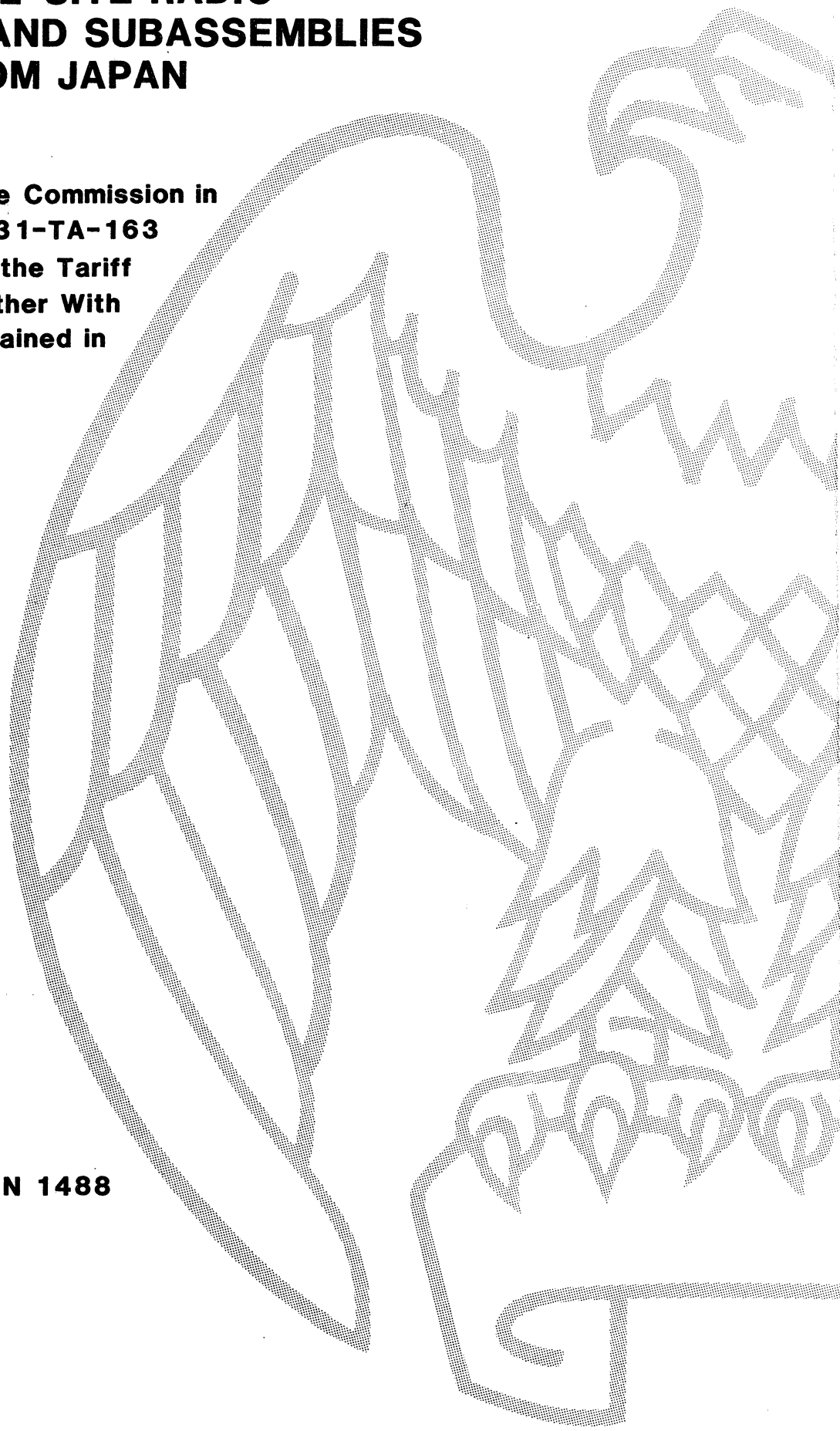
CERTAIN CELL-SITE RADIO APPARATUS AND SUBASSEMBLIES THEREOF FROM JAPAN

Determination of the Commission in Investigation No. 731-TA-163 (Preliminary) Under the Tariff Act of 1930, Together With the Information Obtained in the Investigation



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UNITED STATES INTERNATIONAL TRADE COMMISSION

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Note.--Information which would disclose confidential operations of individual firms may not be published and, therefore, has been deleted from this report. Such deletions are indicated by asterisks.

UNITED STATES INTERNATIONAL TRADE COMMISSION
Washington, D.C. 20436

Investigation No. 731-TA-163 (Preliminary)

CERTAIN CELL-SITE RADIO APPARATUS AND
SUBASSEMBLIES THEREOF FROM JAPAN

Determination

On the basis of the record 1/ developed in the subject investigation, the Commission determines, pursuant to section 733(a) of the Tariff Act of 1930 (19 U.S.C. § 1673b(a)), that there is a reasonable indication that an industry in the United States is materially injured by reason of imports from Japan of cell-site transceivers and subassemblies thereof, provided for in item 685.29 of the Tariff Schedules of the United States, which are alleged to be sold in the United States at less than fair value (LTFV).

Background

On December 28, 1983, counsel for E.F. Johnson Co., Waseca, Minn., filed a petition with the Commission and the Department of Commerce alleging that the establishment of an industry in the United States is materially retarded, or in the alternative that an industry in the United States is materially injured or threatened with material injury, by reason of imports from Japan of cell-site transceivers and subassemblies thereof which are allegedly being sold in the United States at LTFV. Accordingly, effective December 28, 1983, the Commission instituted a preliminary antidumping investigation under section 733(a) of the Act (19 U.S.C. § 1673b(a)).

Notice of the institution of the Commission's investigation and of a public conference to be held in connection therewith was given by posting copies of the notice in the Office of the Secretary, U.S. International Trade

1/ The record is defined in sec. 207.2(i) of the Commission's Rules of Practice and Procedure (19 CFR § 207.2(i)).

Commission, Washington, D.C., and by publishing the notice in the Federal Register on January 5, 1984 (49 F.R. 668). The conference was held in Washington, D.C., on January 20, 1984, and all persons who requested the opportunity were permitted to appear in person or by counsel.

VIEWS OF THE COMMISSION

On the basis of the record in this investigation, we determine that there is a reasonable indication that an industry in the United States is materially injured by reason of imports of cell-site transceivers and subassemblies thereof from Japan which are allegedly sold at less-than-fair-value. 1/

Definition of "like product" and "domestic industry"

Section 771(4)(A) of the Tariff Act of 1930 defines the term "industry" as "the domestic producers as a whole of a like product or those producers whose collective output of the like product constitutes a major proportion of the total domestic production of that product." 2/ "Like product" is defined as "a product which is like, or in the absence of like, most similar in characteristics and uses with, the article subject to an investigation. . . . " 3/

The imported articles which are the subject of this investigation are cell-site transceivers, and subassemblies thereof. A "transceiver," as the term is used generally in the electronics industry, is a single piece of radio

1/ Having found that a domestic transceiver industry exists, the Commission does not reach the issue of material retardation. Chairman Eckes and Commissioners Haggart and Lodwick, having found material injury, do not reach the issue of threat of material injury. Commissioner Stern determines that there is a reasonable indication of material injury, but not of threat of material injury. The above determinations are based upon the record developed in this preliminary investigation, and do not preclude different determinations based upon the record developed in any final investigation.

2/ 19 U.S.C. § 1677(4)(A).

3/ 19 U.S.C. § 1677(10).

apparatus composed of a transmitter and receiver which share common circuitry, and are housed in one unit. The cell-site transceivers which are the subject of this investigation are particular transceivers designed for use in the radio frequency (RF) equipment used in the base station of a cellular radio communication system. 4/ Cell-site transceivers function as locating receivers and provide simultaneous two-way voice and data communications between the base station and the subscriber's mobile telephone. 5/

The "like product" issue in this investigation can be divided into two subissues: (1) whether the transceivers imported from Japan are "like" only domestically-produced transceivers or whether they are "like" both domestically-produced transceivers and domestically-produced separated transmitter/receiver configurations; and, (2) assuming that the "like" product definition is limited to transceivers, whether the various domestically-produced transceivers are one like product, or whether they constitute separate like products.

There are two different and nonfungible types of equipment which perform the function of simultaneous two-way radio communications and locating

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4/ Report at A-1. The definition of "transceiver" is necessarily imprecise because, as used by the cell-site industry, it refers to the transceiver as contained in a box-like housing. However, the housing may contain other equipment, such as control functions discussed infra. Nevertheless, the transceiver itself is the major component that characterizes the box-like housing which the industry refers to as a "transceiver."

5/ Id. Transceivers basically provide the mechanical function of relaying a phone conversation from the mobile telephone to the switch, which, in turn, relays it into a traditional telephone system or to another mobile unit. It simultaneously acts in reverse, relaying signals from the switch to a mobile telephone.

reception at the cell site. 6/ One is the cell-site transceiver. The second type of equipment consists of separated transmitters and receivers which are housed in separate bays or frames of the cell-site "RF" equipment. Transceivers are used in the following systems: AT&T Technologies (formerly Western Electric), Northern Telecom, IT&T, Novatel and Harris. 7/ The separate transmitter/receiver design is used in the following systems: Motorola, Ericcson, NEC, and Matsushita (Panasonic Division). The choice of whether to utilize the transceiver or the separate transmitter/receiver design apparently involves engineering and cost-of-production considerations.

Although the transmitter/receiver configuration performs substantially the same function as transceivers in terms of their general transmitting and receiving operations, the best information currently available indicates that there are distinct differences between them in terms of characteristics and uses. 8/ Once the design decision is made, the transceiver or transmitter/receiver configuration becomes an integral part of the particular system, i.e., the system producer cannot use a transceiver and the transmitter/receiver configuration interchangeably. Therefore, there is no head-to-head competition between transceivers and the separate transmitter/receiver design configuration of other cell site systems.

6/ Report at A-2.

7/ Report at A-11.

8/ Whereas transceivers must be hooked into separate amplifiers, the separate transmitter/receiver configuration may incorporate amplifiers. See, e.g., NEC post-conference brief at 9. Also, the separate receiver/transmitter configuration is used in systems that utilize significantly more receivers than transmitters. See Id. In contrast, the transceiver utilizes a much smaller ratio of transmitter to receiver functions.

Since the separate transmitter/receiver configurations are not sufficiently similar in characteristics and uses in the sense that one cannot be used interchangeably in a system designed for the other, we find that they are not "like" the cell-site transceivers which are the subject of this investigation. 9/

Having found for purposes of this preliminary investigation that the imported transceivers which are the subject of this investigation are not "like" domestically produced transmitter/receivers, we must determine whether all domestically produced transceivers are "like" the imported transceivers.

Since transceivers are designed for applications in particular systems, transceivers designed for different systems are not interchangeable. Some of the differences are very minor, such as the location of the connecting jack ("plug"). The major difference between various transceivers appears to be whether or not the transceiver incorporates "control" functions, i.e. has advanced logic capabilities that monitor and control the power of the incoming signal, select signals, and perform related functions. 10/ In systems in which the transceivers do not incorporate these control functions, a separate piece of equipment performs them. 11/

The Kokusai transceivers, which are the subject of the investigation, and the E.F. Johnson transceivers meet the same AT&T Technologies specifications.

9/ This finding is based upon the record developed in this preliminary investigation and does not preclude the possibility of a different "like product" determination in any final investigation.

10/ Report at A-4.

11/ Transceivers that incorporate control functions are referred to informally as "intelligent" transceivers; transceivers without control functions are referred to as "dumb" transceivers.

E.F. Johnson has also developed new models that it will use to supply orders from IT&T and Novatel. While differences in these transceivers may be significant in terms of design and cost, the transceiver unit's fundamental characteristic and use is its transceiving capability. 12/

Based upon the best information currently available, the basic characteristics and uses of the various transceivers appear to be substantially the same. The differences in control functions are clearly relevant with respect to making price comparisons, but do not appear to be significant enough by themselves to warrant separate like product treatment. 13/

Thus, we find that the product "like" the imported products under investigation are cell-site transceivers. Accordingly, the industry consists of the domestic producers of cell-site transceivers. Presently, two domestic companies, E. F. Johnson ("Johnson") and General Electric Corporation ("GE") are engaged in commercial production of such transceivers. 14/

12/ Report at A-4.

13/ This analysis is consistent with the like product finding of the Commission in Certain Amplifier Assemblies and Parts Thereof from Japan, Inv. No. 731-TA-48 (Final), (Commissioner Stern dissented on other grounds) which also involved an imported product which was developed to meet specifications pursuant to a specific bid. The definition of "like product" adopted by the Commission in that investigation was slightly broader than the specific made-to-order specifications that characterized the imported product.

14/ See note 1 supra. Another domestic company, Harris Corp., has plans to commence commercial production of a transceiver for use in its own cell-site communications system. One other domestic company, whose identity is confidential, has demonstrated an interest in producing such transceivers.

The U.S. market for transceivers

As indicated previously, transceivers are components of certain cellular communications systems. Consequently, the U.S. market for transceivers is related to the market for cellular communications systems in general, and more specifically to those systems that utilize transceivers, i.e., systems designed by AT&T Technologies, IT&T, Northern Telecom, and Harris.

The market for cellular communications systems has just begun to develop. On February 25, 1982, the Federal Communications Commission (FCC) gave final approval to the concept of a cellular communications system. 15/ Among other things, it designated that in each of the top 90 urban market areas, two operating licenses for cellular systems would be granted. In the next year or two, the FCC is likely to grant construction permits for these systems. Currently, there are several manufacturers of cell-site systems competing for the contracts to install these systems. Some of these manufacturers offer a system that utilizes the transceiver component, 16/ others do not. However, of the manufacturers that have already been awarded contracts, those that offer systems utilizing the transceiver component hold a significant share of the domestic market. 17/

Although projections regarding current and future demand for transceivers vary, it is clear that there will be a substantial market for cellular

15/ Report at A-10.

16/ The fact that a system incorporates a transceiver is an incidental factor; competition between systems manufacturers apparently turns upon other factors such as the switch and "logic" functions, the speed with which a system can be installed, price of the overall system, and the reputation and reliability of the system manufacturer.

17/ The exact figures are confidential.

communications systems in general, and for systems that utilize transceivers during the next few years.

Condition of the domestic industry [18/]

Johnson, the petitioner in this investigation, currently accounts for the major proportion of domestic production of cell-site transceivers. [19/] Since 1975, Johnson has produced experimental and developmental models of transceivers, working in conjunction with the Bell Laboratories Division of AT&T Technologies, which initially developed the transceiver design for use in its own cellular communications system. In 1979, Johnson was awarded the contract to produce transceivers for AT&T's experimental cellular system for Chicago, Illinois. In 1983, Johnson produced some transceivers for AT&T. In the near future, Johnson may receive orders to produce transceivers for two other systems manufacturers, IT&T and Novatel.

Johnson's production of transceivers has increased steadily since 1981, primarily as a result of the 1983 order made by AT&T as it began commercial sales of its system. Production in early 1984 had dropped as a result of the completion of the 1983 order from AT&T. Production to fill orders placed by two other purchasers, IT&T and Novatel, may occur in 1984, but the current

18/ Only Johnson supplied the Commission with uniformly useable data. Thus, our analysis of the condition of the industry in this preliminary investigation is largely limited to information regarding Johnson. In any final investigation, the Commission will seek to obtain useable information from other domestic companies which are determined to be part of the domestic industry.

19/ The other domestic company that is currently producing transceivers is General Electric. However, all of its production is captively consumed in that its transceivers are used only as components of the system jointly developed with Northern Telecom. To date, GE has not evidenced interest in selling transceivers in the open market.

figures for units ordered indicate that production in 1984 will fall short of 1983 levels. In addition, even the 1983 level of production is far less than Johnson's capacity to produce transceivers.

Despite the fact that Johnson's production and shipments of transceivers increased substantially between 1982 and 1983, profitability declined. Lower unit prices, coupled with a much higher level of product cost, adversely affected Johnson's operating profits in 1983.

Reasonable indication of material injury 20/

The gravamen of Johnson's complaint is that in late 1982, and early 1983, it lost a major contract to supply transceivers to AT&T due to price competition from Kokusai. In addition, Johnson claims that due to the substantially lower price of the Kokusai transceiver, it was required to decrease the price of its transceivers, both in the bidding process and in subsequent price negotiations. As a result, Johnson claims that it also suffered a loss as a result of the depressed prices of transceivers which it ultimately sold to AT&T in 1983. AT&T was apparently Johnson's only customer for such transceivers. Johnson and AT&T have provided differing accounts of the circumstances surrounding AT&T's ultimate decision in early 1983, to order

20/ Commissioner Stern determines that there is not a reasonable indication of threat of material injury. AT&T will commence production of its own transceivers in 1984. AT&T has been the largest single purchaser of transceivers in the United States and its entry into production severely limits the potential for future imports. The new ITT-Johnson cellular system has already received several contracts and is well positioned to win additional contracts in this expanding market. The expanding system market will generate increased demand for transceivers.

1,000 transceivers from Johnson, and to order substantially more transceivers from Kokusai, the Japanese producer. 21/

To date we have information on the record which confirms that Kokusai did underbid the price offered by Johnson in response to AT&T's "Request for Quotation" (RFQ) for September 1, 1982. Also, in 1983, AT&T did place a substantial order with Kokusai, compared with a relatively small order with Johnson. In addition, according to the data supplied by Johnson, the sales made by Johnson to AT&T were made at prices which resulted in a loss to Johnson. 22/

On the basis of this information, we determine that there is a reasonable indication that the domestic industry, as defined for this preliminary investigation, lost at least part of a major sales order to the imports under investigation. These sales were lost by reason of significant, if not substantial, underselling. In addition, there is a reasonable indication that the sales made by Johnson were made at depressed prices. Based on the foregoing, we have concluded that there is a reasonable indication that a domestic industry is materially injured by reason of imports of cell-site transceivers from Japan.

21/ Since most of the details of these accounts involve highly sensitive business confidential information, we are severely limited in discussing the various issues raised by the parties, and explored by the Commission in evaluating Johnson's allegations.

22/ Report A-15.

ADDITIONAL VIEWS OF COMMISSIONER STERN

Even though I have found a reasonable indication of material injury by reason of the subject imports, there are certain key issues which could not be definitively resolved during this preliminary investigation. One question is why Johnson refused AT&T's offer of an additional 1,000 units in early 1983. Johnson claims that the per unit price it had to accept for the 1,000 unit order was made at a loss. Thus acceptance of the 2,000 unit order at an even lower unit price would have resulted in an even greater loss. Second, Johnson claims that its September bid price, which it maintains also reflected a loss, was offered in the expectation that by lowering its price, it could have won the entire order from Kokusai. By early 1983, Johnson argues, it knew that Kokusai was going to be awarded the order. Accordingly, Johnson interpreted the offer of another 1,000 unit offer as merely a stop gap measure on the part of AT&T, to fill its requirements until Kokusai could begin adequate shipments.

On the other hand, AT&T's policy, as evidenced by the terms of its RFQ, was to source these transceivers from multiple suppliers. Thus, offering to source more than one-third of its total requirements from Johnson could simply have been consistant with a multiple source policy. Thus, Johnson's refusal to accept these additional units could have been based upon the erroneous premise that AT&T had abandoned its multiple sourcing policy. Alternatively, Johnson's refusal could have been motivated by other considerations, such as the possibility of more lucrative orders from other manufacturers. The information currently on the record seems to support Johnson's claim that its

refusal to accept the additional 1,000 unit order was not self-inflicted injury, but was done to avoid greater financial losses. 1/

My determination is made with the realization that the cell-site transceiver market is presently in the throes of substantial growth and change. E. F. Johnson appears to have entered into, or is on the verge of entering into arrangements with two companies whereby Johnson will be supplying the transceiver component of the system. A final important development is AT&T's recent announcement that it intends to commence production of transceivers itself in late 1984 or early 1985.

1/ However, this issue may well be explored further should there be a final investigation. In addition, respondent Kokusai has argued that any financial problems experienced by Johnson in 1983 may reflect research and development expenses Johnson is incurring as a result of its research and development agreement with IT&T, not with respect to the product sold to AT&T. This may also be explored further in any final investigation.

INFORMATION OBTAINED IN THE INVESTIGATION

Introduction

On December 28, 1983, a petition was filed with the U.S. International Trade Commission and the Department of Commerce by counsel on behalf of the E. F. Johnson Co., Waseca, Minn., alleging that imports of cell-site transceivers and subassemblies thereof from Japan are being sold in the United States at less than fair value (LTFV) and that the establishment of an industry in the United States is being materially retarded by reason of imports of such merchandise. In the alternative, the petitioner alleges that an industry in the United States is materially injured, or threatened with material injury, by reason of imports of such merchandise. Accordingly, the Commission instituted investigation No. 731-TA-163 (Preliminary) under section 733 of the Tariff Act of 1930 to determine whether there is a reasonable indication that an industry in the United States is materially injured, or is threatened with material injury, or the establishment of an industry in the United States is materially retarded, by reason of imports of such merchandise into the United States. 1/ The statute directs that the Commission make its determination within 45 days after receipt of a petition, or in this case, by February 13, 1984.

Notice of the institution of the Commission's investigation and of a conference to be held in connection therewith was given by posting copies of the notice in the Office of the Secretary, U.S. International Trade Commission, Washington, D.C., and by publishing the notice in the Federal Register of January 5, 1984 (49 F.R. 668). 2/ The conference was held in Washington, D.C., on January 20, 1984, 3/ and the Commission voted on the case at its meeting on February 7, 1984.

The Product

Description and uses

The imported products from Japan which are the subject of this investigation are cell-site transceivers and subassemblies thereof. These devices are part of the radio frequency (RF) equipment used in the base

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1/ The Commission instituted investigation 731-TA-163 (Preliminary) on cell-site radio apparatus and subassemblies thereof in order to include both cell-site transceivers and receiver/transmitter pairs, which function like a transceiver, within its scope. During the course of the investigation, however, it became apparent that receiver/transmitter pairs were significantly different from and not interchangeable with transceivers, and the Department of Commerce instituted its investigation only with respect to cell-site transceivers and subassemblies thereof. Thus the scope of the Commission's investigation is now limited to transceivers (and subassemblies).

2/ Copies of the notices instituting investigations by the Commission and the Department of Commerce are presented in app. A.

3/ A list of witnesses appearing at the Commission's conference is presented in app. B.

station (cell-site) of a cellular radio communications system (see the figure on page A-3 for a representation of a cellular radio system network). They function as locating receivers and provide simultaneous two-way voice and data communications between the base station and the subscriber's mobile telephone by using different frequencies to transmit and receive (both functions cannot be performed at the same time, however). Substantially identical products are produced in the United States.

There are two basically different and nonfungible types of equipment which perform the functions listed above (i.e., simultaneous two-way radio communications and locating reception). One is a cell-site transceiver (the subject of this investigation), which is a single device with an integral transmitter and receiver (sharing some common circuitry) in one unit. This device, alone, transmits and receives voice and data signals to and from the mobile unit using paired frequency channels to achieve simultaneous communication, and locates or senses signals from adjacent cells.

The second type of equipment consists of unmatched, nonintegrated transmitters and receivers in separate housings. While these transmitters and receivers, when used together, perform the same functions as a cell-site transceiver, they are distinct and separate from each other and are not necessarily exclusively matched in terms of frequency pairs. Such receiver/transmitter pairs are not within the scope of this investigation.

The decision to choose one type of cell-site radio apparatus over the other comes when the cellular radio system is initially designed. It is customary for operators of cellular radio systems to ask for bids on entire systems, being interested only in the functions of the system as a whole, and not usually in the component parts (such as the RF equipment). The specific design and application of the system is left to the manufacturers. The company that wins the contract is either a total system manufacturer or a consortium of two or more component manufacturers. In the case of a consortium, the different components of the system supplied by the various companies must work together. Since these components are highly specialized, this requires that the manufacturers of the components work closely together to jointly develop compatible equipment. This leads to unique cellular radio system designs with component parts designed exclusively for that particular system configuration. Very major adaptations would be necessary to enable one type of system to use (interface with) equipment not designed for it.

There are, however, two basic design configurations for the cell-site radio apparatus--the transceiver type and the transmitter/receiver type. While transceivers made by two manufacturers for two different systems are likely not to be interchangeable, they are similar in concept and application. On the other hand, transmitter/receiver combinations are totally distinct in concept and application from transceivers. This difference between the types of equipment is not only important in the initial planning stages of the cellular radio system, but also as the system expands and it becomes necessary to add more cell-site radio equipment--since the operator of the system must choose to buy the type of equipment that is already being used in the system. That either means buying the necessary equipment from the original manufacturer or asking another company to design a compatible product.

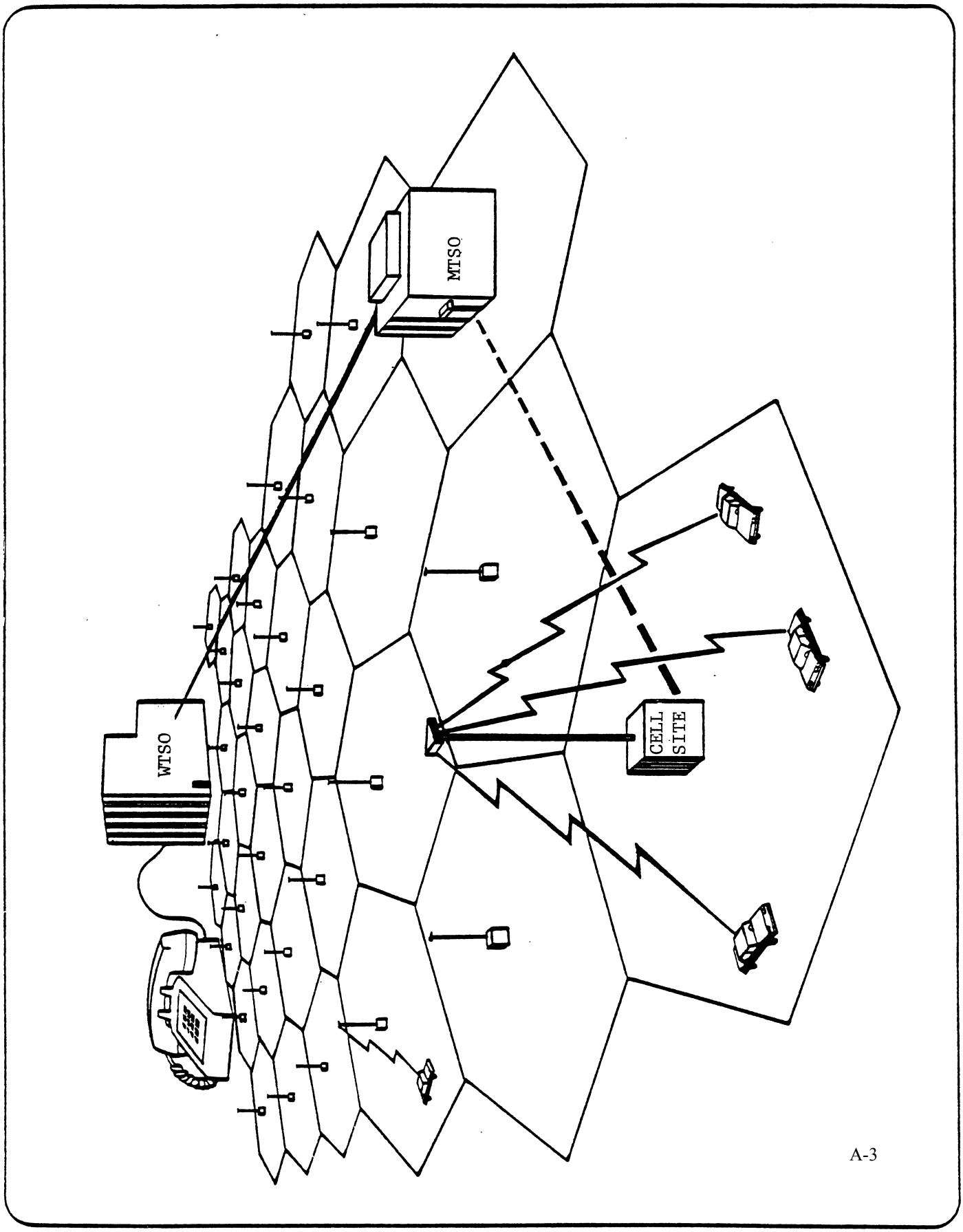

Figure 1.--Cellular radio system network

Source: AT&T Technologies

Different models of cell-site transceivers may be produced in a variety of configurations. Since each transceiver is designed and built for a specific system, the sizes of the transceivers, as well as the locations of the connecting jacks, are, typically, different, thus making it normally impossible to directly substitute a transceiver made for one system for a transceiver made for another system. However, if other specifications are the same, the modifications necessary to physically reconfigure the transceivers to make them interchangeable would be minor.

As mentioned, the major differences between transceivers result from the design of the system within which they are intended to function. For example, a cell-site transceiver unit may or may not be designed to incorporate control functions. 1/ While these differences may be significant in terms of design and cost, the units' basic transceiving capabilities remain essentially the same.

Cellular and conventional mobile telephony

Cellular radio technology is the result of a growing need for mobile telephony with limited radio spectrum. Conventional mobile telephone service is characterized by one powerful, central, fixed base station which sends and receives signals to and from mobile telephones using different frequencies to achieve simultaneous two-way communication. This base station usually transmits and receives signals to and from the wireline telephone switching office (WTSO) by telephone lines. The routing of calls between the wireline telephone and the mobile telephone is either done through an operator or, in some instances, automatically.

Conventional mobile telephony is considered to be very inefficient in terms of frequency use. The bandwidth required for a conversation with a conventional mobile telephone is four times the amount required for an ordinary AM broadcast radio station. (This comparison is only used to show the difference in frequency use.) With this inefficiency in mind, the Federal Communications Commission (FCC) has been very reluctant to assign more of the radio spectrum to mobile telephony. This has resulted in very long waiting lists for mobile telephone service, long waits for making a mobile telephone call (finding a pair of free radio channels), and very high subscription costs for mobile telephone users.

In December 1971, Bell Telephone Laboratories (Bell Labs) proposed a service now known as cellular radio service. A cellular radio system is one wherein a given geographical area is divided into zones or cells, with each cell having its own base station. The base station (or cell site) is served by a low-power transmitting tower having a very limited range of from 1 to 5 miles. The cell site communicates with a mobile telephone by either a transceiver or a transmitter/receiver pair. The interface between the WTSO

1/ All systems must have equipment that monitors and controls the power of the incoming signal, the selection of the stronger signal being received, and other related functions. These control functions can be incorporated into the cell-site transceiver unit or they can be located in a separate unit. The petitioner, E. F. Johnson, makes * * *. Most other transceivers currently being produced apparently have some form of control functions incorporated.

and the mobile telephone system is through a mobile telephone switching office (MTSO). The signals between the cell site and the MTSO or between the MTSO and the WTSO can be sent by wire, fiber optics, or microwave.

The major advantages of cellular radio systems over conventional mobile telephony are those of "handing off" and "frequency reuse." Handing off refers to the capability inherent in the system of allowing a subscriber to move from one cell to another while using his mobile telephone. The first cell site hands off the conversation to the cell site in the adjacent cell when the signal being transmitted from the first cell site becomes weak enough and the signal being received from the second cell site becomes strong enough. Every cell site has radio apparatus (either a radio receiver or a transceiver with the transmitter portion dormant) which listens to frequencies in adjacent cells and senses when the signals are strong enough to indicate that a subscriber is entering its cell. The handing off is accomplished by switching the frequencies on which the conversation is being transmitted when leaving one cell and entering another. The switching of cells and frequency channels is handled by the MTSO. The subscriber generally does not even notice that he/she has changed frequencies or cells. In addition, no operator is necessary to complete either land-to-mobile or mobile-to-mobile communication.

The process of handing off allows for the second major advantage of cellular radio systems, frequency reuse. This refers to the ability of the system to use the same set of frequencies in two or more cells. The only restriction is that the cells using the same set of frequencies may not be adjacent to each other.

These two advantages greatly facilitate the expansion of cellular systems. With conventional mobile telephone service, the only way to expand the system is to add more available frequency channels. With a cellular radio system, however, the system can be expanded by either adding more frequency channels or by subdividing existing cells into smaller cells, thus providing for virtually limitless capacity.

On March 3, 1982, the FCC began accepting applications for construction permits for cellular systems. As of December 31, 1983, there were two commercial systems in place, in Chicago, Ill., and Washington, D.C.

U.S. tariff treatment

Cell-site radio apparatus and their subassemblies are classified for tariff purposes under items 685.24 and 685.29 of the Tariff Schedules of the United States (TSUS). Receivers used as part of a transmitter/receiver pair are classified in TSUS item 685.24, while both the transmitters used as part of a transmitter/receiver pair and the cell-site transceivers are classified in TSUS item 685.29. 1/

1/ The statistical annotation under which cell-site transceivers are classified is 685.2976, of the Tariff Schedules of the United States Annotated, which is not generally used for transceivers. This results from the fact that, while the industry considers the subject articles to be transceivers, headnote 4 of schedule 6, part 5, of the TSUS specifies that for tariff purposes "transceivers" cannot transmit and receive simultaneously.

The column 1 (most-favored-nation) rates of duty for items 685.24 and 685.29 are 7.7 percent ad valorem and 6 percent ad valorem, respectively. The column 2 rates for both items 685.24 and 685.29 are 35 percent ad valorem. 1/ There are no known imports of the subject article from column 2 countries. As a result of concessions made during the Tokyo round of multilateral trade negotiations (MTN), the column 1 rate of duty is to be reduced to 6 percent ad valorem for item 685.24 effective January 1, 1987. No concessions were made as to TSUS item 685.29. The rate for imports from least developed developing countries (LDDC's) is 6 percent under both items 685.24 and 685.29. 2/ Imports of cell-site radio equipment from designated beneficiary developing countries are eligible for duty-free treatment under the Generalized System of Preferences (GSP). 3/ The staged duty reductions as a result of the MTN are shown in table 1.

Nature and Extent of Alleged Sales at LTFV

The source of petitioner's complaint was the decision by Western Electric Co. (now AT&T Technologies) to award Kokusai Electric Co., Ltd., (Kokusai) of Japan a contract to provide * * * cell-site transceivers, based on a bid price of * * * 4/ per unit. The Kokusai bid was in response to a request for quotation (RFQ) from Western Electric to supply cell-site transceivers for the Western Electric cellular mobile telephone systems. The petitioner, E. F. Johnson, alleged that it was the lowest domestic bidder, at * * *, since it was the only U.S. firm with production experience for cell-site transceivers. However, E. F. Johnson was unable to match the Kokusai bid and therefore lost the contract to the Japanese company.

Since there are no home-market sales of cell-site transceivers in Japan, and no known sales to third countries, the petitioner has based its claim of LTFV sales on a constructed fair value, based on the petitioner's knowledge of the Bell Labs specifications, examination of a Kokusai transceiver called the Redicom radio (which is not used in cell-site systems), and its own costs of production. The constructed value of the Kokusai transceivers is alleged by E. F. Johnson to be * * *, or more than three times the Kokusai bid price to Western Electric. Thus, the estimated LTFV margin, based on the petitioner's constructed fair market value, is 255.66 percent ad valorem. A more detailed analysis of Kokusai's and E. F. Johnson's costs of production is presented in the following section.

1/ Applicable to countries enumerated in general headnote 3(f) of the TSUS.

2/ The preferential rates of duty in the "LDDC" column reflect the full U.S. MTN concession rates implemented without staging for particular items which are the products of LDDC's enumerated in general headnote 3(d) of the TSUS. Where no rate of duty is provided in the "LDDC" column for an item, the rate of duty in col. 1 applies.

3/ The GSP, enacted as title V of the Trade Act of 1974, provides duty-free treatment for specified eligible articles imported from designated beneficiary developing countries. GSP, implemented by Executive Order No. 11888 of Nov. 24, 1975, applies to merchandise imported on or after Jan. 1, 1976, and is scheduled to remain in effect until Jan. 4, 1985.

4/ * * *.

Table 1.--Certain Cell-site radio apparatus and subassemblies thereof: Pre-MTN rates of duty and staged rate-of-duty modifications, 1980-87

(Percent ad valorem)

TSUS item No.	Pre-MTN col. 1 rate of duty 1/	Staged Col. 1 rate of duty effective with respect to articles entered on or after Jan. 1--							
		1980 2/	1981	1982	1983	1984	1985	1986	1987
685.24------	10.4%	9.9%	9.3%	8.8%	8.2%	7.7%	7.1%	6.6%	6.0%
685.29 3/---	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%

1/ Rate effective prior to Jan. 1, 1980.
2/ The first staged rate reduction became effective Jan. 1, 1980.
3/ No concessions were made for item 685.29.

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Cost of Production Comparison

At the public conference, counsel for Kokusai took issue with the cost-of-production figures used by E. F. Johnson in its petition. Kokusai alleged that the Redicom radio used by the petitioner as the basis for some cost of production estimates is not comparable to the Kokusai transceiver. According to Kokusai, the Redicom radio was designed and exported to the United States in 1976, and is still produced according to the production technology prevalent at that time. The Redicom radio does not reflect current technology, design, or production techniques and, therefore, the comparison between the Redicom radio and the transceiver being produced for Western Electric is erroneous. 1/

Kokusai argued that it produces its transceivers in a state-of-the-art, * * * production process, and that * * *. Kokusai further alleged that the transceiver is not a "high-tech" product, but rather a product consistent with state-of-the-art mobile-radio design. * * *. 2/

In support of its position, Kokusai submitted its estimated costs and expenses for production of cell-site transceivers for Western Electric. The following tabulation compares Kokusai's reported costs of production for cell-site transceivers with those reported by E. F. Johnson:

Item	Kokusai	E. F. Johnson
Material costs including packing cost	***	***
Labor costs	***	***
General, selling, and administrative expenses	***	***
Cost before profit	***	***
Profit	***	***
Total cost 1/	***	***

1/ Added to this figure is import duty of * * * and ocean freight and other charges of * * *, for a total cost of * * *.

Kokusai estimated that it takes * * * man-hours to produce its transceiver, while E. F. Johnson estimates * * * man-hours to produce its transceiver. The reason for the difference between the companies is the production process. * * *. Western Electric estimated that * * *. Kokusai estimated direct and indirect labor at * * * per man-hour; E. F. Johnson's comparable labor costs were estimated at * * * per man-hour.

Johnson and Kokusai Comparison

Kokusai provided it's most recent annual business report for the 12-month period ending on March 31, 1983, and this report is part of the official record. Kokusai generated * * * in sales per employee and * * * in sales per

1/ Transcript, pp. 77-82.
2/ Telephone conversation with * * *.

dollar of net fixed assets. In comparison E. F. Johnson generated * * * in sales per employee and * * * per dollar of net fixed assets. The aforementioned comparisons are based on the total operations of these two companies. It should be noted that the production of cell-site transceivers is a relatively small segment of both companies' total operations. The available data do not allow a direct comparison on cell-site transceivers only.

U.S. Producers

There are currently two known U.S. producers that are actively manufacturing cell-site transceivers, E. F. Johnson and General Electric (GE) Co., Fairfield, Conn. Two other U.S producers are known to be planning to manufacture cell-site transceivers--Harris Corp., RF Communications Division, Rochester, N.Y. and AT&T Technologies, Greensboro, N.C.

E. F. Johnson, a wholly owned subsidiary of Western Union Corp., Upper Saddle River, N.J., is a manufacturer of land mobile radio communication systems, mobile telephone systems, and electronic components. 1/ E. F. Johnson produces it's cell-site transceivers at it's headquarters in Waseca, Minn. The company has two other production plants, in Garner, Iowa and Twin Falls, Idaho.

The E. F. Johnson Co. was started in 1923 by Edgar Johnson in Waseca, Minn., as a manufacturer of radio parts which were sold by mail order. During World War II, the company expanded rapidly, manufacturing radio products for the armed forces. In November 1976, E. F. Johnson became a publicly held corporation and was listed on the New York Stock Exchange. In 1981, the last year the company issued a public annual report, E. F. Johnson had net sales of $59.5 million. The acquisition of E. F. Johnson by Western Union was accomplished by a share-for-share exchange, which increased the value of E. F. Johnson stock from $23 per share to $45 per share. Western Union stated in its 1982 annual report that it acquired E. F. Johnson to strengthen its role in the telecommunications market. Western Union has applied, as a nonwireline carrier, for 42 of the first 60 available cellular licenses.

E. F. Johnson and ITT Telecom (ITT) have entered * * * to produce a cellular telephone system named Celltrex. ITT will supply the MTSO (computer) for the system, while E. F. Johnson will supply the RF equipment, including the cell-site transceivers. E. F. Johnson has also actively entered the cellular mobile telephone (subscriber unit) market and currently has orders to produce approximately * * * subscriber units.

GE is a multinational corporation which was incorporated in 1892 as a consolidation of the Edison General Electric Co. and the Thompson-Houston Electric and International Co. GE manufacturers it's cell-site transceivers in its Lynchburg, Va., plant. The GE transceivers are being produced for a system that is sold in conjunction with an MTSO produced by Northern Telecom, a Canadian corporation. The GE-Northern Telecom cellular system has been awarded construction contracts for Bell Canada and * * *. It should be noted that GE * * *.

1/ Western Union acquired E. F. Johnson on Nov. 30, 1982.

Harris Corp. plans to enter the cellular system field with its Cellstar system. * * *. This system will be available for commercial deliveries by * * *. 1/ AT&T Technologies' E.R. Schnell (Director of Purchasing & Transportation and General Manager of Commercial Products Operations) informed the Commission that AT&T Technologies (hereafter referred to as AT&T) is planning to start production of a new generation transceiver in the last quarter of 1984. 2/ AT&T expects the production of transceivers to be * * *.

Foreign Producers

The only known foreign producer of cell-site transceivers is Kokusai Electric Co., Ltd., Tokyo, Japan. Kokusai is a publicly held corporation, which is traded on the Tokyo Stock Exchange. The company had net sales of approximately $220 million in 1983. * * *.

Kokusai informed the Commission that it was able to develop its transceiver for Western Electric by using * * *. The production technique came from * * *.

Kokusai's largest stockholder is Hitachi, Ltd., of Japan, which owns 21 percent of the company. A copy of Kokusai's annual business report for fiscal year April 1982-March 1983 has been placed on the investigation's public record.

U.S. Cellular Market

On February 25, 1982, the FCC gave its final approval to the concept of cellular radio. The FCC report, among other things, allocated specific frequencies for use in cellular systems and designated that in each market area, two operating licenses for cellular systems would be granted. One license would go to an existing telephone company servicing the area and the other license would go to a radio common carrier. The two systems are to be identical in function but will not necessarily be identical in structure or equipment. In the near future (the next year or two) the FCC is likely to grant construction permits for the top 90 market areas. In the near term, then, there are likely to be 180 possible contracts awarded to systems suppliers.

Domestic and Foreign Cellular System Suppliers

As mentioned, cellular radio system suppliers can be generally grouped into two categories: total system manufacturers and consortiums of two or more manufacturers collectively supplying entire turnkey systems.

Motorola, Inc., is the largest domestic manufacturer of total cellular radio systems. It's systems are designed and manufactured in Schaumberg,

---

1/ Submission by Harris Corp., Jan. 12, 1984.
2/ Submission by AT&T Technologies, Jan. 27, 1984.

Ill. Motorola presently has a system in operation in Washington, D.C., and has received orders for * * * systems. 1/ Motorola has also won contracts to provide cellular systems in Great Britain and presently provides equipment for the Nordic cellular radio system in Scandinavia.

Other domestic manufacturers of cellular systems and manufacturers which have announced that they plan to produce cellular systems include Harris Corp. (RF Communications Division) of Rochester, N.Y.; CTI Manufacturing Co. of Corinth, Miss.; General Telephone and Electronics (GTE) of Northlake, Ill.; and Quintron Corp. of Quincy, Ill. * * *.

The largest foreign manufacturers of complete systems include LM Ericsson, a Swedish company which provides equipment for the Nordic cellular radio system, as well as the Spanish cellular system and the Saudi Arabian system. Ericsson has also won at least one contract in the United States to supply a cellular radio system for Buffalo, N.Y. Nippon Electric Co., Ltd. (NEC), is a Japanese company which supplies complete systems to Japan, Australia, Hong Kong, Mexico, and Singapore. To date, NEC * * * * * * * the United States for cellular systems, * * * * * on them. Matsushita Industrial Corp., Ltd., also a Japanese company, is providing cellular systems primarily to Middle East countries such as Bahrain, Qatar, and the United Arab Emirates. Panasonic Industrial Corp. (the U.S. subsidiary of Matsushita Industrial Corp.) has bid on a number of contracts, but to date has not won any. The final known foreign supplier of an entire cellular system is NovAtel Communications Inc., a Canadian firm, which has provided some equipment to the Canadian cellular system and is reportedly offering systems in the United States.

Consortiums offering cellular systems in the United States include E. F. Johnson and ITT (Johnson is providing the cell-site equipment and ITT is supplying the MTSO); GE and Northern Telecom (GE is supplying the cell-site equipment and Northern Telecom, a Canadian company, the MTSO); and Stromberg-Carlson and Mitsubishi International. Stromberg-Carlson, a U.S. company owned by a British company, is supplying the MTSO, and Mitsubishi International, a Japanese company, is supplying the cell-site equipment.

The last known cellular systems supplier is AT&T Technologies (formerly Western Electric, a subsidiary of American Telephone and Telegraph). AT&T Technologies manufactures * * *. As previously mentioned, AT&T will begin manufacturing cell-site transceivers in late 1984. * * *.

The GE/Northern Telecom consortium has won * * *. ATT Technologies has a system in operation in Chicago, Ill., and has won * * * more contracts. With these two exceptions, there have been no known contracts awarded to the other consortiums, although all are actively seeking orders and contract awards for any or all of them could be imminent.

1/ Motorola informed the Commission staff, through a telephone conversation (Jan. 30 1983) that they anticipate selling * * * cellular systems in 1984. * * *.

The Western Electric Contract

In * * * 1982, the Western Electric Co. solicited bids ("request for quotation," hereafter referred to as RFQ) for the production and delivery of cell-site transceivers. The transceivers were to be manufactured in accordance with the specification set forth by Bell Labs in * * *. 1/ Actually, this RFQ was a request for two separate bids:

1) * * *.

2) * * *.

The RFQ identified three options for price quotations. * * *.

Western Electric sent the RFQ to * * *. 2/ The specification from Bell Labs was * * *.

The interpretation of the RFQ and the subsequent events that led to awarding Kokusai with the majority of the procurement contract have been disputed by E. F. Johnson and Western Electric (with Kokusai agreeing with Western Electric). The Commission staff met with both E. F. Johnson and Western Electric to obtain their respective understandings.

The E. F. Johnson petition only included the July 1, 1982, response to the RFQ, because the company alleges that the two bid requests were later merged. * * *.

Western Electric received * * * responses for the July 1, 1982, bid deadline of the RFQ, as follows:

Company	* * * units	* * * units	* * * units
E. F. Johnson Waseca, Minn.	***	***	***
Kokusai Electric Co. of America El Segundo, Calif.	***	***	***
* * *	***	***	***

* * * * * * * 3/

The actions of both Johnson and Western Electric during the period between the first and second bid (July 1, 1982, to Sept. 1, 1982) have been disputed by both companies. Western Electric alleges that * * *.

1/ A copy of the Bell Laboratory specifications has been placed in the confidential record.

2/ The companies that were sent the RFQ are as follows: * * *.

3/ * * *.

Johnson disputes Western Electric's interpretation of these events and explained its position in its post-conference brief. After the July 1, 1982, bid, Western Electric allegedly * * *. 1/

According to Western Electric, * * * companies responded to the September 1, 1982, part of the RFQ. * * *. Based on the * * *. 2/ A summary of all bids received for supplying 2,000 and 3,500 units is shown below:

* * * * * * *

* * *. 3/ 4/ 5/ 6/

The U.S. Market

Apparent U.S. consumption of cell-site transceivers has increased from * * * experimental units in 1981 to * * * test units in 1982 and to * * * commercial sale units in 1983. * * *. Also, if the ITT-E. F. Johnson cellular system is successfully marketed, consumption may increase even more. The entrance of AT&T Technologies in late 1984 will also impact apparent consumption. E. F. Johnson estimated that the U.S. market for transceivers will increase to * * * units in 1984; * * * units in 1985, and * * * units in 1986. * * *. Kokusai estimated that the U.S. market for transceivers will be approximately * * * units per year from 1984 through 1986. However, if contract awards are given to system producers that do not use transceivers (e.g., Motorola), then the U.S. market for transceivers will suffer accordingly. Additional information on market projections is presented later in this report.

1/ The * * * Kokusai bid was * * *.

2/ Copies of Johnson's and Kokusai's bids are presented in Apps. C and D, respectively. A summary of their bids is as follows (in dollars per unit):

Number of units	Johnson	Kokusai
300	***	***
500	***	***
1,000	***	***
1,500	***	***
2,000	***	***
2,500	***	***
3,000	***	***
3,500	***	***
4,000	***	***

3/ * * *.

4/ * * * is presented in app. E.

5/ Also see transcript, pp. 43-48.

6/ At a meeting on Dec. 20, 1983, with E. F. Johnson in Waseca, Minn. The staff was told that * * *.

Consideration of Injury or Threat Thereof

U.S. production, capacity, and capacity utilization

Only E. F. Johnson submitted usable production and capacity information. Johnson * * * its production capacity for cell-site transceivers from * * * units in 1982 to * * * units in 1983. E. F. Johnson's production of cell-site transceivers * * * from * * * units in 1981 to * * * units in 1982 and * * * units in 1983. The 1983 figure represents * * *. * * *.

GE informed the Commission that * * *. GE estimated its domestic production of cell-site transceivers to be * * * units in 1983, however, the company did not attempt to estimate production capacity.

In comparison, Motorola informed the Commission that it produced * * * transmitter/receiver pairs in 1983, and approximated its capacity for these units at * * * for 1983.

Domestic shipments, exports, and inventories

E. F. Johnson's domestic shipments are * * *: * * * units in 1981, * * * units in 1982, and * * * units in 1983. * * *. GE reported * * *. * * *. In comparison, Motorola reported domestic shipments of * * *.

U.S. imports

As previously stated, Kokusai exported * * * cell-site transceivers to the United States in 1983. However, the company projected its exports to the United States to be * * * units in 1984, * * * units in 1985; and * * * units in 1986.

Employment

Both E. F. Johnson and GE reported employment statistics. The number of production workers for cell-site transceivers * * * from * * * employees in 1981 to * * * employees in 1983. The 1983 figure can be broken down to * * * employees for E. F. Johnson and * * * employees for GE. E. F. Johnson informed the Commission that it * * *. 1/

Financial performance of U.S. producers

The only U.S. producer to provide financial information was E. F. Johnson, the petitioner. E. F. Johnson provided historical financial data for the 12-month operating periods ending December 31, of 1981, 1982, and 1983, and provided projected financial data for the 12-month periods ending December 31 of 1984, 1985, and 1986.

1/ Meeting with E. F. Johnson, Dec. 20, 1983.

The historical financial data reflect the company's overall performance in its Waseca, Minn., plant, and the operating performance of its cell-site transceiver operations in that plant. The evaluation of E. F. Johnson will concern itself with the company's overall performance, then the cell-site transceiver operations, and lastly the company's projections in comparison with the projections of other producers and that of an investment advisory service.

Overall operations--* * * (table 2).

Cell-site transceiver operations.--Since 1975 E. F. Johnson has developed three generations of cell-site transceivers. During the 3-year period under review, 1981 through 1983, the company has sold varying quantities of cell-site transceivers each year, with differing operational results.

* * * (table 3).

* * * * * * *

* * *. When E.F. johnson, whose total assets aggregate to * * *, is compared with Robert Morris Associates (RMA) firms which have total assets between * * * and * * * million, Johnson's level of gross profit to sales * * * (table 4).

Research and Development

GE and E. F. Johnson reported research and development expenditures for cell-site transceivers as follows (in thousands of dollars):

	1981	1982	1983
E. F. Johnson--------	***	***	***
GE-------------------	***	***	***

Johnson also reported that it spent * * * on research and development for transceivers during 1975-80. 1/ However, AT&T Technologies informed the Commission that * * *. 2/ * * *. 3/

1/ Transcript, p. 15.
2/ Transcript, pp. 19-20.
3/ Phone conversation with AT&T, Jan. 27, 1984.

Table 2.--Financial data on E. F. Johnson's Waseca, Minn., operations for the periods ended on Dec. 31 of 1981, 1982, and 1983

Item	Dec. 31--		
	1981	1982	1983
Net sales----------1,000 dollars--	***	***	***
Cost of goods sold---------do----	***	***	***
Gross profit or (loss)------do----	***	***	***
General, selling, and administrative expenses----1,000 dollars--	***	***	***
Net operating profit or (loss) 1,000 dollars--	***	***	***
Interest expense---1,000 dollars--	***	***	***
Other income or (expense) 1,000 dollars--	***	***	***
Profit or (loss) before income taxes----------1,000 dollars--	***	***	***
Depreciation and amortization expense included above 1,000 dollars--	***	***	***
Pre-tax cash flow from operations 1,000 dollars--	***	***	***
As a share of net sales:			
Cost of goods sold-----percent--	***	***	***
Gross profit or (loss)----do----	***	***	***
Operating profit or (loss) percent--	***	***	***
Profit or (loss) before income taxes----------percent--	***	***	***
Capital expenditures 1,000 dollars--	***	***	***
Fixed assets at cost--------do----	***	***	***

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table 3.--Financial data on E. F. Johnson's operations in producing cell-site transceivers and subassemblies thereof for the periods ended Dec. 31, 1981, Dec. 31, 1982, and Dec. 31, 1983

Item	Dec. 31--		
	1981	1982	1983
Net sales----------1,000 dollars--	***	***	***
Cost of goods sold----------do----	***	***	***
Gross profit or (loss)------do----	***	***	***
Allocated corporate expenses 1,000 dollars--	***	***	***
Net operating profit or (loss) 1,000 dollars--	***	***	***
Interest expense----------do----	***	***	***
Other income or (expense)---do----	***	***	***
Profit or (loss) before income taxes----------1,000 dollars--	***	***	***
Depreciation and amortization expense included above 1,000 dollars--	***	***	***
Pre-tax cash flow from operations 1,000 dollars--	***	***	***
As a share of net sales:			
Cost of goods sold-----percent--	***	***	***
Gross profit or (loss)----do----	***	***	***
Operating profit or (loss) percent--	***	***	***
Profit or (loss) before income: taxes----------percent--	***	***	***
Capital expenditures 1,000 dollars--	***	***	***
Fixed assets at cost--------do----	***	***	***
Research and development----do----	***	***	***

1/ * * *.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table 4.--Comparative analysis of E. F. Johnson Co. with Robert Morris Associates statement studies on SIC No. 3662 of * * * to * * * in asset size

Item	Period 1/ ended on Dec. 31, 1983	* * * RMA 2/ annual statements ended between Oct. 1, 1982, and Mar. 31, 1983
As a share of net sales:		
Net sales----------percent--	***	100.0
Cost of goods sold----------do----	***	***
Gross profit----------do----	***	***
Operating profit----------do----	***	***
Profit before taxes----------do----	***	***
Ratios:		
Quick 5/----------times--	***	3/ ***
Current 6----------do----	***	3/ ***
Receivables turnover----------do----	***	3/ ***
Inventory turnover----------do----	***	3/ ***
Fixed assets to net worth percent--	***	4/ ***
Debt to worth----------times--	***	4/ ***
Net sales to net fixed assets times--	***	3/ ***

1/ Compiled from data submitted in confidence to the U.S International Trade Commission.

2/ 1983 Robert Morris Associates Annual Statement Studies, p. 102.

3/ Number depicted is the median value for ratios of RMA surveyed firms.

4/ Number depicted falls halfway between the median and the strongest ratio, i.e., upper quartile.

5/ Calculated as cash plus net receivables plus readily marketable securities divided by current liabilities. The ratio expresses the degree to which a company's current liabilities are covered by the most liquid current assets. It is a more conservative analytical measure than the current ratio.

6/ Calculated as current assets divided by current liabilities. This ratio is a rough indication of a firm's ability to service its short-term debts.

Consideration of the Causal Relationship Between Alleged LTFV Imports and the Alleged Injury

Market penetration of the alleged LTFV imports

U.S. imports of cell-site transceivers only accounted for a * * * percent share of the U.S. market in 1983. However, in 1984, the market penetration of Japanese transceivers could increase to * * * percent, as Kokusai begins its deliveries of cell-site transceivers under the Western Electric contract. This projection could change if both the ITT-Johnson and Northern Telecom-GE cellular systems are awarded production contracts. Another factor that will affect market penetration in 1985 and thereafter will be ATT Technologies (formerly Western Electric) production of its own cell-site transceiver and its ability to gain future contracts for the construction of its cellular systems. After AT&T begins production of its own transceiver for the AT&T cellular system, * * *.

Threat of injury

Kokusai's production plant where cell-site transceivers are produced (* * *) has an estimated optimum capacity of * * * units per month and a practical capacity level of * * * units per month. Thus it should take Kokusai * * * to complete the Western Electric contract.

Of the * * * people that Kokusai employs in the * * *, * * * are dedicated for the production of transceivers.

Lost sales

The Commission * * * E. F. Johnson's allegation that it lost the sale of cell-site transceivers, under the Western Electric contract, to Kokusai Electrical Co. of Japan. The amount of the lost sale was * * * units. However the price differential on the lost sale has been open to debate. The Kokusai price was * * * per unit and the Johnson price offered in the September 1, 1982, RFQ bid (for over 4,000 units) was * * * (see the Western Electric contract section of this report).

The impact of AT&T's decision to produce transceivers

AT&T informed the Commission that under a previous court decree in 1956, it was not allowed to produce RF equipment. However, the recent divestiture agreement removed the 1956 manufacturing restraints from AT&T. Thus, the company has made the decision to produce its own new generation transceiver in late 1984-early 1985. 1/ AT&T said the decision to produce its own transceivers * * *. Furthermore, AT&T stated that * * *.

As stated in E. F. Johnson's petition, AT&T is the largest customer for cell-site transceivers, and will continue to be so in the near future. Thus, AT&T's decision to produce transceivers will significally curtail sales opportunites for independent transceiver suppliers (i.e., those not related to a cellular systems manufacturer).

1/ Submission dated Jan. 27, 1984.

Projected demand for cell-site transceivers

As shown in table 5, there are varying projected demands for cell-site transceivers from 1984 through 1986. The conclusion that can be inferred from these projections is that producers and investment research firms agree that there will be a substantial U.S. market for transceivers.

Table 5.--Projected or estimated demand for cell-site transceivers for 1984-86

Item	1984	1985	1986
Company			
E. F. Johnson----------units--	***	***	***
Kokusai----------do----	***	***	***
Ericsson 1/----------do----	***	***	***
Lehman Bros			
New cells per year 2/----------	540	675	540
Cell-site transceivers 3/			
units--	23,760-42,120	29,700-52,650	23,760- 42,120
Median number of transceivers			
do----	32,940	41,175	32,940
Drexel Burnham			
New cells per year 4/----------	122	178	183
Cell-site transceivers 4/			
units--	5,368-9,516	7,832-13,884	8,052-14,274
Median number of transceivers			
do----	7,442	10,858	11,163

1/ Ericsson's estimate of demand did not distinguish between transceivers and transmitter/receiver pairs.

2/ Cellular Mobile Radio Telecommunications Service, as researched by Lehman Brothers Kuhn Loeb Research.

3/ Compilation based upon data in footnote 2 above p. 10 in which report indicates "a seven cell reuse pattern can have a maximum 44 or 45 channels per cell. A four cell reuse plan can accommodate up to 78 channels per cell.", and the fact that cell-site transceivers are required at a rate of one (1) transceiver per channel.

4/ Cellular Radio Telephone, as researched by Drexel Burnham Lambert, Inc.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission, except as noted.

E. F. Johnson's projections for total demand * * *. The fifth firm's projections (Lehman Bros.) are very high in relation to the others and, therefore, will not be used. Johnson expected to sell * * * percent, * * * percent, and * * * percent of the units sold in the U.S. market in 1984, 1985, and 1986, respectively (table 6). These projections do not take into consideration Kokusai's alleged LTFV sales in the U.S. market and AT&T's decision to manufacture its own transceivers.

Table 6.--Projected or estimated shares of cell-site transceivers market for 1984-86 on the basis of E. F. Johnson's projections of total U.S. market demand

Firm and item	1984	1985	1986
E. F. Johnson:			
Number of units	***	***	***
Share of total U.S. units percent	***	***	***
Kokusai:			
Number of units	***	***	***
Share of total U.S. units as projected by E. F. Johnson----------percent	***	***	***
Share of total U.S. units as projected by Kokusai	***	***	***

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

For 1984, Kokusai projects importing * * * transceivers, * * *. * * *. 1/ * * *. 2/

* * * * * * *

Johnson projects its sales of cell-site transceivers as * *.* (table 7). * * *.

E. F. Johnson and Kokusai Electric Co., Ltd., are similar companies, in that they are both manufacturers of electronic equipment. However, Kokusai has a broader product line than does Johnson. Furthermore, Kokusai is substantially larger than E. F. Johnson in terms of sales volume and total asset base. Kokusai's sales as of March 31, 1983, were * * * the sales of E. F. Johnson, at * * * versus * * * for the consolidated sales volume of E. F. Johnson as of December 31, 1982. On sales of * * *, Kokusai had pre-tax earnings of * * *. Kokusai had total assets of * * * at March 31, 1983, in comparison with Johnson's asset base of * * * as of December 31, 1982.

Prices

A single U.S. producer, E. F. Johnson, supplied * * * percent of reported sales in the U.S. market for cell-site transceivers in 1982 and * * * of the market in 1983. In October-December of 1983, two other supplying firms, GE and Kokusai, also reported sales of transceivers. Because the U.S. demand for cell-site transceivers is expected to grow rapidly in the next few years, new

1/ Phone conservation with AT&T, Jan. 27, 1984.
2/ Phone conversation with S. Gibson of Arent, Fox, et al. Feb. 1, 1984.

Table 7.--Projected financial data on E. F. Johnson's operations in producing cell-site transceivers for the periods ending Dec. 31, of 1984-86

Item	1984	1985	1986
Sales----------1,000 dollars--	***	***	***
Cost of goods sold----------do----	***	***	***
Gross profit or (loss)------do----	***	***	***
General, selling, and administrative expenses----1,000 dollars--	***	***	***
Operating profit or (loss) 1,000 dollars--	***	***	***
As a share of net sales:			
Cost of goods sold---percent--	***	***	***
Gross profit or (loss)--do----	***	***	***
Operating profit or (loss) percent--	***	***	***
Capital expenditures to be used for production, warehousing and marketing of cell-site transceivers----------1,000 dollars--	***	***	***
Research and Development cost incurred in developing U.S. produced cell-site transceivers 1,000 dollars--	***	***	***

Source: Compiled from data submitted in response to the questionnaires of the U.S. International Trade Commission.

suppliers are preparing to enter the market. To obtain price information in this dynamically growing market, the Commission requested selling and bid prices in its questionnaires to producers and importers.

Selling prices.--The Commission asked U.S. producers and importers for their net f.o.b. and net delivered selling prices on shipments of cell-site transceivers to their largest customers, by quarters, from January 1982 through December 1983. The Commission received pricing information from two domestic producers, E. F. Johnson and GE, and from one Japanese supplier, Kokusai. Johnson reported price information for most of the quarters requested, whereas GE and Kokusai reported price information for only the fourth quarter of 1983. * * *.

The weighted-average net f.o.b. selling prices are presented by reporting firms in table 8. Johnson's weighted-average selling prices of its transceivers * * *. 1/

* * * * * * * 2/

1/ * * *.

2/ Commission staff field trip of Jan. 13, 1984.

Table 8.--Cell-site transceivers produced in the United States and imported from Japan: Weighted average net selling prices and quantities, by principal suppliers, by quarters, January 1982-December 1983 1/

Period	Domestic				Japanese	
	Johnson 2/		General Electric		Kokusai	
	Price	Quantity	Price	Quantity	Price	Quantity
	Per unit	Units	Per unit	Units	Per unit	Units
1982:						
Jan.-Mar.	***	***	***	***	***	***
Apr.-June	***	***	***	***	***	***
July-Sept.	***	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***	***
1983:						
Jan.-Mar.	***	***	***	***	***	***
Apr.-June	***	***	***	***	***	***
July-Sept.	***	***	***	***	***	***
Oct.-Dec.	***	***	***	3/ ***	***	***

1/ * * *.
2/ * * *.
3/ * * *.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Prices bid for future contracts.--Two U.S. producers of transceivers, Johnson and GE, responded to this section of the questionnaire, but no U.S. importers of Japanese transceivers responded. * * *. 1/ 2/

1/ Novatel, Ltd., a wireline company located in Alberta, Canada, awarded the * * *-unit contract to Johnson. However, in an article published in Communications Week (Jan. 31, 1984), the Novatel contract is described as a "multiyear contract valued at more than $10 million a year to purchase cellular base radio systems from Waseca, Minn.-based E. F. Johnson. The Johnson model 1162 intelligent base station equipment is to be incorporated in cell-sites Novatel plans to construct as part of the recently introduced Aurora 800 cellular system."
2/ * * *.

APPENDIX A

INVESTIGATION NOTICES

INTERNATIONAL TRADE COMMISSION

[Investigation No. 731-TA-163 (Preliminary)]

Import Investigations; Certain Cell-Site Radio Apparatus and Subassemblies Thereof From Japan

AGENCY: United States International Trade Commission.

ACTION: Institution of a preliminary antidumping investigation and scheduling of a conference to be held in connection with the investigation.

EFFECTIVE DATE: December 29, 1983.

SUMMARY: The United States International Trade Commission hereby gives notice of the institution of investigation No. 731-TA-163 (Preliminary) under section 733(a) of the Tariff Act of 1930 (19 U.S.C. 1673b(a)) to determine whether there is a reasonable indication that an industry in the United States is materially injured, or is threatened with material injury, or the establishment of an industry in the United States is materially retarded, by reason of imports from Japan of certain cell-site radio apparatus and subassemblies thereof, provided for in items 685.24 or 685.29 of the Tariff Schedules of the United States (1983), which are alleged to be sold in the United States at less than fair value.

FOR FURTHER INFORMATION CONTACT: Mr. Bill Schechter (telephone 202-523-0300), U.S. International Trade Commission, 701 E Street NW., Washington, D.C. 20436.

SUPPLEMENTARY INFORMATION:

Background

This investigation is being instituted in response to a petition filed in proper form on December 29, 1983, by counsel for E.F. Johnson Co., Waseca, Minn. The Commission must make its determination in this investigation within 45 days after the date of the filing of the petition, or by February 13, 1984 (19 CFR 207.17).

Participation

Persons wishing to participate in this investigation as parties must file an entry of appearance with the Secretary to the Commission, as provided for in section 201.11 of the Commission's Rules of Practice and Procedure (19 CFR 201.11), not later than seven (7) days after the publication of this notice in the **Federal Register**. Any entry of appearance filed after this date will be referred to the Chairman, who shall determine whether to accept the late entry for good cause shown by the person desiring to file the notice.

Service of documents

The Secretary will compile a service list from the entries of appearance filed in this investigation. Any party submitting a document in connection with the investigation shall, in addition to complying with § 201.8 of the Commission's rules (19 CFR 201.8), serve a copy of each such document on all other parties to the investigation. Such service shall conform with the requirements set forth in § 201.16(b) of the rules (19 CFR 201.16(b), as amended by 47 FR 33682, Aug. 4, 1982).

In addition to the foregoing, each document filed with the Commission in the course of this investigation must include a certificate of service setting forth the manner and date of such service. This certificate will be deemed proof of service of the document. Documents not accompanied by a certificate of service will not be accepted by the Secretary.

Written submissions

Any person may submit to the Commission on or before January 25, 1984, a written statement of information pertinent to the subject matter of this investigation (19 CFR 207.15). A signed original and fourteen (14) copies of such statements must be submitted (19 CFR 201.8).

Any business information which a submitter desires the Commission to treat as confidential shall be submitted separately, and each sheet must be clearly marked at the top "Confidential Business Data." Confidential submissions must conform with the requirements of § 201.6 of the Commission's rules (19 CFR 201.6). All written submissions, except for confidential business data, will be available for public inspection.

Conference.—The Director of Operations of the Commission has scheduled a conference in connection with this investigation for 9:30 a.m. on January 20, 1984, at the U.S. International Trade Commission Building, 701 E Street NW., Washington, D.C. Parties wishing to participate in the conference should contact Mr. Bill Schechter (202-523-0300) not later than January 16, 1984, to arrange for their appearance. Parties in support of the imposition of antidumping duties in this investigation and parties in opposition to the imposition of such duties will each be collectively allocated one hour within which to make an oral presentation at the conference.

Public inspection.—A copy of the petition and all written submissions, except for confidential business data, will be available for public inspection during regular business hours (8:45 a.m. to 5:15 p.m.) in the Office of the Secretary, U.S. International Trade Commission, 701 E Street, NW., Washington, D.C.

For further information concerning the conduct of this investigation and rules of general application, consult the Commission's Rules of Practice and Procedure, part 207, subparts A and B (19 CFR part 207, as amended by 47 FR 33682, Aug. 4, 1982), and part 201, subparts A through E (19 CFR part 201, as amended by 47 FR 33682, Aug. 4, 1982). Further information concerning the conduct of the conference will be provided by Mr. Bill Schechter.

This notice is published pursuant to § 207.12 of the Commission's rules (19 CFR 207.12).

Issued: December 30, 1983.

Kenneth R. Mason,

Secretary.

[FR Doc. 84-249 Filed 1-4-84; 8:45 am]

BILLING CODE 7020-02-M

DEPARTMENT OF COMMERCE

International Trade Administration

[A-588-021]

Cell Site Transceivers and Related Subassemblies From Japan; Initiation of Antidumping Duty Investigation

AGENCY: International Trade Administration, Commerce.

ACTION: Notice.

SUMMARY: On the basis of a petition filed in proper form with the United States Department of Commerce, we are initiating an antidumping duty investigation to determine whether cell site transceivers and related subassemblies from Japan are being, or are likely to be, sold in the United States at less than fair value. We are notifying the United States International Trade Commission (ITC) of this action so that it may determine whether an industry in the United States is materially injured or threatened with material injury, or whether the establishment of an industry in the United States is materially retarded, by reason of imports of that merchandise. If the investigation proceeds normally, the ITC will make its preliminary determination on or before February 13, 1984, and we will make ours on or before June 5, 1984.

EFFECTIVE DATE: January 25, 1984.

FOR FURTHER INFORMATION CONTACT: Roland MacDonald or Jack Davies, Office of Investigations, Import Administration, International Trade Administration, United States Department of Commerce, 14th Street and Constitution Avenue, N.W., Washington, D.C. 20230 telephone (202) 377-5496 and 377-1784.

SUPPLEMENTARY INFORMATION:

The Petition

On December 28, 1983, we received a petition from E. F. Johnson Company, Waseca, Minnesota, filed on behalf of the domestic cell site transceivers industry. In compliance with the filing requirements of § 353.36 of the Commerce Regulations (19 CFR 353.36), the petition alleges that imports of the subject merchandise from Japan are being, or are likely to be, sold in the United States at less than fair value within the meaning of section 731 of the Tariff Act of 1930, as amended (19 U.S.C. 1673) (the Act), and that an industry in the United States is materially injured or threatened with material injury, or that the establishment of an industry in the United States is materially retarded, be reason of imports of that merchandise. The allegation of sales at less than fair value is supported by a comparison of the foreign market value of the subject merchandise, based on the U.S. domestic producer's costs adjusted, where appropriate, for cost differences in Japan, with the United States bid price less appropriate adjustments.

Initiation of Investigation

Under section 732(c) of the Act, we must determine, within 20 days after a petition is filed, whether it sets forth the allegations necessary for the initiation of an antidumping duty investigation and whether it contains information reasonably available to the petitioner supporting the allegations. We have examined the petition on cell site transceivers and related subassemblies and have found that the petition meets the requirements of section 732(b) of the Act. Therefore, we are initiating an antidumping duty investigation to determine whether cell site transceivers and related subassemblies from Japan are being, or are likely to be, sold at less than fair value in the United States. If our investigation proceeds normally, we will make our preliminary determination by June 5, 1984.

Scope of Investigation

The merchandise covered by this investigation are cell site transceivers and related subassemblies as provided for in item 685.2976 of the Tariff Schedules of the United States Annotated. Cell site transceivers and related subassemblies are part of the radio frequency equipment (RF) in the base station (cell site) of a cellular radio communications system. This single package RF equipment functions as a locating receiver and provides simultaneous two-way voice and data communications between the base station and the subscriber's mobile telephone by using different frequencies to transmit and receive. Subassemblies are an assemblage of component parts dedicated for use in cell site transceivers as defined above.

Notification to ITC

Section 732(d) of the Act requires us to notify the ITC of this action and to provide it with the information we used to arrive at this determination. We will notify the ITC and make available to it all nonprivileged and nonconfidential information. We will also allow the ITC access to all privileged and confidential information in our files, provided it confirms that it will not disclose such information either publicly or under an administrative protective order without the consent of the Deputy Assistant Secretary for Import Administration.

Preliminary Determination by ITC

The ITC will determine by February 13, 1984, whether there is a reasonable indication that an industry in the United States is materially injured or threatened with material injury, or that the establishment of an industry in the United States is materially retarded, by reason of imports of that merchandise.

If its determination is negative, the investigation will terminate; otherwise, it will proceed according to the statutory procedures.

Alan F. Holmer,

Deputy Assistant Secretary for Import Administration.

January 17, 1984.

[FR Doc. 84-1999 Filed 1-24-84; 8:45 am]

BILLING CODE 3510-DS-M

APPENDIX B

WITNESSES AT THE COMMISSION'S CONFERENCE

CALENDAR OF PUBLIC CONFERENCE

Investigation No. 731-TA-163 (Preliminary)

CELL-SITE RADIO APPARATUS AND SUBASSEMBLIES THEREOF FROM JAPAN

Those listed below appeared as witnesses at the United States International Trade Commission conference held in connection with the subject investigation beginning at 9:30 a.m., e.d.t., Friday, January 20, 1984, in the Hearing Room of the USITC Building, 701 E Street, N.W., Washington, D.C.

In support of the imposition of antidumping duties

Bishop, Liberman, Cook, Purcell & Reynolds--Counsel
Washington, D.C.

Charles R. Johnston)--OF COUNSEL
Ronelle W. Adams)

Stacker & Ravich
Minneapolis, MN

Jann L. Olsten--OF COUNSEL

on behalf of

E. F. Johnson Company
Mr. Richard E. Horner, Chairman and Chief Executive Officer
Mr. Robert W. Brandel, Vice President, Industrial Communications Programs, Radio Products Division

In opposition to the imposition of antidumping duties

Arent, Fox, Kintner, Plotkin & Kahn--Counsel
Washington, D.C.
on behalf of

Kokusai Electric Company, Ltd.

Stephen L. Gibson)--OF COUNSEL
Robert H. Huey)

Coudert Brothers--Counsel
Washington, D.C.
on behalf of

Nippon Electric Company, Ltd.
NEC of America, Inc.

Michael Calvey)
Mark D. Herlach)--OF COUNSEL
Steven H. Becker)

Weil, Gotshal and Manges--Counsel
New York, NY
on behalf of

Matsushita Electric Corp.

A. Paul Victor)--OF COUNSEL
Charles Bayar)

APPENDIX C

E. F. JOHNSON'S BID

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APPENDIX D

KOKUSAI'S BID

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APPENDIX E

WESTERN ELECTRIC'S LETTER OF INTENT

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