

Communications-FCC Jurisdiction-Television Interference Caused by Construction of Tall Buildings in Urban Areas

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Recommended Citation

Robert J. Pope, *Communications-FCC Jurisdiction-Television Interference Caused by Construction of Tall Buildings in Urban Areas*, 59 Cornell L. Rev. 158 (1973)
Available at: <http://scholarship.law.cornell.edu/clr/vol59/iss1/6>

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RECENT DEVELOPMENT

Communications—FCC JURISDICTION—TELEVISION INTERFERENCE CAUSED BY CONSTRUCTION OF TALL BUILDINGS IN URBAN AREAS

Illinois Citizens Committee for Broadcasting v. FCC,
467 F.2d 1397 (7th Cir. 1972)

Television signals are electromagnetic waves which can be reflected or blocked, much like light waves.¹ In urban areas, transmission towers normally are located to avoid the possibility of such interference.² They generally are placed on top of the tallest building in the area or on a hill, thereby extending the tower beyond the height of the area's tallest structure. The recent revival of vertical construction in major cities³ has caused interference with pre-existing tower transmission facilities,⁴ and this trend threatens to cause significant

¹ In urban areas tall buildings cause two types of broadcast interference problems—"shadowing" and "ghosting." "Shadowing" is the interference caused by a blockage of the signal. If the interfering structure blocks the television signal, a "snowy" picture will result on the receiver.

[T]he net effect [of blockage] would be to measurably reduce the energy available to provide service. . . . This reduction in energy would be evidenced by a corresponding reduction in the quality of the picture, and in many cases the presence of 'snow.'

Committee for a Reasonable World Trade Center, Press Release, May 19, 1967 (on file at the *Cornell Law Review*).

"Ghosting" is the interference phenomenon caused by reflection of the television signal resulting in multiple images appearing on the receiver. The intensity of the problem will vary as the ghosting signals become diffuse. See Statement of Frank Gregg Kear Before the Board of Estimate, Exhibit II, June 16, 1967 (on file at the *Cornell Law Review*).

² The Federal Communications Commission [hereinafter FCC] directs that the transmission facilities of its licensees be located at the highest point possible to avoid existing structures or topographical features which might interfere with the broadcast signal.

Location of the antenna at a point of high elevation is necessary to reduce to a minimum the shadow effect on propagation due to hills and buildings which may reduce materially the intensity of the station's signals. In general, the transmitting antenna of a station should be located at the most central point at the highest elevation available. . . . The location should be so chosen that line-of-sight can be obtained from the antenna over the principal community to be served; in no event should there be a major obstruction in this path.

47 C.F.R. § 73.685(b) (1972).

³ High-rise construction is underway in most of America's major urban areas including Boston, San Francisco, Atlanta, and Dallas. See U.S. NEWS & WORLD REPORT, Nov. 20, 1972, at 112. According to Ada Louise Huxtable, architecture critic for the *New York Times*, the "race is on again . . . for the world's tallest building." Huxtable, *What's Higher Than Highest? Wait and See*, N.Y. Times, Dec. 3, 1972, § 2, at 23, col. 1. See also, NEWSWEEK, Oct. 16, 1972, at 103 (notes "skyscraper boom" taking place in American cities).

⁴ The problem of interference has been most publicized in the cases involving the construction of the World Trade Center in New York in 1967 and the recent construction of the

broadcasting problems in the future. The present state of technology makes 150 story buildings a distinct possibility,⁵ and pressing needs to conserve urban land make such buildings socially attractive.⁶ Although there is some controversy over the efficacy of skyscraper construction, it is safe to assume that such factors as civic pride⁷ and economics⁸ will encourage more such construction in the future.

Sears Tower in Chicago. In both cases groups of viewers whose television reception was impaired by interference formed organizations to seek relief. Both groups sought to limit the construction of the buildings to heights below that which would interfere with television signals. Both were unsuccessful in their attempts. See notes 18 & 9-24 and accompanying text *infra*. The Committee for a Reasonable World Trade Center, organized by the New York viewers, sought to persuade the city council to limit the height of the Trade Center to 900 feet, a height which would not present the serious interference problems the viewers feared. The Committee took out full page advertisements in the *New York Times* designed to gain relief by bringing pressure to bear on the council and also on Governor Rockefeller. See N.Y. Times, May 9, 1968, at 37.

In Chicago, the Illinois Citizens Committee for Broadcasting [hereinafter Committee] was formed in an effort to protect Chicago metropolitan viewers. The Committee's attempts to force the FCC to assume jurisdiction over the construction failed before both the FCC and the courts. Illinois Citizens Comm. for Broadcasting v. Sears, Roebuck & Co., 35 F.C.C.2d 237 (1972); Illinois Citizens Comm. for Broadcasting v. FCC, 467 F.2d 1397 (7th Cir. 1972).

⁵ Fazlur Kahn, the structural engineer responsible for developing the "trussed-tube superframe" approach to skyscraper construction employed in both the 100-story John Hancock Building and the 110-story Sears Tower in Chicago, believes that 150-story buildings can be built employing the "trussed-tube superframe" concept. Kahn, *The Future of Highrise Structure*, PROGRESSIVE ARCHITECTURE, Oct. 1972, at 78. For an explanation of the mechanics of the "trussed-tube superframe" concept, which is also referred to as the "bundled tube" approach, see Fisher, *Optimizing the Structure of the Skyscraper*, ARCHITECTURAL RECORD, Oct. 1972, at 97.

Other experts contend that there are no structural limits to the potential height of buildings. According to L. E. Robertson, partner in a New York architectural firm, "We could start erecting a mile-high structure next year." U.S. NEWS & WORLD REPORT, Nov. 20, 1972, at 112.

⁶ Other problems, more serious than television interference, tend to diminish the social attractiveness of skyscraper construction. Serious problems of waste disposal, transportation, and provision of services such as heat and electricity are created by such construction. Also, serious questions of safety, particularly fire protection and rescue problems, have yet to be adequately answered by the proponents of skyscrapers. It is doubtful that these problems will deter skyscraper construction, however, since the economic benefits from tower construction appear to be the major impetus behind the recent trend.

Though architects and planners offer a variety of defenses on behalf of their super-skyscrapers, the fundamental consideration is money. Wayne S. Doran, president of the Ford Motor Land Development Corp., puts it this way: "The greatest plus of the skyscraper in highly concentrated cities is economic. To build a low-rise 1,500-room hotel would not only be prohibitive in cost; it would also be operationally chaotic. It is also, of course, much less expensive to move both people and heat up and down rather than over a broad, low-rise area."

NEWSWEEK, Oct. 16, 1972, at 103.

⁷ The motive of civic pride was clearly in evidence in the New York City Council's decision to permit construction of the World Trade Center to a height of 110 stories and 1,350 feet. One of the major reasons advanced by Percy Sutton, President of the Borough of Manhattan, for his vote approving the Trade Center as planned was his "desire . . . to project always, New York as 'the town of the tallest.'" Statement of Percy E. Sutton on Vote on the World Trade Issue, June 22, 1967 (emphasis in original) (on file at the *Cornell Law Review*).

The desire for urban areas to demonstrate their social and economic vitality in answer to

I

Illinois Citizens Committee for Broadcasting v. FCC

In *Illinois Citizens Committee for Broadcasting v. FCC*⁹ (ICCB), a group of television viewers¹⁰ sought to force the FCC to assume jurisdiction over the construction of the Sears Tower in Chicago. The plaintiffs were attempting to prevent the inevitable interference with television reception¹¹ which would result from the completion of the skyscraper.¹² The Commission had previously declined to assume jurisdiction on the ground that its authority was limited by statute¹³ to control over signal-generating or transmission facilities.¹⁴ Since the

assertions that cities in general are rapidly decaying also contributes to the civic pride element. New York City Council President Frank D. O'Connor enunciated this desire in voicing his support for the World Trade Center.

I am personally and firmly committed to a new and better role in foreign trade for New York City, and the World Trade Center must hopefully serve that end not only as a remarkable geographic and economic edifice, but as a landmark of a revitalized New York.

Statement of Frank D. O'Connor Regarding the World Trade Center, June 22, 1967 (on file at the *Cornell Law Review*).

⁸ See note 6 *supra*.

⁹ 467 F.2d 1397 (7th Cir. 1972).

¹⁰ The suit was brought as a class action "on behalf of the petitioners, all television viewers in the Chicago area, future Chicago broadcast licensees, and nine television stations." *Id.* at 1398.

¹¹ Petitioners were requesting the FCC to take all necessary steps to prevent the interference, "including, if necessary, an order directing Sears to 'cease and desist from the construction of Sears Tower as presently designed until it has taken all actions necessary to protect the rights of complainants and those they represent to an adequate signal.'" *Id.*

¹² Ghosting is the most serious of the interference problems faced by the Chicago metropolitan area viewers. The signals reradiated by the Sears Tower have been estimated to cause ghosting of 8% or more in as many as 179,000 households in the densely populated area of northwest Chicago. Second Report on Sears Building Study, Analysis of Material Furnished by Sears, Roebuck & Co. and by A. Earl Cullum, Jr., June 21, 1972, Attachment 2 (on file at the *Cornell Law Review*). As many as 38,100 households located east of the building are also affected. *Id.* All ten Chicago television stations would be affected by the interference, with the UHF stations suffering the greatest percentage of ghosting. Channel 44, for example, would suffer a ghosting percentage of 96.6% in its signal directed to the north. *Id.* This is to be compared with an 8% base figure of ghosting at which the interference becomes perceptible. *Id.* at 5. The lowest level of interference would be 13.5% for Channel 9 on its signal to the east. *Id.* at Attachment 2. The average level of interference is 45.1% ghosting for signals transmitted to the north and 25.8% ghosting for signals transmitted to the east. *Id.*

¹³ The Communications Act of 1934, 47 U.S.C. §§ 151-609 (1970) [hereinafter cited as Communications Act].

¹⁴ The ICCB cites no express provisions of the Act, nor to any Congressional intent to give this agency authority over any structure which may impact upon signal reception, if the building is not intended as a signal generating or producing structure.

Illinois Citizens Comm. for Broadcasting v. Sears, Roebuck & Co., 35 F.C.C.2d 237, 237 (1972).

Sears Tower was not a signal-emitting facility within the meaning of the Communications Act,¹⁵ no FCC jurisdiction was found to exist.¹⁶ The Court of Appeals for the Seventh Circuit upheld the FCC determination¹⁷ and implied that jurisdiction over such matters should be left to local authorities.¹⁸

The appellants in *ICCB* were unable to cite any express language

¹⁵ Section 302(a) of the Act provides that the Commission may, consistent with the public interest, convenience and necessity, make reasonable regulations governing interference potential of devices which are capable in their operation of emitting radio frequency energy by radiation, conduction or other means in sufficient degree to cause harmful interference to radio communications. That the Sears Tower is not such a device, or signal-generating equipment, or some other signal-producing facility is clear and we have been referred to no authority which would support such an interpretation.

Id. at 238.

¹⁶ The Commission shares the concern of *ICCB*, for the problem is not confined to Chicago alone. It is a fact of our modern existence, and similar problems are likely to arise. It is hoped that as the state of the art progresses, technological advances will provide alternatives to eliminate the problem or will minimize their impact. However, in the absence of statutory authority, this Commission has no jurisdiction over the Sears Tower or similar structures.

Id. at 239.

¹⁷ [The Commission's] authority is limited to situations in which the interference is created by, to use the Commission's words, "a signal-generating" or "signal-producing" facility. Sections 152 and 153 refer only to transmission facilities. Section 302(a) authorizes the FCC to make reasonable regulations governing the "interference potential of devices which are capable in their operations of emitting radio frequency energy by radiation, conduction, or other means in sufficient degree to cause harmful interference to radio communications." Since the construction of the Sears Tower fits within none of these categories, we agree with the FCC's finding that it lacks jurisdiction to regulate.

467 F.2d at 1401.

¹⁸ "Indeed to so find where building construction is concerned would be to enmesh the FCC in a variety of local considerations and an often complex local regulatory scheme." *Id.* at 1400.

In the earlier controversy involving the World Trade Center in New York, hearings were held by the FCC, upon congressional request, to determine the impact of the building on television reception in the New York metropolitan area. Investigation of Television Interference To Be Caused by the Construction of the World Trade Center by the Port of New York Authority, 10 P. & F. RADIO REG. 2D 1769 (1967). The FCC Commissioner presiding over the hearings noted that the FCC had no authority "to regulate in any way the construction of buildings . . . and that this matter is presently strictly one of local concern and regulation." *Id.* at 1770. This remark, however, was an expression of the Commissioner's personal opinion. Therefore, it does not constitute FCC precedent. Illinois Citizens Comm. for Broadcasting v. FCC, 467 F.2d 1397, 1400 n.10 (7th Cir. 1972).

The FCC order for a public hearing on the interference effects of the World Trade Center emphasized the desire of the FCC to avoid becoming involved in local construction. "[T]he construction of the structure is a matter of local control and . . . we have no jurisdiction to take any action with regard thereto." Investigation of Television Interference To Be Caused by the Construction of the World Trade Center by the Port of New York Authority, 8 F.C.C.2d 327 (1967) (emphasis added).

in the Communications Act to support their contention that the FCC should assume jurisdiction over construction of interference-producing buildings.¹⁹ Relying principally upon *United States v. Southwestern Cable Co.*,²⁰ the appellants contended that the Communications Act applied "not only to 'persons engaged in communications or transmission' and 'radio stations' but also 'the communications in themselves.'" ²¹ Because the communications themselves were within FCC jurisdiction, it was argued that all activities which "substantially affect communications" should also be within FCC jurisdiction.²² The court rejected this interpretation of *Southwestern Cable* as "far too broad" a reading and one which would result in expanding the FCC's already substantial responsibilities.²³

The court also rejected any analogy between the powers of the Federal Aviation Agency (FAA) to exercise control over building heights when such buildings might interfere with air navigation and the power of the FCC to exercise jurisdiction over building heights to protect television signals.²⁴

II

THE INADEQUACY OF PRESENT REMEDIES

A. FCC Jurisdiction

Congress, in establishing the Federal Communications Commission,²⁵ conferred "broad authority" on the agency in its regula-

¹⁹ 467 F.2d at 1399.

²⁰ 392 U.S. 157 (1968). In *Southwestern Cable*, the Supreme Court upheld an FCC determination that it had jurisdiction over community antenna television (CATV). Prior to this time the FCC had declined jurisdiction over CATV because it was neither a broadcaster nor a common carrier within the meaning of these terms in the Communications Act. CATV & TV Reporter Serv., 26 F.C.C. 403, 427-28 (1959). The Court in *Southwestern Cable* held that the FCC had jurisdiction over CATV since § 152(a) of the Communications Act (47 U.S.C. § 152(a) (1970)) conferred an independent grant of authority over "all interstate . . . communications by wire or radio." 392 U.S. at 173.

²¹ 467 F.2d at 1399.

²² *Id.*

²³ *Id.* at 1400. In holding that there was no justification for extending FCC jurisdiction to the degree sought by appellants, the court preferred to rely on the following qualifications expressed by the Supreme Court in *Southwestern Cable*: [T]he authority which we recognize today under § 152(a) is restricted to that reasonably ancillary to the effective performance of the Commission's various responsibilities for the regulation of television broadcasting. . . . We express no views as to the Commission's authority, if any, to regulate CATV under any other circumstances or for any other purposes.

United States v. Southwestern Cable Co., 392 U.S. 157, 178 (1968).

²⁴ 467 F.2d at 1401.

²⁵ The Communications Act of 1934, 47 U.S.C. §§ 151-609 (1970). Although the

tory role over broadcasting.²⁶ This authority has been interpreted as granting the Commission "a comprehensive mandate" with "expansive powers"²⁷ to meet the needs of a dynamic and complex industry.²⁸ The Commission's jurisdiction has not been limited to those activities specifically mentioned in the statute, but has been allowed to respond to technical advances and new problems²⁹ in order to make "available . . . to all people of the United States a rapid, efficient, Nation-wide . . . radio communication service."³⁰ The Commission, however, has felt bound by the requirement in the Act that its activities be limited to "communications by wire and radio."³¹

Act speaks only in terms of "wire and radio communications," (*id.*) television has consistently been held to be within the term "radio." See, e.g., *Allen B. DuMont Laboratories v. Carroll*, 184 F.2d 153 (3d Cir. 1950), *cert. denied*, 340 U.S. 929 (1951).

²⁶ H.R. REP. No. 1850, 73d Cong., 2d Sess. 1 (1934).

The report of the interdepartmental committee on communications and the hearings before both the House and Senate committees have shown the great need for the creation of one central body vested with comprehensive jurisdiction over the industry. In line with the President's message, it is the primary purpose of this bill to create such a commission armed with adequate statutory powers to regulate all forms of communication and to consider needed additional legislation.

Id. at 3.

²⁷ *National Broadcasting Co. v. United States*, 319 U.S. 190, 219 (1943).

²⁸ Congress in passing the Communications Act of 1934 could not . . . anticipate the variety and nature of methods of communication by wire or radio that would come into existence. . . . In such a situation, the expert agency entrusted with administration of a dynamic industry is entitled to latitude in coping with new developments in that industry.

Philadelphia Television Broadcasting Co. v. FCC, 359 F.2d 282, 284 (D.C. Cir. 1966).

The Commission must be given the "capacity to respond to change." *General Tel. Co. v. FCC*, 413 F.2d 390, 405 (D.C. Cir. 1969). See also *United States v. Southwestern Cable Co.*, 392 U.S. 157 (1968); *United States v. Storer Broadcasting*, 351 U.S. 192 (1956); *FCC v. Pottsville Broadcast Co.*, 309 U.S. 134 (1940); *Buckeye Cablevision, Inc. v. FCC*, 387 F.2d 220 (D.C. Cir. 1967).

²⁹ The most recent expansion of FCC jurisdiction has been in the field of cable television. Although the Communications Act gave the Commission regulatory authority over common carriers (*e.g.*, telephone companies) (47 U.S.C. §§ 201-22 (1970)) and broadcast activity (*id.* §§ 301-99), there was no express provision which covered the new GATV business. In 1966 the FCC held that all forms of CATV could be regulated by the Commission under the Communications Act. *Second Report & Order*, 2 F.C.C.2d 725 (1966). This determination was upheld in *United States v. Southwestern Cable Co.*, 392 U.S. 157 (1968). See notes 20 & 23 *supra*.

³⁰ Communications Act 47 U.S.C. § 151 (1970).

³¹ *Id.* "Communications by wire and radio" are defined in § 153 of the Act.

For the purposes of this chapter, unless the context otherwise requires—

(a) "Wire communication" or "communication by wire" means the *transmission* of writing, signs, signals, pictures, and sounds of all kinds by aid of wire, cable, or other like connection between the points of origin and reception of such transmission, including all instrumentalities, facilities, apparatus, and services (among other things, the receipt, forwarding, and delivery of communications) incidental to such transmission.

(b) "Radio communication" or "communication by radio" means the *transmission* by radio of writing, signs, signals, pictures, and sounds of all kinds, including all instrumentalities, facilities, apparatus, and services (among other things, the receipt,

Even when the FCC has extended its jurisdiction,³² such extensions have been predicated upon the transmission and communication activities in the newly regulated area.³³ Despite the broad language adopted by the Commission and the courts, it appears that absent the element of transmission or communication, the FCC has no jurisdiction to control the construction of buildings which create interference with television transmission and reception.³⁴

forwarding, and delivery of communications) incidental to such transmission.

Id. § 153 (emphasis added).

Even when the FCC has issued cease and desist orders against noncommunication sources of interference, such power has been exercised on the basis of the transmission aspect of the interference source. For example, in *Kentown Speedway & Hobbies*, 1 F.C.C.2d 889 (1965), a cease and desist order pursuant to § 312(b) of the Act (47 U.S.C. § 312(b) (1970)) was issued against a toy car raceway shop. The operation of the toy cars was causing the emission of radio signals which resulted in harmful interference in the surrounding residential community. The cars were found to be an "incidental radiation device" within the meaning of § 15.31 of the FCC rules (47 C.F.R. § 15.31 (1972)).

³² See, e.g., *United States v. Southwestern Cable Co.*, 392 U.S. 157 (1968); note 20 *supra*.

³³ The question before the court in *Southwestern* was not whether the Communications Act applied to noncommunication activity but whether a form of communication not specifically covered by the Act was within FCC jurisdiction. 392 U.S. at 168. The Court and the parties recognized that the activity involved in CATV was within the term "communications by wire and radio." *Id.*

The most recent case involving FCC jurisdiction also recognized that radio transmission activity is a necessary prerequisite to Commission jurisdiction. In *United States v. Midwest Video Corp.*, 406 U.S. 649 (1972), the Court stated:

The devotion of CATV systems to broadcast transmission—together with the interdependencies between that service and cablecasts, and the necessity for unified regulation—plainly suffices to bring cablecasts within the Commission's § 2(a) jurisdiction.

Id. at 663 n.21.

The Court in *Midwest Video* emphasized the transmission requirement as a necessity for FCC jurisdiction by concluding that *Southwestern* "expressly held that CATV systems are not merely receivers, but transmitters of interstate communication subject to the Commission's jurisdiction under that Act." *Id.* at 664 n.22.

³⁴ Sections 301 and 303(f) of the Communications Act (47 U.S.C. §§ 301, 303(f) (1970)), which give the Commission power to prevent interference with transmission, are tied to communication sources. These sections expressly empower the FCC to prevent interference between broadcast sources and other signal-emitting devices, but give no authority to the Commission to regulate interference from nonsignal producing sources.

Section 301 states:

No person shall use or operate any apparatus for the transmission of energy or communications or signals by radio (a) from one place in any Territory or possession of the United States or in the District of Columbia to another place in the same Territory, possession, or District; or (b) from any State, Territory, or possession of the United States, or from the District of Columbia to any other State, Territory, or possession of the United States; or (c) from any place in any State, Territory, or possession of the United States, or in the District of Columbia, to any place in any foreign country or to any vessel; or (d) within any State when the effects of such use extend beyond the borders of said State, or when interference is caused by such use or operation with the transmission of such energy, communications, or signals from within said State to any place beyond its borders, or from any place beyond its borders to any place within said State, or with the transmission or reception of such energy, communications, or signals from and/or to places beyond the borders of said State . . . except under and in

These limitations on the Commission's jurisdiction are unlikely to be relaxed. The FCC has traditionally been unwilling to expand its jurisdiction on its own initiative to areas not directly within the communications field. Congressional approval was sought and obtained before the Commission exercised jurisdiction over such noncommunication devices as are presently covered in section 302(a) of the Communications Act.³⁵

The FCC also felt it necessary to obtain congressional approval by amendment to the Communications Act before the Commission required that televisions have a UHF capability.³⁶ This approval was sought despite evidence showing that the lack of this capability had a substantial impact on television communication.³⁷ It appears, therefore, that without legislative expansion of FCC jurisdiction, the Commission will not provide protection for broadcast signals when the interference is caused by construction and not by some interfering transmission.

B. Zoning

The *ICCB* court, in refusing to extend FCC jurisdiction in the Sears Tower controversy, implied that if the petitioners were to

accordance with this chapter and with a license in that behalf granted under the provisions of this chapter.

Id. § 301.

Section 303(f) gives the Commission power to "[m]ake such regulations not inconsistent with law as it may deem necessary to prevent interference between stations. . . ." *Id.* § 303(f).

Section 302(a) of the Communications Act, which gives the Commission power to regulate devices not in the communication field, is specifically limited to those devices which emit signals which might interfere with communications:

(a) The Commission may, consistent with the public interest, convenience, and necessity, make reasonable regulations governing the interference potential of devices which in their operation are capable of emitting radio frequency energy by radiation, conduction, or other means in sufficient degree to cause harmful interference to radio communications. Such regulations shall be applicable to the manufacture, import, sale, offer for sale, shipment, or use of such devices.

Id. § 302(a).

³⁵ Section 302(a) was added by Act of July 5, 1968, Pub. L. 90-379, 82 Stat. 290 (codified at 47 U.S.C. § 302(a) (1970)).

Jurisdiction had been exercised over the use of radio-emitting devices such as medical diathermy equipment and industrial heating equipment pursuant to authority granted by § 301 of the Act (47 U.S.C. § 301 (1970)). See 47 C.F.R. §§ 18.1-.262 (1972). Before receiving authority from Congress in § 302(a), the Commission did not attempt to control the manufacture and sale of such devices.

³⁶ The Commission is to

[h]ave authority to require that apparatus designed to receive television pictures broadcast simultaneously with sound be capable of adequately receiving all frequencies allocated by the Commission to television broadcasting when such apparatus is shipped in interstate commerce, or is imported from any foreign country into the United States, for sale or resale to the public.

47 U.S.C. § 303(s) (1970).

³⁷ *Illinois Citizens Comm. for Broadcasting v. Sears, Roebuck & Co.*, 35 F.C.C.2d 237, 239 n.2 (1972).

obtain any relief, that relief should come from local authorities.³⁸ Unfortunately, no such local remedies are presently available. The Sears Tower was built in compliance with local zoning regulations.³⁹ Current height restrictions in zoning generally are tied to engineering and structural capabilities with little regard for the problems of broadcast interference caused by such height.⁴⁰

It is possible that municipalities might exercise their zoning power to protect television signals.⁴¹ Height restrictions could be imposed as an exercise of the police power of the municipality,⁴² although this would raise serious constitutional problems. These problems involve fifth amendment "taking" questions in an area which Professor Daniel Mandelker calls "the borderline of police power and eminent domain."⁴³ There is a fine line between what may be done under the police power to promote the "general welfare," which requires no compensation, and a "taking" under eminent domain, which does require compensation.⁴⁴ Whether a height restric-

³⁸ See notes 18 & 19 *supra*. The ICCB court, quoting from Commissioner Lee's opinion in *World Trade* (10 P. & F. RADIO REG. 2D 1769 (1967)), agreed that "it would be unwise for the Federal Government to inject itself into this complicated local problem." 467 F.2d at 1401.

³⁹ This must be assumed in light of the fact that the builder was issued a building permit and allowed to begin construction prior to any action by either viewers or broadcasters to limit construction. It is also important to note that the viewers challenging the construction did not raise any zoning issues. Had any violations been present the viewers would certainly have raised them.

⁴⁰ See, e.g., CITY PLANNING COMM'N, REZONING NEW YORK CITY 20-37 (1959) (discusses "bulk regulations" governing height and floor area of buildings).

⁴¹ The National Institute of Municipal Law Officers has developed a model ordinance for the control of radio interference. See I NATIONAL INSTITUTE OF MUNICIPAL LAW OFFICERS, MODEL ORDINANCE SERVICE § 8-1201 to -1212 (1969). The proposed ordinance covers only signal-producing interference devices, however, and does not recognize the problem caused by blockage or reflection of signals.

⁴² The city of San Francisco recently limited the height of new buildings to 40 feet in approximately 90% of the downtown area. See U.S. NEWS & WORLD REPORT, Nov. 20, 1972, at 112. Presumably, this action was taken to protect aesthetic interests, but the principle would be the same whether done to preserve the charm of the city or to protect broadcast signals. *But see* note 45 and accompanying text *infra*.

⁴³ D. MANDELKER, *MANAGING OUR URBAN ENVIRONMENT* 501 (1963).

⁴⁴ *Id.* The Supreme Court has been hesitant to establish strict criteria for determining whether a governmental action constitutes a taking or is merely an exercise of its police powers. "There is no set formula to determine where regulation ends and taking begins." *Goldblatt v. Hempstead*, 369 U.S. 590, 594 (1962). The question in each case turns upon the reasonableness of the regulation which is a fact question. In *Lawton v. Steele*, 152 U.S. 133, 137 (1894), for example, the Court stated:

To justify the State in . . . interposing its authority in behalf of the public, it must appear, first, that the interests of the public . . . require such interference; and, second, that the means are reasonably necessary for the accomplishment of the purpose, and not unduly oppressive upon individuals.

In order to determine the reasonableness of the ordinance the court must inquire into "the

tion imposed to protect broadcast signals would be upheld as a valid exercise of police power in the face of the fifth amendment is, at present, uncertain.⁴⁵

In addition to imposing height restrictions, municipalities might also require that arrangements be made before construction is begun for alleviating interference which might occur as a result of new construction. Existing zoning laws might be amended to require that translator stations⁴⁶ be installed in the building to minimize the effect of blockage and that certain other engineering changes be made to minimize reflection.⁴⁷ Any such requirements have technical limitations, however, since the protective measures could not be completely effective in eliminating interference.⁴⁸ Moreover, it is doubtful that such measures would be adopted on a local level without some prodding from higher governmental authorities since it can be safely

nature of the menace against which it will protect, the availability and effectiveness of other less drastic protective steps, and the loss which appellants will suffer from the imposition of the ordinance." *Goldblatt v. Hempstead*, *supra* at 595.

⁴⁵ It is questionable whether protection of television signals is a promotion of the general welfare. Protection of the general welfare is promotion of the safety or health of the general population. *See, e.g., Vernon Park Realty v. Mount Vernon*, 307 N.Y. 493, 498, 121 N.E.2d 517, 519 (1954). It is unlikely that protection of television signals could be found to have an effect on the health or safety of the general public. On the other hand, zoning restrictions designed to protect esthetic values have been upheld. Esthetic considerations alone will suffice to sustain a zoning ordinance if the "esthetic considerations . . . bear substantially on the economic, social, and cultural patterns of a community or district." *Cromwell v. Ferrier*, 19 N.Y.2d 263, 272, 225 N.E.2d 749, 755, 279 N.Y.S.2d 22, 30 (1967); *see People v. Stover*, 12 N.Y.2d 462, 466, 191 N.E.2d 272, 276, 240 N.Y.S.2d 734, 738 (1963). By analogizing to esthetic zoning it is arguable that height restrictions designed to protect television signals would be within the police power of a municipality.

⁴⁶ The FCC has defined translator stations as follows:

(a) *Television broadcast translator station*. A station in the broadcasting service operated for the purpose of retransmitting signals of a television broadcast station, another television broadcast translator station, or a television translator relay station, by means of direct frequency conversion and amplification of the incoming signals without significantly altering any characteristic of the incoming signal other than its frequency and amplitude, for the purpose of providing television reception to the general public.

47 C.F.R. § 74.701(a) (1972).

If installed on an interfering building the translator would pick up and rebroadcast the affected television signals. Viewers would be able to receive the same programs but on a different channel. Such action would require FCC approval since the channel change might create interference problems with other stations.

⁴⁷ The utilization of a material known as AVRAM on the exterior surface of the building has been shown to be effective in reducing the ghosting problem caused by reflecting signals. The material is more absorbent than glass, steel, or aluminum. *See* Second Report on Sears Building, *supra* note 12, at 6. The installation of "towel rail" window frame tuning devices has also been effective in reducing the reflection of the relatively low-frequency waves of the lower numbered channels. *Id.*

⁴⁸ *Id.* Attachment 2. The imposition of such requirements would also impose a heavy financial burden on the builder. *See* note 59 *infra*.

assumed that the interest of protecting television signals would be considered less important than the interest of encouraging construction.⁴⁹

Finally, local zoning might prove inadequate even if implemented because broadcast signals are not confined within the boundaries of any one municipality.⁵⁰ Persons outside the municipality who suffered significant interference would have no voice in the municipal zoning decisions that might affect their reception.

C. Nuisance

Nuisance actions by viewers are also inadequate to provide relief. Because there has never been a well articulated right to receive a clear signal,⁵¹ interference with a legal right, which is necessary to consti-

⁴⁹ "[T]he prospects are that in most cities economics will prevail over other considerations, and that the boom in skyscrapers will keep on booming for some time to come." *NEWSWEEK*, October 16, 1972, at 104; see note 7 *supra*.

⁵⁰ The viewers affected by the Sears Tower included residents of the city of Chicago and outlying suburban areas. *BUSINESS WEEK*, Aug. 12, 1972, at 92. The World Trade Center affected television reception in New Jersey and Connecticut as well as metropolitan New York. Statement of Frank Gregg Kear, *supra* note 1, Exhibits XB, XI.

⁵¹ It is generally recognized that recovery will not be allowed for loss of light and air, a situation closely analogous to the television reception problem. See *Fontainebleau Hotel Corp. v. Forty-five Twenty-five, Inc.*, 114 So. 2d 357 (Fla. 1959).

In addition, the first amendment right to receive information is not applicable in this context. In *C. J. Community Servs., Inc. v. FCC*, 246 F.2d 660 (D.C. Cir. 1957), the court held that the FCC had discretion to withhold a cease and desist order against the operators of an unlicensed television booster station which served a community isolated by mountains. The court's decision, however, was not based on any affirmative right by the viewers to receive or the broadcaster to transmit information. As stated by the FCC examiner and quoted by the court:

In this remotely situated and mountain-isolated community a public importance attaches to the people's being informed and entertained through the television medium; of course, *there exists no vested right in either those who receive or those who transmit, to a continuation of the operation*; the contrary is here declared.

Id. at 662 (emphasis added).

The lack of a right to receive or transmit an interference-free signal must be distinguished from an affirmative right to receive and transmit broadcasts free from state interference. First amendment guarantees include the protection of communication by motion picture, radio, and television. *Freedman v. Maryland*, 380 U.S. 51 (1965) (motion picture); *Superior Films, Inc. v. Department of Educ.*, 346 U.S. 587 (1954) (motion pictures); *Joseph Burstyn, Inc. v. Wilson*, 343 U.S. 495 (1952) (motion picture); *Public Util. Comm'n v. Pollack*, 343 U.S. 451 (1952) (radio); *Rumely v. United States*, 197 F.2d 166 (D.C. Cir. 1952) (books and pamphlets); *American Broadcasting Co. v. United States*, 110 F. Supp. 374 (S.D.N.Y. 1953), *aff'd on other grounds*, 347 U.S. 284 (1954) (radio and television); *Wrather-Alvarez Broadcasting, Inc. v. Hewicker*, 147 Cal. App. 2d 509, 305 P.2d 236 (1957) (television). The right to receive information is encompassed in the first amendment freedom of speech and the press. *Griswold v. Connecticut*, 381 U.S. 479, 482 (1965); *Marsh v. Alabama*, 326 U.S. 501, 505-08 (1946); *Grosjean v. American Press Co.*, 297 U.S. 233, 250 (1936). These freedoms are protected from state abridgement. Positive state denial of a source of television has been held unconstitutional in *Weaver v. Jordan*, 64 Cal. 2d 235, 49 Cal. Rptr. 537, 411 P.2d 289 (1966). In *Weaver*, an initiative adopted by California voters banning home subscription television within the state was

tute a nuisance, could not be claimed.⁵² Certainly, there would be no right to receive or broadcast television signals superior to the right of a landowner to use his land and the airspace above it to the fullest extent possible.⁵³ Absent a valid ordinance restricting use, a property

held by the California Supreme Court to be violative of the first amendment right to receive information. *Weaver*, however, is clearly distinguishable from a case involving interference with television signals. Although there is a right to receive information, including information distributed by television, free from state interference, there is no right to receive a good television signal. See *People ex rel. Hoogasian v. Sears, Roebuck & Co.*, 52 Ill.2d 301, 287 N.E.2d 677 (1972); note 52 *infra*.

Perhaps it is time to enunciate a right to receive television signals free from all unnecessary interference. Such a right is particularly compelling in light of the tremendous importance television has assumed as an information medium and, therefore, as a factor in the political process.

The strong influence of television on the attitudes of the average American cannot be doubted. Television has been called the "most powerful social force in the world's most powerful nation." R. BARRETT, *SURVEY OF BROADCAST JOURNALISM 1968-69*, at 3 (1969); see Robinson, *The FCC and the First Amendment*, 52 MINN. L. REV. 67, 154 (1967). Television viewing has increased dramatically: "Since the end of World War II the average daily exposure of Americans to television has soared to six hours." Comment, *We Pick'em, You Watch'em: First Amendment Rights of Television Viewers*, 43 S. CAL. L. REV. 826, 827 (1970).

The importance and influence of television has risen as the time spent watching has increased. A survey conducted between 1959 and 1967 indicates the degree of reliance that is placed upon television as a source of news and information and the rate of increase of this reliance. The survey asked this question: "If you got conflicting reports of the same news story from radio, television, the magazines and the newspapers, which of the four versions would you be most inclined to believe—the one on radio or television or magazines or newspapers?" The response was as follows:

	1959	1961	1963	1964	1967
<i>Most believable</i>	%	%	%	%	%
Television	29	39	36	41	41
Newspapers	32	24	24	23	24
Magazines	10	10	10	10	8
Radio	12	12	12	8	7
Don't know or no answer	17	17	18	18	20

B. ROPER, *EMERGING PROFILES OF TELEVISION AND OTHER MASS MEDIA: PUBLIC ATTITUDES 1959-1967*, at II (1967).

⁵² Attempts to stop the construction of the Sears Tower through nuisance actions have been unsuccessful in the Illinois courts. *People ex rel. Hoogasian v. Sears, Roebuck & Co.*, 52 Ill. 2d 301, 287 N.E.2d 677 (1972). The Illinois Supreme Court in *Hoogasian* upheld a lower court ruling dismissing the complaint for failure to state a cause of action. Relying on the analogy to light and air situations and *Richmond Bros. v. Hagemann*, — Mass. —, 268 N.E.2d 680 (1971) (see notes 53 & 66 *infra*), the *Hoogasian* court held that "absent legislation to contrary, defendant has a proprietary right to construct a building to its desired height and that completion of the project would not constitute a nuisance under the circumstances of this case." *People ex rel. Hoogasian v. Sears, Roebuck & Co.*, *supra* at 307, 287 N.E.2d at 679.

⁵³ In *Richmond Bros. v. Hagemann*, — Mass. —, 268 N.E.2d 680 (1971), the operator of a radio station sought an injunction to prohibit the construction of a building upon the defendant's neighboring property. It was undisputed that the proposed building would re-radiate the radio signals transmitted from plaintiff's towers causing significant distortion of

owner's rights extend to a height above his land that can reasonably be used.⁵⁴ This is true even though the building may destroy a neighbor's use of his land.⁵⁵ Thus, any private or public nuisance action by viewers must necessarily fail.

The balancing test employed in adjudicating nuisance actions⁵⁶ would favor the builder in any action by viewers attempting to alter or stop construction.⁵⁷ Damage to viewers, if any could be established,

those signals. The court, however, refused to grant the injunction, stating that the radio station, "by its incidental use of the space above the adjacent premises, could [not] condemn those premises to a servitude." *Id.* at 682; *cf.* *Capital Broadcasting Co. v. FCC*, 324 F.2d 402 (D.C. Cir. 1963) (recognition that existing transmission facilities not entitled to complete protection from interference even if interference caused by competing broadcaster).

The FCC also recognizes that interference is a fact of life in the broadcasting industry and seeks merely to minimize rather than eliminate it. *See* Communications Act 47 U.S.C. §§ 302(a), 303 (1970), *quoted in* note 34 *supra*; 47 C.F.R. §§ 73.610, 73.685(b) (1972).

⁵⁴ [I]t is obvious that if the landowner is to have full enjoyment of the land, he must have exclusive control of the immediate reaches of the enveloping atmosphere. Otherwise buildings could not be erected, trees could not be planted, and even fences could not be run. The principle is recognized when law gives a remedy in case overhanging structures are erected on adjoining land. *The landowner owns at least as much of the space above the ground as he can occupy or use in connection with the land.*

United States v. Causby, 328 U.S. 256, 264 (1946) (emphasis added). *See also* *Griggs v. Allegheny County*, 369 U.S. 84 (1962); *Palisades Citizens Ass'n v. CAB*, 420 F.2d 188 (D.C. Cir. 1969); *Hinman v. Pacific Air Transp.*, 84 F.2d 755, 758 (9th Cir. 1936), *cert. denied*, 300 U.S. 655 (1937). All of these cases concerned aircraft overflights, but the principle is equally applicable to transmission of television signals over adjoining land since both situations involve a potential encroachment upon the rights of landowners to use the airspace above their land. It would seem clear that if, in the absence of a valid regulation, the courts are unwilling to recognize a right of overflight superior to the landowner's rights, the courts would also be unwilling to grant a superior right to a radio or television broadcaster.

⁵⁵ In *Capitol Airways, Inc. v. Indianapolis Power & Light Co.*, 215 Ind. 462, 18 N.E.2d 776 (1939), an airport owner objected to the construction of the transmission towers upon adjacent land as an obstruction to the airport and an interference with and destruction of the airport's established business. A demurrer was sustained at the trial and affirmed on appeal, the court saying:

The establishment of an airport upon the appellant's land in no way affected or limited the right of adjacent landowners to use their land in any manner and for any purpose for which they might have used it before. Had the appellee chosen to erect flagpoles, factory chimneys, or tall buildings across the whole of its land, and several times as high as its power line, it was within its rights notwithstanding it might have entirely prevented the landing of airplanes at appellant's airport.

Id. at 466, 18 N.E.2d at 778.

⁵⁶ The balancing test requires that a court weigh the utility of the conduct of the defendant against the gravity of the harm to the plaintiff. *See* IV-A AMERICAN LAW OF PROPERTY § 28.26 (A. J. Casner ed. 1954); RESTATEMENT (SECOND) OF TORTS, Explanatory Notes § 822, comment *a* at 67 (Tent. Draft No. 16, 1970); RESTATEMENT OF TORTS §§ 827, 828 (1939).

⁵⁷ The advantage to the builder would be greater if he had already started construction. "If the plaintiff had filed his bill before the mill was built, the balance of convenience would have been different, and we should not have hesitated to stop what as yet remained only a project." *Smith v. Staso Milling Co.*, 18 F.2d 736, 738 (2d Cir. 1927). Whether or not the builder had begun construction would make little practical difference in a nuisance action by viewers since there exists no clear right to receive a television signal. *See* C. J. Community Servs., Inc. v. FCC, 246 F.2d 660 (D.C. Cir. 1957); note 51 *supra*.

would be inconsequential⁵⁸ in comparison to the economic loss the builder would incur if the building were ordered stopped or significant alterations were required after construction had begun.⁵⁹ It is reasonable to expect television interference in dense urban areas,⁶⁰ and it is equally reasonable to expect tall buildings to be erected there. If a building is constructed in accordance with local zoning and building codes in an area where such buildings have been erected in the past and can reasonably be expected to multiply in the future, there would be no actionable nuisance even though the building interfered significantly with the reception of television signals in a significant number of viewing households.⁶¹

Similarly, a nuisance action by broadcasters in an attempt to protect the transmission of signals would be equally ineffective. The Communications Act states specifically that the broadcaster acquires no vested rights in the broadcast signal merely by the acquisition of a

⁵⁸ Viewers might claim a diminution in real estate values as a possible damage recoverable in nuisance, but it would be difficult, if not impossible, to establish any cause and effect relationship between the loss of good television reception and a decline in property values.

⁵⁹ Although Sears refused to limit the height of its building to a point which would not cause interference, it did attempt to make alterations to the face of the building in an attempt to reduce the amount of reflection. This voluntary action by Sears cost the company an additional \$5 million. See *BUSINESS WEEK*, Aug. 12, 1972, at 92. No figures are available on the cost that would have resulted had Sears been forced to alter its plans to avoid interference entirely. It would certainly have been in excess of \$5 million since additional land would have been necessary to accommodate the lower structure with floorspace comparable to the Tower as originally planned. Additional architectural, engineering, and construction fees would also have been involved.

At most, the viewers would suffer a small diminution in their property values and would have to bear the cost of readjusting their antennas if the transmission towers were relocated. The problems involved in the antenna readjustment are discussed in Statement of Frank Gregg Kear, *supra* note 1, § 4 (on file at the *Cornell Law Review*). See also Statement of Frank Gregg Kear Before the FCC, July 24, 1967, at 18 (Dr. Kear estimates that readjustment of single antenna in New York area would cost \$69.90).

⁶⁰ The patterns of construction employed before television became popular make the avoidance of all interference impossible even if all new construction were to be limited in height. Even before the World Trade Center was constructed in New York, serious interference problems existed within the city.

Reception is generally poor in most of Manhattan below 110th Street because of the varied building heights and the low angle of arrival. By far the most serious problem is the multipath degradation [ghosting] . . . Since receivers high in tall buildings and within about two miles from the transmitter are exposed to unusually high field strengths, there are receiver and cable shielding inadequacies apparent in common installation practice. Even the best installation work is often undone by echoes resulting from new building construction.

Peterson, *Comparative Study of Low-VHF, High-VHF, and UHF Television Broadcasting in the New York City Area*, R.C.A. REVIEW 57, 74 (March 1963).

⁶¹ It makes no difference that the broadcaster's tower facilities were "first in time." See *People ex rel. Hoogasian v. Sears, Roebuck & Co.*, 52 Ill. 2d 301, 287 N.E.2d 677 (1972); note 52 *supra*; *Richmond Bros. v. Hagemann*, — Mass. —, 268 N.E.2d 680 (1971).

license.⁶² The license granted by the FCC does not give the broadcaster rights superior to those of an adjoining landowner,⁶³ nor does the issuance of the license depend upon the licensee's ability to provide an interference-free signal.⁶⁴ In addition, the mere fact that there is no legal right to transmit free from all interference⁶⁵ would be sufficient to deny relief to the broadcaster.

Although the broadcaster would frame his complaint in terms of a nuisance action against the builder, the proximate cause of the alleged nuisance would be the transmission of radio signals over the

⁶² It is the purpose of this chapter, among other things, to maintain the control of the United States over all the channels of interstate and foreign radio transmission; and to provide for the use of such channels, *but not the ownership thereof*, by persons for limited periods of time, under licenses granted by Federal authority, and *no such license shall be construed to create any right, beyond the terms, conditions, and periods of the license.*

47 U.S.C. § 301 (1970) (emphasis added).

⁶³ "WMEX has . . . no right by virtue of its FCC license to interfere with the use to which the adjoining owners may put their land." *Richmond Bros. v. Hagemann*, — Mass. —, —, 268 N.E.2d 680, 682 (1971).

⁶⁴ The FCC merely requires that the licensee make all reasonable attempts to avoid interference. *See, e.g.*, 47 C.F.R. § 73.685 (1972) (sets minimum standards for antenna location in order to minimize interference). *See also id.* § 73.610 (sets minimum distances between stations on same channels in order to minimize interference between stations). Were a licensee charged with the responsibility of providing an interference-free signal, he would be forced to acquire an easement over all the land which his signal crossed. Clearly, this cannot be done since such an easement would amount to a servitude over all adjoining land. *See Richmond Bros. v. Hagemann*, — Mass. —, —, 268 N.E.2d 680, 682 (1971). The nature of television signals makes the establishment of an easement difficult to conceptualize. Unlike an aircraft following a definite path at an ascertainable height, the electromagnetic waves used to transmit television signals cannot be contained within any definite boundaries. The diffuse nature of the signals makes the establishment of an easement in their favor unrealistic and impractical.

Although not directly in point, the aircraft overflight cases provide good examples of the problems that would be raised were an easement established in favor of the broadcasters.

Since the arrival of the airplane as a convenient mode of travel there has been a continuing controversy over who has primary use of airspace—the airline or the property owner. It has been held that one owns "so much of the space above the ground as [one] can occupy or make use of, in connection with the enjoyment of [his] land." *Hinman v. Pacific Air Transport*, 84 F.2d 755, 758 (9th Cir. 1936), *cert. denied*, 300 U.S. 655. . . . It is true that Congress, by statute, has declared "exclusive national sovereignty in the airspace of the United States . . ." 49 U.S.C. § 1508 (1964). . . . However, "[r]egardless of any congressional limitations, the land owner, as an incident to his ownership, has a claim to the superadjacent airspace" to the extent that a reasonable use of his land involves such space. Accordingly, an "invasion of the 'superadjacent airspace' will often 'affect the use of the surface land itself.'" [*United States v. Causby*] 328 U.S. at 265. . . . *Griggs v. Allegheny County*, 369 U.S. 84, 89 . . . (1962). Moreover, where that invasion is destructive of the landowner's right to possess and use his land, it is compensable either through private tort actions or under the fifth amendment where the use, by the government, amounts to a "taking". *See United States v. Causby*, 328 U.S. 256, 265 . . . (1946) and *Griggs v. Allegheny County, supra*. *Palisades Citizens Ass'n v. CAB*, 420 F.2d 188, 191-92 (D.C. Cir. 1969).

Clearly it would be too costly to "buy" an easement over all the land in the long and wide path of the transmission signal.

⁶⁵ *See note 51 supra*.

defendant's land by the broadcaster himself.⁶⁶ A building which interfered with the broadcast signal would not be responsible for the consequences of its involvement⁶⁷ since "responsibility . . . for inadequate television reception . . . rests more with the broadcaster's choice of location than with the height of defendant's building."⁶⁸

CONCLUSION

A conditional right to receive and broadcast television signals without unnecessary electrical or radio interference can be implied from the Communications Act.⁶⁹ It is clear from the Act that Congress at least intended broadcast signals to be protected from competing radio transmitters and from interference caused by noncommunication sources of radio emissions.⁷⁰ If the object is to protect signals, there is little logic in basing FCC jurisdiction upon the nature of the interference rather than upon its effect. If construction is allowed to continue without a consideration of its effect upon television reception and transmission, it is conceivable that large portions of the urban viewing public will be permanently deprived of adequate

⁶⁶ See *Richmond Bros. v. Hagemann*, — Mass. —, 268 N.E.2d 680 (1971); note 53 *supra*. The Massachusetts Supreme Judicial Court held that the adjacent owner could erect a building on his land as high as he desired. The court pointed out that the radio station emitted the radio waves and thereby set up the activity or conditions which it claimed resulted in a nuisance. The court, quoting from the *Restatement of Torts*, said that if injunctive relief were available in such a situation a person,

" . . . by setting up an activity or a condition which results in the nuisance, could condemn all the land in his vicinity to a servitude without paying any compensation, and so could arrogate to himself a good deal of the value of the adjoining land." [citation omitted]. By parity of reasoning, we do not believe that WMEX here, by its incidental use of the space above the adjacent premises, could condemn those premises to a servitude.

Id. at 682.

⁶⁷ See *Southern Ry. v. State*, 130 Tenn. 261, 169 S.W. 1173 (1914):

[N]o one is civilly answerable for a nuisance, even though that nuisance be immediately promoted by his own property, if this result is occasioned by the acts of others, over whom he has no control, so affecting his property as to make it an agency contributing to the nuisance. In other words, the proximate cause of every nuisance must be ascertained in fixing liability therefor, and when one's property is, by the act of independent third parties, made the instrumentality of a nuisance, such act of such parties is the proximate cause, and the innocent owner of the property is not responsible.

Id. at 267, 169 S.W. at 1174.

⁶⁸ *People ex rel. Hoogasian v. Sears, Roebuck & Co.*, 52 Ill. 2d 301, 305, 287 N.E.2d 677, 679 (1972).

⁶⁹ See 47 U.S.C. §§ 301(d), 302(a), 303(f) (1970); 47 C.F.R. §§ 73.610-685 (1972). These sections give the FCC authority to protect signals against interference from an electrical source whether or not involved in communications. The right is conditional because the FCC recognizes that avoidance of all interference is impossible. See note 64 and accompanying text *supra*.

⁷⁰ See 47 U.S.C. §§ 301(d), 302(a), 303(f) (1970); 47 C.F.R. §§ 73.610-685 (1972).

television reception.⁷¹ Present interpretations of the statute, however, make the nature of the interference the critical element in determining whether FCC jurisdiction can be obtained.⁷² Thus, in order to provide the protection required, a revision of the Communications Act will be necessary. Such a revision should make the effect of the interference the critical element by discarding the restrictive requirement that only interference from a signal-emitting source can be controlled. This proposed legislation must balance the right of the landowner to build upon his land with the equally important, but not yet adequately recognized, rights of the broadcaster to transmit and the viewer to receive television signals without unnecessary interference. Clearly, the rights of the broadcaster and viewer cannot override completely those of the landowner. However, some legal recognition must be given to the tremendous financial burden that interference imposes upon the broadcaster.⁷³ Likewise, it should be understood that substantial interference deprives viewers of a valuable source of information.⁷⁴

Broadcasters are charged with the responsibility of meeting the "public interest" requirements of the Communications Act in order to qualify for or renew a license.⁷⁵ Since the license is but a three-year grant of authority, a broadcaster must renew his license in order to continue in operation.⁷⁶ This license renewal power should be used by the FCC to force the broadcasters to keep abreast of technological advances which might minimize the interference. The affected viewers can provide significant input into this renewal process by challenging the license renewal of those broadcasters who fail to make a

⁷¹ The emerging CATV industry might obviate the problem. Cable reception, however, requires the viewer to pay for the opportunity of receiving television signals that he previously had received for free.

⁷² See *Illinois Citizens Comm. for Broadcasting v. FCC*, 467 F.2d 1397 (7th Cir. 1972); *Investigation of Television Interference To Be Caused by Construction of the World Trade Center by the Port of New York Authority*, 10 P. & F. RADIO REG. 2D 1769 (1967); *Kentown Speedway & Hobbies*, 1 F.C.C.2d 889 (1965).

⁷³ See note 59 *supra*. Dr. Kear has estimated the total cost of moving transmission facilities from the John Hancock Building to the Sears Tower to be approximately \$10 million. Only seven years earlier, in 1965, the broadcasters had spent approximately \$6 million to establish these facilities atop the Hancock Building. Letter from Frank G. Kear to Robert J. Pope, Nov. 30, 1972 (on file at the *Cornell Law Review*).

⁷⁴ See note 51 *supra*.

⁷⁵ 47 U.S.C. §§ 307(a), 309(a) (1970); see *FCC v. Sanders Bros. Radio Station*, 309 U.S. 470 (1940); *Stone v. FCC*, 466 F.2d 316 (D.C. Cir. 1972); *Robinson v. FCC*, 334 F.2d 534 (D.C. Cir.), *cert. denied*, 379 U.S. 843 (1964); *McClatchy Broadcasting Co. v. FCC*, 239 F.2d 15 (D.C. Cir. 1956), *cert. denied*, 353 U.S. 918, *rehearing denied*, 353 U.S. 952 (1957); *Huntington Broadcasting Co. v. FCC*, 192 F.2d 33 (1951); *Colonial Broadcasters v. FCC*, 105 F.2d 781 (D.C. Cir. 1939).

⁷⁶ 47 U.S.C. § 307(d) (1970).

substantial effort to alleviate the interference.⁷⁷ Viewers whose reception has been effectively destroyed by interference which the broadcasters could have eliminated through available methods would have a strong argument that the broadcasters had failed to meet their public interest obligations.⁷⁸ It has been held that a television station is not only responsible for serving the city of license but is also charged with meeting the needs of its entire area of service.⁷⁹ Thus, suburban viewers would not be denied the opportunity to challenge the licenses of television stations assigned to urban areas.

While a license challenge by viewers would perhaps be successful, it is a long-range remedy dependent upon technological advancements. It would not alleviate the immediate problem of inadequate television reception. Thus, the viewers are presently left with the single alternative of organizing public pressure⁸⁰ in an attempt to

⁷⁷ Any party in interest may file with the Commission a petition to deny any application. . . . The petition shall contain specific allegations of fact sufficient to show that petitioner is a party in interest and that a grant of the application would be *prima facie* inconsistent with subsection (a) of this section.

Id. § 309(d)(1).

Subsection (a) referred to above requires the Commission to determine "whether the public interest, convenience, and necessity will be served by the granting of such application. . . ." *Id.* at § 301(a); *see Stone v. FCC*, 466 F.2d 316 (D.C. Cir. 1972) (representatives of Washington's black community allowed to challenge television station's license renewal application on grounds of station's alleged unresponsiveness to black needs and interests); *Office of Communication of United Church of Christ v. FCC*, 359 F.2d 994 (D.C. Cir. 1966) (responsible representatives of listening public have standing as "parties in interest" to appear before FCC to contest renewal of broadcast license).

⁷⁸ "[L]osses in service are *prima facie* inconsistent with the public interest. . . ." *West Mich. Telecasters, Inc. v. FCC*, 460 F.2d 883, 889 (D.C. Cir. 1972). *See also Triangle Publications, Inc. v. FCC*, 291 F.2d 342 (D.C. Cir. 1961); *Hall v. FCC*, 237 F.2d 567 (D.C. Cir. 1956).

The fact that only a small number of viewers might be affected by the loss of service would not be of great significance if these viewers were deprived of reception entirely. In *Television Corp. v. FCC*, 294 F.2d 730 (D.C. Cir. 1961), an FCC decision allowing a relocation of the broadcasting tower was reversed by the court because approximately 900 people would have been deprived of all service and about 42,000 of all but one channel even though over 100,000 would have gained improved service. Denying that monetary considerations should be primary in a decision concerning relocation of towers, the court said:

Television and radio are affected with the public interest: the Nation allows its air waves to be used as a matter of privilege rather than of right. The enterprises which today are profiting so handsomely from radio and television may in the end find it in their own best interest to treat their businesses primarily as a public trust.

Id. at 733-34.

⁷⁹ [I]t is clear that a broadcast licensee has an obligation to meet the needs and interests of its entire area of service. This is particularly the case with respect to television stations, in view of the limited number of stations. Suburban and other outlying areas are not cities of license, although their needs and interests must be met by television stations licensed to central cities.

Stone v. FCC, 466 F.2d 316, 327-28 (D.C. Cir. 1972).

⁸⁰ The attempts by Sears to minimize the interference by employing the materials discussed in note 47 *supra* and by making space available for the eventual transfer of the transmis-

force both builders and broadcasters to make efforts to minimize the interference effects of the construction.⁸¹

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sion towers were not done under any legal obligation or compulsion. The solutions worked out between Sears and the broadcasters probably resulted more from the public pressure generated by irate viewers whose television reception was threatened than from any fear of legal action.

⁸¹ The necessity of reinforcing the top 45 stories of the Sears Tower in order to accommodate a transfer of the transmission towers has forced Sears to spend approximately \$2 million for steel plates to be placed at the corners of the building. *BUSINESS WEEK*, Aug. 12, 1972, at 93. A new antenna mast for the Sears Tower is estimated to cost \$5 million, a cost which the broadcasters must bear. *Id.*