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# Japan Report

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14 June 1984

## JAPAN REPORT

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Oki Electric  
Hitachi  
Fujitsu Ltd

POLITICAL AND SOCIOLOGICAL

DIET-MEMBER GROUPS MANEUVER ECONOMY BEHIND THE SCENES

Tokyo ZAIKAI in Japanese 10 Jan 84 pp 34-39

[Article by Hiroaki Marugami: "Study of the 'Groups' That Manipulate the Japanese Economy Behind the Scenes"]

[Text] Groups That Hold the Power of Life or Death

"If an election were to be held at the end of his term of office, Prime Minister Nakasone would be out in the cold. Compilation of the fiscal year 1984 budget will leave the voters dissatisfied under conditions of deficit financing. We had no time for an election other than prior to the budget compilation."

So said Shin Kanemaru, the man who triggered the 28 November Diet dissolution.

If one were to look behind these words, it would reveal his confidence that the power to compile the budget is held not by central government offices, but by the Liberal Democratic Party, which is the ruling party.

Until the Sato cabinet, the power to set policy lay with central government offices; but, along with the demise of the high-growth era, critical policy choices shifted to the LDP Policy Research Committee.

With this kind of policymaking, "the groups" became pressure groups.

It is no exaggeration to say that now it is the groups who have a life-and-death hold on policy. Also, in the latest election most of the candidates were from the cadre of the central government offices, but it must be said that the results were frustrating to bureaucrats who had gone into politics from their shrinking offices and who wished themselves to make policy.

Last year, there was a big to-do about ASAHI SHIMBUN's exposure of the inside story of the construction industry's consultations over bidding on public works. Previously, the coziness of construction industry circles with political circles had been pointed out; but the detailed followup intimidated even construction industry circles.

Taking up the campaign, the opposition parties also raised this issue in the Diet and repeatedly pressed the attack, holding the Construction Ministry responsible. Bearing the brunt of the criticism, the Construction Ministry was driven into issuing a bureau chief's notice specifying 20 companies eligible to bid for public works, whereas in March 1982, it had held the list down to "some 10 firms."

Until the proportional representation system for national constituencies was introduced in the recent House of Councillors election, the Construction Ministry had a record of getting two people elected in national constituencies. National-constituency Dietmen from the Construction Ministry all have come from the technological area.

Unlike administrators, technologists oversee public project construction and engineering work; and, after bids are decided on and construction completed, they check results and otherwise directly supervise sites. Profits for construction and engineering firms depend on the calculations of the technologists, and vital issues flow from their having the right to take part in the bidding.

For that reason, they frantically get out votes in the elections and make political donations. For the LDP, the party holding power, putting the screws to the engineering and construction firms also is a key matter, bearing even on its political survival.

At the same time that the Construction Ministry lost its nerve over the issue of consultations, the LDP's construction group began moving into action.

As the consultation problem emerged, the "Japan Construction Industry Association," in which 170 construction firms participate committed itself to self-discipline.

Since the Political Funds Control Law was revised under the Miki cabinet, politicians' larders have become straitened. Because of this, gatherings such as "support parties" or "publication commemorative parties" have proliferated as a new method of raising political funds.

The construction Industry Association took in some 5 million yen for admission tickets to such parties given for influential politicians. But, to stop the drubbing it was receiving from the mass media over the consultations, the Construction Industry Association stopped cooperating with the selling of such tickets.

Because provincial construction and engineering firms who do not belong to the Construction Industry Association also had followed the example of those at the center, the fund-raising and vote-gathering machine which the construction firms had constituted for the LDP fell into a state of paralysis.

Table 1.

(\* Indicates influential persons)

AGRICULTURE/FISHERY GROUP

*Michio Watanabe	(no faction)	Munenori Akagi	(Komoto faction)
*Takao Kameoka	(Tanaka faction)	Koichi Kato	(Suzuki faction)
Tokuro Adachi	(Tanaka faction)	Tsutomu Hata	(Tanaka faction)
*Tokutaro Higaki	(upper house Nakasone faction)	Seiichi Kataoka	(Nakasone faction)
Takami Eto	(Nakasone faction)	Taichiro Okawara	(upper house, no faction)
*Eiichi Nakao	(Nakasone faction)	Takiichiro Hatsumura	(upper house, Kawamoto faction)
*Shintaro Abe	(Fukuda faction)	Sohei Miyashita	(Fukuda faction)
Takashi Sato	(no faction)		
Ichitaro Ide	(Komoto faction)		

FISHERIES GROUP

*Zenko Suzuki	(Suzuki faction)	Kiroku Yasuda	(Suzuki faction)
Iwazo Kaneko	(Suzuki faction)	Takayuki Sato	(Nakasone faction)
Fumio Abe	(Suzuki faction)		

FINANCE GROUP

*Takeo Fukuda	(Fukuda faction)	Takeshi Noda	(Nakasone faction)
*Kakuei Tanaka	(Tanaka faction)	Junichiro Koizumi	(Fukuda faction)
*Kiichi Miyazawa	(Suzuki faction)	Michio Ochi	(Fukuda faction)
Noboru Takeshita	(Tanaka faction)	Juro Matsumoto	(Fukuda faction)
Michio Watanabe	(No faction)	Ichiro Sato	(Fukuda faction)
Tatsuo Murayama	(Suzuki faction)	Jun Shiozaki	(Suzuki faction)
Ippei Kaneko	(Suzuki faction)	Hideyuki Aizawa	(No faction)
Sadanori Yamanaka	(Nakasone faction)	Iichiro Hatoyama	(upper house, no faction)
Tadashi Kuranari	(Nakasone faction)	Hitoshi Shimazaki	(Upper house, Suzuki faction)
Ganri Yamashita	(Tanaka faction)	Hiroshisa Fujii	(upper house, Tanaka faction)

The influential members of the construction group are Shin Kanemaru, Noboru Takeshita, Kosei Amano, Susumu Nikaido, Eiichi Watanabe, et al.

Among them, the person with supreme power is the don of the construction group, Kakuei Tanaka. Since he took the political seat of power in 1972, Tanaka has sent Takeo Kimura, Kanemaru, Takao Kameoka, Tatsuo Ozawa, Tadao Karitani, Takeshita, Shigeyoshi Saito and Hideo Utsumi as construction ministers from the Tanaka corps. The Construction Ministry truly is the Tanaka corps' stronghold.

## Construction Group Toughened by Boss Tanaka

Even for Amano and Watanabe, members of the other factions with power in the construction group, Tanaka is boss. Under Tanaka's agent, Kanemaru, the issue of the consultations surfaced, there was a flood of complaints, such as, "When we asked the Construction and Engineering Association to take on 5 million yen worth of party tickets, it was cut back to 1 million yen," or "The political fund has gone down to a tenth of what it was before."

Receiving such complaints, Kanemaru consulted with Amano and upper house member Takashi Inoue, who has served as chief engineer and administrative vice minister, and set up a "subcommittee on the construction industry, etc" within the Construction Committee.

With Kanemaru in charge, upper house member Kazuo Tamaki took the post of subcommittee chairman; Takami Eto of the Nakasone faction, vice chairman; and Inoue, office manager. To fend off public opinion, the Tanaka corps had deftly altered its form. Kanemaru has influence over other factions, took through the Federation for Religion and Politics [Shuseiren]; and Tamaki, who has a solid reputation for steamrolling, was placed on top; and because of the Fair Trade Commission being wary of consultations, he named as his deputy Eto, who is directly under Sadanori Yamanaka, a power with the Fair Trade Commission, and thus also curbed the Fair Trade Commission.

This tactic worked. The Fair Trade Commission, too, had to accept the subcommittee's assertion on "not going along with applying the antitrust law to construction industry circles that make bids." The LDP's Executive Council, the highest decision-making body in lieu of a party convention, also imposed on the government the party's view on sanctioning consultations.

As a result of this, after a whole year, at the end of March 1983, the Construction Ministry withdrew the bureau chief notification making 20 companies designated firms. This was a victory for the construction group which had pressured the bureaucrats, who are weak in the face of mass media campaigns. Meetings to boost politicians before [Diet] dissolution and the general election were held almost daily; and building and civil construction firms are said to have accepted a considerable number of tickets to the parties.

Then why did the politicians come to wield power in policymaking? A certain OB [old boy] of the Finance Ministry recalls: "Until the Sato cabinet, tax revenues were on the increase and it was possible to respond to politicians' requests to some extent. However, with the advent of stability, financial resources were lacking, and we could not respond to LDP requests every time. Moreover, as for taxes being a revenue source, the party's Tax System Research Committee was stronger than the government's Tax System Research Commission. Because of that, we had to agree to LDP demands."

## Bureaucracy No Match on Policy Matters

Again, an official of the Agriculture and Fisheries Ministry recalls: "Officials change offices about every 2 years. But, politicians, for their part, run a committee for 10 or 15 years. Thus, politicians are more versed on every issue than are officials. Policywise, too, we could not contend with them. Moreover, administration in government offices is compartmentalized while politicians span the different ministries and agencies, handle coordination, and get explanations from the bureau chief level. In such a situation, government offices, too, cannot but heed the politicians' views."

Moreover, in the era of the Miki, Fukuda and Ohira cabinets, with the ruling and opposition parties evenly matched, even a policy proposed by a government office did not see the light of day unless it was passed in the Diet. Because of this, there had somehow to be spadework with the Diet Policy Committee and Diet Steering Committee groups of the ruling and opposition parties. It was because of this that Kanemaru, who served three times as Diet Policy Committee chairman, had such great power over policymaking.

It could be said that Kanemaru and policy are unconnected. Yet, for getting approval of draft legislation, he has broad pipelines to the ruling and opposition parties; and there is nothing to do but rely on the strength of Kanemaru, who can be called shadow chairman of the Diet Policy Committee. On top of that, Diet policy, which is the dirty job in the Diet, is the unchallenged sphere of the Tanaka corps.

The corps has that strong a say with the central government offices; and from the fact that the central offices also cooperate with the corps' electioneering this means that the strength of the corps is increasing even though there was a verdict of guilty in the Lockheed case.

In our country with its centralized power and many licensed subsidized enterprises, holding sway over the central government offices links into vote-getting and political donations. It was Kakuei Tanaka who fully exploited how the government machinery works.

Takeo Fukuda of First Higher School, Tokyo University and the Finance Ministry, as well as Nobusuke Kishi, Eisaku Sato and Hayato Ikeda, and so on, mobilized the personal connections which they cultivated during their years in the bureaucracy. But, Tanaka, who had completed only higher elementary school, has no way other than that of using the construction group and his posts as postal service minister, party Policy Affairs Research Committee chairman and finance minister, and building personal connections in political, financial and government circles for raising political funds.

The Root of "The Groups" is Kakuei Tanaka

The fountainhead of "the groups" is Tanaka. Tanaka is called a master of revenue-source creation; and he has made allies of all bureaucrats he has known, and has made policy and information his own. Moreover, based on policies

drafted by officials, Tanaka formed judgments from a broad view and pointed out even broader courses of action.

Bureaucrats basically are workaholics and consider a badge of honor the enacting and implementation of policies which they have drafted. When they drew up policies with Tanaka's cooperation or brought a bill into being with his power behind them, their relations with Tanaka would become lifelong. Because of this, even now officials incessantly visit Tanaka's private residence in Mejirodai.

Officials follow precedent and conceive of things in a legal framework, but Tanaka's thinking is not in the thrall of such a framework.

For example, if he requested revenue sources for roads but the Finance Ministry paid him no heed, there were instances where he even came out with the idea of making expressways into toll roads or taxing volatile fuels, devising revenue sources with Diet member-sponsored legislation, thus seizing part of the budget framing power from the Finance Ministry.

Tanaka corps partisans--Kanemaru, Kameoka, Nikaido, et al--have succeeded to Tanaka's concept of "the group." The Fukuda faction's Mutsuki Kato, known in the transportation group as an authority on policy, also uses the same methods as Tanaka; and it is even said that without Hashimoto of the Tanaka faction in his own electoral district, he might have joined the Tanaka faction.

Table 2.

CONSTRUCTION GROUP

*Kakuei Tanaka	(Tanaka faction)	Shigeyoshi Saito	(Tanaka faction)
Masumi Ezaki	(Tanaka faction)	Kosei Amano	(Nakasone faction)
Susumu Nikaido	(Tanaka faction)	Eiichi Watanabe	(No faction)
*Shin Kanemaru	(Tanaka faction)	Ryutaro Nemoto	(No faction)
*Noboru Takeshita	(Tanaka faction)	Mitsuo Setoyama	(Fukuda faction)
*Hajime Tamura	(Tanaka faction)	Motosaburo Tokai	(Fukuda faction)
Tatsuo Ozawa	(Tanaka faction)	Keijiro Murata	(Fukuda faction)
*Takao Kameoka	(Tanaka faction)	Eisaku Sumi	(Suzuki faction)
Hideo Utsumi	(Tanaka faction)		

COMMERCE & INDUSTRY GROUP

*Kakuei Tanaka	(Tanaka faction)	*Rokusuke Tanaka	(Suzuki faction)
Susumu Nikaido	(Tanaka faction)	Kiichi Miyazawa	(Suzuki faction)
*Masumi Ezaki	(Tanaka faction)	Shozo Harada	(Suzuki faction)
*Shintaro Abe	(Fukuda faction)	Takeshi Noda	(Nakasone faction)
*Toshiro Komoto	(Komoto faction)	Taku Yamasaki	(Nakasone faction)
Yoshitake Sasaki	(Suzuki faction)	Kabun Muto	(no faction)
Yasuhiro Nakasone	(Nakasone faction)	Asao Mihara	(no faction)
Tadashi Kuranari	(Nakasone faction)	Takashi Hashiguchi	(Komoto faction)
Kozo Watanabe	(Tanaka faction)	Keijiro Shoji	(Fukuda faction)

Seiroku Kajiyama	(Tanaka faction)	Jujiro Tozaka	(Suzuki faction)
Yoshiro Hayashi	(Tanaka faction)	Gentaro Nakajima	(Fukuda faction)

TRANSPORTATION GROUP

*Kichizo Hosoda	(Fukuda faction)	Masajuro Shiokawa	(Fukuda faction)
*Mutsuki Kato	(Fukuda faction)	Hikosaburo Okonogi	(Nakasone faction)
*Hiroshi Mitsuzuka	(Fukuda faction)	Shigetami Sunada	(Nakasone faction)
Hajime Tamura	(Tanaka faction)	*Masatoshi Tokunaga	(upper house Tanaka faction)
Ken Harada	(Tanaka faction)	Mutsuo Kimura	(upper house Tanaka faction)
Tetsuji Moriyama	(Komoto faction)		

Secrets of Postal Service Group's Latent Power

What strongly impressed the nation about "the groups'" activities was the shelving of the green card system.

In the spring of 1980, the green card system was introduced along with a revision of the Income Tax Law. The postal service group was in opposition.

Postal Savings is even said to be Japan's largest financial body, and, unlike the banks, carries many accounts in fictitious names. If the green card system were introduced, postal savings could flow into the banks. Also, the national tax authorities' scalpel would enter in; and there were apprehensions in the Ministry of Posts that ultimately the initiative would be seized by the Finance Ministry.

However, despite opposition from the postal services group, the party approved introduction of green cards.

At the time, Kozo Watanabe, who was postal service parliamentary vice minister, testified that "under heavy pressure from the Finance Ministry, the banks would not listen." The postal services group is composed of Kanemaru, Kameoka, Moriyoshi Sato, Jushiro Komiyama and others. Even here, Tanaka, who became postal services minister at age 39, holds all power.

It is widely known that it is actually not the Ministry of Posts, but Mejiro [Tanaka's residence] that allocates television channels.

With the introduction of the green card, the public's desire to save money waned, and the Watanabe's new postal services group and others who feared that private funds would flow into gold, land and overseas investments, complained of danger to Kanemaru, Takeshita and others. But, at first they had almost no power.

Yet, because of such things as zero-coupon bonds selling as products to counter the green card, the Banking Association, which at first had resisted Postal Savings, also finally began to go along with it. Watanabe says: "Because of my having been postal services parliamentary vice minister, even

if I asked for a meeting, the Banking Association officials would not meet with me. However, the banks, too, finally understood that savings were flowing into gold, land, etc, and so they met with me. I then made a request to Finance Minister Takeshita, advising that effectuation be delayed. With this, the bankers, too, started their appeal."

Following this, in January 1981, a "Dietmen's League on Green Card Counter-measures" was formed within the LDP, with Kanemaru as president. Immediately, 200 men joined the Dietmen's League; and this spring the Diet approved postponement of effectuation.

From the standpoint of weakening the power of Postal Savings and correcting the unfair tax system, the Finance Ministry had favored introduction of the green card, but the sorry result was that ultimately it gave in to the pressures from the postal services group.

The postal services group gets its power not merely from allocating radio, TV and FM frequencies and channels, but also due to its strong vote-getting capacity.

The Ministry of Posts is in control of special postmasters. Special postmasters are notables in the provinces, and have money and free time. It is generally agreed that they are the ones most active in the preliminary elections for the LDP open presidential election.

Moreover, the ministry runs as its affiliates outstanding enterprises with high profitability and requiring advanced technology, such as Nippon Telegraph and Telephone [NTT] and International Telegraph and Telephone [KDD]. Like the public corporations, it is an agency much needed for sustaining the factions, because due to bidding, it is to the politician's taste.

It is not a prominent entity, but for politicians it is a body with very great merit.

When financial resources were abundant, as they once were, the power of deciding on policy lay with the Finance Ministry, which held the power to compile the budget. However, in conditions of deficit financing, the Finance Ministry is hesitant about policymaking because of "not having revenue sources."

Committees are the Groups' Gateways to Success

What has achieved power in its place is the LDP's Policy Research Committee and "the groups."

Moreover, under the banner being of administrative reform--the Nakasone cabinet's supreme order--politicians were even afforded the power to chastise the ministries and agencies.

An LDP Diet member gets into a "group," first, from the standing committee to which he is assigned when he first comes to the Diet; then he comes to

exert influence on the bureaucracy as a deputy chairman or chairman of a subcommittee, a parliamentary vice minister, or a chairman of a standing committee.

Through that process, the Diet members make contacts with bureaucrats, drink up policy and information and establish ties with future bureau chiefs and vice ministers. Also, if a government office feels that a Diet member may prove useful in the future, it will extend him its cooperation in matters from political fund-gathering to vote-getting. Here begins the mutual dependence between political circles and bureaucratic circles.

#### MITI Parliamentary Vice Minister Is Object of Keen Envy

What attests to such relationships is that there are no takers for the chairmanships of the Judicial Affairs, Foreign Affairs and Environmental Subcommittees, which lack ties to vote-getting and fund-gathering. It can be said that the subcommittees on which upper house members serve are not juicy posts.

It is even said that the parliamentary vice ministers for foreign affairs and judicial affairs risk losing the next election.

Table 3.

#### POSTAL SERVICES GROUP

*Kakuei Tanaka	(Tanaka faction)	Ichitaro Ide	(Komote faction)
*Shin Kanemaru	(Tanaka faction)	Tsunetaro Kato	(Komoto faction)
*Takao Kameoka	(Tanaka faction)	Takami Eto	(Nakasone faction)
Jushiro Komiyama	(Tanaka faction)	Kiyoshi Mizuno	(Suzuki faction)
Noboru Minowa	(Tanaka faction)	Shigeichi Miyazaki	(Suzuki faction)
Tadaharu Kuno	(Tanaka faction)	Yuji Nagata	(upper house, Tanaka faction)
Moriyoshi Sato	(Tanaka faction)	Shoji Nishimura	(upper house Tanaka faction)

#### EDUCATION GROUP

*Michita Sakata	(no faction)	Kazuya Ishibashi	(Fukuda faction)
*Toshiki Kaibu	(Komoto faction)	Takashi Hasegawa	(former Nakagawa faction)
*Takeo Nishioka	(no faction)	Shigetami Sunada	(Nakasone faction)
Seisuke Okuno	(no faction)	Kozo Watanabe	(Tanaka faction)
Yoshiro Mori	(Fukuda faction)	Tsutomu Hata	(Tanaka faction)
Hiroshi Mitsuzuka	(Fukuda faction)		

#### SOCIAL/LABOR GROUP

*Ryutaro Hashimoto	(Tanaka faction)	Juro Saito	(upper house Tanaka faction)
*Kunikichi Saito	(Suzuki faction)	Senbachi Oishi	(Nakasone faction)

*Masami Tanaka	(upper house, Fukuda faction)	Eisaku Sumi	(Suzuki faction)
*Tatsuo Ozawa	(Tanaka faction)	*Kinji Moriyama	(Komoto faction)
Michio Watanabe	(no faction)	Kenichiro Otsubo	(upper house, Suzuki faction)
Reiichi Takeuchi	(Tanaka faction)	Takao Fujinami	(Nakasone faction)
Masakata Tozawa	(Suzuki faction)	Naozo Shibuya	(Komoto faction)
Sadayoshi Hatsuta	(Nakasone faction)		

There are many aspirants to the post of MITI parliamentary vice minister, which brings wide contacts in industry; and, according to one veteran Dietman, when one has the experience of being MITI parliamentary vice minister, one's supporter associations increase tenfold and political donations also grow consonant with that, so that its power is surprising.

If one serves as MITI parliamentary vice minister, the posts of commerce and Industry Subcommittee chairman, Commerce and Industry Committee chairman, and vice chairman of the Policy Research Committee will be waiting. To that degree, if political donations increase, one's voice with the factions also will increase of itself. It is no mistake to see it as the first step toward being a man of power.

With deficit financing and administrative reform, senior bureaucrats lost standing. To the same extent, the power of the LDP Policy Research Committee increased.

With the problems of trade friction, occidentalists Eiichi Nakao, Hajime Ishii, Koichi Kato and others often fly to Europe and the United States as private envoys of the prime minister and the Policy Research Committee chairman.

Politicians who have served long years in the subcommittees have become more expert on policy than the bureaucrats and wield great power in our country's policymaking.

Yet, elder Dietmen express the regret that politicians, like the bureaucrats, have become compartmentalized. Basically, a politician is supposed to have broader horizons than a bureaucrat and should judge policies from a national point of view.

As the strength of "the groups" waxes, the stronger they become and the narrower the politicians' horizons become.

With either the green card system or the consultation problem, the Diet Policy group's Kanemaru coming onto the scene was due not to his being a policy expert but to confidence in his capacity for mediation.

If the power of "the groups" grows, the stronger they get the more politicians and bureaucrats will coalesce; and the strengthened adhesion of politician, bureaucrat and financier will be assured. As a result, legislation, administration and economic activity cannot but take place "in the absence of the nation."

However, what is now moving the Japanese economy from behind the scenes is unmistakably "the groups."

The shadows of the transportation and construction groups already are beginning to move on the new Kansai airport, planning of which is expected under the FY 1984 budget. In discussing the Japanese economy, one cannot overlook the presence of "the groups."

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## ECONOMIC

### REPORT OF 1984 ECONOMIC OUTLOOK, INDEX

Tokyo TOKI NO UGOKI in Japanese 1 Mar 84 pp 16-23

[Text] The cabinet of the Japanese Government decided, on 8 February, the "outline on fiscal 1984 economic outlook and economic management" based on a real economic growth rate of around 4.1 percent and a consumer price increase rate of about 2.8 percent. Business expansion is to be sustained by people's demands while keeping the prices stable.

On 8 February, the government decided on the "outline on FY84 economic outlook and economic management." Each year, the government announces its basic policy on economic management and the resulting outlook for the coming fiscal year.

In this sense, the government's outlook is not a simple forecast of the economic index but shows a form of economy desired by the government with its basic direction of its policies in achieving this goal. The following is a simple analysis of the content of this decision.

#### 1. Japan's Economy in FY83

The recent world economic trend, beginning with the United States, shows an increasing economic recovery. Moreover, the price increase rate has dropped down to the level of the early 1970's due to the efforts to reduce inflation by various nations and because of the lower price of crude oil. On the other hand, an employment situation has improved in the United States where economic recovery is quite remarkable but the improvement in European nations is lagging behind.

A look at Japan's economic trend in FY83 indicates a moderate prosperity with a steady recovery noted due to the recovery of exports and production increases, resulting from the recovery of the world economy, led by the United States, and improvement in the terms of trade accompanying the reduction in the price of crude oil, completion of inventory adjustment and stabilized consumer prices.

However, it was not problem free. Although domestic demand has shown some recovery it has been moderate, and externally, the current balance shows a surplus of \$21 billion for fiscal 1983.

Under such domestic and foreign economic situations, the government, in April, decided on the "future economic management" based on public works, and in October, decided on the "comprehensive economic countermeasures" based on prosperity through expanded demand, market liberalization, expanded imports, inflow of foreign capital, international transaction based on yen, environmental adjustment in monetary and capital markets and international cooperation. A steady enforcement of these decisions has been carried out.

As a result of such policy management, the real economic growth rate for this fiscal year is expected to reach 3.4 percent, as predicted earlier. Commodity prices have stabilized due to the favorable effect of lower crude price. The wholesale price is expected to drop by around 2.3 percent and the consumer price by around 2.0 percent for this fiscal year.

## 2. Basic Outline for FY84 Economic Management

World economic situations, which can be called preconditions, are vital in viewing the Japanese economy for fiscal 1984. As a whole, the recovery of the world economy is expected to continue. This is due to the favorable effect of the stabilization of crude oil prices and by the inflation-abating policies of various countries.

There is, however, a delay in the employment recovery which generates a fear of protectionism to eliminate foreign competition. The developing nations can expect recovery along with the business recovery of the advanced nations, but the accumulation of debts is another cause of fear.

Looking at it from domestic point of view, the huge imbalance in payments is creating great difficulty in the active management of financial policies. The basic posture taken by the government on economic management under such conditions is as follows.

First is to plan a sustained economic expansion centered on domestic demand and stabilized employment. To achieve this, a continued, and moreover, a mobile economic management, and especially, a policy which can extract the people's vitality are important. An environmental adjustment and a greater private investment, such as in facility improvement, are also important.

In addition, private energy will be introduced into public work areas. As for financial policy, certain restrictions such as the high interest rate in the United States and a subsequently cheaper exchange rate for the yen do exist, but the government will carry out its mobile management while keeping close watch on the domestic and foreign economic trends and international currency situations.

The government will try to continue to promote housing construction, stabilizing the price of land and the supply of building lots. An amicable promotion of small enterprises will be carried out to nurture operationally stable and energetic enterprises. The government will promote an employment policy, which will deter unemployment and encourage rehiring to counter the structural changes caused by the aging population and changing industrial structures.

Second is to continue to maintain the policy line of price stabilization. The present economic recovery is attributable to the stable commodity price and it is important to maintain this trend from the standpoint of continued improvement of prosperity and stabilized welfare of the people.

To achieve this, the government will continue to keep close watch on money supplies while ensuring a stable supply of daily needs, keeping tab on the price trend, making the most of imports, rationalizing distribution and promoting competition.

Public utility rates will be handled fairly while giving full consideration to the effect on prices and people's welfare. It will be on a premise of a fully rationalized management and on the principle of beneficial rates.

Third is the forceful promotion of administrative and financial restructuring. Administrative functions will be given a thorough review to achieve a simplified and effective administrative reform which will be able to meet the changes in economic society and people's needs.

Expansion of the national debt and budget deficits have narrowed the selection of economic management policy and caused a loss of flexibility. To regain financial mobility, the government plans to restore the financial responding power through a thorough retrenchment and rationalization of expenditures in the fiscal 1984 budget.

Fourth is to have the government take the initiative in the maintenance and strengthening of the free trade system and provide a positive contribution toward harmonious foreign economic relations and an active world economy.

A trade expansion and balance will be sought to counter protectionism and the government will pursue market liberalization, promotion of imports and disciplined export of special items. At the same time, the government will promote capital inflow, international transactions using yen, and work on environmental adjustment in financial and capital markets. In addition, a preparation for multilateral trade negotiations will be made.

The government will provide positive cooperation in the high technology areas and will promote industrial cooperation by investments, exchanges, etc. In order to assist the socioeconomic development of developing countries, a complete, efficient and effective economic cooperation policy will be provided under the government's new intermediate developmental aid target.

Fifth is to aim for an energetic economic society and a reassuring and affluent standard of living and to strive for an establishment of a medium- and long-range developmental foundation of our country's economic society.

The development of innovative technology, higher level industrial structure and ground work and preparation for advanced informationalized society, an introduction of private efforts into the area such as urban redevelopment and assurance of a stable supply of critical materials, and so on, will be pursued to ensure a secure economic society.

In regard to agriculture, the government will promote improved productivity to achieve greater self-sufficiency in foods in general. An independent economic development featuring local characteristics and originality will be promoted, and an effort will be made to provide adequate land and living space so the people can enjoy an affluent living style.

### 3. Economic Outlook for FY84

As a result of the above-mentioned economic management, the following economic picture for FY-84 can be given. The outlook for the main indexes are given in Tables 1 and 2. These figures show the FY84 economic picture assumed from the announced economic management based on the domestic and foreign environmental conditions presently expected. In view of the fact that the people's activities play a main role in our country's economy and that there are many elements which make prediction of change in the international arena difficult, it is necessary to caution that these figures should be looked at with broader latitude.

Table 1. Principal Economic Indexes

#### 1. GNP

	FY-82 (results) (in trillion) nominal	FY-83 (est results) (in trillion)	FY-84 (estimate) (in trillion)	Increase or decrease	
				FY-83	FY-84
Private final consumer spending	157.7	165.8	177.6	5.1%	7.1%
Private housing	15.2	14.4	15.3	Δ 5.7	6.6
Private enterprise facility	40.0	40.4	42.9	1.0	6.1
Private inventory increase	1.1	0.7	1.3	Δ 39.8	87.0
Government spending	50.6	52.3	53.1	3.3	1.5
Final consumer spending	27.0	28.3	29.4	4.7	3.9
Fixed capital formation	23.9	23.9	23.6	Δ 0.0	Δ 1.3
Income from exports and abroad	43.9	44.0	46.6	0.3	5.8
(Deduction) Income from imports and abroad	41.2	38.1	40.7	Δ 7.6	5.9
GNP	267.4	279.5	296.0	4.5	5.9
(GNP-Real)	-	-	-	3.4	4.1

[Table 1. continued]

2. Labor-Employment

	FY-82 <u>(results)</u>	FY-83 <u>(estimated results)</u>	FY-84 <u>(estimated)</u>	Increase or decrease	
				<u>FY-83</u>	<u>FY-84</u>
Total population	118,620,000	119,450,000	120,250,000	0.7%	0.7%
Population over 15	91,450,000	92,600,000	93,800,000	1.3	1.3
Labor population	58,070,000	59,000,000	59,750,000	1.6	1.3
Total employees	56,640,000	57,450,000	58,250,000	1.4	1.4
Total employers	41,250,000	42,300,000	43,150,000	2.5	2.0

3. Production Activities

	<u>FY-83 (estimated results)</u>	<u>FY-84 (estimate)</u>
Mining production index: Changes	6.1%	6.4%
Agriculture, fishery, forestry production index: Changes	1.7	3.3
Domestic cargo transport (ton/kilo): Changes	0.7	2.3
Domestic traveler transport (person/kilo): Changes	2.3	2.7

4. Commodity Price

	<u>FY-83 (estimated results)</u>	<u>FY-84 (estimate)</u>
Wholesale price index: Changes	Δ 2.3%	1.0%
Consumer price index: Changes	2.0	2.8

[Table 1. continued next page]

[Table 1. continued]

5. International Balance of Payments (in trillion)

	FY-82 (results)	FY-83 (Estimated results)	FY-84 (estimated)	Increase or decrease	
				FY-83	FY-84
Current balance (note 1)	2.3	5.5	5.4	-	-
Trade balance (note 2)	5.0	8.1	8.0	-	-
Exports	33.9	35.1	37.0	3.4	5.4
Imports	28.9	27.0	29.0	△ 6.6	7.4

Note 1: FY-82: 9.1 billion dollars; FY-83: 23 billion dollars;  
FY-84: around 23 billion dollars

Note 2: FY-82: 20.1 billion dollars; FY-83: 34 billion dollars;  
FY-84: around 34 billion dollars

Table 2. References

1. Gross National Product

	Comparison	
	FY-83 (estimated results)	FY-84 (estimated)
Private final consumer spending	3.2%	4.1%
Private housing	△ 5.1	5.2
Private enterprise facility	2.8	5.1
Government spending	3.1	0.2
Income from exports and abroad	6.3	5.3
Income from imports and abroad	△ 0.0	4.6
Gross national expenditure (= GNP)	3.4	4.1
(domestic demands portion)	2.3	3.9

[Table 2. continued next page]

[Table 2. continued]

2. National Income (in trillion yen)

	FY-82	FY-83	FY-84	Comparison	
	(results)	(estimated results)	(estimated)	FY-83	FY-84
Employers income	149.2	158.3	169.0	6.1%	6.8%
Property income	31.9	34.2	36.4	7.2	6.5
Business income	42.1	43.8	46.2	4.0	5.6
(deduction) general government, consumers debt interest, etc.	11.3	13.2	14.4	16.7	8.7
Total: National income	211.8	223.0	237.3	5.3	6.4

First of all, there is the gross national product (GNP) and its composition. A look at personal consumption, the largest item which occupies over one-half of the GNP, shows a prospect of a steady increase in income due to the recovery of production and profit of enterprises. An increase in disposable income from the benefit of reduced income tax and inhabitants' tax has shown favorable results.

On the other hand, the commodity price is expected to remain stable and the real income is expected to grow. This will mean a favorable expansion of personal consumption showing a real growth of 4.1 percent exceeding the actual FY83 estimate of 3.2 percent. The nominal growth rate is also expected to surpass the 5.1 percent growth of FY83 to 7.1 percent.

Private housing investment remains at a low level despite recent improvements. The reduction in real terms is expected to be 5.1 percent for FY83. As for FY84, the private housing investment will show recovery and is expected to increase by 5.2 percent, in real terms, due to greater disposable income from economic recovery, anticipation of stabilized price of land and construction materials, and expectation of more renovation and better housing. The nominal growth rate will show an increase of 6.6 percent from a drop of 5.7 percent.

The trend in private housing investment so far shows some upward growth in larger enterprises but remains generally at the same level. Medium and small enterprises are making improvements.

A certain caution is seen in the manufacturing phase of the investment plans of larger enterprises, but the desire in new technology, rationalization and energy conservation related investment remains strong. Thus, along with the improved profits, a recovery can be expected. A prospect of a real term recovery is expected from a favorable investment environment seen in smaller enterprises. The tax benefit should encourage facility investment so that an overall increase of 5.1 percent in real term is predictable.

The government's expenditure's for FY84 have been curbed drastically which neutralizes our country's recovery. In real terms, the increase will be limited to around 0.2 percent.

The growth in exports in real terms will drop from 6.3 percent to 5.3 percent and imports will increase from 0.0 percent to 4.6 percent. In nominal terms, the exports will increase from 0.3 percent to 5.8 percent and imports will increase from a decrease of 7.6 percent to a gain of 6.8 percent.

As a result of this, foreign trade balance will be a "plus" in the real GNP which is predicted to be around 0.5 percent.

In general, the GNP growth will reach 4.1 percent showing the first 4 percent gain in 4 years. A breakdown into domestic and foreign consumptions show that domestic consumption contributes around 3.6 percent and 0.5 percent for foreign consumption.

It can be noted that the Japanese economy will finally emerge in FY84 from the economic setback caused by the second oil crisis and will move onto the road to stabilized growth. Japan's interim economic plan shown in the "Prospect and Guidelines for Economic Society of the 1980's" indicated an interim growth of around 4 percent. We can say, therefore, that the first step of getting on the stabilized growth track will be made in FY84.

During the steady economic expansion, a production for domestic consumption will increase and the inventory will grow. In which case, the mining production will increase to 6.4 percent surpassing the 6.1 percent for FY83. In addition, the agricultural, fishery and forestry production transportation of goods and number of travelers will also grow.

An improvement in the employment situation is taking place as a result of the steady improvement in prosperity and the number of employed is expected to grow by 1.4 percent. Moreover, the number of reduced-hour employed should diminish and the number of totally unemployed is anticipated to be lower.

The commodity price is expected to follow a stabilized pattern, but since the across-the-board reduction of oil price seen in FY83 is not likely to be repeated, an increase along with the increase in wholesale price and consumers' price over FY83 can be anticipated.

In regard to the balance of internaional payments, exports will be raised due to stabilized oil price and commodity price resulting from the economic recovery of advanced nations. Consequently, the economy of advancing nations will improve gradually so that more can be exported to these countries. In view of the economic recovery through domestic demands, imports should show a substantial gain.

The results show a trade balance of 8.1 trillion yen (\$34 billion) for FY83 to around 8 trillion yen. The current balance is expected to drop from 5.5 trillion yen (\$23 billion) to around 5.4 trillion yen.

Moreover, the basic balance is expected to show a long-term capital deficit resulting in a near balance.

The above is the government's analytical outlook. When compared with the outlook of OECD for the calendar year 1984, the United States shows a growth of 5 percent, with Japan close by. European countries show a lower growth rate than the United States and Japan and the recovery rates by countries also show some differences.

The government will carry out its economic management looking toward a steady and sustained growth without inflation, according to the basic views given in the outlook. (Economic Planning Agency)

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## ECONOMIC

### HONDA OFFICIAL ANALYZES PROBLEMS IN OVERSEAS PRODUCTION

Tokyo JIDOSHA GIJUTSU in Japanese Jan 84 pp 112-117

[Article by Michio Sekino, Honda Motor Co, Ltd\*]

[Text] 1. Difficulties in Overseas Production

#### 1.1 Introduction

Previously, an article entitled "Production Control in Overseas Plants" was published in this journal, in which difficulties in overseas production patterns and increased on site procurement of parts and supplies as well as problems related to religion, history, culture, etc., were discussed.

Those difficulties are still constantly observed in the case of overseas production, but the content of overseas production has changed largely from that time, and it is becoming more difficult to deal with those difficulties.

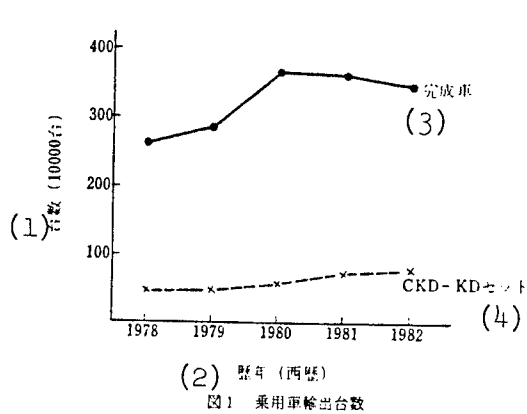
During the initial period of overseas production, it was mainly KD production (so-called knockdown production whereby separate parts were sent and the final frame assembly, welding, painting, etc., were carried out onsite) in order to conform to import restrictions on finished cars. Therefore, the proportion of parts and supplies purchased in the host country was small, and there were not many detailed restrictions when a decision was made to open a plant. However, the extent of onsite procurement, including domestic production of engines in the host country, is increasing, and the term KD no longer represents the actual situation.

Furthermore, as shown in Figures 1 and 2, during the 5-year period 1978-1982, the proportion of KD exports (export of the total unfinished vehicle including CKD and KD set) by Japanese manufacturers increased by 4.5 percent in the case of cars and 13.8 percent for motorcycles. In the case of motorcycles, in particular, the number of vehicles involved in KD export, including the KD set, exceeds the number of finished exports.

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\*Article received 13 October 1983. Author is in Overseas Production Division, Honda Motor Co., Ltd. (6-27-8 Jingumae, Shibuya-ku, Tokyo 150)

Figure 1. Number of cars exported.



Key:

1. number of vehicles.
2. year
3. finished vehicles
4. CKD+KD set

Figure 2. Number of motorcycles exported.

Key:

1. number of vehicles
2. year
3. finished vehicles
4. CKD+KD set

The overseas production of cars and motorcycles by Japanese manufacturers is expanding with respect to quantity, as explained, and at the same time, it is not too much to say that it is reaching a turning point with respect to quality.

## 1.2 Current Situation and Host Country's Needs

The current status of overseas production can be characterized as follows:

- (1) Demand for a high proportion of onsite procurement of parts and supplies, including domestic production of engines
- (2) Increased pressure for reexporting
- (3) Expansion of onsite production due to increased import regulations in the Western developed nations

With respect to (1), many developing countries are adopting policies promoting domestic procurement of parts and supplies, including a move to shift to domestic production of motorcycle engines in the ASEAN countries and several Middle and Near Eastern countries, and the earlier move to shift to domestic production of commercial vehicle engines in Indonesia.

In the case of (2), strong demands are coming mostly from moderately developed countries, where domestic production of engines has been accomplished, but some developing countries are considering the export of motorcycles and parts.

With respect to (3), there are demands for self-restriction of car exports, high-customs duties on large motorcycles, protectionist policies in some European countries, etc., which are relatively well-known because of publicity in the newspapers and elsewhere.

The needs and objectives forming the background to these moves by various countries can be summarized as follows:

- (1) Promotion of domestic industry by technical transfer
- (2) Saving in foreign currencies
- (3) Promotion of employment
- (4) Earning foreign currencies through exports
- (5) Protection of domestic industries

The countries seeking domestic production pursue several of these objectives at the same time, although the extent may be different. The developing countries are emphasizing (1), followed by (2) and (3), and recently, some are aiming for (4). On the other hand, in developed countries, economic reasons such as (2), (3) and (5) are the major factors, in sharp contrast to the developing countries.

### 1.3 Difficulties Depending on the Host Country

The industrial standard of the developed countries is certainly at a high level; in general, related industries, such as the manufacturer of various parts, etc., have been developed, and in many cases, there is competition with domestic finished car manufacturers. Therefore, the problems are how to maintain harmony with the domestic industries and how to accomplish high production efficiency and product quality while maintaining harmony with the domestic social and cultural background (philosophy of life, class consciousness, nature of labor unions, etc.).

On the other hand, in developing countries, there are no domestic automobile manufacturers or parts manufacturers, or if there are they are often weak. As a result, the current situation in these countries imposes a choice between producing a significant portion of the parts through onsite procurement in the company's own plants or asking Japanese parts manufacturers to start producing in the particular country. Therefore, the parts self-supply rate is higher than that in plants in Japan, thus not only creating a large burden on new investment but also reducing flexibility in regard to production fluctuation. Furthermore, it is difficult to find engineers and skilled labor because of the weak industrial background, so it is essential to cultivate the working force at the company's own expense by bringing workers to Japan to teach and train, or sending Japanese technicians to the site to carry out on-the-job training.

Furthermore, in the case of former colonies of the Western developed countries, which have been strongly affected by those Western countries even though they are developing countries, the way of thinking is closer to that of the Western countries than to that of Japan, and as a result, many countries have the problems of both developed and developing countries.

In addition, a problem commonly observed in both developed and developing countries is that of increased production cost because the production is scattered in various countries, and only a small amount is produced in each country. The high production cost is caused not only by small-scale production but also by high raw material costs, high depreciation costs due to new investment, low labor productivity, etc. However, the most basic problem is the reduced production scale.

A problem of a different nature is that of technology price. In many developing countries and socialist countries, awareness is lacking regarding paying the price for know-how or software such as royalties as a result of guidance from the government. Furthermore, many countries restrict investment in joint ventures as well as taking dividends out of the country. In the future, as the proportion of know-how and software in Japanese exports is increased, this problem will be an important issue not only for the automobile industry but for all exporting industries of Japan.

The problems discussed above can be summarized as follows:

(1) Problems of product quality maintenance

\*Weak technical background and lack of related industries, poor work force (developing countries)

\*Difficulties based on social and cultural background, such as labor-management relations, etc., although possessing an adequate technical base (developed countries)

(2) Problem of increased production cost

(3) Problem of harmony with domestic industries

(4) Problem of pressure for reexporting

(5) Problem of technology price

(6) Other problems

\*Difficulties regarding plant location due to insufficiently maintained infrastructure

\*Country risks such as interruption of parts imports due to lack of foreign currency, currency devaluation, etc.

Several actual examples in dealing with these problems are discussed next.

## 2. Examples of Dealing With Problems

As of September 1983, the products of Honda Motor Co., including motorcycles, cars and utility vehicles, are being produced at 49 overseas plants in 30 countries, and the host countries range from Western developed countries to developing countries. A variety of difficulties are encountered in these countries, ranging from problems common to these countries to problems in specific countries. Examples of dealing with some of these problems are discussed next.

## 2.1 Motivation of Workers Through Equal Human Relations and Labor-Management Understanding

(1) The most important factor for the success or future development of a business is probably the "human" element, regardless of whether it is in Japan or in another country. It is necessary to have an organization and management which can motivate not only the top management but also the average worker to exhibit ability.

Honda bicycle production in Italy started in 1977. The management initiative of the joint venture company came from the Italian side; it was a European-type top-down management system, and relations between labor and management were those of a one-way street, with both labor and management insisting on their rights alone. Absenteeism reached 20 percent in the worst period. However, since the right of management was turned over to Honda in 1980, the labor relations policies have been basically changed to the method of periodically explaining the company's business plans, informing the labor union of any significant event when cooperation was called for, and at the same time, listening to what the union had to say, so the attitude of the workers gradually changed. The situation has improved so much that absenteeism has dropped to 5 percent and product quality has improved significantly.

The results obtained at the Italian plant were not accomplished by improved labor-management relations alone, but they are a good example of successfully relating human management policies to worker motivation.

(2) Another successful example of human management policies concerns the plant in Nigeria. Construction of a motorcycle plant in Nigeria started in 1979. In this case, it was predictable that there would be the concurrent difficulties of poor skilled labor, a problem typical of a developing country, and an occupational view based on the history of being a British colony, that is, a Western-type shortcoming whereby an extreme sense of right and responsibility is liable to cause inflexible sectionalism and insistence on fixed work duty. However, it was fortunate that from the start the company was managed on the basis of Honda ideas because it was a new plant (company). For example, the workers who would be the nucleus were selected on the basis of their character and general scholastic ability, with little consideration for their occupational history to date, and sufficient time was taken in educating and training them. As a result, they gained an understanding of the management policies and plans, and such practices as job rotation, which is uncommon in the country, etc., are smoothly carried out. At the same time, it is very important that the resident Japanese workers lead and set the pattern by keeping in practice themselves, in addition to having the correct management

policies and plans. Those workers who are not accustomed to cleaning their work places themselves have started cleaning as a result of the resident Japanese workers leading and setting the pattern by sweeping with a broom inside the plant. The Nigeria plant has reached a monthly production capacity of 14,000 motorcycles, and it is a major motorcycle manufacturing plant in Africa. The role of the human management policies in this case is considered significant.

There are many successful examples of the policies focusing on the workers, including the example of the Ohio plant in the United States, which has been widely discussed by mass media.

The management of Honda has learned through experience that management policies based on human beings are welcomed by those in the host countries, regardless of whether they are developed or underdeveloped countries, and successful results can be obtained. Especially in the case of manufacturing plants to produce products, experience has proved that workers can be motivated through the joy of manufacturing if the right policies are employed.

## 2.2 Utilization of Local Technology Gained Through History

The cooperation and affiliation with the British BL Company and the French Cycle Peugeot Company are examples of cooperation with finished vehicle manufacturers of host countries. The results of cooperation with domestic parts manufacturers are not spectacular, but they are gradually appearing.

The relations with overseas parts manufacturers can be grouped in the following three categories:

- (1) The parts are purchased from overseas parts manufacturers, and they are used for finished vehicles or sold in Japan.
- (2) Where finished vehicles are exported, some of the parts are purchased and installed onsite.
- (3) Overseas plants purchase the parts or semifinished products to be used for assembly, to work on them or commission domestic manufacturers to work on them.

Categories (1) and (2) are mainly measures to correct trade imbalance, but some of the cases belonging to category (3) are advantageous to our overseas plants, that is, they are based on mutual benefit.

In the Italian plant discussed above, the Honda plant benefits by utilizing relatively low-cost parts manufactured using the know-how of the Italian parts manufacturer to produce in relatively small quantity. At the same time, the parts manufacturer benefits by obtaining orders and also by leveling up the product quality by following the strict product quality requirements of Honda.

### 2.3 Response to Increased Trend Toward Onsite Procurement

It was in 1976 that Honda constructed a motorcycle plant in Manaus, about 1,500 km from the mouth of the Amazon, for overseas production. The difficulties in overseas production at the Brazilian plant have been solely related to dealing with the increased trend toward onsite procurement.

Prior to the production of motorcycles by Honda, Brazil had a background of car production, and thus the country might be regarded as having the foundation for simply manufacturing parts. However, in order to secure a stable supply of motor cycle parts of appropriate product quality, cost and quantity, a huge amount of technical backup and management resources such as men, material, money, etc., were introduced. Now results have been achieved for the first time due to those efforts. The major difficulties encountered and the measures taken to deal with them are as follows:

#### (1) Problems related to production hardware

In the case of overseas production, it is often necessary to change the product design drawings, inspection standards, etc., within a range satisfying the minimum requirements so that they are suitable for materials easily obtainable onsite, the onsite production process and the level of that process. When the product designed by the research and development department is scaled up for manufacturing, it is not uncommon to alter the drawings and specifications of the developing side to reflect the views of the production side (so-called production convenience) at plants in Japan. In the case of overseas plants, however, there are many unknown factors in connection with this production convenience, and unless suitable measures are taken, it is difficult to produce satisfactory products. Although these are manufacturing plants, many of the overseas plants lack sufficient organization or capacity to function by themselves. Even if the Japanese parent plant exerts every effort, it is still difficult to gain a satisfactory understanding of the situation on the other side of the world. In the case of the plant in Brazil, the resident Japanese personnel and the technicians sent to help were successful in systematizing the mass-production operation, and this was a big factor in handling smoothly the successive increases in the proportion of onsite procurement and new model introduction.

Product quality and cost always present difficulties in the case of overseas production. In particular, those parts which cannot be purchased from domestic parts manufacturers, which present difficulties with respect to quality and cost, and which are advantageous with respect to the material flow, etc., have to be produced inhouse. As a result, the rate of self-supply reaches about 40 percent of all parts procured onsite--about twice the rate in Japan. This trend is advantageous for securing product quality, but there are problems with respect to the plant constitution. Therefore, it is desirable to have Japanese parts manufacturers find their way to overseas production.

#### (2) Problems related to training personnel such as engineers, etc., and to software such as plant operation know-how, etc.

As a result of the high onsite procurement rate, resources with respect to both hardware and software have to be introduced to the same extent, but the human resources onsite are generally insufficient. Most overseas business ventures assume the following pattern: the business is handled (1) mainly by Japanese (resident and dispatched), (2) by both Japanese and onsite personnel, and (3) mainly by onsite personnel. In Brazil, the plant has entered stage (2) with respect to onsite procurement and new model introduction. The efforts to cultivate and train onsite personnel have started to bear fruit.

(3) Financial problems such as investment, etc.

Honda Motor Co. attempts to reinvest onsite profits onsite, and with respect to personnel and technology, it employs policies on an onsite basis, but at present, proper evaluation and understanding of technical assistance on the part of the host countries is poor, and this remains a problem to be solved in the future.

#### 2.4 Education, Training and Circle Activity

As long as the overseas plants are manufacturing Honda products, regardless of whether they are in developed or in developing countries, education and training are necessary so that the workers can become acquainted with and learn the company's technology and administration system.

For this reason, the company actively employs a training system in Japan in addition to worker education onsite at the plants. In 1982, for example, 231 trainees were received from the overseas plants. The trainees are received through the ILO and the AOTS through the company itself, and the proportion of the latter is increasing as the number of trainees increases. The standard course takes about 3 months in the case of those from developing countries and about 1 month for those from developed countries who have acquired the basic technology through field training at Japanese plants.

In order to consolidate the onsite worker education in Japan, in the future, there are plans to classify the courses according to categories such as (1) a long-term course (3-6 months training: education of leading engineers in the case of new overseas plants or based on long-term personnel training programs, etc.); (2) a short-term course (2 weeks to 1 month training): special purposes such as new model or facility introduction, manager education, etc.; and the contents with respect to software such as administration and management will be perfected.

On the other hand, Honda's quality control (QC) circle activities are not narrowly defined but operate from a wide viewpoint. Specifically, there are activities aimed at seeking greater human worthiness through active participation in work rather than through being obliged to perform the work. In order to carry out such activities focusing on the human being and seeking the participation of workers, QC circle activities have also been introduced in overseas plants. The activity started in Thailand in 1979, and as of 1983, 311 circles have been formed at 17 plants in 8 countries. At present some 2,200 employees participate in these activities. The overseas representatives of 15 teams from 8 countries will attend the annual meeting of the

whole company which will be held in Japan in October 1983 and present the results. In spite of various difficulties at the time of introduction because of different social backgrounds and environments, the activities are taking root in each country as a result of tenacious effort.

In order to be successful in managing overseas plants, it is necessary to sow the seeds of knowledge and ability with respect to technology, control, administration and management among the local workers and to cultivate them. For this purpose, education and training of overseas plant employees in Japan, QC circle activities, etc., are extremely effective means, and it is necessary to consolidate them further in order to deal with the varied onsite needs.

### 3. Future Prospects

The mutual dependence of the various countries increases year by year, and there is little scope for a country to decide on a course of action on the basis of benefit to itself alone. This tendency is apparent in the primary and secondary industries that are the backbone of exports. It is an undeniable fact that the effectiveness of the economic principles of a free economy and the principle of free competition are being significantly limited.

In the case of the automobile and motorcycle industries, it is impossible to escape from the wave of internationalization, whether or not this is preferable in order to survive, and it is a complex wave which cannot be overcome only by the previous economic principle that the product with a low cost and of good quality can beat the competition. Internationalization in this case concerns not only marketing and investment, but it includes production as well.

However, even though it is difficult to make the principles of a free economy work any longer, the principle that products of poor quality and high cost are not accepted by consumers is still alive. If the overseas production fails with respect to this point, it is easy to fall into a vicious cycle of market reduction and consequent cost increase. Therefore, the key is to solve the difficult problems of maintaining cost and quality even though production is scattered in various countries.

On the other hand, as a result of increased onsite procurement of parts and supplies, the amount of hardware (parts) that Japanese manufacturers can sell is reduced, and as a result, it is necessary to rely mainly on the sales of licenses and know-how provided (royalties, engineering fees, etc.) and dividends from the capital invested. Therefore, it is important to establish the know-how of marketing the software. The present stage is one of transition from the stage of the original meaning of the word KD, that is, supplying the parts and assembling the finished products onsite, to a stage of onsite production including parts. In the future, this tendency will consistently increase, and as a result, the difficulties in overseas production will intensify.

Measures to deal with these difficulties must be considered with respect to both hardware and software; the major examples can be summarized as follows:

(1) Countermeasures to problems due to small-scale production

\*Introduction of production systems such FMS, automation, etc., suitable for small-scale production of a variety of products, and development of low-cost production facilities for small-scale production.

\*Active cooperation based on the idea of mutually supplementing parts inventories, as found in the ASEAN countries.

\*Assistance to Japanese parts manufacturers in expanding their production facilities overseas.

(2) Measures to improve quality and increase production efficiency

\*Adoption of management policies related to human resources so that employees are motivated.

\*Education and training of local employees suitably combining courses provided by the host country government and those of Honda.

(3) Countermeasures to import restriction

\*Flexibly selecting various policies to promote relations of cooperation and harmony, and preparing personnel and organizations capable of implementing them.

(4) Measures to increase sales of software

\*Securing recognition of the value of software such as know-how, etc. In general, international standards should be established, but as an alternative, the involvement of the industry as a whole is necessary, since the measures employed by an individual business have limitations.

In any case, increase in requests by various countries to Japanese corporations to carry out overseas production is envisaged in the future. The success or failure of such projects affects not only the corporation involved but also the market and other corporations involved in the same type of product as well as the image of Japan. Therefore, an increase in the obligations of various corporations and the importance of their overseas activities in the future is envisaged.

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CSO: 4105/126

ECONOMIC

SECURITIES REPORT FOR VARIOUS ELECTRIC COMPANIES

Oki Electric

Tokyo YUKASHOKEN HOKOKUSHO SORAN [SECURITIES REPORT, GENERAL SURVEY] in  
Japanese Vol [unknown] No 3, Mar 83 pp 4-15, 54-55

[Text] 7. Personal Histories of Officers and Numbers of Shares Held

## 7. Personal Histories of Officers and Numbers of Shares Held

As of 30 June 1983

Title and position	Name (Birthdate and address)	Personal history	Number of shares
Director, President (Representative director)	Namio Hashimoto 8 January 1922 1598-72 Kumagaya cho Machida shi, Tokyo	1944 Graduated Engr. Dept. Tokyo Univ. 1946 Entered Oki Electric Ind. Co. 1969 Deputy chief, Takasaki Plant and chief technician 1970 Director 1975 Managing director 1979 Senior managing director 1982 Director, President	26,000
Director, Vice pres. (Representative director) (In charge of Tele- graph and Telephone Public Corp. produc- tion-personnel- overseas operations)	Hisao Matsushita 18 July 1936 590-90 Ozenji, Aso ku, Kawasaki shi, Kanagawa	1946 Graduated Engr. Dept. Tokyo Univ. 1946 Entered Oki Electric Ind. Co. 1970 Electric Wire Operations Dept. and chief, Shinagawa Branch Office 1972 Director 1976 Managing director 1979 Senior managing director 1982 Director, Vice President	20,000
Senior managing dir. (Representative director) (In charge of manage- ment plans, domestic operations and related industries)	Nobumitsu Kosugi 31 August 1923 1-11-11-405 Denenchofu, Setagaya ku, Tokyo	1943 Graduated Engr. Dept. Waseda Univ. 1959 Entered Oki Electric Ind. Co. 1975 Deputy dept. chief, Electronic Communications Operations 1977 Director 1980 Managing director 1983 Senior managing director	12,000
Senior managing dir. (Representative director) Chief of electronic devices operations)	Yoshio Masuda 10 October 1929 4-3-13 Takai Minami cho, Koganei shi, Tokyo	1952 Graduated Science Dept. Waseda Univ. 1959 Entered Oki Electric Ind. Co. 1975 Deputy chief, Electronic Communications Operations Dept. 1977 Director 1980 Managing director 1983 Senior managing director	12,000
Senior managing dir. (Representative director) (In charge of superin- tendance, general affairs, accounting, overseas operations, finance)	Aigu Mitsuyasu 1 April 1926 5-20-18 Seijo, Setagaya ku, Tokyo	1951 Graduated Law Dept. Tokyo Univ. 1951 Entered Fuji Bank 1978 Director of Fuji Bank 1981 Managing director of Oki Electric 1983 Senior managing director	14,000
Managing director (in charge of tech- nology, chief, Advanced Information Communication Systems Promotion Hqs.)	Toshio Takahashi 4 March 1925 1892-10 Kami Aso, Aso ku Kawasaki shi, Kanagawa	1947 Graduated Engr. Dept. Hokkaido Univ. 1950 Entered Electrical Communications Ministry 1980 Chief, Data Communications Hqs., Japan Telegraph and Telephone Public Corp. 1982 Executive director, Japan Telegraph and Telephone Public Corp. 1983 Entered Oki Electric Ind. Co. as managing director	10,000

Title and position	Name (Birthdate and address)	Personal history	Number of shares
Managing director (Chief, Electronic Communications Dept.)	Jun Jinguji 16 January 1930 6-31-5 Nishi Tsuruma Yamato shi, Kanagawa	1953 Grad. Engr. Dept. Kyushu Univ. 1953 Entered Japan Telegraph and Telephone Public Corporation 1976 Musashino Electrocommunications Research Center of above corporation, chief, Nucleus Switching Research Dept. 1978 Entered Oki Electric Ind. Co. as director 1979 Managing director	11,000
Managing director (Chief, OA Operations Dept.)	Shuzo Yamatohisu 16 August 1927 4-6-3 Aobadai, Meguro ku, Tokyo	1954 Graduated Engr. Dept. Graduate School of Keio Univ. 1954 Entered Oki Electric Ind. Co. 1975 Chief, Development Hqs. 1977 Director 1981 Managing director	11,000
Managing director (Chief, Data Processing Operations Dept.)	Akinori Watanabe 6 December 1931 2-2-8-302 Seikiguchi Bunkyo ku, Tokyo	1954 Grad. Engr. Dept. Hokkaido Univ. 1954 Entered Oki Electric Ind. Co. 1973 Chief, Data Processing Operations General Technology Dept. 1978 Director 1982 Managing director	8,000
Director (Chief, Data Processing Operations Hqs. and Chief, Data Equip. Operations Hqs.)	Masatoshi Yokowo 3 February 1928 1-115-2 Amanuma Cho Omiya shi, Saitama	1953 Grad. Econ. Dept. Meiji Univ. 1953 Entered Oki Electric Ind. Co. 1977 Chief, Data Equipment Operations Hqs. and chief, Financial Industries Operations Dept. 1979 Director	11,000
Director (Chief, Electronic Devices Operations Hqs.)	Shiko Sawamura 1 March 1931 4-15-18 Ichiba, Funabashi shi, Chiba	1953 Grad. Pol/Economic Dept. Seikei Univ. 1953 Entered Oki Electric Ind. Co. 1977 Chief, Electronic Devices Operations Hqs. 1979 Director	8,000
Director (Chief, General Systems Research Center)	Yoshinobu Anraku 25 April 1930 3-15-3 Asama cho Fuchu shi, Tokyo	1954 Grad. Engr. Dept. Tokyo Univ. 1957 Entered Oki Electric Ind. Co. 1977 Deputy chief, Software Operations General Technology Dept., and chief, Process Development Dept. 1979 Director	5,000
Director (Chief, Management Promotion Chamber)	Masao Nogami 25 May 1931 5-28-14 Higashi cho, Koganei shi, Tokyo	1954 Grad. Law Dept. Tokyo Univ. 1954 Entered Oki Electric Ind. Co. 1979 Chief, Superintendance Dept., Data Processing Dept. 1980 Director	6,000
Director (Deputy operations chief, Electronic Communications Operations Dept.)	Nobutada Nakajima 27 September 1931 4-18-22 Daizawa, Setagaya ku, Tokyo	1954 Grad. Econ. Dept. Hitotsubashi Univ. 1954 Entered Oki Electric Ind. Co. 1979 Chief, Superintendance, Electronics Communication Operations Dept. 1980 Director	6,000
Director (Chief, Domestic Operations General Hqs.)	Susumu Ichinose 3 December 1931 1-5-2-503 Izumi, Honcho, Komae shi, Tokyo	1954 Grad. Law Dept. Chuo Univ. 1954 Entered Oki Electric Ind. Co. 1979 Deputy chief, Domestic Ops. General Hqs. 1981 Director	3,000

Title and position	Name (Birthdate and address)	Personal history	Number of shares
Director (Deputy operations chief, OA Operations)	Hisato Izumi 5 October 1929 2-2-22 Yagumo Meguro ku, Tokyo	1954 Grad. Commercial Dept. Waseda Univ. 1954 Entered Oki Electric Ind. Co. 1978 Chief Superintendence 1981 Director	9,000
Director (Chief, Basic Tech- nology Research Center)	Shigenaga Nakaya 25 June 1929 675 Josui Minami cho, Kodaira Shi, Tokyo	1958 Grad. Science Dept. Osaka City College 1958 Entered Oki Electric Ind. Co. 1981 Chief, Basic Technology Research Center 1982 Director	8,000
Director (Chief, Technical Hqs.)	Mitsuyo Kondo 24 August 1933 560-6 Higashi Hongo cho Midori ku, Yokohama shi, Kanagawa	1956 Grad. Engr. Dept. Kyoto Univ. 1956 Entered Oki Electric Ind. Co. 1979 Deputy chief, Audit Bureau 1981 Deputy chief, Technical Hqs. 1982 Chief of Technical Hqs. 1982 Director	10,000
Director (Deputy operations chief, Electronics Devices Operations Dept.)	Mamoru Ikegami 21 January 1931 9-29-12 Minamidaira Hino shi, Tokyo	1954 Grad. Science Dept. Waseda Univ. 1954 Entered Oki Electric Ind. Co. 1981 Deputy operations chief, Electronic Devices Operations Dept. 1983 Director	4,000
Auditor (Regular)	Shigeru Akimoto 27 June 1917 1-33-4 Mihara dai, Nerima ku, Tokyo	1941 Grad. Tokyo Commercial College 1943 Entered Oki Electric Ind. Co. 1963 Chief, Accounting Dept. 1967 Director 1972 Managing director 1978 Auditor	15,000
Auditor (Regular)	Ayanari Nakaichi 14 January 1921 445-1 Kingasaku Shinjan, Matsudo shi Chiba	1945 Grad. Econ. Dept. Tokyo Univ. 1945 Entered Communications Ministry 1975 Chief, Government Insurance Bureau, Ministry of Postal Affairs 1976 Adviser to Oki Electric 1977 Auditor	12,000
Auditor	Takeo Miyamura 26 February 1923 4-22-2-806 Yoyogi Shibuya ku, Tokyo	1946 Grad. Tokyo Industrial College (now Hitotsubashi) 1946 Entered Yasuda Bank 1971 Director, Fuji Bank 1974 Senior managing director, Takachiho Trading Co. 1976 Entered Oki Electric Ind. Co. as director 1979 Senior managing director 1982 Auditor	15,000
Total	22		236,000

8. Status of Employees

(1) Number of Employees, Average Age, Average Years Employed and Average Monthly Earnings  
(as of 31 March 1983)

Item	Breakdown		Indirect employees		Direct employees			Total
	Male	Female	Male	Female	Male	Female	Total	
Total personnel	7,221	996	8,217	500	3,538	500	4,038	12,255
Age	35.4	25.8	34.2	29.1	35.1	29.1	34.4	34.3
Average Years employed	14.5	6.3	13.5	10.8	14.9	10.8	14.4	13.8
Pay	264,920	121,621	247,550	142,192	235,332	142,192	223,799	239,724

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(Note) Average wage is for March 1983 including taxes and extra hours pay but does not include bonuses.

(2) Labor Union Situation

The company's labor union is called the Oki Electric Labor Union. It is set up in the main office and in each of its operational elements and is affiliated with the All Japan Electrical Equipment Labor Union Federation. (Chirutsu Roren)

Labor and management relations are stable and as of 31 March 1983 the number of labor union members was 11,026.

No 2. Summary of Operations

1. Objectives of the Company and Substance of Operations

(1) Objectives of the Company

The company's objectives are to conduct the following operations.

- 1) Manufacture and sales of systems, equipment, software and parts relative to communications, data processing, controls, measurement, broadcast and medicine.
- 2) Design, construction, protection and technical guidance with respect to the above.
- 3) Investments necessary for management.
- 4) All activities related to all of the above.

(2) Substance of Operations

The company is engaged in the manufacture and sale of switching and transmission equipment for electronic communications facilities, information processing facilities for data equipment, survey and control equipment as well as in related construction activities. They are also engaged in the manufacture and sale of electronic parts and others.

(Major Products of the Company)

Type		Product name	Ratio of sales (percent)
Electronic communications equipment	Switching equipment	Electronic switching equipment, cross bar switches, electrical communications relays, PBX equipment, workplace switches, building exchanges, various exchange equipment	30
	Communications terminals	OKIFAX series, all types of telephones	
	Transmission equipment	Fixed single/multiple wireless equipment, fixed/mobile transceivers, auto communications equipment, emergency use communications equipment, marine communications, portable wireless equipment, sonde, radio, TV broadcast equipment. Bare wire transmission equipment, cable transmission equipment. Picture transmitters (still pictures and CAPTAIN system), TV telephones, TV converters, demodulators (for combination and sound use)	
Information processing equipment	Data equipment	Electronic calculator system (OKITAC-system 50V, 9, 4300, COSMOS series, OVK 90 series and 80 series), personal computers (if 800 series), word processors (Lettermate series), peripherals, data compilers, data transmitters, on line terminals (general use intelligent terminals), banking terminals, production control terminals, POS terminals, medical terminals, Kanji equipment, software	52
	Survey, control equipment	Telemetry, telecontrol (water system use, agricultural water control use, road supervision use, dams, rivers, public pollution monitoring use, communications use, etc.), marine automation equipment, building maintenance systems, radar equipment (for sea, land, atmosphere, harbor use), Loran equipment, beacons, sonar, sounding equipment, flow volume, speed, level indicator equipment, remote guidance detonator equipment, atmospheric, earth and marine measuring systems, industrial measuring equipment, communications measuring equipment	

(3) Changes in Operational Substance

There are no changes to note.

2. Important Contracts Affecting Management

The following lists important technical assistance contracts as of 31 March 1983.

Counterpart	Item	Contract equipment	Details of contract	Period of contract
United States Western Electric Co., Inc.		Transmitting equipment, exchange equipment, information processing equipment, wireless transmission equipment	Cross licensing of patent rights	From 19 January 1980 as long as the patent contract is in force
United States American Telephone and Telegraph Co.		Semiconductor equipment and membrane devices	" "	From 10 January 1983 as long as the patent contract is in force
United States IBM Corp.		Information processing equipment	" "	From 1 January 1981 as long as the patent contract is in force
United States Texas Instruments Corp.		Semiconductor facilities	" "	28 March 1979 to 27 March 1984
United States Fairchild Camera and Instrument Corp.		Semiconductors and diodes	" "	27 June 1980 to 26 June 1985
United States Motorola Corp.		Semiconductor materials and integrated circuits	" "	1 January 1982 to 31 December 1986
United States Intel Corp.		Semiconductor materials and integrated circuits	" "	1 August 1980 to 31 July 1990

No 3. Status of Operations

1. General Situation

During this period our country's economy continued to be stagnant. This was due to the fact that exports which had been the supporter of the economy continued to be in the doldrums because of the increase of trade friction and protectionism as well as the lack of growth of personal consumption.

In this milieu, our company, as a general maker of communications and information systems in support of the information society promoted the development of high technology products and expanded our sales structure in order to respond to the increasing competition in the market place. As one aspect of this activity the company newly established an Office Automation Operations Department to consolidate office automation equipment and systems.

Under the foregoing situation the orders for this period were 2,525 billion yen, 117 percent against the previous period and sales were 2,475 billion yen, 116 percent against the previous period indicating smooth continued growth.

However, in terms of profits, the effects of a fire at the company's Miyazaki plant which produces VLSI, increased sales expenses and forward investments in research development based on future projec-

## 2. Production Capacity

The company produces a variety of communications equipment based primarily on orders. The type, variety and complicated production methods involved makes it very difficult to calculate production capacity. Therefore, a production plan is shown below.

(Unit: 1 million yen)

Breakdown Equipment type	April 1981-March 1982		April 1982-March 1983	
	Production plan	Monthly average	Production plan	Monthly average
Electronic communications equipment	62,723	5,227	62,048	5,170
Information processing equipment	81,096	6,758	108,020	9,001
Electronic parts	33,144	2,762	32,152	2,679
Others	203	17	--	--
<b>Total</b>	<b>177,166</b>	<b>14,764</b>	<b>202,220</b>	<b>16,851</b>

- (Notes)
1. Values are based on sales price and do not include purchased products.
  2. The planned production for the April 1982-March 1983 period has taken into consideration a 9.1 billion yen decrease due to the results of the fire at the Miyazaki facility.

## 3. Actual Production

(1) The past 2 production years' actual production against planned production by type of equipment and the ratio of plan achieved are shown in the following.

(Unit: 1 million yen)

Classification Equipment type	April 1981-March 1982			April 1982-March 1983		
	Actual production	Actual production (monthly average)	Ratio achieved (percent)	Actual production	Actual production (monthly average)	Ratio achieved (percent)
Electronic equipment	62,734	5,228	100	63,179	5,264	102
Information processing equipment	92,716	7,726	114	109,163	9,096	101
Electronic parts	27,485	2,290	83	36,639	3,053	114
Others	391	33	193	--	--	--
<b>Total</b>	<b>183,326</b>	<b>15,277</b>	<b>103</b>	<b>208,981</b>	<b>17,415</b>	<b>103</b>

- (Notes)
1. Values are based on sales price.
  2. In order to maintain a proficient production structure, the company buys its materials and parts (electronic parts, structural parts, electrical sources, etc.). A portion of its assembly, pressing and metal working is subcontracted out as well. The ratio of contracted work in the overall production costs was 7.8 percent in the March 1982 period and 9.5 percent in the March 1983 period.
  3. In addition to the above there were purchase items amounting to 8,614,000,000 yen in the March 1982 period and 9,656,000,000 yen in the March 1983 period mainly in telephones and data equipment.

## (2) Supply Situation Regarding Major Raw Materials

Raw material	Unit	On hand end of March 1981	April 81-March 82		On hand end of March 1982	April 82-March 83		On hand end of March 1983
			Input	Used		Input	Used	
Steel material	t	204.7	1,998.1	2,074.1	128.7	1,990.6	2,027.5	91.8
Brass material	t	10.6	129.9	131.5	9.0	149.1	142.0	16.1
Nickel material	t	9.8	160.8	167.1	3.5	127.7	125.0	6.2
Electrical wire	t	15.8	330.0	326.9	18.9	350.9	323.2	46.6
Phenol resins	t	1.0	131.8	130.3	2.5	81.3	81.9	1.9
Precious metals	kg	86.8	2,130.0	2,112.2	104.6	1,662.2	1,673.6	93.2

## (3) Trend of Prices of Major Raw Materials

Raw material	Name of item	Size	Unit	Price	
				End of March 1982	End of March 1983
Steel material	Steel sheets	1.4 m/m	kg	136 yen	142 yen
Steel material	Band steel	2.0 m/m	"	108	110
Brass material	Brass sheets	1.0 m/m	"	700	700
Nickel material	Nickel sheets	0.4 m/m	"	1,872	1,902
Electrical wire	VR-ring mark wire	0.5 m/m	m	3.4	4.3
Phenol resins	Phenol resin sheets	0.8 m/m	kg	1,910	2,080
Precious metals	Silver vanadium contacts	Agpd-1G	g	1,012	1,366

## 4. Orders Situation and Production Plan

## (1) Orders Situation

Most of the company's products are produced on order.

The orders received and backlog of orders for the past 2 operational years are as follows:

(Unit: 1 million yen)

Equipment type	Classification	April 1981-March 1982		April 1982-March 1983	
		Orders Received	Orders Backlogged	Orders Received	Orders Backlogged
		Electronic communications equipment	68,072	25,740	71,285
Information processing equipment	110,593	30,088	138,667	38,352	
Electronic parts	34,200	7,693	37,862	6,101	
Others	3,780	112	4,711	628	
Total	216,645	63,633	252,527	68,608	

(Notes) 1. Values are on basis of sales price. Because the products handled are of such a wide variety, the volume of orders received has been abbreviated.

## (2) Production Plan for the Next 6 Months

(Unit: 1 million yen)

Equipment type	Quarterly periods	April 1983- June 1983	July 1983 September 1983	Total
	Electronic communications equipment		13,403	15,138
Information processing equipment		23,498	33,301	56,799
Electronic parts		9,860	11,682	21,542
Others		--	--	--
Total		46,761	60,121	106,882

(Note) Values are on basis of sales price and do not include purchased items.

## 5. Actual Sales

## (1) Sales Record

Most of the company's products are sold directly with only portions being sold through contracted outlets and other intermediaries. A portion of their electronic calculators are sold to the Japan Electronic Calculator Co. KK which the company uses in its leasing operations. The company handles the installation, and related construction, maintenance and electrical work in connection with the products it sells.

## (2) Actual Sales in the Past 2 Operational Years

(Unit: 1 million yen)

Equipment type	Period Classification	April 1981-March 1982			April 1982-March 1983		
		Amount	Monthly average	Ratio (percent)	Amount	Monthly average	Ratio (percent)
Information processing equipment		109,055	9,088	51	130,402	10,866	52
Electronic parts		30,613	2,551	14	39,455	3,287	16
Others		4,176	348	2	4,194	349	2
Total		214,171	17,848	100	247,551	20,629	100

- (Notes) 1. Sales volume has been omitted because the types of products handled are so numerous.  
 2. Of the above, exports accounted for 17 percent in the March 1982 period and 26 percent in the March 1983 period. The major export markets were North America, the Middle East, Western Europe and Southeast Asia. The major items exported were data terminals, exchange equipment and electronic parts.

## (3) Trends of Prices of Major Products

The company produces and sells a variety of communications equipment, but most of the products are produced on the basis of orders so it is difficult to set out in chart form a trend in prices.

Generally speaking, electronic parts decreased in price and other products were at the level of the previous period. Some examples of the trends in major products are as follows:

(Prices at the end of March 1983 are 100)

Equipment type	Product name	End of March 1982	End of March 1983
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No 4. Status of Facilities

1. Facilities

(1) Production Facilities, Etc.

Following represents the personnel distribution and capital investment by the various operation sectors as of the end of March 1983.

Classification	Facility	Production item	Area m <sup>2</sup>		Capital investment (millions of yen)				Personnel	
			Land	Buildings	Land	Buildings	Machinery	Other		Total
	Tokyo factory	Electronic communications equipment, Information processing equipment	19,248	( 5,657) 42,480	395	4,749	344	2,222	7,712	2,308
	Hachioji factory	Electronic parts	269,937	( 433) 60,378	880	9,338	9,132	3,040	22,392	1,753
	Honsho factory	Electronic communications equipment	150,888	( 285) 60,683	62	1,723	3,520	1,730	7,037	1,739
	Takasaki factory	Information processing equipment	134,344	( 6,683) 72,894	563	1,017	2,826	1,807	6,214	2,377
	Research center	Overall basic research	--	11,798	--	761	327	477	1,566	238
	Main office, Branches & others	Supervisory work and Sales operation	( 14,559)	( 64,388) 152,286	1,524	4,211	25	4,066	9,827	3,840
	Total		( 14,559) 697,708	( 77,446) 400,519	3,426	21,801	16,178	13,345	54,752	12,255

- (Notes)
1. Figures in ( ) indicate borrowed portions and are internal figures.
  2. Invested capital figures are book values as of the end of March 1983 and do not include temporary accountings for construction work.
  3. The column "Others" refers to structural materials, transport equipment, tools, etc.
  4. The Tokyo factory includes the Numazu plant, the Hachioji factory includes the Chichibu and Miyazaki plants and the Takasaki factory includes the Tomioka plant.
  5. Of the above, the major assets leased out are as follows:

Factory	Leased to	Area m <sup>2</sup>		Capitalization amount (millions of yen)				Total
		Land	Buildings	Land	Buildings	Machinery	Other	
Miyazaki	Miyazaki Oki Electric	112,278	15,748	352	4,137	2,771	904	8,164

(2) Machinery by Operational Areas

Classification	Factory	metal cutting machine			Vacuum equipment furnaces; Wire handling equipment		Electric power machinery		Total
		tool	press machine	welding machine	chemical equipment	equipment	Others		
	Tokyo	52	29	14	136	24	44	194	493
	Hachioji	132	90	405	1,907	43	129	1,532	4,238
	Honsho	126	246	153	445	62	18	1,012	2,062
	Takasaki	941	213	70	246	10	152	613	2,245
	Research Center	19	2	22	212	--	1	95	351
	Total	1,270	580	664	2,946	139	344	3,446	9,389

## 2. Construction of New Facilities, Important Expansions or Improvements or Plans for Such

The company has undertaken concentrated capital investments in rationalizing production facilities and energy conservation along with capital investments to develop new products and strengthen the structure of their company. Within this situation, the following shows, as of the end of March 1983, the measures completed and the measures deemed necessary in the future.

(Unit: 1 million yen)

Planned area	Budget	Disbursed April 82 March 83	Needed after April 83	Starting period	Completion expected	Remarks
Tokyo	3,146	1,171	1,975	April 82	March 84	Transmission equipment. Survey-control equipment production facility upgrading and expansion of the Numazu factory.
Hachioji	14,239	9,361	4,878	"	Sep 83	Upgrading of semiconductors, IC manufacturing facilities and revival of the Miyazaki plant and expansion.
Takasaki	4,447	2,335	2,112	"	"	Upgrading of electronic calculator, data communications systems, manufacturing facilities.
Honsho	4,362	2,317	2,045	"	"	Upgrading of electronic exchanges and communications terminal manufacturing facilities.
Testing and research	5,336	2,258	3,078	"	"	Strengthening of research and development facilities used in VLSI work.
Operational and welfare facilities	7,287	4,269	3,018	"	"	
<b>Total</b>	<b>38,817</b>	<b>21,711</b>	<b>17,106</b>			

- (Notes)
1. It is expected that the funds needed above will be met with 14,977,000,000 yen proceeds from convertible bonds and 2,129,000,000 yen cash on hand.
  2. It is anticipated that on the completion of the above plan, the capacity of the facilities will be increased by 20 percent.

## 3. Sales, Withdrawal or Loss of Fixed Assets

Due to the fire that occurred at the Miyazaki facility on 3 October 1982, a portion of the buildings, machinery, etc., were damaged and there was a subsequent partial stoppage of the facility. However, full production resumed from 21 December 1982. Refer to No 5, Status of Finances, 1. Financial Charts, (4) Attached Detailed Charts, (b) Fixed Tangible Assets Details (page 36), for fixed assets abandoned or lost. [not translated]

## 1. Items Relative to the Parent Company

There are no relevant items.

## 2. Items Relative to the Subsidiaries

## (1) Direct Subsidiaries

Name of subsidiary	Location	Capitalization (yen)	Details of operation	Degree of self-determination (percent)	Details of relationship
Tohoku Oki Denki K.K.	Fukushima City, Fukushima	200 million	Manufacture and sales of communications and information processing equipment	100	They subcontract for the company's information processing equipment. One officer and two employees of the parent company hold concurrent positions herein.
Oki Denki Sales K.K.	Minato ku, Tokyo	90 million	Sales of communications equipment and others	100	They are the domestic sales arm of the parent company. One officer of the parent company holds a concurrent position in this subsidiary.
Kinseki K.K.	Komae shi, Tokyo	500 million	Manufacture and sales of crystal products and crystal oscillators	79	The parent company buys the products produced. One officer and one employee of the parent company hold concurrent positions. The parent company's production facility is borrowed from the parent company.
Oki Denki Construction K.K.	Minato ku, Tokyo	400 million	Design and construction of electric and communications construction	80	They contract for the electric communications construction work of the parent company. Two officers of the parent company hold concurrent positions.
Oki Real Estate K.K.	Minato ku, Tokyo	80 million	Sales, management and construction of real estate	100	They construct and manage the buildings of the parent company. One officer and one employee of the parent company hold concurrent positions. The parent company loans the operating capital.
Toho Electronics K.K.	Minato ku, Tokyo	200 million	Manufacture and sales of electronic information equipment	100	They subcontract for electronic equipment of the parent company. One employee of the parent company is concurrently an officer of the company. Production facilities (machinery) are loaned to the company by the parent company.
Kuwano Denki K.K.	Kawasaki shi, Kanagawa	150 million	Manufacture and sales of electric measuring equipment	74	Products are bought by the parent company. One officer and one employee of the parent company hold concurrent positions as officers in the company. The operating capital of the company

[continuation of (1) Direct Subsidiaries]

Name of subsidiary	Location	Capitalization (yen)	Details of operation	Degree of self-determination (percent)	Details of relationship
Oki Denki Fire Prevention K.K.	Minato ku, Tokyo	300 million	Manufacture and sales of fire prevention equipment	100	They subcontract for the fire prevention work of the parent company. Two officers and one employee of the parent company hold concurrent positions as officers in the company.
Oki Electric Overseas Corp.	Hackensack, New Jersey U.S.	\$29,200,000	Sales of communication equipment and others	100	They mainly engage in the sales of communications equipment bought from the parent company. One officer and three employees of the parent company hold concurrent positions as officers in the company. The parent company loans the company its operating capital.
Okidata Corp.	Mt. Laurel, New Jersey U.S.	\$5,804,000	Manufacture and sales of information processing equipment	100 <sup>1*</sup>	They obtain information processing equipment and products from the parent firm. One officer and three employees of the parent company hold concurrent positions as officers in the company.
Oki Electronics of America, Inc.	Ft. Lauderdale, Florida, U.S.	\$14,048,000	Manufacture and sales of communications equipment and others	100 <sup>2*</sup>	They obtain communications equipment and products from the parent company. Two officers and one employee of the parent company hold concurrent positions as officers in the company. The parent company loans them their operating capital.
OEA Disc, Inc.	Ft. Lauderdale, Florida, U.S.	\$3,000,000	Sales of communications equipment and others	100 <sup>3*</sup>	They are engaged in the export of products of the Oki Electronics of America, Inc.

- (Notes) 1. Of the subsidiaries listed above, Tohoku Oki Denki, Oki Electric Overseas Corp. and Oki Electronics of America, Inc. fall under the category of specially designed subsidiaries.  
 2. Indirect ownership ratios are as follows:

(Owner company)	(Ownership ratio)
*1. Oki Electric Overseas Corp.	86 percent
*2. Oki Electric Overseas Corp.	98 percent
*3. Oki Electronics of America, Inc.	100 percent

(2) Nonconnected Subsidiaries

Name of subsidiary	Location
Miyazaki Oki Denki K.K.	Kiyotake cho, Miyazaki gun, Miyazaki Prefecture
Warabi Special Steels K.K.	Warabi shi, Saitama
Oki Ceramic Industries K.K.	Minato ku, Tokyo
Oki Fukushi Kosei K.K.	" " "
Oki Software K.K.	" " "
Oki Engineering K.K.	" " "
Nagano Oki Electric K.K.	Komoro shi, Nagano
Shizuoka Oki Denki K.K.	Xumuzu shi, Shizuoka
Fuyo Fire Prevention Industries K.K.	K.K. Minato ku, Tokyo
Oki Communications Systems K.K.	" " "
Oki Electric Products Distribution Center	" " "
Oki Software Kyushu K.K.	Fukuoka shi, Fukuoka
Oki Information Equipment Service K.K.	Minato ku, Tokyo
Oki Farmwear Systems K.K.	Takasaki shi, Gunma
Oki Software Kansai K.K.	Osaka shi, Osaka
Oki Kanto Service K.K.	Minato ku, Tokyo
Kyushu Oki Communications Equipment K.K.	Fukuoka shi, Fukuoka
Shibukawa Instruments K.K.	Shibukawa shi, Guna
Nichidoku Instruments K.K.	Usuda sho, Sakuma gun, Nagano
Hokkaido Kinseki K.K.	Mikasa shi, Hokkaido
Oki Electronics K.K.	Iruma Gun, Saitama
Oki Communications Construction Software K.K.	Minato ku, Tokyo
Oki Semiconductor, Inc.	Santa Clara, California
Oki Systems Engineering, Inc.	Kissimmee, Florida
Oki Do Brasil Electronica e Comunicacoes Ltda	Salvador, Bahia, Brasil
Oki Electric Europe GmbH	Dusseldorf, Bundesrepublik, Deutschland

(Note) None of the above listed subsidiaries falls under the category of specially designated subsidiaries.

3. Items Relative to Consolidated Financial Reports

A consolidated financial report is to be created and will be submitted in the latter half of July 1983.

## [Text] 7. Personal Histories of Officers and Numbers of Shares Held

Title and position	Name (Birthdate and address)	Personal history	Number of shares
Representative director Director, Chairman	Hiroyoshi Yoshiyama 1 December 1911 3-17-15-103 Yuehara, Shibuya ku, Tokyo	1935 March Grad. Engr. Dept. Tokyo Univ. Entered Hitachi Seisakusho 1961 Nov Director 1964 Nov Managing director 1968 May Senior managing director 1969 Nov Director, vice president 1971 Nov Director, president 1981 June Director, chairman	300,000
Representative director Director, President	Katsushige Mita 6 April 1924 2423-277 Naracho, Midori ku, Yokohama shi, Kanagawa	1949 March Grad. Engr. Dept. Tokyo Univ. Entered Hitachi Seisakusho 1975 May Director 1977 Jun Managing director 1979 Jun Senior managing director 1980 Jun Director, vice president 1981 Jun Director, president	114,000
Director, Vice pres.	Kenichi Yasu 10 March 1917 1-14-9 Hanegi, Setagaya ku, Tokyo	1941 March Grad. Econ. Dept. Tokyo Univ. 1973 Nov Director 1974 May Managing director 1977 Jun Senior managing director 1981 Jun Director, vice president	50,000
Director, Vice pres.	Kiyoharu Sudo 5 May 1933 5-1-17-1301 Otsuka, Bunkyo ku, Tokyo	1943 Sep Grad. Engr. Dept. Hokkaido Univ. 1945 Entered Hitachi Seisakusho 1977 June Director, vice president of Hitachi Home Appliances 1979 June Director, president of above Director, vice president of Hitachi Seisakusho	13,000
Director, Vice pres.	Masaomi Niimi 11 September 1920 2040-45 Kami Kurata cho, Totsuka ku, Yokohama shi, Kanagawa	1942 Sep Grad. Law Dept. Tokyo Univ. Entered Hitachi Seisakusho 1976 June Director 1978 June Managing director 1981 June Senior managing director 1983 June Director, vice president	21,000
Director, Vice pres.	Masataka Nishi 25 October 1928 3-17-5-402 Minami Otsuka Toshima ku, Tokyo	1951 March Grad. Engr. Dept. Tokyo Univ. Entered Hitachi Seisakusho 1977 June Director 1979 June Managing director 1983 June Director, vice president	25,000
Director, Vice pres.	Hiroshi Asano 17 November 1925 5-16-5 Yagumo, Meguro ku, Tokyo	1947 Sep Grad. Engr. Dept. Tokyo Univ. 1952 Entered Hitachi Seisakusho 1977 June Director 1979 June Managing director 1983 June Director, vice president	61,000
Senior managing director	Susumu Isa 15 November 1923	1945 Sep Grad. Engr. Dept. Tokyo Univ. 1975 Entered Hitachi Seisakusho 1976 Jan Chief, Communications Equipment,	30,000

Title and position	Name (Birthdate and address)	Personal history	Number of shares
Senior managing director	Hiroshi Kamata 5 December 1920 4-13-12 Nishi Kamakura Kamakura shi, Kanagawa	1944 Sep Graduated Engr. Dept. Tokyo Univ. Entered Hitachi Seisakusho 1975 May Chief, Electric Power Ops. Hqs. 1977 June Director 1979 June Managing director 1981 June Senior managing director	30,000
Senior managing director (Concurrently chief, R&D Dept.)	Hiroshi Watanabe 18 August 1927 483-61 Hodokubo, Hino shi, Tokyo	1952 Mar Graduated Physics Dept. Tokyo Univ. Entered Hitachi Seisakusho 1972 May Chief, Central Research Lab. 1977 June Director 1979 June Managing director 1983 June Senior managing director	21,000
Senior managing director	Shiro Kawata 23 February 1924 3-22-5 Okusawa, Setagaya ku, Tokyo	1943 Sep Graduated Takamatsu Higher Econ. School 1944 Entered Hitachi Seisakusho 1973 June Chief, Materials Dept. 1977 June Director 1980 June Managing director 1983 June Senior managing director	20,000
Senior managing director	Yasuo Miyauchi 21 November 1921 2-1-12 Hitachi dai, Kawashi shi, Chiba	1948 March Graduated Tokyo Econ. College Entered Hitachi Seisakusho 1974 Aug Chief, Accounting Dept. 1979 June Director 1980 June Managing director 1983 June Senior managing director	35,000
Senior managing director	Yutaka Sonoyama 5 November 1924 842-105 Kumagaya cho, Machida shi, Tokyo	1947 Sep Graduated Engr. Dept. Tokyo Univ. Entered Hitachi Seisakusho 1977 Aug Chief, Products Operations Dept. 1979 June Director 1981 June Managing director 1983 June Senior managing director	13,000
Managing director (Concurrently chief, Electronics Operations Dept.)	Sutezo Hata 9 September 1926 1-9-1 Makuhari Nishi, Chiba shi, Chiba	1948 March Graduated Engr. Dept. Tokyo Univ. Entered Hitachi Seisakusho 1973 Feb Chief, Electron Tube Operations Dept. 1977 June Deputy chief, Electronics Operations Dept. 1979 June Director 1981 June Managing director	21,000
Managing director	Katsumi Fujimoto 5 February 1925 333-57 Jomeiji, Kamakura shi, Kanagawa	1949 March Graduated Engr. Dept. Tokyo Univ. Entered Hitachi Seisakusho 1972 Aug Chief Software Factory 1978 Feb Chief, Computer Operations Hqs. 1979 June Director 1981 June Managing director	22,000
Managing director (Concurrently chief, Home Appliance Operations Dept.)	Shoel Yajima 15 August 1921 3-16-6 Kanemachi, Katsushika ku, Tokyo	1941 Dec Graduated Sendai Higher Engr. School 1942 Entered Hitachi Seisakusho 1969 Aug Assistant chief, Tokai Factory 1970 Aug Chief, Tokai Factory 1979 June Director 1981 June Managing director	13,000
Managing director	Yasuya Miyoshi 8 November 1927 1-13-19 Noge, Setagaya ku, Tokyo	1951 March Graduated Engr. Dept. Tokyo Univ. Entered Hitachi Seisakusho 1976 Dec Chief, Kyushu Branch 1980 Feb Chief, Electric Power Operations Hqs. 1981 June Director 1983 June Managing director	14,000

Title and position	Name (Birthdate and address)	Personal history		Number of shares
Managing director (Concurrently chief, OA Operations Dept.)	Masanori Ozeki 29 January 1924 1820-50 Ofuna, Kamakura Shi, Kanagawa	1946 Sep 1979 Jan 1980 Aug 1981 June 1983 June	Graduated Engr. Dept. Tokyo Univ. Entered Hitachi Seisakusho Chief, Office Automation Promotion Hqs. Director Managing director	10,000
Director	Yoshio Nagata 1 September 1911 3-4-7 Kita Kasugaoka, Ibaragi shi, Osaka	1933 March 1933 Sep 1962 Nov 1967 Nov 1979 June	Graduated Nagasaki Higher Commer- cial School Entered Osaka Iron Works--continued employment at Hitachi Shipbuilding President of above Concurrently director of Hitachi Seisakusho Chairman of Hitachi Shipbuilding	37,000
Director	Hirsohi Kenmori 7 August 1924 1-9-5-508 Tamagawa, Setagaya ku, Tokyo	1949 March 1973 Aug 1974 Dec 1979 Feb 1981 June	Graduated Engr. Dept. Tokyo Univ. Entered Hitachi Seisakusho Assistant chief, Tochigi Factory Chief, Tochigi Factory Chief, Household Electrification Operations Dept. Director	21,000
Director (Concurrently chief, Auto Equipment Operations Dept.)	Okabe 16 November 1924 31-2 Wakamiya cho, Ichigaya, Wakamiya cho Co-op 208, Shinjuku ku, Tokyo	1944 Sep 1972 Feb 1975 Oct 1979 Feb 1981 June	Graduated Taga Engr. School Entered Hitachi Seisakusho Assistant chief, Sawa Factory Chief, Sawa Factory Chief, Auto Equip. Operations Hqs. Director	11,000
Director (Concurrently chief, Electric Motor Operations Dept.)	Takayuki Kato 30 May 1927 2-7-14 Josui Minami cho Kodaira shi, Tokyo	1951 March 1972 Aug 1974 Aug 1979 June 1981 June	Graduated Engr. Dept. Kyoto Univ. Entered Hitachi Seisakusho Assistant chief, Hitachi Factory Chief, Mito Factory Chief, Hitachi Factory Director	10,000
Director (Concurrently chief, Osaka Branch Office)	Tadakatsu Kano 2 July 1928 1-14 Kashiwara Maeda cho, Saikyo ku, Kyoto shi, Kyoto	1952 March 1974 Feb 1975 Feb 1978 Aug 1983 June	Graduated Engr. Dept. Kyoto Univ. Entered Hitachi Seisakusho Deputy chief, Osaka Branch Chief, Electric Power Operations Chief, Kansai Branch Director	8,000
Director	Zenji Kumagaya 27 January 1926 4-22-10 Kugahara, Ota ku, Tokyo	1948 March 1977 June 1979 June 1981 June 1983 June	Graduated Law Dept., Tokyo Univ. Entered Commerce Ministry Director, Patent Agency Director, Japan Development Bank Entered Hitachi Seisakusho Director	10,000
Director (Concurrently chief, International Operations Dept.)	Toshi Kitamura 1 August 1925 4-14-22 Yukinoshita Kamakura shi, Kanagawa	1950 March 1974 Aug 1975 May 1981 June 1983 June	Graduated Tokyo Industrial Univ. Entered Hitachi Seisakusho Vice president, Hitachi, America President of above Chief, Hitachi International Ops Hqs. Director	7,000
Director (Concurrently chief, Operations Hqs.)	Iwao Matsuoka 22 January 1930 1-2-27-910 Toyosu Koto ku, Tokyo	1952 March 1975 Jan 1976 Dec 1982 Feb 1983 June	Graduated Law Dept. Keio Univ. Entered Hitachi Seisakusho Assistant chief, Equip. Electri- fication Operations Chief, Tokyo Operations Office Operations Hqs chief Director	10,000

Title and position	Name (Birthdate and address)	Personal history	Number of shares
Director (Concurrently chief, President's Secretariat)	Tadashi Okita 17 May 1926 2-17-26-310 Takada, Toshima ku, Tokyo	1954 March Graduated Law Dept. Tokyo Univ. 1955 Entered Hitachi Seisakusho 1972 Feb Deputy chief, Personnel Education Dept. 1977 Feb Chief, President's Secretariat 1983 June Director	17,000
Director (Concurrently chief, Computer Operations Dept.)	Takeo Miura 1 October 1926 5-20-4 Honda, Kokubunji shi, Tokyo	1949 March Graduated Engr. Dept. Kyoto Univ. Entered Hitachi Seisakusho 1970 Aug Deputy chief, Central Research Lab. 1973 Feb Chief, Systems Development Research Center 1983 March Chief, Computer Operations Hqs. 1983 June Director	14,000
Director (Concurrently chief, Finance Dept.)	Shinji Kamaike 14 October 1928 1-56-16 Umeaoka, Setagaya ku, Tokyo	1953 March Graduated Econ. Dept. Tokyo Univ. 1954 Entered Hitachi Seisakusho 1970 Aug Deputy chief, Finance Dept. 1975 May Chief, Finance Dept. 1983 June Director	10,000
Auditor	Hiroshi Homma 2 September 1910 11 Kawada cho, Ichigaya Shinjuku ku, Tokyo	1934 March Graduated Law Dept. Kyoto Univ. Entered Hitachi Seisakusho 1968 May Senior managing director 1970 March Director, vice president 1974 Oct Director 1975 May Auditor	255,000
Auditor	Ryohei Kodaira 4 December 1908 6-6-10 Hon Komagome, Bunkyo ku, Tokyo	1934 March Graduated Engr. Dept. Hokkaido Univ. 1935 Entered Hitachi Seisakusho 1970 Nov Director, vice president of Hitachi Printing and concurrently auditor of Hitachi Seisakusho 1974 Oct Director, president of Hitachi Printing 1975 May Resigned presidency of above	124,000
Auditor	Yoshikawa 1 January 1915 1-15-8 Goshozuka, Miyamae ku, Kawasaki shi, Kanagawa	1936 March Graduated Fukushima Higher Commer- cial School--Entered Hitachi Seisakusho 1971 Nov Director 1973 Nov Managing director 1977 June Senior managing director 1981 June Auditor	37,000
Auditor	Yoshio Yagi 13 December 1911 3-86-5 Takinogawa, Kita ku, Tokyo	1932 March Graduated Yamaguchi Higher Commer- cial School--Entered Hitachi Seisakusho 1970 May Senior managing director 1973 May Director, president of ShinMeiwa Industries 1975 May Concurrently director, vice president of Hitachi Seisakusho 1977 June Resigned above vice presidency 1981 June Chairman of ShinMeiwa Industries concurrently auditor of Hitachi Seisakusho	120,000
Total	33		1,504,000

8. Status of Personnel

(1) Number of personnel, wages, etc.

(as of March 31 1983)

Sector	Male	Female	Total
Number of personnel	65,272	9,670	74,942
Average monthly wages	272,740 yen	133,828 yen	254,576 yen
Average length of employment	16.2 years	6.2 years	14.9 years
Average age	37.0 years	25.8 years	35.5 years

(Note) 1. In addition to these there are 1,411 temporary employees.

2. Average monthly wages include taxes and includes payments other than base pay.

(2) Labor Union Situation

This company's labor union is called the Hitachi Seisakusho Labor Union. It is organized in all elements of the company. At present the labor union is affiliated with the All Japan Electrical Workers Labor Union Federation. As of the end of March 1983 the number of labor union members was approximately 64,000. The labor-management relationship is very stable and proceeding smoothly.

No 2. Summary of Operations

1. Objectives of the Company and Substance of Operations

(1) Objectives of the Company

- 1) Manufacturing and sales of Electrical machinery and equipment
- 2) " " " " Industrial " " "
- 3) " " " " Rolling stock
- 4) " " " " Communications and electronics equipment
- 5) " " " " Lighting and home appliances
- 6) " " " " Optical and medical machinery and equipment
- 7) " " " " Measuring equipment and other general machinery and equipment
- 8) " " " " Materials related to all of the above listed products
- 9) Production and sales of software
- 10) Leasing of products listed in all of the above
- 11) Manufacturing rights and know how use permission
- 12) Contracting for engineering relative to all of the above
- 13) Contracting for construction work
- 14) All work related to all of the above.

(2) Substance of Operations

Manufacturing and sales of electrical machinery equipment constitutes the major operational activity of this company. These products include waterwheels, turbines and other electrical generation equipment to electrical transmission equipment such as transformers, electrical panels, home electrical appliances, communications equipment and electronics equipment and covers practically the entire spectrum of electrical equipment. They also produce industrial machinery, rolling stock, and even metal materials. The wide range of products being produced is up to the point of passing 10,000 items. The following shows the major products and their share ratio against total sales.

Sector	Major products	Share of actual sales (percent)
Power machinery heavy electrical	Boilers, nuclear reactors, nuclear equipment, steam turbines, gas turbines, direct current generators, turbine generators, waterwheel generators, diesel generators, direct current motors, induction motors, transformers, condensers, thyristor applied exchange equipment, distribution panels, control systems, control equipment, computer control equipment, cutoff equipment, safety equipment, hoist, welders	24.5
Household electrical	Refrigerators, fans, dryers, washers, vacuum cleaners, room air conditioners, water coolers, dehumidifiers, home air conditioners, well pumps, color TV's, VTR's, sound equipment, radio, taperecorders, stereos, hi-fi components, car audio, lighting tubes and bulbs	21.7
Information/communications systems-electronic devices	Exchanges, telephones, facsimiles, voice response equipment, video response equipment, wireless application equipment, space communications equipment, computers, data terminals, cash registers, system programs, mini and personal computers, displays, word processors, TV tubes, magnetrons, transmission tubes, liquid crystals, transistors, diodes, condenser elements, microcomputers, LSI, IC, light displays, industrial meters, electrical meters, electron microscopes, semiconductor manufacturing equipment, analysis equipment	30.2
Industrial machinery-plants	Pumps, compressors, fans, cranes, air movers, specialized transporters, industrial robots, rolling mills, steel rollers, chemical plants, oxygen generators, speed changers, testing equipment, freezers, air conditioners, energy conservation equipment, smoke scrubbing equipment, waste products processing equipment, waste water and waste liquid processing equipment.	12.6
Transportation equipment-auto equipment, others	Electric train engines, diesel engines, diesel/electric train engines, street cars, diesel cars, monorail cars, road vehicles, electrical products for rolling stock, driving control systems, elevators, escalators, moving sidewalks, climbing equipment electrical products, electrical equipment, evaporators, car air conditioners, iron products, forged iron products, carbon silicon ceramic	11
Total		100

(3) Changes in Operational Substance

None applicable.

2. Important Contracts Affecting Management

(1) Contracts To Import Technology

Counterpart	Country	Contract item	Contract details	Contract period
General Electric Co.	United States	1,000 MW steam turbine electrical generator	Import patent rights import	18 September 1972-31 December 1987
		1,100 MW nuclear turbine electrical generator	Technical info. Ditto above	18 December 1973-31 December 1988
A.E.G.-Telefunken	West Germany	PAL type color TV	Import of patent rights	19 January 1976-23 June 1989

(Note) The information fee for the above varies somewhat between companies but is generally in the neighborhood of 2-3 percent of the sales volume of the subject products. In a portion of the contracts a flat fee will be paid on a one time basis.

(2) Mutual Technical Assistance Contracts

Counterpart	Country	Contract item	Contract details	Contract period
General Electric Co.	United States	Nuclear reactor system	Exchange of patent rights and info	29 October 1981-28 October 1991
Western Electric Co.	"	Telephone exchanges, semiconductors, etc.	Exchange of patent rights	1 January 1981-31 December 1985
IBM Corp.	"	Information handling system	" " "	" " "
Texas Instruments	"	Semiconductors	" " "	31 October 1975-31 December 1984

(3) Provision of Technology Contracts

Counterpart	Country	Contract item	Contract details	Contract period
General Electric Co.	United States	Robots	Provision of technical info. Patent rights sale	20 July 1981-31 December 1988
SMS Schloemann-Seimag A.G.	West Germany	H C Mill	" " "	17 April 1981-16 April 1991
Siemens A.G.	West Germany	Magnetic levitation rolling stock system	Permission for use of patent rights	30 June 1980-5 March 1992
The General Electric Company, p.l.c.	Great Britain	Robots	" " " Provision of technical info	12 November 1982-12 November 1992
Thomson-CSF	France	Picture tubes for TV and video cameras	" " "	15 December 1982-14 December 1988
Television del Distrito Federal S.A.	Mexico	All transistor color and B/W TV's	Provision of technical info	20 March 1970-19 March 1985

[continued]

[continuation of (3) Provision of Technology Contracts]

Counterpart	Country	Contract item	Contract details	Contract period
Philco Radio e Televisao Ltd.	Brazil	B/W TV's, color TV's, radios, car audio, compact stereo, tape recorder, etc.	Provision of technical info	19 July 1978- 18 July 1988
Radio Victoria S.A.I.C.	Argentina	Color TV's	" " "	10 December 1978- 9 December 1988
Crompton Greaves Ltd.	India	Large motors	Permission for use of patent rights info	16 July 1982- for 6 years after pro- duction begins
Heavy Engineering Corp. Ltd.	India	Cast iron and cast iron rolls	" " "	13 November 1982- 12 November 1990
K.K. Kinseisha	South Korea	Compressors for refrigerated cars	" " "	30 March 1982- 19 December 1987

(Note) The information fee paid based on the above contracts varies with each company to a certain extent but is generally in the neighborhood of 3 percent of the sales of the item in question. However, in some portions of the contracts, one time payments will be received.

### No 3. Status of Operations

#### 1. General Situation

During this period the Japanese personal consumption did not grow as much as anticipated and her economy, along with the worldwide slump, the increasing trade frictions, etc., caused a decrease in exports which brought about a decrease in private sector capital investments and housing investments. Public investments were restrained thus continuing the trend toward inability to see any real turn around in the growth sectors, reduce costs and increase profits. Viewed from a sector by sector basis the results are as follows.

Electrical machinery and heavy electrical machinery sector. Domestically, centered on generators and transformers for nuclear power and power station facilities showed gains and computer and controls equipment were progressing well but exports on the whole had difficulty making any gains.

In the household electrical appliances sector although washing machines and VTR's showed well domestically, exports affected somewhat by an increasingly hostile environment, color TV's, VTR's and sound equipment, all major products, generally showed poorly.

Information and communications systems and electronics devices sector, due primarily to the great growth in computers, continued a good trend centered on LSI's, and IC's, while medical equipment and liquid crystals did well. Color picture tubes, however, failed to grow.

Industrial machinery and plant sector saw, in addition to healthy growth in pumps and chemical plants, good growth in refrigeration equipment and air conditioners. However, rolling mills and cranes were in a slump.

Traffic equipment, automobile equipment and others grew well in terms of vehicles and elevator exports, however, automobile equipment per se was depressed.

As a result, this company's record, on comparison to the previous period, showed a 6 percent increase in orders received and 9 percent increase in sales. The profits for this period were 12 percent over the last period.

#### 2. Production Capacity

This company's production line is very comprehensive and varied in its production methods as well. They range from a single plant producing many products to portions of a single product being made at various plants. There are also instances of a product being produced in large volume under anticipation of demand but at times a single item is manufactured to a customer's order. Also, even if the product is similar, its capacity, structure or type may not be exactly the same on all occasions. Because of this situation it is very difficult to calculate production capacity on a product by product basis. Therefore, the following production plan is shown in its stead.

(Unit: Millions of yen)

Sector	1981 (April 1981- March 1982)	1982 (April 1982- March 1983)	Sector	1981 (April 1981- March 1982)	1982 (April 1982- March 1983)
Power equipment Heavy electrical equipment	475,843	497,649	Industrial equipment plants	207,208	218,895
Household electrical appliances	521,173	504,406	Traffic equipment Automobile equipment Others	252,947	259,252
Information/communica- tions systems Electronics devices	618,731	708,529	Total	2,075,902	2,188,731

- (Notes) 1. Values are based on sale price and include commodity taxes.  
2. The above chart also includes those products which are consumed by the company.

## 3. Actual production

## (1) Actual Sales Record for the Past 2 Operational Years

(Unit: Millions of yen)

Sector	1981 (April 1981-March 1982)			1982 (April 1982-March 1983)		
	Total	Monthly average	Ratio of plan achieved (percent)	Total	Monthly average	Ratio of plan achieved (percent)
Power equipment Heavy electrical equipment	462,918	38,577	97.3	496,727	41,394	99.8
Household electrical appliances	536,272	44,689	102.9	512,778	42,731	101.7
Information/communications systems Electronic devices	633,791	52,816	102.4	722,718	60,226	102.0
Industrial equipment plants	202,261	16,855	97.6	216,847	18,071	99.1
Traffic equipment, Automobile equipment, other	260,933	21,744	103.2	253,291	21,108	97.2
Total	2,096,175	174,681	101.0	2,202,361	183,530	100.6

- (Notes) 1. Values are based on sales price and include commodity taxes.  
2. The actual production figures include those products which we ourselves consume. These items are metal materials and electronics parts. In the actual production figures the amounts we consumed were 6 percent in 1981 and 5 percent in 1982.  
3. The actual production figures include subcontracted external orders of 14 percent in 1981 and 13 percent in 1982.

## (2) Major Raw Materials

The input and use of major raw materials in 1981 and 1982 are as follows.

Sector	1981 (April 1981-March 1982)			1982 (April 1981-March 1982)			
	On hand at start	Input	Used	On hand at start	Input	Used	Ending balance
Silicon steel plate	352 t	50,976	50,743	585	50,428	50,680	333
Ordinary steel	10,848 t	232,150	234,801	8,197	231,371	231,676	7,892
Mild steel	276 t	4,809	4,515	570	3,562	3,897	235
Heavy crude	3,504 kℓ	59,118	59,754	2,868	48,954	49,975	1,847
Rolled copper	495 t	10,294	10,312	477	9,653	9,742	388
Electrical wire	460 t	14,071	13,985	546	12,430	12,538	438
Zinc	18 t	2,197	2,178	37	1,099	1,096	40

The trend of prices of major raw materials is as follows.

Item	Specifications	1981	1982
		(April 1981-March 1982)	(April 1982-March 1983)
Silicon steel plate	G11 0.35mm	98	100
Ordinary steel	12mm x 1,219mm x 2,438mm	100	105
Mild steel	No 1	100	97
Heavy crude	B grade	103	106
Rolled copper	2mm plate	92	88
Electrical wire	Vinyl formal 1.2mm	96	94
Zinc	--	118	114

#### 4. Orders Situation and Production Plan

##### (1) The Status of Orders Received and Orders Balances for the Recent 2 Operational Years

(Unit: Millions of yen)

Item	1981 (April (April 1981-March 1982)		1982 (April 1982-March 1983)	
	Orders received	Balance	Orders received	Balance
	Electrical power equipment	747,746	1,534,750	829,320
Heavy electrical equipment				
Household electrical appliances	536,523	41,631	506,354	42,272
Information/communication systems				
Electronics devices	655,300	359,027	757,673	410,554
Industrial equipment plants	295,836	260,448	307,313	265,491
Traffic equipment				
Automobile equipment, others	276,981	103,768	270,722	117,234
Total	2,512,386	2,299,624	2,671,382	2,610,493

(Note) The above chart includes export orders received totaling 740,996 million yen for 1981 (29 percent of all orders received) and 760,202 million yen for 1982 (28 percent of all orders received)

##### (2) Future Production Plans

(Unit: Millions of yen)

Sector	April 1983-June 1983	July 1983-September 1983
Electrical power equipment, heavy electrical equipment	148,754	120,758
Household electrical appliances	128,249	128,612
Information/communications systems, electronic devices	193,238	200,136
Industrial equipment plants	56,222	49,580
Traffic equipment, automobile equipment, others	61,785	61,772
Total	588,248	560,858

(Notes) 1. Values are based on sales price and include commodity taxes.  
2. The above chart includes products consumed by ourselves.

5. Actual Sales

(1) Sales Method

The varied range of products produced by this company can be categorized into the following major groups: Heavy electrical equipment, communications equipment, industrial machinery, rolling stock. They are all produced on orders. Other products include household electrical appliances, electronics equipment, general use electric motors and electrical products which are produced in quantity on the basis of expectancy. The main office and various branches and sales offices scattered throughout the country accept orders directly and the sales are made through these outlets. The products produced on expectancy for sales are, as a general rule, sold through related company chain stores, contract stores and sales outlets but a portion of such products are also sold directly by the producing sector of the company. With regard to exports, orders and sales conducted both directly by the company's domestic sales offices nationwide and worldwide or indirectly through Hitachi America, Hitachi Sales, Hitachi Europe, or various trading companies.

(2) Sales for the Past 2 Operational Years

(Unit: Million yen)

Sector	1981 (April 1981-March 1982)		1982 (April 1982-March 1983)	
	Total	Monthly Average	Total	Monthly Average
Electrical power equipment				
Heavy electrical equipment	475,935	39,661	571,082	47,590
Household electrical appliances	534,292	44,524	505,580	42,132
Information/communications systems				
Electronics devices	611,084	50,924	704,204	58,683
Industrial machinery plants	254,156	21,180	295,496	24,625
Traffic equipment				
Automobile equipment, others	265,438	22,120	256,911	21,409
<b>Total</b>	<b>2,140,905</b>	<b>178,409</b>	<b>2,333,273</b>	<b>194,439</b>

- (Notes) 1. Sales in the past had been shown as credit sales but from this year we have changed this to sales. (The last year's figures have been adjusted accordingly.)  
 2. Values are based on sales price and include commodity taxes.  
 3. The above chart includes export sales for 1981 of 664,278 million yen (31 percent of total sales) and 691,549 million yen for 1982 (30 percent of total sales).  
 4. The major export products and the major export areas for this period are as shown below.

(a) Status of Exports by Product Sectors

Sector	Amount (million yen)	Share (percent)
Electrical equipment, Heavy electrical equipment	116,579	16.9
Household electrical appliances	245,397	35.5
Information/communications systems, Electronic devices	206,310	29.8
Industrial machinery plants	77,461	11.2
Traffic equipment, Auto equipment, others	45,802	6.6
<b>Total</b>	<b>691,549</b>	<b>100</b>

(b) Status of Exports by Export Regions

This company sells the above products on a worldwide basis. The major export regions and the region's share of the total export values are: Southeast Asia (approximately 31 percent), Middle East (approximately 9 percent), North America (approximately 27 percent), Europe (approximately 21 percent), Central/South America (approximately 7 percent).

### (3) Trend of Sales Prices

It is difficult to chart sales prices of products produced by this company on order because of the varied ways and methods used in arriving at prices. The trend in prices of stock production items of major products are as follows:

Product name	End of 1981	End of 1982
Washing machines	105 (PF-236M)	102 (PF-337L)
Color televisions	100 (C18-251)	95 (C18-232)
Refrigerators	100 (R-724FB)	100 (R-824CB)
General use motors	103 (EFOUP-K4P)	103 (EFOUP-K4P)

(Note) The figures in the ( ) are item stock numbers of representative products in the respective categories. Item numbers which have been changed are the result of new technology but are generally the same as the older models.

### No 4. Status of Facilities

#### 1. Facilities

The status of facilities is as follows:

## (1) Details of Invested Capital (Fixed Assets) by Operational Sectors

(as of 31 March 1983)

Plant	Location	Major product	Land	Build-ings	Machin-	Other	Total	
					ery tools, etc.	tan-gible assets		
(in millions of yen)								
Production facilities	Hitachi Plant	Ibaragi	Turbines, generators, nuclear power equipment	1,470	6,961	12,756	1,877	23,066
	Kokubu Plant	"	Transformers, circuit breakers	3,379	1,125	3,459	720	8,686
	Omika Plant	"	Breaker panels, computer control systems	549	1,291	2,569	175	4,586
	Tsuchiura Plant	"	Pumps, compressors, freezers	293	406	3,256	158	4,115
	Mito Plant	"	Locomotives, elevators	65	884	3,474	150	4,575
	Kasado Plant	Yamaguchi	Streetcars, passenger cars, chemical equipment, transport equipment	1,556	929	3,081	554	6,121
	Shoda Plant	Ibaragi	Cast forged steel forged products	96	1,349	2,849	674	4,970
	Shimizu Plant	Shizuoka	Packaged air conditioners	288	1,405	3,912	297	5,904
	Nakajo Plant	Niigata	Transformers, switches, terminals	0	106	1,530	55	1,692
	Narashino Plant	Chiba	Electrical controls, industrial robots	687	1,634	4,270	467	7,060
	Sawa Plant	Ibaragi	Electrical equipment, auto air conditioners	270	1,550	8,526	384	10,733
	Taga Plant	"	Washing machines, word processors	882	1,419	5,949	576	8,827
	Tochigi Plant	Tochigi	Refrigerators, room air conditioners	303	2,877	5,179	276	8,637
	Ome Plant	Tokyo	Flourescent lamps, lightbulbs	194	615	1,293	95	2,198
	Yokohama Plant	Kanagawa	Personal computers, color TV's	1,404	2,354	2,800	839	7,398
	Tokai Plant	Ibaragi	VTR, tape recorders	159	3,998	8,078	451	12,688
	Toyokawa Plant	Aichi	Hi-fi components	182	408	1,364	39	1,995
	Totsuka Plant	Kanagawa	Exchanges, facsimile	497	1,987	5,347	600	8,432
	Kanagawa	"	Computer systems	410	3,161	32,264	284	36,122
	Odawara Plant	"	Computer input/output equipment	626	3,277	25,434	1,531	30,870
	Software Plant	"	System programs	173	1,207	2,486	105	3,973
	Asahi Plant	Aichi	Small computers, terminals	1,040	702	5,991	76	7,811
	Shigehara Plant	Chiba	CRT's, liquid crystals	722	2,327	9,475	630	13,156
	Musashi Plant	Tokyo	LSI, IC	496	3,075	15,762	2,805	22,139
	Takasaki Plant	Gumma	Bipolar IC, transistors	320	4,188	10,987	2,264	17,762
	Naka Plant	Ibaragi	Electron microscopes, physics instruments	113	1,034	3,341	204	4,693
	Other facilities	Central Research Laboratory	Tokyo		663	1,621	1,018	187
Hitachi Research Center		Ibaragi		63	1,352	1,218	458	3,093
Machinery Research Center		"		0	346	545	34	925
Energy Research Center		"		105	282	212	153	753
Production Technology Research Center		Kanagawa		--	104	309	1,118	1,532
Systems Development Research Center		"		94	647	171	55	968
Main Office Branches		Tokyo		3,399	4,014	9,086	7,733	24,234
<b>Total</b>				<b>20,515</b>	<b>58,654</b>	<b>198,009</b>	<b>26,042</b>	<b>303,222</b>

- (Notes) 1. Other tangible fixed assets include temporary construction payments.  
2. The property of the Production Technology Research Center is included in the Yokohama Plant.  
3. The above chart includes loaned land worth 1,252,000,000 yen and buildings worth 2,849,000,000 yen.  
4. In the land and buildings are included welfare and recreational facilities as follows: land 4,910,000,000 yen and buildings 9,709,000,000 yen.

## (2) Details of Production Facilities

Plant	Land (thousands m <sup>2</sup> )	Build- ings (m <sup>2</sup> )	Elec- trical	Machinery equipment			Number of personnel
				Metal working fabri- cating	Motor transport loading	Other	
Hitachi Plant	2,919	529	2,701	1,258	864	4,425	7,080
Kokubu Plant	968	201	1,825	563	418	1,411	2,249
Omika Plant	205	87	386	123	110	647	2,340
Tsuchiura Plant	445	174	381	405	326	1,201	1,489
Mito Plant	602	159	507	630	262	938	2,038
Kasado Plant	853	191	1,033	436	343	1,193	1,839
Shoda Plant	1,416	169	810	294	307	1,159	1,013
Shimizu Plant	753	178	819	684	826	1,826	1,389
Nakajo Plant	498	119	630	381	255	1,112	901
Narashino Plant	582	167	730	983	687	1,703	1,912
Sawa Plant	597	123	688	1,782	228	2,801	3,930
Taga Plant	1,145	254	809	1,156	467	2,375	2,688
Tochigi Plant	1,221	377	650	768	936	2,285	3,367
Ome Plant	243	37	188	19	34	1,208	331
Yokohama Plant	619	231	305	222	426	1,474	2,348
Tokai Plant	304	163	183	485	541	2,253	3,534
Toyokawa Plant	148	44	113	41	169	564	787
Totsuka Plant	302	187	472	401	164	1,705	2,589
Kanagawa Plant	208	114	413	78	20	1,448	2,433
Odawara Plant	127	91	196	365	93	1,717	1,964
Software Plant	67	65	0	0	1	69	2,390
Asahi Plant	119	52	47	68	6	347	1,014
Shigehara Plant	503	205	667	340	220	5,740	3,909
Musashi Plant	210	145	469	97	49	6,945	3,189
Takasaki Plant	195	93	402	97	20	6,062	2,131
Naka Plant	161	75	331	484	96	1,367	1,960
<b>Production facilities</b>							
Central Research Laboratory	289	86	366	178	19	1,643	1,187
Hitachi Research Center	84	66	970	159	80	1,763	1,205
Machinery Research Center	5	34	266	80	54	933	578
Energy Research Center	84	13	44	7	7	194	266
Production Technology Research Ctr	--	6	22	101	8	518	438
Systems Development Research Ctr	90	11	0	0	2	19	313
Main Office, Branches	640	273	81	47	28	1,516	10,141
<b>Other facilities</b>							
Total	16,602	4,719	(177) 17,504	(374) 12,732	(368) 8,066	(2,156) 60,561	74,942

- (Notes) 1. Land for the Production Technology Research Center is included in the Yokohama Plant figures.
2. The above chart includes loaned land of 1,118,000 m<sup>2</sup> and buildings of 369,000 m<sup>2</sup>. In addition there are 771,000 m<sup>2</sup> of land and 604,000 m<sup>2</sup> of buildings rented.
3. The ( ) in the total column indicates loan machinery and is an internal figure.
4. Included in the land and buildings columns are 4,472,000 m<sup>2</sup> of land and 919,000 m<sup>2</sup> of buildings for welfare and recreational facilities.

## 2. Construction of New Facilities, Important Expansions or Improvements or Plans for Such

In coping with the recent economic conditions, this company, in order to strengthen its growth sectors, has conducted targeted capital investments, rationalization, energy conservation, technical development and investments against environmental pollution.

The following shows this planning and progress recorded by sectors:

(Unit: Million of yen)

Sector	Planned amount	Expended to (March 1983)	Amount needed (after April 1983)	Start	Completion	Remarks
Electrical power equipment Heavy electrical equipment	25,895	21,324	4,571	Oct 1980	Sep 1983	Rationalization of turbine production
Household electrical appliances	37,763	29,795	7,968	"	"	Production increase and rationalization of VTR production
Information/communications systems Electronic devices	115,527	93,568	21,959	"	"	Increase production of IC, LSI, computers and rationalize design of these products
Industrial equipment plants	8,635	6,845	1,790	"	"	Rationalize production of industrial robots
Traffic equipment Automobile equipment, others	16,862	13,706	3,156	"	"	Rationalize production of auto equipment
Research	19,833	15,727	4,106	"	"	Expand research facilities of Central Research Laboratory and Hitachi Research Center
Main office Branches, etc.	27,653	24,283	3,370	"	"	Office automation, rationalization and expand display facilities for office automation products
<b>Total</b>	<b>252,168</b>	<b>205,248</b>	<b>46,920</b>			

(Notes) 1. The future capital requirements of 46,920,000,000 yen in the facilities plan are expected to be met with internal funds.

2. With the completion of this plan the facilities capacity is expected to be increased by 27 percent (on the basis of production levels).

### 3. Sale, Withdrawal of Loss of Fixed Assets

There were no sales, withdrawals or losses of fixed assets to the extent to affect production capacity.

No 6. Items Pertaining to the Parent Company and Subsidiaries

1. Items Pertaining to the Parent Company

There are no relevant items.

2. Items Pertaining to Subsidiaries

(1) Connected Subsidiaries

Name	Location	Capital (millions of yen)	Details of operation	Degree of independ- ence in decisions (percent)	Details of relationship
Asahi Industries K.K.	Toyohashi shi Aichi	100	Manufacturing and sales of cabinets, furniture	74.2	This company uses cabinets for its TV sets. There is a con- current officers relationship.
Babcock Hitachi K.K.	Chiyoda ku, Tokyo	3,000	Manufacturing and sales of boilers, chem- ical equipment	80	Boilers and chemical equipment are used by the company. There is a concurrent officer rela- tionship.
Chuo Trading K.K.	Chiyoda ku, Tokyo	80	Real estate management and sales, rentals, loans for em- ployee housing and operation of restaurants	100	Welfare activities, employees housing loans etc., are con- signed to this firm. Concur- rent officers exist.
Hitachi Credit K.K.	Minato ku, Tokyo	5,572	Credit sales of household appliances	(0.8) 54.8	Conducts credit sales of this firms home appliances. Concur- rent officer relationships exist. 18 companies in addi- tion to Hitachi Appliance Sales K.K. hold .8 percent of stock.
Hitachi Elec- tric Wire K.K.	Chiyoda ku, Tokyo	14,114	Manufacturing and sales of electric wires and cables	(.6) 54.8	Wires and cable are purchased by this company. Concurrent offi- cers. 19 companies in addition to Hitachi Plant Construction K.K. hold .6 percent of stock.
Hitachi Elec- tronics K.K.	Chiyoda ku, Tokyo	2,220	Manufacturing and sales of broadcast video, communications and information equipment	(1.9) 67.5	Products are purchased by this company. Concurrent officers. Hitachi Maxell K.K. and 18 other companies hold 1.9 percent of stock.
Hitachi Elec- tronics Engineering K.K.	Nakai machi Kanagawa	600	Manufacturing and sales of energy conserva- tion equipment, information equipment and semiconductor equipment	100	Semiconductor related equipment is purchased by this company. Concurrent officers.
Hitachi Elec- tronics Service K.K.	Yokohama shi, Kanagawa	500	Installation and maintenance of communica- tions equipment computers	100	This company's installation and maintenance of its communica- tions equipment and computers are consigned here. Concurrent officers.

[continued]

[continuation of (1) Connected Subsidiaries]

Name	Location	Capital (millions of yen)	Details of operation	Degree of independ- ence in decisions (percent)	Details of relationship
Hitachi Elevator Service K.K.	Chiyoda ku, Tokyo	800	Installation and maintenance of elevators/escalators	100	Installation and maintenance of the company's elevators and escalators are consigned here. Concurrent officers.
Hitachi Engineering K.K.	Chiyoda ku, Tokyo	300	Manufacturing and sales of electric/electronic equipment. Plant engineering	100	The company purchases its electric machinery parts and consigns its industrial computer software work to this firm. Concurrent officers
Hitachi Welfare Service K.K.	Hitachi shi, Ibaragi	50	Sales of daily necessities	100	Daily necessities are sold to company employees. Concurrent officers.
Hitachi Tosho Products Engineering K.K.	Koto ku, Tokyo	100	Sales, installation and maintenance of motor application electrical equipment	100	Electrical machinery tools and parts are provided to this company. Concurrent officers.
Hitachi Printing K.K.	Chiyoda ku, Tokyo	250	Printing	98.4	Company printing is consigned to this firm. Concurrent officers.
Hitachi Auto Parts Sales K.K.	Minato ku, Tokyo	200	Sales of auto parts	100	Sales of the company's auto parts. Concurrent officers.
*Hitachi Home Electric Appliance Sales K.K.	Minato ku, Tokyo	7,392	Sales of home electrical appliances	(3.2) 62.6	This company's home electrical appliances are sold by this firm. Concurrent officers. Hitachi Heating Equipment K.K. and 28 other companies hold 3.2 percent of the stock.
Hitachi Kasei Ind. K.K.	Shinjuku ku, Tokyo	7,549	Manufacturing and sales of synthetic resins, home equipment insulation, etc.	(.9) 58.3	Insulation and synthetic resins are purchased by this company. Concurrent officers. Nissei Sangyo and 8 others hold .9 percent of the stock.
Hitachi Construction Equipment K.K.	Shinjuku ku, Tokyo	5,170	Manufacturing and sales of construction equipment	(2.6) 72.2	Concurrent officers. Chuo Trading K.K. and 18 other companies hold 2.6 percent of the stock.
Hitachi Mechanical Electrical Ind. K.K.	Amagasaki shi, Hyogo	550	Manufacturing and sales of cranes & water processing equipment	(4.8) 75.7	The company purchases their cranes. Concurrent officers. Hitachi Plant Construction K.K. and two other companies hold 4.8 percent of the stock.
Hitachi Machinery Engineering K.K.	Yokosuka shi, Kanagawa	250	Power plant auxiliary equipment and rolling plants manufactured and sold	100	The company purchases their power plant auxiliary equipment. Concurrent officers.
Hitachi Metals K.K.	Chiyoda ku, Tokyo	13,757	Manufacturing and sales of forgings and special steels	(.8) 54.2	The company provides them with rolls and purchases their special steels. Concurrent officers. Hitachi Home Electric Appliances K.K. and six others hold .8 percent of the stock.

[continued]

[continuation of (1) Connected Subsidiaries]

Name	Location	Capital (millions of yen)	Details of operation	Degree of independ- ence in decisions (percent)	Details of relationship
Hitachi Maxell K.K.	Ibaraki shi, Osaka	4,379	Manufacturing and sales of drycell bat- teries and magnetic tapes	(1.0) 56.6	The company purchases their mag- netic tapes. Concurrent offi- cers. Nissei Sangyo K.K. and 24 others hold 1.0 percent of the stock.
Hitachi Medico K.K.	Chiyoda ku, Tokyo	534	Manufacturing and sales of medical equipment	92.6	The company provides them with X-ray tubes, electronic parts and small computers. Concurrent officers.
Hitachi Wood Products and Real Estate K.K.	Hitachi shi, Ibaragi	500	Sales of real estate, manage- ment, wood products sales. Manufacturing and sales of foodstuffs	(23.6) 100	The company consigns its welfare facilities maintenance to this firm. Concurrent officers. Chuo Shoji holds 23.6 percent of the stock.
Hitachi Heating Equipment K.K.	Kashiwa shi, Chiba	800	Manufacturing and sales of home heating equipment	100	Heaters are purchased by the company. Concurrent officers.
Hitachi Seishohin Engineering K.K.	Osaka shi, Osaka	150	Sales, instal- lations mainte- nance of motor applied equipment	100	The company provides them with electrical equipment/tools and parts. Concurrent officers.
Hitachi Taihei Sangyo K.K.	Taihei cho, Tochigi	200	Manufacturing and sales of all types of parts for refrigerators, room coolers and refrigeration applied equipment	(16.0) 100	The company purchases their var- ious parts. Concurrent officers. Chuo Trading K.K. holds 16 per- cent of the stock.
Hitachi Plant Construction K.K.	Chiyoda ku, Tokyo	5,149	Manufacturing and sales of plants and anti- pollution facilities	(1.5) 58.5	The company's plant construction work is consigned to this firm. Concurrent officers. Babcock- Hitachi and 17 others hold 1.5 percent of the stock.
Hitachi Power Engineering K.K.	Hitachi shi, Ibaragi	300	Manufacturing and sales of power genera- tion plants parts	100	The company purchases their products. Concurrent officers.
Hitachi Heating/ Cooling/Housing K.K.	Chiyoda ku, Tokyo	970	Sales of freezers, air conditioners, house equipment	100	They sell this company's freezers, air conditioners and house equip- ment. Concurrent officers.
Hitachi Indus- trial Machinery Engineering K.K.	Adachi ku, Tokyo	300	Maintenance and repair of pumps, transport equip- ment and rolling stock	100	The company's pumps, transport equipment and rolling stock are consigned to this firm for maintenance. Concurrent offi- cers.

[continued]

[continuation of (1) Connected Subsidiaries]

Name	Location	Capital (millions of yen)	Details of operation	Degree of independ- ence in decisions (percent)	Details of relationship
Hitachi Seiko K.K.	Ebina shi, Kanagawa	750	Manufacturing and sales of production machinery, printing ma- chinery and electric welders	100	The company purchases their electric welders and other equipment. Concurrent officers.
Hitachi Software Engineering K.K.	Yokohama shi, Kanagawa	200	Software busi- ness relative to computers	100	Computer software business is consigned to this company. Concurrent officers.
Hitachi Lighting K.K.	Ryugasaki shi, Ibaragi	500	Manufacturing and sales of lighting equip- ment	100	The company provides them with tubes and bulbs for lighting. Concurrent officers.
Hitachi Trans- portation K.K.	Shibuya ku, Tokyo	3,650	Freight trans- port and warehousing	(7.2) 89.2	Freight transport and warehousing are consigned to this company. Concurrent officers. Land and buildings are rented to them. Chuo Trading holds 7.2 percent of stock.
Nippon Servo K.K.	Chiyoda ku, Tokyo	1,050	Manufacturing and sales of precision miniature motors	(0.4) 52.1	Their small motors are purchased by the company. Concurrent offi- cers. Chuo Trading K.K. holds .4 percent of the stock.
Nippon Business Consultant K.K.	Shibuya ku, Tokyo	300	Sales of OA equipment com- puter products, information processing service	91.9	Computer work is consigned to this company. Concurrent address
Nittoyo Communications Ind. K.K.	Fukushima	150	Manufacturing and sales of exchanges	88.0	The company purchases their ex- changes. Concurrent officers.
Nissei Sangyo K.K.	Minato ku, Tokyo	2,808	Physical in- struments, electronics equipment, metal materials	(.8) 59.2	They sell this company's instru- ments and electronics products. Concurrent officers. Hitachi Leasing and nine others hold .8 percent of the stock.
Hitachi America, Ltd.	New York	\$4,200,000	Sales of plants and electronics parts	100	This is a U.S. sales company for the company's plants and elec- tronics parts. Concurrent officers.
Hitachi Con- sumer Products of America Inc.	California	\$8,000,000	Manufacturing and sales of color TV's	100	The company provides them with tuners and directional yokes. Concurrent officers.
Hitachi Con- sumer Products (S) PTE. Ltd	Singapore	S\$16,400,000	Manufacturing and sales of TV's and sound equipment	92.5	The company provides them with IC's and transistors. Concur- rent officers.

[continued]

[continuation of (1) Connected Subsidiaries]

Name	Location	Capital	Details of operation	Degree of independence in decisions (percent)	Details of relationship
Hitachi Electronics Devices (Singapore) PTE, Ltd	Singapore	S\$30 million	Manufacturing and sales of color TV tubes	70	The company provides them with the fluorescent tubes and other parts. Concurrent officers.
Hitachi Semiconductor (America) Inc.	Texas	\$1.5 million	Manufacturing and sales of semiconductors	100	The company provides them with the wafers. Concurrent officers.
Hitachi Semiconductor (Europe) GmbH	West Germany	DM 9 million	Manufacturing and sales of semiconductors	100	The company provides them with the wafers
Hitachi Semiconductor (Malaysia) SDN. BHD	Penang	M\$ 4 million	Manufacturing and sales of semiconductors	90	The company provides them with the wafers and buys a portion of the finished product. Concurrent officers.
Taiwan Hitachi Denshi Kogyo K.K.	Taiwan	NT\$ 120 million	Manufacturing and sales of TV's and sound equipment	100	The company provides them with IC's, transistors and other parts. Concurrent officers.

- (Notes) 1. \*denotes company falling under the category of specially designated subsidiary.  
 2. The figures in the ( ) in the upper portion of the degree of independence column denote the indirect equity ratio and are internal figures.

(2) Unattached Subsidiaries

Name	Location
Akita Electronics K.K.	Tenno cho, Akita
Chubu Hitachi Denki K.K.	Inazawa shi, Aichi
HATSCO, Ltd	New York
High Voltage Breakers, Inc.	Georgia
Hitachi Akita Machinery Mfg. K.K.	Akita shi, Akita
Hitachi Automotive Engineering K.K.	Shoda shi, Ibaragi
Hitachi Computer Consultant K.K.	Shinagawa ku, Tokyo
Hitachi Computer Engineering K.K.	Kanagawa
Hitachi Computer Equipment K.K.	Odawara shi, Kanagawa
Hitachi Consumer Products (Europe) GmbH	Lansburg, West Germany
Hitachi Consumer Products (Malaysia) SDN, BHD	Selangor, Malaysia
Hitachi Controls Systems K.K.	Hitachi shi, Ibaragi
Hitachi Electronic Parts Sales K.K.	Chiyoda ku, Tokyo
Hitachi de Venezuela C.A.	Caracas, Venezuela
Hitachi Device Engineering K.K.	Shigehara shi, Chiba
Hitachi Edozaki Denki K.K.	Edozaki shi, Ibaragi
Hitachi Electronic Components Europe GmbH	Munich, West Germany
Hitachi Electronic Components (UK) Ltd	Middlesex, England
Hitachi Elevator Engineering Co. (Hong Kong) Ltd	Hong Kong
Hitachi Elevator Engineering (Singapore) PTE LTD	Singapore
Hitachi Europe GmbH	Dusseldorf, West Germany
Hitachi Europe Ltd	London, England
Hitachi Highsoft K.K.	Minato ku, Tokyo
Hitachi Haramachi Electronics Ind. K.K.	Hitachi shi, Ibaragi
Hitachi Hokkai Semiconductor K.K.	Hokkaido
Hitachi Industrial Equipment (Hong Kong), Ltd	Hong Kong
Hitachi Instruments Inc.	California
Hitachi International (Holland) B.V.	Amsterdam, Holland
Hitachi Iruma Electronics K.K.	Keroyama cho, Saitama
Hitachi Keihin Shoji K.K.	Yokohama shi, Kanagawa
Hitachi Measuring Engineering K.K.	Shoda shi, Ibaragi
Hitachi Keiyo Engineering K.K.	Narashino shi, Chiba

[continued]

[continuation of (2) Unattached Subsidiaries--page 2]

Name	Location
Hitachi Construction and Design K.K.	Chiyoda ku, Tokyo
Hitachi Kiko, K.K.	Arakawa ku, Tokyo
Hitachi Kogyo K.K.	Juo cho, Ibaragi
Hitachi Kokubu Kogyo K.K.	Shoda shi, Ibaragi
Hitachi Lamp K.K.	Shinagawa ku, Tokyo
Hitachi Lease K.K.	Minato ku, Tokyo
Hitachi Lease (Singapore) PTE LTD	Singapore
Hitachi Microcomputer Engineering K.K.	Kodaira shi, Tokyo
Hitachi Microsoft Software Systems, K.K.	Yokohama shi, Kanagawa
Hitachi Mito Ind. K.K.	Shoda shi, Ibaragi
Hitachi Mizusawa Manufacturing K.K.	Mizusawa shi, Iwate
Hitachi Naka Seiki K.K.	Shoda shi, Ibaragi
Hitachi Omika Denki K.K.	Hitachi shi, Ibaragi
Hitachi Ome Electronics K.K.	Ome shi, Tokyo
Hitachi Perkins Elmer K.K.	Minato ku, Tokyo
Hitachi Process Computer Engineering K.K.	Hitachi shi, Ibaragi
Hitachi Oxygen K.K.	Hitachi shi, Ibaragi
Hitachi Seibu Software K.K.	Osaka,
Hitachi Semiconductor (Hong Kong) Ltd.	Hong Kong
Hitachi Service Engineering K.K.	Hitachi shi, Ibaragi
Hitachi Setsubi Kogyo K.K.	Hitachi shi, Ibaragi
Hitachi General Management Training Center	Chiyoda ku, Tokyo
Hitachi General Planning Research Center	Chiyoda ku, Tokyo
Hitachi Taga Motors K.K.	Hitachi shi, Ibaragi
Hitachi Communications Systems K.K.	Yokohama shi, Kanagawa
Hitachi Audio Engineering K.K.	Yokohama shi, Kanagawa
Hitachi Yonezawa Electronics K.K.	Yonezawa shi, Yamagata
Industrias Hitachi S.A.	Sao Paulo, Brazil
Iwaki Metal Ind. K.K.	Kita Ibaragi shi, Ibaragi
Kansai Nichiwa Shoji K.K.	Osaka shi, Osaka
Kanto Steel Center K.K.	Ohira cho, Tochigi
Kasado Machinery Ind. K.K.	Matsushita shi, Yamaguchi
Shoda Liquid Oxygen Transport K.K.	Shoda shi, Ibaragi

[continued]

[continuation of (2) Unattached Subsidiaries--page 3]

Name	Location
Kokubu Ironworks K.K.	Hitachi shi, Ibaragi
Mito Steel K.K.	Shoda shi, Ibaragi
Nikkyo Industries K.K.	Hitachi shi, Ibaragi
Osaka Hitachi Elevator Sales K.K.	Osaka shi, Osaka
Shonan Service K.K.	Yokohama shi, Kanagawa
Taiwan Hitachi	Taihoku shi, Taiwan
Takao Hitachi Electronics	Takao shi, Taiwan
Takaozan Kanko Development K.K.	Chiyoda ku, Tokyo
Toko Engineering K.K.	Uchihara machi, Ibaragi
Tokyo Nuclear Industries Research Center K.k.	Hitachi shi, Ibaragi
Tokyo Hita chi Elevator Sales K.K.	Minato ku, Tokyo
Tokyo Securities Agency K.K.	Chiyoda ku, Tokyo
Inanichi Engineering K.K.	Inazawa shi, Tokyo
Tsuchiura Machinery Industries K.K.	Tsuchiura shi, Ibaragi
Tsuruta Electronics K.K.	Tsuruta shi, Aomori
Usui Denki K.K.	Yokohama shi, Kanagawa
Pub Hitachi Engineering K.K.	Kure shi, Hiroshima
Pub Hitachi Engineering Service K.K.	Yokohama shi, Kanagawa
Pub Hitachi Kogyo K.K.	Kure shi, Hiroshima
Abiko Kanko K.K.	Abiko shi, Chiba
Chiyoda Fresh Fruits K.K.	Chiyoda ku, Tokyo
Hitachi Shonan Electronics K.K.	Yokohama shi, Kanagawa
Shoda Industries K.K.	Shoda shi, Ibaragi
Koyo Shoji K.K.	Chuo ku, Tokyo
Murakami Denki K.K.	Murakami shi, Niigata
Nakajo Shoko K.K.	Nakajo machi, Niigata
Naka Kyoei Sangyo K.K.	Shoda shi, Ibaragi
Nisshin Kogyo K.K.	Shigehara shi, Chiba
Otaka Electronics K.K.	Otaki cho, Chiba
Ome Industries K.K.	Ome shi, Tokyo
Ryuwa Industries K.K.	Yanai shi, Yamaguchi
Sawara Electronics Industries K.K.	Sawara shi, Chiba
Seiwa Shoko K.K.	Yokohama shi, Kanagawa

[continued]

[continuation of (2) Unattached Subsidiaries--page 4]

Name	Location
Shimizi Industries K.K.	Shimizu shi, Shizuoka
Sugawara Industries K.K.	Kawasaki shi, Kanagawa
Shosan K.K.	Chiyoda ku, Tokyo
Shuwa Industries K.K.	Narashino shi, Chiba
Taga Industries K.K.	Hitachi shi, Ibaragi
Hitachi Credit Canada, Inc.	Quebec, Canada
Hitachi Credit (Hong Kong) Ltd	Hong Kong
Hitachi Credit (UK) Ltd	Middlesex, England
Okinawa Hitachi Credit K.K.	Naka shi, Okinawa
Odachi Electric Wire Store K.K.	Osaka shi, Osaka
Hidaka Electric Industry K.K.	Hitachi shi, Ibaragi
Hirasawa Kogyo K.K.	Hitachi shi, Ibaragi
Hitachi Cable America Inc.	New York
Hitachi Cable Singapore, PTE LTD	Singapore
Hitachi Electric Wire Engineering K.K.	Hitachi shi, Ibaragi
Hitachi Electric Wire FM K.K.	Hitachi shi, Ibaragi
Hitachi Electric Wire Delivery K.K.	Hitachi shi, Ibaragi
Hitachi Electric Wire Fabrication K.K.	Hitachi shi, Ibaragi
Hitachi Electric Wire Equipment K.K.	Hitachi shi, Ibaragi
Hitachi Electric Wire Construction K.K.	Hitachi shi, Ibaragi
Hitachi Electric Wire and Woodworking K.K.	Hitachi shi, Ibaragi
Hitachi Electric Wire Trading K.K.	Chiyoda ku, Tokyo
Hitachi Rubber Fabrication K.K.	Hitachi shi, Ibaragi
Hitachi Wire Materials K.K.	Hitachi shi, Ibaragi
Hitachi Bar Materials K.K.	Tsuchiura shi, Ibaragi
Hokuritsu Industries K.K.	Sapporo shi, Hokkaido
Ibaragi Hitachi Electric Wire Store K.K.	Hitachi shi, Ibaragi
Kyonichi Dengyo K.K.	Kita ku, Tokyo
Kyosan Electric Wire K.K.	Kita ku, Tokyo
Nichiwa Electric Wire Store K.K.	Nagoya shi, Aichi
Nissen Electric Wire Store K.K.	Sendai shi, Miyagi
Nisshin Industries K.K.	Chiyoda ku, Tokyo

[continued]

[continuation of (2) Unattached Subsidiaries--page 5]

Name	Location
Takaiso Kogyo sho K.K.	Hitachi shi, Ibaragi
Takasuzu Kogyosho K.K.	Hitachi shi, Ibaragi
Tatara Electric Ind. K.K.	Fukuoka shi, Fukuoka
Tonichi Electric Wire K.K.	Ishioka shi, Ibaragi
Tonichi Electric Wire Fabrication K.K.	Ishioka shi, Ibaragi
Toritsu Shokai K.K.	Chiyoda ku, Tokyo
Toyo Machine Industries K.K.	Chiyoda ku, Tokyo
Toyo Copper Bar Works K.K.	Chiyoda ku, Tokyo
Toyo Shinsho K.K.	Chiyoda ku, Tokyo
Toyoshima Electric Wire Processing K.K.	Hitachi shi, Ibaragi
Yoshimi Industries K.K.	Mitaka shi, Tokyo
Hitachi Denshi America, Ltd	New York
Hitachi Denshi (Europe) GmbH	West Germany
Hitachi Denshi, Ltd (Canada)	Ontario, Canada
Hitachi Denshi Technosystem K.K.	Kodaira shi, Tokyo
Hitachi Denshi System Service K.K.	Shinjuku ku, Tokyo
Hitachi Denshi (UK) Ltd	London, England
Hitachi Video Center K.K.	Shinjuku ku, Tokyo
Nikko Kosan K.K.	Kodaira shi, Tokyo
Yasuda Electrical Research K.K.	Kodaira shi, Tokyo
Nakai Electronics Industries K.K.	Nakai machi, Kanagawa
Nissei Communications Industry K.K.	Chiyoda ku, Tokyo
Nisshin Electronics K.K.	Soya shi, Kanagawa
Seibu Communications Industries K.K.	Takamatsu shi, Kagawa
Tonichi Communications Industries K.K.	Chiyoda ku, Tokyo
Fukunichi Elevator K.K.	Shimen cho, Fukuoka
Health Industries K.K.	Chiyoda ku, Tokyo
Hitachi Building Design Engineering K.K.	Minato ku, Tokyo
Hitachi Elevator Engineering K.K.	Katsushika ku, Tokyo
Okinawa Hitachi Elevator Service K.K.	Naha shi, Okinawa
HEK Printing K.K.	Hitachi shi, Ibaragi
Ibaragi Copy K.K.	Hitachi shi, Ibaragi

[continued]

[continuation of (2) Unattached Subsidiaries--page 6]

Name	Location
Ibaragi Hitachi Information Service K.K.	Hitachi shi, Ibaragi
Fukuri Shoji K.K.	Hitachi shi, Ibaragi
Hitachi Tohei Hall K.K.	Hitachi shi, Ibaragi
Nichiwa K.K.	Chiyoda ku, Tokyo
Hitachi Automobile Appliances Sales Co. (South-East) Ltd	Hong Kong
Nisshin Auto Service K.K.	Suginami ku, Tokyo
Sawa Industries K.K.	Shoda shi, Ibaragi
Aito Industries K.K.	Minato ku, Tokyo
Billjudet AB	Sweden
Delcasa de Guatemala, S.A.	Guatemala
Hi-Phonic S.A.	Panama
Hitachi Electric Service Co. (Hong Kong) Ltd	Hong Kong
Hitachi Electronica Centroamericana, S.A.	San Jose, Costa Rica
Hitachi France (Radio-TV Electromanager) S.A.	France
Hitachi (Hong Kong) Ltd	Hong Kong
Hitachi (HSC) Canada Inc.	Quebec, Canada
Hitachi Quest-Bretagne (Radio-TV Electro- manager) S.A.	France
Hitachi Sales A/S	Denmark
Hitachi Sales Australia Pty. Ltd	Victoria, Australia
Hitachi Sales Belgium, S.A.	Belgium
Hitachi Sales Centroamericana, S.A.	Costa Rica
Hitachi Sales Corp. del Peru, S.A.	Lima, Peru
Hitachi Sales Corp. de Panama, S.A.	Panama
Hitachi Sales Corp. of America	California
Hitachi Sales Corp. of Hawaii, Inc.	Hawaii
Hitachi Sales de Chile, Ltda	Santiago, Chile
Hitachi Sales Europe, GmbH	Hamburg, West Germany
Hitachi Sales (MEA) B.V.	Amsterdam, Holland
Hitachi Sales (MEA) Ltd	Middlesex, England
Hitachi Sales Norway A/S	Frederickstard, Norway
Hitachi Sales (Scandinavia) AB	Sandbyburg, Sweden

[continued]

[continuation of (2) Unattached Subsidiaries--page 7]

Name	Location
Hitachi Sales (Thailand) Ltd	Bangkok, Thailand
Hitachi Sales (UK) Ltd	Middlesex, England
Hitachi Sales Warenhandels GmbH	Vienna, Austria
Hitachi (Singapore) PTE LTD	Singapore
Hitachi SUD (Radio-TV Electromanager) S.A.	Toulouse, France
International Hitachi Sales Panama, Ltd	Panama
Karlskrona Ljud & Bild Specialisten AB	Karlskrona, Sweden
Ljud Galleriet I Stockholm AB	Stockholm, Sweden
Orient K.K.	Osaka shi, Osaka
Productos Hitachi S.A.	Panama
Sun Shoji K.K.	Shinagawa ku, Tokyo
Suomen Hitachi OY	Finland
Chubu Nikka Service K.K.	Nagoya shi, Aichi
Hikone Sanko K.K.	Hikone shi, Shiga
Hirano Chemical Industries K.K.	Negami machi, Ishikawa
Hitachi Battery Sales Service K.K.	Daito ku, Tokyo
Hitachi Chemical Co. (America) Ltd	New York
Hitachi Chemical Co. (Hong Kong) Ltd	Hong Kong
Hitachi Chemical Europe GmbH	Dusseldorf, West Germany
Hitachi Chemical (Singapore) PTE LTD	Singapore
Hitachi Condensor K.K.	Shinagawa ku, Tokyo
Hitachi Powdered Metals K.K.	Matsudo shi, Chiba
Hitachi Chemical Products Sales K.K.	Shinjuku ku, Tokyo
Hitachi Chemicals K.K.	Shinjuku ku, Tokyo
Hitachi Kasei Business Research K.K.	Shinjuku ku, Tokyo
Hitachi Kasei Coated Sand K.K.	Shimoyakata shi, Ibaragi
Hitachi Kasei Electronics K.K.	Shimoyakata shi, Ibaragi
Hitachi Kasei Construction Shoji K.K.	Shinjuku ku, Tokyo
Hitachi Kasei Molding K.K.	Hitachi shi, Ibaragi
Hitachi Kasei Facilities Construction K.K.	Shimoyakata shi, Ibaragi
Hitachi Kasei Shoji K.K.	Chiyoda ku, Tokyo
Hitachi Kasei Unit K.K.	Toyama shi, Toyama

[continued]

[continuation of (2) Unattached Subsidiaries--page 8]

Name	Location
Hitachi Powdered Metals (Singapore) PTE LTD	Singapore
Hyogo Nikka Service K.K.	Kobe shi, Hyogo
Juo Kasei K.K.	Yuo cho, Ibaragi
Kanto Shoji K.K.	Shinagawa ku, Tokyo
Kyushu Hitachi Kasei Ind. K.K.	Tagawa shi, Fukuoka
Meiko Meguro Ind. K.K.	Sagamihara shi, Kanagawa
Miharu Manufacturing K.K.	Miharu cho, Fukushima
Aoi Condensor K.K.	Naka Aoi shi, Ibaragi
Minori Shoji K.K.	Matsudo shi, Ibaragi
Namie Hitachi Kasei Ind. K.K.	Namie machi, Fukushima
Nihon Brake Ind. K.K.	Chiyoda ku, Tokyo
Nikka Electric Machinery Ind. K.K.	Makikata shi, Osaka
Nikka Electrical Materials K.K.	Hitachi shi, Ibaragi
Nikka Maintenance K.K.	Chiyoda ku, Tokyo
Niseei Engineering K.K.	Shinagawa ku, Tokyo
Nissei Industrial K.K.	Utsunomiya shi, Tochigi
Nissei Shoji K.K.	Shinagawa ku, Tokyo
Osaka Juki Service K.K.	Ibaraki shi, Osaka
Osaka Nichipa K.K.	Osaka shi, Osaka
Sakuragawa Ind. K.K.	Hitachi shi, Ibaragi
Shimoyakata Ind. K.K.	Shimoyakata shi, Ibaragi
Shin Kobe Electric Machinery K.K.	Shinjuku ku, Tokyo
Shin Kobe Sales K.K.	Osaka shi, Osaka
Shin Kobe Plastics K.K.	Makikata shi, Osaka
Shin Kobe Ind. K.K.	Okabe shi, Saitama
Shinmachi Condensor K.K.	Shinshu Shinmachi, Nagano
Taiwan Hitachi Kasei Ind.	Takao shi, Taiwan
Tokusei Fabrication K.K.	Tokushima shi, Tokushima
Tokushima Oil Refining K.K.	Tokushima shi, Tokushima
Tokyo Nichipa K.K.	Arakawa ku, Tokyo
Tsuchiura Kasei K.K.	Akino cho, Ibaragi
Yamazaki Ind. K.K.	Hitachi shi, Ibaragi

[continued]

[continuation of (2) Unattached Subsidiaries--page 9]

Name	Location
Comec K.K.	Tsuchiura shi, Ibaragi
Hitachi Construction Machinery (Europe) B.V.	Holland
Hitachi Construction Machinery Engineering K.K.	Tsuchiura shi, Ibaragi
Yamagata Hitachi Construction Machinery K.K.	Tone shi, Yamagata
Sankyo Pump Manufacturing K.K.	Osaka shi, Osaka
American Magnetics Co. Inc.	Indiana
Ashiya Manufacturing K.K.	Ashiya machi, Fukuoka
Concise Casting Corp.	California
Goko Kosan K.K.	Chiyoda ku, Tokyo
Goko Shoji K.K.	Chuo ku, Tokyo
Hibiki Manufacturing K.K.	Kita kyushu shi, Fukuoka
Hidaka Ind. K.K.	Kumagaya shi, Saitama
Hitachi Blade K.K.	Chiyoda ku, Tokyo
Hitachi Chain K.K.	Chiyoda ku, Tokyo
Hitachi Ultrahard K.K.	Kawasaki shi, Kanagawa
Hitachi Metal Pipe Equipment K.K.	Chiyoda ku, Tokyo
Hitachi Hisago K.K.	Kuwana shi, Mie
Hitachi Metals Brasil Ltda	Sao Paulo, Brasil
Hitachi Metals Europe GmbH	Dusseldorf, West Germany
Hitachi Metals International Ltd	New York
Hitachi Metal Precision K.K.	Chiyoda ku, Tokyo
Hitachi Metals Singapore PTE LTD	Singapore
Kumagaya Service K.K.	Kumagaya shi, Saitama
Kawako K.K.	Kuwana shi, Mie
Kuwana Distribution Center K.K.	Kuwana shi, Mie
Kuwana Service K.K.	Kuwana shi, Mie
Kyushu Service K.K.	Karita cho, Fukuoka
Maoka Service K.K.	Maoka shi, Tochigi
Nichiwa Shoji K.K.	Kawasaki shi, Kanagawa
Nikkin Service K.K.	Chiyoda ku, Tokyo
Nikkan Traffic K.K.	Chiyoda ku, Tokyo
Nihon Felite K.K.	Shinjuku ku, Tokyo

[continued]

[continuation of (2) Unattached Subsidiaries--page 10]

Name	Location
Nihon Tool Manufacturing K.K.	Osaka shi, Osaka
Nihon Microwave K.K.	Ayase cho, Kanagawa
Hitachi Parts K.K.	Yose machi, Tottori
Nakadai Manufacturing K.K.	Kita Kyushu shi, Fukuoka
Sanin Metal Ind. K.K.	Maiko shi, Tottori
Singapore Foundry & Machinery Co. PTE LTD	Singapore
Tanaka Shigeru Machinery Equipment K.K.	Tokyo
Tatsumi Engineering K.K.	Chuo ku, Tokyo
Tokyo Magnet K.K.	Chiyoda ku, Tokyo
Tokyo Precision Forging K.K.	Ichikawa shi, Chiba
Top Electronics K.K.	Tottori shi, Tottori
Torikami Charcoal Pig Iron Plant K.K.	Yokota shi, Shimane
Towa Electronics K.K.	Niiza shi, Saitama
Wakamatsu Heat Refining K.K.	Kita Kyushu shi, Fukuoka
Wakamatsu Service K.K.	Kita Kyushu shi, Fukuoka
Yasukita Spring Steel Transport K.K.	Yasukita shi, Shimane
Yasukita Precision K.K.	Yasukita shi, Shimane
Yoneda Tools Manufacturing K.K.	Osaka shi, Osaka
YSS Service K.K.	Yasukita shi, Shimane
Kurobe Electronics K.K.	Unatsuki cho, Toyama
Kyushu Hitachi Maxell K.K.	Hojo cho, Fukuoka
Maxell America Inc.	Georgia
Maxell Corp. of America	New Jersey
Maxell Denko K.K.	Ibaraki shi, Osaka
Maxell Europe GmbH Tapes and Batteries	Dusseldorf, West Germany
Maxell Netherlands B.V.	Amsterdam, Holland
Maxell Precision Instruments K.K.	Oyamazaki machi, Kyoto
Maxell (UK) Ltd	Middlesex, England
Wakyo Shoji K.K.	Ibaraki shi, Osaka
Hitachi Roentgen K.K.	Chiyoda ku, Tokyo
Nikko Medical Equipment K.K.	Osaka shi, Osaka
Osaka Roentgen Manufacturing K.K.	Osaka shi, Osaka

[continued]

[continuation of (2) Unattached Subsidiaries--page 11]

Name	Location
Hitachi Kyowa Ind. K.K.	Hitachi shi, Ibaragi
Mikanohara Kanko K.K.	Hitachi shi, Ibaragi
Nihon Sangyo K.K.	Hitachi shi, Ibaragi
Nichiwa Sangyo K.K.	Hitachi shi, Ibaragi
Nichinetsu Sangyo K.K.	Okegawa shi, Saitama
Seibu Electrical Machinery Service	Fuchu cho, Hiroshima
Seiwa K.K.	Osaka shi, Osaka
Tochigi Sangyo K.K.	Ohira machi, Tochigi
Hitachi Plant Construction Service K.K.	Shinjuku ku, Tokyo
HPC Engineering K.K.	Toshima ku, Tokyo
Mac Kogyo K.K.	Toshima ku, Tokyo
Takashiba Industries K.K.	Toshima ku, Tokyo
Seikiguchi Setsubi Kogyo K.K.	Toshima ku, Tokyo
Hitachi Machinery Equipping K.K.	Hitachi shi, Ibaragi
Toda Cooling Equipment K.K.	Toda shi, Saitama
Hitachi Seiko Engineering K.K.	Ebina shi, Kanagawa
Hitachi Ryugasaki Plant K.K.	Ryugasaki shi, Ibaragi
Electric Warehouse K.K.	Fukuoka shi, Fukuoka
Kashiwa Transport K.K.	Matsudo shi, Chiba
Hitachi Products Distribution System K.K.	Shibuya ku, Tokyo
Hitachi Auto Service K.K.	Koto ku, Tokyo
Hitachi Automobile Service K.K.	Hitachi shi, Ibaragi
Hitachi Travel Bureau K.K.	Chiyoda ku, Tokyo
Nisshige Packing K.K.	Shigehara cho, Chiba
Nichiwa Transport K.K.	Hitachi shi, Ibaragi
Nisshin Matehan Service K.K.	Yokohama shi, Kanagawa
Nisshin Transport K.K.	Osaka shi, Osaka
Nissho Products Distribution Center K.K.	Osaka shi, Osaka
Nitto Transport K.K.	Koto ku, Tokyo
Toun Transport K.K.	Koto ku, Tokyo
Shinwa Marine Transport K.K.	Shimomatsu shi, Yamaguchi
Tokyo Monorail K.K.	Minato ku, Tokyo

[continued]

[continuation of (2) Unattached Subsidiaries--page 12]

Name	Location
Tokyo Monorail Agency K.K.	Minato ku, Tokyo
Tonishi Transport K.K.	Yokohama shi, Kanagawa
Aisei Sangyo K.K.	Gumma, Kiryu
Daini Eiko Kai K.K.	Gumma, Kiryu
Japan Servo Motors (S) PTE LTD	Singapore
Saitama Industrial Machinery K.K.	Yono shi, Saitama
Sanemu Electrical Machinery K.K.	Chiyoda ku, Tokyo
Servo Industries K.K.	Karen cho, Ibaragi
Servo Shoji K.K.	Chiyoda ku, Tokyo
Computer Systems Engineering K.K.	Yokohama shi, Kanagawa
Tokyo System Service, K.K.	Shibuya ku, Tokyo
Nawa Ind. K.K.	Nayama shi, Fukushima
Towa Computer Systems, K.K.	Otawara shi, Tochigi
Nayama Shoji K.K.	Nayama shi, Fukushima
Hitachi Measuring Instruments Service K.K.	Shibuya ku, Tokyo
Nissei Electric Machinery	Matsue shi, Shimane
Nissei Electronics K.K.	Minato ku, Tokyo
Nissei Machinery Materials K.K.	Chuo ku, Tokyo
Nissei Sangyo America, Ltd	Illinois
Nissei Sangyo Canada, Ltd	Ontario, Canada
Nissei Sangyo do Brasil, Ltda	Sao Paulo, Brazil
Nissei Sangyo France S.A.R.L.	Paris, France
Nissei Sangyo Gmbh (Deutschland)	Dusseldorf, West Germany
Nissei Sangyo (Singapore) PTE LTD	Singapore
Nissei Petroleum Sales K.K.	Minato ku, Tokyo
Hitachi (Canadian) Ltd	Ontario, Canada
HISL, Inc.	California
HMSI, Inc.	California
Hitachi Semiconductor (Kedah) SDN BHD	Kedah, Malaysia
Hitachi Semiconductor Technology (Malaysia) SDN LTD	Penang, Malaysia
Akita Hitachi Home Appliances K.K. and 119 other exclusive contract stores	Akita shi, Akita and other areas

(Note) None of the above listed companies falls under the category of specially designated subsidiaries.

3. Items Relative to the Consolidated Financial Report

The consolidated financial report is expected to be presented during the latter half of July 1983.

NEC

Tokyo YUKASHOKEN HOKOKUSHO Soran [SECURITIES REPORT, GENERAL SURVEY] in Japanese Vol [unknown]  
No 3, Mar 83 pp 4-16, 47-50

[Text] 7. Personal Histories of Officers and Numbers of Shares Held

(As of 30 June 1983)

Title and position	Name (Birthdate and address)	Personal history	Number of shares
Director, Chairman (Representative director)	Koji Kobayashi 17 February 1907 5-15-10 Denenchofu, Ota ku, Tokyo	1929 Graduated Engineering Dept. Tokyo Imperial Univ. Entered company the same year 1957 Managing director 1961 Senior managing director 1962 Vice president 1964 President 1976 Director and chairman	275,625
President (Representative director)	Tadahiro Sekimoto 14 November 1926 2-14-9 Nishikata, Bukyo ku, Tokyo	1948 Graduated Science Dept. Tokyo Univ. Entered company the same year 1974 Director 1977 Managing director 1978 Senior managing director 1980 President	16,800
Vice president (Representative director)	Atsuyoshi Ouchi 10 October 1919 649 Kamiodanaka, Nakahara ku, Kawasaki shi, Kanagawa	1942 Graduated Engineering Dept. Tokyo Imperial Univ. Entered company the same year 1968 Chief, Integrated Circuits Operations Dept. 1974 Director 1977 Managing director 1978 Senior managing director 1980 Vice president	23,042
Vice president (Representative director)	Akira Koike 3 November 1921 2-20-8, Kikunodai, Chofu shi, Tokyo	1944 Law Dept., Tohoku Imperial Univ. Entered company the same year 1968 Chief, Accounting Dept. 1973 Director 1976 Managing director 1978 Senior managing director 1983 Vice president	36,733
Vice president (Representative director)	Kenzo Nakamura 2 October 1924 3-1-6 Higashi machi, Kachijoji, Musashino Tokyo	1948 Graduated Law Dept. Tokyo Univ. 1972 Chief, Finance Dept. 1974 Director 1978 Managing director 1980 Senior managing director 1983 Vice president	13,230
Senior managing director	Masaya Yamanouchi 15 November 1922 4-6-5 Kuriya, Tama ku, Kawasaki shi, Kanagawa	1945 Graduated 1st Engineering Dept. Tokyo Imperial Univ. Entered Engineering bureau, Communica- tions Institute 1977 Director, Japan Telegraph and Telephone Public Corporation 1979 Executive director of above and chief technician 1981 Entered company 1982 Senior managing director	11,025
Senior managing director	Yoshiro Seko 25 March 1926 1-16-2 Narita Nishi, Suginami ku, Tokyo	1949 Graduated Kobe Economics Univ. Entered Sumitomo Bank the same year 1974 Director, Sumitomo Bank 1977 Entered company. Director, same year 1978 Managing director 1980 Senior managing director	11,025

Title and position	Name (Birthdate and address)	Personal history	Number of shares
Senior managing director	Michiyuki Uenohara 5 September 1925 4-22-14 Yukigaya, Ota ku, Tokyo	1949 Graduted Engineering Dept., Nihon Univ. 1957 Entered Bell Laboratories (U.S.) 1967 Entered company 1972 Chief, Central Research Lab. 1976 Director 1980 Managing director 1982 Senior managing director	40,902
Senior managing director	Yukio Sato 20 February 1925 1-38-14 Nishi Fuchu, Fuchu shi, Tokyo	1947 Graduted 1st Engineering Dept., Tokyo Imperial Univ. Entered company the same year 1974 Chief, Automatic Production Equipment Development Hqs. 1978 Director 1980 Managing director 1983 Senior managing director	23,357
Senior managing director	Toshio Eto 16 March 1928 1-27-2 Yokodai, Isogo ku, Yokohama shi, Kanagawa	1950 Graduated Economics Dept., Kyushu Univ. 1950 Entered company 1972 Chief, Mita Operations Support Hqs. 1976 Chief, General Affairs Dept. 1978 Director 1980 Managing director 1983 Senior managing director	7,612
Senior managing director	Yoshiaki Ishii 16 March 1928 1809-2 Kami Aso, Aso ku, Kawasaki shi, Kanagawa	1951 Graduated 2d Engineering Dept., Tokyo Univ. Entered the company the same year 1977 Chief, Data Processing Planning Chamber 1978 Director 1981 Managing director 1983 Senior managing director	16,537
Managing director	Toshio Kunihiro 2 January 1929 6-31-65 Yokodai, Isogo ku, Yokohama shi, Kanagawa	1952 Graduated 1st Engineering Dept., Tokyo Univ. Entered company same year 1976 Chief, Electronic Exchange Operations Dept. 1977 Exchange Technology Headquarters chief 1978 Director 1982 Managing director	14,112
Managing director	Masazo Shimizu 11 February 1928 2-4-5 Nakamachi, Meguro ku, Tokyo	1952 Graduated Tokyo Commercial Univ. Entered company the same year 1973 Chief, Europe/Africa Dept. 1977 Overseas manager 1978 Director 1982 Managing director	27,000
Managing director	Takaichi Murakami 22 May 1927 2-34-13 Denenchofu, Ota ku, Tokyo	1953 Graduated Engineering Dept. Tokyo Univ. Entered company the same year 1975 Chief, Electronic Communications Operations Dept. 1978 Director 1982 Managing director	15,000
Managing director	Yukio Kaito 9 December 1927 546 Tao machi Kohoku ku, Yokohama, Kanagawa	1952 Graduated Tokyo Industrial Engr. Univ. Entered company the same year 1974 Chief, Milliwave Facsimili Transmission Development Hqs 1975 Chief, Microwave Satellite Communica- tions Operations Dept. 1979 Director 1983 Managing director	13,230

Title and position	Name (Birthdate and address)	Personal history	Number of shares
Managing director	Tomihiro Matsumura 12 June 1930 7-10 Sakuradai, Midori ku Yokohama, Kanagawa	1952 Graduated Engineering Dept. Nihon Univ. 1957 Entered company 1979 Chief, Integrated Circuits Operations Hqs. 1980 Director 1983 Managing director	12,237
Managing director	Yukio Mizuno 16 July 1929 2-25-6 Shichirigahama Higashi, Kamakura shi, Kanagawa	1953 Graduated Tokyo Industrial Engr. Univ. Entered company same year 1973 Chief, Data Processing Market-Product Planning Hqs. 1975 Chief, Basic Software Development Hqs. 1978 Managing director, Nippon Electric-Toshiba Information Systems (K.K.), manager of the company the same year 1980 Director 1983 Managing director	5,346
Director	Kyonosuke Ibe 28 July 1908 20-41 Kigashi Ashiya cho, Ashiya shi, Hyogo	1931 Graduated Economics Dept., Tokyo Imperial Univ. Entered Sumitomo Bank 1973 President of Sumitomo Bank 1977 Chairman of Sumitomo Bank (incumbent) 1979 Director of company	0
Director (Responsible director)	Hisao Kanai 22 March 1928 5-9-11 Shimotakaido, Suginami ku, Tokyo	1952 Graduated Tokyo Industrial Univ. Entered company the same year 1979 Chief, Computer Technology Hqs. 1981 Manager 1982 Director	7,166
Director (Responsible director)	Tadashi Suzuki 21 June 1930 2-11-7 Nakamachi, Setagaya ku, Tokyo	1954 Graduated Econ. Dept., Hitotsubashi Univ. Entered company the same year 1971 Chief, Latin America Exports Dept. 1977 President of NEC Brazil 1980 Manager of above company 1982 Director	8,400
Director (Responsible director)	Takuya Ito 28 August 1928 649 Kamiodanaka, Nakahara ku, Kawasaki shi, Kanagawa	1952 Graduated 1st Engineering Dept., Tokyo Univ. Entered company same year 1975 Chief, Peripheral Equipment Technology Hqs. 1980 Chief, C&C System Research Center 1982 Manager 1983 Director	3,050
Director (Responsible director)	Kazuyoshi Akimoto 15 July 1927 3-32-18 Kinuta, Setagaya ku, Tokyo	1951 Graduated Law Dept. Tohoku Univ. Entered company the same year 1974 Chief, Associated Dept. 1976 Chief, Accounting Dept. 1980 Manager 1983 Director	15,435
Director (Responsible director)	Hitoshi Matsukasa 8 July 1927 482 Manpukuji, Aso ku, Kawasaki shi, Kanagawa	1951 Graduated Science Dept., Waseda Univ. 1956 Entered company 1977 Chief, Radiowave Utilization Operations Dept. 1980 Manager 1983 Director	3,000

Title and position	Name (Birthdate and address)	Personal history	Number of shares
Director (Responsible director)	Atsushi Fukuda 12 May 1931 3-17-20 Jiyugaoka, Meguro ku, Tokyo	1954 Graduated Social Science Dept., Hitotsubashi Univ., Entered company same year. 1978 Chief, Domestic Operations Super- visory Dept. 1981 Chief, Domestic Sales Promotion Hqs. 1983 Director	3,307
Director (Responsible director)	Iwane Takahara 18 November 1929 1-28-10 Sakura Shinmachi Setagaya ku, Tokyo	1954 Graduated Law Dept., Keio Univ. 1966 Entered company 1974 Chief, Middle East Dept. 1977 Chief, 2d Middle East Dept. 1981 Manager 1983 Director	13,230
Director (Responsible director)	Hideo Nakao 5 February 1933 379-1 M-zonokuchi, Kozu ku, Kawasaki shi, Kanagawa	1957 Completed Master's Course, Kyoto Univ. Entered company the same year 1977 Director, Yamagata-Nippon Electric (K.K.) 1980 Chief, Semiconductor Operations Division of above company 1982 Manager 1983 Director	3,307
Auditor (Regular)	Masazo Haga 1 July 1916 1988 Shindaiji cho, Chofu shi, Tokyo	1925 Graduated Tokyo Commercial College Entered Sumitomo K.K. the same year 1941 Entered the company 1967 Chief, Finance Dept. 1972 Auditor	14,332
Auditor (Regular)	Eijiro Tsutsui 1 April 1926 67-1 Masakigahara, Asahi ku, Yokohama shi, Kanagawa	1942 Graduated Tokushima Pref. Commercial School 1943 Entered the company 1976 Deputy chief, Accounting Dept. 1981 Chief, Management Information Systems Hqs. 1983 Auditor	7,350
Auditor	Masaaki Arai 1 December 1912 6-4-6 Umenoki, Itami shi, Hyogo	1937 Graduated Law Dept., Tokyo Imperial Univ. Entered Sumitomo Life Ins. Co. the same year 1966 President of the above company 1975 Auditor of the above company 1979 Chairman and director of above company (incumbent)	5,000
Total	29		648,390

8. Status of Employees (as of 31 March 1983)

(1) Number of employees, average age, average years employed and average monthly earnings.

Item	By jobs By sex	Nonfield worker			Field worker			Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Number of employees		23,074	5,363	28,437	5,675	1,945	7,620	28,749	7,308	36,057
Average	Age	35.3	23.6	32.9	30.4	22.3	28.4	34.2	23.3	31.8
	Years employed	13.7	4.2	11.8	11.9	4.1	10.0	13.3	4.2	11.3
	Monthly earnings (yen)	293,527	124,245	258,450	218,086	124,708	193,708	276,776	124,374	243,272

(Note) The average monthly earnings are for May 1983 and include taxes. Includes overtime but does not include bonuses and other nonregular payments.

(2) Labor Union Situation

The labor union is called the Nippon Electric Labor Union. It has branches in the headquarters and all operating facilities. It is affiliated with the All Japan Electrical Equipment Labor Union Federation. The labor management relationship is stable.

The number of employees who are labor union members as of 31 March 1983 totals 29,332.

No 2. Summary of Operations

1. Objectives of the Company and Substance of Operations

(1) Objectives of the Company

- 1) Electrical communications equipment, electronics applications equipment for computers and others, all forms of equipment relative to electrical equipment, equipment and systems manufacturing and sales and other matters.
- 2) Nuclear power equipment, aircraft equipment, medical equipment, measuring equipment and all other equipment not specified above, equipment and systems manufacturing and sales and other matters.
- 3) Electron tubes, semiconductors integrated circuits and other equipment used in the equipment stipulated in the foregoing, and the manufacture and sale of their parts and materials and other matters.
- 4) Construction contracting.
- 5) All matters necessary for the enhancement, management and promotion of the operations stipulated in all of the foregoing.
- 6) Investment in enterprises managed by others in any of the activities stipulated in the above.

(2) Substance of Operations

The major operations of this company center on communications equipment, computers and other electronic equipment, manufacture and sales of electronic devices. Their manufacturing process encompasses a totality of technology from raw materials to finished product.

Type	Major product	Share of sales (percent)
Communications equipment	Electronic switchboards, crossbar switchboards, transmission equipment, PCM communications equipment, wire transmission, control equipment, submarine cable relays, fiber optics communications systems, microwave communications equipment, satellite communications equipment, laser communications equipment, mobile communications equipment, administrative wireless systems, radio-television broadcasting facilities, CATV, video data systems, air-space electronic equipment, radar facilities, various telephone equipment, TV conference system, teleconference system fire emergency system, guard system, facsimile, magnetic parts.	39.3
Computers and other electronic equipment	General purpose computers (ACOS series), office computers, controller computers, personal computers (16 bit), various general purpose and dedicated terminals, Japanese word processors, communications control equipment, atmospheric pollution detection systems, telemetry systems, mail automation systems, industrial robots, numerical control equipment, medical electronic equipment, data modems, ultra high frequency equipment.	27.9
Electronic devices	IC-LSI, microcomputers, personal computers (8 bit), transistors, diodes, rectifiers, condensers, printed circuit boards, color picture tubes, indicator tubes, microwave tubes, laser equipment.	25.4
Home electronics and others	Color TV's, B/W TV's, sound equipment, VTR equipment, other household electrical equipment, communications-electronics facilities construction.	7.4
Total		100

- (Notes) 1. The manufacture and domestic sales of household electronics, is handled by a subsidiary, the Shin Nippon Electric (K.K.). The parent company only handles overseas sales of its products.
2. The above sales percentages reflect actual figures between April 1982 and March 1983.

(3) Changes in Operational Substance

There were no applicable changes.

2. Important Contracts Affecting Management

Following are important technology import/export contracts as of 31 March 1983.

(1) Technology Imports

Counterpart	Item	Contract equipment	Details of contract	Contract period
Western Electric Co. Inc. (U.S.A.)	Various communications equipment, electronic equipment, related parts and devices		Cross licensing of patent rights	Valid until 31 December 1982
IBM Corp. (U.S.A.)	Data processing system		" " " "	Valid until 31 December 1985

(Note) Items for cross licensing are so indicated within the wording of the contracts.

## (2) Technology Exports

Counterpart	Item	Contract equipment	Details of contract	Contract period
Rank-NCR Proprietary, Ltd (Australia)		Color TV receivers	Provision of technical data, technical guidance and cross licensing of patent rights	From 1 October 1974 until 7 years after the start of commercial production
SanSei Electron Tube Industries (S. Korea)		Color picture tubes	" " " "	24 February 1978 to 23 February 1988
Electronics Corp. of India, Ltd. (India)		Ground station antenna	" " " "	From 25 March 1979 until 5 years after the start of commercial production
Indian Telephone Industries Ltd. (India)		Ground station communications equipment for satellite use	" " " "	5 years from 25 March 1981
Burroughs Corp. (U.S.)		Optical reader equipment	" " " "	8 years from 3 June 1981

## No 3. Status of Operations

## 1. General Situation

Due to the effects of the continuing long-term depression of the world economy, the drop in exports to the United States due to trade friction, and the drop in domestic personal consumption and the lack of expansion of capital investments, our country's economy during this period continued its stagnation. Within this milieu, this company responded to the computer and communications era with new products, with new product development, with positive efforts to strengthen its production and sales stance as well as to raise its sales and expand its backlog of orders. They also took measures to promote cost reductions and management rationalization and strengthen operations. As a result, this period's sales were 1,253,500,000,000 yen (18.9 percent increase over the previous period), orders were 1,301,400,000,000 yen (20.2 percent increase over the previous period and profits were 26,735,000,000 yen (25.4 percent increase over the previous period). The general situation by sectors is as follows:

The majority of communications equipment sales and orders are to the Japan Telegraph and Telephone Public Corporation and overseas bound station use electronic switchboards and transmission equipment, microwave communications equipment, domestic and overseas deliveries of all types of office automation communications equipment, mobile communications equipment, space electronics equipment for the Space Development Agency, radiowave application equipment for the Self Defense Agency and overseas satellite ground communication stations. Of these, increases in deliveries for overseas electronic switchboards, transmission equipment, microwave communication equipment resulted in increased sales and orders as compared to the previous period.

The majority of computers and other electronics equipment sales and orders are in general purpose computers (ACOS series), office computers (NEC System 20/50/100/150), 16-bit personal computers, various terminals. Of these, personal computers and terminals gained thus giving an overall gain in this period compared to the previous period.

The majority of electronic devices sales and orders are for industrial electronic equipment memories and microcomputers, linear IC's for consumer electronic equipment, individual semiconductors, and 8-bit personal computers. Of these, sales and orders for personal computers, industrial electronic equipment memories and microcomputers were up which resulted in a gain over the previous period.

With respect to household electronics and others, sales were off against the previous period but others were higher. Of these, home electronics products such as television sets and sound equipment sales and orders were off against the previous period due to continued stagnation of overseas demand.

## 2. Production Capacity

This company's production line is varied and its production format varies from the use of a single facility for several product lines as well as varying the type, volume and structure of a single product so it is very difficult to calculate the production capacity for each individual type of product. Therefore, the trends of recent production plans and actual production are shown below.

(Monetary unit: 1 Million yen)		
Breakdown	Period	
	144th period April 1981-March 1982	145th period April 1982-March 1983
Production (plan)	1,046,650	1,246,138
" (actual)	1,071,700	1,271,790
Percent of plan achieved	102.4	102.1

- (Notes) 1. Amount is on basis of sales prices.  
 2. The above includes stocked items (144th period--8.5 percent, 145th period--8.9 percent) but does not include production destined for internal company use.

## 3. Actual Production

### (1) Actual Production

Recent actual production results and ratio to planned production by sectors are as follows:

Sector	Period Breakdown	144th period (April 1981-March 1982)			145th period (April 1982-March 1983)		
		Total production	Monthly production	Percentage of planned production achieved	Total production	Monthly production	Percentage of planned production achieved
Communications equipment		417,589	34,799	103.0	501,802	41,816	103.0
Computers and others		285,883	23,824	101.3	333,916	27,826	106.3
Electronic devices		277,370	23,114	100.8	322,825	26,902	94.9
Home electronics and others		90,858	7,572	108.2	113,245	9,437	108.2
Total		1,071,700	89,309	102.4	1,271,790	105,982	102.1

- (Notes) 1. Values are based on sales prices.  
 2. Actual production is in terms of final product and does not include electronic devices destined for company use (144th period 86,112,000,000 yen, 145th period 97,437,000,000 yen).  
 3. Actual production includes purchased items (144th period 8.5 percent, 145th period 8.9 percent). The major items in this regard are home electronics products.

### (2) External Orders

External orders include external processing and product purchases. In external processing there are such things as sheet metal and machine press work, semiconductors, panels and equipment fabrication, inspection. Product purchases include semiconductors, resistors and condensers. The percentage of external orders to total production was 37.3 percent for the 144th period and 37.1 percent for the 145th period.

(3) Major Raw Materials

1) Input, Use and Stocking Situation of Major Raw Materials Is as Follows:

Major raw	Unit	In stock end of March 1981	144th period (April 1981-March 1982)		In stock end of March 1982	145th period (April 1982-March 1983)		In stock end of March 1983	
			Input	Consumed		Input	Consumed		
Steel	Ordinary	t	142	1,728	1,741	129	1,533	1,527	135
	Special steel stainless	t	16	409	399	26	139	125	12
	Rolled steel products	t	34	808	813	29	484	479	34
	Special metals	t	8	209	209	8	111	111	8
	Precious metals	kg	182	2,857	2,747	292	3,446	2,794	944
	Adhesive agents (exposy resins)	t	12	581	575	18	856	858	16
Wire	Coiled wire	t	4	31	32	3	167	167	3
	Equipment wire	km	6,411	43,129	45,353	4,187	46,729	47,024	3,892
	Heating oil	kℓ	288	5,852	5,852	288	7,728	7,671	345
	Electric power	10 <sup>6</sup> kWh			291			333	

2) Trend of Prices of Major Raw Materials

(End of March 1981 figures are 100)

Major raw materials			Unit	Purchase price	
Commodity	Name	Size		End of March 1982	End of March 1983
Steel	Zinc electroplated sheet	1.4 x 4.54 x 3,520	kg	100	102
Rolled steel	Phosphor bronze bars (For use as springs)	0.2 x var x coil	kg	104	102
Precious metals	High purity contacts	25μφ	g	88	110
Rare metals	Tantalum powder	Import item	kg	91	66
Adhesive agent	Printed boards	1.6 x 1,000 x 1,000 ELMG	kg	92	92

4. Orders Situation and Production Plan

(1) Orders Situation

The status of orders received and orders balances by sectors for the 144th and 145th periods are as follows:

(Monetary unit: 1 Million yen)

Sector	Classification	Period	144th period (April 1981-March 1982)		145th period (April 1982-March 1983)	
			Total orders	Orders balance end of period	Total orders	Orders balance end of period
Communications equipment			430,911	232,768	514,908	258,826
Computers and other electronics			287,985	140,622	366,355	157,172
Electronics devices			272,680	45,197	324,627	51,396
Home electronics and others			91,415	1,744	95,556	4,797
Total			1,082,991	420,331	1,301,448	468,191

[Notes on next page]

- (Notes)
1. Amounts are on basis of sales price.
  2. While no contracts were concluded, in addition to this there were tentative orders as follows: At the end of March 1982, 213,486,000,000 yen and at the end of March 1983, 211,507,000,000 yen.
  3. The exports percentage share of overall orders was 33.2 percent for the 144th period and 34.8 percent for the 145th period. The main export regions were the United States, South-east Asia and the Middle East. Most of the products ordered were semiconductors, IC's, microwave communications equipment, switchboards and transmission equipment.

(2) Planned Production

Production plans for the period April 1983 through September 1983 by quarters and by sectors are as follows:

(Monetary unit: 1 million yen)

Sector	Quarterly periods		July 1983-Sep 1983		Total		
	Classification	Production	Monthly Average	Production	Monthly Average	Production	Monthly Average
Communications equipment		106,838	35,613	130,737	43,579	237,575	39,596
Computers and other electronics equipment		70,228	23,409	94,387	31,462	164,615	27,436
Electronic devices		91,332	30,444	95,793	31,931	187,125	31,187
Home electronics and others		20,314	6,771	31,269	10,423	51,583	8,597
<b>Total</b>		<b>288,712</b>	<b>96,237</b>	<b>352,186</b>	<b>117,395</b>	<b>640,898</b>	<b>106,816</b>

- (Notes)
1. Amounts are on basis of sales price.
  2. Production includes purchased items primarily home electronics products, but does not include production for internal company use in the amount of 48,833,000,000 yen.

5. Actual Sales

(1) Sales Method

Domestically, direct sales and sales through exclusive agencies are conducted. Within these practices, most of the computers and communications equipment are sold directly while electronic devices are sold mostly through exclusive agencies. A portion of the computer production is sold to the Japan Electronic Calculator Co. K.K. which operates a leasing business. Overseas sales are handled directly, through affiliated companies overseas and through trading firms and agencies.

(2) Actual Sales

(Monetary unit: 1 million yen)

Sector	Classification	144th period (April 1981-March 1982)		145th period (April 1982-March 1983)	
		Total sales	Monthly average	Total sales	Monthly average
Communications equipment		413,401	34,450	492,850	41,070
Computers and other electronics		284,715	23,726	349,805	29,150
Electronic devices		262,854	21,905	318,428	26,535
Home electronics and others		93,079	7,757	92,503	7,708
<b>Total</b>		<b>1,054,049</b>	<b>87,836</b>	<b>1,253,588</b>	<b>104,465</b>

- (Notes)
1. Amounts are on basis of sales price and the ratio of purchased items to total sales is 8.8 percent for the 144th period and 7.4 percent for the 145th period.
  2. The ratio to total exports is 32.8 percent for the 144th period and 34.8 percent for the 145th period. The major export regions were the United States, Southeast Asia and the Middle East and the major items were semiconductors, IC's, microwave communications equipment, switching and transmission equipment.

(3) Trend of Sales Prices of Major Products

The company's communications and electronic equipment are produced on order for a variety of specialized uses and includes a wide range of equipment so it is difficult to delineate in chart form but generally speaking, prices remained level. There was a slight trend toward decrease in prices of electronic devices.

Some examples of trends in transactions of major items are shown below:

(Prices at end of March 1981 are 100)

Equipment type	Product name	Price at end of March 1982	Price at end of March 1983
Exchange equipment	NEPAX 102	100	100
Telephones	Key telephones	100	100
Wireless equipment	Wireless stations for simple wireless operations	97	97
General purpose computers	ACOS system 250	80	80
Office computers	NEC system 100	80	80
Personal computers	PC 8001	100	100

No 4. Status of Facilities

1. Facilities

(1) Production Facilities, etc.

Following represents the personnel distribution and capital investment by the various operation sectors as of 31 March 1983.

(Monetary unit: 1 million yen)

Area	Production item	Sector	Land	Buildings	Machin- ery equipment	Other	Capital- ization	Personnel
Mita facility	Computers (software)	BV	230	1,170	1,286	4,771	7,459	2,757
	Communications equip. (Magnetic parts)	Number	29,464m <sup>2</sup> ( 477)	71,531m <sup>2</sup> (3,548)				
Tamagawa facility	Communications equipment (transmitters)	BV	345	5,404	17,315	8,047	31,112	8,345
	Electronic devices (semi-conductors) IC's, tubes	Number	284,370m <sup>2</sup> ( 8,111)	244,400m <sup>2</sup> (32,731)				
Fuchu facility	Computers, communications equipment (broadcast & wave utilization equip.)	BV	604	5,382	4,723	10,357	21,069	5,738
	Communications equipment (switching equipment)	Number	220,215m <sup>2</sup> ( 7,602)	205,326m <sup>2</sup> (17,937)				
Sagamihara facility	Communications equipment (switching equipment)	BV	257	10,804	15,285	2,138	24,485	3,352
	Semiconductors, IC's, Circuit parts	Number	175,574m <sup>2</sup> ( 4,206)	114,281m <sup>2</sup> ( 4,844)				
Yokohama facility	Communications equipment (wireless equipment)	BV	1,482	6,201	3,233	4,533	15,451	3,768
		Number	151,184m <sup>2</sup> ( 8,496)	124,803m <sup>2</sup> ( 4,618)				
Abiko facility	Communications equipment (switching equipment)	BV	7,413	16,205	4,122	5,120	32,861	2,155
		Number	302,531m <sup>2</sup> ( -)	87,519m <sup>2</sup> ( -)				
Central research laboratories	General basic research	BV	331	3,976	2,075	1,634	8,017	929
	Impinging on all aspects	Number	57,135m <sup>2</sup> ( -)	37,257m <sup>2</sup> ( 109)				
Hqs. branches Branch stores Business offices	General company supervision	BV	3,320	7,851	-	26,558	37,730	9,013
	Sales in designated areas of responsibility	Number	489,232m <sup>2</sup> ( 6,721)	151,271m <sup>2</sup> (167,251)				
Total		BV	13,986	56,997	48,043	63,161	182,188	36,057
		Number	1,709,705m <sup>2</sup> ( 35,613)	1,036,388m <sup>2</sup> ( 231,038)				

[Notes on next page]

BV=Book value

- (Notes)
1. Figures in parentheses indicate borrowings. Most of the borrowings are for rentals of the main office, branches, branch offices, and business offices (124,516m<sup>2</sup>).
  2. The "Other" column represents structures, 3.652 billion yen, vehicles and transport equipment, 718 million yen, tools and equipment, 58.789 billion yen.
  3. The above chart includes 121,849m<sup>2</sup> of land and 65,161m<sup>2</sup> of buildings rented out.
  4. The above chart includes 502,384m<sup>2</sup> of land and 213,351m<sup>2</sup> of buildings used for social welfare and recreational activities.
  5. The Mita facility includes the Shibaura factory and the Tamagawa facility includes the Yamanashi factory.

(2) Numbers of Machines by Operational Facilities

Facility	Type	Fabricating machinery	General machinery	Electronic parts, machinery	Total
Mita		543	1,422	--	1,965
Tamagawa		389	4,678	10,672	15,739
Fuchu		572	3,299	--	3,871
Sagamihara		234	1,163	2,677	4,074
Yokohama		651	1,944	--	2,595
Abiko		49	1,409	--	1,458
Central Research Laboratory		177	627	1,008	1,812
<b>Total</b>		<b>2,615</b>	<b>14,542</b>	<b>14,357</b>	<b>31,514</b>

2. Construction of New Facilities, Important Expansion or Improvements or Plans for Such

The company, in order to respond to new technology and trends in demands is promoting the development of new products and technology, adjusting their production stance, raising the quality and precision of their products, lowering costs, and rationalizing by necessary renovations, new and expanded facilities to combat pollution as follows.

(Monetary unit: 1 million yen)

Sector	Planned amount	Expended amount (up to Mar 83)	Future amounts needed (after Apr 83)	Under construction	Completed	Summary
Communications equipment	26,208	13,208	13,000	Apr 1982	Mar 1984	R&D of communications, equipment, increase production
	24,630	22,430	2,200	Mar 1981	Mar 1983	Construction of Abiko facility
Computers and other electronics	18,048	8,948	9,100	Apr 1982	Mar 1984	R&D of computers and production increase
Electronics devices	50,789	23,289	27,500	Apr 1982	Mar 1984	R&D of semiconductors, IC's and increase production
Others (Hqs., research center, welfare facilities)	30,873	17,673	13,200	Apr 1982	Mar 1984	Expansion of R&D and social welfare facilities
<b>Total</b>	<b>150,548</b>	<b>85,548</b>	<b>65,000</b>			

- (Notes)
1. The 65 billion yen needed is planned to be raised through a portion of receipts from convertible debentures amounting to 48 billion yen and 17 billion of cash on hand.
  2. When the above plan is completed it is expected that production capacity will be increased by 19 percent.
  3. The Abiko facility was completed in March 1983 and it is anticipated that from April 1983 the amount to be paid is 2.2 billion yen.

3. Sale, Withdrawal or Loss of Fixed Assets

There were no sales, withdrawals or losses of fixed assets to the extent to affect production capacity.

No 6. Items Pertaining to the Parent Company and Subsidiaries

1. Items Relative to the Parent Company (as of 31 March 1983)

There are no relevant items.

2. Items Relative to Subsidiaries (as of 31 March 1983)

(1) Connected Subsidiaries

Name, location	Capital- ization  (millions of yen)	Operation	Degree of de- pendence in deci- sions (percent)	Officers with dual duties		Loans (mil- lions of yen)	Operational		Others
				Offi- cers	ploy- ees		transactions		
Shin Nippon Electric K.K.  Minato ku, Tokyo	2,800	Home elec- tronic prod- ucts, manufac- ture and sales	100	6	2	2,390	Provision of a portion of the products sold and or used by the parent firm		A portion of factory use building is borrowed from the parent company
Tohoku Nippon Electric K.K.  Ichinoseki shi, Iwate	400	Manufacture and sale of communica- tions equip- ment parts	100	4	5	170	" " "		
Yamagata Nippon Electric K.K.  Yamagata shi, Yamagata	400	Manufacture and sale of semiconduc- tors and integrated circuits	100	5	1	4,880	" " "		A portion of the property for the fac- tory is bor- rowed from the parent company
Akita Nippon Electric K.K.  Akita shi, Akita	50	" " "	(100) 100	-	1	-	Provision of a portion of the products sold by or used by Yamagata Nippon Electric K.K.		A 100 per- cent owned subsidiary of Yamagata Nippon Elec- tric K.K.
Miyagi Nippon Electric K.K.  Yamato cho, Kurokawa gun, Miyagi	250	Manufacture and sale of communica- tions equip- ment parts and equipment	100	1	4	192	Provision of a portion of the products sold or used by the parent company		
Fukushima Nippon Elec- tric K.K.  Fukushima shi, Fukushima	100	Manufacture and sale of communica- tions equip- ment	100	3	4	-	" " "		
Ibaraki Nippon Electric K.K.  Sekijo machi, Makabe gun, Ibaraki	100	Manufacture and sale of information processing equipment	100	1	4	538	" " "		
Niigata Nippon Electric K.K.  Kashiwaz aki shi, Niigata	100	Manufacture and sale of information processing terminals	100	1	4	-	" " "		

[continued]

[continuation of (1) Connected Subsidiaries--page 2]

Name, location	Capital- ization  (millions of yen)	Operation	Degree of de- pendence in deci- sions (percent)	Officers with dual duties		Loans (mil- lions of yen)	Operational	
				Offi- cers	Em- ploy- ees		transactions	Others
Nagano Nippon Electric K.K.  Ina shi, Nagano	100	Manufacture and sale of home elec- tronics equipment	(100) 100	-	-	-	Provision of a portion of products sold or used by Shin Nip- pon Electric K.K.	A 100 per- cent wholly owned subsi- diary of Shin Nippon Electric K.K.
Toyama Nippon Electric K.K.  Irizen machi, Shimo Shinkawa gun, Toyama	200	Manufacture and sale of electronic parts	100	2	3	150	Provision of a portion of products sold or used by the parent com- pany	
Fukui Nippon Electric K.K.  Harue cho, Sakai gun, Fukui	200	Manufacture and sale of semiconduc- tors and integrated circuits	(50) 100	2	2	-	Provision of a portion of products sold by Shin Nippon Elec- tric K.K.	Shin Nippon Electric K.K. has 50 per- cent owner- ship
Shizuoka Nippon Elec- tric K.K.  Kakegawa shi, Shizuoka	100	Manufacture and sale of communica- tions equip- ment and parts.	100	2	6	-	Provision of a portion of products sold or used by the parent company	
Hyogo Nippon Electric K.K.  Yamazaki cho, Shishikuri gun, Hyogo	100	Manufacture and sale of communica- tions equip- ment and parts	100	1	4	-	" " "	
Kyushu Nippon Electric K.K.  Kumamoto shi, Kumamoto	400	Manufacture and sale of integrated circuits	100	5	1	1,000	" " "	
Fukuoka Nippon Electric K.K.  Yanagawa shi, Fukuoka	50	" " "	(100) 100	-	1	300	Provision of a portion of products sold or used by Kyushu Nip- pon Elec- tric K.K.	A 100 per- cent wholly owned subsi- diary of Kyushu Nip- pon Electric K.K.
Kumamoto Nippon Electric K.K.  Nishiki cho, Tamamaro gun, Kumamoto	50	" " "	(100) 100	-	1	-	" " "	" " "
Kagoshima Nippon Elec- tric K.K.  Idemizu cho, Kagoshima	200	Manufacture and sale of electronic parts	100	2	5	-	Provision of a portion of products sold or used by the parent company	
Nichiden Information Terminal Systems K.K.  Minato ku, Tokyo	150	Sales and lease of in- formation processing equipment	100	3	4	650	Sales of parent com- pany prod- ucts	

[continued]

[continuation of (1) Connected Subsidiaries--page 3]

Name, location	Capital- ization  (millions of yen)	Operation	Degree of de- pendence in deci- sions (percent)	Officers with dual duties Offi- cers	Em- ploy- ees	Loans (mil- lions of yen)	Operational transactions	Others
Nippon Electric System Construction K.K.  Minato ku, Tokyo	500	Design, con- struction, maintenance of electri- cal commu- nications construction	100	4	-	-	Contracting for a por- tion of the work of products sold by the parent com- pany	
Nippon Electric Field Service K.K.  Minato ku, Tokyo	200	Maintenance of informa- tion pro- cessing equipment	100	2	3	1,614	Contracting for a por- tion of the main- tenance of products sold by the parent com- pany	
Nippon Electric Engineering K.K.  Minato ku, Tokyo	180	Contracting for design and inspec- tion of com- munications equipment	(100) 100	3	5	-	Contracting for design and inspec- tion of a portion of products sold by the parent company	A 100 per- cent wholly owned sub- sidiary of Nippon Elec- tric Field Service K.K.
Nippon Avionics K.K.  Minato ku, Tokyo	907	Manufacture and sale of electronic applications equipment and elec- tronics equipment for aviation	51	3	-	-	Provision of a portion of the products sold by the parent firm	
Fujiya Audio K.K.  Minato ku, Tokyo	300	Manufacture and sale of miniature motors and players	(12.5) 100	1	2	-	Provision of a portion of products used by Shin Nippon Elec- tric K.K.	Shin Nippon Electric K.K. owns 12.5 percent of the firm
Nippon Electric Lease K.K.  Minato ku, Tokyo	100	Lease of com- munications and elec- tronics equip- ment and their production facilities	75	3	4	160	Lease of a portion of the facili- ties used by the parent firm and pur- chase of equipment from parent firm for leasing purposes	
Nippon Electric Vacuum Glass K.K.  Kawasaki shi, Kanagawa	10	Manufacture and sale of glass parts and process- ing sales of electronic parts	100	1	2	-	Provision of a portion of the products used by the parent company	A part of the produc- tion build- ings borrowed from the parent company

[continued]

[continuation of (1) Connected Subsidiaries--page 4]

Name, location	Capital- ization (millions of yen)	Operation	Degree of de- pendence in deci- sions (percent)	Officers with dual duties Offi- cers	Em- ploy- ees	Loans (mil- lions of yen)	Operational transactions	Others
Nippon Aviation Electronics Ind. K.K.  Shibuya ku, Tokyo	3,236	Manufacture and sale of connectors and elec- tronic equipment for aviation	(0.02) 50.03	2	-	-	Provision of a portion of the products used by the parent com- pany	0.02 percent owned by Shin Nippon Electric K.K.
Nichiden Anelba K.K.  Fuchu shi, Tokyo	600	Manufacture and sale of vacuum and analysis equipment	81	2	1	-	Provision of a portion of the facili- ties used by the parent company	
Ando Electric K.K.  Ota ku, Tokyo	720	Manufacture and sale of industrial machinery and elec- tronic mea- suring equip- ment	50.5	2	-	-	" " "	
Niko Electronics K.K.  Yokohama shi, Kanagawa	50	Manufacture and sale of automatic vending ma- chines and special com- munications equipment	100	-	1	-	Provision of a portion of the products used by Shin Nippon Elec- tric K.K.	
Sanei Measuring Equipment K.K.  Shinjuku ku, Tokyo	650	Manufacture and sale of industrial measuring equipment and medical elec- tronics	54.5	1	2	-	Sales of parent com- pany products	
Yonezawa Manufacturing K.K.  Yonezawa shi, Yamagata	150	Manufacture and sale of communications equipment parts	99.9	1	5	-	Provision of a portion of the products used by the parent firm	
NEC America, Inc.  Melville, New York	\$38 million	Manufacture and sale of communication equipment	100	7	4	\$4 million	Sales of parent company prod- ucts and pur- chase of com- munication equipment parts	
NEC Telephones, Inc.  Melville, New York	\$500,000	Sales of communica- tions equipment	(100) 100	-	6	-	Sales of parent com- pany products and sales of a portion of products man- ufactured by NEC America, Inc.	A 100 per- cent wholly owned subsi- diary of NEC, Inc.

[continued]

[continuation of (1) Connected Subsidiaries--page 5]

Name, location	Capital- ization  (millions of yen)	Operation	Degree of de- pendence in deci- sions (percent)	Officers with dual duties		Loans (mil- lions of yen)	Operational transactions	Others
				Offi- cers	ploy- ees			
NEC Home Electronics (U.S.), Inc.  Elk Grove Village Illinois, U.S.A.	\$2.85 million	Sales of home elec- tronics products	(100) 100	1	3	-	Sales of parent firm products	A 100 per- cent wholly owned subsi- diary of NEC America, Inc.
NEC Electronics USA, Inc.  San Mateo, California	\$26.4 million	Manufacture and sale of integrated circuits	100	4	4	-	Sales of parent com- pany prod- ucts and purchase of integrated circuit parts from parent company	
NEC Australia Proprietary Ltd  Mulgrave Victoria Australia	A\$4,252	Manufacture and sale of communica- tions equip- ment	100	5	2	-	Sales of parent com- pany prod- ucts and purchase of communica- tions equip- ment parts from parent firm	

- (Notes)
1. Of the subsidiaries listed above, Shin Nippon Electric K.K., NEC America, Inc., NEC Electronics, U.S.A., Inc., fall into the category of specially designated subsidiaries.
  2. In the column "Degree of independence in decisions," the upper figures in parentheses indicate indirect equity and are internal figures.
  3. From 1 April 1983 both Sanei Measuring Instruments K.K. and Yonezawa Manufacturing K.K. changed their respective titles to Nippon Electric Sanei K.K. and Yonezawa Nippon Electric K.K.

## (2) Unattached Subsidiaries

Name	Location
Nippon Electric Information Service K.K.	Minato ku, Tokyo
Nichiden Products Distribution Center	" " "
Nippon Electric Software K.K.	" " "
Nichiden Welfare Service K.K.	" " "
Nippon Electric Radiowave Engineering K.K.	Yamato shi, Kanagawa
Nippon Electric Trading Activities K.K.	Minato ku, Tokyo
Nippon Electric Transmission Engineering K.K.	" " "
Nichiden Machine Industries K.K.	" " "
Kansai Nippon Electric Software K.K.	Osaka shi, Osaka
Nichiden Travel Service K.K.	Minato ku, Tokyo
Nippon Electric Communications System K.K.	" " "
Nippon Electric IC Micon System K.K.	Kawasaki shi, Kanagawa
Nippon Electric Telecom System K.K.	Minato ku, Tokyo
Nippon Electric Technical Information Systems Development K.K.	" " "
Nippon Electric Aerospace Systems K.K.	" " "
Chubu Nihon Electric Software K.K.	Nagoya shi, Aichi
Kyushu Nippon Electric Software K.K.	Fukuoka shi, Fukuoka
Nippon Electric Robot Engineering K.K.	Minato ku, Tokyo
Nichiden Overseas Engineering K.K.	" " "
Nippon Electric Design Center K.K.	" " "
Nippon Electric Mobile Wireless Service K.K.	" " "
Nippon Electric Postal Engineering K.K.	" " "
Nippon Electric Patent Technology Information Center K.K.	" " "
Nippon Electrical Cultural Center K.K.	" " "
Industrial System Research Center K.K.	" " "
Nippon Electric Overseas Market Development K.K.	" " "
Nippon Electric Cost Consulting K.K.	" " "
Nippon Electric Environmental Engineering K.K.	" " "
Nippon Electric Power Engineering K.K.	" " "
Nippon Electric Railway Communications Engineering K.K.	" " "

[continued]

[continuation of (2) Unattached Subsidiaries--page 2]

Name	Location
Nichiden Toshiba Information Systems K.K.	Minato ku, Tokyo
Nippon Electric Kanji Systems K.K.	" " "
Nippon Data Machine K.K.	Chofu shi, Tokyo
Takasago Seisakusho K.K.	Kawasaki shi, Kanagawa
Yasuhira Industries K.K.	Chofu shi, Tokyo
Asahi Elec. Machinery Ind.	Yamato shi, Kanagawa
Aviation System Service K.K.	Minato ku, Tokyo
Nippon Electric Printing K.K.	" " "
Nippon Precision Industries K.K.	Kawasaki shi, Kanagawa
Yokohama Information Processing Center	Yokohama shi, Kanagawa
Chugoku Calculation Center K.K.	Hiroshima shi, Hiroshima
Kumamoto Information Processing Center K.K.	Kumamoto shi, Kumamoto
Kanazawa Information Processing Center K.K.	Kanazawa shi, Ishikawa
Hokkaido NEC Products Sales K.K.	Sapporo shi, Hokkaido
Tohoku NEC Products Sales K.K.	Sendai shi, Miyagi
Chubu NEC Products Sales K.K.	Nagoya shi, Aichi
Shikoku NEC Products Sales K.K.	Takamatsu shi, Kagawa
Chugoku NEC Products Sales K.K.	Hiroshima shi, Hiroshima
Kyushu NEC Products Sales K.K.	Fukuoka shi, Fukuoka
Okinawa NEC Products Sales K.K.	Urazoe shi, Okinawa
Kochi NEC Products Sales K.K.	Kochi shi, Kochi
NEC Products Leasing K.K.	Meguro ku, Tokyo
Niihama NEC Electrical Sales K.K.	Niihama shi, Ehime
Osaka NEC Store K.K.	Osaka shi, Osaka
Nichiden Machinery K.K.	Kusatsu shi, Shiga
NEC Products Distribution Center K.K.	Kawasaki shi, Kanagawa
Nichiden Bussan K.K.	Osaka shi, Osaka
Nippon Electronic Light K.K.	Mizuguchi cho, Koga gun, Shiga
Kinki Analysis Center K.K.	Otsu shi, Shiga
NEC Products Service K.K.	Minato ku, Tokyo
Hamamatsu Shin Nichiden Sales K.K.	Hamamatsu shi, Shizuoka
NEC Yokohama Showroom K.K.	Yokohama shi, Kanagawa

[continued]

Name	Location
Nikko Industrial K.K.	Akishima shi, Tokyo
Fuji Industrial K.K.	Uenohara machi, Kita Toryuu gun, Yamanashi
Hiromae Aviation Electronics	Hiromae shi, Aomori
Niigata Seiwa Electric K.K.	Kojin mura, Kita-Uonuma gun, Niigata
Fujiya Kogei K.K.	Odawara shi, Kanagawa
Takasago Electronic Equipment Manufacturing K.K.	Tsuruoka shi, Yamagata
Miyagi Nichiden Business K.K.	Yamato machi, Kurokawa gun, Miyagi
ARS K.K.	Yokohama shi, Kanagawa
Yamanashi Avionics K.K.	Konishi cho, Naka Shima gun, Yamanashi
Sanei Cardio Sales K.K.	Utsunomiya shi, Tochigi
Sanei Measuring Utsunomiya Plant K.K.	" " "
Sanei Engineering K.K.	Mitaka shi, Tokyo
Sanei Medis K.K.	Kodaira shi, Tokyo
Sanei Tec K.K.	Osaka shi, Osaka
Sanei Cardio Chugoku Sales K.K.	Okayama shi, Okayama
Sanei Cardio Shikoku Sales K.K.	Takamatsu shi, Kagawa
Sanei Cardio Tokyo Sales K.K.	Shinjuku ku, Tokyo
Maisei Transportation K.K.	Yonezawa shi, Yamagata
Izumi Food Service K.K.	Minato ku, Tokyo
Nichiden Anelba Engineering K.K.	Fuchu shi, Tokyo
Shizuoka Nichiden Business K.K.	Takegawa shi, Shizuoka
Shin Nippon Living Service K.K.	Meguro ku, Tokyo
Nisshin Electronics K.K.	Yono shi, Saitama
NEC Information Systems Inc.	Lexington, Mass. U.S.A.
NEC Systems Laboratory Inc.	" " "
Z Marketing Co.	Santa Ana, Calif. U.S.A.
Ando Corporation	Sunnyvale, Calif. U.S.A.
NEC de Venezuela Compania Annonym	Caracas, Venezuela
NEC Argentina Socieda Annonyma	Buenos Aires, Argentina
NEC Ireland Ltd.	Ballivor, County Meath, Ireland

[continued]

[continuation of (2) Unattached Subsidiaries--page 4]

Name	Location
NEC Business Systems (Europe) Ltd.	London, UK
NEC Electronics (UK) Ltd	New Stevenston, UK
NEC Semiconductors (UK) Ltd	Livingston, UK
NEC Electronics (France) Societe Annonym	Boulogne, Billancourt, France
NEC Electronics (Europe) GmbH	Dusseldorf, West Germany
NEC Electronics (Germany) GmbH	" " "
NEC Home Electronics GmbH	Neuss, West Germany
NEC Electronics Italiana SRL	Milano, Italy
NEC Saudi Arabia Ltd	Riyadh, Saudi Arabia
NEC Information Systems Australia Proprietary Ltd.	St. Leonards, Australia
NEC Malaysia Sendorian Bahat	Kuala Langat, Selangor, Malaysia
NEC Computers Singapore Private Ltd	Singapore
NEC Singapore Private Ltd	Singapore
NEC Hong Kong Ltd	Hong Kong
Taiwan	Taipei, Taiwan

(Note) None of the above listed companies falls under the category of specially designated subsidiaries.

### 3. Items Relative to the Consolidated Financial Report

The consolidated financial report (in compliance with requirements in conjunction with issuance of stocks under U.S. securities regulations) will be compiled and will be submitted within 4 months of the end of the operational year.

## Fujitsu Ltd

Tokyo YUKASHOKEN HOKOKUSHO SORAN [SECURITIES REPORT, GENERAL SURVEY] in Japanese Vol [unknown]  
No 3, Mar 83 pp 3-16, 44, 45

## [Text] 7. Personal Histories of Officers and Numbers of Shares Held

Title and position	Name (Birthdate and address)	Personal history	Number of shares
Representative director, Chairman	Daiyu Kobayashi 13 June 1912 674 Jinda, Hakominami, Tagata gun, Shizuoka	1935 Mar Graduated Engr. Dept. Tokyo Univ. Apr Entered Fuji Electric Mfg. Co. Jul Transferred to this company 1964 Nov Director 1969 Nov Managing director 1972 May Senior managing director 1975 May Representative director, vice pres. 1976 Mar " " , president Jun Director, Fuji Electric Mfg Co. 1981 Jun Rep. Director, chairman (incumbent)	68,000
Representative director, President	Takuma Yamamoto 11 September 1925 1-7-17 Kami Takada, Nakano ku, Tokyo	1949 Mar Graduated 2d Engr. Dept. Tokyo Univ. Apr Entered company 1975 May Director 1976 Mar Managing director 1979 Mar Senior managing director 1981 Jun Representative director, president (incumbent)	32,000
Director, Vice president	Yuichiro Koide 14 January 1920 4-17-17 Kwadokita Komaeshi, Tokyo	1942 Sep Graduated Econ. Dept., Tokyo Univ. 1946 Jul Entered company 1972 May Director 1975 May Managing director 1978 Mar Senior managing director 1981 Jun Representative director, vice president (incumbent)	20,000
Senior managing director	Bunichi Oguchi 21 October 1921 54-5 Motoyoyogi cho, Saibuya ku, Tokyo	1943 Sep Graduated 1st Engr. Dept., Tokyo Univ. 1948 Sep Graduated Tokyo Univ. Graduate School Sep Entered Communications Ministry 1924 Jan Japan Telephone and Telegraph Public Corporation 1977 Jan Executive director of above 1979 Apr Advisor to the company Jun Senior managing director (incumbent)	12,000
Senior managing director	Kiyoshi Narita 26 February 1925 2262 Tomioka cho, Kanazawa ku, Yokohama	1944 Sep Graduated Fukushima Econ. Special School 1946 Jan Entered company 1975 May Director 1979 Mar Managing director 1981 Jun Senior managing director	12,000
Senior managing director	Shiro Yoshikawa 31 March 1924 474 Shimo Odanaka, Nakahara ku, Kawasaki shi	1948 Mar Graduated Tokyo Commercial College Apr Entered company 1975 May Director 1979 Mar Managing director 1981 Jun Senior managing director	12,000
Senior managing director	Shinji Yusufuku 29 November 1926 2-11-5 Mejiro dai, Hachioji Shi, Tokyo	1950 Mar Graduated 1st Engr. Dept., Tokyo Univ. 1953 Oct Entered company 1977 Jun Director 1980 Jun Managing director 1981 Jun Senior managing director	16,000

Title and position	Name (Birthdate and address)	Personal history	Number of shares
Senior managing director	Shoichi Ninomiya 1 May 1927 158 Tsukimidai, Hodogaya ku, Yokohama	1951 Mar Graduated 1st Engr. Dept., Tokyo Univ. Apr Entered company 1981 Jun Director 1982 May Managing director 1983 Jun Senior managing director	32,000
Managing director	Fusanosuke Kurosaki 2 September 1925 3-5 Taisha machi, Nashinomiya shi, Hyogo	1948 Mar Graduated Electrical Engr. Dept., Tokyo Univ. Apr Entered company 1976 Jun Director 1981 Jun Managing director	10,000
Managing director	Tsunahiko Hashimoto 28 March 1923	1946 Sep Graduated 2d Engr. Dept., Tokyo Univ. Oct Entered company 1977 Jun Director 1981 Jun Managing director	4,000
Managing director	Kazuo Watanabe 3 August 1924 2-7-38 Soda, Kita, Midori ku, Yokohama	1948 Mar Graduated Tokyo Commercial College Apr Entered company 1979 Jun Director 1981 Jun Managing director	16,000
Managing director	Rinzo Iwai 3 January 1926 1952 Tweed Court Saratoga, CA 95070	1947 Mar Graduated Tokyo Industrial College Entered company 1981 Jun Director 1983 Jun Managing director	8,000
Managing director	Heihachiro Iwai 27 December 1925 3-5-7 Kita Sakurazuka Toyonaka shi, Osaka	1948 Mar Graduated 1st Engr. Dept., Tokyo Univ. Apr Entered company 1981 Jun Director 1983 Jun Managing director	24,000
Managing director	Yusaku Onaga 14 October 1926 1-31-1 Shimizu, Suginami ku, Tokyo	1949 Mar Entered Commerce Ministry Sep Graduated Law Dept. Tokyo Univ. 1978 Jun Chief, Basic Industries Bureau, MITI 1980 Oct Vice chairman, New Energy Development Agency 1983 May Adviser to company Jun Managing director	5,000
Managing director	Akira Daikoku 3 January 1929 6-11-12 Komagome Toshima ku, Tokyo	1951 Mar Graduated Law Dept., Tokyo Univ. Apr Entered Dai Ichi Bank 1981 Jun Managing director of above bank 1982 Oct Director of above bank Dec Adviser to company 1983 Jun Managing director	2,000
Director	Kiyomon Inaba 5 March 1925 8-17-22 Ikuta, Tama ku, Kawasaki shi	1946 Sep Graduated 2d Engr. Dept., Tokyo Univ. Nov Entered company 1972 May Director Senior managing director of Fujitsu FANAC 1974 Feb Representative director, vice pres. of above 1975 May Representative director, president of above	3,000

Title and position	Name (Birthdate and address)	Personal history	Number of shares
Director	Teruhisa Shimizu 10 December 1925 3-42-7 Kugahara, Ota ku, Tokyo	1948 Mar Graduated Engr. Dept., Tokyo Univ. Apr Entered Fuji Electric Mfg. Co. 1976 Jan Managing director of above company Jun Director of company 1979 Jun Senior managing director of Fuji 1981 Jun Vice president of Fuji Electric Mfg. Co.	6,000
Director	Akira Mitsuzawa 5 July 1923 1-39-22 Sakura Shinmachi, Setagaya ku, Tokyo	1947 Sep Graduated Tokyo Commercial College Sep Entered company 1981 Jun Director	4,000
Director	Yonosyke Totsuka 3 January 1925 4857-26 Seya machi, Seya ku, Yokohama	1941 Mar Graduated Higher Tokyo Commercial Industrial School Apr Entered company 1981 Jun Director	1,000
Director	Masayoshi Oshiro 29 May 1928 1879-24 Kanamori, Machida shi, Tokyo	1952 Mar Graduated 1st Engr. Dept., Tokyo Univ. Apr Entered company 1982 Jun Director	5,000
Director	Mamoru Mitsugi 28 March 1930 4-944-1 Matsumi cho, Kanagawa ku, Yokohama	1953 Mar Graduated Electrical Engr. Dept., Tokyo Industrial College Apr Entered company 1982 Jun Director	11,000
Director	Yukimaro Kawatani 28 July 1926 1-9-18 Takadanobaba, Shinjuku ku, Tokyo	1953 Mar Graduated Econ. Dept., Keio Univ. Apr Entered company 1982 Jun Director	4,000
Director	Mikio Otsuki 17 June 1931 2940 Kansei, Miyamae ku, Kawasaki shi	1954 Mar Graduated Engr. Dept., Tokyo Univ. Apr Entered company 1982 Jun Director	2,000
Director	Michiharu Saigo 16 August 1924 1112 Shimoda machi, Kita ku, Yokohama	1947 Sep Graduated Mech. Engr. Dept., Tokyo Industrial College Sep Entered company 1983 Jun Director	4,000
Director	Sadao Inouye 14 September 1927 1-360 Kosugi cho, Naka- hara ku, Kawasaki shi	1951 Mar Graduated Engr. Dept., Keio Univ. Apr Entered company 1983 Jun Director	7,000
Director	Hiroyuki Ino 21 November 1931 1-13-16 Aya Nishi, Ayase shi, Kanagawa	1958 Oct Entered company 1959 Mar Graduated Physics Dept., Tokyo Science Univ. 1983 Jun Director	2,000

Title and position	Name (Birthdate and address)	Personal history	Number of
Regular auditor	Masashi Ueda 9 February 1929 5-43 Nakazawa cho, Asahi ku, Yokohama	1953 Mar Graduated Law Dept., Tokyo Univ. Apr Entered company 1981 Jun Deputy chief, Overseas Operations Hqs. 1983 Jun Auditor	4,000
Auditor	Masao Funabashi 3 May 1913 7-23-3 Seijo, Setagaya ku, Tokyo	1936 Mar Graduated Econ. Dept., Tokyo Univ. Apr Entered Furukawa Electric Mfg. Co. 1974 Nov President of above 1983 Jun Auditor of company Jun Chairman of Furukawa Electric Mfg. Co.	0
Auditor	Fukushige Shishido 27 September 1913 3-25 Chihaya cho, Toshima ku, Tokyo	1923 Mar Graduated Kobe Commercial College Apr Entered Dai Ichi Bank 1963 Feb Entered Fuji Electric Mfg. Co. 1965 Nov Auditor of company President of Fuji Electric Mfg. Co. 1981 Jun Representative director, chairman of Fuji Electric Mfg. Co. Jun Chairman of Fuji Electric Mfg. Co.	9,000
Auditor	Takahira Takashima 28 March 1919 5-25-8 Miyamae, Suginami ku, Tokyo	1941 Mar Graduated Commercial Dept., Waseda Univ. May Entered Teikoku Life Ins. Co. 1975 May President of above company 1983 Jun Auditor of company	2,000
Total 30	Directors 26 Auditors 4		337,000

#### 8. Status of Employees

##### (1) Number of Employees, Average Age, Average Years Employed and Average Monthly Earnings

Breakdown	Office, technical work			Skilled work			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Number of employees	20,476	3,837	24,313	6,611	6,348	12,959	27,087	10,185	37,272
Age	33.2	25.2	31.9	33.0	25.8	29.4	33.1	25.5	31.0
Average Years employed	11.6	4.8	10.6	12.8	6.5	9.7	11.9	5.8	10.3
Monthly earnings (yen)	299,101	141,047	274,385	241,939	146,503	195,302	285,148	144,455	246,897

(Note) The average monthly earnings are for March 1983 and include taxes but excludes bonuses and other nonregular payments.

##### (2) Labor Union Situation

The Fuji Labor Union was formed in December 1945. At present it is affiliated with the All Japan Electrical Equipment Labor Union as a single body representing the central and branch offices of the enterprise. There are approximately 34,500 labor union members. The union is in a very healthy state and the labor management relationship is very good.

## No 2. Summary of Operations

### 1. Objectives of the Company and Substance of Operations

#### (1) Objectives of the Company

The activities cited in each of the items below represent the objectives of this company.

- 1) Manufacture and sales of communications equipment and facilities.
- 2) Manufacture and sales of electronics equipment and facilities.
- 3) Manufacture and sales of medical equipment and measuring equipment.
- 4) Manufacture and sales of all types of equipment and facilities and parts which are incidental to or are of the same type as any or all of the above.
- 5) Contracting for construction work related to any of the above items.
- 6) Preparation and sales of software.
- 7) All activities which are incidental to or are related to any of the above items.

#### (2) Substance of Operations

##### (a) Substance of operations and products

This company is a general communications and electronics manufacturer. In addition to the manufacture and sales, and facilities construction for telephone exchanges, transmission facilities, electronic calculators, information processing equipment, data communications equipment based on general communications and electronics technology, the company also manufactures and sells all types of electronic parts based on the technology of the above equipment.

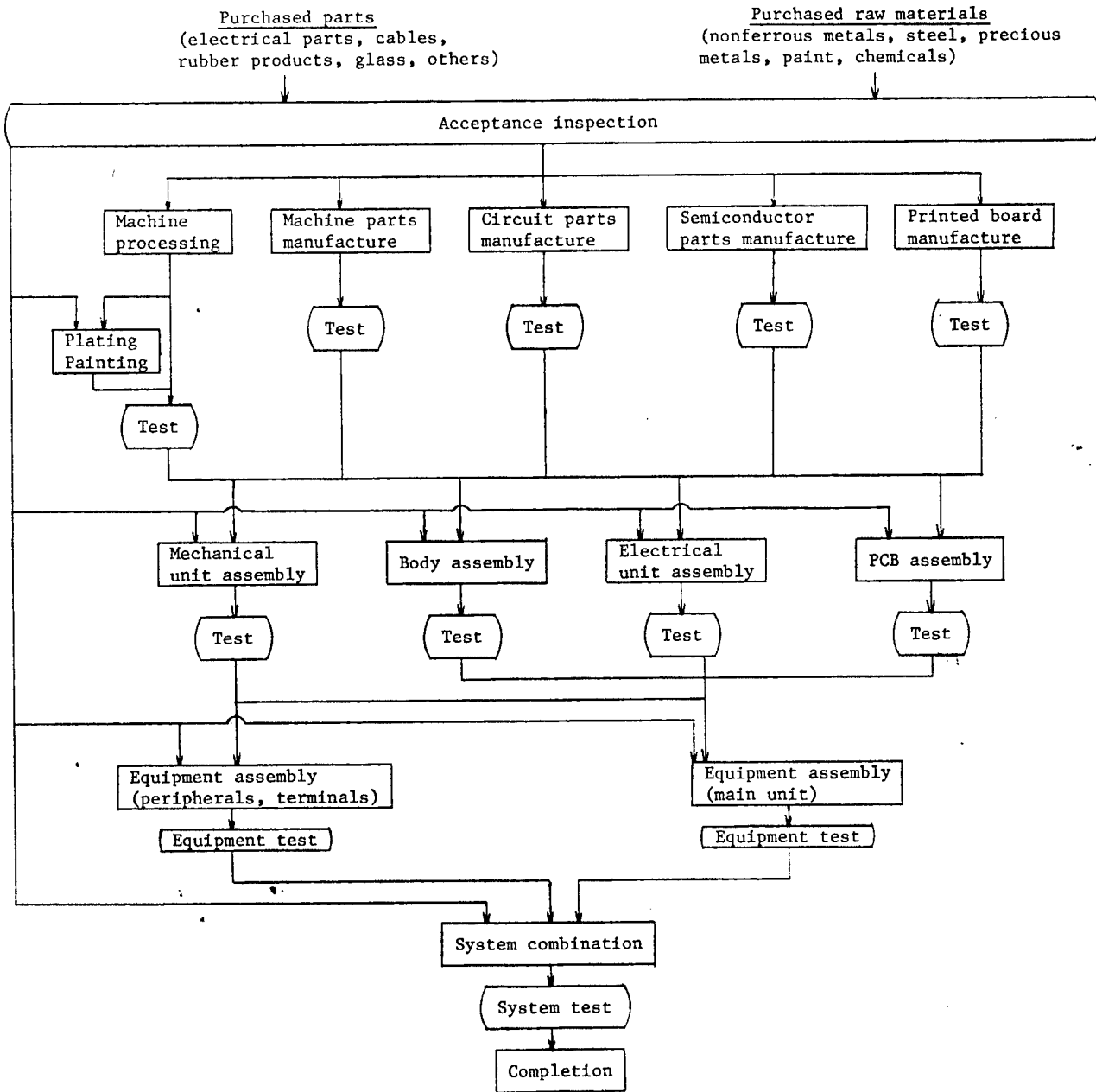
This company has the capability in both electronics and in communications fields and, because it is engaged in the production of both parts and complete equipment, they are able to respond to various requirements comprehending large scale total information processing systems, production control systems and automation systems. The following depicts the major products of the company.

Equipment type	Details of major products	Production ratio (April 82- March 83) (percent)
Communications equipment	Telephone exchange equipment	16.1
	Telephones and home telephones	
	Transmission equipment	
	Space electronics equipment	
	Specialty equipment	
	Application equipment	
Information processing equipment	Electronic calculators	67.7
	Peripherals	
	Terminals	
	Application equipment	
	Facsimile equipment	
Electronic parts*	* Semiconductor, integrated circuits, microcomputers, personal computers, circuit parts, mechanical parts, bubble memories, hybrid display parts.	16.2
<b>Total</b>		<b>100</b>

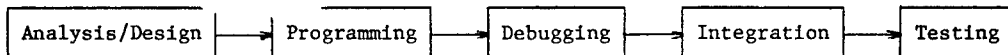
Products by: factories :	Plant	Equipment
Products by: factories :	Iwate Plant	Electronic parts
	Aizu Plant	Electronic parts
	Kanuma Plant	Communications equipment (parts)
		Information processing equipment (facsimile equipment)
	Koyama Plant	Communications equipment (telephone exchanges, telephones, home telephones, transmission and applied equipment)
	Nasu Plant	Communications equipment (wireless, space electronics equipment)
	Kumagaya Plant	Information processing equipment (peripherals)
	Minami Tama Plant	Information processing equipment (terminals)
	Kawasaki Plant	Information processing equipment (peripherals, applied equipment, electronic parts)
	Numazu Plant	Information processing equipment (electronic calculators)
	Nagano Plant	Information processing equipment (electronic calculators, peripherals)
	Suzuka Plant	Electronic parts
	Akashi Plant	Communications equipment (wireless and special equipment)
		Information processing equipment (peripherals, applied equipment, electronic parts)

(b) Production Diagram (Information Processing Equipment)

(Hardware)



(Software)



(Note) This company mainly produces communications equipment, information processing equipment and electronic parts. All three aspects are different in nature. The above shows the production diagram for the information processing system equipment which is the high volume work of the company.

(3) Changes in Substances of Operations

Nothing to note.

## 2. Important Contracts Affecting Management

Technical assistance contracts.

The major technical contracts entered into by the company are as follows:

Counterpart	Contract item	Details of contract	Contract period
West Germany Siemens	Transmission equipment	Parent rights exchange	1 January 1979- 31 December 1985
	Software	Provision of know-how	21 August 1978- 20 November 1984
United States Westinghouse Co., Inc.	Central exchange system, data processing system, electrical transmission system, semiconductor equipment, etc.	Patent rights exchange	1 June 1981 through period patent rights valid
United States IBM Corp.	Information processing system	" " "	1 January 1981 through period patent rights valid
United States Amdhal Corp.	Information processing system	Patents and know-how exchange	8 April 1977 through period patent rights valid
	Information processing system and semiconductor facilities	" " " "	24 November 1978 through period patent rights valid
United States International Computers, Ltd	Information processing system	Provision of know-how	7 December 1981- 31 December 1986
	Software	" " "	7 December 1981- 31 December 1988
United States Fairchild Camera & Instruments Corp.	Semiconductor facilities and integrated circuits	Patent rights exchange	13 March 1981- 12 March 1986
United States Texas Instruments Inc.	Semiconductor facilities and integrated circuits	" " "	31 October 1979- 31 December 1983
	Forward looking infra-red detector equipment	Know-how purchase	24 September 1982- 31 December 1989
United States RCA Corp.	Semiconductor facilities	Patent rights import	1 January 1983- 31 December 1987
United States Ampex Corp.	Magnetic tape facilities	" " "	8 January 1976 during period patent rights valid
United States University Patents, Inc.	Gas injection display and memory equipment	" " "	1 January 1983- 31 December 1987
United States Intel Corp.	Semiconductor equipment	Patent rights exchange	12 January 1979- 11 January 1999
United States Data Graphics Inc.	Strategic display equipment	Import of know-how	16 March 1983- 31 December 1989
United States Shell Oil Co.	Semiconductor equipment	Patent rights import	28 March 1980 during period patent rights valid
United States Burroughs Corp.	Semiconductor equipment	" " "	22 April 1981- 31 December 1983
United States Standard Micro- systems Corp.	Semiconductor equipment	Patent rights exchange	25 December 1981 during period patent rights valid

[continued]

Counterpart	Contract item	Details of contract	Contract period
(continuation)			
Netherlands N.V. Phillips	Semiconductor equipment	Patent rights exchange	10 February 1982 during period patent rights valid
United States Motorola Inc.	Semiconductor equipment	Patent rights exchange	30 November 1982- 31 December 1986

### No 3. Status of Operations

#### 1. General Situation

Our country's economy, during this period, progressed under a very serious condition due to the lack of movement in domestic demand and the inability of the exports market to expand. However, our company, in order to respond to the rapid progress of electronics in society took very positive measures in all sectors within the company which resulted in orders of 868.8 billion yen (16 percent increase over the previous period), sales of 806.7 billion yen (20 percent increase over the previous period) and a profit of 37.5 billion yen (64 percent increase over the previous period).

With regard to communications equipment, we developed a very active sales effort centered on digital electronics exchanges, personal computer telephones, electronic conference systems, and light data highway systems in order to respond to new information communications systems and the digitalization of communications.

With regard to information processing equipment, the general purpose high performance computer, the FACOM M-300 series and office computers, terminals, and Japanese word processors which will bring to reality a new information processing system, showed good results based on very active interests in the form of orders.

With regard to electronic parts, there has been a sudden expansion of demand for industrial electronics. Our company, while developing state of the art new products on the one hand, continued to concentrate on expanding our volume production structure so we were able to meet the continuing demand and we saw both orders and sales make great advances.

In terms of overseas activities, we had great successes in electronic exchanges, submarine coaxial transmission cables, computers and electronic parts and the overseas sector for the period developed 23 percent of all sales.

#### 2. Production Capacity

This company's production line is varied and comprehensive and even with respect to similar items, the quantity, structure and type are not identical. The company does not produce one item per plant and production is done in parallel at various plants so it is very difficult to determine production capacity.

Therefore, a depiction of production plans is shown below:

Equipment type	Period	(Monetary unit: 1 million yen)			
		82d period (1 April 1981-31 March 1982)		83d period (1 April 1982-31 March 1983)	
		Production	Monthly average	Production	Monthly average
Communications equipment		112,200	9,350	117,700	9,800
Information processing equipment		404,100	33,670	496,300	41,350
Electronic parts		95,500	7,960	121,100	10,100
Total		611,800	50,980	735,100	61,250

(Note) Values are based on standard sales prices and do not include items purchased.

### 3. Actual Production

#### (1) Actual Production for the Past Two Operational Years

(Monetary unit: 1 million yen)

Period	82d period (1 April 1981-31 March 1982)			83d period (1 April 1982-31 March 1983)		
	Production	Monthly average	Percent of production goals met	Production	Monthly average	Percent of production goals met
Equipment						
Communications equipment	108,814	9,068	97.0	114,563	9,546	97.3
Information processing equipment	407,945	33,996	101.0	482,710	40,225	97.3
Electronic parts	94,395	7,866	98.8	115,903	9,658	95.7
Total	611,154	50,930	99.9	713,177	59,431	97.0

(Note) Values are based on standard sales prices and do not include items purchased.

#### (2) External Orders

External orders are broken down into external fabrication orders and parts purchases. As for external fabrication orders, these include sheet metal work, pressing and molded parts. Parts purchases include semiconductors, printed circuit boards, memory units, electrical sources. During the 82d period, external orders for fabrication and parts amounted to 47 percent. In the 83d period it came to 48 percent.

#### (3) Major Raw Materials

##### (a) The situation on use of major raw materials during the recent 2 operational years

Raw material	Unit	Inventory as of end of March 1981	82d period (1 April 1981-31 March 1982)		Inventory as of end of March 1982	83d period (1 April 1982-31 March 1983)		Inventory as of end of March 1983
			Input amount	Used		Input amount	used	
Ordinary steel	t	311	2,735	2,739	307	3,253	3,250	310
Electromagnetic mild steel	t	43	258	256	45	289	291	43
Electric wire	t	96	508	507	97	488	487	98
Brass materials	t	38	184	181	41	180	178	43
Nickel material	t	41	76	75	42	75	72	45
Aluminum	t	32	309	307	34	328	331	31
Printed board materials	t	29	472	469	32	537	536	33
Precious metals	kg	476	7,800	7,798	478	7,640	7,643	475
Specialty metals	kg	18,564	48,000	47,842	18,722	37,600	37,650	18,672

##### (b) The trend of prices for purchases of major raw materials

(Unit: yen)

Raw material	Name of item	Specifications	Unit	Prices	
				31 March 1982	31 March 1983
Ordinary steel	Cold rolled steel plate	2 mm	kg	102.30	107.50
Electromagnetic mild steel	Electromagnetic mild steel plate	1 mm	kg	397.00	405.00
Electric wire	Polyurethane copper wire	0.19 mmφ	kg	816.00	798.00
	Tefzel (ETFE) wire	0.254mmφ	m	6.00	6.00
Brass material	Brass plate	0.5 mm	kg	580.00	573.00
Nickel material	Nickel plate	0.5 mm	kg	1,610.00	1,417.00
Aluminum	Aluminum plate	1 mm	kg	850.00	779.00
Printed board materials	Epoxy printed boards	0.5 mm	m <sup>2</sup>	9,525.00	8,376.00
Precious metals	Silver palladium contacts	Agpd-1	g	924.50	1,111.00
Specialty metals	Cobalt plate	0.5 mm	kg	4,500.00	3,730.00

#### 4. Orders Situation and Production Plan

##### (1) Orders Situation

The status of orders received and orders balances for the recent 2 operational years is as follows:

(Monetary unit: 1 million yen)

Period	82d period (1 April 1981-31 March 1982)		83d period (1 April 1982-31 March 1983)	
	Orders received	Orders balance	Orders received	Orders balance
Equipment				
Communications equipment	156,678	74,434	154,272	74,751
Information processing equipment	492,155	487,194	591,832	544,412
Electronic parts	100,280	23,913	122,784	24,868
Total	749,113	585,541	868,888	644,031

(Note) The amount of exports within the orders received is 21.2 percent for the 82d period and 21.0 percent for the 83d period. The major export areas were North America, Europe and Southeast Asia. The major items ordered for export were electronic exchanges, submarine coaxial transmission cables, electronic calculators and electronic parts.

##### (2) Production Plan

Production plans for the 6 months period following 1 April 1983 are as follows:

(Monetary unit: 1 million yen)

By quarters	April-June 1983		July-September 1983		Total	
	Production	Monthly average	Production	Monthly average	Production	Monthly average
Equipment						
Communications equipment	26,800	8,900	31,700	10,600	58,500	9,800
Information processing equipment	125,400	41,800	129,200	43,000	254,600	42,400
Electronic parts	32,800	10,900	35,400	11,800	68,200	11,400
Total	185,000	61,600	196,300	65,400	381,300	63,600

(Note) Values are based on standard sales prices as of end of March 1983 and do not include purchased goods.

#### 5. Actual Sales

##### (1) Sales Method

This company conducts most of its sales directly with customers based on their specifications. A portion of the sales is conducted through contract agencies and related companies.

A portion of the electronic calculators are sold by the company to the Electronic Calculator Leasing Co. of the Japan Electronic Calculator Co. K.K. who in turn lease them out to customers.

##### (2) Sales

A comparison of sales for the past 2 operational years is shown below:

(Monetary unit: 1 million yen)

Period	82d period (1 April 1981-31 March 1982)		83d period (1 April 1982-31 March 1983)	
	Amount	Monthly average	Amount	Monthly average
Equipment				
Communications equipment	125,776	10,481	153,300	12,775
Information processing equipment	448,418	37,368	532,288	44,357
Electronic parts	96,886	8,074	121,180	10,098
Total	671,080	55,923	806,769	67,230

[Note on next page]

(Note) In the 82d period, exports accounted for 16.7 percent of total sales and 23.4 percent in the 83d period. Major areas of exports were North America, Europe and Southeast Asia. Major export items were electronic exchanges, submarine coaxial transmission cables, electronic calculators and electronic parts.

(3) Trend of Sales Prices of Major Products

(Unit: 1,000 yen)

Product	End of March 1982	End of March 1983
Electronic automatic exchange (small volume)	2,600	2,600
TF-120 AS type wireless transmission facility	25,000	25,000
F 15 M-541 type simple wireless equipment	200	200
FACOM VP-200 electronic calculator facility	--	3,040,000
" M-380 " " "	2,640,000	2,640,000
" M-360 " " "	--	792,000
" M-340 " " "	--	220,000
" M-310 " " "	--	57,000
" V-870 " " "	--	48,000
" V-850 " " "	46,000	38,000
" V-830 " " "	28,000	24,000
" system 80 Model 8 electronic calculator	--	8,800
" " " 4 " "	--	4,800
" " " 1 " "	--	2,000
" 2740 intelligent terminal	3,100	2,400
" FACT/FACT II automatic cash dispenser	9,500	8,500
" 2460 production information terminal	21,000	21,000

No 4. Status of Facilities

Facilities

Production Facilities

Fixed investments by various sectors and personnel distribution as of 31 March 1983 are shown below

Facility (Location)	Production item	Land area m <sup>2</sup>		Building area m <sup>2</sup>		Investment (millions of yen)				Personnel	
		Work	Housing	Work	Housing*	Land	Buildings	Machinery	Other		Total
Wate Plant Kanegasaki cho, 'anzawa gun, Iwate)	Electronic parts	170,908	0	34,675	13,067 ( 6,203)	1,494	6,121	15,074	2,965	25,655	1,092
Izu Plant (Aizu- akamatsu shi, 'ukushima)	Electronic parts	189,005	0	57,308	14,680 ( 4,622)	1,107	4,518	11,695	3,844	21,165	2,981
Koyama Plant 'Koyama shi, 'ochigi)	Communications equip. (telephone exchanges, telephones & home tele- phones, transmission equip. applied equip. parts). Information pro- cessing equip. (facsim- ile equip.)	184,195	27,894 ( 1,326)	128,897 ( 4,760)	21,695 ( 3,920)	676	2,400	3,194	3,329	9,600	3,556
Nasu Plant (Ota- ara shi, Tochigi)	Communications equip. (wireless equip., space electronics equip.)	172,194	12,455	10,357	5,327 ( 4,973)	1,250	428	96	524	2,299	336
Kumagaya Plant 'Kumagaya shi, 'aitama)	Information processing equipment (peripherals)	28,469 ( 1,290)	0	16,200	2,156 ( 2,156)	120	1,876	603	845	3,445	256
Inami Tama Plant (Inagi cho, Tokyo)	Information processing equipment (terminals)	32,296 ( 3,470)	31,541 ( 3,831)	45,482	9,598 ( 9,536)	255	1,133	643	2,277	4,309	1,995
Cawasaki Plant (Nakahara ku, Cawasaki shi)	Information processing equip. (peripherals, applied equip) Electronic parts	144,174 ( 7,855)	61,424 (10,826)	200,041 (28,111)	97,657 (57,449)	1,693	10,828	9,643	14,007	36,172	8,718
Numazu Plant (Numazu shi, Shizuoka)	Information processing equip. (Electronic calculators)	527,167	17,209 ( 1,253)	69,244 ( 763)	53,808 (25,593)	3,722	8,953	664	5,060	18,401	2,049
Nagano Plant (Nagano shi, Nagano)	" " & peripherals)	71,681	7,250	69,726 ( 3,706)	3,403 ( 2,772)	280	2,489	3,219	3,511	9,500	2,602
Suzaka Plant (Suzaka shi, Nagano)	Electronic parts	60,915 ( 1,570)	40,242 ( 5,260)	54,588 ( 257)	11,137 ( 3,068)	467	1,938	4,117	3,416	9,940	1,751
Akashi Plant, (Akashi shi, 'yogo)	Communications equip. (wire- less equip. Special equip. Info process. equip. (peripherals, applied equip.)	237,222	23,699	80,727 ( 3,292)	9,461 ( 530)	58	2,055	1,486	1,903	5,502	1,816
Main office, branches & others	Overall company supervision and sales work allocated to each work location	959,521 (23,991)	16,432 ( 1,025)	163,370 (81,385)	22,224 (15,647)	8,490	6,738	0	37,040	52,270	10,120
Total		2,777,747 ( 38,176)	238,146 (23,521)	930,615 (122,274)	264,213 (136,469)	19,618	49,482	50,437	78,727	198,265	37,272

Notes on next page]

- (Notes) 1. Figures in ( ) indicate borrowed from other areas and are internal numbers.  
 2. Invested capital is book value as of the end of the period. However, it excludes temporary payments against construction.  
 3. The Koyama plant figures include the Kanuma plant.  
 4. In capital "Buildings" are included attached facilities and "Others" indicate structural items, transport equipment, vehicles and tools.  
 5. This company, in addition to the Main Tokyo Office, maintains offices in Sapporo, Asahikawa, Aomori, Morioka, Sendai, Akita, Yamagata, Mito, Ibaraki, Sakura mura, Utsunomiya, Takasaki, Omiya, Chiba, Minato ku, Tokyo, Daito ku, Shinagawa ku, Shibuya ku, Toshima ku, Tachikawa, Yokohama, Kawasaki, Odawara, Niigata, Toyama, Kanazawa, Fukui, Kofu, Nagano, Gifu, Shizuoka, Hamamatsu, Nagoya, Tsu, Otsu, Kyoto, Osaka, Kobe, Himeji, Wakayama, Matsue, Okayama, Hiroshima, Ube, Takamatsu, Koshi, Kita Kyushu, Fukuoka, Nagasaki, Kumamoto, Oita, Miyazaki, Kagoshima and Naha. Orders are taken and sales are conducted in all of these offices.

(2) Machinery/Equipment by Plants (as of end of March 1983)

Area	(Unit: each)		
	Construction equipment	General machinery	Facility machinery
Iwate Plant	10	131	1,151
Aizu Plant	51	646	5,426
Koyama Plant	409	775	1,557
Nasu Plant	5	15	173
Kumagaya Plant	4	349	5
Minami Tama Plant	158	102	1,177
Kawasaki Plant	245	681	5,736
Numazu Plant	22	90	133
Nagano Plant	273	241	1,108
Suzaka Plant	229	900	2,044
Akashi Plant	405	595	1,695
Total	1,811	4,525	20,205

2. Construction of New Facilities, Important Expansion or Improvements or Plans for Such

The company, in order to respond to the rapid changes in new technology and trends in the market, is engaged in new product research and development, increase in production capacity, rationalization of production facilities, upgrading product quality and lowering costs through a program of expansion of facilities and updating their equipment.

The status of this activity and the status of their plans as of the end of March 1983 are shown below:

(Unit: Millions of yen)

Area	Budget amount	Expended through 31 Mar 1983	Anticipated payments		Start	Expected date of completion	Remarks
			1st half 1983	2d half 1983			
Communications equipment	6,240	--	2,700	3,540	Mar 83	Sep 84	Expansion of production and research facilities for electronic telephone exchanges, transmission equip. and wireless equipment
Information processing equipment	52,250	2,020	19,900	30,630	Oct 82	Jul 83	Expansion of production and research facilities for computers, peripherals and terminals
Electronic parts	58,440	340	21,200	36,900	Jan 83	Sep 84	Expansion of production and research facilities for semiconductor parts, display parts, circuit parts and machinery parts
Others	13,430	7,780	1,700	3,950	Nov 81	Mar 85	Expansion of environmental management facilities and welfare facilities
Total	130,660	10,140	45,500	75,020			

[Notes on next page]

- (Notes)
1. In conjunction with the above plans, the funds that will be required in the future are expected to be met with funds from the receipt of funds for company debentures in February amounting to 28,986,000,000 yen and 91,534,000,000 yen of cash on hand.
  2. It is expected that the present production capacity will be increased by 16 percent as of the time the above plan is completed.

3. Sale, Withdrawal or Loss of Fixed Assets

There were no applicable sales, withdrawals or losses.

No 6. Items Pertaining to the Parent Company and Subsidiaries

1. Items Relative to the Parent Company

There are no relevant items.

2. Items Relative to the Subsidiaries

(1) Connected Subsidiaries

(As of 31 March 1983)

Name (location)	Capital in millions	Details of operation	Degree of subsidi- ary's in- dependence (percent)	Details of relationship
Fujitsu Research Center K.K. Sawasaki shi, Kanagawa	2,000	Research and development re: communications and electronics	100	Basic research on communications- electronics. Funding assistance in form of equipment funds. 6 dispatched officers (6 from this company)
Fuji Electric Science K.K. Minato ku, Tokyo	1,979	Manufacture and sales of batteries and electrical materials	51.8	Manufacture of parts of this com- pany's computers. 3 dispatched officers (2 from this company)
Fujitsu Ten K.K. Kobe shi, Hyogo	1,300	Manufacture and sales of electrical and electronic equipment.	55.0	2 dispatched officers (2 from this company)
Shinko Electric Industries K.K. Nagano shi, Nagano	1,188	Manufacture and sales of all types of electric light bulbs, vacuum tubes, com- munications and electronics equipment	70.9	Manufacture of this company's electronic parts. 3 dispatched officers (1 from this company)
Kurosawa Communications Industries K.K. Inagi shi, Tokyo	750	Manufacture and sales of terminals	92.5	Manufacture of this company's terminals 4 dispatched officers (1 from this company)
Usak Electronics Industries K.K. Unoki cho, Kawakita gun, Ishikawa	480	Manufacture and sales of computers and related equipment	51	Manufacture of this company's small-sized computers 6 dispatched officers (1 from this company)
Fujitsu Electric Construction K.K. Kawasaki shi, Kanagawa	460	Manufacture and sales of communications and electronics equipment	67.4	Manufacture of parts for this com- pany's communications equipment and computers 2 dispatched officers (no officers from this company)
Kagoshima Fujitsu K.K. Irikita cho, Satsuma gun, Kagoshima	450	Manufacture of electrical parts	100	Manufacture of electronic parts for this company. Funding assis- tance in form of facilities fund. 4 dispatched officers (1 from this company)
Fujitsu Kasei K.K. Yokohama shi, Kanagawa	300	Fabrication of synthetic resins	100	Manufacture of molded plastic parts for this company's com- munications and computer equip- ment. 2 dispatched officers (no officers from this company)
Fujitsu Mechanical Electrical K.K. Inagi shi, Tokyo	240	Manufacture and sales of communications and elec- tronics equipment	100	Manufacture of this company's heavy electronic parts. 3 dispatched officers (1 from this company)

[continued]

[continuation of (1) Connected Subsidiaries--page 2]

Name (location)	Capital in millions	Details of operation	Degree of subsidi- ary's in- dependence (percent)	Details of relationship
Hasegawa Electrical Mfg. Co. K.K. Shinagawa ku, Tokyo	240	Manufacture and sales of communications and elec- tronics equipment	55	Manufacture of this company's ex- changes and telephones 3 dispatched officers (no officers from this company)
Fujitsu Parts K.K. Shinanomachi, Josuinai gun, Nagano	100	Manufacture and sales of communications and elec- tronics equipment and their parts	80	Manufacture of this company's electronics parts 3 dispatched officers (no officers from this company)
Fujitsu FIB K.K. Minato ku, Tokyo	480	Development and sales of software, computer cal- culations contracting	100	4 dispatched officers (3 officers from this company)
Fujitsu Systems Research K.K. Kawasaki shi, Kanagawa	500	Research and development re: communications and electronics equipment and software	100	Consignment of research and devel- opment concerning communications and electronics equipment and software 12 dispatched officers (7 from this company)
Fujitsu Office Equipment K.K. Minato ku, Tokyo	300	Sales of communications and electronics office equipment and software	100	Sales of this company's office automation equipment. Funding assistance in form of operating funds 7 dispatched officers (3 from this company)
Fujitsu Industrial K.K. Shinjuku ku, Tokyo	200	Sales, construction, main- tenance of communications and electronics equipment	100	Sales, construction and mainte- nance of this company's products 4 dispatched officers (1 from this company)
Fujitsu Parts Trading Co. K.K. Shibuya ku, Tokyo	88	Sales of communications and electronics equipment parts	90	Sales of this company's electron- ic parts. 5 dispatched officers (no officers from this company)
Fujitsu Real Estate Kawasaki shi, Kanagawa	100	Real estate sales, housing construction, operation of food and retail sales outlets	100	A welfare activity of this com- pany for its personnel 4 dispatched officers (2 from this company)
Fujitsu America Inc. California, U.S.A.	US\$37.53 million	Import, sales of communica- tions and electronics equip- ment. Investigations and research	100	Sales of this company's communica- tions and electronics equipment and parts. Consignments for in- vestigations and research 7 dispatched officers (3 from this company)
Fujitsu Microelec- tronics Inc. California, U.S.A.	US\$15 million	Manufacture and sales of electronics parts	100	Sales of this company's electron- ics parts. Funding assistance in form of operating funds 5 dispatched officers (1 from this company)

- (Notes) 1. In the Fujitsu Kasei K.K.'s degree of independence in decision making, 4.2 percent of indirect equity of Fujitsu Mechanical Electrical K.K. is included.
2. In the above list of subsidiaries, Fujitsu America, Inc. falls under the category of specially designated subsidiaries.

## (2) Unattached Subsidiaries

(as of 31 March 1983)

Name	Location
Fujitsu Automation K.K.	Kawasaki shi, Kanagawa
Fujitsu Miyagi Electronics	Murata cho, Shibata gun, Miyagi
Fujitsu Sinter K.K.	Kawasaki shi, Kanagawa
Fujitsu Tohoku Electronics	Aizu Wakamatsu shi, Fukushima
Shoei Electronics Ind. K.K.	Suzaka shi, Nagano
Fujitsu First Engineering Systems K.K.	Minato ku, Tokyo
Fujitsu Products Systems Engineering K.K.	Minato ku, Tokyo
Fujitsu Kansai Systems Engineering K.K.	Osaka shi, Osaka
Fujitsu Tokai Systems Engineering K.K.	Nagoya shi, Aichi
Fujitsu Financial Systems Engineering K.K.	Ota ku, Tokyo
Fujitsu Tohoku Systems Engineering K.K.	Sendai shi, Miyagi
B.S.C. K.K.	Ota ku, Tokyo
Fujitsu Social Science Laboratory K.K.	Shinagawa ku, Tokyo
Fujitsi Keiyo Systems Engineering K.K.	Chiba shi, Chiba
Okinawa Fujitsu Systems Engineering K.K.	Naha shi, Okinawa
Fujitsu Kyushu Systems Engineering K.K.	Fukuoka shi, Fukuoka
Fujitsu South Kyushu Systems Engineering K.K.	Kumamoto shi, Kumamoto
Fujitsu Oita Software Laboratory K.K.	Oita shi, Oita
Fujitsu Technosystems K.K.	Ota ku, Tokyo
Fujitsu Mycon Systems K.K.	Kawasaki shi, Kanagawa
Fujitsu First Communications Software K.K.	Kawasaki shi, Kanagawa
Takamatsu Calculation Center	Takamatsu shi, Kagawa
Kyoto Calculation Center K.K.	Kyoto shi, Kyoto
Fujitsu Supply K.K.	Minato ku, Tokyo
Totalizator Engineering K.K.	Minato ku, Tokyo
Fujitsu International Engineering K.K.	Kawasaki shi, Kanagawa
Gumma Fujitsu K.K.	Inagi shi, Tokyo
Tokai Electrical Construction Ind. K.K.	Bunkyo ku, Tokyo
Fujitsu Applico K.K.	Kawasaki shi, Kanagawa
O A Systems K.K.	Shinagawa ku, Tokyo

[continued]

[continuation of (2) Unattached Subsidiaries--page 2]

Name	Location
Fujitsu Management Training Center K.K.	Ota ku, Tokyo
Technoresearch K.K.	Kawasaki shi, Kanagawa
Showa Trading K.K.	Chiyoda ku, Tokyo
FACOM Korea Ltd	Seoul, S. Korea
FACOM do Brasil Ltda	Sao Palo, Brazil
Fujitsu Espana, S.A.	Madrid, Spain
Fujitsu Argentina S.A. Industrial y Comercial	Buenos Aires, Argentina
FACOM Vitoria Computadores e Servicos Limitada	Espirito Santo, Brazil
FACOM Australia Ltd	Sydney, Australia
Fujitsu (Singapore) PTE, Ltd	Jurong, Singapore
Fujitsu Microelectronics Ireland Ltd	Dublin, Ireland
FACOM Australia Finance Pty Ltd	Sydney, Australia
American Telecom Ltd	California, U.S.A.
Fujitsu Mikroelektronik GmbH	Frankfurt, West Germany
Fujitsu Europe Ltd	London, Great Britain
Fujitsu de Colombia Ltda	Bogota, Colombia
Iwaki Electronics K.K.	Iwaki shi, Fukushima
Iwaki Alloys K.K.	Iwaki shi, Fukushima
Fuji Electro-Environment Center K.K.	Shionishi shi, Shizuoka
Fuji Service K.K.	Shionishi shi, Shizuoka
Tetra Electronic Parts K.K.	Ota ku, Tokyo
FEC Singapore Ltd.	Jurong, Singapore
FEC California Inc.	California, U.S.A.
Fuji Electronics Inc, Ltd	Taipei, Taiwan
Nakatsugawa TEN K.K.	Nakatsugawa shi, Gifu
TEN Onkyo K.K.	Koyama shi, Tochigi
TEN Kinki Sales K.K.	Kobe shi, Hyogo
TEN Kanto Sales K.K.	Bunkyo ku, Tokyo
Fujitsu TEN (Europe) GmbH	Dusseldorf, West Germany
Fujitsu TEN Corp. of America	California, U.S.A.
Shinko Electric K.K.	Sapporo shi, Hokkaido
Toto Electronic Computer Service	Chiyoda ku, Tokyo

[continued]

[continuation of (2) Unattached Subsidiaries--page 3]

Name	Location
Tohoku Computer Science Service	Sendai shi, Miyagi
Ishikawa Electronics Ind. K.K.	Takamatsu cho, Kahoku gun, Ishikawa
Osaka Computer Service K.K.	Osaka shi, Osaka
Hokkaido Calculation Center	Sapporo shi, Hokkaido
Kowa Electric K.K.	Shimoyaka shi, Ibaraki
Furukawa Shinko Electric K.K.	Furukawa machi, Niigata
Shinko Parts K.K.	Nagano shi, Nagano
Shinko Electric America Inc.	California, U.S.A.
Kashihara Manufacturing K.K.	Josuina gun, Nagano
Mizoguchi Manufacturing K.K.	Josuina gun, Nagano
Tochiku FACOM Center K.K.	Minato ku, Tokyo
Kita Kyushu Data Center K.K.	Kita Kyushu shi, Fukuoka
F.D.C. K.K.	Minato ku, Tokyo
Fukushima FACOM Center K.K.	Koriyama shi, Fukushima
Kagoshima FACOM Center K.K.	Kagoshima shi, Kagoshima
Fujitsu Industrial K.K.	Chiyoda ku, Tokyo
Mori Electronics Mfg. K.K.	Sakae Mura, Nagano
Tsunan Electronics K.K.	Nakauonuma gun, Niigata
Daido Chubun	Taipei, Taiwan
The TRW-Fujitsu Co.	California, U.S.A.
Fujitsu Component Malaysia Sdn. Bhd	Johore, Malaysia
Fujitsu Component Europe B.V.	Weisp, Netherlands
Fujitsu Elektronik GmbH	Munich, West Germany
American Telecom, Inc.	California, U.S.A.
American Telecom Switching Systems	California, U.S.A.
FACOM NZ Holdings Ltd	Auckland, New Zealand
FACOM NZ Ltd	Auckland, New Zealand

(Note) None of the above listed companies falls under the category of specially designated subsidiaries.

3. Items Relative to the Consolidated Financial Report

A report will be made.