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INSTITUTIONAL ANALYSIS OF DAYTIME RADIO: AN OVERVIEW
OF THE BROADCAST INDUSTRY

Ellen Hendrickson and Thomas E. Nutt-Powell

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ABSTRACT

One of a series of papers as part of the institutional analysis of acceptance of photovoltaic (PV) energy, this paper presents an exploration of the radio broadcasting sector in the US. Organized according to the seven functions fulfilled by institutions -- political, regulatory, socialization, production, financial, research, and service -- the paper shows that the radio broadcasting industry is strongly focused and centralized at the federal level in terms of the political and regulatory functions. The other strong force influencing the nature of the industry is the mutual dependency between radio stations and advertisers. Subsequent papers in this series will complete the institutional analysis of a field test of PV in the daytime radio area.

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FORWARD

The Working Paper which follows was prepared as a portion of work underway within the Utility Systems Program at the MIT Energy Laboratory. This Working Paper series offers authors a mechanism for circulation of both interim project reports and drafts of reports destined to become Laboratory Technical Reports or journal articles.

Because of the preliminary nature of the findings and conclusions contained in these reports they may neither be reproduced nor quoted without the permission of the authors or the Project Manager.

Richard D. Tabors, Manager
Utility Systems Program

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The U.S. Department of Energy, as part of its Photovoltaic Program, is sponsoring a series of studies and field tests to answer questions about the acceptance of photovoltaics (PV) as an energy innovation. These questions cover four areas of concern:

Technological -- Will it work? Do efficiencies vary under different conditions?

Economic -- Is it economically viable? Does its viability differ among economic sectors; regions and/or countries?

Market -- Is there consumer interest? Personal and/or corporate? Are there differences among potential consumers regarding the attractiveness of various applications and presentations?

Institutional -- What are the forces that will speed or impede the adoption of the innovation? How do they operate? To what extent are they responsive to deliberate interventions?

This paper is one in a series considering institutional questions related to a PV field test being conducted by MIT/Lincoln Laboratories, the main objective of which is to determine the practicality of a small power system (up to 20kw peak) which would be useable in a variety of applications. An initial test of this small system will be conducted in relation to providing power for a daytime radio station.

An "institution" is defined as a discernable entity that carries or is the repository for social meaning. (For a detailed discussion of the theories and methodologies of institutional analysis, see Nutt-Powell, et al., 1978.) Institutions are characterized by function (research, socialization, service, political, financial, production, and regulation),

activity (marketing, analyzing, enforcing, and so on), and role (vendor, linking-pin, translator, and so on). There are six types of institutional entities: formal and informal organizations, members, persons, collectivities, and social orders. Institutional entities combine and interact to form an institutional arena. Within that arena, exchanges occur between and among institutional entities; institutions are stability-seeking and routine-establishing. Exchanges between and among institutions, which occur over time, combine to create a resource configuration. Institutional analysis is the study of how and in what forms social meaning is created, transmitted, maintained and/or changed. Information in exchange is the key source of data for institutional analysis.

There are seven steps in conducting an institutional analysis:

- 1) Identify the sector to be studied, determine study objectives.
- 2) Prepare a preliminary sector exploration -- an overview that could be applied to any sector as well as material that is location specific.
- 3) Construct an hypothesized institutional arena.
- 4) Identify the "perturbation prompter."
- 5) Devise the specific research design.
- 6) Monitor perturbations.
- 7) Analyze the institutional arena.

Because they present a constant, predictable DC load, match the sunlight hours, and often have a large land area available for the PV array, daytime AM radio stations have been selected as the application for the MIT/Lincoln Laboratory field test. Thus, the broadcasting industry is the general sector under study.

This paper is the result of the initial sector exploration and provides an overview of the various institutional entities within the broadcasting industry, their relationships and interactions. After an initial brief review of the history of radio broadcasting, the paper presents an assessment of the industry according to the seven functions fulfilled by institutions. (An appendix describing how a radio station is established is included.) Subsequent papers in this series will present succeeding steps in the institutional analysis of MIT-Lincoln Laboratory's field test of PV in the daytime radio industry.

A BRIEF HISTORY OF RADIO BROADCASTING

One of the most dramatic developments of technology has been the use of radio waves -- electromagnetic radiations traveling at the speed of light -- for communication. Radio communication designed for reception by the general public is known as "broadcasting."

Radio communications was born of many minds and developments. In the 1860's, the Scottish physicist James Clerk Maxwell predicted the existence of radio waves. Heinrich Rudolph Hertz, the German physicist, later demonstrated that rapid variations of electric current can be projected into space in the form of waves similar to those of light and heat. (His contributions have been honored internationally by the adoption of "hertz" as a synonym for cycles per second.) In 1895, the Italian engineer Guglielmo Marconi transmitted radio signals for a short distance, and, at the turn of the century, conducted successful transatlantic tests.

The first practical application of radio was for ship-to-ship and ship-to-shore telegraphic communication. Marine disasters soon demonstrated the speed and effectiveness of radiotelegraphy for saving life and property at sea.

The origin of the first voice broadcast is a subject for debate. Claims to that distinction range from "Hello, Rainey," said to have been transmitted by Nathan B. Stubblefield to a neighbor, Rainey T. Wells, in a demonstration near Murry, Kentucky, in 1892, to an impromptu

program from Brant Rock, Mass., by Reginald A. Fessenden in 1906, which was picked up by nearby ships.

There were other early experimental audio transmissions. Lee De Forest put singer Enrico Caruso on the air in 1910, and there were transatlantic voice tests conducted by the Bell Telephone Company at Arlington, Va., in 1915. But it was not until after World War I that regular broadcasting began.

FM and TV broadcasting emerged from their experimental stage just before U.S. entry into World War II. Wartime restrictions retarded expansion of radio facilities, although the emergency produced new techniques and apparatus that are in use today. In the decades following the war, broadcasting expanded domestically, and the development of communication satellites has opened new possibilities for international relay.

Regulation of Broadcasting

Though the Wireless Ship Act of 1910 applied to use of radio by ships, the Radio Act of 1912 was the first domestic law for general control of radio. It made the Secretary of Commerce and Labor responsible for licensing radio stations and operators.

Early broadcasting was experimental and, therefore, noncommercial. In 1919, radiotelephone experiments were enabled to operate as "limited commercial stations." In 1922, the wavelength of 360 meters (approximately 830 kilocycles per second) was assigned for the transmission of "important news items, entertainment, lectures, sermons, and similar matter."

The recommendations of the first National Radio Conference in 1922 resulted in further regulations by the Secretary of Commerce. A new type of AM broadcast station came into being, with minimum power of 500 watts and

maximum of 100 watts. Two frequencies were assigned for program transmission.

So rapid was the development of AM broadcasting that, upon recommendation of subsequent National Radio Conferences in 1923 and 1924, the Department of Commerce allocated 550 to 1500 kilocycles per second for standard broadcast and authorized operating power up to 5000 watts.

Increasing numbers of AM stations created so much interference that, in 1925, a fourth National Radio Conference asked for a limitation on broadcast time and power. The Secretary of Commerce was unable to deal with the situation, because court decisions held that the Radio Act of 1912 had not given him this authority. As a result, many broadcasters changed their frequencies and increased their power and operating time at will, regardless of the effect on other stations, producing bedlam on the air. In 1926, President Coolidge urged Congress to remedy matters. The result was the Dill-White Radio Act of 1927.

Federal Radio Commission

The Radio Act of 1927 created a five-member Federal Radio Commission to issue station licenses, to allocate frequency bands to various services to assign specific frequencies to individual stations, and to control station power. The same act delegated to the Secretary of Commerce the authority to inspect radio stations, to examine and license radio operators and to assign radio call signs.

Much of the early effort of the FRC was directed to straightening out the confusion in the broadcast band. It was impossible to accommodate the 732 broadcast stations then operating. New regulations caused about 150 of them to surrender their licenses.

Communications Act of 1934

At the request of President Roosevelt, the Secretary of Commerce appointed an interdepartmental committee in 1933 to study electrical communications. The committee recommended that Congress establish a single agency to regulate all interstate and foreign communication by wire and radio, including telegraph, telephone, and broadcast. The Communications Act of 1934 created the Federal Communications Commission for this unified regulation. This is the statute under which the FCC operates and which it enforces. Several of its provisions were taken from the earlier Radio Act.

POLITICAL AND REGULATORY

The political function involves the formal determination of structures and modes of behavior, while the regulatory function is the administration of formal structures for behavior (Nutt-Powell et al., 1978, p. 35). Since the organization of broadcasting in the US is relatively formalized and centralized at the federal level, these two functions will be considered together.

There are six major participants who perform political-regulatory functions in broadcasting: the FCC, the "industry," citizens' groups, the courts, the White House, and Congress. Figure 1 displays the various channels of information and influence among the participants. The roles played by the White House, the courts, and citizens' groups are usually less immediate and direct than those played by the other three. Thus, the primary channels of influence, information and contact can be traced among the FCC, the industry, and Congress. The FCC, which is ultimately responsible for policy outputs in the regulatory process, must be considered the key participant in the system.

The Federal Communications Commission

The broad purpose of the Communications Act of 1934 was "to make available, so far as possible, to all people of the United States a rapid, efficient, Nation-wide and world-wide wire and radio communication service with adequate facilities at reasonable charges" To accomplish this end and to enforce other provisions of the Act, a centralized authority in the form of the FCC was established.

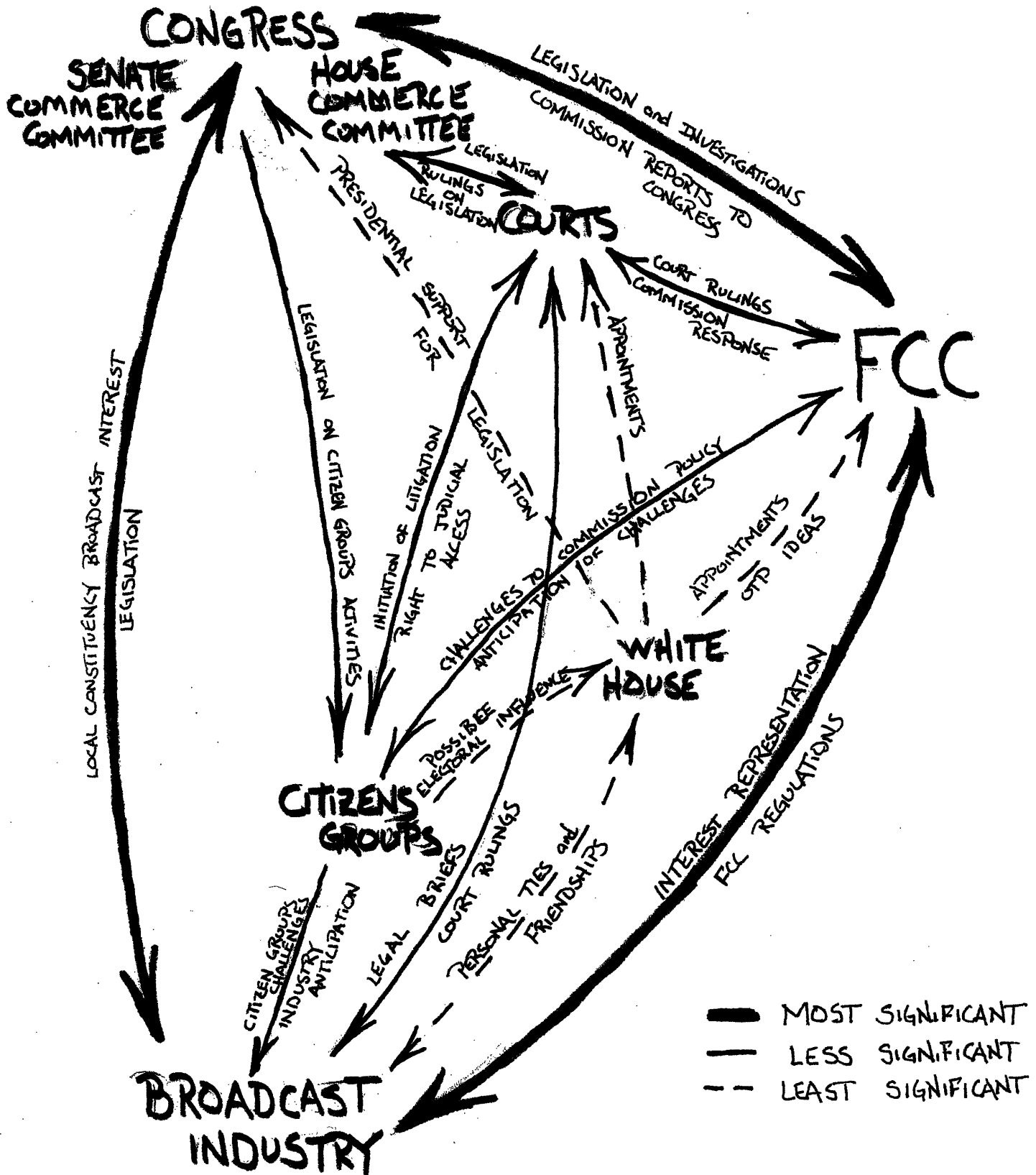
Structure: The FCC is composed of seven Commissioners chosen by the President with the advice and consent of the Senate, one of whom the President designates as Chairman. Commissioners are appointed for a period of seven years, except when an appointment is made to fill a vacancy. In such a case, the appointment is made only for the unexpired term of the Commissioner being replaced. The Act has little to say about the qualifications of a Commissioner. They must be citizens of the United States; no more than four of them can be from the same political party. Also, no Commissioner can have a financial interest in any Commission-regulated business.

In an analysis of the characteristics of 44 individuals who served as FRC and FCC Commissioners between 1927 and 1961, Lawrence Lichty found that 23 had studied law, 24 had some prior experience in broadcasting, and all but four had previously held a government office at either the federal or state level. Thus, the typical Commissioner was trained in law, generally familiar with broadcasting, and likely to have had previous government administrative responsibility (Krasnow and Longley, p. 27).

One result of this common legal and administrative background of many Commissioners is the FCC's tendency to see regulatory activities in legal and administrative terms, rather than in political or broadly-defined social terms. Traditionally, the FCC has preferred the administratively and legally sound policy over the controversial or more inclusive alternative (Krasnow and Longley, p. 27).

It is important to remember that the FCC is not a static institution, but rather one whose direction and emphasis of policy change as its personnel change. It is also true that Commissioners may exhibit factional

Figure 1
Political and Regulatory Activities in the Broadcast Industry



adapted from
Krasnow and Longley, pg 77

behavior and that individual Commissioners may play pivotal roles in decision making.

In a study of the FCC as a decision-making body, Bradley Canon concluded that voting blocks are important in Commission decisions and are especially significant in dissents. Political affiliations of the Commissioners seem to be related to voting behavior on some issues (Krasnow and Longley, p. 28).

The problems taken on by the Commission (and the solutions eventually proposed) result in part, from the individual interests of the Commissioners. Also, many important decisions or changes may be the result of a strong effort by one Commissioner (Krasnow and Longley, p. 28).

Ideally, the seven Commissioners function as a unit and exercise general supervision over the functions of the agency. The Chairman serves as the chief executive officer of the Commission. He/she presides over all meetings of the Commission and represents the agency in all legislative matters. He/she represents the Commission in matters that require conferences or communications with other government officers, departments, or agencies, and generally coordinates and organizes the work of the Commission.

The FCC staff is organized on a functional basis. There are five operating bureaus -- Broadcast, Cable Television, Common Carrier, Field Operations and Safety, and Special Radio Services -- and seven staff offices -- Executive Director, Plans and Policy, General Counsel, Chief Engineer, Opinions and Review, Administrative Law Judges, and the Review Board. Figure 2 is a diagram of the FCC's administrative structure.

Lee Loevinger (a former FCC Commissioner) has likened the FCC and other administrative agencies to a pyramid. At the apex of the pyramid are the

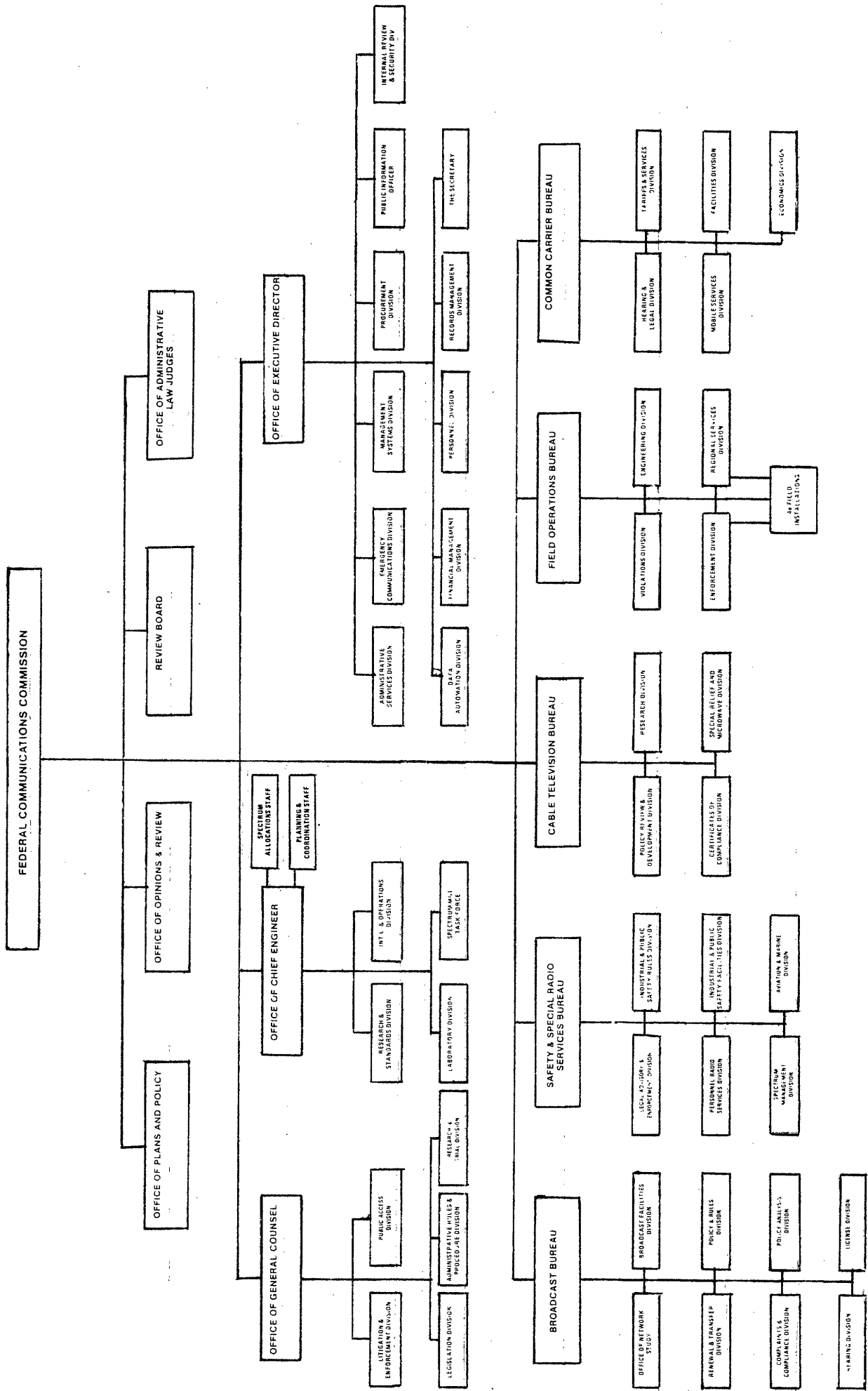


Figure 2

adapted from Broadcasting Yearbook, 1978

Commissioners. The professional and middle staff members of the agency form the base of the pyramid which supports the structure (Krasnow and Longley, pp. 24-25).

The attitudes of the FCC's middle staff are a significant factor in the development of its regulatory policy. Unlike Commissioners and their top aides, who are political appointees subject to periodic change, the FCC's middle staff is composed of government career employees, many of whom have spent their entire working lives at the Commission. (The majority of Commission employees are in the Civil Service.) The staff is able to exercise considerable influence through its control of the channels of communications to the FCC Commissioners. In choosing among policy alternatives, Commissioners frequently base their decisions on information selected by staff personnel as relevant and important. Also, because hundreds of decisions are made daily by the FCC, the formulation and implementation of policy are often delegated to the middle staff.

Powers and Responsibilities of the Commission: One of the FCC's major activities is the regulation of the broadcast industry. It is responsible for the following functions:

- (1) The consideration of all applications relating to construction and operation of broadcast facilities.
- (2) The assignment of specific operating frequencies.
- (3) The assignment of the radiated power of broadcast facilities.
- (4) The assignment of station "call" letters (or means of identification).
- (5) The establishment of operating policies, including hours.
- (6) Inspection of equipment.

- (7) Supervising the engineering aspects of operation.
 - (8) Ruling upon requests for transfer or assignment of license.
 - (9) Renewing licenses.
 - (10) Licensing of transmitting equipment.
 - (11) Licensing of transmitter operating personnel.
 - (12) Reviewing the program operations of licensed stations
- (Robinson, pp. 233-234).

From its establishment the FCC has, in theory, enjoyed a broad Congressional mandate to frame responsible public policy regarding broadcasting. Though designated by law as a regulatory agency independent of the Executive branch, the FCC has no implied independence from Congressional or industry pressures. Statutory separation from the Executive branch in no way guarantees an agency's independence from politics. Indeed, the need for political support and leadership in successful regulation is an essential characteristic of independent regulatory commissions.

The Industry

The work of a regulatory agency requires an intimate knowledge of the industry being regulated. It is not surprising, therefore, that there is a high level of interaction between the FCC and the broadcasting industry. The Commission is largely dependent upon trade associations within the industry and upon broadcasters themselves for much of its information about proposed policies. Information flows through consultative groups (such as joint industry-government committees), publication of views in the trade press, social contacts and visits to the offices of the Commissioners, informal discussion at state broadcasting and trade association meetings, and the formal submission of arguments and pleadings to the FCC by the industry.

Nicholas Johnson (a former FCC Commissioner) assigns the domination of an agency's policymaking to a coalescence of lobbyists, specialty lawyers, trade associations, trade press, Congressional staff committee members, and Commission personnel, who group around each of the regulated industries as the "subgovernment phenomenon." Johnson describes the broadcasting industry subgovernment as including:

... the networks and multiple station owners, the Federal Communications Bar Association, Broadcasting magazine, the National Association of Broadcasters, the communications law firms, and the industry-hired public relations and management consultant firms. It also includes the permanent government staff -- regulatory, executive and congressional -- which is concerned with day-to-day activities of the broadcasting industry. People in this subgovernment typically spend their lives moving from one organization to another within it (Krasnow and Longley, p. 34).

... NAB and Other Trade Associations: Established in 1922, the National Association of Broadcasters (NAB) has long been a leading spokesman for the broadcasting industry. It has been effective in thwarting efforts to place heavy regulatory burdens on broadcasters. Self-regulation and industry-wide performance standards are promoted by the NAB through its radio and television "Codes of Good Practices." Approximately four thousand five-hundred radio stations belong to the NAB and through their memberships automatically subscribe to the Radio Code. Though the Association has no legal powers of enforcement, the Codes play an important symbolic role within the industry.

NAB also conducts extensive lobbying efforts to influence both the FCC and Congress. It participates actively in the information flow between the FCC and the industry (described earlier), and also promotes NAB positions with Congress and the FCC on issues relevant to the industry, most typically through "grass roots" campaigns.

The Radio Board of the NAB is composed of seventeen directors, representing districts throughout the country, and thirteen directors-at-large, who represent the four different classes of radio stations and the various networks. When an issue arises, these directors "feel out" their districts for opinions, and communicate the results to the Executive Committee of the NAB's Board of Directors. The Executive Committee meets monthly to determine NAB policy. The NAB position is established and communicated to members, who are urged to write to congressmen and to the FCC Commissioners. Also, the individual member in each congressional district who has the best access to the congressional representative takes responsibility for communicating NAB opinions and policy positions.

In recent years, the increasing number and diversity of organizations represented by the NAB has led to the development of smaller, more specialized trade associations. In radio, these include groups which protect the interests of clear channel AM radio stations (Clear Channel Broadcasting Services), daytime AM stations (Daytime Broadcasters Association), religious stations (National Religious Broadcasters), and FM stations (National Association of FM Broadcasters). Also, the Washington representatives of the three national networks (NBC, ABC, and CBS) work in a loose alliance, forming a separate and potent lobbying group (Krasnow and Longley, p. 35).

Citizens' Groups

The law directs the FCC to grant broadcasting licenses and renewals of the same only if the public interest will be served. In spite of this provision, it was not until 1966 that groups or individuals other than those with a demonstrable economic stake in the outcome of a case were permitted to intervene in radio and television license proceedings. In a landmark decision

of March 1966, the United States Circuit Court of Appeals for the District of Columbia held that responsible community organizations, such as "civic associations, professional societies, unions, churches, and educational institutions or associations," have the right to contest renewal applications. In a unanimous opinion written by Judge Warren Burger (later Supreme Court Chief Justice), the Court of Appeals ruled that providing legal standing to those with such an obvious and acute stake in licensing proceedings as the listening audience is essential in order that "the holders of broadcast licenses be responsive to the needs of the audience without which the broadcaster could not now exist." (Krasnow and Longley, pp. 36-37).

Since 1966, a number of groups throughout the United States have participated in the monitoring of broadcast stations and in the preparation of petitions to deny renewal applications. In response to the heightened awareness and involvement of the listening public, broadcast stations have entered into agreements with citizens' groups concerning programming and employment practices. The FCC itself has taken a number of steps to encourage greater citizen participation, including the publication of informative booklets on how to file complaints and intervene in renewal and transfer proceedings. (For a more complete discussion of citizens' groups' involvement in broadcasting regulation, see Krasnow and Longley, pp. 36-41.)

The Courts

Judicial review -- though seldom invoked -- remains a "threatening" possibility for every administrative decision made by the FCC. The judiciary can exercise a veto power over any policy-making arm of government. Consequently, the FCC must keep watch on the courts to ensure that its policies can stand up to judicial review.

Section 402(b) of the Communications Act provides that appeals of decisions and orders of the Commission may be made to the United States Court of Appeals for the District of Columbia by any of the following types of principals:

- (1) By any applicant for a construction permit or station license whose application is denied by the Commission.
- (2) By any applicant for the renewal or modification of any such instrument of authorization whose application is denied by the Commission.
- (3) By any party to an application for authority to transfer, assign, or dispose of any such instrument of authorization, or any rights thereunder, whose application is denied by the Commission.
- (4) By any applicant for the permit required by section 325 of this Act (pertaining to the authorization of a broadcast studio or other place from which programs are transmitted or delivered to a radio station in a foreign country for the purpose of having them reach consistency in the US) whose application has been denied by the Commission or by any permittee under said section whose permit has been revoked by the Commission.
- (5) By the holder of any construction permit or station license which has been modified or revoked by the Commission.
- (6) By any other person who is aggrieved or whose interests are adversely affected by any order of the Commission granting or denying any application described in paragraphs (1), (2), (3), and (4).
- (7) By any person upon whom an order to cease and desist has been served.
- (8) By any radio station operator whose license has been suspended by the Commission.

Filing an appeal is largely a defensive maneuver in response to a policy already established by the FCC.

The judicial process dictates a basically passive role for the courts. The Court of Appeals has extended its participation in the regulatory process as a result of questions raised by citizens' groups.

The White House

The White House influences broadcast regulation in a variety of ways, the most important being Presidential responsibility for appointing Commissioners and choosing a Chairman. Though no more than four of the Commissioners can have the same party affiliation, the President has wide latitude in choosing Commissioners who reflect his own political and administrative ideas.

Presidential choice is restricted more by the diverse pressures brought to bear during the appointment process -- by Congress, the industry, the press, and the public -- than by the Communications Act's mandate on party affiliations. The need for Senate approval can cause a President to consider a candidate's abilities as a less important qualification than their probability of acceptance. The broadcasting industry keeps a close watch on Presidential appointments, and persons whom they regard as opposed to their interests are rarely appointed to the Commission. Trade publications influence industry opinion on candidates, and let broadcasters know who is opposed to their interests.

The Office of Management and Budget (OMB) exerts other forms of pressure on behalf of the White House. OMB, one of the President's staff agencies, reviews and revises all departmental and agency budget estimates before they are presented to the Appropriations Committees of the House and the Senate.

This office also reviews legislation initiated by agencies such as the FCC before its submission to Congress. Further action depends on OMB's determination that the legislation is consistent with the President's program. Moreover, OMB is able to have an impact on the substance and timing of FCC regulatory projects. Under the Federal Reports Act, OMB is responsible for giving prior approval to all reporting forms, applications, and industry questionnaires.

The White House also exercises authority through support of substantive legislation. The President, through the degree and type of interest he takes in a commission's activities, helps to set the political climate within which all regulatory agencies operate. Ad hoc advisory commissions -- such as President Johnson's Task Force on Communications Policy -- provide the White House with additional leverage in broadcast regulation.

With President Nixon's reorganization plans, the White House moved away from the use of ad hoc advisory commissions to the establishment of a permanent office in the Executive Branch designed to formulate policies and coordinate operations of the Federal government's communications system. The Office of Telecommunications Policy (OTP) acts as the President's principal advisory body on domestic and international telecommunications policy. In the time that it has existed, OTP has made significant impact on broadcast regulatory policy. OTP has acted as a mediator in industry disputes, suggested areas in broadcasting for the FCC to study, and has stimulated debate on a wide number of substantive issues. Based on a study prepared by OTP, the FCC made extensive changes in the Emergency Broadcast System (Krasnow and Longley, pp. 48-49).

The Congress

The FCC was established both as an independent regulatory agency and as "an arm of the Congress." Congressional intent was to make the Commission independent from White House domination, though not independent from its Congressional parent. The level of Congressional involvement in broadcast regulation has traditionally been high. Congressional representatives often take the role of advocate -- or even agents -- of the broadcast industry. As such, they transmit their ideas and views to the FCC and mediate between the Commission and the industry. Lobbying efforts by the industry, such as those of the NAB described earlier, show the industry's perception of the importance of Congressional influence on the FCC and the broadcast regulatory policy.

Though some members have financial interests in the broadcast industry, support for the industry is often a response to the demands of important, prestigious, and useful constituents. A large proportion of senators and representatives regularly use free time offered by the stations "back home." Political exposure over the airwaves has become an important part of congressional election campaigns. Congressional support for the industry and reluctance to criticize broadcasters can be understood in this light.

Congressional influence on FCC policy-making assumes many forms, including control by statute, the power of the purse, the spur of investigation, the power of advice and consent, the continuing watchfulness of standing committees, multiple supervision by other committees, and pressures from individual legislators and staff (Krasnow and Longley, pp. 52-65).

Control by statute: Congress has only infrequently chosen to influence the administration or formulation of policy by the FCC through the enactment of specific legislation. (Exceptions to this exist in the passage of the All-Channel Receiver Law related to television, and in congressional attempts to pass bills dealing with commercials and licensing procedures.) The Radio Act of 1927 and the Communications Act of 1934 provide the Commission with little more guidance as to its goals, duties, or policies than vague references to the "public interest, convenience and necessity." The absence of substantive guidelines for FCC policy-making leaves the Commission all the more open to other forms of Congressional influence. The threat of Congressional investigation is high when an agency has no solid Congressional directives on which to rely. Non-statutory controls are of key importance to the Congressional role in broadcast regulatory policy.

The power of the purse: Congress has discretion over the amount of money allocated to the FCC, as well as the purposes for which funds are to be used. The "power of the purse" lies primarily with the Appropriations Subcommittees of both the House and the Senate. These Subcommittees hold annual hearings to examine FCC budget requests and to question Commissioners and top-level staff. Many opportunities exist, both at the hearings and on other occasions, for the Subcommittees to scrutinize Commission behavior and to communicate legislative desires to the appropriate officials. The Appropriations Committees employ other effective techniques of legislative reviews. Primary among these are suggestions, admonitions, and directions conveyed to the FCC through committee reports accompanying appropriations bills. These reports are not law, but are usually regarded by the FCC with equivalent seriousness.

The spur of investigations: Few, if any, agencies have been the object of as much prolonged investigation as the FCC. Some investigations have had a debilitating effect on the Commission especially those marked by antagonisms on the part of members of the Congressional investigating committee. Others have helped to maintain the viability of the FCC, by focusing attention on problems created by new technologies, by developing constructive approaches to deficient areas of regulation, or by uncovering areas where new legislation is necessary. Whether they are harmful or helpful, Congressional investigations certainly act to further attune the Commission to the desires and expectations of Congress.

The power of advice and consent: The requirement of Senate confirmation of all appointments to the Commission provides Congress with further control of the FCC. Before making any nomination that requires Senate approval, the President will generally consult a Senator who is from both the nominee's state and the President's party. If a powerful Senator has strong objections to a particular nomination, many opportunities exist for him/her to delay or block the appointment. Also, every Presidential appointment and reappointment to the FCC is reviewed by the Senate Commerce Committee before reaching the Senate floor. The opinions on communications matters expressed by individual Senators at confirmation hearings are likely to receive careful consideration by the new Commissioners.

Continuing watchfulness of standing committees: The House Interstate and Foreign Commerce Committees; the House Subcommittee on Communications, the Senate Committee on Commerce, Science and Transportation, and the Senate Communications Subcommittee are charged with making continuing studies of problems within the communications industry. They have prime responsibility for the initiation and consideration of legislation affecting the FCC. Standing

committees often are able to have significant impact on agency decisions merely by holding hearings. During these sessions, committee members have an opportunity to communicate their views to a captive audience of FCC Commissioners and/or staff.

Almost continuous contact between an agency and a standing committee gives members of the committee the opportunity to acquire the substantive knowledge necessary to meet the agency's officials in a "battle of the experts." Sometimes, this situation is conducive to mutual respect between the committee and the administrator, who theoretically share a common objective and a common fund of information. On other occasions, the contact can be sporadic, ill-tempered, uninformed, and mutually aggravating.

Multiple supervision by other committees: In recent Congresses, oversight functions have been performed by the Senate and House Government Operations Committees, the Science and Astronautic Committees (with respect to broadcast copyright laws and antitrust aspects of the communications industries), the Senate Foreign Relations Committee (concerning the ratification of broadcasting treaties), the Select Committee on Small Businesses (on such matters as spectrum allocation and TV advertising practices), and the Joint Economic Committee (with respect to the efficiency of the FCC and other regulatory agencies). All of this supervision is in addition to the normal review of the Commission by the House and Senate Commerce and Appropriations Committees.

Pressure from individual congressmen and staff: The actions of individual members of congress are influential in shaping FCC policy. Also, individual staff members of the relevant party often play an important role

in this process. The staff members maintain close contact with the FCC, and communicate the views and expectations of committee members to Commissioners and Commission staff members. Committee staff members, especially lawyers, can play a crucial role in shaping the law and overseeing the activities of regulatory agencies.

SOCIALIZATION

Socialization involves the transmittal of norms through formal and informal mechanisms (Nutt-Powell, et al., 1978, p. 34). Socialization within the radio industry takes place on many different levels and in many different ways. Many of the dynamics of the political and regulatory processes described above fulfill socialization functions. Indeed, in a sector characterized by heavy governmental involvement (especially if there is any degree of focus and/or centralization to that involvement), the line between political, regulatory, and socialization functions is thin. Thus, while this section describes only the most evident socialization activities, those occurring in a more political or regulatory context (for example, the political norm implied in the tone of a memo from a Congressional staffer to an FCC department head requesting information) should be recalled.

The NAB plays a large part in the socialization process. By means of a weekly newsletter, "NAB Highlights," and a monthly magazine, "Radioactive," NAB keeps its members informed on the disposition of Congress on various legislation, the how-to's of successful management, programming techniques for increasing listenership, the latest engineering developments, community relations, and more.

NAB also runs nationwide conferences. The annual industry-wide conference runs for three or four days and attracts 15,000 to 20,000 people. As with most industry conferences, there is adequate time for broadcasters to interact socially at various dinners, luncheons and tours. Scheduled agenda items cover a wide range of issues, including programming, regulation, and engineering. There is, of course, the exhibition hall, filled with the latest in broadcasting equipment. A conference recently initiated by the NAB is

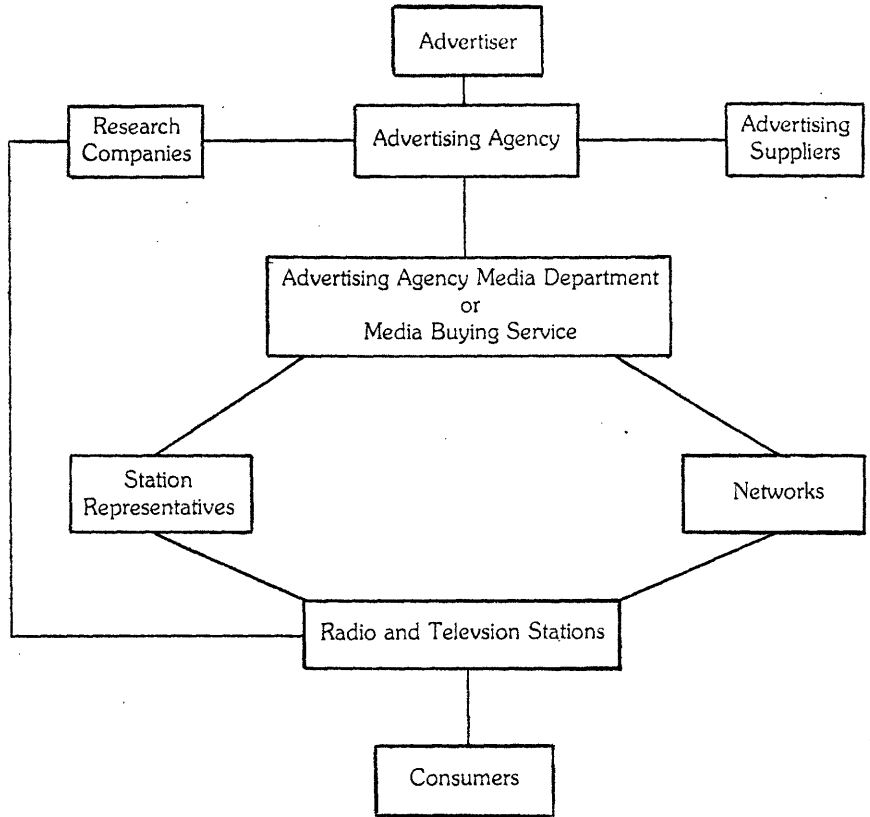
its Radio Programming Conference, "the first ever run by broadcasters for broadcasters," and, as its name implies, one which deals specifically with the problems encountered in the programming side of radio. The NAB publishes for its members a "Legal Guide to FCC Broadcast Rules, Regulation, and Policies," and "Broadcast Self-Regulation: The Working Manual of the NAB Code Authority."

The FCC provides a wide range of publications and information services. These range from twice-daily news releases and public notices to pamphlets on specialized communications subjects. Information bulletins put out by the Commission include "How to Apply for a Broadcast Station," "The FCC in Brief," "Broadcast Services," and "Radio Stations and Other Lists."

Trade publications include -- but are not limited to -- "Cashbox," "Inside Radio," "Billboard," "Broadcasting," "Record World," and "Radio and Records." These deal with a wide range of subjects: legislative, music and programming, engineering, revenue, and media personalities.

People in the industry get information not only from the NAB, the FCC, and the trade press, but also directly and informally. The easiest way to see what other stations are doing is to "tune them in." Between these two actors are employed the services of many support companies.

Figure (3)
The Advertising Industry



from Heighton and Cunningham, pg 42

PRODUCTION AND FINANCE ²

The production function (or creation of resources) and the financial function (or establishing standards or exchange for scarce resources) are closely related (Nutt-Powell, et al., 1978, p. 35). The resource available in broadcasting is access to audiences: that access is sold commercially, providing the financial base for the broadcast industry. The rate of exchange depends on the intensity of access to the audience; audiences are not fixed entities, but shift according to the advertiser's interests (e.g., in audiences defined by age, sex, marital status, and/or buying power). Thus, there is a symbiotic link between the broadcasting and advertising industries. (See Figure 3.)

The Advertising Industry

In the early days of radio, stations were little more than engineering experiments, dedicated to exploring the potential of the new medium. With only a few stations in existence, manufacturers and retailers were happy to support them. After all, if there were no radio stations, who would buy receivers?

The industry grew, equipment and personnel costs rose and an answer to the question of long-term financial support for radio became more imperative. Industry leaders suggested the establishment of a charitable foundation endowed by public-spirited citizens of wealth and supplemented by donations from listeners. Others suggested a tax on the sale of radio equipment, the proceeds of which would be administered by the industry and not the government. England resolved this problem in 1926 with the creation of a government radio monopoly, but a solution of this type was strongly resisted in the U.S. The concept of a radio service supported wholly by advertising was hardly considered until, in 1922, AT&T put a station on the air in New York City. WEAf soon

announced that it would "rent" time at a rate of \$100 for every ten minutes. The station would be available to anyone who wanted to communicate something and could pay the "rent."

Today, advertising is the major source of revenue for most radio stations. (The majority of stations operating are considered "commercial" -- i.e., they derive revenue from advertisements. There are also many "public" stations that operate on donations and government subsidies.) Both the advertiser and the broadcaster have a vested interest in the commercial. The advertiser works with ad agency personnel to inform them of the product's market position, features, and special qualities. The brand manager communicates corporate policies and goals to the agency, and is the first to screen a proposed campaign. Experts in media, creative services, or research are often employed by a company to work with the brand manager. They generally set performance standards for the advertising agency.

The Advertiser: The first actor is the advertiser with a product or service to sell. The advertiser may be a corporate giant or a small retailer. While advertising expenditures vary greatly, they are important to all types and sizes of business and are considered a business investment.

Large corporations, whose sales volume can run into billions of units every year, normally market their products on a national basis. Because advertisements portray the company to the public, it is not unusual for top management to be involved in basic advertising decisions. The marketing director usually reports directly to the company's top executive. He or she is part of senior management and is often responsible for both sales and advertising. In many large companies, the advertising manager

reports directly to the marketing director, or if there is no marketing director, directly to top management. Day-to-day supervision of the advertising department and contact with the company's advertising agency falls to the advertising manager. Large companies producing a variety of products often employ brand managers to handle broad responsibilities for specific brands assigned to them. They act as marketing director for their own brands, and handle product development, packaging, and pricing, as well as advertising.

Agencies: Advertising agencies came into existence just over 100 years ago as sales representatives for media. The development of agencies was prompted by two things: companies' needs to advertise in cities where their products were distributed, and the media's need to contact as many sources of advertising revenue as possible.

Over the decades, agencies have grown in size and number, but the agency business is small in terms of the number of people employed. The American Association of Advertising Agencies estimates that approximately 4,000 agencies employ 60,000 people. Agencies vary in size from the giant J. Walter Thompson company (with annual billings of about \$870 million, 300 clients, and operations in 29 countries) to small one-person shops scattered in cities and towns across the U.S. Most agencies are paid on a commission or straight fee basis.

Many of the nation's advertising agencies are called "full-service" agencies, and offer their clients a full range of advertising services: research and direction of advertising campaigns, production of print and broadcast advertising, determination of the medium most effective for a given campaign, and the purchase of media time or space.

Some businesses maintain their own "house" agencies. Usually, the only account handled by such agencies is their company's product or service. Though they have other, non-budgetary advantages -- including in-depth knowledge of the client's product and management, shorter lines of communication, and, therefore, faster responses and greater control of the ad program -- house agencies were originally developed to reduce costs. House agencies usually do not substitute for full-service agencies; rather, they serve to coordinate specialized independent advertising skills provided by small advertising companies or freelance practitioners, operating in a particular area.

Modular agencies, which sell their various skills separately, are being established in increasing number. Sometimes referred to as "boutique" agencies or "a la carte" services, they sell whatever services a client needs. Work performed in a single area -- whether creative, media buying and planning, research, or public relations -- is sold to an advertiser in "modules." Different modules may be contained within a single agency, or may be set up as a separate business.

Frequently, national advertisers use a combination of house agency, full-service agency, and modular services. The largest advertisers employ several full-service agencies to handle the brands they produce.

Research Companies: The advertising industry cannot function without information. Numerous companies devote themselves to providing information to the advertising industry. The data include general market information, product testing, consumer research, audience analysis, concept testing, the test marketing of products, and the evaluation of advertising programs.

Research in advertising and marketing is often done in response to the needs of a particular advertiser. Researchers have the knowledge and organization to take on projects that clients and their agencies would often find economically unfeasible. Audience analysis -- vital to advertising in broadcasting -- is discussed further in the "Research" section of this paper.

Advertising Suppliers: The list of specialized businesses supplying the needs of ad agencies and their clients is a long one. In the case of radio advertisements, a number of companies and freelance specialists are called upon to assist in developing commercials. A casting director screens and selects talent provided by talent agents. Composers, arrangers, and musicians are employed. Production companies bid for various commercial jobs available from an advertising agency. The suppliers exist solely on the efficiency of their operations, and on their ability to do quality work on time.

Media Buying Services: Media buying services first appeared on the advertising scene in significant numbers in the mid-1960's. They apply skill and expertise in negotiating media purchases in much the same way as an ad agency's media department. Because they specialize in one area, they can often perform more efficiently. Media buying services deal directly with a station or station representative, and are chiefly concerned with spot buying (purchasing time from single stations, as opposed to buying from a network). The competition of media buying services offers incentives to ad agencies to sharpen buying practices in order to keep their client's media buying "in the shop."

Station Representatives: The volume of advertising activity in less than a dozen cities accounts for most spot buying. Yet no radio station, regardless of size, would find it a good business practice to maintain a sales office in each of these cities. Therefore, practically every station in the country uses the services of a station representative firm to solicit spot business. The "reps," as they are called, act as an extension of the station's own sales department, and provide a communications link between the advertising agency buying time for its clients and the broadcasting stations eager to sell time to national or regional accounts. A representative firm may handle the national sales of several stations scattered across the country. For obvious competitive reasons, it normally would not represent more than one station in any market. As go-betweens for stations and agencies, reps are crucial for conducting spot business. They must be as knowledgeable about the market and the stations they represent as local station account executives. They should be able to provide accurate market data and "pitch" the station to the agency's time buyer. It is in the station's best interest to keep the rep constantly apprised of changes at the local level. These include: changes in time available to advertisers, program schedules, on-air talent, promotion and publicity plans, audience feedback and the constantly fluctuating competitive picture among stations in a particular market.

Radio Networks

Several thousand stations across the country are affiliated with one of the following national networks:

- ABC Contemporary Network
- ABC Entertainment Network
- ABC Information Network
- ABC FM Network
- CBS Radio Network
- NBC Radio Network
- NBC National News and Information Service
- Mutual Broadcasting System
- Mutual Black Network.

While network programming is not essential to the survival of a radio station, many stations seek an affiliation to augment their own local programming schedules, particularly with news. News is the staple of all the radio networks. It is fed to affiliates in "short casts" designed to be added to the station's own news coverage. Networks also provide sports, special features, commentary and, occasionally, some experiments in other program services -- drama and late-night mystery shows, for example.

For national advertisers, network radio offers attractive advantages. Network purchases deliver large national audiences and fairly well-defined demographic groups. Such "buys" are easy to make; the cost is reasonable; and network radio may provide an excellent complement to other media advertising. Many businesses, however, do not advertise on the radio networks, preferring instead to spend their advertising dollars on a market-by-market and station-by-station basis.

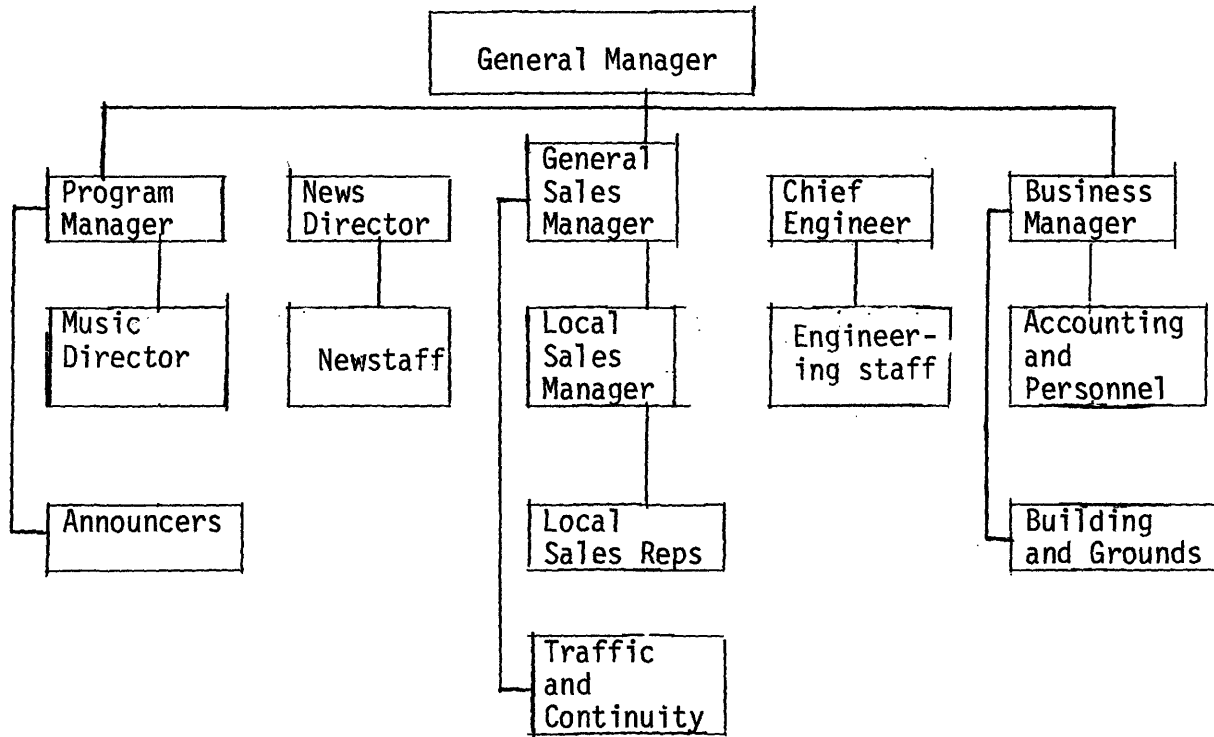
Radio Stations

Advertisers tend to aim their campaign at specific consumer groups, defined in terms of age, sex, occupation, education, and so on. Because of this, the majority of successful radio stations aim their programming at specific target audiences. Since the 1950's, when the major radio networks began adjusting to the public's enchantment with television, radio stations have relied less on network sources and more on their own ingenuity in developing programming. A radio station, like a newspaper, is a local medium, and is therefore in an excellent position to establish close ties within the community. A "local" flavor helps many stations achieve and maintain a successful position in the market.

Competition is high in radio. Most markets are shared by a number of stations, offering the listener a wide selection. As mentioned, program formats are designed to appeal to a particular segment of the audience. This practice has led to great diversity in radio. A few stations in major markets have adopted an all-news format, and may employ a staff of more than 100. Others are totally automated, and hire only a sales staff in addition to the programming and engineering personnel who operate the system. Small communities often have "Mom and Pop" stations, less professional but well-integrated into community life. The majority of stations rely on some combination of music and news. They are typically headed by a station manager and organized into five major departments: sales, programming, engineering, news, and business. (See Figure 4.)

Station Manager: Broadcast managers -- who average about 40 to 50 years of age -- are generally younger than other American business managers. Few of them come to their positions from fields other than broadcasting. Most commonly, managers rise through the ranks of the sales department.

FIGURE 4 Typical Radio Station Organization



Adapted from Heighton and
Cunningham, p. 52.

Many come from a background in programming, and a few from station engineering.

The station manager, in a sense, is the station. It is this individual who sets the tone and/or guiding philosophy of the station, having final responsibility for decisions made in every department. (It is also the station manager who has to answer directly to the owners of the station.) In some small stations, the station manager may double as sales director or program director or both; in a few cases, he/she is the station's chief engineer. Generally, the manager's duties require that he/she have at least a rudimentary knowledge of the operations in every department.

Sales: The sales department is the one department most involved in the broadcast advertising industry; it is the principal revenue-producing department of every radio station. Most stations can depend on some national and regional revenue, but the greatest proportion of income comes from local retailers and service establishments. The sales staff is the station's representative to the business community. It has responsibility for seeking out and maintaining positive relationships with potential sponsors and advertisers. Sales people keep watch on how the business community responds to programming, and on the image created by the station in the general community. They keep station management posted on the activities of the competition, and on plans for future business activities as an aid to the program director.

The sales department gauges which programs have good commercial potential and which cannot be sold. Often, this perspective brings the sales staff into conflict with the program department. The program director and staff aim to meet creatively the demands and needs of the community. The sales staff, on the other hand, is interested mainly in programs they can sell. The conflict can be productive as long as the station manager

supervises both departments and their interrelationships, functioning as arbiter and making all final decisions.

Program Department: The only thing a broadcaster has to offer the advertiser is listeners. The larger the audience, the better the opportunities for increased sales of the sponsor's products or services. The program department produces the only product or service that the station has to attract listeners. (The service aspect of programming is dealt with in a later section.) The program department, more than any other department, determines the station's image or personality. It has two major areas of activity: the planning of the overall program schedule, and the development and production of individual programs within that schedule. Time and distance limitations prevent advertisers from making a thorough analysis of each station. Therefore, stations tend to program within a certain format or program structure. The broadcast industry has found that specific segments of the audience can be reached through the appropriate format. Most stations adhere to one of four basic formats: all-music (top-forty, middle-of-the-road, country/western, classical, rock), music-news-sports, all-news, or all-talk. Specialized formats, such as a foreign language station, are offered in communities where the demand exists. The programming department is also responsible for keeping a program log (a record of the programs scheduled, the time each program begins and ends, commercial contents, advertiser names, and so on) required by FCC regulation, and for keeping up on the potential audience -- knowing their likes and dislikes, educational backgrounds, working hours, incomes and listening habits.

Engineering: The "sound" of a station is dependent not only upon its programming, but also upon the quality of its transmission. The latter is the responsibility of the engineering staff. No station can operate without an engineer. He/she supervises all technical aspects of broadcasting, and makes necessary repairs and adjustments to satisfy FCC performance standards regarding signal quality and coverage without interference to other stations. To assure uniform technical standards, engineering personnel must be licensed by the FCC. (If on-the-air talent is required to operate equipment, they must also obtain a license from the FCC.) The engineering staff is responsible for keeping up with hardware developments, and for recommending equipment purchases to the station manager.

News: The size of the news department depends on the particular station's size and format. The news staff can consist of one or two newsmen who "rip and read" from a wire service (such as UPI), or it can be very large, operating at the frantic pace established by an all-news format. News coverage is important to an audience, and can help a station build an image of community involvement through extensive coverage of community news.

Business Office: The business office of a broadcast station is responsible for preparing billings to advertisers, and for handling payroll, financial statements, various FCC reports, tax returns, and the like.

RESEARCH

The research function is the consideration of what is and/or what ought to be (Nutt-Powell, et al., 1978, p). Given the financial dependency of broadcasting on advertising, the basic research activity relates to audience, by type and volume. There were 8,408 radio stations in the United States at the end of 1977. Of these, 4,508 were commercial AM's, 2,986 were commercial FM's and 914 were noncommercial FM's (BROADCAST YEARBOOK, 1978). The commercial stations, as has been indicated, survive by selling time to advertisers who want to reach consumers through the broadcast media. Two billion dollars are spent each year on radio advertisement. Again, the only thing a station can offer its advertisers is listeners. Therefore, information on who is listening and when they are listening is a powerful sales tool in this competitive market.

Ratings

Audience research has been going on in radio since 1929. In that year, the first formal network audience measurements supported by major advertisers were conducted by the research company of Archibald M. Crossley. The "Crossley," as these early ratings were dubbed, used a telephone survey recall technique to measure the program popularity of a network (Heighton and Cunningham, p. 171).

In the mid-1930's and throughout the 1940's coincidental telephone interviews dominated radio audience measurements. As out-of-home listening increased and as radio became a more personal medium, other methodologies eclipsed telephone interviews.

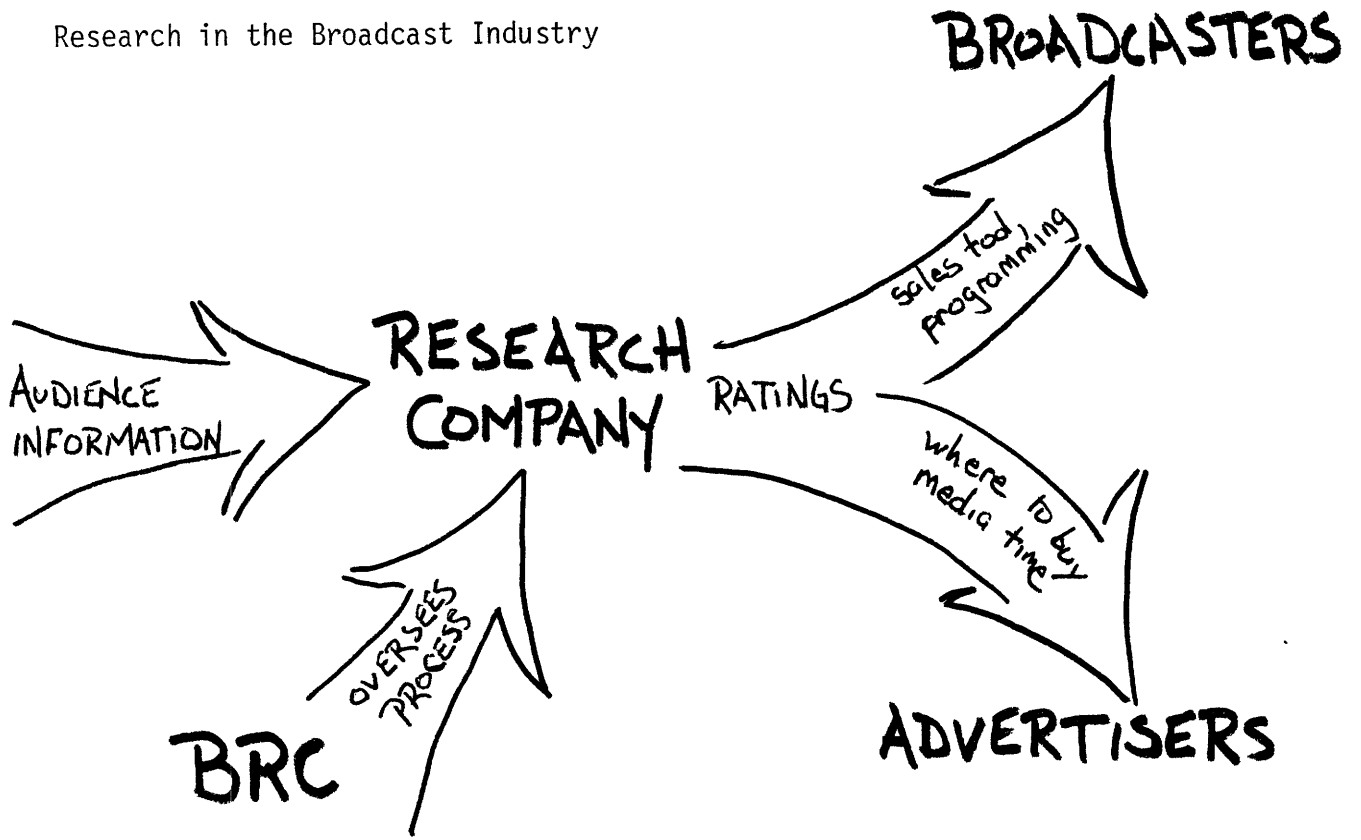
Personal interviewing and diaries are now the most widely used methodologies in audience research.

Today, ratings are compiled at regular intervals by private research companies. (ARBITRON RADIO, a research service of the Control Data Corporation, is presently the leading radio audience research company.) They are supposed to indicate which radio stations have what percentage of what audience segments at given times of day. The companies offer the ratings as a subscription service to broadcasters and advertisers, with broadcasters paying substantially more for the service.

The cost of subscribing to a rating service can be significant. Consequently, small local stations very often will not subscribe. Ratings are developed from a large market area and the audience of such local stations can be concentrated enough to defy accurate measurement.

On the basis of ratings, broadcasters develop their sales campaigns and make programming decisions; and advertisers decide where to spend their money. With so much at stake, the broadcast advertising industry needs assurance that ratings offer an accurate measurement of the listening audience. In 1963, following a Congressional investigation that revealed a number of shortcomings in audience research, industry leaders organized the Broadcast Ratings Council (BRC). The job of the BRC is to monitor, audit, and accredit the various rating companies. It has established minimum standards of performance and has developed procedures to check adherence to these standards. Figure 5 charts the relationship within the research arena (Heighton and Cunningham, p. 195).

Figure 5
Research in the Broadcast Industry



Local Audience Research

The ratings companies generally supply information on the relative size, sex, age, and ethnic characteristics of a station's listening audience. Often, a station requires additional qualitative information to supplement the findings of outside services. One incentive for the development for more extensive information are the FCC rules and regulations which require a station to take necessary steps to inform itself of the real needs and interests of the area it serves. Qualitative information is obtained by stations in a variety of ways: response to promotional programs, surveys and questionnaires and, sometimes, return-postcard mailings in monthly statements of banks, public utilities, or savings and loans associations. It is to the broadcaster's advantage to become involved with and aware of the community he is licensed to serve. Ideally, this allows the station to develop a good public image and programming that will attract a broad segment of the total radio audience.

SERVICE

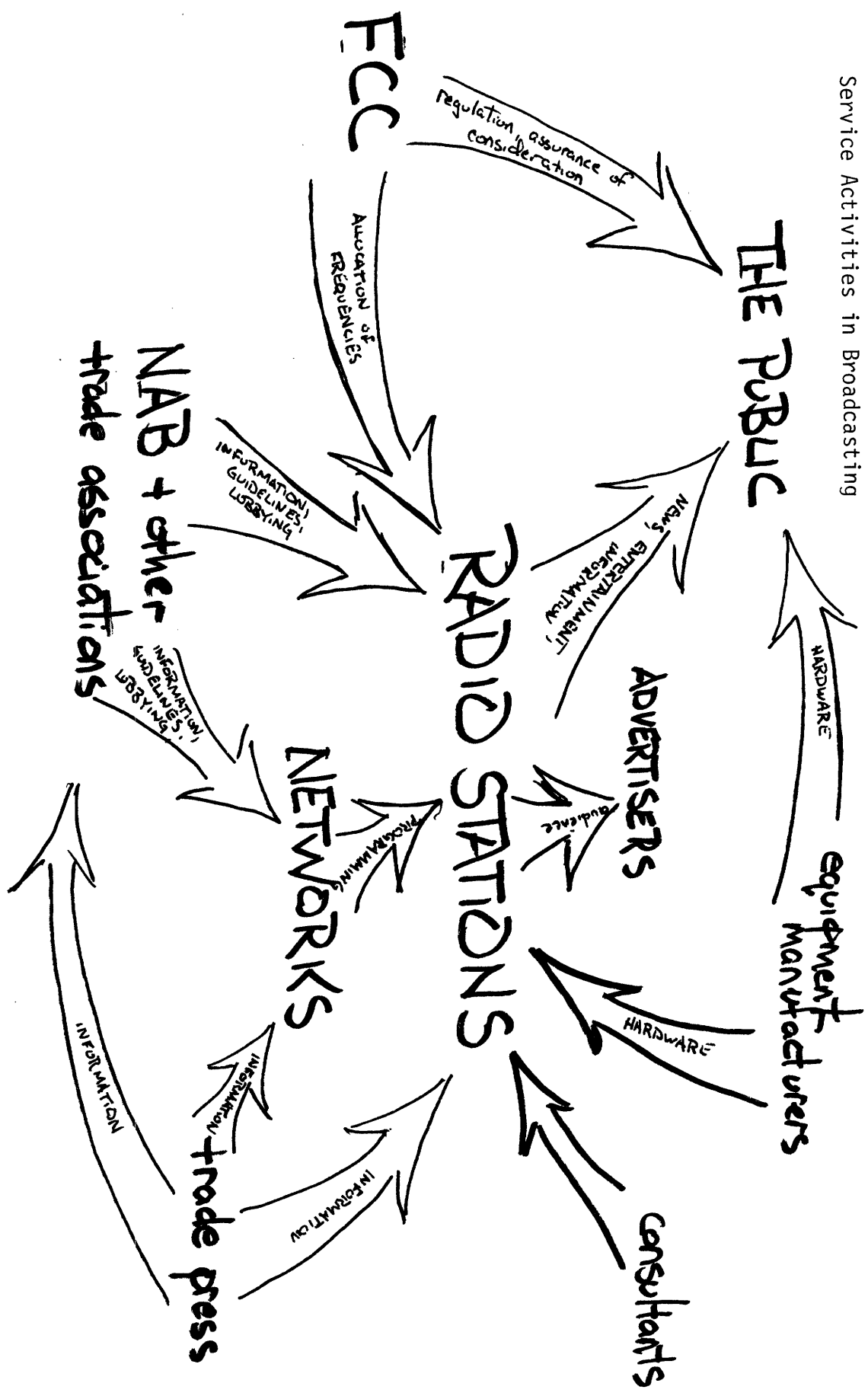
Broadcasting is essentially a service industry, and the majority of institutional entities involved within it are involved in providing the use of a desired resource -- the air waves (Nutt-Powell, et al., 1978, p. 35). Figure 6 illustrates the service interactions taking place in broadcasting.

In the Communications Act of 1934 (and subsequent amendments) Congress emphasized the service nature of broadcasting by creating the FCC to "make available, so far as possible, to all people of the United States a rapid, efficient, Nation-wide and world-wide wire and radio communication service, with adequate facilities at reasonable charges " (section 1). The Act also empowers and directs the Commission to "study new uses for radio, provide for experimental use of frequencies and generally encourage the larger and more effective use of radio" and to make all decisions "consistent with the public interest, convenience, and necessity " (sections 303(g) and 302(a), respectively). Broadcasting as a service to the public perhaps can best be understood by considering some FCC rules and regulations regarding broadcast stations and programming.

In its 1960 Report and Statement of Policy, the FCC declared that "the ascertainment of the needed program elements for the audience he is obligated to serve remains primarily the function of the licensee." In applications for new licenses or for renewal of a broadcasting license. the Commission needs to determine if the broadcaster has and/or will operate in the "public interest, convenience and necessity." Both application processes require broadcasters to furnish exhibits or narration

Figure 6

Service Activities in Broadcasting



to show: (1) methods used to ascertain the needs and interests of the community being served with the names of the representative groups, interests, and organizations consulted through these methods; (2) the significant needs and interests of the community that the station intends to serve; and (3) a list of typical programs or series of programs (not including entertainment and news) that the station plans to broadcast. Applicants for license renewal must give information on past programming practices concerning: (1) the percentage of time and the amount of time devoted to news, public affairs, and all other programming exclusive of entertainment and sports during a typical week; (2) typical programs serving the needs and interests of the community; (3) details on news programs, staff, facilities, wire service and other news sources and the percentage of news time given to coverage of local and regional affairs; and (4) the station policy in making time available for the discussion of public issues. The broadcaster applying for license renewal must also supply testimony on how and to what extent the station contributed to the overall diversity of program services available in the area of service. All applicants must give information as to intended commercial practices and a categorical breakdown of programming to be offered in the ensuing license period. Categories include entertainment, religious programming, agricultural programming, educational, news, discussion, and talks.

FCC rules divide AM broadcast stations into four service classes defined by power output, channel of operation, geographic coverage, and hours of operations:

Class I stations operate on "clear" channels -- frequencies set aside by international agreement for use primarily by high-powered stations designed to serve wide areas. These stations usually have 50kw (though never less than 10kw) power to serve remote rural areas as well as large centers of population. There are only two Class I stations on each clear channel. The US has priority on 45 clear channels.

Class II stations are secondary stations on a clear channel operating at 250w to 50kw power. They serve centers of population and adjacent rural areas. There are 29 channels on which Class II station may operate.

Class III stations share a "regional" channel with numerous similar stations. Operating at a power from 500w to 5kw, they serve centers of population and adjacent rural areas. There are over 2,000 Class III stations operating on 41 regional channels.

Class IV stations operate on a "local" channel which is shared by many similar stations elsewhere. They usually operate at 1kw during the day and 25w at night. There are six local channels, each occupied by 150 or more stations.

Skywaves are secondary radio waves that are lost in the daylight. However, at night they cover tremendous distances, and stations that do not interfere with others during the day will often interfere with others at night. (Therefore, the number of AM stations operating at night must be limited. Slightly more than half of the AM stations in the US are licensed for daytime-only operation (BROADCAST YEARBOOK, 1978).

Through its power to assign broadcast stations with specific location frequency and power, the FCC tries to ensure an equitable and balanced distribution of services throughout the country. In the early 1960's, the AM band was experiencing congestion and interference. At the same time, some service-- such as night-time primary service to large portions of the country--were not being met. In 1964, the assignment rules for new AM stations were tightened to prevent interference and to preserve the AM potential for more efficient use (BROADCAST YEARBOOK, 1978).

Broadcasters structure their program schedules individually to appeal to the tastes and needs of specific segments of the listening audience. In aggregate, they provide a variety of entertainment, news, and information services. In planning a program schedule, it is to the advantage of a broadcaster to consider the tastes and needs and desires of the community he is licensed to serve. Broadcasters will frequently provide on their stations opportunity for the development and use of local talent, programs for children, religious groups, educational institutions, and political candidates. (By law, broadcasters cannot refuse access to their facilities to any legitimate candidate for public office relevant to the community.) Programs may fall into one of the following categories: local self-expression, public affairs, editorials, agriculture, news, weather and market reports, sports, services to minority groups, or entertainment. All broadcast stations allow time for public service announcements. No charge is made for such announcements. They commonly promote programs, activities or services of federal, state, or local governments or the programs, activities or services of non-profit organizations. All other announcements serving community interests -- excluding time signals, routine weather announcements and promotional announcements -- are considered public service.

The Emergency Broadcast System was established by the FCC in cooperation with military and civil defense agencies. It is based on the voluntary participation of the broadcast industry. EBS facilities are used for giving emergency warning and advice to the public in the event of military attack, and are also put to peacetime use by alerting audiences to serious weather and other emergencies threatening life and property.

APPENDIX A

ESTABLISHING A RADIO STATION

The following steps have become (more or less) standard procedure in establishing a broadcast facility:

- 1) Assure adequate financing.
 - 2) Select attorneys.
 - 3) Select a consulting engineer.
 - 4) Select an area for the location of the facility.
 - 5) Begin a search for an available frequency.
 - 6) Select a site for the transmitter and tower location.
 - 7) Select a site for the studio location.
 - 8) Apply to the FCC for a construction permit.
 - 9) Give adequate public notice.
 - 10) Await the FCC decision on the application.
 - 11) Be on the alert for competing applications.
 - 12) Attend hearings before the FCC examiners in cases where there are conflicts.
 - 13) Be on the alert for petitions requesting reconsideration.
 - 14) Begin construction of the facility when the construction permit is granted.
 - 15) Apply for call letters.
 - 16) Conduct equipment tests.
 - 17) File for the actual license.
 - 18) Request permission to conduct program tests.
 - 19) Receive FCC license.
 - 20) Begin commercial operations.
- (Robinson, pp. 236-237).

Beginning on the state level, it is necessary to deal with the secretary of state and/or other officials and agencies charged with regulating the establishment and conduct of business or commercial enterprises. Corporations, and partnerships (and often noncorporate or nonpartnership firms) need to make application through specific state agencies before the start of operations. Trade and/or corporate names must be cleared and approved. State approval and legal recognition are essential for the operation of most businesses.

On a local level, the prospective broadcaster becomes involved with the planning and development commissions and with community zoning boards or authorities. Most communities limit the areas where business and commercial enterprises may locate, and many have specific regulations concerning the height and location of towers. Restrictions imposed at the local level may forestall or entirely prevent the selection of some desirable transmitter sites. Prospective radio station operators must know all applicable regulations of local agencies, especially the planning and development commission and the local zoning board or authority.

Though the FCC is the federal agency most concerned with broadcasting, the process of establishing a radio station does require contact with other agencies. Before the Commission will give consideration to any application for a construction permit, the applicant must show prior approval of his/her tower site and plans from the Federal Aviation Agency, which is charged with knowing the location of all structures that may be hazardous to air navigation. If an applicant desires to locate a station

on land owned or controlled by the federal government, he/she must obtain permission from the agency responsible for the land.

In the application for a construction permit, FCC regulations require that an applicant must show financial qualifications. Even before this stage in the process, large amounts of money are usually required. It is necessary, for example, to retain the services of attorneys and consulting engineers. Land for a tower and transmitter must be purchased. Deposits are required for necessary equipment, and money will be needed for secretarial help, telephone, travel, public notices of intent to build a broadcast station, and the securing of studio space.

After the construction permit is granted, large expenditures are required. These include construction costs, the balance due on equipment, furnishing and staffing the new station, and initial operating capital. Furthermore, commercial broadcasters are required to show the capacity to operate for one year after construction of a station.

The application process often requires the legal abilities and expertise of two types of attorney: one to deal with state and local officials, and the other to prosecute the application before the FCC. Many attorneys and law firms specialize in communications law.

The consulting engineer is critically important in the application process--especially in AM radio. AM frequency allocation is not on a predetermined channel basis. (FM frequencies are allocated in this manner; a Table of Assignments is set forth in the FCC rules.) It is the consulting engineer who, through a series of complex tests, finds an

available frequency in the area a prospective broadcaster wishes to serve. The FCC requires that an applicant prove there will be no overlapping of radio signals, and that the new station will not create interference objectionable to existing stations or to stations proposed in pending applications. The engineer is aided in a frequency search by lists of existing stations and pending applications, which state their frequencies, power, and location. Such lists are published by the FCC and are updated daily.

The engineer is also responsible for determining the power necessary for desired coverage, and for designing a tower array that will transmit the power in such a way as to assure maximum coverage with minimum interference. AM stations operate on "local," "regional," or "clear," channels.

Finally, the consultant completes the engineering section of FCC form 301, "Application for Authority to Construct a New Broadcast Station or Make Changes in an Existing Station," and may be required to testify before the Commission if difficulties arise during the application review.

After determining the feasibility of serving a particular area, the studio location and layout is decided upon. FCC regulations make it mandatory that the main studio be located in the area a station is licensed to serve.

The next step is to apply for a construction permit. Form 301 requires information about the citizenship and character of the applicant:

all applicants must be US citizens, and no permits are granted to companies in which any officer, director or major stockholder is an alien. There are questions concerning financial, technical, and other qualifications, plus details about transmitting equipment, antenna and studio locations, and the services the applicant proposes to provide.

To allow for public comment on applications made to the FCC for new stations, license renewal, station sales, or major changes in existing stations, the applicant must give local public notice of their plans. Notice is also given of any designation of applications for hearing, and is usually accomplished by advertisement in local newspapers.

Applications are reviewed by the FCC's Broadcast Bureau. The Bureau acts on routine applications, and reports to the Commission those involving policy or other considerations. If an application meets all requirements and no valid protests or competing applications have been filed, a permit is granted and issued without a hearing.

If it appears that an application does not conform to FCC rules and regulations, or that serious interference to other stations would be created, or if there are other questions of a technical, legal or financial nature, or if a protest or a competing application is filed, the application is assigned to a hearing.

A hearing can be a long and complicated process, with all decisions open to appeal, first to the FCC Review Board and then to the US Court of Appeals for the District of Columbia.

After receiving a construction permit, the new permittee requests call letters. Upon the completion of construction, equipment tests are conducted. These tests must be carried out by a Class-One radio telephone licensee (licensed by the FCC).

The final step is to apply for the actual broadcasting license. Form 302, "Application for New Broadcast Station License," requires the applicant to show compliance with all terms, conditions, and obligations as set forth in the original application and construction permit. Authority to conduct program tests is usually requested on the license application. If no new cause or circumstance that would make operation of the station contrary to public interest has come to the attention of the Commission, the license and program test authority are granted; the broadcaster may commence operation.

Buying or Selling a Station

FCC regulations prescribe certain procedures for the buying and selling of existing radio stations. Both the buyer and the seller must apply for permission to transfer control from one party to the other. Full and complete details of the transaction -- financial and otherwise -- must be disclosed. In addition, the buyer must supply information of the type included in the original construction and license applications.

Brokerage firms exist which specialize in facilitating the buying and selling of communications property. They maintain a file of interested buyers and sellers, acting as intermediaries and can often advise participants on the legal requirements and processes.

NOTES:

1. This material is drawn from "The ABC's of Radio and Television", (BROADCASTING YEARBOOK, 1978).
2. Information presented in this section relies heavily on (Heighton and Cunningham, 1976).

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