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OFFICE OF FACILITIES MANAGEMENT  
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General

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## 1. GENERAL

1.1 Purpose. Efficient and reliable telecommunications services are essential to the Bureau of Indian Affairs in accomplishing its mission and programs. This supplement provides uniform policies, standards, overall criteria, and guidelines for planning, implementing, managing, and operating Bureau telecommunications.

1.2 Scope. The information contained herein applies to all telecommunications systems, related services, and facilities owned and/or operated by the Bureau.

1.3 Objectives. The objectives of Bureau telecommunications are to support and facilitate efficient accomplishment of the Bureau mission and related programs by:

- A. Increasing the effectiveness of Bureau personnel and equipment;
- B. Providing for public and employee safety;
- C. Aiding in the prevention, detection, and suppression of forest and range fires; and
- D. Aiding in the protection of life and property.

1.4 Authorities. The authorities governing Bureau telecommunications are contained in:

- A. The Communications Act of 1934 and Amendments thereto;
- B. Presidential Executive Order 11556;
- C. Department of Commerce, National Telecommunications and Information Administration of Regulations and Procedures for Federal Radio Frequency Management;
- D. Department of the Interior Manual Part 377B-1, Radiocommunications Handbook;
- E. Department of the Interior Manual Part 377B-2, Telephone Systems Handbook;
- F. Department of the Interior Manual Part 377D-1, Telecommunications Terminology Handbook;
- G. Bureau Radio Frequency Assignments; and
- H. Directives from line officials on telecommunications.

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Functions and Responsibilities

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2. FUNCTIONS AND RESPONSIBILITIES

2.1 Bureau of Indian Affairs. The Assistant Secretary - Indian Affairs, Washington, D.C., is responsible for overall telecommunications services within the Bureau. This responsibility has been assigned to the Office of Facilities Management (OFM), Albuquerque, New Mexico.

2.2 Office of Facilities Management. The Director of the Office of Facilities Management provides overall guidance on the Bureau's telecommunications services.

2.3 Telecommunications Functions. The Communications Management Specialist provides technical assistance and guidance to the Director, Office of Facilities Management as well as Bureau line officers on matters concerning telecommunications and is responsible for:

- A. Formulating and recommending Bureau telecommunication policies;
- B. Providing Bureau frequency management and promulgating Departmental policies and standards for radio frequency utilization;
- C. Furnishing staff support to the Central Office;
- D. Coordinating the Bureau's telecommunications services and maintaining its radio frequency files;
- E. Providing Bureau liaison with the Department, other Federal agencies and the private sector regarding Bureau telecommunications;
- F. Conducting evaluations, studies and analyses of Bureau telecommunications;
- G. Providing technical assistance to Bureau offices and Indian tribes;
- H. Providing assistance with systems design; reviewing of systems designs by others; conducting operational surveys and analyses of systems; preparing technical specifications; and resolving problems with Bureau telecommunications;
- I. Reviewing, processing and approving, Bureau requests to the Department for radio frequency assignments;

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J. Reviewing, processing and approving Bureau requests to the Department for major changes to Bureau telephone systems; and

K. Preparing Bureau telecommunications reports to the Department.

2.4 Area Communications Officer. The Area Communications Officer provides technical assistance and guidance to respective Area directors, Agency superintendents, and activities using Bureau telecommunications services within their area of jurisdiction and is responsible for:

A. Planning, designing, implementing, maintaining and managing Area telecommunications;

B. Reviewing, processing and approving requests to Office of Facilities Management for Area radio frequency assignments and/or major changes to Area telephone systems;

C. Managing Area frequency utilization;

D. Coordinating the cooperative use of telecommunications services with other offices of the Bureau and other agencies;

E. Preparing technical specifications and cost estimates for procurement of telecommunications equipment and services; and

F. Monitoring of systems operations for compliance with applicable rules and regulations.

G. Providing employees with information on the availability and use of telephone services.

H. Processing and coordinating requests for telephone services and telephone facilities maintenance.

I. Conducting surveys for verification of inventories and certification of billing.

J. Maintaining records of telephone equipment, services and directory listings.

K. Forecasting voice and data communications requirements in order to initiate timely orders for major changes and additions to the telephone system.

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Definitions

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### 3. DEFINITIONS

3.1 Selected Definitions. The following selected definitions are applicable to Bureau telecommunications services. The definitions correspond with those for international use by the International Telecommunication Union (ITU), for Departmental use by the Departmental Telecommunications Terminology Handbook, and for non-Federal Government use by the Federal Communications Commission (FCC):

- A. ADP Communications Services: Telecommunications services providing communications among computers, computer terminals, and other automatic data processing equipment.
- B. Assigned Radio Frequency: The center of the frequency radiated bandwidth assigned to the station.
- C. Backbone Equipment: Telecommunications equipment utilized by more than one activity of the Bureau.
- D. Area Communication Officer: An employee who is currently experienced in the technical and management aspects of the telecommunications field and is assigned the responsibility for such services within the Area.
- E. Dispatcher: A person or persons whose primary duty is the operation, from a central location, of one or more communications systems serving one or more activities.
- F. Electronic Systems: Systems or devices utilizing telecommunications to provide information or control; e.g., sensing of water levels, lighting detection, fire and smoke detection.
- G. Life Cycle Management: A cost related term applied to equipment and/or systems which covers the entire range from its conception through replacement and ultimate disposal.
- H. Radiocommunications: A telecommunications service conducted by means of radio or electromagnetic wave propagation.
- I. Radio Frequency Assignment: Approved authorization to use a specific radio frequency, issued by the U.S. Department of Commerce, National Telecommunications and Information Administration.



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J. Radio Control Frequency: A frequency used to control a remote base station and which is different from the system net frequency.

K. Radio Frequency Sharing: The coordinated use by more than one activity or agency of a common frequency or frequencies.

L. Radio Operation: The manipulation, operation, and control of communications equipment for two-way radiocommunications.

M. System Drawing: A drawing or sketch illustrating the technical and operational characteristics of the systems.

N. System Net Frequency: The frequency or frequencies comprising the basic radio system.

O. Telecommunications: Any transmission, emission, or reception of signs, signals, writing, images, and sounds or intelligence of any nature by wire, radio, visual, or other electromagnetic systems.

P. Telecommunications Services: All systems or circuits provided and utilized for specific telecommunications, i.e., radiocommunications systems, telephone services, ADP communications.

Q. Telephone Services: A telecommunications service by commercial telephone facilities.

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4. POLICY

4.1 Compliance with Regulations, Standards, and Policies. Telecommunications services will be developed and provided as required to support Bureau missions and activities to insure efficient, dependable and economical services. Telecommunications services will be provided and operated in strict compliance with regulations, standards, and policies of the Department and the Bureau.

4.2 Commercial Telecommunications Facilities. The Bureau shall use commercial telecommunications (radio and telephone) facilities and services whenever such are available, adequate, efficient and economical provided that the use is consistent with national policy and security considerations as required in the Departmental Radiocommunications Handbook, Chapter 1.5, "Use of Other Telecommunications Services".

4.3 Telephone Services. For procedures and controls of installation and changes of telephone services, i.e., telephone, teletype, facsimile, see Section 6 and 7.

4.4 Radio Frequency Support. Bureau officials must withhold obligations of funds for the development and procurement of radiocommunication equipment, or the selection, procurement and development of radio station sites until adequate frequency support is assured. (See Section 5.7A(2), "Frequency Assurance".)

4.5 Radio Frequency Utilization. The use of assigned radio frequencies must conform with Departmental and Bureau policies and regulations. The Bureau must adhere to the regulations and policies of frequency utilization of the Departmental Radiocommunications Handbook.

A. Frequency Utilization. When assigned a radio frequency, the Bureau station will transmit the minimum radiated power required, confine the antenna's radiated pattern to that actually needed, restrict operation to the services specified on the frequency assignment, and perform all engineering necessary to eliminate or satisfactorily reduce interference to other users of the frequency spectrum.

B. Frequency Sharing. No single frequency or group of frequencies is reserved for the exclusive use of the Bureau. Therefore, frequency assignments may include a requirement for sharing the assigned frequency with another federal entity.

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C. Control and Link Frequencies. All radio control and link circuits, except leased microwave, will be assigned radio frequencies in the UHF (406-420 MHz) spectrum, if at all possible, to conserve the VHF (162-174 MHz) region of the spectrum. For those instances where multiple control link circuits between two points are required, consideration should be given to using multiplex channels in the 1710-1850 MHz band to conserve UHF frequencies.

D. Equipment Procurement Prior to Frequency Assignment. No equipment shall be procured for use on any frequency prior to obtaining adequate frequency support. (See Section 4.4, "Frequency Support".)

4.6 Development of Programs. It is incumbent upon user activities of Bureau telecommunications to develop and implement programs to maintain the integrity of existing and new systems. The systems should employ commercially available equipment of minimal complexity, to ensure dependable and economical services. (See Section 5.7, "Planning, Programming, and Budgeting".)

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## 5. RADIOCOMMUNICATIONS

5.1 Radio Frequency Spectrum. Radiocommunications is often the most efficient and economical means of communications, particularly in underdeveloped areas of Indian reservations and in Alaska. Inasmuch as the radio frequency spectrum is a unique and natural resource which cannot be created nor destroyed, is limited in frequencies, and knows no geographical boundary, its use is controlled by national and international regulations.

5.2 Radio Frequency Assignments. In accordance with the Communications Act of 1934 and resultant delegations of authorities, the Inter-Departmental Radio Advisory Committee (IRAC) reviews applications and authorizes the issuance of radio frequency assignments to Federal Government stations as does the FCC for non-Government stations. The IRAC consists of representatives from Federal Government Agencies and the Department of Interior is a member agency.

5.3 Requirements for Frequency Assignments. A radio frequency assignment is required for the operation of any device that is designed to emit or radiate electromagnetic waves. An assignment is granted if the application is technically sound, justified, and a frequency is available. In other than exceptional cases, requests duplicating or paralleling existing telecommunications services, i.e., radio or telephone, are not considered. Requests for frequency assignments shall be justified under one or more of the following criteria:

- A. Legislative Directives. Acts of Congress requiring the installation and operation of aids to navigation, or equipment for irrigation and power generation projects.
- B. Judicial Decisions. Federal court decision requiring radio communication to support Indian hunting and fishing rights, or the protection of Indian lands.
- C. Protection of Natural Resources. The protection and development of forests and the suppression of wildfire.
- D. Safeguarding of Life and Property. The support of crime prevention and law enforcement on Indian reservations, and medical traffic among Indian villages in Alaska.

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E. Emergencies. Situations such as hurricane, fire, flood, etc., jeopardizing life, public safety, important property, and requiring immediate communications where other telecommunications services do not exist, are temporarily disrupted, or are inadequate.

F. Others. Absence, inadequacy, or impracticability of establishing or using other telecommunications services.

5.4 Requests for Frequency Assignments. Requests for radio frequency assignments will be prepared in accordance with instructions given in the Departmental Radiocommunications Handbook (3778-1), Chapter 7, "Requests for Radio Frequency Assignments", and as described below:

A. Submission of Requests for Frequency Assignments. Requests for frequency assignments shall be submitted through channels to the Office of Facilities Management (see attached flow diagram, Illustration No. 1, Regular Frequency Assignment Procedures). After appropriate review and verification of need, Office of Facilities Management will forward the request to the Chief, Division of Telecommunications, Office of Information Resources Management USDI, for processing and issuance of assignment.

(1) User Activity. The user activity will submit a written request to either the Agency facilities manager or the Area facilities manager, as appropriate. The request shall include a statement justifying the need, the area of desired coverage and information regarding the planning and funding for the equipment.

(2) Agency Facilities Manager. The Agency facilities manager will review the user's request for compliance with applicable policy and forward it to the Area facilities manager.

(3) Area Office. Applications originating at the Area Office and requests from respective Agencies shall be reviewed by the Area Communications Officer for appropriate justification, funding support, and technical adequacy. The Area Communications Officer should prepare a "Request for Frequency Assignment", in application format. (Illustration 2) and a system drawing (Reference Illustration No. 3, "System Drawing"), both of which are to be submitted to the Office of Facilities Management for processing and forwarding to the Department.

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(a) Request for Frequency Assignment. The Area Communications Officer will submit a separate request for each frequency required by a station or group of mobiles or transportable stations in a system. Requests may be made by listing the data entries on a "Request for Frequency Assignment" (Illustration 2). The instructions for the preparation of a "Request for Radio Frequency Assignment" is found in Appendix 1. (Reference Chapter 9 of the NTIA Manual.)

(b) System Drawing. Provide a system drawing (Reference Illustration 3) for each system in the Fixed Service operating above 30 MHz and each system in the Mobile Service with three (3) or more land stations. Systems that are wholly mobile or transportable do not require a system drawing. Each system drawing shall show and/or identify all stations, frequencies used at each station, type of station (station class), remote control facilities (as considered appropriate), interconnects to other systems (as considered appropriate) and, normal points of communications. System drawings for microwave relay and other fixed point-to-point systems should be presented by plotting the station locations and showing the particulars on a geographic map. System drawings shall be updated as necessary to reflect changes made to the system.

(4) Office of Facilities Management. All requests from the Bureau for frequency assignments shall be reviewed by the Office of Facilities Management Communication Management Specialist for technical adequacy and compliance with Departmental and Bureau policies and standards. Upon approval the Office of Facilities Management Communication Management Specialist will forward the request to the Department of the Interior for processing and issuance of the assignment.

B. Special and Emergency Frequency Assignments. The Bureau may request special assignments for use of frequencies required to support a special and/or emergency activity.

(1) Cooperative Use of a non-Government Frequency. The Bureau may request authorization for use of non-Government frequencies, within the FCC's Public Safety Radio Service Band (Part 89) for coordinating law enforcement programs on and in the vicinity of Indian Reservations. In addition to a completed "Request for Frequency Assignment", a letter of concurrence (coordination) from the FCC licensee must accompany the Bureau's request to the Department. A draft of a letter

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suitable for coordination is provided in Illustration 5. (Reference NTIA Manual of Regulations and Procedures for Federal Radio Frequency Management, Chapter 8.4.3. "Coordination of frequencies used for communication with non-Government stations licensed under Part 90 of the FCC Rules".) Illustration 4 "Coordination Frequency Assignment Procedures" illustrates the flow process.

(a) Indian Police Frequencies. Indian tribal police departments are local government entities and, therefore, are assigned frequencies in either the FCC's local government or police radio services. The Bureau may request authorization for use of these frequencies as explained in Section 5.5B (1), "Cooperative Use of a Non-Government Frequency".

For those situations where retrocession (termination of tribal police responsibilities) is impending or has occurred, the Bureau may request the Department to obtain a waiver from the FCC allowing the Department to issue assignments to the Bureau for use of the frequencies. It is imperative that the Office of Facilities Management be notified immediately when retrocession is impending or has occurred and Bureau assignments of tribal police frequencies are required. Such assignments will be temporary and not exceeding a period to be specified by the Department. Prior to the expiration of such assignments, it is incumbent upon the user activity to submit a request to the Office of Facilities Management for regular assignments on Federal Government (IRAC) frequencies if the law enforcement responsibility for the respective Indian Reservation is to remain under Bureau jurisdiction.

(2) Cooperative Use of a Government Frequency.

(a) Federal Entity. The Bureau may request and obtain assignments of frequencies assigned to another agency of the federal Government by submitting a "Request for Frequency Assignment" with supporting letter of concurrence from the other agency (original licensee).

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(b) Non-Federal Entity. A non-Federal entity, such as a county sheriff, contractor, social worker, which has a need to radio communicate with an activity of the Bureau, may request and obtain from the FCC a license to use Bureau frequencies. The non-Federal entity would obtain a letter of concurrence from the respective agency superintendent and forward it with a completed FCC Form 400 to the FCC for coordinating with the Department and resultant licensing.

(3) Use of Citizen Band (CB) Frequencies. The Bureau normally will not use CB frequency channels unless justifiable and appropriate for communicating with a non-Government activity. Requests for CB frequencies should be submitted on a "Request for Frequency Assignment" stating specific locality/area, type of use, and justification for the need. The request shall include a letter of concurrence from a recognized non-Federal activity, such as a local search and rescue group, stating the frequency channel(s) required. The complete block of CB channels normally will not be authorized. (See NTIA Manual of Regulation and Procedures for Federal Radio Frequency Management Chapter 8.4.24, "Coordination of Frequencies Used for Communications with Non-Government Citizens Band Stations".)

(4) Federal Aviation Administration (FAA) Frequencies. In compliance with an agreement between the Department and FAA, the Bureau may request temporary authorization to use an FAA NAV/COM VHF/AM frequency for fire suppression communications. Requests should be made through the Office of Facilities Management whose Communication Management Specialist is the liaison between the Bureau and the Federal Aviation Administration on matters of this nature.

(5) Emergency Frequency Changes. Deviations from assigned frequencies are prohibited except during emergencies involving the safety of life and property. When emergency measures must be taken, such as the use of an unassigned frequency, the Office of Facilities Management is to be immediately notified. The requestor shall state identity of the facility or system, the frequency used for the emergency, date and time the frequency was introduced in the area, the nature of the emergency, the name and telephone number of the official in charge of the emergency, and its anticipated duration. When normal operations are resumed, the Office of Facilities Management is to be promptly advised. The Office of Facilities Management will be responsible for coordinating such matters with the Department.



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(a) Temporary Emergency Frequency Assignment. When an emergency frequency change is expected to remain in effect for a period of 10 or more days, a request for a temporary assignment of the emergency frequency will be filed with the Office of Facilities Management by the user activity.

(6) Construction, Survey, and Test Frequency Assignments. A construction, survey and test frequency assignment should be sought for a temporary frequency assignment, proposed frequency, or a portion of the frequency spectrum if the frequency is undetermined. The request on "Request for Frequency Assignment" should include the required area of coverage around a centrally located set of geographical coordinates, or name of the central location, or name of the overall geographical area, i.e., name of Indian Reservation. Exact site locations and equipment particulars are not required for this type of request. It is incumbent upon the user activity to submit a request to the Office of Facilities Management regular assignments before the system is activated for normal use.

(7) Special Frequency Requests. With the rapid advancement in the technology of radiocommunications, frequencies in the electromagnetic spectrum are being used in new services, i.e., satellite communications, radio teletype, slow and rapid scan radio television, etc. Requests for special frequencies will be considered provided the "Request for Frequency Assignments", or its transmittal document, includes a full explanation and justification of requirements.

C. Unlicensed Radiation Devices. Devices such as electronic garage door openers, X-ray machines, etc., that emit or radiate incidental or restricted electromagnetic waves may be operated without a frequency assignment. Such devices are described in the NTIA Manual and Procurements for Federal Radio Frequency Management Chapter 7.9.2.

5.5 Frequencies for Specific Functions and Activities. The Bureau will utilize certain frequencies for specific functions as described below. Frequency assignments will be obtained from the Office of Facilities Management.

A. Natural Resource Air Operations Frequency. A frequency of 122.925 MHz has been allocated for communications with or between aircraft engaged in the protection of natural resources, i.e., wild-fire suppression, forestry management, fish and game management and protection.

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B. Aeronautical Multicom Frequency. A frequency of 122.900 MHz has been allocated for communications with or between aircraft in temporary, seasonal, or emergency activities which rely upon the aircraft for the successful and safe conduct of the activity. Use of the frequency will be limited to the direction of ground activities from the aircraft, directing aerial activities from the ground, and for aircraft-to-aircraft communications.

C. U. S. Government Short-Distance Low-Power Frequencies. Radio frequencies 27.575 and 27.585 MHz have been allocated for Federal Government use for intermittent and miscellaneous short-distance low-power radiocommunications, radio signaling, and control of remote devices by means of radio where the radiated power exceeds the limits established for unlicensed radiation devices.

D. Special Control and Telemetry Frequencies. Appropriate frequencies may be assigned for control and telemetry, i.e., remote control of water pumps, transfer of digitized information, etc.

E. Law Enforcement Frequency. The frequency of 169.700 MHz has been allocated for communications between Bureau law enforcement units acting to control emergency disturbances on or in the vicinity of any Indian reservation.

F. Fire Cache Frequencies. The paired frequencies of 166.6125 and 167.100 MHz, and 166.6125 and 168.400 MHz have been allocated for use with portable type fire cache equipment for wildfire suppression and other emergency communications.

5.6 Posting and Filing Radio Frequency Assignments. Upon approval by the IRAC the Department will issue the Bureau a completed and approved Radio Frequency Assignment. Copies of the assignment will be filed at the Area and agency office.

A copy also will be posted at the transmitter. A master file of all frequency assignments issued the Bureau will be maintained by the Office of Facilities Management.

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5.7 Planning, Programming, and Budgeting. Radiocommunications systems will be provided in accordance with the normal process of planning, programming and budgeting. User needs should be identified in sufficient time to allow for proper planning and establishment of priorities in the budgetary system. Due to the limited availability of frequencies in certain sections of the radio frequency spectrum, user requirements shall be reviewed with the Area Communications Officer as early as possible to determine the availability of frequencies for the system.

A. Planning. The user activity is responsible for identifying and justifying the requirements of a requested radiocommunication system. Possible alternatives for the system should be included in its request. The justification shall include information pertaining to existing conditions, safety and health factors (if such are involved), urgency of the system, scope of requirement, any special conditions, and whether the system is to be for sole use by the requesting activity or for joint use with others.

(1) Preliminary Design. After requirements have been formulated with proper justification, the user activity shall submit a written request to the Area Communications Officer for further evaluation and preliminary design. The preliminary design shall include information such as type and size (equipment quantity) of system, compatibility with existing or planned future systems, special conditions, frequency requirements, and cost estimates, taking into consideration the required area of coverage, the availability and development of radio sites, transportation thereto, etc.

(2) Frequency Assurance. Immediately following the determination of required frequencies the Area Communications Officer shall contact the Office of Facilities Management, Communications Management Specialist regarding frequency availability. This is a must as unavailability of the desired frequencies may necessitate changes in system design or cancellation of the user request. (See Section 4.4 "Frequency Support")

(3) System Approval. After frequency assurance has been obtained and the preliminary design completed, the system will be reviewed with the requesting user activity official for approval. The user activity shall be apprised about the necessity of system engineering, life cycle costs (Section 5.9, "Life Cycle Management"),

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and the requirements for complying with applicable portions of this Supplement. All radiocommunication equipment shall conform with Bureau and Departmental technical standards and be approved by the Area Communications Officer.

(4) Alternate Proposals. Alternate proposals should be evaluated as part of System Planning. For example, a power source for a Radio Repeater may have several options commercial, solar, thermoelectric, generator, windmill, etc. Selection should be made on the basis of total costs including initial cost, operating costs, and maintenance costs rather than only the initial purchase cost.

B. Programming and Budgeting.

(1) Bureau. The user activity shall program and budget to fund for the life cycle costs of systems used wholly by that activity. However, the "backbone" equipment shall be the responsibility of Facilities Management at that location. Justification for radiocommunications systems should include criteria as set forth in Section 5.3, "Requirements for Radio Frequency Assignments", or as appropriate. Special attention shall be given to long range planning, life cycle management, and compatibility with existing systems, and future systems as may be required.

(2) Others.

(a) Federal Agencies. When the Bureau is aware of programs by other Federal agencies for radio stations and/or systems which may have an impact on Bureau or tribal communications, they should be reviewed with the Area Communications Officer to avoid any possible interference or other problems that may arise. Possible conflicts should be resolved through appropriate channels within the Bureau.

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(b) Non-Federal Activities.

(i) Tribal. Upon receipt of a written request, the Bureau will provide technical assistance for tribal planning and budgeting of tribal radio systems.

(ii) Others. Where the Bureau is aware of a radio system planned by others which may impact upon either Bureau or tribal communications, such system shall be reviewed by the Area Communications Officer.

5.8 Radio Equipment. Radiocommunications equipment shall be purchased, installed, and maintained to provide cost-effective communications conforming with appropriate service requirements and specifications.

A. Equipment Technical Standards. All radiocommunications equipment shall meet or exceed the applicable technical standards in the NTIA "Manual and Procedures for Radio Frequency Management" Chapter 5 ("Technical Standards, Requirements and Objectives").

B. System Improvement and Upgrading. Radiocommunication systems shall be improved and upgraded to maintain system integrity through equipment replacement and system modification. New techniques and product designs that will enhance and improve the performance and capability of the system to meet changing requirements should be implemented. Systems and associated equipment should not be allowed to become obsolete, unreliable, or too costly to maintain.

5.9 Life Cycle Management. Life Cycle Management relates to all costs involved with equipment. It includes the initial purchase, operation, maintenance and the ultimate disposal of equipment.

A. Existing Equipment. Existing equipment should be evaluated annually on the basis of maintenance, reliability and system compatibility. (Reference 5.10, "Equipment Replacement Guide")

(1) Maintenance. The cost to maintain and repair equipment shall be estimated for its usable life span. Should it be excessive, replacement shall be programmed. (Reference 5.12B, "Maintenance Record")

(2) Reliability. Equipment normally will deteriorate with age and use. If it cannot provide reliable service, replacement shall be programmed.

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(3) Compatibility. Existing equipment may become obsolete or incompatible for use with other units or the associated system. Such equipment should be either replaced or disposed of in accordance with appropriate regulations of Property and Supply.

B. New Equipment. Life cycle management includes the state-of-the-art technology, equipment innovations and awareness of new concepts and developments which should be considered in planning, prior to purchasing new equipment.

(1) Equipment Life Span. The useful life span of equipment should be considered since all related costs, including repair and maintenance, are part of the life cycle costs. Therefore, a high initial cost may be justified if the repair and maintenance costs are greater for a less expensive unit over its life span.

5.10 Equipment Replacement Guide. An equipment replacement guide is provided as an aid to determining when equipment should be replaced. This guide does not preclude replacement for reasons other than those given, nor for continuing equipment in service if determined appropriate. In all cases, discretion must be exercised in determining when equipment should be replaced. Equipment should be replaced when one or more of the following conditions exist:

A. Damaged. Equipment is damaged beyond economical repair as determined by the following equation:

$$R > C(0.775 - 0.625 A/P)$$

Where: R = Estimated cost of repair

C = Cost of replacement

A = Age of equipment (years)

P = Optimum replacement age (years)

Note: If R (estimated cost of repair) is greater than the resultant calculations  $[C(0.775 - 0.625 A/P)]$ , the cost of repair is not economical and the equipment should be replaced.

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B. Reliability. The equipment is not providing the required dependable service.

C. Obsolete. The equipment does not conform to minimum technical standards or system improvement and modification is not economical. Economical modification is determined by the following formula:

$$M > C(0.775 - 0.625 A/P)$$

Where: M = Estimated cost of modification

C = Cost or replacement

A = Age of equipment (years)

P = Optimum replacement Age (years)

Note: If M (estimated cost of modification) is greater than the resultant calculations  $[C(0.775 - 0.625 A/P)]$ , the cost of modification is not economical and the equipment should be replaced.

D. Age. The reliability of equipment decreases and the cost of ownership increases with equipment years of service. The optimum radiocommunications equipment replacement age is:

Portables - seven years.

Mobiles - seven years.

Fixed station - ten years.

5.11 Equipment Procurement and Accountability. Bureau radiocommunications equipment shall be procured and accounted for in accordance with Federal Procurement Regulations and 43 BIAM.

A. Procurement. Procurement of equipment is a function of the Branch of Property and Supply Operations. It shall be incumbent on the user activity to plan and program funds for equipment to be used by that activity. However, the Area Communications Officer shall provide technical specifications, as required, to the Branch of Property and Supply Operations.

(1) Area Communications Officer. The Area Communications Officer shall act as advisor to the Branch of Property and Supply Operations. An appraisal shall be made to determine if equipment meets system requirements, has frequency support (if applicable), and complies with Departmental and Bureau technical standards.

(2) Surplus and Transferred Equipment. The Communications Officer shall be consulted as to the availability of any equipment from other agencies or from surplus. Such equipment will not be obtained unless it meets with the Communications Officer's approval.

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(3) Leased Equipment. Radio equipment may be leased; however, it shall be in accordance with Federal Procurement Regulations with clearance obtained from the Communications Officer.

B. Accountability. It shall be the responsibility of the user activity to account for its radio equipment in accordance with 43 BIAM.

5.12 Radio Maintenance. All radiocommunications equipment performance shall be maintained to the technical standards. The costs to install, repair, and maintain Bureau radio equipment shall be borne by the user activity. However, this excludes multi-user or "backbone" equipment which will be the responsibility of the local Facilities Management Program which also shall be responsible for coordinating equipment maintenance.

A. Performance Testing. Performance testing of all Bureau radiocommunications equipment will be conducted as required to ensure that the equipment is operating properly. As a minimum the transmitter's radio frequency, modulation and output power, and the receiver's frequency and sensitivity should be inspected annually for compliance with technical standards.

B. Maintenance Record. A maintenance record shall be kept for all radiocommunications equipment thus providing a permanent history of each unit. The maintenance record will identify the equipment and include the date, duration of outage, descriptions of repairs, and performance testing results.

C. Test Equipment. All test equipment shall be maintained to the accuracy necessary to maintain the radiocommunications equipment performance within technical standards. Test equipment shall be calibrated as necessary to assure manufacturer's specification compliance.

D. Contracted Maintenance. The Area Communications Specialist will provide technical specifications for maintenance contracts and monitor performance of the contractor. All requests for services under such contract shall be coordinated through the Area's Communications Specialist.

E. Force Account Maintenance. Where maintenance is performed by Bureau personnel, Facilities Management will provide qualified technical personnel and test equipment with work monitored by the Area Communications Officer.

5.13 Facilities. Radiocommunication facility design, construction, and maintenance shall be consistent with system needs and provide for equipment service and protection. All facilities shall be representative of the professionalism and pride of the Bureau radiocommunications services.



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A. Design and Construction. The radiocommunications technical and functional requirements will be provided for in the facility design. All designs and construction shall follow and adhere to Bureau regulations and policies.

(1) Buildings. All building plans and specifications must be prepared and approved by engineers and communication personnel.

(2) Land Use. Radiocommunication facilities located on Bureau-managed land will be authorized and coordinated following applicable procedures and policies for obtaining land use, environmental impact, and archeological clearance.

(3) Antenna Structures. Antenna structures shall, as a minimum, comply with the Structural Standard for Steel Antenna Towers and Antenna Supporting Structures, Electronic Industries, Association (EIA) Standard RS-222-C and applicable local codes.

(a) Obstruction Marking and Lighting. Obstruction marking and lighting shall comply with Federal Aviation Administration (FAA) Advisory Circular Number 70/7460-1E.

(b) Proposed Construction or Alteration. FAA Regional Office will be notified on FAA Form 7460-1 of any proposed construction or alteration of objects that may affect the navigable airspace as identified in FAA Advisory Circular Number 70/7460-2F.

B. Construction Contracts. Where construction contracts are required for radiocommunications systems, the technical specifications thereof shall be prepared by the Area's Communications Specialist.

5.14 Indian Self-Determination Contracts. Indian self-determination contracts, issued under Pub.L. 93-638, shall provide for meeting the requirements of maintaining a radiocommunications system. All such contracts involving radiocommunication systems shall include provisions for equipment and services, and the contract should include the following:

A. Obtaining the necessary radio frequency licenses from the FCC for frequencies under their control;

B. Obtaining coordinated frequency licenses from the FCC for frequencies under IRAC (Bureau) control. (Reference 5.4B(2)a, Cooperative Use of a Government Frequency);

C. Accountability of Bureau equipment used by the contractor in accordance with provisions of the contract;

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D. Equipment maintenance and costs thereof, except that equipment used by other activities of the Bureau which the Bureau will maintain;

E. Informing the Area Facilities Management Officer for requirement of replacement and/or purchase of equipment;

F. Equipment operations will conform with appropriate governmental regulatory procedures, as set forth in the contract and technical standards; and will be subject to monitoring for compliance; and

G. Providing competent radio dispatch personnel.

5.15 Radio Operating Procedures and Standards. The Bureau is authorized to operate two-way radiocommunications systems on frequencies assigned by the Department and approved by the IRAC. Such operations shall be in compliance with the Departmental Radiocommunications Handbook and the BIA Telecommunications Handbook.

A. Radio Operators. All operators of Bureau radio stations shall be citizens of the United States. They also shall be either an employee of the Bureau or, if on a contractual or cooperative use agreement, under the supervision of a Bureau official. This is to ascertain that station operations are in compliance with procedures and regulations of the Department.

B. Operational Control. Operation of Bureau radio stations shall be under the control of responsible Bureau officials. The systems shall be monitored, as necessary, to ensure that operating standards are observed.

C. Priority of Emergency Communications. Emergency communications shall have the highest priority and supersede all other communications at the respective location. The operation of a radio system during an emergency shall be controlled by the responsible Bureau official involved. Use of the system will be relinquished for normal use when the emergency terminates.

D. Multiple Remote Control Positions. Bureau radio systems having multiple remote control operating positions should include a main control position with the capability to switch or transfer control of the radio station to respective user locations. The main control (Dispatch Center) position will be manned by a responsible radio dispatcher under Bureau control.

5.16 Radio Operations and Training.

A. Radio Operating Procedures. See Telecommunications Handbook.

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B. Radio Operator Classifications. There are two classifications for radio operators.

(1) Radio Dispatcher. The dispatcher shall be qualified in accordance with personnel classification standards and shall be responsible for the prompt, accurate, and courteous handling of radio traffic in a professional manner. The dispatcher shall be familiar with the capabilities and limitations of systems operated, and shall adhere to all applicable rules and regulations.

(2) Radio Operator. The operator refers to any Bureau employee authorized the use of two-way radio equipment in the performance of his duties. The operator shall be familiar with applicable rules and regulations.

C. Training.

(1) Responsibility. Responsibility for formal training of communications personnel rests with the Area training officer. Requirements for training of personnel to understand, operate and maintain communications systems shall be recognized by the Area Communications Officer who will advise and recommend requirements and training facilities to the Area training officer.

(2) Formal. Formal training is identified as that which is highly technical, accredited and receiving certification for training. Arrangements for formal communications training will be made by the trainee's supervisor through proper channels with the full cooperation and assistance of the Area Communications Officer.

(3) Informal. Informal training is identified as that training which is not necessarily planned or scheduled, requiring no certificate of attendance or completion. It is the responsibility of the user activity and Area Communications Officer.

D. Operator Certification. Upon satisfactory completion of a recognized formal Radio Dispatchers training course the Area Communications Officer will certify the individual to be qualified to operate a Bureau Radio Dispatch Center.

E. Call Signs. An international call sign will be assigned to stations in accordance with the provisions of the Departmental Radiocommunications Handbook Chapter 9.

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(1) Posting. The international call signs of all associated stations will be displayed prominently at, or near, the operating position.

(2) Mobile/Portable Identification. Assignment of unit identifications for mobile and portable radio units are to be made at the discretion of the Area Communications Officer. Such identification, or call signs, will not conflict with call signs assigned by the IRAC or other frequency regulatory agencies.

5.17 Safety. All work, materials, equipment, and environment of Bureau radio stations shall conform to applicable safety codes and standards of:

- Occupational Safety and Health Act.
- National Electric Code (NFPA).
- National Electric Safety Code (ANSI-C2).
- American National Standards Institute (ANSI).
- National Electrical Manufacturers' Association (NEMA).
- State and local codes.
- Bureau's Code Compliance Program.

5.18 Maritime Radio. Bureau maritime radiocommunication and navigational equipment, such as used on the MV North Star, employing frequencies allocated internationally for Maritime Mobile Service will conform to FCC and ITU rules, regulations, and technical standards.

A. Operator Certification. The ship's radio officer shall be required to hold a valid FCC First Class Radio Telegraph Operator License with Radar Endorsement.

B. Frequency Assignments. Required FCC radio frequencies shall be licensed under coordinated frequency assignments (Section 5.4B(1)).

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6. LOCAL TELEPHONE SERVICE AND EQUIPMENT

6.1 Guidelines for Determining and Planning Requirements.

A. The Area Communications Officer will determine telephone station equipment and service features for a site or organizational unit. The following guidelines should assist in determining station equipment and service features:

(1) Telephones should be provided only to employees whose duties require them to originate or receive official telephone calls.

(2) A single telephone instrument should be installed to serve the needs of two or more persons at adjacent desks when call volume is relatively low.

(3) One telephone instrument should be considered standard in offices occupied by only one employee.

(4) Telephone equipment should be removed promptly when a work station is vacated or is expected to be vacant for an extended period of time.

(5) Courtesy or guest telephones should not be installed in offices. When installed in public areas for the convenience of the public or guests, they will be restricted to local calls only.

(6) Telephone station equipment and related features shall be determined by a study of the installation's operational and mission requirements. The study shall include an analysis of all available station equipment options with mission, goals and cost being the main considerations in the final selection. Only a systematic analysis of alternative station equipment configurations (all key, all single line, or a combination of key and single line) will provide the basis for selection of the best station equipment application.

(7) Intercoms should be provided only where necessary for the distribution of incoming calls to a group of stations sharing the same lines.

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(8) Some telephone systems provide electronic or custom calling features on single line instruments which can often be used to replace the electromechanical features of multiline key telephone functions. Typical electronic features are call forwarding, call pickup, call hold, speed calling and call waiting.

(9) Auxiliary telephone station equipment and features including but not limited to automatic dialing equipment, speaker phones, call diverters, pocket pagers, etc., should be utilized only if essential, and if the required telephone service cannot be provided at a lower cost through the electronic functions and capabilities of the existing telephone system.

(10) To maintain an accurate inventory of telephone station equipment, and to ensure system integrity, the use of personal equipment is prohibited.

B. The following guidelines are to be followed in planning changes in telephone systems, services and equipment.

(1) Identify all areas, organizations and functional requirements to be served.

(2) Estimate any seasonal changes and growth projections that may have an impact initially and over a five year period.

(3) Determine the type and quantity of facilities required such as local exchange lines, FX lines, FTS, WATS, and tielines.

(4) Estimate traffic patterns, call volume, and holding times for each type of service.

(5) Determine the type and quantities of equipment necessary such as switching apparatus, telephone instruments, and ancillary equipment.

(6) Determine the data equipment necessary including volume of transmission daily, speed of transmission, and security considerations (when external to Office of Data System requirements).

(7) Determine the types of service available from the local telephone company and any other providers of service in the geographical area.

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(8) Review applicable rates, contractual obligations, service lead time, and follow-up maintenance of all possible providers of service.

(9) Determine the amount of time required by potential suppliers to review and respond to the requirements, order the equipment, deliver and install the system, and complete tests for acceptance.

(10) Determine the method of procurement of telecommunications services and equipment.

## 6.2 Departmental Approvals.

A. Changes and new installations outlined below require Departmental approval prior to implementation. Requests for such services should be sent to the Office of Facilities Management.

(1) Installation, relocation, replacement, or removal of private branch exchanges (PBX),; Centrex service; hybrid/electronic key systems; automatic call distribution equipment.

(2) Installation, relocation, replacement, or removal of FTS access lines, Foreign Exchange (FX) lines, tielines, WATS lines or other specialized common carrier lines.

(3) Installation of any telecommunications service or equipment involving a contract period of one year or more.

(4) Request for toll free service.

(5) Installation, change or removal of teleconferencing facilities.

(6) Installation or connection of listening-in and recording devices.

(7) Installation of government provided service in a private residence.

(8) Installation of public pay telephones by other than the local tariffed telephone company.

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B. Requests for Bureau approval of a change or new installation should include the following information:

- (1) Location where service is desired.
- (2) Name, address, and telephone number of telephone coordinator.
- (3) A description of the proposed new service arrangement, including the number of business lines, telephone instruments, or if a PBX, the type of equipment, number and type of trunks, number of telephone instruments and attendant positions.
- (4) A description of the present service arrangement, if applicable.
- (5) Justification for the requirement.
- (6) Cost estimate for the proposed service and a comparison of other arrangements investigated.
- (7) Proposed schedule for implementing the change or new installation.

### 6.3 GSA Provided Telephone Service.

A. When available, BIA offices obtain telephone service from the General Services Administration (GSA). At those locations the costs of the telecommunications equipment and services will be borne to the user activity. A telephone subsystem may be installed as part of a GSA telephone system only when the subsystem does not duplicate features provided in the PBX or Centrex main system. Requests for the installation of hybrid/electronic key sub-systems are to be submitted to Office of Facilities Management for review, approval, and coordination with GSA prior to implementation.

B. Standard Form 145, "Telephone Service Request" is to be used when ordering telephone service from a GSA operated or managed telephone system. Bureau activities should forward all requests for telephone service to the address designated by the GSA regional office. Guidance and assistance in preparation of telephone orders are available from the GSA regional offices.

C. The Area Communications Officer should check all work to ensure that work was completed as ordered.



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6.4 Commercial Telephone Service.

A. If telephone service is not available from the GSA, the Area Communications Officer shall obtain telephone service directly from the serving tariffed carrier (local telephone company) and commercial communications equipment suppliers in accordance with applicable procurement regulations.

B. Telecommunications lines, whether they provide open access to the local telephone company or are dedicated between two or more locations, are available on a lease only basis. The local telephone company trunks or business lines are obtained on a sole source basis.

C. Telecommunications equipment, services and facilities must be acquired through the competitive procurement process unless specific requirements dictate a sole source procurement. Telecommunications services equipment can be obtained through lease, lease/purchase, or purchase. Usually, the economics of purchase outweigh leasing equipment other than for short term requirements. BIA contracting and procurement practices should be followed. The following points should also be considered.

(1) The local telephone company filed tariffs do not appear on the GSA Schedule, but carry an equal weight when a selection is to be made from the schedule.

(2) In a competitive telecommunications procurement action, it is necessary to consider the acquisition, installation and maintenance being obtained from one supplier. Generally, maintenance sources should not be in excess of two hours from the site needing service.

D. When ordering telephone service, the user should allow as much lead time as possible for planning, scheduling, and implementing work. Before the actual orders are issued, determine the placement of all instruments, and features required. Installations or changes, other than those stipulated on the order should not be made without amending the existing order or preparing a new order.

E. The Area Communications Officer shall check all work to ensure that work was completed as ordered.

6.5 Telephone Service to Private Residences. No money appropriated by any Act shall be expended for telephone service installed in any private residence or private apartment or for tolls or other charges for telephone service from private residences or private apartments, except for long-distance telephone tolls required strictly for public

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business, and so shown by vouchers duly sworn to and approved by the head of the office in which the individual using such telephone or incurring the expense of such tolls shall be employed except as otherwise provided by law. (31 U.S.C. 1348)

#### 6.6 Teleconferencing Services.

A. GSA Local Conference Service. This service is available through most local GSA switchboards. It provides connection of up to five telephones within the U.S. The maximum time limit per conference call is two hours. Information concerning use and scheduling of this facility can be obtained by contacting the local GSA switchboard supervisor.

B. GSA National Teleconference Service. This service provides for the connection of up to 28 telephone numbers within the U.S. The service can be arranged through the GSA Conference Supervisor at (202) 245-3333. The GSA operator sets up the teleconference call and brings all parties on the line. The operator upon request can add or drop conferees during the conference. Scheduling for this service should be made as far in advance as possible. There is a per minute cost for this service regardless of the number of participants. When arranging teleconferencing calls, the user should provide GSA with the following information:

- (1) Originator's name, FTS agency and Bureau billing code.
- (2) Date and duration of proposed conference.
- (3) Name, Location and telephone number of each participant.

C. GSA Teleconference Center. GSA has a Teleconference Room located in Washington, D.C. This room has a conference table that accommodates 25 people. There are 12 microphones, an overhead audio system, a podium with microphone, and an overhead projector and screen. For scheduling this room, contact the Conference Control Center in Washington, D.C. at (202) 245-3333. GSA charges an hourly rate for use of the Teleconference room.

D. Public Video Conferencing Services. A number of hotels and vendors provide either one-way or two-way audio and video teleconferencing services. The cost is normally based on an hourly rate.

E. Teleconferencing Equipment. Local telephone companies, as well as other vendors, offer various types of station conference equipment such as speakerphones, portable conference telephones, and Quorum microphones. This type of equipment is applicable for small groups gathered around the conference device.

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6.7 Telephone Directories.

A. Purpose. The purpose of a telephone directory is to provide as much information as is necessary to assist individuals in locating the appropriate office and/or individual within the Department and its entities.

B. GSA Directories. GSA provides telephone and directory information services in connection with switchboards it operates. Directories are provided by GSA to users at all GSA switchboards which have 200 or more telephone stations. The costs for maintaining these directories is included in the local GSA telephone service charge. For smaller switchboards where GSA determines directories to be uneconomical, GSA will provide operator information services only.

D. BIA Directories. Locations which do not have GSA provided service should establish a procedure for publishing and maintaining their own directory/information services. When new listings or changes in existing listings are required in the local commercial directory, such changes should be made in writing through GSA, if GSA is providing service, or directly to the telephone company.

6.8 Billings and Inventories.

A. Purpose. To ensure cost effective use of telephone services and equipment, the Area Communications Officer should conduct an annual survey and inventory of installed voice and data equipment to validate billing and determine ongoing telephone service requirements. Survey documents should be retained on file until superseded.

B. Evaluation. Existing services and equipment should be periodically evaluated for the type, quantity, and effectiveness in supporting program requirements. Any deficiencies found should be corrected and unnecessary service or equipment disconnected.

C. GSA Telephone Inventory Accounting System. The GSA Telephone Inventory Accounting Systems (TIAS) provides a computerized listing of telephone service and equipment served from GSA consolidated systems. The inventory reflects what GSA has posted in their records as of March 31 of each year. This inventory is to be validated and returned to GSA by June 30 of each year. A copy of the validated record should be kept on file until superseded. All discrepancies between the physical inventory and the GSA TIAS report are to be reconciled prior to the return of the GSA report. GSA will arrange to correct all billing errors as documented by the activity. The errors shall be corrected by August 31.

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D. Certification of Billing. To ensure that area and agencies are being billed correctly for telephone services, the Area Communications Officer should verify that all charges are correct and that the services billed were received. Accurate records should be maintained of all services ordered and completed.

6.9 Listening In or Recording Telephone Conversations.

A. Policy. The Department does not condone the listening in or recording of telephone conversations. It is only permissible when specifically approved for such activities as law enforcement, counter intelligence, public safety, aid to a handicapped employee and service quality monitoring. Multiple party conversations and third party call monitoring are only allowable when all parties of the telephone conversation consent. When speakerphones are utilized in telephone conversations all parties shall be informed of the number or names of persons listening in. In no case will tape recorders or secretarial note taking, i.e., shorthand, be permitted without the unanimous consent of all parties.

B. Definition. Listening in devices include such equipment that can intercept any telephone communication and be used to listen in and/or record telephone conversations without the knowledge of one or more of the parties to the conversation. There are two categories of listening in or recording conversations:

(1) "Consensual" means that one part to a telephone conversation has given prior consent to the interception or recording of the conversation.

(2) "Nonconsensual" means that none of the parties to a telephone conversation has given consent to the interception or recording of the conversation.

C. Use of Nonconsensual Devices. Nonconsensual listening in or recording of telephone conversations is prohibited except as authorized and handled in accordance with the requirements of the Omnibus Crime Control and Safe Streets Act of 1968, as amended, and the Foreign Intelligence Surveillance Act of 1978.

D. Use of Consensual Devices. Consensual listening in or recording of telephone conversations by Department personnel is prohibited except with prior Departmental written approval in the following circumstances:

(1) When performed for law enforcement purposes in accordance with the Attorney General's guidelines for Administration of Omnibus Crime Control and Safe Streets Act of 1968, and pursuant to procedures established by the Attorney General.

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(2) When performed for counterintelligence purposes and approved by the Attorney General or his designee.

(3) When performed by a Federal employee for public safety purposes such as police and fire department operations, air traffic safety control and marine rescue operation.

(4) When performed by a Federal handicapped employee, provided a physician has certified that the employee is physically handicapped and the use of a listening-in or recording device is required to fully perform the duties and responsibilities contained in the official position description.

(5) For service monitoring only if required to effectively perform agency mission following these guidelines:

(a) No telephone call shall be monitored unless the office has taken continuous positive action to inform the public of the monitoring.

(b) No data identifying the caller shall be recorded or used against the calling party by the monitoring party.

(c) The number of calls to be monitored shall be kept to the minimum necessary to comprise a statistically valid sample.

(d) Any telephone instrument used by the agency which is subject to being monitored shall be conspicuously labeled with a statement to that effect.

E. Request for Use. All requests for listening in or recording devices shall be submitted in writing to the Office of Facilities Management with detailed documentation of determination of need, and procedures for listening in or recording.

F. Evaluation/Re-evaluation. The need and determination concerning listening in or recording of telephone conversations shall be re-evaluated by each office at least every two years. Written evaluations are to be maintained or filed at the location. A copy of the evaluation is to be forwarded to the Office of Facilities Management. Additional information can be found in 446 DM 3.

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7. LONG DISTANCE TELEPHONE SERVICE

7.1 Guidelines.

A. The term "long distance" means any call made outside the local calling area for which a commercial toll charge or similiar charge is assessed. All long distance calls shall be limited to official business.

B. Placing of non-official local and/or long distance calls from a Government telephone is prohibited except in cases of emergency where no public pay telephone is immediately available.

C. When toll charges appear to be excessively high, an analysis should be made to determine if alternative services are available and cost effective. If a calling pattern exists, such as heavy traffic to specific geographic areas, alternative arrangements should be researched to determine if a more economical service is available. Some alternatives to explore are described in the following paragraphs.

7.2 Federal Telecommunications System. The Federal Telecommunications System (FTS) Intercity Voice Network, (IVN) under the overall direction and management of GSA, provides a cost effective means to satisfy Government requirements for long distance voice communications. The FTS operates on a station to station basis among Government offices throughout the United States, Puerto Rico, Hawaii, Alaska, and the Virgin Islands. The FTS is the primary and recommended system for use by Department of the Interior activities. The FTS and other Government provided services are for official Government business only (See 43 Comp. Gen. 163). The FTS is to be used for the placement of long distance calls instead of the commercial toll network to the maximum extent practical. For more detailed instructions on its use consult the FTS user's Guide which can be obtained from the GSA regional office.

A. Request for FTS Intercity Service. Requests for FTS Intercity Voice Network Service are to be submitted to the Office of Facilities Management. The service request shall contain the following:

- (1) Street address or location where the service is desired.
- (2) Name, address and telephone number of person(s) to be contacted for additional information and installation coordination.
- (3) Toll bills for three consecutive months and a toll summary for those months which includes the total number of calls, the total number of minutes of usage, and the costs for each of the three months.

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(4) The number and length of calls placed over private line services, e.g., FX, WATS and tielines.

(5) Seasonal traffic variations, if any.

(6) A description of the present service arrangements, including the number and cost of business lines. If service is provided through PBX type equipment, the number of station lines, telephone instruments, attendants and trunk facilities shall be included.

(7) National Communications Systems (NCS) circuit restoration priority assignment with justification, or a statement that no priority is needed.

B. FTS Installation. If FTS service is approved, GSA will arrange for installation as well as pay associated charges for circuits, mileage, and trunk terminations. In instances where these charges cannot be directly billed to GSA, the activity should seek reimbursement from GSA. The requesting office is responsible for paying for any station equipment required to provide service, such as larger capacity telephone instruments.

C. FTS Sample Reports. GSA samples usage on the FTS network to determine allocation of FTS charges among Government agencies. The sample reports used for cost distribution are made from a 20% sample of the actual calls made across the network on a quarterly basis. This report lists the originating number, city and number of calls made from that number during the quarter, by agency/bureau. This report is distributed to Bureau headquarters by the Division of Telecommunications as they are received. Two other FTS reports can be requested through the Division of Telecommunications. They are:

(1) Automatic Message Accounting Recorded Message Report (AMA) - This report details calls originated by telephone numbers and records the date, time, number called and the duration of the call by Bureau location. This report covers only the sampled 20% for one month.

(2) Long Holding Time - This report lists the calls that are over 60 minutes in duration with the same detail as the AMA report above.

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D. FTS Billing. GSA annually provides the Department with a projected budget estimate for FTS service. This estimate is then prorated to the Bureau of Indian Affairs by the Division of Telecommunications (DOI) based on their historical percentage of usage from the sample reports are developed by GSA.

7.3 Long Distance Commercial Service. There are numerous common carriers that provide long distance (interexchange) telephone service either on a dial-up or dedicated line basis throughout the United States. Some of these carriers are AT&T, MCI, GTE, ITT and Western Union. These companies offer services in various geographic areas, but do not necessarily offer service in all areas of the United States. Each activity should select the service that meets its needs at the lowest overall cost.

A. Equal Access. The FCC mandated that local exchange telephone companies provide equal access to all interexchange carriers. As a result, local customers will be able to place long distance commercial calls via their carrier of choice without special dialing access arrangements. Rotary or touch tone dialing telephones will be compatible with these common carriers. As equal access becomes available within an area, all customers will receive notification from the local telephone company. Each BIA installation must select the communication carrier they wish to be their long distance Primary Interexchange Carrier (PIC) and advise the local serving telephone company of its choice. Factors to be considered when selecting a PIC include: cost, geographic coverage, grade and quality of service, emergency response capabilities, alternate routing, billing method and detail; and operator and information assistance. This PIC selection relates to residual long distance toll service and will not effect the continued use of the FTS Intercity Voice Network as the preferred intercity network for Department activities. For BIA installations relying on GSA for local telephone service, GSA will make the PIC selection.

B. Long Distance Commercial Facilities. For locations where FTS service has been determined not to be economically feasible, alternative capabilities shall be evaluated. Several long distance commercial carriers provide facilities such as Foreign Exchange Service (FX), Wide Area Telephone Service arrangements for customers who make a large number of long distance calls. Installations considering the procurement of long distance services should research their needs carefully, analyze recent toll bills and determine the service that meets their needs at the lowest overall cost. Requests detailing proposed long distance commercial facilities must be submitted for approval to FES. Each activity is responsible for reviewing calling patterns annually to ensure that the most cost effective service is being utilized.



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Long Distance Telephone Service

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C. Long Distance Information. Interstate directory assistance in the past was provided by AT&T without charge. However, these calls now cost \$.50 and each location should monitor and minimize information calls. Some helpful hints are to encourage employees to record numbers from business cards and letterheads, expand files of telephone numbers, and use telephone directories.

7.4 Telephone Credit Cards.

A. Telephone credit cards are available through the interexchange carriers or local telephone company on an annual basis. They should be issued on a controlled basis to employees whose duties require the frequent placement of long distance calls from locations where FTS is unavailable.

B. Calls placed using a telephone credit card carry an additional surcharge. Holders of credit cards are responsible for all calls charged to their card. Prior to payment, bills should be certified to verify that all calls were for official government business and no other means were available to place the call more economically. Telephone credit cards are not to be used at the normal work location for administrative control purposes such as sectional billing of toll calls.

C. The collection and return of credit cards is the responsibility of the issuing office. If unsolicited telephone credit cards are received, they should be returned to the sender with a letter containing the following statement:

"The unsolicited telephone credit cards with the following control numbers have been received by (Agency name) and are returned herewith.

(List of all calling card numbers and address shown on each card)

The purpose will of this letter is to inform you that the (Bureau/Office name) will neither honor nor pay any charges placed against the above listed cards. Additionally, we will neither honor nor pay any charges placed against any credit card issued to this Bureau or its Offices which was not specifically requested and received by an authorized official of the BIA."

7.5 Toll Free Telephone Service. Toll free telephone service is any incoming intercity circuit arrangement that allows the public to make long distance telephone calls to authorized locations at Government

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expense. This includes but is not limited to Inward Wide Area Telephone Service (In-WATS or 800 Service) and Foreign Exchange (FX) Service. Requests for toll free service must have Bureau approval prior to installation. Requests should include the following information:

- A. Description of the program requirement.
- B. Location(s) of the requested service.
- C. Type of service (In-WATS, FX, etc.) and service are to be covered.
- D. Estimated number of circuit(s), proposed usage, and monthly costs.
- E. Title and date of regulatory document if service has been directed by a state, Executive Order, or other regulations.

#### 7.6 Waste, Fraud and Abuse.

A. Statutory Limitations. Appropriations of an agency are available for a long distance call if required for official business and the voucher to pay for the call is sworn to by the head of the agency. Appropriations of an executive agency are available only if the head of the agency also certifies that the call is necessary in the interest of the Government. (31 U.S.C. 1348)

B. Departmental Policy. Financial Management, describe the Departmental policy and procedures to be followed by bureaus and offices in complying with the Office of Management and Budget (OMB) Circular No. 123, Internal Control Systems. Specifically, 340 DM 2.5 delineates management's responsibility to assure that funds, property, and other assets are safeguarded against waste, loss, unauthorized use and misappropriation. (340 DM 1 and 2)

C. Operational Controls. Control measures should be established to guard against the abuse of local and long distance telephone calls. The following guidelines may be helpful:

- (1) Employees should have supervisory approval prior to making personal telephone calls. Supervisors should maintain a log of such calls for certification and charge back.
- (2) Establish procedures for collection of charges for personal calls.

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(3) Establish other procedures such as electronic and mechanical controls (toll restriction, line restrictions, etc.) to minimize unauthorized use.

(4) Define disciplinary actions to be imposed in the event of unauthorized use of Government telephones.

#### 7.7 Essential Telephone Service During Emergencies.

A. Line Load Control. For emergency situations, an arrangement called line load control is available through local telephone companies so that predetermined essential employees will be able to place emergency calls from their residences with minimum delay. Persons being considered for this service must have emergency assignments requiring the immediate discharge of responsibilities. Due to the nature of this service, listings should be accurately maintained and distribution should be limited.

B. Notification to GSA. For all employees approved for this service, the name, address, and telephone number of requested service should be submitted to the local telephone company through the local GSA office. When a local telephone company receives more requests for essential service than it can accommodate, the GSA regional office will try to resolve the matter with the requesting activities and the telephone company.

#### C. FTS Minimize Guidelines.

(1) "Minimize" means an administrative control procedure that restricts or limits voice, data, and record traffic over the FTS to certain areas during an emergency or disaster to facilitate the handling of emergency and essential voice, data and record traffic.

(2) "Emergency Traffic" means voice, data, or record traffic to emergency facilities or units, to local or State officials and/or to controlling military or civil groups that have a direct bearing on the safety of life and property.

(3) "Essential traffic" means voice data, or record traffic considered necessary to avoid a serious impact on an agency's mission to provide support to units that are responsible for disaster control or relief.

(4) GSA has the sole responsibility to impose a Minimize condition on the FTS intercity voice network. Minimize control will apply to voice and data traffic to specific location(s) and specified

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telephone area code(s). GSA will notify the agency head and communications staff by the most rapid means available when a Minimize condition is in effect on the FTS Intercity Voice Network. GSA regional offices will notify all major agency regional offices in their respective geographical areas of other Minimize conditions. The Minimize notice will identify the city, State, and commercial telephone area code affected. The notice shall emphasize that only emergency and essential voice and data traffic is to be placed to the affected area. GSA and the GSA regional offices will inform agencies when the Minimize condition is cancelled.

(5) Intercity Voice Network (IVN) users are to determine when their call meets the description of "emergency" or "essential". If neither description can be applied, the call shall not be initiated.

7.8 Toll Analysis. A toll analysis is a method of comparing current long distance services with the alternative services of Federal Telecommunications System (FTS) and Wide Area Telecommunications Systems (WATS) to determine cost effectiveness. A toll analysis will allow Departmental telecommunications contacts to objectively determine if the cost of alternative services are less than current costs.

A toll analysis consists of tabulating current usage and costs and calculating alternative FTS or WATS costs based on similar usage. Specifically, this involves tabulating data on three months of current long distance services; computing projected costs for FTS or WATS and comparing them for cost effectiveness. Such an analysis shall be conducted when changing or expanding long distance service due to a change in needs, increased costs, degradation of service, or similar occurrence. The toll analysis shall be conducted according to the following instructions using a Toll Summary Sheet. After completion of the analysis, a completed Toll Summary Sheet shall be submitted to the Office of Facilities Management for review and approval. (The toll analysis addresses FTS and outward WATS service only and is intended to be used in those locations where FTS or WATS is not currently being used.) The following example illustrates the preparation of a toll analysis.

(1) Preparation of the Toll Summary Sheet - Gather three consecutive months of recent long distance toll statements and tabulate the monthly number of calls, number of minutes, and associated costs and enter on the Toll Summary Sheet. Do not include operator assisted, collect, credit card, conference, pay assisted, and calls outside the 48 contiguous states (Alaska, Hawaii, Puerto Rico, etc.). Total the three columns as indicated on the sheet.

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(2) Calculation of the number of trunks (lines) needed. From the Toll Summary Sheet take the total number of minutes and divide by three to obtain an average number of minutes. Divide this figure by 100 to arrive at the anticipated traffic (number of minutes) to be carried during the busy hour. Take this figure and refer to the following chart to determine the number of trunks (lines) needed. For example, if the anticipated traffic is 33 minutes, three trunks are needed.

CHART FOR TRUNK CALCULATION

Traffic in Minutes	<u>2.5</u>	<u>21.5</u>	<u>49</u>	<u>82</u>	<u>118</u>	<u>157</u>	<u>197</u>	<u>238</u>	<u>281</u>	<u>325</u>	<u>370</u>	<u>415</u>	<u>461</u>	<u>508</u>	<u>555</u>
Trunk (lines) Needed	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

(3) FTS Feasibility Analysis - From the Toll Summary sheet, take the average monthly toll costs and multiply this figure by .80. To this amount add the FTS facility cost (\$150.00 multiplied by the number of trunks needed). This is the estimated total monthly FTS cost. If this total is greater than the average monthly toll costs, FTS is not cost effective.

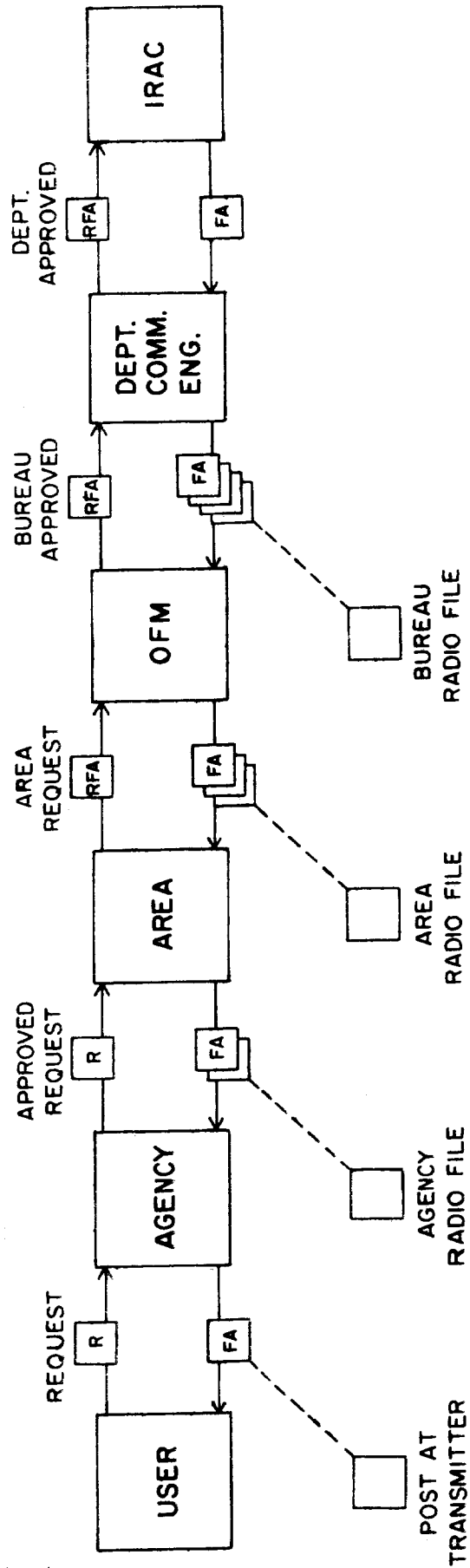
(4) WATS Feasibility Analysis - Review calling patterns and determine the geographic area for which WATS may be appropriate. Obtain a current rate schedule from the interexchange carrier serving that area. From the Toll Summary Sheet take the average number of minutes per month and convert to hours by dividing by 60. Calculate the total WATS cost by multiplying the usage rate by the number of hours.

If the total WATS costs exceeds the current toll cost as indicated on the Toll Summary Sheet, WATS is not effective.

TOLL SUMMARY SHEET

	Number of Calls	Number of Minutes	Toll Costs
1st month	_____	_____	_____
2nd month	_____	_____	_____
3rd month	_____	_____	_____
TOTALS	_____	_____	_____
AVERAGE	_____	_____	_____

ILLUSTRATION NO. 1, REGULAR FREQUENCY ASSIGNMENT PROCEDURES



United States Department of the Interior  
Bureau of Indian Affairs  
REQUEST FOR FREQUENCY ASSIGNMENT

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\$\$ADD \_\_\_\_\_  
TYP01 \_\_\_\_\_  
DAT01 \_\_\_\_\_  
RTN01 \_\_\_\_\_  
CLA01 U \_\_\_\_\_  
LSR01 \_\_\_\_\_  
ICI01 \_\_\_\_\_  
EXM01 \_\_\_\_\_  
BUR01 \_\_\_\_\_  
NET01 \_\_\_\_\_

SRS01 \_\_\_\_\_  
SEX01 \_\_\_\_\_

Frequency

FRQ01 \_\_\_\_\_

Emission

STC01 _____	STC02 _____	STC03 _____	STC04 _____
EMS01 _____	EMS02 _____	EMS03 _____	EMS04 _____
PWR01 _____	PWR02 _____	PWR03 _____	PWR04 _____
NTS01 _____	NTS02 _____	NTS03 _____	NTS04 _____
SPD01 _____			

Transmitter

XSC01 \_\_\_\_\_  
XAL01 \_\_\_\_\_  
XRC01 \_\_\_\_\_  
XLA01 \_\_\_\_\_  
XLG01 \_\_\_\_\_  
XCL01 \_\_\_\_\_  
XAD01 \_\_\_\_\_  
XAZ01 \_\_\_\_\_  
XAP01 \_\_\_\_\_  
TME01 \_\_\_\_\_

Receiver

RSC01 _____	RSC02 _____
RAL01 _____	RAL02 _____
RRC01 _____	RRC02 _____
RLA01 _____	RLA02 _____
RLG01 _____	RLG02 _____
ACL01 _____	ACL02 _____
RAD01 _____	RAD02 _____
RAZ01 _____	RAZ02 _____
RAP01 _____	RAP02 _____

Circuit Remarks

REM01 \_\_\_\_\_  
REM02 \_\_\_\_\_  
REM03 \_\_\_\_\_  
REM04 \_\_\_\_\_  
REM05 \_\_\_\_\_  
REM06 \_\_\_\_\_  
REM07 \_\_\_\_\_  
REM08 \_\_\_\_\_

Supp Details

SUP01 \_\_\_\_\_  
SUP02 \_\_\_\_\_  
SUP03 \_\_\_\_\_

ILLUSTRATION NO. 3. SYSTEM DRAWING

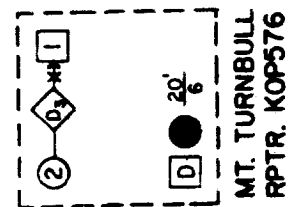
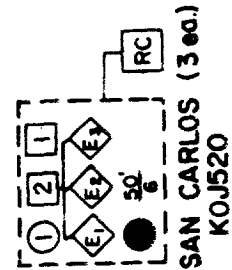
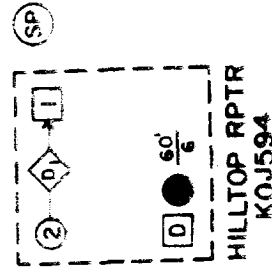
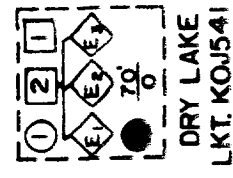
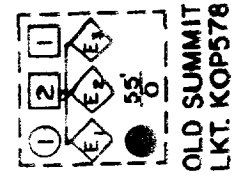
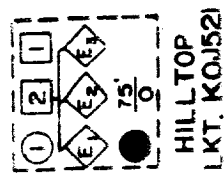
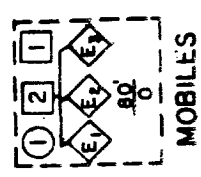
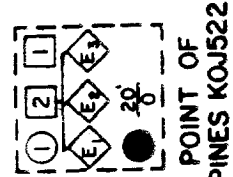
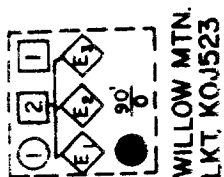
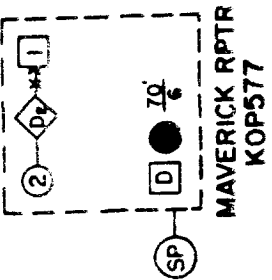
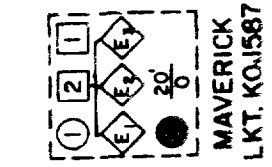
RADIO SYSTEM DRAWING SYMBOLS

- ① Receiver Frequency 1
- ② Transmitter Frequency 2
- ⬠ Tone Control—Encoder or Decoder, Tone A
- Control, TIRM ON
- ⇨ Control, TIRM OFF
- RC Remote Control Console, (2 or 4 wire)
- Ⓛ Cavity
- D Duplexer
- ⊕ Omnidirectional Antenna
- 100 Antenna height  
/ Antenna pole (ft)
- ⚡ Directional Antenna
- Ⓢ Solar Powered

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LEGEND  
F1-172.425 MHz  
F2-171.700 MHz

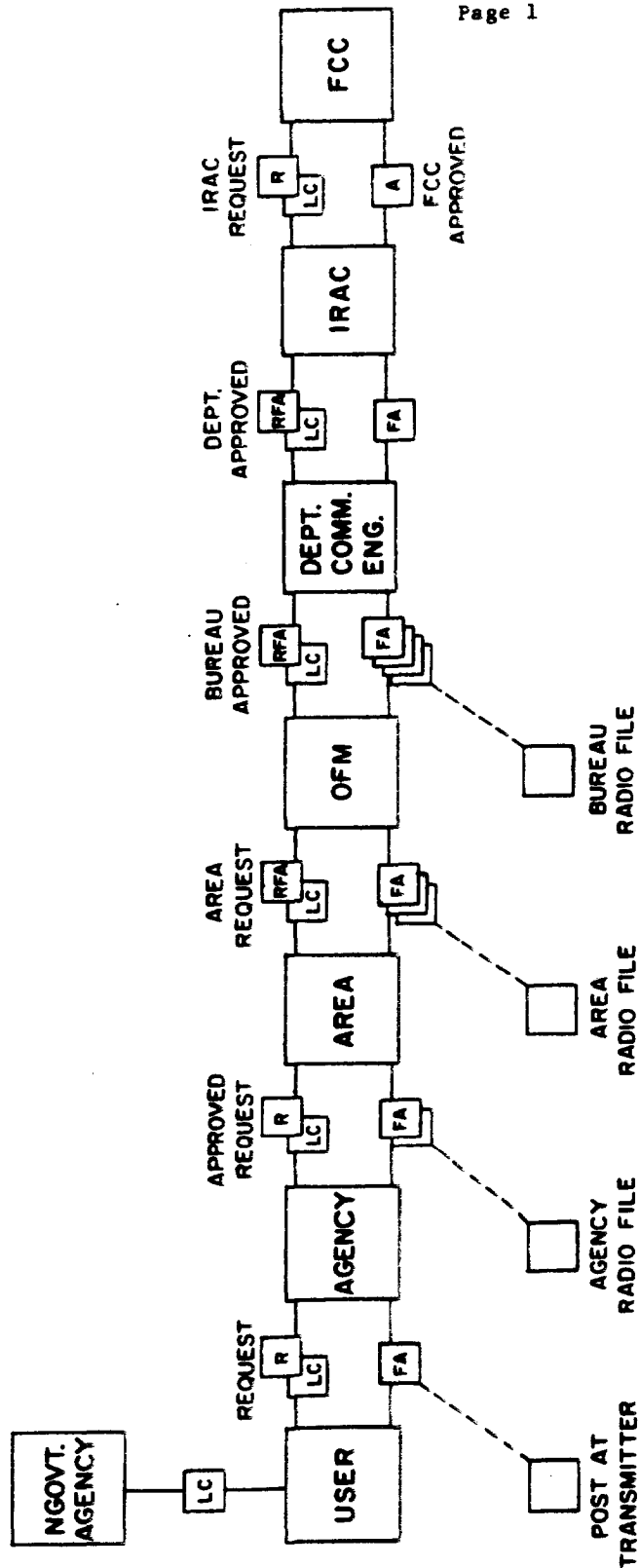
Control Tones:  
E1/D1-173.8 Hz  
E2/D2-186.2 Hz  
E3/D3-162.2 Hz



BUREAU OF INDIAN AFFAIRS  
SAN CARLOS AGENCY  
FORESTRY RADIO SYSTEM



ILLUSTRATION NO. 4, FREQUENCY ASSIGNMENT PROCEDURES



(ON SHERIFF'S OFFICIAL LETTERHEAD)

Addressee (Agency Superintendent)

Dear Mr. \_\_\_\_\_:

This is to advise you that this office has no objections for the Bureau of Indian Affairs to install and operate on our frequency(s) of \_\_\_\_\_ MHz       (quantity)       base station(s) and       (quantity)       mobile radio units in conjunction with your law enforcement programs on the \_\_\_\_\_ Indian Reservation in the \_\_\_\_\_ County, State of \_\_\_\_\_.

Our FCC License Number is \_\_\_\_\_, our Call Sign is \_\_\_\_\_, with an authorization of \_\_\_\_\_ watts. The license will expire       (date/year)      .

The Bureau of Indian Affairs is authorized to use our system in the following manner: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Sincerely,

(Signature/Title)

ILLUSTRATION NO. 5, SAMPLE DRAFT LETTER OF CONCURRENCE

PREPARATION OF A "REQUEST FOR FREQUENCY ASSIGNMENT"

1. List data entries in the order shown in Illustration 2. (Multiple occurring entries for emission and receiver data shall be grouped for each occurrence.)
2. An existing Radio Frequency Authorization for a similar assignment may be used as a guide to determine required entries.
3. The data entry identifiers used in requesting a frequency assignment, explanation of each identifier and additional instructions to Chapter 9 of the NTIA Manual for specific entries follow:

Identifier - Explanation - Additional Instructions

- SSADD - (SER) Agency Serial Number - Leave blank.
- TYP - Type of Action - Leave blank.
- DAT - Date Prepared - Leave blank.
- RTN - Routine - Leave blank.
- CLA - Classification - Insert "U" for unclassified.
- LSR - List Serial Number - Leave blank.
- ICI - International Coordination Identifier - Leave blank.
- EXM - Expiration Date - Leave Blank.
- BUR - Bureau - Enter the Bureau Code.
- NET - Net Control (Bureau Identification) - Leave blank.
- SRS - Serial Number to be Replaced - Leave blank.
- SEX - Deletion Date - Leave blank.
- FRQ - Frequency - If the actual frequency is not known, request a frequency in a particular frequency band by identifying the desired band in the cover letter and leave this data field blank for completion by Office of Facilities Management.

For Single Sideband (SSB) assignments, insert the assigned frequency and identify the carrier frequency under Circuit Remarks (REM):

\*AGN,CARRIER FREQ \_\_\_\_\_ KHZ

- STC - Station Class - Enter Data
- EMS - Emission Designator - Do not use the last two (2) optional emission symbols.
- PWR - Power - Enter Data
- NTS - Record Notes - Enter Data
- SPD - Power Density - Required for satellite and earth stations.

Transmitter Data

- XSC - Transmitter State/County - Enter Data
- XAL - Transmitter Antenna Location (Site Name) - Enter Data
- XRC - Transmitter Control (System Name) - This data field is used for the system name. Each system shall be identified by a unique name or designator. It shall consist of not more than eight alpha or alpha-numeric characters that identify the activity, project, or area for which the frequency assignment is required.

Example:

CRSP (Colorado River Storage Project)  
FISH CR (Fish Creek Wildlife Refuge)

- XLA - Transmitter Antenna Latitude - Enter Data
- XLG - Transmitter Antenna Longitude - Enter Data
- XCL - Transmitter Call Sign - Insert the call sign if the application is for an additional frequency at a location that has been assigned a call sign. Leave blank to request a call sign.

- XAD - Transmitter Antenna Dimensions - Enter Data
- XAZ - Transmitter Antenna Orientation - Enter Data
- XAP - Transmitter Antenna Polarization - Enter Data
- TME - Time of Use - Enter Data

Receiver Data

- RSC - Receiver State/County - Enter Data
- RAL - Receiver Antenna Location (Site Name) - Enter Data
- RRC - Receiver Control (System Name) - This data field is used to identify the system receiving transmissions from the station authorized.

Common System: If the receiver is in the same system as the transmitter, insert the system name from XRC.

Foreign System: In cases where the frequency authorization is for communications with another system, insert the name of the agency or authority of the foreign system.

Example:

NGOVT (Non-Government)  
USFS (United States Forest Service)  
(See Circuit Remarks \*NRM, System Name, for additional instructions.)

- RLA - Receiver Antenna Latitude - Enter Data
- RLG - Receiver Antenna Longitude - Enter Data
- ACL - Receiver Call Sign - Insert the call sign if the station has been assigned a call sign. Leave blank if a call sign is requested.
- RAD - Receiver Antenna Dimensions - Enter Data
- RAZ - Receiver Antenna Orientation - Enter Data

RAP - Reveiver Antenna Polarization - Enter Data

REM - Circuit Remarks - Insert circuit remarks in the following order:

(Additional REM entries may be inserted, as required, in any order after these entries.)

- 1) \*FRB or \*FBE (Frequency Band)
- 2) \*RAD, \*LSB, or \*ARB (Authorized Radius, States or Area)
- 3) \*NRM (Number of Stations/System Name) - Insert the number of stations that make up the system named. Stations that have the capability to operate on the frequency authorized, but are not normally part of the system named, shall not be included in the number of stations. The station count must be the same for all authorizations with a common NRM system name.

Insert the system name as listed in the (XRC) transmitter control (System Name) field. A further breakdown in the system to identify a sub-unit or organization may be indicated by inserting a dash (-) after the system name, followed by the name of the sub unit or organization. To indicate that the assignment is for communications with a foreign system, insert a virgule (/) after the system name, followed by the name of the agency or authority of the foreign system.

Examples:

\*NRM,XXXXX,YELLWSTN (The system name is Yellowstone National Park.)

\*NRM,00100,YELLWSTN-EASTERN (This system has 31 to 100 stations. The system name is Yellowstone National Park, Eastern area sub-unit).

\*NRM,00010,YELLWSTN-FIRE/USFS (This system has 1 to 10 stations. The system name is Yellowstone National Park, Fire sub-unit, communicating with the United States Forest Service.)

- 4) \*EQT, \*EQR, \*EQP, or \*EQS (Equipment Characteristics)
- 5) \*EPT,R (Receiving Repeater)

- 6) \*SYS (System Identifier)
- 7) \*AGN (Agency Data) - Agency data will be used to provide necessary additional information.

All requests shall include an \*AGN entry to identify the request date and who prepared the application as follows:

\*AGN,RQT15MAR81PH - Identified that this request (RQT) from the Radio Liaison dated March 15, 1981 (15MAR81) was prepared by Patricia Henry (PH) (Leave date and initial blank for completion by the Division of Telecommunications, PIR if not known.)

Examples of additional \*AGN entries:

\*AGN,PAIRED M166.3 RPT RX - Identifies the repeater receive frequency in a repeater paired system. (Use RPT TX to identify the repeater transmit frequency.)

\*AGN,CONT FOR M166.35 - Identifies the frequencies being controlled by a control repeater.

\*AGN,PAIRED M411.625 - Identifies a paired frequency.

\*AGN,SHARED OTHER FWS OPNS - Identifies that the frequency is shared with other Fish and Wildlife operations.

#### Supplementary Details

SUP - Supplementary Details - Insert a description of the operations which includes a decode of all station location site names and the system name, a statement of requirement (if not provided under the System Identified, \*SYS), and identify letters of concurrence or agreements by date. (Maximum of 72 characters per line.)

Example:

SUP01 Salmon (District Office) and area mobiles to Grouse Peak and Ramsey Mtn.

SUP02 repeaters, Salom District. Required for range management and fire detection.

SUP03 Letter of concurrence, 15 Mar 81.