1965

Relay by Communications Satellites: A Special Situation in Copyright Infringement Liability

Omri M. Behr
RELAY BY COMMUNICATIONS SATELLITES: A SPECIAL SITUATION IN COPYRIGHT INFRINGEMENT LIABILITY†

BY OMRI M. BEHR††

I. INTRODUCTION

THE RIGHT of an artist to the benefit accruing from the creation of his meisterwerk has long been recognized in the common¹ and civil law, as well as by specific statutes.² The artist today is aided in his enforcement of this right in many countries of the world by the provisions of a number of international treaties, conventions, and accords, such as the Universal Copyright Convention, the Berne Convention, and the Buenos Aires Convention.

This body of law, known as copyright law, strikes a balance between the right of a creator or his assignee to financial advantage from the reproduction of his work, coupled with a right to restrict this reproduction,³ and the interest of the public at large in the enjoyment of the work created.

As new art forms and methods of reproduction of old art forms have arisen, the protection of the law has been extended to them either directly by statute or indirectly by decisional interpretations of existing law. For example, protection has been extended to phonograph records⁴ and motion pictures⁵ in the former manner, and radio and television broadcasts⁶ by the latter.

At the present time the question of the reproduction of copyrighted documents, drawings, books, etc. by office copying machines is receiving much attention. A provision covering this method of reproduction will probably be written into the new copyright bill currently before Congress.⁷

The advent of the space age has broadened the horizons of the communications art and created new legal problems for its practitioners. It is the purpose of this article to consider some of the questions arising from the unlicensed transmission of copyrighted works via communications

† This paper won first prize in the 1965 Nathan Burkan Memorial Competition at Seton Hall University School of Law. It is published here by permission of the American Society of Composers, Authors and Publishers, sponsor of the competition.
¹ Werckmeister v. American Lithographic Co., 134 Fed. 321 (2d Cir. 1904).
⁶ Patterson v. Century Productions, 93 F.2d 489 (2d Cir. 1937); 19 J.B.A.D.C. 341 (1952).
satellites. The various systems now in operation will be considered as well as some which have been mooted as being feasible in the foreseeable future. There is, of course, no direct precedent in this area; therefore, the analogies of infringement by physical importation and radio transmission will be considered.

II. THE TECHNICAL ASPECTS

A. The Radiations Used In Radio Transmissions

Electromagnetic radiations have different properties related to their wavelength (which is inversely proportional to their frequency). Long wave radiations have low energy and are readily deflected, short waves have high energy and are less easily deflected. In the telecommunications field four broad regions of the electromagnetic spectrum are utilized, and one other, as yet in the experimental stage, must be considered within the purview of this paper. Longwaves ($\lambda \approx 1000$ meters) are capable of direct propagation around the world; however, a great amount of energy must be expended to obtain effective long distance propagation and this method is not much used today. Medium waves ($\lambda \approx 500$ meters) are used in semi-local transmissions over a radius of 100 to 200 miles. Short waves ($\lambda \approx 10$ meters) are the most common mode of long distance transmission. Propagation of these transmissions occurs in two simultaneous ways. First, "line of sight" radiation, which is a mode of propagation common to all electromagnetic radiations, in which the signal travels in a straight line from the transmitter to the receiver. Second, reflected radiation, in which the signal from the transmitter is reflected from an electrically charged layer in space surrounding the earth, known as the Heaviside Layer. These reflected signals may be received on Earth at long distances over the horizon as observed from the transmitter. The earth's surface also acts as a reflector for these signals, and thus the process of reflection is continued around the world.

Microwaves ($\lambda \approx 1$ centimeter) are the principle carriers of local (citizens band) and television transmissions. These radiations are of too high an energy to be reflected by the Heaviside Layer and can only be propagated over the horizon by relay stations. Due to their short wavelength, they are moderately easily focused. This intrinsic property makes it possible to "beam" the transmissions, i.e., to confine the total energy of the radiation within a fairly small arc. This in turn simplifies the problem of separating the signal from background noise when the transmission is relayed.

The fifth important class of radiations, as yet in the experimental stage, is the laser beam, or coherent visible light ($\lambda \approx 5/1000$ centimeter). The very short wavelength of these radiations permits the propagation of virtually parallel beams of very high intensity—such beams have been reflected from the moon, a path length of one-half million miles. The problem of modulating such beams so that they may be used as message carriers is under investigation, and will doubtless be solved in due course.
RELAY BY COMMUNICATIONS SATELLITES

B. Directionality In Radio Transmissions

Ordinary radio transmissions by short wave are fairly non-directional, although a certain amount of beaming is possible with proper antenna design. However, even where such focusing is applied, the transmission may be heard at any point on the path between the transmitter and the intended point of reception; for example, a broadcast from France intended for reception in Poland can be heard in Germany. Such intermediate reception of TV transmissions cannot occur since the radiations are in the microwave class and they cannot, without relay, be propagated beyond the line of sight. Thus, except in cases where a transmitter is placed directly on or near a national frontier, it would be difficult to prove that the transmissions emanating from it were intended solely, or principally, for reception across that frontier. Therefore, in a copyright infringement suit, the plaintiff would be hard put to prove actual publication across that frontier. There is dictum in a defamation case which indicates that if the dissemination across the frontier were wide enough to constitute publication, a suit would be entertained in the latter jurisdiction. In this action, where the party in England was allegedly defamed by an article in a paper published in Belgium, and only a few copies of the paper were sold in England, the court held that this was sufficient publication in England to form the basis of an action, but exercised its discretion in declining to hear the action.

C. Satellite Systems

1. Introduction

There are two broad classes of relay satellite systems, the reflection system and the retransmission system. As will become apparent, the legal aspects of relays by the former system are virtually indistinguishable from those of ordinary long distance short wave transmissions. This paper will concern itself almost entirely with the latter system.

2. The Reflection Systems

a. Project West Ford—The principle of Project West Ford is the creation of an artificial reflecting layer, analogous to the Heaviside Layer, which would reflect microwaves. This has been achieved by placing a missile in orbit, which released millions of fine copper wires. These formed a belt around the earth and microwave transmissions can be reflected from them.

b. Project ECHO—The ECHO satellites are large balloons, covered with a radio reflecting material, which act as radio mirrors. The satellite is placed in orbit as a small package and inflated in space.

The reflecting systems are relatively simple to operate once the reflector has been put in orbit. The locational stability of wire needles is sensitive only to solar wind, and that of the ECHO satellites is further sensitive...
to meteor collision. A well focused receiver and transmitter, each coupled with a sensitive tracking device, are the only mechanisms needed to operate these systems. The ECHO system allows more efficient reflection; however, it is far more exposed to destruction by a hostile missile than the West Ford system. A great defect of the reflecting systems is that only a very small proportion of the original signal is received after reflection. This gives rise to a low signal to noise ratio, i.e., the message intelligibility is of very poor quality. While such message intelligibility may be sufficient for military purposes where mere reception of the correct message is enough, the standard of reception is inadequate for commercial transmissions of telephone messages and radio or TV programs.

3. The Retransmission Systems

a. Introduction—The underlying principle of these systems is that a transmission of a radio or TV signal is beamed to an electronically "live" satellite, and retransmitted either directly to earth, or indirectly via a similar satellite. The satellites carry receivers, amplification systems and transmitters and may be powered by solar or atomic batteries. Where the message carrier is a microwave, fairly accurate focusing is possible. It is to be expected that such focusing will become considerably more refined when the use of laser beams becomes feasible. This focusing of the message beam, and the origin of the focusing and retransmission commands, are the crux of the difference between ordinary long distance radio transmissions and those achieved by satellite relay. The legal implications of this difference will be dealt with in detail below.

There are at present two groups of retransmission systems. The basis of both is the same, and both are already in partial operation at the experimental stage.

It will readily be seen that where a transmission system operates on a line of sight principle, the greater the altitude of the relaying transmitter, the greater the area, as measured on the curved surface of the earth, it can cover.

b. TELSTAR—The first system is the low altitude TELSTAR system. This system would require about forty satellites at an altitude of about 2,000 miles in order to cover the earth's surface. Such a system is technically feasible today; however, because of the low altitude, the satellites would constantly alter their position relative to any given point on the ground. Thus, the tracking of the satellites and the computation of message routing would require considerable, though by no means unattainable, technical sophistication.

c. SYNCOM/Early Bird—The high altitude system would require only three satellites at an altitude of 23,000 miles. At this altitude the satellites would be stationary relative to any given ground point, tracking and message routing would be relatively simple since two of the satellites will always be within sight of each other.

As has been pointed out above, a transmission relayed by a communications satellite can be focused. This gives rise to the basic postulate of this paper, that such transmissions are different in kind, not merely different in degree from conventional long distance radio transmission. The discreteness of the beaming is such that a close analogy may be drawn between such a transmission and the physical importation of an article of commerce, such as a book or a phonograph record, into the jurisdiction of reception.

III. The Legal Questions

A. Infringement And Jurisdiction

The unlicensed transmission of material covered by copyright may, under certain circumstances, constitute such reproduction as would be considered infringement of that copyright. The content of such radio or TV transmissions may be the subject of copyright protection in the jurisdiction of origination or in the jurisdiction of reception or both.10

The jurisdictions in question may stand in one of a number of legal relationships to each other. They may be subject to a supervening constitution, for example, the states of the United States, the cantons of the Swiss Confederation, or the länder of the German Federal Republic. In this case, the matter of copyright infringement is usually, though not always, exclusively in the domain of the federal rather than the state law. The jurisdictions may be related to each other by treaty, for example, as signatories of the Berne Convention or the Universal Copyright Convention. They may respect each other merely on the basis of international comity, or they may disregard each other’s existence as sources of judicial power. It may be mentioned in passing that not all subject matter of radio transmissions is protected against reproduction by unauthorized parties. In general, it may be said that the reproduction rights in creative works such as dramas, non-dramatic literary works, and musical compositions are protected but in different degrees, depending on whether or not performance was for profit,11 whereas works of fact, e.g., the telecast of a football game,12 are not. The dividing line is not clearly defined. It was felt that after the Associated Press case13 protection of works of fact might be extended.

In Associated Press, both parties were in the news gathering business and supplied news to their own members as well as to subscribers. It appeared that International News Service had made a habit of copying items from A.P.’s wires on the east coast and cabling the contents to the west coast, where they sometimes arrived ahead of the A.P. wires. The Court held that the news items could not be copied and retransmitted

until they were no longer "fresh news," since "fresh news" is an item of commerce, and International's action constituted unfair competition. In view of the nature of the subject matter, the plaintiff obviously could not avail himself of the protection of statutory copyright and therefore had to frame his action in unfair competition.

As will be seen, the Associated Press case was decided on a very specific set of facts, and the law in that area has not been expanded.

Where a radio broadcast from one state is received in another, that broadcast may affect a property right protected by the receiving state. Thus it was held\(^\text{14}\) that a broadcast from New York received in Pennsylvania might give rise to a cause of action under Pennsylvania property laws. Certain phonograph records had been manufactured by the plaintiff and bore a legend limiting their use to noncommercial reproduction only. The defendant bought the records and broadcast the music recorded thereon from a station in the state of New York. Even though it was held that the notice on the record was sufficient notice to the defendant, the court found that the copyright statute did not limit the right of a purchaser to reproduce a phonograph record in a broadcast, and therefore no injunction to restrain him from so doing would issue. However, it was pointed out that the Supreme Court of Pennsylvania had ruled in the Waring\(^\text{15}\) case that reproduction constituted a tort under the law of Pennsylvania and thus would in theory give rise to a cause of action in that state. However, since no other state considered such reproduction a tort and it would be physically impossible to enjoin broadcasting in such a way that no broadcast was received from New York in the state of Pennsylvania, the court would refuse to issue the injunction.

Where the jurisdictions stand in a treaty relationship, the plaintiff must first show that the allegedly protected matter was in fact protected according to the terms of the treaty,\(^\text{16}\) and thus prima facie within the purview of consideration by the court in the country of reception, \textit{i.e.}, the country of publication. The plaintiff must then prove publication within that jurisdiction.

Where the jurisdictions merely stand in a relationship of comity, the copyright allegedly violated must actually be protected by the laws of the receiving jurisdiction, publication in the receiving jurisdiction must be proved, and the court must rule on that very sensitive point of jurisdictional etiquette, service \textit{ex juris}. Service \textit{ex juris} is without a doubt an outright imposition of the authority of one jurisdiction upon another.

Although the court rules of the issuing jurisdiction may permit such service,\(^\text{17}\) there is no real way in which the command carried by a summons or complaint can validly be enforced in the jurisdiction where it is served. Indeed, the latter jurisdiction may well refuse to even permit such service within its boundaries.

\(^{14}\) RCA Mfg. Co. v. Whiteman, 114 F.2d 86 (2d Cir. 1940).


\(^{16}\) Ward v. DeCombinatre-Mac Gregor, Copyright Cases 78 (1936).

This refusal of a court to implement process issuing out of a foreign court is vividly illustrated by the case of a summons issuing in Mexico and served in New York. Suit had been started in Mexico for the payment of rent on a contract of lease alleged to have been made in the city of Mexico City. The defendant upon whom service was requested was a resident of the city of New York. District Judge Augustus N. Hand refused to order the foreign summons served, stating that letters rogatory were only respected so far as commissions to take depositions of witnesses were concerned. In his decision granting the motion to vacate order for service of summons, he referred to the following articles of the civil code of Mexico:

Article 25: Both Mexicans and foreigners residing in the federal district or in (Lower) California may be sued in the courts of this country, on obligations contracted with Mexicans or foreigners within or without the republic.

Article 26: They may also be sued in said courts, even though they do not reside in said places, if they have property which is affected by any obligations contracted or if the same are to be performed in said places.

American courts have consistently held that jurisdiction over the person of a defendant in a civil suit is acquired by service of a court's process upon him, and that the in personam jurisdiction of the state does not extend beyond its own boundaries. This is so even where service is made under color of a federal statute when the action is brought in a state court.

However, these cases merely illustrate the common law rule. The articles of the Mexican Civil Code supra illustrate that the civil law is more concerned with the question of notice to a defendant of the pendency of a suit against him, than with the question of obtaining jurisdiction over him by service within the jurisdiction. Thus it is the existence of a cause of action within the jurisdiction that is, in the civil law, the crucial jurisdictional question, rather than the additional and vexatious question of proper service, which is far more often the crucial question under the common law.

Usually such service is permitted under the principles of comity, and when the defendant does appear in the courts of the issuing jurisdiction it is as if he appeared voluntarily without the service of a summons. Provided that the action could have been brought in that state, jurisdiction may be waived, but cannot be conferred where it does not exist. In Jenner v. Sun Oil, the defendant originated a radio broadcast in Buffalo, New York, which allegedly defamed the plaintiff in the province of Ontario. It was found that the broadcast was one which could foreseeably

---

18 In Re Letters Rogatory out of First Civil Court of City of Mexico, 261 Fed. 652 (S.D.N.Y. 1919).
19 Id. at 653.
be heard in Ontario; affidavits were submitted which showed that the broadcast actually was heard. On this basis the court held that there was publication in Ontario and that therefore service *ex juris* on the defendant was perfectly proper, even though the tort had not been committed solely within that jurisdiction.

A case of alleged copyright infringement where service *ex juris* was authorized is at time of writing before the Canadian Court of Exchequer. KVOS (a station operated by International Good Music, Inc.) broadcast certain musical compositions, the Canadian copyright of which was owned by the plaintiff. The plaintiff alleged that the content of the advertising matter broadcast concurrently with the music was especially intended for the hearing of audiences of the province of British Columbia, just across the frontier from the state of Washington where the transmitter was located. It appears that no payments had been made to the United States owner of the copyright of the broadcast material, and that certain Washington statutes would make a suit against KVOS unremunerative if brought and won in that state. The owner of the Canadian rights therefore elected to bring the action in Canada on the ground that there had been actual publication in Canada and that the Canadian copyright had been infringed thereby. Although the Supreme Court of Canada held that service *ex juris* was proper, the principal issue of infringement has not yet been decided on the merits.

B. Liability For Infringement In Transmissions Relayed By Communications Satellites

1. Rediffusion Generally

One of the crucial questions to be determined in a suit for copyright infringement in relayed transmissions before the issue is decided on its merits is that of the identity of the alleged infringer. This question is also basic where the relay is by communications satellite, and the answer to it can only be found by a critical analysis of the actual mechanism of such relays. It is for this reason that this article has treated the technicalities of the different modes of radio transmission in such detail, for it is only with these details in mind that a valid analysis can be made.

In an ordinary broadcast received by the public at large, the copyright of the work performed may be infringed by the sponsor, the performer, the broadcaster, or all of them.

Where the broadcast is rediffused, *i.e.*, the content of the transmission is caused to be heard otherwise than it would be heard if a private per-

---

28 Remick v. American Auto Accessories, 5 F.2d 411 (6th Cir. 1923).
son switched on a radio receiver tuned to that station, the legal situation becomes somewhat confused.

Although this article is directed primarily to common law attitudes to copyright infringement, certain indications of the civil law opinions have also been considered. The question of liability of a rediffuser of a broadcast containing copyrighted material is one traversing the differences between these two legal systems.

The leading common law case is *Buck v. Jewel-LaSalle Realty Co.* in which the United States Supreme Court held that reproduction of a broadcast of copyrighted material was an infringing act, where the broadcast was relayed over loudspeakers in the defendant’s hotel. The court took the position that the defendant had gained financial benefit for the reproduction and thus was liable. It is interesting to note that the copyright bill now under consideration is intended to reverse this holding in part; i.e., unless a specific charge is made to see or hear the transmission, a rediffusion of the type occurring in LaSalle would be non-infringing.

In England, the Chancery Division followed the *LaSalle* ruling which had been relied upon by the plaintiff in *P.R.S., Ltd. v. Hammonds Bradford Brewery Co.* In *Hammonds*, the British Broadcasting Corporation was licensed to broadcast the three songs in question by the owner of the copyright. The license specifically limited the broadcast to the audition or reception of copyright musical works by means of broadcasting for domestic and private use only. The defendant owned a hotel where a radio including a loudspeaker had been installed. The court found that there was infringement, since the use of the loudspeaker to reproduce the works for the benefit of the hotel guests was not an act justified or authorized by the license given to the corporation.

To the same effect were decisions on essentially similar facts in France and Denmark; however, the German and Dutch courts have taken the contrary position. In a German case, the owner of a loudspeaker who made protected music audible for trade purposes was held not liable as an infringer.

The Italian statute places the burdens solely upon the broadcaster, the amount paid to the owner of the copyright being presumed to include payment for rediffusion. This statute provides that a broadcast may be

---

20 U.S. 191 (1931).
21 H.R. 4347, 89th Cong., 1st Sess. (1965), especially §§ 109(6) and (7).
24 International Ass’n for the Protection of Composers Rights in Denmark v. Joergensen, IV, 403/1929 (Sup. Ct. 1929) (Den.), 3 Archiv fur Funkrecht 305.
26 Musikschutz Verband v. Reichskartel der Musikveranstalter Deutschlands E. V., Entscheidungen des Reichsgerichts in Zivil Sachen, 1932, Band 136, No. 74 (Ger.).
28 Law No. 1352 of 14 June 1928 (Italy); Law No. 428 of 13 April 1947 (Italy); Decree of the President of the Republic No. 180 of 26 June 1952 (Italy).
made of copyrighted material in public places even where such performance is for profit. The broadcasting service must pay the owner of the copyright for this right of broadcast the amount to be decided between them or, if they disagree, by an arbitration commission comprising a representative of either party and a representative of the Ministry of Communications.

Where a broadcast is rebroadcast, a situation in some ways analogous to satellite relay, different factors must be considered. The principal factors are the locations of the original and the rebroadcasting transmitters.

The United Kingdom Copyright Act (1956) provides protection in re-diffused works for the primary rights (i.e., the holders of the copyright of the work itself) but does not protect secondary copyrights (i.e., it does not protect the rights of record companies in their records or of broadcasting companies in their broadcasts).

Under the proposed new United States Copyright Law, retransmission for further transmission to the public would be considered as infringement.

It is hoped that this whole confusion will be resolved by Article 11 bis of the Brussels text of the Berne Convention for the Literary and Artistic Property.

Article 11 bis of the Brussels revision states:

1. Authors of literary and artistic works shall have the exclusive right of authorizing:
   1. the radio diffusion of their works or the communication thereof to the public by any other means of wireless diffusion of signs, sounds or images;
   2. any communication to the public, whether over wires or not, of the radio diffusion of the work, when this communication is made by a body other than the original one;
   3. the communication to the public by loudspeaker or any other similar instrument transmitting, by signs, sounds or images, the radio diffusion of the works.

2. It shall be a matter for legislation in the Countries of the Union to determine the conditions under which the rights mentioned in the preceding paragraph may be exercised, but these conditions shall apply only in the Countries where they have been prescribed. They shall not in any circumstances be prejudicial to the moral right of the author, nor to his right to obtain just remuneration which, in the absence of agreement, shall be fixed by competent authority.

3. Except where otherwise provided, permission granted in accordance with the first paragraph of this Article shall not imply permission to record the work radio diffused by means of instruments recording sounds or images.

It shall, however, be a matter for legislation in the Countries of the Union to determine the regulations for ephemeral recordings made by a broadcasting body by means of its own facilities and used for its own emissions. The preservation of these recordings in official archives may, on the ground of their exceptional documentary character, be authorized by legislation.

39 The English courts first considered the problem in Messager v. BBC, [1927] 2 K.B. 543, [1928] 1 K.B. 660, [1929] A.C. 151 (H.L.). The broadcast was alleged to have been made in France and rebroadcast in England. The case is inconclusive, however, since the plaintiff failed in his proof of facts.

40 Bell, Copyright and Rediffusion, 222 L.T. 298 (1956).


42 Unfortunately, the United States is not a signatory of the Berne Convention. However, the proposed new United States Copyright Law would not conflict with the principles of Article 11 bis.
Where an infringing broadcast or rediffusion occurs in the same jurisdiction, the action may generally be brought against either the broadcaster or the rediffuser. However, it should be remembered that a copyright may only be held by the author or the assignee. It is an undilutable thing and cannot be split up and partially assigned either as to time, place, or particular rights or privileges less than the sum of all the rights comprehended in the copyright. However, such exclusive rights may be granted limited as to time, place, or extent of privileges which the grantee may enjoy; however, such limited grants are merely licenses and not technically assignments although often spoken of as assignments. 43 Where a license is granted under a copyright, the owner or the assignee of the entire interest of the copyright must bring the action to protect the rights of the licensee.

Thus, since there may be different licensees in different jurisdictions, an infringing act which affects several jurisdictions may affect the rights of several licensees, giving rise to numerous causes of action. Hence one particular transmission may give rise to a cause of action in different jurisdictions, and entirely separate actions may be brought by different plaintiffs for the same act. The situation is not simplified by the possible occurrence that an infringing broadcaster and a rediffuser of the same transmission may be found in different jurisdictions. In the case of an ordinary broadcast, it has generally been held that where the original broadcaster was properly licensed in the originating jurisdiction, the courts will not entertain a complaint brought in another jurisdiction, 44 even though a cause of action accrued there. A leading case indicates that the copyright status at point of original performance is of controlling importance. In Mellor v. Australian Broadcasting Comm’n, 45 the plaintiff sold sheet music for bands and guaranteed that the music could be performed anywhere without infringement of the copyright. A band which had bought some of this music was hired to play it by the Australian Broadcasting Commission, which broadcast the performance. The plaintiff sued the ABC on the ground that the guarantee was extended only to the purchaser and not to a third party broadcaster. The Privy Council found for the defendant, holding that the guarantee included all parties reasonably concerned with the performance by the purchaser.

Thus, in the KVOS case discussed supra, had KVOS been properly licensed in Washington, the Canadian courts might not have heard the cause now before them, even though circumstances of the transmission were otherwise the same.

This practice of the courts, which is merely an aspect of their discretionary powers, will not aid a rediffuser, since as stated above rediffusion is separate publication in most jurisdictions.

44 Fox, supra note 10.
2. Satellite Relays And Extraterritorial Transmitters

In applying the analogies of radio broadcasting to relays by communications satellites it is important to follow the relay process step by step. It must be borne in mind that communication of copyrightable material does not constitute publication unless it is communicated in a particular manner, which must frequently be determined for each individual case. Thus, a successful infringement suit could not be brought unless publication by a party defendant was shown.

The first step in satellite relay is beaming the transmission to the satellite. Even if the originating broadcaster is paid to make this transmission and no license fees have been paid for the use of the material so transmitted, there can be no infringement at this juncture. This is because it must be shown that there was reception, i.e., publication. Although there is no precedent for this postulate, it need not be assumed that those receiving the transmission must be human, merely that they be sentient and capable of enjoying the reception. Thus, if there are intelligent beings on other planets which receive beamed transmissions from Earth, it might be possible to sue for copyright infringement there. This rather speculative postulate need not be considered with regard to the relay satellites. Reception of transmissions by satellites cannot be regarded as publication since the instruments carried by them, though sentient, are not intelligent or capable of independent action. Even if the electrical currents caused to pass through the instrument by the transmission give it a pleasurable sensation, no court could be asked to take cognizance of it or consider it enjoyment in the legal sense. It has not yet become a matter of judicial notice in any known jurisdiction that computers and the like have feelings, even though those who have worked with them may believe that this lack of recognition of obvious facts should not be strictly maintained.

Furthermore, the trend of opinion appears to be that though space is not {\textit{terra nullius}, it is {\textit{res extra commercium}.} Thus, even if relay satellites become manned, reception by their crew, even though publication, would not give rise to a cause of action for infringement, since publication would not be in an identifiable jurisdiction.

The closest analogy to the latter situation is the position of a ship on the high seas. The vessel is under the authority of the laws of its flag sovereign in certain matters, and is entitled to the protection of that flag sovereign. However, the scope of this authority is not unlimited. Recently, commercial radio stations have been operating in international waters off the coast of Britain from ships of British registry. These stations, which have been beaming their broadcasts to Britain, are not only unlicensed by the British postal authorities, but also are actually operating as pirates on the airwaves, since they are utilizing frequencies allocated to other stations by international agreement. It appears that short of jamming the trans-

\footnote{\textit{Jenks, \textit{International Law \& Activity in Space}}, 5 Int'l \& Comp. L.Q. 99 (1956).}
\footnote{\textit{The Pirates of Greemore}, Sunday Times (London), 19 April 1964.}
missions, which would raise other problems, the British government is powerless to stop the transmissions. A similar situation involving a pirate television station off the coast of Holland beyond the three mile limit evoked direct action by Dutch police who boarded the station under authority of a statute and closed down the operation.48

The Committee of Ministers of the Council of Europe have decided on indirect action against radio pirates. The council has opened for signature a European agreement49 which provides, inter alia, that operation of pirate radio stations shall be a national offense; that supplying, maintaining, or aiding such stations shall be a contributory offense; and that such domestic law shall be applicable to nationals committing forbidden acts of transmission on its territory, ships or aircraft or outside national territories on any ships, aircraft, or any other floating or airborne object. Similarly, the agreement applies to non-nationals on a nation's territory, ships, or aircraft or on board any floating or airborne object under its jurisdiction.

The agreement lacks definition on certain points. It does not define the medium in which the "floating" objects may float nor does it define the term "under its jurisdiction." However, it does provide a starting point for a solution to the problem of pirate radio. The agreement also indicates a jurisdictional approach which may eventually be taken to deal with the question discussed in this article.

However, it should be borne in mind that an infringing publication aboard a communications satellite, or even that an infringing transmission relayed by such a satellite might be considered to be outside the jurisdiction of the flag sovereign of the satellite.

3. Satellite Transmissions

A transmission from a communications satellite may be directed back to earth with considerable accuracy. The degree of accuracy for a given system is not information which is in the public domain. However, the transmission may be directed to a specific receiving station at a predetermined location. This receiving station must be aware of the incoming signal and be capable of tracking the transmitting satellite, an operation of considerable electronic and engineering sophistication. Although this operation will probably be much simplified in the future, it seems unlikely the receiving public at large will be able to tune in to satellite transmissions directly, although the legal implications of this eventuality will also be considered.

Thus, the ground receiving station which will retransmit the satellite transmission for local public reception is in the position of a rediffuser, although not merely a rediffuser. Because of the discrete nature of the satellite beams, it is something more; it is something akin to an importer. In order to appreciate the jurisdictional implications of this situation, we must consider a line of cases starting with an old English murder case.

In Coombes Case, the defendant, while standing on the shore, shot at and killed his victim who was in the water below low water mark. The case came before the court of Kings Bench which had jurisdiction of all crimes on land. The court refused to take jurisdiction of the case, holding that it should be heard in the Court of Admiralty which had jurisdiction of all matters occurring below low water mark. The court held that although the criminal act had occurred on land, its effect had taken place at sea; and, since there was no intelligent acting agent intervening between the cause and the effect, the court could not take jurisdiction of the matter.

This doctrine of intervention by an intelligent acting agent was applied in a case of alleged patent infringement by importation. The plaintiff was the owner of the English patent rights to certain goods mailed by the defendant seller in Switzerland to a buyer in England. It should be noted that in English patent law, the mere importation of patented goods does not constitute infringement, whereas their sale is infringement. The defendant appeared voluntarily and thus placed itself within the English court's jurisdiction. The court found that the Post Office was an intelligent acting agent which intervened between the seller and the buyer, but it also found that the Post Office was the agent of the buyer and not the seller; thus, the seller had not committed an act of infringement of which the English court could take cognizance. In other words, an intelligent acting agent intervening between a wrongdoer and the effect of the wrongful act may, if the intervenor is found to be the agent of the wrongdoer, bridge a jurisdictional gap which would otherwise have immunized the wrongdoer from suit.

It will be readily seen that in satellite relays there is no intervention by an intelligent acting agent, provided, of course, that the relay transmitter is commanded from either the originating transmitter or the ground receiver. Thus, there is no jurisdictional bridge to extend liability for infringement in the jurisdiction of reception to the originating transmitter.

The rediffusion from a satellite is a "new" transmission originating from a location out of proper jurisdiction, since it will be recalled that the retransmitting receiver (i.e., the receiving-retransmitting ground station) must be considered a separate entity as regards actions at law. It must be regarded as a separate entity even if it is a corporate subsidiary of the originating transmitter, for it would have to have at least pro forma separate corporate existence in the jurisdiction of reception. Thus, the original transmitter could not be made a party defendant unless it voluntarily decided to place itself within the jurisdiction of the courts of the receiving state. It would seem that this position could be maintained regardless of whether or not the original transmission would have infringed copyright in the jurisdiction of origin if it had been an ordinary radio broadcast.

---

50 Coombes Case, 1 Lea C.C. 388 (1785).
52 Elmalie v. Bouvier, L.R. 9 Eq. 217 (1869).
Even if no jurisdictional bridge exists to bring the originating transmitter into the courts of the jurisdiction of rediffusion, if the original transmission had infringed the copyright in the jurisdiction of origin if published there, the *Mellor* case might constitute a valid defense to the rediffuser were transmission licensed in the jurisdiction of origin but not licensed in the jurisdiction of rediffusion.

The transmission from the relay satellite can be focused and released by command from the original transmitter and then rediffused by command of the same authority or rediffused by independent action of the rediffuser. The commands may also come from an independent station (the last has little significance in the problem under consideration, since the cooperation of the receiving rediffuser would be required to achieve publication).

In the first case, a plaintiff in the jurisdiction of rediffusion could make a strong case that the doctrine of *Coombes Case* should be followed directly. He could argue that the relay satellite is an inanimate instrumentality under the control of the originating transmitter which must carry out its commands in the same way as Coombs’ gun had to fire the bullet when the trigger was pressed, that in a similar manner the rediffusing transmitter may be controlled by the originator. Thus, intervention of two or more inanimate instrumentalities is irrelevant to the question of jurisdiction over the originating transmitter. If the copyright can be shown to have been infringed in the jurisdiction of rediffusion, a court of that jurisdiction could properly make an order for service *ex juris* on the originating transmitter.

In the second case where the rediffusion is activated by the rediffuser, the plaintiff's case against the originating transmitter is much weaker. Admittedly, there has been beaming of a transmission into the jurisdiction of alleged infringement. Such beaming, however, has come from a transmitter outside any jurisdiction. Moreover, the signal was only received by the rediffuser, and this is insufficient to constitute publication. It would thus appear that the rediffuser is the proper party defendant.

When the command for focusing and relay comes from the rediffuser, the originator appears to be immunized from suit, since the originator has merely caused a signal to be transmitted into space, this signal is not released by him but by another. If there is intervention by an intelligent acting agent here, that agent is the agent of the rediffuser and not the agent of the originator; and thus by analogy to the *Badische Analin* case, the originator would not be a proper party defendant.

Finally, the position of the originating transmitter must be considered where the public receives the transmission directly from the relay satellite without the intervention of a rediffuser. It must be assumed that the transmissions can be directed into the particular jurisdiction where infringement is alleged. It is not relevant whether such specific focusing actually took place in that particular transmission. This situation appears to be similar to that where the originator commanded both the satellite and
the rediffusion, or alternatively where there was a simple transfrontier transmission. In the former case an act, albeit by an instrument, actually occurred within the jurisdiction of rediffusion to cause publication, in the latter case the publication is caused by the direct act of the originating broadcast. In the situation now under discussion, a transmission was made to a point extra commercium, stored there and then retransmitted. The situation may therefore be treated as essentially similar to that of unlicensed radio transmitters in vessels on the high seas which has been mentioned above. If this position is accepted by the courts, the originating broadcaster of an infringing transmission would appear to be immune from suit.

III. Conclusion

The question of liability for copyright infringement by transmissions relayed by communications satellite can only be determined after a close analysis of the relay mechanism. In any event, the operator of the local receiver/rediffuser in the jurisdiction of alleged infringement is never immune from suit. The original transmitter can most readily immunize himself from being made a party defendant if all the release commands to the satellite originate from the receiver and not from the originating transmitter.