence of power systems.

Centralized services such as purchasing, electronic data processing, and certain other staff services have been performed for approximately two years by the Allegheny Power Service Corp.'s field operations at Greensburg, presently involving about 75 employees. The operations are being expanded to include management of bulk power supply facilities, including power stations and transmission, and the field operations force is to be expanded to about 300 employees. Many of the additional people will come from West Penn Power headquarters operations, also at Greensburg, and the remainder will come from Fairmont, Hagerstown, and the Service Company's headquarters in New York City.

Included as one of the many underlying changes in the management structure of

the Allegheny Power System is the appointment of Stanley E. Smith as Director-Controls & Communications Engineering for the expanded operation at Greensburg. Mr. Smith, formerly Manager of Controls & Communications for West Penn Power Co., will be responsible for the engineering of all communication, metering, and protective relay facilities required in the electrical operation of APS in a four-state area.

Robert C. MacDonald, President of West Penn Power Co., is assuming the position of Senior Vice President of Allegheny Power Service Corp., and will head the Greensburg field operations. Eric C. Summers, presently with the Service corporation, will become Vice President-system services, and will continue heading the group which provides purchasing, computer applications and programming, electronic data processing, and methods engineering services to the operating companies. -End-

RCA SAYS NEW SERIES 700, 1000 MOBILE RADIOS WILL ASSURE LARGER SHARE OF MARKET

The "most extensive and advanced line of mobile radio systems in its history" was introduced Wednesday, Dec. 17, by RCA. Commercial Communications Systems Division Vice President E. J. Hart said the Series 700, "low-cost equipment primarily for the business radio service, and the ultra reliable Series 1000, will assure the company a larger share of the new and replacement market."

Mr. Hart, noting that the new product introductions follow a two-year period "in which RCA mobile radio sales more than doubled", said "the superior features of these new all solid-state products will give us even greater momentum in the marketplace."

Both the Series 700 line, which has a base price of $635, and the higher-priced Series 1000 equipment, are available in all three land mobile radio frequency bands. All models are designed without tubes or mechanical current switching, and operate from a standard 12-volt battery. The mobile units are packaged for either dash mount or trunk mount.

The Series 700 mobile receiver, Mr. Hart said, employs an integrated circuit that eliminates 20 components and hundreds of connections of earlier designs. The 700 line also includes a solid-state base station that measures about 6 by 16 by 16 inches, "making it small enough for use on a desk top or shelf. The 700 line, he said, affords the "small business man operating a few vehicles the dependability of all-solid-state communications equipment."

The Series 1000 equipment, he said, "provides the extra performance required by police, fire and similar users." The transmitter in the low-band 1000 mobile unit, he said, "was the first in the industry to attain 100 watts power output from an all-solid-state design." The new equipment permits instant transmission without equipment warmup, and includes circuitry to prevent equipment damage from extreme fluctuations of voltage and from high heat levels in vehicles. New Series 1000 base station equipment also produces high power transmit levels, and incorporates protective devices. The unit automatically switches to battery operation in case of a power line failure, and back again when the power supply returns.

Also introduced as part of the new product line was the RCA Personalfone, a hand-held radio for use in the 450 mc band. The new two-way unit provides 500 milliwatts of audio power for clear message reception in noisy areas, and supplements existing RCA portable equipment in the low and high bands, the company said.

-End-

HEW UNIT PROPOSES RECORD KEEPING, REPORTING REQUIREMENTS FOR ELECTRONIC PRODUCTS

The Environmental Control Administration of the US Department of Health, Education & Welfare this week proposed record keeping and reporting requirements for manufacturers and distributors of electronic products covered by the Radiation Control for Health & Safety Act. ECA Commissioner Chris A. Hansen described the requirements as "essential for monitoring industry compliance with the Act, which was enacted to protect users of electronic products from potential radiation hazards."

The proposed record and report requirements, ECA said, "would apply to manufacturers of television receivers, television projection devices, shunt regulator tubes, high voltage rectifier tubes, high voltage vacuum switches, all types of X-ray producing devices, microwave ovens, microwave diathermy units, all types of lasers, and ultrasonic devices."

Records which the manufacturers would be required to maintain for five years, starting with the first date on which the product was offered for public sale, would include (1) radiation test results and methods, (2) product durability and stability tests, (3) quality control procedures, and (4) product use, maintenance, and testing instructions which have radiation control significance.

The manufacturers, ECA said, would be required to permit HEW representatives to inspect radiation control records "upon reasonable notice" during normal business hours. Distributors and dealers of electronic products covered by radiation control standards and selling for $50 or more would be required to keep information necessary to trace sales to individual purchasers.

Within 90 days of the effective date of the proposed records and reports requirements, every manufacturer of one or more of the products covered would be required to submit to ECA's Bureau of Radiological Health a report containing (1) product identification information; (2) design specifications for radiation control; (3) a description of methods used for testing the product for radiation emission, durability, and stability; (4) a statement of instances in which production models failed to comply with radiation emission specifications or standards; and (5) information about the use of warning signs and instructions for product safety.

The proposed regulations were published in the Dec. 16 issue of the Federal Register. Comments are to be submitted within 30 days to the Director, Bureau of Radiological Health, 12720 Twinbrook Parkway, Rockville, Md. 20852. -End-

MODEL AIRCRAFT ENTHUSIASTS UP IN ARMS ABOUT FCC 72-76 MC PROPOSAL FOR BOATS, CARS

The nation's model aircraft enthusiasts who are using frequencies in the 72-76 megacycle band for the radio control of their planes, in accordance with FCC class C citizens' radio rule changes of several years ago, are bombarding the Commission with objections to the agency's proposal of early November (IC, Nov. 7) which would permit the same use of the frequencies for model boats and cars.

Basis for the objections, as expressed by the aircraft modelers, is that while their use of the frequencies poses no destructive threat to the boats and cars in cases of interference, the reverse is not true, and the loss of control of a model plane because of the interference could not only destroy the plane, but raise the question of danger to people on the ground or possible destruction of property.

Many of the locations around the country which are used for model aircraft flying also have facilities for model boats and cars, they pointed out, and the two types

of operations are not compatible. The principal reason for their request for access to the 72-76 mc frequencies several years ago, they said, was because of the interference from model boats and other users of the 27 mc citizens frequencies which they had been using.

The flood of opposition filings all but obscured a handful of supporting statements for the rulemaking from the boating modelers, and enthusiasts of both plane and boat modelers who said the use of common radio control equipment for both is a welcome economy. The point was made by both the opponents and supporters of the FCC rule proposal that the boaters are already using the 72-76 mc frequencies without the blessing of FCC authority. The boaters said the Commission should make the operation legal, and the aircraft modelers said the practical experience gained from the unauthorized use of the frequencies has proved that the interference from boaters is destructive.

A Class D citizens radio service viewpoint also expressed in the comments received by the Commission supported the agency's proposal, observing that "any rulemaking that will reduce the level of interference on Class D citizens frequencies" is welcome. The CB frequencies, it was noted, are now "so overcrowded that they are almost unusable." -End-

NEW LISTING OF 1315 FEDERAL AID PROGRAMS SHOWS NEED FOR CONSOLIDATION, ROTH SAYS

Representative William V. Roth (R., Del.), who has been a driving force in Congress to have the Executive Branch compile and print a comprehensive catalog of up-to-date information on all federal assistance programs, reported to the House this week that copies of such a new catalog, prepared in his office, will be distributed to all members of the House next week.

Mr. Roth's office had prepared a similar catalog last year, and the new one, he said is "far more complete" than the earlier one. He said the catalog contains "by our definition", a total of 1315 federal assistance programs, 225 more than listed last year.

The catalog, he said, is becoming a best seller. The Department of Health, Education & Welfare has ordered 1800 copies; the Department of Housing & Urban Development has ordered 2000 copies; the Interior Department has ordered 100 copies; and the Transportation Department has ordered 250 copies. This indicates, he said, that "there is not even an adequate flow of information within the federal government itself."

Mr. Roth pointed out that his pending bill, the Program Information Act, (H.R. 338 and S. 60), "which would require the Executive Branch to publish this catalog yearly with periodic updating," has already been supported by more than 180 Congressmen and 14 Senators, and hopefully can be brought to a House vote next year.

"If one congressional office can complete the task", he said, "it seems to me such an undertaking should not prove too burdensome to the federal government."

An examination of the 1315 programs listed in the catalog, he said, shows "a serious need for consolidation and restructuring of much of our federal aid."

The catalog has been printed, with the approval of the House, as "House Document 91-177, the 1969 Listing of Operating Federal Assistance Programs."

-End-

SOUTHERN PACIFIC OUTLINES PLANS TO FILE FOR PUBLIC COMMUNICATIONS SYSTEMS

The Southern Pacific Co., which has indicated plans to offer special common carrier service in the West via existing microwave radio facilities (IC, Dec. 12), asked the FCC this week for a time extension until Feb. 10 to file applications "which may be considered mutually exclusive" with the proposals of MCI Pacific Coast. Interested parties, including Southern Pacific, already have been granted until Feb. 10 to oppose MCI Pacific Coast's proposals.

Southern Pacific told the FCC it "plans to file shortly with the Commission a series of applications for construction of a comprehensive communications network comprising 70 microwave stations, under common carrier authorizations."

It noted that "through its affiliate Southern Pacific Transportation Co.," the company "operates an extensive private microwave communications system of some 4544 miles, with an additional 1500 miles under construction, including service in the same area proposed to be served by MCI Pacific."

The existing microwave system, it said, "has been constructed and spaced so as to be readily adaptable to accommodate other public service requirements." For "some time", it said, Southern Pacific "has been engaged in extensive studies looking to the application of its broad communications facilities and expertise to the development of a communications system which will provide specialized common carrier services to the public."

It said it has engaged the services of the Stanford Research Institute and Lenkurt Electric Co. to assist in preparing the necessary applications. -End-

MCI PROPOSES 'MIXTURE' OF FACILITIES TO MEET NEEDS OF AERONAUTICAL RADIO, INC.

A proposal to Aeronautical Radio, Inc., under which Arinc would meet its communications requirements by a "mixture" of private microwave, regular common carrier, and special service carrier facilities was reported by Microwave Communications of America this week.

At a Washington press conference Dec. 17 devoted principally to updating developments regarding Mi-Com, Microwave Communications, Inc., and the various regional MCI affiliates, and previewing the meeting on educational service requirements held at the FCC the following day, Mi-Com officials also indicated they may not oppose plans of Data Transmission Co. for a nationwide digital transmission network. Mi-Com Chairman William G. McGowan said it "appears" that "we are aiming at different markets."

MCI counsel Michael Bader said MCI-New York West will "absolutely" oppose the applications of the New York-Penn Microwave Corp. for a system essentially the same as MCI-New York West's (IC, Dec. 12).

In all, Mi-Com officials at the conference outlined plans for an interconnected system of more than 11,000 route miles through 40 states, operated by 16 regional affiliates. Latest to file with the FCC, they said, has been MCI New England, requesting a Boston-Providence-Worcester-New Haven-New York system.

Ten other regional affiliates are scheduled to file applications within the next six months, they reported, so that major population centers in all states except upper New England, and the Dakotas, Montana, Wyoming, and Idaho would be included.

-End-

FCC CONFRONTED WITH BASIC QUESTIONS IN FLOOD OF SPECIAL CARRIER REQUESTS, AT&T SAYS

The FCC is "confronted with basic policy questions" in the "flood" of special service common carrier system applications over high-volume routes, and "no longer can MCI-type applications be regarded as an isolated experiment", the Bell System companies serving the proposed route of MCI-New York West declared this week in a petition to the Commission to deny the applications for the New York-Chicago microwave system.

The Bell companies were joined in their all-out objection to the applications by the Western Union Telegraph Co., while seven General Telephone System companies and the Rochester, N. Y., Telephone Corp. joined in seeking denial of various specific applications touching on their territories. Western Union pointed to language in the FCC's order which granted the applications of Microwave Communications, Inc., for a Chicago-St. Louis system, which said, in Western Union's words, that the operations on that route "would be scrutinized before any future routes or expansions of the MCI-type of common carrier would be considered by the Commission." -End-

REPRESENTATIVES OF SPECIAL COMMON CARRIERS, EDUCATIONAL GROUPS SET STUDY

The process of exploring and identifying the needs of the academic community at all levels for communications services, for data transmission and public and closed circuit television, was begun Thursday, Dec. 18, at a conference at the FCC on a proposal of Microwave Communications, Inc.

With MCI and others at the informal session taking the position that needs and possible methods of supplying them must be compiled, evaluated, and reported, many of those on hand agreed to participate in a "steering committee" to get the project started. The Joint Council on Educational Telecommunications will be a focal point of the project. FCC Common Carrier Bureau Chief Bernard Strassburg, presiding at the meeting, emphasized that the group should not be regarded as being formed under Commission aegis, or as a formal industry advisory committee. He said, however, that the Commission would remain available for consultation and assistance to the group. -End-

Very Briefly

. . .Acting Director of Telecommunications Management William E. Plummer told a House subcommittee this week that while the US government operates many government-owned telecommunications systems, it relies, mostly, on the commercial common carriers. The government leased about $460,000,000 of telecommunications facilities and services in fiscal 1969, he said.

. . .Microwave Communications, Inc., and four affiliated carriers this week asked the FCC for an extension of time, to Jan. 16, to file a petition to deny the applications of Western Union Telegraph Co. for transfer of control of the company's microwave stations to a new Western Union Corp. The MCI group said "a summary and analysis of the 280 applications. . .indicates probable areas of direct and substantial conflict with (MCI's) own interests and with the public interest as well."

. . .Raymond L. Gooch, a Washington attorney who previously served as Secretary to the Communications Committee of the US Chamber of Commerce, has become associated with the law offices of Cornelius B. Kennedy, in Washington. The Kennedy firm's practice includes communications matters.

RULES AMENDED TO SHIFT DSB AND SSB FREQUENCIES IN MARITIME MOBILE SERVICE

Amendments to bring FCC rules for maritime mobile radiotelephone stations into line with international changes were adopted by the FCC this week in a "third report and order" in the proceeding. The changes deal with single and double sideband assignments in the high frequency bands between 4 and 23 megacycles. This week's action terminates the proceeding, which implements changes in the International Telecommunication Union regulations adopted at the World Administrative Radio Conference in the fall of 1967 in Geneva.

FCC rules affected by the amendments this week are Part 2 (frequency allocations), 81 (maritime land stations), 83 (maritime ship stations), and 85 (maritime services in Alaska). The amendments will:

Shift ship stations on public correspondence channels to new DSB frequencies between March 1 and May 1, 1970. Shift limited coast and ship stations operating between 4 and 23 mc to new SSB frequencies between December, 1969, and April 1, 1970.

Prohibit new DSB equipment in ship stations after Jan. 1, 1972. Discontinue DSB at coast stations that have not already converted to SSB on Jan. 1, 1972.

Permit coast stations that need to communicate with foreign ship stations not equipped for SSB to employ A3H emission between Jan. 1, 1974 (US deadline for conversion to SSB) and Jan. 1, 1978 (world deadline for conversion).

Continue the present prohibition against use of DSB in ship stations after Jan. 1, 1974, after which only A3A and A3J emissions will be authorized.

Rrequire SSB transmitters to be capable of all three SSB emissions, A3A, A3H and A3J, but permit older ones not capable of A3A to continue in operation. Reduce the authorized bandwidth for SSB from 3.5 kilocycles to 3.0 kc and various other necessary technical standards.

And expand the number of frequencies available for use by public correspondence coast and ship stations in the high seas service, in the Mississippi River System, in the Gulf of Mexico, and in the Alaska area. -End-

JACKSONVILLE TV STATION FILES OPPOSITION TO 72-76 MC CALL BOX PROPOSALS

Television station WJXT, which operates on VHF TV Channel 4 at Jacksonville, Fla., has joined the Association of Maximum Service Telecasters in opposition to FCC rule proposals which would permit the regular licensing of emergency radio call boxes in the 72-76 megacycle band (IC, Dec. 12).

The station noted that "non-voice signaling was recently abandoned on the Los Angeles freeway system after seven years' trial in favor of voice communication by wire"; that "the States of Connecticut, Rhode Island, and Massachusetts in their petition for radio call boxes in the 450 mc band reject tone signaling in favor of two-way voice communications"; and that "on the Maryland portion of the Capital Beltway in some months as many as 25-33 percent of the initiators of 'tone' signals were gone when police assistance arrived on the scene."

The FCC should "weigh these factors in determining whether it should authorize communications operations which carry with them a demonstrated risk of widespread interference to reception of television channels 4 and 5", the station said.

-End-

FCC APPROVES THREE NEW TWO-WAY COMMON CARRIER STATIONS, GETS REQUESTS FOR SEVEN

The emphasis in FCC "public notices" this week on new applications and authorizations in the domestic public land mobile radio field was on two-way common carrier radio systems, as the Commission listed applications for seven such stations, and the issuance of authorizations for three.

States involved are Montana, Ohio, Florida, Texas, Louisiana, Iowa, Idaho, and South Dakota.

The new-station authorizations listed by the Commission went to Mountain States Telephone & Telegraph Co., for station KQZ769, using base frequency 152.66 megacycles about 12 miles east of Bozeman, Mont.; to General Telephone Co. of Ohio, for station KQZ770, using 152.75 mc at Marion; and to Florida Telephone Corp., for station KQZ771, on 152.60 mc at Widermere, Fla.

The newly submitted applications reported by the agency came from Industrial Communications, Inc., doing business as Port Arthur Mobile Phone, for base frequency 152.12 mc at Port Arthur, Tex.; from James D. and Lawrence D. Garvey, doing business as Radiofone, for base frequency 454.225 mc at Slidell, La.; from Northwestern Bell Telephone Co., for 152.69 mc at Dubuque, Ia.; from Tel-Car, Inc., for base frequency 152.09 mc and repeater frequency 459.140 mc at Albion, Ida., and control frequency 454.150 mc at Twin Falls, Ida.; and from Western Communications, Inc., doing business as Wescom, for 152.03 mc at Aberdeen, S. Dak.

Other types of applications listed by the Commission included a request from Pomona Radio Dispatch Corp., for an additional channel (454.125 mc) for station KMD992, at a new site about three miles north of Pomona, Calif.; and one from J. B. Bacon, doing business as Telephone Message Exchange, for FCC consent to the assignment of license for station KMM697 to Pass Word, Inc.

Other types of authorizations listed by the agency went to Bell Telephone Co. of Pennsylvania, approving a third channel (152.81 mc) for station KGB868, three miles southeast of Allentown, Pa.; to General Telephone Co. of Wisconsin, approving an additional channel (152.66 mc) for station KSA622 at a new site three miles southwest of Rib Mountain Township, Wisc.; to Auto-Phone Co., approving a second base channel (454.05 mc) for station KLF482 about 15 miles north-northeast of Chico, Calif., repeater frequency 72.30 mc at the same site, and control frequency 75.94 mc at Oroville, Calif.; to Electronic Engineering Co., for additional base channels (454.050 and 454.300 mc) for station KAF242, at a new site in Des Moines, Ia.; to Pacific Telephone & Telegraph Co., to add a channel (152.78 mc) for station KMA615 three miles north of Oildale, Calif., and make other system changes; to Chattanooga Venetian Blind Co., granting consent to the assignment of license for station KIK580, location not specified, to Metro Radio, Inc.; and to Southern Bell Telephone & Telegraph Co., approving two additional channels (152.60 and 152.72 mc) for station KIC345, at Miami, Fla.

In other actions announced by the Commission, it dismissed without prejudice an application from Airsignal International, Inc., for a new one-way signaling station on 152.24 and 158.70 mc at Wichita, Kans., and returned three applications for new three-channel two-way stations as being "unacceptable for filing pursuant to Section 21.20" of the rules. The latter had been filed by North Carolina Mobile Telephone Co., for Charlotte; by Kentucky Mobile Telephone Co., for Louisville; and by Arkansas Mobile Telephone Co., for Little Rock.

-End-

FCC SAFETY & SPECIAL RADIO SERVICES BUREAU
APPLICATION RECEIPTS, DISPOSALS AND BACKLOG
November, 1969

Service	Actions Received-Disposed Of During November		Pending Actions Beginning - End Of November	
Police	419	534	698	583
Fire	191	233	245	203
Local Government	340	410	537	467
Highway Maintenance	299	231	145	213
Forestry Conservation	197	83	65	179
Special Emergency	231	185	290	336
State Guard	0	0	0	0
Total Public Safety Services	1677	1676	1980	1981
Special Industrial	670	582	513	601
Business	3085	2761	3368	3692
Power	332	443	550	439
Petroleum	137	220	363	280
Manufacturers	50	56	103	97
Forest Products	85	74	59	70
Industrial Radiolocation	15	25	34	24
Motion Picture	0	1	2	1
Relay Press	2	3	8	7
Telephone Maintenance	161	33	34	162
Total Industrial Services	4537	4198	5034	5373
Railroad	539	117	477	899
Taxicab	92	81	103	114
Automobile Emergency	53	49	84	88
Interurban Passenger	0	2	4	2
Interurban Property	51	72	68	47
Urban Passenger	7	2	2	7
Urban Property	42	43	46	45
Total Land Transportation Services	784	366	784	1202
Amateur	7947	6902	2750	3795
R.A.C.E.S.	37	58	27	6
Disaster	1	0	0	1
Class A Citizens	243	238	91	96
Other Citizens	16359	13697	6198	8860
Aviation	2983	2366	1421	2038
Marine	2912	2966	1232	1178
TOTAL SAFETY-SPECIAL SERVICES	37480	32367	19517	24530

FCC AUTHORIZES 1833 NEW 'STATIONS' IN PSIT, CLASS A CITIZENS SERVICES IN NOVEMBER

The FCC Safety & Special Radio Services Bureau added a total of 1833 new "authorized stations" to its books in the public safety, industrial, land transportation and class A citizens radio services during the month of November, according to statistics released by the Bureau this week.

The authorized station figures reflect only the number of new call signs issued

by the agency, with each "station" ranging in size from one transmitter up to a complex system of base and mobile radio installations.

The statistics show the following numbers of new "stations" added to the various services during November: 125 police; 58 fire; 126 local government; 40 highway maintenance; nine forestry conservation; 76 special emergency; 164 special industrial; 968 business; 57 power; 32 petroleum; 29 manufacturers; 27 forest products; five industrial radiolocation; two motion picture; eight telephone maintenance; 42 railroad; 15 taxicab; 20 automobile emergency; three interurban property motor carrier; one urban passenger motor carrier; ten urban property motor carrier; and 16 Class A citizens radio stations.

Accumulatige totals of "stations" in active licensing status at the FCC as of the first of December, after also taking into account deletions during November, were: 22,191 police; 12,670 fire; 12,759 local government; 7425 highway maintenance; 5662 forestry conservation; 8888 special emergency; 16 state guard; 41,550 special industrial; 129,951 business; 18,334 power; 12,180 petroleum; 3284 manufacturers; 3954 forest products; 750 industrial radiolocation; 71 motion picture; 343 relay press; 1686 telephone maintenance; 7922 railroad; 5452 taxicab; 2732 automobile emergency; 130 interurban passenger motor carrier; 3202 interurban property motor carrier; 211 urban passenger motor carrier; 2065 urban property motor carrier; and 5808 Class A citizens radio stations.

In the Class B, C and D citizens radio service categories, the Commission added a total of 10,849 new "authorized stations" during November, and deleted 11,858, leaving a total of 869,317 in active license status as of the beginning of November. In aviation, 2335 stations were added and 4457 deleted, for a Dec. 1 total of 148,194. In marine, the comparable fitures were 576, 1647 and 193,592. And in the amateur services, 1730 were added, 3075 were deleted, and the Dec. 1 totals were 274,333 amateur, 8559 R.A.C.E.S. and 190 Disaster stations. -End-

FCC SAFETY-SPECIAL BUREAU APPLICATION PROCESSING SPEEDS DURING NOVEMBER

Service	Applications Received			Approximate Processing Time Required--In Days		
	September	October	November	September	October	November
Business	2526	3844	3085	35	37	39
Other Industrial	2100	1802	1452	31	29	29
Land Transportation	458	842	784	28	30	35
Public Safety	1787	2418	1677	28	30	35
Class A Citizens	178	222	243	14	14	14
Other Citizens	17482	18319	16359	19	18	18

The FCC points out that "The above time reflects the number of days from receipt of an application in good order for routine processing to the time the completed authorization is put in the mails. Since applications are normally processed in order of receipt, it includes the time that an application is waiting its turn to be reached for handling, but does not include the time required for postage service in either direction. The above times shown are average and there will be some variation between individual applications. Certain applications may require special study because they are not in accordance with rules, involve engineering complications or aeronautical hazard problems and are involved in proposed or actual rulemaking or hearings, etc. Applications containing incomplete, incorrect or insufficient answers normally are returned to the applicants within the period of time shown above." -End-

. . .Roof-area space in a new 59-story Chicago building has been leased by RCA as the transmitting point for up to 80 two-way radio systems, RCA announced Dec. 16. RCA Mobile Communications Systems said the First National Bank Building antenna site, 900 feet above street level, is the highest point in Chicago available for two-way radio service. Only the 100-story Hancock Center, where RCA recently installed twin TV broadcast antenna arrays, is taller, it said. In addition to individual antennas which will be sharing the First National Bank site, RCA said, it plans to build community repeaters at the location.

. . .Datatron, Inc., of Santa Ana, Calif., this week announced the signing of an "agreement in principle" to acquire Bouse Manufacturing Co., also of Santa Ana, for an undisclosed amount of common stock. The acquisition is subject to approval of the directors of both companies and regulatory agencies. Bouse produces electronic chassis, computer-type consoles, and equipment enclosures. The firm is located in a 10,500 square foot facility and recently contract for a new 20,000 square foot building. Current annual sales of Bouse are about $750,000, with about $30,000 net profit after taxes. The firm will operate as a Datatron subsidiary, with Thomas Bouse remaining as President. Datatron makes timing instrumentation, computer controlled test equipment, digital data systems, and broadcast devices, among other things.

. . .The Electronic Industries Association's Marketing Services Department reported last week that US factory sales of semiconductors amounted to $1,024 billion during the first nine months of 1969, 18.1% higher than the same period last year.

. . .Terminal Communications, Inc., Raleigh, N.C., designer and manufacturer of data terminals, has reported appointment of several key and management officials, including A. (Nino) Ursano. Mr. Ursano has held a number of positions with the International Telephone & Telegraph Corp., most recently with ITT Telecommunications.

. . ."Electronic Test & Measurement Handbook", a 224-page "one-stop source of practical electronic troubleshooting procedures, based on tried-and-tested measurement techniques" is available in paperback for $4.95 per copy from Tab Books, Blue Ridge Summit, Pa. 17214. Author is John J. Schultz.

. . .General Telephone & Electronics International has completed construction of a 175-mile microwave network across the Andes Mountains in southwestern Colombia. The eight-channel microwave network was constructed and will be maintained by GT&E International under contracts and orders totaling about $500,000 which were awarded by Colombia Gulf Oil Co. and Texas Petroleum Co.

. . .The U.S. Army Strategic Communications Command this week reported it has successfully completed testing a new, compact 60-voice channel frequency division multiplexer. The multiplexer was procured from the RCA Communications Systems Division.

. . .Acton Laboratories, Inc., Acton, Mass., is being issued a $1,415,520 second increment to a previously awarded Army four year multi-year contract for telephone signal converters.

. . .The Defense General Supply Center in Richmond, Va., has suggested in a letter to the FCC that meters should be added to full-time wide area telephone service lines so that subscribers can tell whether measured time WATS should be more economical. The American Telephone & Telegraph Co. has been asked to comment on the suggestion by Dec. 31.

. . .The FCC announced this week that it has renewed its contract with the Cooper-Trent Division of the Keuffel & Esser Co. to provide copying and duplicating services for persons requiring FCC documents and other records. The renewed contract now runs until December 27, 1970.

. . .Technical details of Data Transmission Co.'s proposed 244-station, nationwide common carrier microwave data communications system (IC, Nov. 28) were listed by the FCC this week on its "public notice" of such application filings. The public notice lists the proposed station locations, and the frequencies applied for, along with general microwave beam directions.

. . .The 75th "diamond anniversary" annual conference of the International Municipal Signal Association will be held Aug. 1-6, 1970, at the Diplomat Hotel in Hollywood, Fla.

. . ."Municipal Police Administration", a 353-page sixth edition which includes one chapter covering records and communications; organization of an integrated system; police communication; and a police records system, is available for $12.50 a copy (if payment accompanies order) from International City Management Association, 1140 Connecticut Ave., N.W., Washington, D. C. 20036.

. . .The proper level of government support for science and the role of government in technological innovation will be underscored in a keynote address on Science in the Seventies--the Policy Issues, at the 1970 IEEE International Solid-State Circuits Conference to be held Feb. 18-20 at Philadelphia. Keynoter will Dr. Hubert H. Heffner, Deputy Director of the Office of Science & Technology in the White House organization. Sixty-six papers on worldwide solid-state technology progress will be presented at the conference.

. . .The request of the National Association of Broadcasters for a "stay" of the effectiveness of the FCC's cable television decision was denied by the Commission this week. NAB had asked for the "stay" pending FCC action on various petitions for reconsideration that have been filed by it and other organizations.

. . .Two further appointments announced this week by Melabs, Inc., Palo Alto, Calif., based subsidiary of SCM Corporation, including the naming of S. Kent Foster to the position of Controller, and John Hall to the post of Manager-Components Applications Engineer, Communications Products Group. Mr. Foster has been Manager of Accounting for the past three years, after earlier service with the Aerotherm Corp. and Vidya Division-Itek Corp., both of Palo Alto. Mr. Hall, Melabs said, "has an extensive background in both the Engineering and manufacturing of components in the VHF, UHF, and microwave frequencies. The company noted that it makes components, "military systems, two-way radiotelephone equipment, and instruments for use in the chemical and bio-medical fields."

. . .Unanimous supporting comments continue in to the FCC on its proposal to designate Citizens Band Channel 9 (27.065 megacycles) as an emergency channel. Not so unanimous is the answer to the question of which channel should be made available for inter-station communications to replace Channel 9. The choice is between Channel 8 and Channel 15, and the answers are coming in both ways.

. . .An address by James A. Spady, Executive Director of the State Law Enforcement Planning Agency of New Jersey, explaining the use of federal grants for local enforcement agencies, was put in the Dec. 12 Congressional Record by Representative Henry Helstoski (D., N.J.).

. . .A possible vehicle for a major change in interstate-state telephone separations was filed with the FCC last week by the National Association of Regulatory Utility Commissioners. NARUC called on the Commission to approve a plan which would result in transfer of an estimated $250,000,000 in annual revenue requirements to the interstate jurisdiction. Western Union Telegraph Co., meanwhile, has submitted to NARUC a separations proposal which it estimates, under various assumptions, would result in a transfer of $310,000,000 of annual revenue requirements to the interstate jurisdiction from the states.

. . .Denial of a Pacific Telephone & Telegraph Co. application for FCC authority to construct point-to-point microwave facilities at Palm Springs, Yucca Valley, Indio, Mecca, Chiriaco Summit, and Desert Center, Calif., was urged by the General Telephone Co. of California last week. General noted that PT&T proposes to construct facilities with which to provide "toll route relief" between General's Palm Springs and Yucca Valley toll centers, and between General's Indio toll center and its Desert Center exchange. General said it had already filed applications to provide facilities between these points in its operating territory, and that requirements can be satisfied with a smaller radio system than proposed by Pacific Telephone.

. . .FCC authorizations for a total of six new private microwave stations in three states--California, Louisiana and New York--have been requested in applications put on "public notice" by the Commission this week. In California, Standard Oil Co. of California asked new stations on 6845 megacycles at Oxnard, and on 953.7 mc at Cholame. In Louisiana, Humble Communications Co. requested three new stations, one on 2131.5 and 2147.5 mc at Pecan Island, one on 2197.5 mc at Pecan Island, and one on 2181.5 mc at Intercoastal City. And in New York, Southworth Machinery Inc. asked a station on 955.3 mc at New Salem.

. . .Construction of new VHF marine radio stations at Salem, N.J., Venice, Fla., and near Casper, Calif., has been proposed in applications put on "public notice" by the FCC this week. Niagara Communications, Inc., asked authority for the stations at Salem and Venice, both of which would use 156.8 and 161.95 megacycles, and Pacific Telephone & Telegraph Co. requested authority for a new station on 156.8 and 162.0 mc a little over a mile south of Casper.

. . .Discussing the work of its twenty scientists who are participating in the 1969-1970 Antarctic Research Program, under financing by the National Science Foundation, the Environmental Science Services Administration noted that analysis of magnetic data which will be recorded continuously by Coast & Geodetic Survey geophysicists at Byrd and South Pole stations through the Antarctic winter of 1970 "will be aimed at gaining new knowledge of the short and long-term variations in the earth's magnetic field; correlating the magnetic variations with auroral behavior, electromagnetic propagation, the earth's radiation belts and with ionospheric variations; and providing knowledge of the changes in the earth's magnetic field for the production of magnetic field for the production of magnetic charts and to furnish essential magnetic data for nautical and aeronautical charts." Scientists of the ESSA Research Laboratories, it said, "will study high latitude upper atmospheric physics, including "the propagation of very low frequency radio waves as they travel over long distances; ultra-low-frequency disturbances in the outer magnetosphere; the causes of short-term fluctuations in ionospheric phenomena; and the radio wave absorption properties of the ionosphere."

. . .The House Interstate & Foreign Commerce Committee on Friday, Dec. 12, concluded its hearings on proposed legislation which would amend the Communications Act so as to prohibit the granting of authority to broadcast pay television programs.

Estimated shipments of selected electronic components for the first quarter of 1969 increased to $1.19 billion, more than 2% above the $1.16 billion for the fourth quarter of 1968, but slightly below the first quarter of 1968, the Commerce Department reported this week. The defense share of the components market continued to decline from its previous average of 25% to 21% in the first quarter of this year, reflecting the continued reduction in defense electronic component requirements since the second quarter of 1968.

Visual Electronics Corp., 356 West 40th St., New York City 10018, US distributor for English Electric Valve Co., has announced the availability of "industrial grade EEV Leddicons--the P8000/IG Leddicon is a 30 mm diameter camera tube with lead-oxide photo-layer, intended for a wide range of non-broadcast applications where a relaxed standard of picture blemishes is acceptable." Tubes are available for monochrome cameras and luminance channel of color cameras, Visual noted

American Electronics Laboratories, Inc., of Colmar, Pa., has announced the formation of a new wholly owned subsidiary, AEL Communications Corp., which will "be engaged primarily in the development, manufacture, sale and construction of CATV systems and equipment," and to serve as "the focal point for all CATV activities at AEL." Milton Nussbaum is President of the new company

The International Bank for Reconstruction & Development has approved a loan equivalent to $11,000,000 in support of a program of The Singapore Telephone Board which will nearly double the capacity of the local telephone system in Singapore over the next four years. This will be the Bank's second loan for the Board's expansion program to meet Singapore's growing demand for telephone service resulting from industrialization and urbanization.

The Armstrong Medal was presented Dec. 12 to Francis H. Shepard, Jr., by the Radio Club of America, in recognition of his outstanding contributions in the electronics field. Mr. Shepard has been granted more than 65 US patents. Among his inventions is the basic ballistic hammer principle for high speed printers, and he pioneered in the development of infrared apparatus for detection of ships beyond the horizon, radio telemetering of weather data from balloons, and non-linear amplifiers which compensate for the characteristics of the human ear and which principles are used in hearing aids and radios with small louspeakers.

A 200-page December issue of the Telecommunication Journal, monthly publication of the International Telecommunication Union, is devoted to computers in communications. Government telecommunications administrations and operating companies in 17 ITU member countries have contributed the 30 articles published in the special issue.

Tele-Signal Corp. has been awarded a contract by the Communications Satellite Corp. for new circuit control and message-switching equipment to be used at four United States earth stations

Photo Magnetic Systems, Inc., Beltsville, Md., firm which had filed a $2 billion patent infringement suit against the American Telephone & Telegraph Co., some other Bell System units, and the International Business Machines Corp., has dropped the suit, according to President Peter James, because of "overriding pressures on people and the firm's finances" that would be required to prosecute it. The defendants named in the suit had termed the charges as without merit. Photo Magnetic had claimed, generally, any use of tone generating telephone sets in connection with computer systems is covered by its patent

OTP
(General)

December 18, 1969

MEMORANDUM FOR ERIC WARD

The following people, all coincidentally from California, have been suggested for the new Telecommunications job. If you know any of them, I would appreciate hearing your opinion of their qualifications for this position.

Dr. Bernard M. Oliver, Vice President, Research and Development, Hewlett-Packard, Palo Alto

Dr. Malcolm R. Curry, Vice President, Director of Research, Beckman Instruments, Fullerton

Dr. Allen Peterson, Professor of Electrical Engineering, Stanford University

Clay T. Whitehead
Staff Assistant

cc: Mr. Kriegsman
Mr. Whitehead
Central Files

CTWhitehead:ed

Thursday 12/18/69

MEETING
12/18/69
1:00 p.m.

11:30 Mr. Whitehead talked with Dr. Dean Watkins of Watkins-Johnson Company (Palo Alto, California) and we have scheduled an appointment with him for 1 o'clock today.

Telecommunications Management

Dr. ~~Stanley~~ W. Burriss
V.P. Lockheed, Sunnyvale
(Polaris)

~50 * Dr. Bernard M. Oliver
V.P. R&D
Hewlett-Packard
Palo Alto

~43 * Dr. Malcolm R. Curry
V.P. Dir of Research
Beckman Instruments
Fullerton

Dr. William J Perry
Pres
ESL, Inc
Sunnyvale

Dr. Lawrence Gould
President
Microwave Assoc
Burlington, Mass

from Dean Watkins

Mr Whitehead
FYI
Pete

COMMENTS ON FEDERAL GOVERNMENT
ORGANIZATION FOR TELECOMMUNICATIONS

1. Recently there has been considerable discussion of the need to reorganize federal government organization for telecommunications. We agree that there may be a need for some changes, although we do not believe that any sweeping reorganization is desirable or necessary. The two areas in which some changes may be appropriate are allocation of the frequency spectrum and arrangements for use of communications services by the federal government.

2. We agree with the suggestions that have been made that the Office of Telecommunications Management should be established as an independent agency in the Executive Office of the President and that the Director of this office should report directly to the President rather than, as at present, through the Office of Emergency Planning. This would enhance the influence of OTM in the exercise of its advisory functions.

3. We also agree that further efforts are needed to coordinate the management of communications services for the federal government. Further centralization may be necessary, and a "systems engineering" capability in the OTM would seem to be desirable.

4. We also believe that there is some merit in establishing a coordinated program for technical assistance

to state and local governments in the field of communications. This effort could appropriately be managed by the OTM.

5. However, we are disturbed by suggestions that the OTM should be greatly expanded and turned into a policy-making and super-regulatory body. It has sometimes been stated that there is a serious lack of effective government policy-making machinery for communications. However, it is seldom stated why or in what specific respects policy-making has failed. The issues that are sometimes mentioned (for instance, "foreign attachments," domestic satellites, and computer communications) have been and are being handled within the present regulatory framework. These are complex issues which necessarily take time to resolve. If the criticism is directed at the problem of delay, it would only compound the problem to establish an executive branch agency with overlapping jurisdiction to deal with exactly the same issues that the FCC is already bound by law to consider. If there have been undue delays within the FCC, this problem could be solved by providing additional funds and staff for this agency to study and resolve complex issues.

6. It would be particularly unwise to give OTM, or any other executive branch agency, a broad charter to

concern itself with such matters as industry organization and regulatory policy. Government involvement in this area has been clearly delegated by existing law to the FCC, an arm of Congress. Any encroachment by the executive branch in such matters would be clearly regarded as an impediment to the appropriate realization of existing legislative objectives.

7. It is recognized that a continuing effort must be made to avoid unnecessary functions and personnel within the Executive Office of the President. Placing excessive numbers of staff personnel in any executive branch agency concerned with communications, with responsibilities overlapping those of the FCC, will simply create more confusion and intergovernmental disputes. The suggestion that the OTM have an initial strength of up to 30 professionals would involve a drastic increase in existing personnel. Such a large force would have to justify its existence by undertaking many studies and projects which would inevitably create problems which would be a potential source of conflict within the Administration. If specific problems arise which seem incapable of solution in the existing regulatory context, the appropriate course of action is to create an ad hoc group representing the interested government agencies to

recommend a solution. Such groups would not remain as permanent bureaucratic additions to impede future flexibility.

8. It has also been suggested that the federal government needs a new organization in the Department of Commerce to engage in research and development in the area of communications. It would be a needless burden on taxpayers to establish a research capability within the Government which would merely duplicate the facilities and the skilled scientific and technical manpower already provided by the private sector. When OTM or other government agencies require specialized R&D, they can always procure it from the large number of independent research firms. The reliance on privately financed research and development is in our opinion the wisest course for stimulating initiative and progress in communications for the economy as a whole. On the other hand, as stated above, we believe that some additional "systems engineering" capability may be required with respect to the Government's own communications needs. A modest increase in the staff of OTM would seem appropriate to accomplish this purpose.

9. We note that the most recent proposals for reorganization do not attempt to solve the major problem

that most observers agree requires some degree of organizational restructuring - allocation of the frequency spectrum. These recent proposals merely recommend that decisions in the frequency allocation area be postponed. It is difficult to understand why a reorganization of communications machinery is desirable if it fails to deal with the one problem that is uniformly believed to require attention. It would be desirable for a single agency to have overall control of the frequency spectrum. It is suggested that a strengthened OTM would be the logical choice to exercise this responsibility. OTM as overall manager could allocate blocks of frequencies as between government and non-government usage, and the FCC would continue to exercise responsibility for assignment and licensing of the non-government portion to private and commercial users.

AT&T

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Rm 707

Mr. Peter Flanigan
The White House
Washington, D.C.

PERSONAL AND CONFIDENTIAL

Telecommunications

Wednesday 12/17/69

1:30 Pete Masley of Aerospace Daily called to ask some questions about Mr. Whitehead -- said he had been in the hearings of the House Space Committee and his name had come up several times and he wanted to know who he was.

Subject: Communications satellites

17 Dec 69

United States Senate

MEMORANDUM

Tom —

F.Y.I. re House Subcttee on Space Sci. + Applic. hearings.

B.

NASA

STATEMENT BY

UNITED STATES SENATOR MIKE GRAVEL

BEFORE

SUBCOMMITTEE ON SPACE SCIENCES AND APPLICATIONS

OF THE

COMMITTEE ON SCIENCE AND ASTRONAUTICS

HOUSE OF REPRESENTATIVES

WASHINGTON, D. C.

DECEMBER 17, 1969

Chairman Karth, thank you for your kind invitation to testify before this Subcommittee.

Permit me to place in context some of the communications problems affecting my state, the most remote state in the union, which require immediate solution.

Alaska is larger than the combined areas of England, France, West Germany, Poland, Czechoslavakia, and Switzerland. Its area of 586,400 square miles is larger than all of the Eastern seaboard states combined, from Maine to Florida. However, Alaska's population is no larger than that of an average size American community -- approximately 270,000 people.

Few Alaska population centers have more than 5,000 persons. Only fourteen communities out of 300 in Alaska have a population of 1,000 or more.

Alaska has the most rugged terrain in North America. It has sea level permafrost in many areas. Temperature varies from -70° F to +100°F. Average annual precipitation varies from 4 inches in the north to 130 inches in the southeast.

Alaska stretches 1,400 miles in one direction; and 2,700 miles in another - about equal to the distance from Florida to Southern California.

We in Alaska have inherited the most backward communications system in the nation.

Many Alaskans have no access at all to radio or television or telephone.

In the population centers, commercial television comes two to three weeks after programs have been shown elsewhere in the United States. Alaska has no live TV.

Telephone costs are so prohibitive many families cannot afford to call outside Alaska except in an emergency.

It is very common to be told in calling to or from Alaska that all circuits are busy -- and to have calls delayed for hours. Alaska has no direct dialing capability.

Businessmen pay a heavy premium in time and actual dollar costs for doing business in Alaska as a result of this backwardness.

News media have pony-express type communications, severely limiting the kinds of radio and television news programming and newspaper reports available to the Alaskan public.

And some communications, such as telex, taken for granted by persons outside Alaska, are simply unavailable to Alaskans.

These are problems of those who live in the population centers. They are problems of cost and convenience. Those in rural Alaska have even greater problems.

Tens of thousands of Alaskans, mainly Indians and Eskimos, live in remote villages that have no access to modern communications, save the radio-telephone. This communication's gap reflects itself in many ways, chiefly in education and problems of acculturation.

It is difficult to attract competent teachers for isolated communities and keep them there, out of touch with their teaching colleagues, out of contact with sources of assistance and research, and entertainment.

It is difficult to conduct an adequate educational system where students have no contact with anything beyond their own experience, with only an occasional audio-visual aid requisitioned from a central supply office.

The knowledge gaps that have been bridged in rural America by the media have yet to be successfully challenged in the North country.

Compared to other areas of this nation, my state is in the communications stone age. But, as a result of the technological gains in satellite communications, Alaska's characteristics -- former liabilities -- are now ideally suited to make my state the showcase for Space applications.

In other fields, such as forestry, we have devastating forest fires which reduce hundreds of thousands of acres to ashes. This can be monitored by satellite and warnings issued.

With oil exploration and the need to transport this natural resource to the world's markets, effective anti-pollution systems and controls must be envisioned. Satellite systems could help enormously and ecological protection would result.

Satellites could help locate schools of fish and other forms of marine life which is vital to our national fishing industry.

In addition, new space applications in marine safety and navigational procedures need to be devised if ever the Northwest Passage is to be navigable on a regularly scheduled basis. Satellites can help in flood control warnings as well as advising of ice breakup in the spring.

There are no technical or economic reasons why Alaska cannot reach these long-term goals:-

-Every single community including the smallest village can enjoy television -- educational television, cultural television and commercial television.

-Alaskans everywhere can have access to new biomedical diagnostic assistance.

-Audio-visual programs can be a part of each school's curriculum.

-Telephonic services can now become available to all Alaskans regardless of how remote their community.

Alaska can also have direct outside links through international satellites; and can have a complete internal communications system, using a sensible mix of terrestrial and space facilities.

Last July, I proposed bringing the "Apollo 11" telecast directly to Alaska. This idea initially was scoffed at by authorities who should have known better. However, by insisting that the Department of Defense conduct appropriate military tests, we proved that it could be done.

We employed a double satellite hop, using first a civilian satellite and then a military one to transmit TV for the first time to Anchorage -- live TV. It was the longest live television transmission in history. Alaskans along with their fellow Americans saw Neil Armstrong impress man's footprint on the moon.

Now we are working on another step toward permanent, adequate communications -- a pilot program to bring educational and cultural TV to several Alaskan communities using NASA's ATS-1 satellite. NASA has agreed in principle to the use of the satellite and many communications companies are assisting us.

If the technology exists to do this for Alaskans, why do we not have domestic satellite communications for the entire United States?

Ten countries have or are building domestic or regional satellite communications systems. Many other countries are in the process of formulating similar plans for domestic systems.

How large will our embarrassment be in three years when the greatest power on earth has become second rate to India in the field of communications.

Realizing what I have just said I think you gentlemen like myself would certainly be remiss by not asking why the United States, which financed and pioneered this satellite technology, is falling behind the rest of the world.

The issue has been complicated by a battle of commercial giants. For the last five years or more, commercial communications carriers have locked horns with the Communications Satellite Corporation (COMSAT). The Broadcasters have wrestled with American Telephone and Telegraph Corporation; and the Public Braodcasting interests, siding with educators, have fought the lot of them.

Sitting in the center of this storm has been the Federal Communications Commission. And in the true spirit of submariners who know what to do when a storm is blowing, the FCC dived and bottomed out of sight for five years.

When the FCC surfaced last summer, the White House sat on their hatch, hooded their periscope and told the FCC to do nothing until the new Administration could review the whole issue of a domestic communications satellite system. The White House said it would report in sixty days, October 1, 1969.

The FCC is bobbing along, doing nothing. The White House has yet to release its report. We are now at one hundred and twenty days - and still counting.

Let us review for the moment what pressures are brought on this issue by the various interests involved. COMSAT was authorized primarily to satisfy international communications traffic. Its enabling legislation is clear on that point. Only passing reference is made to domestic applications. Obviously this serves the interest of domestic carriers which sit on COMSAT's Board of Directors. Only after domestic satellite systems were applied for by the American Broadcasting Company and the Ford Foundation did COMSAT bring forward its proposal.

I believe there are two fundamental reasons for COMSAT's lack of real enthusiasm for domestic satellite communications. The first is obvious -- the obvious conflict of interest in having commercial and competing industrial representatives sitting on COMSAT's Board of Directors. Secondly, COMSAT has been consuming all its energies in trying to pursue an international role.

COMSAT is the program manager of the International Satellite consortium called INTELSAT. As such, it operates as its agent. There can be no question that as its agent, COMSAT has found itself in conflicting positions regarding potential domestic applications.

Let me cite an example of this conflict. The U.S. taxpayer is subsidizing foreign interests in INTELSAT by at least $4,000,000. These same interests are attempting to dilute the United States position in world communications.

COMSAT has not been billed for $4,000,000 by NASA for launch services. The reason it has not been billed was to save COMSAT the embarrassment of charging these costs to INTELSAT. This would have placed INTELSAT in the dilemma of paying these costs itself and apportioning them to future launches, or transferring the costs to international satellite users.

The end result of these machinations is that the American taxpayer is supporting a $4,000,000 burden which would be paid for by private users around the world.

While this generosity was occuring, our European partners in INTELSAT met secretly in European capitals, to develop a plan to restructure the voting arrangements in INTELSAT to reduce the United States position from 50% to 5% and to substantially increase their own voting strength to 35% and to increase the voting influence of developing

countries to 45%.

I hope that Dr. Charyk, President of COMSAT, who will be following me with his testimony this morning will give us a progress report on the current status of the intelsat negotiations.

Mr. Chairman, I assume we are looking at those agencies expected to participate in executing domestic satellite communications. We have discussed COMSAT and the FCC. Let us briefly look at operations in NASA.

NASA will orbit every communications satellite serving the non-Soviet bloc nations, such as France, Germany and Canada.

Moreover, NASA will develop the most advanced communications satellite, costing more than $40,000,000, for India.

On September 19, 1969, the United States of America and the Government of India signed a Memorandum of Agreement for a bilateral project whose official title is: "THE INDIA/U.S. ITV SATELLITE EXPERIMENT PROJECT."

Gentlemen, consider how well this project fits into a United States system. I personally do not begrudge such a project for India, since we know the desperate need. However, I DO BEGRUDGE THE THINKING THAT EXCLUDES a similar application in the United States, since the American taxpayer is paying the more than $40,000,000 for ATS-F.

At this point it should be recognized by all that the United States is willing to provide satellite communications for India, but unwilling to do it for ourselves.

Mr. Chairman, we can sit here as responsible public officials and deprecate COMSAT management, the perfidy of foreign interests, the generosity of NASA programs, and the lack of aggressiveness of two national administrations in the field of communications.

But the truth is that we in Congress would be less than honest if we left the indictment there.

It was Congress that assigned COMSAT the duty of developing and managing an international communications satellite system. It was also Congress that neglected to clearly assign a similar responsibility to meet our domestic needs. This oversight has resulted in the lack of utilization of communications technology in the United States during the recent decade. In fact, we have been exporting the benefits of our own hard-earned technology without employing those benefits ourselves.

At the risk of being too philosophical, let me say that man's greatest problem is communicating with his fellow man.

I applaud this Committee for addressing itself to this problem... for addressing itself to the opportunity for solving the population problem of India, providing a vehicle for the acculturation of Eskimos in the far reaches of the Arctic, providing our ghetto population with the necessary training and education and bringing to all Americans cultural enrichment far beyond existing horizons.

We now have the opportunity to bring about a greater degree of communications to satisfy all appetites and needs.

The technology exists. What a crime not to use it.

In the wake of our great accomplishment -- putting a man on the moon -- a great deal of reexamination of our priorities is taking place.

This nation has built up a tremendous industrial infrastructure in pursuing our space goals of the sixties. I would hope that this Congress will find the wisdom and develop the policy ... providing Americans as well as others with the vital benefits of better communications.

12/17 NASA

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PRESENTED BY WITNESS

Statement of

Richard B. Marsten
Director of Communications Programs
Office of Space Science and Applications

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

before the
Subcommittee on Space Science and Applications
Committee on Science and Astronautics
House of Representatives

COMMUNICATIONS PROGRAMS

Mr. Chairman and Members of the Subcommittee:

We welcome this opportunity to review the NASA program in satellite communication for you. In so doing, I will review the history of the program from Echo through ATS-V, progress with ATS-F and G to date, and recent accomplishments in supporting research and technology. I will provide an overview of total program expenditures to date and will conclude with a report on the planned "user experiments." I will pay particular attention to the proposed Alaskan experiment with ATS-I, the planned Indian Instructional Television (ITV) experiment with ATS-F, and the recently approved Corporation for Public Broadcasting (CPB) experiment with ATS-III. These user experiments represent an increasingly important part of our overall program to demonstrate and evaluate new, effective uses for satellite systems in meeting our society's growing needs for communications services.

Our policy objectives as derived from the National Aeronautics and Space Act of 1958, and the Communications Satellite Act of 1962 have been stated. In response to those objectives, we have established a number of steps--a sort of framework--through which we conduct our research and development program. We study the requirements for and technically assess the applicability of satellites to meet future needs. We develop and flight test technology required for future communications, navigation and traffic control, and other useful applications. We develop and conduct flight experiments on promising systems applications. Finally, we provide technical support for U. S. management of frequency and orbit resources.

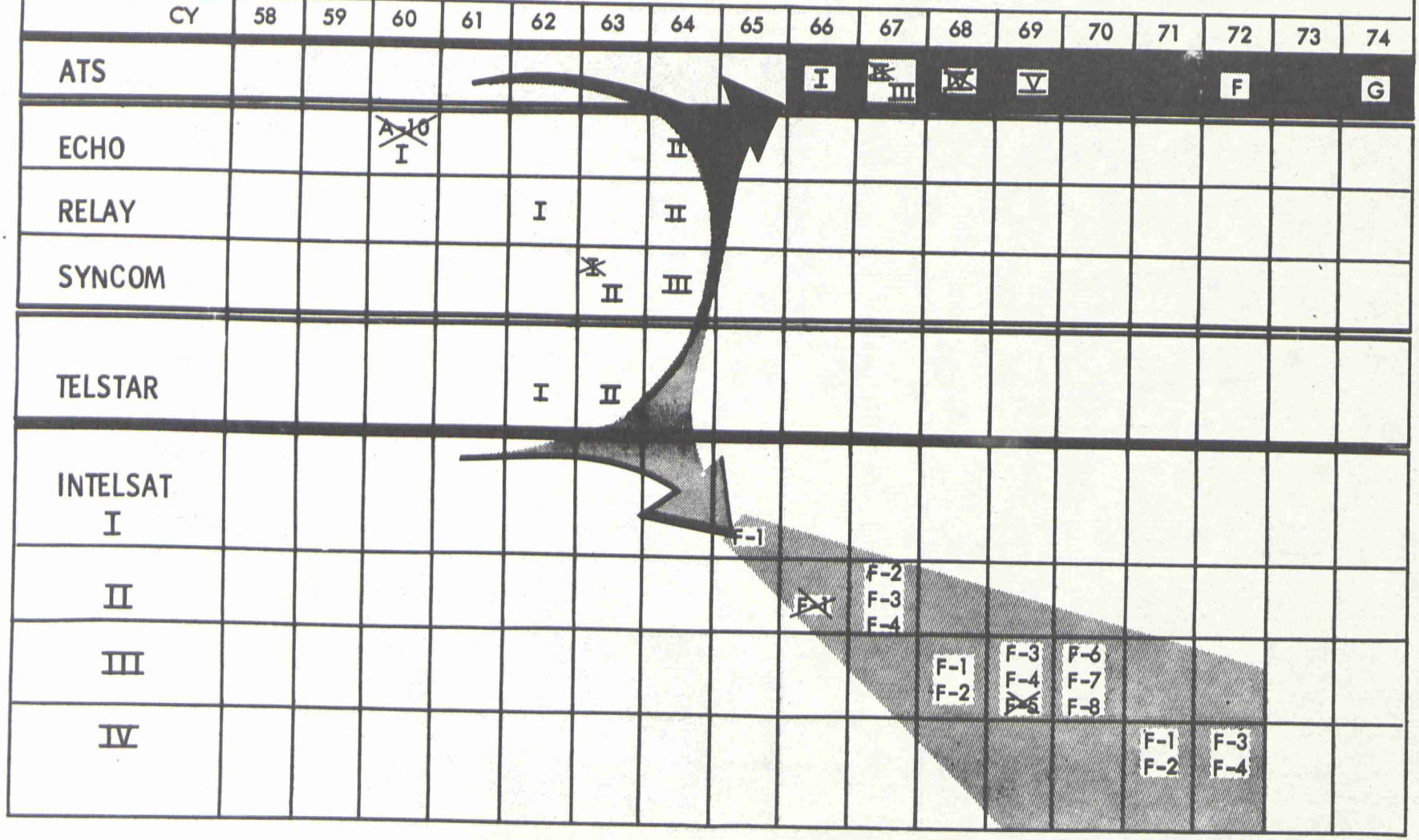
The Early Program

Let me now briefly review the history of our communications research and development program from the inception of NASA in 1958 to the present. As can be seen from the table (SC70-222), NASA has developed and launched a total of eight communications research satellites in the Echo, Relay and Syncom programs. These research flights were supplemented by two Telstar satellites developed by AT&T and launched by NASA on a reimbursable basis.

Through the research and development program conducted with these satellites, a number of capabilities were developed to serve the nation and the international community. These can be conveniently grouped into three general areas: technology and techniques for the transmission of wide-band signals and multiple voice channels through repeater satellites;

CIVIL COMMUNICATIONS PROGRAMS

SATELLITE FLIGHT SCHEDULE



X LAUNCH FAILURE

NASA SC70-222
12-12-69

the technology required to place and maintain communications satellites in geosynchronous orbit; and the technology required for operational ground stations to work with research and operational satellites.

This early research program resulted in two follow-on programs. One, to capitalize on the technology base developed by NASA and to provide immediate benefits to the nation and its people, was conducted by the Communications Satellite Corporation (COMSAT) on behalf of the International Telecommunications Satellite Consortium (INTELSAT). The other, to develop the more sophisticated and complex multidisciplinary technology required for future applications satellite systems was conducted by NASA: the Applications Technology Satellites or ATS Program.

Another significant but less direct contribution of our early research program has been to the communication satellite systems launched and operated by the U. S. Department of Defense. The Interim Defense Communication Satellite Program (IDCSP), and more directly the Tactical Satellite Communications (TACSATCOM) program, have drawn extensively upon the technology, both satellite and ground station, developed during the Relay and Syncom programs.

Finally, technology initially developed in our early research program has been adapted to support the video data transmission requirements of ERTS-A and B and data transmission requirements of deep space missions.

During the four years from 1965 through 1969, NASA has launched

for COMSAT, on a reimbursable basis, a total of ten operational satellites in three serial generations. Eight of the launches were completely successful. Two aborted due to apogee motor or launch vehicle failures. An eleventh satellite is scheduled for launch next month. As already stated, the total operating INTELSAT system of today draws heavily upon the ground station and satellite technology that was developed by NASA in its earlier programs. As a result of the improved facilities developed by COMSAT, new operational services have become available. The improved efficiency through which those services can be performed using satellites has permitted the citizens of this country to see real-time television from around the world, and to communicate with high quality telephone circuits to Europe, Japan, and the Pacific and Asian areas at less cost than prior to the establishment of satellite systems. The INTELSAT system was an integral part of the supporting network for Apollo operations, and, of course, permitted world-wide television coverage of the Apollo 11 and 12 missions.

ATS-I through V

Let me now review for you NASA's research program which built on the same technology base that was developed from Echo through Syncom: the Applications Technology Satellites or ATS program. The ATS project, which was started in 1964, called for five satellite launches: one medium altitude gravity-gradient satellite experiment; two spin-stabilized geosynchronous satellites; and two gravity-gradient stabilized spacecraft in geosynchronous orbit. ATS-I and III were successfully launched in

1966 and 1967, respectively. They are still being operated. Testimony earlier this year before this Subcommittee discussed the launch vehicle failures on the ATS-II and IV flights, and the problems we have experienced with ATS-V.

We have obtained many important results from the wide range of experiments conducted with the successful ATS-I and III satellites. These experiments are providing the technology base for future operational satellite systems.

Generally, the communications technology experiments performed with these satellites can lead to greater capabilities for traditional communications services at reduced rates; capabilities for new services such as TV networking and community educational and instructional television; data collection for expanded environment monitoring systems; specialized information transfer networks to serve unique user groups such as health care services; and more efficient air traffic control systems.

Two of the critical factors in the application of satellites to these new or expanded services is the efficiency with which the satellites can use the limited RF spectrum, and can convert the raw electric power generated on the satellite into radio signals which reach the receiver antenna on the ground.

On the ATS-I and III geosynchronous satellites we proved out the design of both electronically and mechanically despun antennas which permit us to confine the power expended on RF transmission to a beam covering only the Earth's disk with no wasted energy transmitted to space. This results in a 20-fold improvement in transmission efficiency (over the Syncom and early INTELSAT satellites) which can be directly converted into either a reduction in satellite launch weight (and thus cost), or, more importantly into a manyfold reduction in the ground receiving and transmitting station costs.

The practicality of specialized informational networks for education, instruction or health care, or of data collection systems for environmental monitoring services may depend on continued improvements in the efficiency with which we can further narrow our antenna beams and point our satellite antennas toward selected portion of the Earth's disk. Voice and data transmission and position location experiments using these directive antennas have shown that relatively simple and inexpensive ground and aircraft equipment can work with satellites using this technology.

Another important consideration is the extent to which a large number of ground stations can use a single satellite and a single segment of the radio spectrum to communicate with each other. Experiments with ATS-I and III have contributed basic knowledge in this area.

In addition, meteorological cameras, providing both black and white and color pictures of the Earth's disk every twenty minutes during daylight hours, are providing the Environmental Science Services Administration (ESSA) and our research meteorologists with a new look at our

atmosphere. Already we have been able to track the short-term behavior of devastating storm systems such as Hurricane Camille far more precisely than with medium altitude weather satellites, and in real-time, permitting more timely and accurate disaster warnings. The improved knowledge of the behavior of these major storm systems, if coupled with improved communications alert systems, could eventually prevent or minimize the shocking loss of life such as occurred in the Appalachian region following Camille. ESSA is now in fact using our ATS-I and III satellites in a quasi-operational fashion to improve weather forecasts, and to develop a better understanding of the way our atmosphere behaves.

While we could not expect to obtain all of the planned experiment results from ATS-V in its spin-stabilized mode, we are obtaining a majority of the planned propagation, digital communicating, and ranging data in the L-band aeronautical frequency region around 1,600 MHz, and in the millimeter wave region. The L-band data are important in evaluating the suitability of this frequency region for conducting aircraft navigation and traffic control operations. The millimeter wave data are important in determining to what extent we may use this higher, yet-uncrowded frequency band to extend satellite communications services without interfering with conventional terrestrial services.

ATS-F and G History

In late 1964 and early 1965, NASA in-house studies were made of the logical extension of the ATS concepts to larger spacecraft, with greater

capacity for effective radiated power and pointing precision. These studies indicated that a reasonable next step could be a spacecraft in a stationary orbit, able to radiate to--or view--selected portions of the visible Earth rather than the whole Earth disk. This technology could result in a significant increase in communications, meteorology and Earth resources survey capability, and concomitant improvements in services to the people of this nation--improved TV distribution and community education, safer travel, more accurate weather forecasts, and more effective management of our environment and natural resources.

The studies showed that a relatively large antenna would be required as well as much greater stabilization accuracy than possessed by spacecraft of the previous ATS series. Thirty feet represented the largest practicable antenna size; 0.1 degree stabilization accuracy would be required to provide stable geographic coverage at the higher frequencies that are of interest for many communications applications. This narrow beam antenna will result in a further improvement in transmission efficiency by a factor of some 300 over the whole-Earth coverage patterns of the ATS-I and III satellites. The erection of a thirty-foot antenna in space was identified as the principal technological difficulty.

In May and June of 1966 three aerospace companies received contracts of approximately $150,000 each for six-month feasibility studies. Goddard Space Flight Center (GSFC) conducted its own parallel study. All results indicated that the missions could be accomplished with a 2000 pound satellite launched by a Titan IIIC.

In February 1968, some twenty firms were invited to propose a Phase B/C definition and design study. Fairchild Hiller Corporation and General Electric Corporation were selected in September 1968 to conduct thirteen-month studies which called for specifications and proposals for the Phase-D fabrication effort based on laboratory demonstration of feasibility of critical technologies. The contracts include a sustaining effort until the Phase-D contractor is selected from the two Phase B/C contractors. We expect to select the Phase-D contractor in early 1970.

As currently conceived, the ATS-F and G experimental satellites, scheduled for launch in 1972 and 1974, will prove out technologies which can be ultimately applied to provide a number of benefits. They will provide much of the prerequisite technology base for: mass instruction through TV transmission to inexpensive ground receivers; improved safety, economy, and convenience in air travel through effective air traffic control and communications; continuous contact with satellites in orbit (which is not now possible) through satellite-to-satellite tracking and communications; improved use of the crowded frequency spectrum and synchronous orbit through interference and propagation measurements and experiments; and finally, improved weather prediction through infrared measurements of the Earth's atmosphere.

In February 1968, announcement was made of the experiment opportunities on ATS-F. About sixty experiment proposals were received from over forty organizations. In October, seventeen experiments were selected for ATS-F as follows:

In the area of communications, a number of experiments were selected which relate to the problems of frequency spectrum utilization. One experiment will measure radio frequency interference in the commercial satellite frequency bands to permit us to develop appropriate criteria for sharing these frequencies between space and terrestrial uses. Another experiment will study the basic effects of the atmosphere and ionosphere on very wide-band signals to determine what some of the basic limitations are on transmissions from satellites to Earth stations. We have approved two experiments designed to investigate new, uncrowded, regions of the spectrum, one in the millimeter wave region and the second at laser frequencies. Both of these experiments offer possibilities for wide-band satellite-to-satellite communications in the future.

Two communications experiments were approved for ATS-F which will support continuing studies which relate to more efficient operation of NASA's tracking and data acquisition network which supports NASA's on-going flight missions. One of the experiments will permit tracking of and wide-band data retrieval from the Nimbus-E satellite using ATS-F, and the other would permit similar experiments with one of the Apollo Applications Program dry workshops.

In the area of navigation and air traffic control, we have approved for ATS-F an experiment to determine the absolute and relative accuracy of locating and communicating with moving aircraft as an important input to our navigation satellite studies.

In the area of meteorology, we have approved a very high resolution radiometer experiment, continuing the traditional support that the ATS program has provided to the Earth observations disciplines. In addition to mapping cloud patterns, this sensor will provide experimental information on sea surface temperatures (and thus ocean currents) in cloud-free areas, and will provide estimates of cloud heights as well as areal coverage.

A number of experiments related to basic spacecraft technology and science have also been approved. You will recall that the ATS satellites represent NASA's only opportunity to examine in detail the environment in the geosynchronous orbit.

After we have gathered a majority of the data from these experiments, particularly those that require the active participation of organizations and ground stations in the United States, we will move ATS-F to a position from which it can view the Indian sub-continent. We will then conduct--in conjunction with the Indian Government--the Instructional Television experiment which was the subject of the recent Memorandum of Understanding between NASA and the Indian space agency (Department of Atomic Energy).

Recent Supporting Research & Technology (SR&T)

A number of developments in our recent Supporting Research and Technology program warrant brief mention.

Communications R&D

Two contractual studies on TV broadcast satellites were recently completed. These examined a full range of technical possibilities, problem areas, and cost factors involved in transmitting both monochrome and color television program material either directly to conventional receivers, to augmented home receivers, or to relatively inexpensive community and classrooms.

Potential near-term systems which would require research and development are of interest to NASA to the extent that they might be in the national interest and therefore require flight experimentation. At the present time, one can only generalize and speculate on the possible applications of high power satellites, whether they would be practical, and who the users might be. Meanwhile, further research and development to explore the limits of technical feasibility is essential in order to insure that we are in a position to exercise the option to develop this kind of capability,should it prove desirable in the national interest.

For satellite radio frequency (RF) output powers of 100 watts and above, power level and efficiency of transmitting tubes are the major factors in determining spacecraft size, weight, and cost.

They are the major source of heat to be dissipated into space and consequently RF power output devices are one of the critical components insofar as satellite lifetime is concerned. NASA is conducting research and development studies covering design concepts and experimental verification in the laboratory of the most promising technical approaches to high power tubes and associated componentry.

Navigation/Traffic Control

Based upon in-house studies and recommendations from an interagency committee, we held a competition for an advanced mission study of a satellite system to meet the needs of the civilian aviation and maritime community for improvements in communications, navigation, traffic control and related functions. Twelve aerospace companies responded to our request for proposals and RCA and TRW were selected to conduct the work.

Both companies determined that satellite systems could meet the mid-1970 needs of aircraft and ships for communications and navigation improvements. The Ultra-High Frequency (UHF/L-band) part of the frequency spectrum was recommended by both companies as optimum for the required services, and both recommended a two-satellite ranging system concept for initial experimental work.

In response to a request from the Federal Aviation Administration (FAA) following these studies, a joint NASA/FAA study effort was begun

in 1969 to develop plans for a one-ocean, UHF satellite experiment in air traffic control. As mentioned in the recent NASA report to the Space Task Group, we have responded affirmatively to a suggestion by the European Space Research Organization (ESRO) that we examine together the technical basis for a possible experiment that might be conducted cooperatively and on a shared cost basis. In these exploratory talks, NASA has relied on the Department of Transportation/FAA for definition of air traffic control needs in such an exepriment. ESRO is similarly coordinating with the several air traffic control authorities in Europe.

Institutional Support Activities

An important function of our program is to provide technical support to many U. S. Government agencies and to other, outside organizations. We have been called on many times by the Office of Telecommunications Management (OTM) for assistance, particularly on matters of frequency and orbit utilization--most recently in preparation for the 1971 World Administrative Radio Conference (WARC). In continuing support of the frequency utilization activity, we are playing a lead role, with OTM, FCC, and ESSA, in a cooperative, jointly funded program in radio interference and propagation measurements. The initial results will provide added technical support to the U.S. position for the 1971 WARC. Results from our continuing program are intended to provide a technical base for future frequency allocation negotiations as our burgeoning communications needs take us to ever-higher frequency regions in the spectrum.

We have also participated extensively in various Ad Hoc intra-governmental working groups concerned with communications satellite policy and technology, with particular emphasis on domestic satellite possibilities. We provide continuing technical support to the Federal Communications Commission (FCC). Advice and services are also provided to DoD, DoT, State, HEW, and DoC.

We have provided technical support services to COMSAT Corporation on a reimbursable basis. This year, also, we made significant contributions on space systems to the International Telecommunications Union, International Radio Consultative Committee meeting in Geneva by providing the principal papers on orbit utilization and space broadcasting, and to the United Nations Working Group on Space Broadcasting by providing the principal paper on technology and economics.

Program Expenditures to Date:

Now let us look at the resources that have been expended on this program over the past decade. About $250 Million was spent in Fiscal Year 1968 and prior years on projects in the Communications Program, exclusive of ATS-F and G, and exclusive of launch vehicles. The major items making up this total are $36.5 Million in SR&T, $131 Million in ATS-I through V, and $70.5 Million for completed projects, such as Echo, Relay, and Syncom. Adding the $32.8 Million allocated to Communications Projects in Fiscal Yeal 1969, the total through

Fiscal Year 1969 amounts to about $285 Million, including ATS-F and G, but excluding launch vehicles. Through Fiscal Year 1969, $139 Million will have been allocated to the ATS-I through V missions. Of this total about $21.0 Million was for communications experiment effort and about $6.0 Million for navigation experiment effort.

Resources Available for Experimentation:

Recognizing that a large portion of our initial experimental program with ATS-I and III was completed and that their continuing capability to operate represented an important resource to the Nation, NASA held a meeting on June 13, 1969, in which the capabilities and terms of availability of this resource were presented to a broad spectrum of potential experimenters. NASA has established a policy of making the ATS satellites available for worthwhile experimentation by other organizations,after the initial technical experiments on the satellites have been completed,and for as long as the satellites remain operative. Such organizations can include other Government agencies, educational institutions, or private concerns which are potential users of future operational satellite systems. These organizations must be willing to invest in the necessary ground facilities, provide message content, and cover other ground costs. All of the above mentioned classes of organizations were well represented at the meeting.

A great deal of interest in the ATS resource for experimentation was expressed,and a number of specific experiment proposals have subsequently been received.

As an outgrowth of that meeting, NASA and COMSAT jointly developed a draft inventory of communications satellites and associated ground facilities in order to assist the user community to develop meaningful experiment proposals. The inventory consists of the NASA ATS satellites and ground stations, and to a limited extent, those INTELSAT satellites and ground stations where unused capacity is available. In combination, these and the projected ATS-F & G satellites represent a powerful tool for experimental use.

User Experiment Activities:

Let me now turn in more detail to the planned and proposed user experiments: first the proposed Alaskan experiment, then the planned Indian ITV experiment, thirdly the recently approved Corporation for Public Broadcasting experiment, and finally, other proposals from various organizations.

By a letter of November 12, 1969, Governor Keith H. Miller transmitted to NASA copies of the formal Proposal for a Satellite Communications Demonstration for Alaska. We gave guidance to the Governor's Committee in the early stages of their proposal effort by providing them with information on the technical characteristics of the ATS satellites and ground stations, and by telling them what kinds of information their proposal must contain to permit us to evaluate it. I participated in the meeting in Anchorage, Alaska on August 28 and 29, 1969, on this subject. The needs of Alaska for

improved communications services were outlined at that meeting. I provided the conference with information on the technical possibilities of experimental use of the ATS satellites in exploring the potential role of satellites in meeting those needs.

In substance, the Alaskan proposal for the use of ATS-I calls for transmission of instructional and other public television programming from Fairbanks to three relatively heavily populated areas, and of educational radio programs to many, more remote areas. Planning and preliminary systems design and site selection have already been started by the State of Alaska.

It is proposed that television programming and the television transmitting station be located in Fairbanks, close to the University of Alaska. Television receiving stations would be located at Kodiak, Nome, and Fort Yukon, representing a variety of geographical areas and population groups. The proposed TV programming would include instructional and pre-school educational programs, public and general informational programs, and medical and public health information.

According to the proposal, VHF radio transmitting stations would be located initially at the University of Alaska, Anchorage, and Juneau. The radio programs could be received in a number of remote areas in addition to the more heavily populated regions, since

antenna and receiver costs are much less than for TV reception. The radio programs would be aimed toward educational purposes such as native language training, and health and sanitation practices. Additional two-way radio tests are planned relating to public safety.

According to the proposal, the State of Alaska would bear the cost of development of the programming, the conduct and the evaluation of the experiment. Ground stations would be provided by COMSAT and RCA Global Communications, Inc., with Alaska sharing the cost of installation. NASA would provide the use of the ATS-I satellite, including the normal housekeeping and operations of the satellite.

Planning has already started on the part of the State of Alaska, with a target date of March 1970 for the beginning of radio transmission and October 1970 for the beginning of television transmissions. Proposed transmission schedules would total some seven hours per day, shared between radio and television programs. The proposal calls for the continuation of the experiment throughout a full school year, that is, through the spring of 1971, subject, of course, to continued satisfactory operation of ATS-I.

We anticipate that the technical details of NASA's involvement can be satisfactorily worked out, and that formal NASA approval of the proposal will be forthcoming in the near future.

Turning now to the planned Instructional Television (ITV) experiment with India using ATS-F, I will provide some of the background of that experiment.

The potential ATS-F and G capabilities were discussed within the forum of an international committee on satellite communications experiments which NASA has used since the early experiments with Relay and Telstar. India became particularly interested in the potential for television transmissions to remote areas for instructional purposes, such as methods to increase agricultural output, and for population control. They proposed a joint study of the possibilities of an experiment to test the utility of such techniques in a letter in 1966. Preliminary discussions led to an agreement for a joint study in October of 1967. The focus of this study was on an assessment of the comparative costs and effectiveness of space and non-space systems, a definition of the technical objectives and of the recommended ATS-F experiment, a concise definition of the commitments required of NASA and the Indian Government, and a recommendation of further actions. The joint study was completed this past June.

India is particularly suited for an experiment of the type planned for ATS-F. The population is distributed fairly evenly throughout the country, rather than being concentrated in a few large cities which could be reached easily by terrestrial television

distribution methods. There is no existing TV distribution network to be interfered with, and the Indian subcontinent is of a convenient size relative to the antenna pattern of the ATS-F satellite. A ground station suitable for transmission to the ATS-F satellite is already available in Ahmedabad.

Dr. Vikram Sarabhai, Chairman of the Indian Space Research Organization and the Department of Atomic Energy, views the potentialities of the experiment as "truly staggering" for the process of Indian national development programs, as a forerunner of future systems for bringing together all of India with one information and communication system. Most of India's half million villages are severely isolated from each other and from the rest of the world. Despite the high priority of education, the country still has a wide base of illiteracy. Dr. Sarabhai has emphasized the roles of information and the motivation of the farmer, in a society such as India, in making life in smaller communities more meaningful, richer and more livable, and in contributing to national cohesiveness by bringing the culture of the country to every citizen of India.

The key provisions of the more recent agreement signed by both parties on September 18, 1969, can be summarized as follows:

India has accepted responsibility for procuring and installing about 5,000 widely distributed village receiving systems, for all TV programming material, and for obtaining all necessary international frequency clearances. They will transmit TV programs from their Earth station to the satellite. They will assume all costs associated with the ground segment, programming, training, and analysis. They will evaluate the results of the experiment, in quantitative terms where possible, and will report all findings to the international community.

NASA has accepted the responsibility for providing an 80 watt transmitter on ATS-F and positioning the satellite within view of India within one year of launch; providing experiment time of up to six hours per day for a period of approximately one year; and making available training and consultation.

With your permission, I will submit for the record at this point copies of the October 1967 agreement, and the September 1969 agreement.

In summary, NASA is participating at modest cost in a very

substantial and significant cooperative communications experiment. The results of this first use of broadcast satellites will contribute to a better understanding of the potential effectiveness of satellite systems in meeting communications, education, and overall economic and social needs throughout the world.

The results will be freely available and will be potentially applicable to many other situations, including future satellite distribution systems--whether for Alaska or the sparsely populated Rocky Mountain region, or for other countries, such as Brazil.

Turning once again to domestic experiments, at the meeting on June 13, 1969, the Corporation for Public Broadcasting submitted experiment proposals. These proposals were discussed with them and a modified proposal, submitted by them, was subsequently approved. The experiment is scheduled to begin this week.

The experiment calls for the transmission on a pilot basis of non-commercial television programs provided by the CPB at NASA's Rosman ground station. The programs will be relayed for three hours each evening from Sunday through Thursday by ATS-I or ATS-III to NASA's Mojave, California ground station. Land lines will carry the signals to Los Angeles, California where they will be broadcast by public television stations on the West Coast. The duration of the experiment will be up to one year, depending on the availability of the ATS satellites, and a supplementary experiment may be added to provide for radio program transmission during daytime hours. We are to coordinate the CPB experiment

schedule with those proposed by the Governor of Alaska and the Broadcast Networks, since in some cases the experiments are mutually supporting, and in any event, we must arrange an integrated schedule for the ATS satellites and ground stations.

Rather than cover the balance of the user interest (as expressed by their proposals) in the same detail, let me merely cite the organizations that are involved to show the breadth of the interest that has become crystallized as a result of the announced availability of this experimental resource at the June 13 meeting. These user contacts span the range from mere requests to be kept informed of progress to specific detailed proposals that are currently under review.

We have received proposals from ABC and CBS as well as from two CBS-affiliated stations in Idaho. At the request of CBS we have cooperated in a preliminary test transmission from Rosman through ATS-III to the Hughes Aircraft Company ground stations on the West Coast. We have expressed interest in the types of experiments proposed by the Lister Hill National Center for Biomedical Communications of the National Institutes of Health, National Library of Medicine. We have recently received a proposal from the University of Hawaii covering a broad spectrum of experiment possibilities, both to serve Hawaii and to involve the whole Pacific area.

The Canadian Broadcasting Corporation, the NAVSAT Corporation, Western Union International, and Governor Kirk of Florida have all indicated a greater or lesser degree of interest in the possibilities of experimentation with the ATS satellites. We have also exchanged correspondence

with Brazil, prior to the June 13 meeting, regarding the possibility of cooperative experiments using the ATS-F or G satellites.

For these user experiments, NASA is authorized to operate only its own ground stations with the ATS satellites. In the case of user experiments which involve other ground stations, successful proposers must make necessary arrangements with the FCC for licensing.

Concluding Remarks:

The emphasis on user experiments within the communications program demonstrates NASA's awareness of the many potential uses for civil communication satellite systems. User experiments help both to determine operational characteristics for particular uses, and to determine the technical characteristics of satellite systems appropriate to such uses. In order to plan for and implement those technical developments required by newly recognized uses, and in order to perform systems and technology studies necessary for the definition of new communications systems and services, we must maintain a continuing, independent capability in space communications research and development. This capability forms the technical base for identification and satisfaction of future communications needs.

Mr. Chairman, this concludes my prepared statement. Thank you.

MEMORANDUM

THE WHITE HOUSE

WASHINGTON

December 15, 1969

MEMORANDUM FOR MR. CLAY T. WHITEHEAD

SUBJECT: Office of Telecommunications Policy (OTP)

In your 8 December memorandum to me, on the subject, you indicated that you believed that it would be more appropriate to handle the matter of the White House Communications Agency (WHCA) in a memorandum from the President. I agree to your proposed method of handling the relationship between WHCA and OTP. Also, I agree with your thoughts that neither the Director of OTP nor his staff should be involved in WHCA operations in any way. Further, I do not question the statement that the Director be the President's principal advisor on telecommunications matters. I do, however, have some reservations on the degree to which he needs to know about the "needs, capabilities, and activities of WHCA." For example, communications support provided by WHCA to the President basically falls into three categories, as follows:

a. Personal communications.
b. Communications in support of the President as the head of the Republican Party.
c. Those communications in support of the President as the head of state and the Commander in Chief of the Armed Forces.

In viewing the above categories, I believe it is apparent that only the latter of these three categories should be of any direct interest to the Director of OTP. I do not believe that it would serve any useful purpose to have the Director of OTP nor his staff involved in any way with the WHCA needs, capabilities or activities associated with the first two categories.

I would like to suggest that we get together soon to draft a Presidential memorandum to clarify these relationships. Further, I believe it would be appropriate that this memorandum be signed prior to, or concurrently with, the publication of the OTP charter.

COLONEL JAMES D. HUGHES

Fed Comm
Org.

December 8, 1969

MEMORANDUM FOR COLONEL HUGHES

Attached for your information is a copy of the final version of our Recommendation on Executive Branch Organization for Telecommunications Matters. You will note that I have adopted many of your suggestions. I have, however, omitted any reference to the White House Communications Agency since I feel that this is not a matter appropriate for discussion and comment throughout the Administration.

I agree only in part with your view that WHCA should be totally outside the purview of the new Office of Telecommunications Policy. Neither the Director of Telecommunications Policy nor his staff should be involved in WHCA operations in any way. However, it is important that the Director be the President's principal adviser on telecommunications matters. It is essential, therefore, that he personally be fully informed about the needs, capabilities, and activities of WHCA.

I believe that the appropriate way to handle this very confidential matter is through an understanding between the President, his immediate staff, his Military Aide, and the Director of Telecommunications Policy. This is more appropriately handled through a memorandum from the President outlining how that matter is to be handled than in an Executive Order establishing organizational responsibilities throughout the executive branch. Such a procedure would provide more flexibility and more confidentiality.

I would welcome any further views you have on this document, since it is now being circulated for comment among the various Federal departments and agencies.

Clay T. Whitehead
Staff Assistant

Attachment

cc: Mr. Flanigan
Mr. Kriegsman
Mr. Whitehead
Central Files

CTWhitehead:jm/ed

OTM

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

OFFICE OF THE DIRECTOR

December 12, 1969

Honorable Dean Burch
Chairman
Federal Communications Commission
Washington, D. C. 20554

Dear Mr. Chairman:

This letter is to follow up past informal discussions with FCC staff representatives regarding a problem of interference to one of the radio frequencies used for communicating with the Presidential aircraft.

Pursuant to its commitments with the Department of the Air Force, the Motorola Company has stockpiled mobile radio equipments ready to meet sudden unforeseen communications requirements. These equipments are properly crystallized on frequencies in the 162-174 MHz Government frequency band. On at least two occasions - the funeral ceremonies for the late Senator Robert F. Kennedy in Washington and for the late President Dwight D. Eisenhower in Abilene, Kansas - local non-Government authorities called upon the Motorola Company to provide mobile communications equipment for temporary use on short notice. Equipments provided on both these occasions were crystallized in the 162-174 MHz band and both times a frequency assigned for the Presidential aircraft was sought for temporary use by the non-Government interest involved.

As the result of prompt action on the part of the FCC and the OTM, problems were averted on the two occasions cited above. However, there does appear to be a genuine requirement for a stockpile of mobile communications equipments to be available for non-Government users to employ under unusual conditions.

It is suggested that the Commission specify other frequencies, preferably in non-Government bands, for such purposes. We shall, of course, assist the Commission within our capability. Such action would prevent what could at some time be a serious harmful interference situation.

As a matter of interest, additional background information on this subject is summarized on pages 3 and 4 of the minutes of the Interdepartment Radio Advisory Committee (IRAC) meeting of June 11, 1968.

Sincerely,

W E Plummer

W. E. Plummer
Acting

cc: Mr. Clay T. Whitehead

Telecommunications

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

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