UNITED STATES TARIFF COMMISSION

Report to the President on
Investigation No. TEA-F-32
Under Section 301(c)(1) of the Trade Expansion Act of 1962

CERTAIN VARIABLE ELECTRICAL CAPACITORS: ALL STAR PRODUCTS, INC., DEFIANCE, OHIO

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UNITED STATES TARIFF COMMISSION

Address all communications to
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Note.--The whole of the Commission's report to the President may not be made public since it contains certain information that could result in the disclosure of the operations of an individual concern. This published report is the same as the report to the President, except that the above-mentioned information has been omitted. Such omissions are indicated by asterisks.

REPORT TO THE PRESIDENT

U.S. Tariff Commission
October 4, 1971

To the President:

In accordance with section 301(f)(1) of the Trade Expansion Act of 1962 (76 Stat. 885), the U.S. Tariff Commission herein reports the results of an investigation, made under section 301(c)(1) of the Act, in response to a petition filed by a firm.

On August 4, 1971, All Star Products, Incorporated, Defiance, Ohio, filed a petition for a determination of its eligibility to apply for adjustment assistance. On September 7, 1971, the Commission instituted an investigation (TEA-F-32) to determine whether, as a result in major part of concessions granted under trade agreements, articles like or directly competitive with variable electrical capacitors of the types produced by the aforementioned firm are being imported into the United States in such increased quantities as to cause, or threaten to cause, serious injury to such firm.

Public notice of this investigation was given in the Federal Register (36 F.R. 18268) on September 10, 1971. No public hearing was requested, and none was held.

In the course of its investigation, the Commission obtained information in the field, from its files, and from data provided by domestic producers and consumers of certain variable electrical capacitors.

Finding of the Commission

Based on its investigation, the Commission 1/ finds that articles like or directly competitive with variable electrical capacitors of the types produced by All Star Products, Incorporated, Defiance, Ohio, are not, as a result in major part of concessions granted under trade agreements, being imported into the United States in such increased quantities as to cause, or threaten to cause, serious injury to such firm.

1/ Chairman Bedell, Vice Chairman Parker, and Commissioner Moore did not participate in the decision.

Views of Commissioner Sutton

This investigation was initiated on petition of All Star Products, Inc., of Defiance, Ohio, under section 301(c)(1) of the Trade Expansion Act of 1962. In my judgment, the criteria established by that section respecting petitions by firms requesting determination of their eligibility to apply for adjustment assistance have not been met. I have, therefore, made a negative determination.

The first criterion established by section 301(c)(1) is that articles like or directly competitive with those produced by the firm must be imported in increased quantities. All Star Products, Inc. (hereinafter referred to as All Star) has in recent years manufactured primarily variable air tuning capacitors for use in home radio receivers. All Star claims that the Commission should consider not only imports of the capacitors concerned, but also imports of radio receivers in which such tuning capacitors are incorporated. In several recent cases under the Trade Expansion Act, 1/ I have set forth my reasons why finished products containing specified components should not be regarded as "directly competitive" with such components. Those reasons are fully applicable in the instant case. In my view, the like or directly competitive imported articles, for purposes of the instant investigation,

1/ Electrolytic Capacitors: Ion Capacitor Corporation . . ., Investigation No. TEA-F-11 . . ., TC Publication 335, August 1970, p. 4; Rayon Staple Fiber: Certain Workers of the FMC Corporation . . ., Investigation TEA-W-35 . . ., TC Publication 357, January 1971, pp. 7-15; Paper Cones for Loudspeakers: Fibre Form Corporation . . ., Firm Investigation No. TEA-F-16 and Worker Investigation No. TEA-W-55 . . ., TC Publication 362, pp. 8-11

must be regarded as variable air tuning capacitors (which were produced by All Star) and polyvaricons (a type of variable tuning capacitor used mostly in low-cost solid-state radio receivers).

U.S. imports both of variable air tuning capacitors and polyvaricons have declined sharply in recent years, as domestic production of radio receivers has dropped. * * *. In light of the steady decrease in imports during the past 5 years, I must conclude that the first criterion established by section 301(c)(1) has not been met--i.e., articles like or directly competitive with those produced by All Star are not being imported in increased quantities.

Views of Commissioners Leonard and Young

Our determination is necessarily in the negative because the statutory criteria established by the Trade Expansion Act of 1962 for a determination of a firm's eligibility to apply for adjustment assistance have not been met. Specifically, we have found that no article like or directly competitive with an article made by the petitioning firm is being imported in increased quantities.

All Star Products petitioned with regard to the principal item made by that firm in recent years--variable air tuning capacitors of a type for use in home radio receivers. Imports of variable air tuning capacitors have declined markedly in both quantity and value during recent years. * * *.

Polyvaricons, which are another type of variable capacitor, are used for tuning purposes in some radio receivers. There may be some question, however, whether polyvaricons should be regarded as directly competitive with the variable air tuning capacitors produced by All Star Products. Polyvaricons are usually used in small, low-cost radios, while variable air tuning capacitors are used mostly in larger, more expensive, and better quality receivers. Whether the two products are deemed to be directly competitive or not, recent U.S. imports of polyvaricons have followed the same pattern as imports of the air tuning capacitors, that is, they have declined steadily in quantity and value from 1966 to the present. * * *

Variable air tuning capacitors and polyvaricon capacitors are the only electronic articles now used extensively for tuning purposes in home radio receivers. Varactors--solid-state diodes which can be used for tuning purposes--are little used in home radio receivers at present; inductances of a special type provide tuning in automobile radios (where use of variable capacitors is not practical) but not in home receivers. Thus, we do not regard these articles as directly competitive with the product made by All Star Products.

Undoubtedly, the problems confronting All Star Products are those brought on in large part by increased imports, but the increased imports are not of an article like or directly competitive with the variable air tuning capacitors made by All Star Products. Rather, the increased imports are of the final product in which such variable capacitors are used, that is, radio receivers. More and more, U.S. consumption of radios is being supplied from abroad, and the foreign manufacturers are obtaining from abroad components such as variable air tuning capacitors. However, under the Trade Expansion Act of 1962, even taking into consideration section 405(4) of that statute (which further defines "directly competitive with"), it cannot be said that an imported radio or a variable air tuning capacitor within an imported radio is an article directly competitive with the product made by the petitioner.

Section 405(4) of the Trade Expansion Act of 1962 reads:

> An imported article is "directly competitive with" a domestic article at an earlier or later stage of processing, and a domestic article is "directly competitive with" an imported article at an earlier or later stage of processing, if the importation of the imported article has an economic effect on producers of the domestic article comparable to the effect of importation of articles in the same stage of processing as the domestic article. For purposes of this paragraph, the unprocessed article is at an earlier stage of processing.

The House Report accompanying the Trade Expansion Act explains part of the provision as follows:

> Your committee has incorporated in the bill a provision which has the effect of permitting an extension of the scope of the term "directly competitive." Under this provision, an imported article may be considered "directly competitive with" a domestic article, or vice versa, if the one is at an earlier or later stage of processing than the other, or if one is a processed and the other an unprocessed form of the same article, and if the economic effect of importation of the imported article is comparable to the effect of importation of articles in the same stage of processing as the domestic article.
>
> The term "earlier or later stage of processing" contemplates that the article remains substantially the same during such stages of processing, and is not wholly transformed into a different article. Thus, for example, zinc oxide would be zinc ore in a later stage of processing, since it can be processed directly from zinc ore. For the same reason, a raw cherry would be a glace cherry in an earlier stage of processing, and the same is true of a live lamb and dressed lamb meat (sec. 405(4)). 1/

In the context of the statute and the House report a radio cannot be deemed to be a variable air tuning capacitor at a later stage of processing. A radio is substantially different from a capacitor; it is a combination of a capacitor plus other components, having been

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1/ House Report No. 1818, 87th Cong., 2d Sess., p. 24.

transformed into a radio from a collection of components. A capacitor alone cannot receive, convert and amplify a radio signal, as does a radio. Nor is a capacitor that is an integral part of a radio any longer a capacitor in commercial terms. It is a part of a radio. We are not, therefore, permitted under the statute to regard an imported radio or a variable air tuning capacitor within an imported radio as directly competitive with the variable air tuning capacitors made by All Star Products.

INFORMATION OBTAINED IN THE INVESTIGATION

Description and Uses

The articles which are the subject of the petition filed by All Star Products, Inc., are variable air tuning capacitors made for use in home radio receivers. Sales of such capacitors accounted for the bulk of total sales by the firm in recent years.

A capacitor is a device used to hold or store an electrical charge. It is composed of two conductors of electrical energy (plates) separated by a nonconducting material (dielectric). When a voltage is applied between the two plates (acting as electrodes), passage of electrons through the dielectric is restricted, and they collect at one dielectric-electrode interface. The measure of the capacitor's ability to store an electrical charge is its capacitance, expressed in microfarads and picofarads (one-millionth of a microfarad; formerly called micro-microfarad). Capacitance increases as the ratio of plate area to dielectric increases, thus, the thinner the dielectric, the higher the capacitance. A capacitor is designed to a specific voltage rating, indicating the maximum voltage it can withstand without being destroyed.

Most capacitors are fixed, that is, the capacitance cannot be changed at will. Other capacitors are variable, that is, the capacitance can be altered by an adjustment.

Variable capacitors

There are two general types of variable capacitors normally used in home radio and television sets--tuning capacitors and trimmer capacitors.

A tuning capacitor usually consists of two sets of parallel metal plates (commonly made of aluminum), one set being isolated from the frame by small insulating supports, and the other set attached to a rod or shaft and meshed between the first set. When the shaft is rotated, the attached plates move between the fixed plates, and either increase or decrease the capacitance depending upon the direction of rotation. The dielectric is air, and the values of capacitance can be varied from a few picofarads up to 500 or more, depending upon the design. Such capacitors, when connected in parallel with inductances in radio frequency amplifier and local oscillator circuits in radio receivers or UHF television tuners, provide station tuning; they have a calibrated scale attached either directly to the capacitor shaft or through a reduction device.

Trimmer capacitors are usually composed of pairs of flat or coaxially mounted assemblies of electrodes, one of which can be screwed towards or into the other. The dielectric can be either air or a solid such as mica, ceramic, or glass, and the capacitance can be varied over only a few picofarads. Normally, trimmer capacitors are adjusted during factory alinement of the circuits involved and are then locked in place.

Substitutes

Two electronic components other than variable air tuning capacitors--polyvaricons and varactors--can also be used for tuning purposes in various kinds of home radio receivers.

Polyvaricons are variable tuning capacitors in which polyethylene (a plastic)--rather than air--is used as the dielectric. The greater dielectric constant of the polyethylene permits the production of a capacitor much smaller than air types with comparable capacitance. Polyvaricons are currently made only in Japan and are used in small, low cost, solid-state radios.

Varactors (also called varicaps) are semiconductor diodes which behave like variable capacitors when an applied voltage is increased or decreased; a potentiometer may be used to vary the voltage. Varactors are not generally used in home radio receivers at the present time.

For all practical purposes fixed capacitors are not substitutable for variable capacitors. Inductances (inductors) of a special type are used in lieu of variable tuning capacitors under certain circumstances, such as in automobile radios. Inductances are used in automobile radios because the antenna system would require too large and expensive a tuning capacitor. Inductances are not used in home radios because for such radios tuning capacitors are less costly.

U.S. Tariff Treatment

Variable capacitors are dutiable as "electrical capacitors" under item 685.80 of the Tariff Schedules of the United States. (Capacitors were dutiable as radio apparatus until August 31, 1963.) The rate of duty is currently 10 percent ad valorem, whereas the statutory rate established under the Tariff Act of 1930 was 35 percent. If of

Canadian origin and intended for use as original equipment in the manufacture in the United States of a motor vehicle, capacitors may be entered free of duty under item 685.81.

The duties on radio receivers (items 685.23 and 685.25) and radio-phonograph combinations (item 685.30), the principal articles in which variable air dielectric capacitors of the type produced by the petitioner are used, have been reduced from a statutory rate of 35 percent ad valorem to 8 percent for radio-phonograph combinations and to 7 percent and 10.4 percent for tube type or solid-state (tubeless) radio receivers, respectively. The intermediate rates established by various trade agreements and the reductions scheduled under the Kennedy Round of the General Agreement on Tariffs and Trade (GATT) are indicated in the following table.

Capacitors and certain consumer electronic products: U.S. tariff rate history, June 18, 1930-Jan. 1, 1972

(In percent ad valorem)

Tariff Act or Trade Agreement	Effective date	Rate of duty on--			
		Capacitors (item 685.80)	Radio-phonograph combinations (item 685.30)	Radio receivers: Tube type (item 685.25)	Radio receivers: Solid-state (item 685.23)
Tariff Act of 1930----	June 1930	35	35	35	35
Bilateral Agreement with United Kingdom--	Jan. 1939	25	25	25	25
GATT, Geneva----------	Jan. 1948	15	15	15	15
GATT, Torquay----------	June 1951	12.5	13.75	12.5	12.5
TSUS----------	Aug. 1963	12.5	13.75	12.5	12.5
GATT, Kennedy Round----	Jan. 1968	12	12	11	12
	Jan. 1969	11	11	10	11.5
	Jan. 1970	11	9.5	8.5	11
	Jan. 1971	10	8	7	10.4
	Jan. 1972	10	6.5	6	10.4

Varactors (item 687.60), dutiable at 7 percent ad valorem, have been reduced from a statutory rate of 35 percent. Inductances (item 682.60) are dutiable at 9 percent, reduced from a statutory rate of 35 percent.

Some capacitors, radio receivers, and radio-phonograph combinations have been entered under item 807.00, which provides that for imported articles assembled in whole or in part of U.S. fabricated components the duty may be assessed only on the value added abroad, thus permitting the U.S. components to be entered duty free. Some of these articles have also been entered under item 806.30, which provides that imports of U.S.-made articles of metal exported for processing abroad and returned for further processing are duty free except for the value of processing outside the United States. In 1970, imports entered under items 806.30 and 807.00 amounted to 28 percent of the value of total imports of all types of capacitors, 14 percent of the value of total imports of radio receivers, and 6 percent of the value of total imports of radio-phonograph combinations.

Polyvaricons, being variable capacitors, are dutiable under item 685.80.

Markets and Marketing

The variable air tuning capacitors made by the petitioner are designed for use in the production of radio receivers. Manufacture for most other uses would require different mechanical and electrical engineering and costly modification or replacement of equipment. The potential market for these capacitors is, therefore, essentially restricted to manufacturers of radio receivers.

To meet the competition from imports, the firms engaged in marketing radio receivers have increasingly gone abroad to produce them, complete or as chassis (dutiable as radio receivers) for installation in cabinets in the United States. The U.S. market for variable tuning capacitors has diminished accordingly.

Variable air tuning capacitors for use in home radios are made to customer specifications. There are certain basic models, but customers universally request modification of them. All Star attempted to interest customers in off-the-shelf purchasing, but was unsuccessful. Radio designers and engineers prefer not to be restricted to off-the-shelf specifications. As a result, capacitor producers' inventories have usually been negligible.

Radio manufacturers customarily submit specifications to capacitor suppliers and solicit bids. Where tooling costs are more than minimal, the bid ordinarily includes a tooling-cost fee separate from the price quoted for the capacitors. Should specifications require a basic design other than one of the producer's standard models, tooling costs are usually very high.

U.S. Consumption

U.S. consumption of variable air tuning capacitors for use in home radios dropped * * * during 1966-70, * * *. Domestic sources have supplied most of the demand, although the ratio of imports to consumption fluctuated in that period * * *.

Consumption of variable air tuning capacitors has declined because U.S. demand for radio receivers has been increasingly supplied by imports. Annual U.S. consumption of radio receivers, including radio-phonograph combinations, averaged about 40 million units annually in 1966-70, but domestic shipments dropped sharply from 15.2 million units in 1966 to 6.4 million in 1970 (table 1). The potential domestic market for variable tuning capacitors, consequently, also dropped sharply.

U.S. Producers

Although about eight U.S. firms produced variable air tuning capacitors for use in home radios in the years following World War II, three firms accounted for most U.S. production--Radio Condenser Corp., All Star Products, Inc., and Variable Condenser Corp. Radio Condenser Corp. was absorbed by TRW Inc. in 1961. All companies but the three named had stopped producing these capacitors by the early sixties.

Variable Condenser Corp., with a plant at Chicopee, Mass., ceased production of the subject capacitors about 1965. TRW, with facilities for making variable air tuning capacitors at Camden, N. J. and Watseka, Ill., ended production at Watseka a few years ago and phased

out production of these capacitors at Camden in 1970. All Star Products, Inc., is currently the sole domestic producer of variable air tuning capacitors for home radio use.

The former producers indicated that they had ceased production because (1) fewer radio receivers were being produced in the United States, the demand being increasingly supplied by imports, and (2) variable tuning capacitors imported at low prices were successfully competing for what little market remained.

U.S. Shipments

Variable air tuning capacitors for use in home radio receivers

The total value of annual sales in 1966-70 of U.S.-made variable air tuning capacitors for use in home radio receivers declined * * *.

* * * * * * *

For statistics on U.S. shipments of all variable capacitors, see table 3.

Radio receivers

U.S. shipments in 1966-70 of domestically made home radio receivers, including radio-phonograph combinations, declined each year from 15 million units in 1966 to an estimated 6 million units in 1970 (table 1). Each unit utilizes one variable air tuning capacitor (or a substitute, as indicated in the section on description and uses); therefore, the reduction in the output of domestic radio receivers represented a like reduction in the demand for variable tuning capacitors.

U.S. Exports

Exports of variable air tuning capacitors for use in home radio receivers have been small in the years 1966 to the present * * *.

U.S. Imports

Variable air tuning capacitors of the types produced by the petitioner, as well as polyvaricon capacitors, are imported into the United States both as separate capacitors and as components of imported radio receivers and radio-phonograph combinations.

Variable air tuning capacitors

Estimated U.S. imports of variable air tuning capacitors decreased each year in 1966-70 * * *. Data for the first 6 months of 1971 indicate that imports for the full year will probably be lower than 1970. The average unit value of imports was considerably higher in January-June 1971 because imports of larger, higher quality, more expensive types of capacitors for use in high fidelity stereo radio receivers constitute a larger portion of the imports than formerly. Imports of variable air tuning capacitors have declined because of the reduced production of radio receivers in the United States.

* * * * * * *

Japan was the principal source of imports in all years of the 1966-70 period. Taiwan was a significant supplier in 1967-69 but was phased out as a source in 1970. Germany has been a steady but minor source.

For a comparison of the tariff-rate history and the imports of capacitors, see table 3.

Polyvaricon capacitors

* * * * * * *

Only a few firms imported polyvaricons. They were priced about the same as comparable imported air tuning capacitors. Japan is the only source of polyvaricons. Imports of these capacitors declined because of the reduced production of radio receivers in the United States.

Radio receivers

Annual U.S. imports of radio receivers, including radio-phonograph combinations, increased in 1966-69 from 25.8 million units to 36.3 million units; a decline in 1970 to 32.7 million units probably reflected the general downturn in consumer purchasing. In 1966-70, the ratio of annual imports to consumption increased from 63.2 to 84.1 percent (table 1). Imports in January-June 1971 totaled 15.2 million units, valued at $175.2 million, compared with imports in the comparable period of 1970 of 15.4 million units, valued at $160.7 million.

For a comparison of the tariff-rate history and the imports of radio receivers and radio-phonograph combinations, see tables 4 and 5, respectively.

* * * * * * *

All Star Products, Inc.

History and organization

All Star Products, Inc., founded under the name American Steel Package Co. in 1904 to manufacture steel drums and barrels, initiated the production of variable air tuning capacitors about 1925 to meet the growing demand for radio components. The company adopted its present name in 1950. The father of the present chairman and president was responsible for originating much of the production technology used in making modern tuning capacitors. In addition to producing all parts of the tuning capacitors except the ball bearings and screws, the firm utilizes its automatic screw machines, punch presses and other equipment to make various articles used in electronic components, including variable air trimmer capacitors and inertia wheel drives.

The headquarters and plant, which are situated in Defiance, Ohio consist of one large building and one smaller building used for warehousing. The plant provides about 70,000 square feet used for manufacturing purposes. * * *.

* * * * * * *

In 1966 All Star Products began producing variable air trimmer capacitors in a plant in Lynchburg, Va., because of the proximity of Lynchburg to prime customers. The plant was closed in 1969, when the customers' requirements changed. * * *.

* * * * * * *

STATISTICAL APPENDIX

Table 1.--Radio receivers, including radio-phonograph combinations: 1/ U.S. shipments, imports for consumption, exports of domestic merchandise, and apparent consumption, 1966-70

Year	U.S. shipments	Imports	Exports	Apparent consumption	Ratio of imports to consumption
	1,000 units	1,000 units	1,000 units	1,000 units	Percent
1966	15,238	25,778	235	40,781	63.2
1967	11,092	24,894	272	35,714	69.7
1968	9,437	29,957	404	38,990	76.8
1969	7,894	36,335	357	43,872	82.8
1970	2/ 6,450	32,730	265	38,900	84.1

1/ Includes only home radio receivers and combinations used primarily for entertainment; excludes automobile radios, transceivers, and the like.

2/ Estimated by the U.S. Tariff Commission.

Source: Compiled from official statistics of the U.S. Department of Commerce, except as noted.

Table 2.--Variable capacitors: U.S. shipments, 1966-70

Year	Air	Mica, ceramic, and glass	Total
	Quantity (1,000 units)		
1966	12,785	87,457	100,242
1967	7,748	75,000	82,748
1968	7,495	73,629	81,124
1969	7,088	67,285	74,373
1970	1/ ***	1/ ***	77,945
	Value (1,000 dollars)		
1966	16,638	16,573	33,211
1967	15,117	15,785	30,902
1968	12,277	16,426	28,703
1969	9,427	19,534	28,961
1970	1/ ***	1/ ***	23,027
	Average unit value		
1966	$1.30	$0.19	$0.33
1967	1.95	.21	.37
1968	1.64	.22	.35
1969	1.33	.29	.39
1970	1/ ***	1/ ***	.30

1/ May not be published because it would reveal the activities of individual firms.

Source: Compiled from official statistics of the U.S. Department of Commerce, Bureau of Domestic Commerce.

Table 3.--Capacitors: U.S. rates of duty and imports for consumption, 1964-70

Year	Rate of duty	Imports	
		Electrical capacitors	Variable air tuning capacitors for home radio use
	Percent ad valorem	1,000 dollars	1,000 dollars
1964	12.5	8,356	1/
1965	12.5	15,541	1/
1966	12.5	24,525	***
1967	12.5	23,579	***
1968	12	26,930	***
1969	11	32,237	***
1970	11	2/ 33,223	***

1/ Not available.

2/ Imports of all types of variable capacitors, as reported by the Bureau of the Census, amounted to one-third of this total. Such imports totaled 5,095 thousand dollars in January-June 1971 and 5,294 thousand dollars in January-June 1970. Analysis of entry documents for June and December 1970 indicated that of all of the entries in these months (valued at 1,778 thousand dollars), imports valued at only about 37 thousand dollars were clearly identifiable as variable capacitors. A number of entries clearly indicated imports of fixed capacitors. Official data thus appear to substantially overstate the imports of variable capacitors.

Source: Compiled from data in official publications of the U.S. Department of Commerce and the U.S. Tariff Commission, except for imports of variable air tuning capacitors, which were compiled by the U.S. Tariff Commission from data provided by consumers of imported capacitors.

Table 4.--Radio receivers: U.S. rates of duty and imports for consumption, 1930-70

Year	Rate of duty	Imports	Year	Rate of duty	Imports
	Percent ad valorem	1,000 dollars		Percent ad valorem	1,000 dollars
1930	35	1/	1951	12.5	2/ 5,042
1931	35	1/	1952	12.5	2/ 6,035
1932	35	1/	1953	12.5	2/ 3,208
1933	35	1/	1954	12.5	2/ 2,562
1934	35	1/	1955	12.5	2/ 3,351
1935	35	1/	1956	12.5	2/ 8,492
1936	35	1/	1957	12.5	2/ 15,394
1937	35	1/	1958	12.5	2/ 28,171
1938	35	1/	1959	12.5	2/ 72,798
1939	25	4	1960	12.5	2/ 67,663
1940	25	4	1961	12.5	81,564
1941	25	3	1962	12.5	88,462
1942	25	2,459	1963	12.5	86,438
1943	25	4,421	1964	12.5	92,964
1944	25	1/	1965	12.5	3/ 107,107: 4/ 17,909
1945	25	35	1966	12.5	3/ 126,517: 4/ 17,590
1946	25	2/ 986	1967	12.5	3/ 149,135: 4/ 23,000
1947	25	2/ 295	1968	3/ 12 : 4/ 11	3/ 229,454: 4/ 7,563
1948	15	2/ 638	1969	3/ 11.5: 4/ 10	3/ 316,208: 4/ 2,559
1949	15	2/ 771	1970	3/ 11 : 4/ 8.5	3/ 324,233: 4/ 1,951
1950	15	2/ 2,897			

1/ Not available.

2/ In 1946-59, data for imports of radio receivers were combined with data for radio tubes and other radio apparatus and parts. In 1960, imports of such articles (other than radio receivers) were valued at about $25 million; thus an import figure for 1960 comparable with that for 1959 above would be 92,656 thousand dollars, representing a marked increase over 1959 imports.

3/ Solid state.

4/ Other than solid state.

Source: Compiled from data in official publications of the U.S. Department of Commerce and the U.S. Tariff Commission.

Table 5.--Radio-phonograph combinations: U.S. rates of duty and imports for consumption, 1960-70

Year	Rate of duty	Imports
	Percent ad valorem	1,000 dollars
1960	13.75	8,643
1961	13.75	12,940
1962	13.75	14,284
1963	13.75	11,282
1964	13.75	10,571
1965	13.75	11,890
1966	13.75	16,771
1967	13.75	25,731
1968	12	29,712
1969	11	36,313
1970	9.5	44,686

Source: Compiled from data in official publications of the U.S. Department of Commerce and the U.S. Tariff Commission.

Note.--Statistics for imports prior to 1960 were omitted because they include so many other electrical items along with radio-phonograph combinations as to be meaningless for the purposes of this table.