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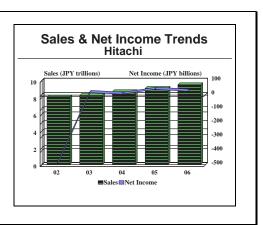
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# Hitachi Ltd - Archived 8/2007

## **Outlook**

- Hitachi posted sales for the year-end March 31, 2006, of JPY9,464 billion, an increase of 4.8 percent over 2005 sales of JPY9,027 billion
- Net income for 2006 fell to JPY37.3 billion, compared to JPY51.5 billion in 2005
- Hitachi manufactures communications equipment, avionics, training and simulation equipment, and space systems



## Headquarters

Hitachi Ltd 6, Kanda-Surugadai 4-chome Chiyoda-ku

Tokyo 101-8010, Japan Telephone: +81 3 3258 1111 Fax: +81 3 3258 2507

Web site: http://www.hitachi.com

Hitachi Ltd, one of Japan's most prolific firms in terms of product range, was founded in 1910 by Namehei Odaira. Originally, it focused on electrical repairs for a copper mine operation, and Odaira's first product was a 5-horsepower electric motor — considerable power for its day.

Today, Hitachi is Japan's largest electric machinery manufacturer and one of the world's foremost producers

of electrical, electronic, and industrial goods. The Hitachi Group is an industrial group led by Hitachi Ltd. Hitachi Group companies are engaged in the manufacture and sales of electrical and electronic equipment, metals, metal products, machinery, and chemicals. The companies also engage in trading and transportation. Forming subsidiaries from within its divisions is the basic strategy of Hitachi Ltd. Many of the group companies are such offshoots, including the three major subsidiaries, Hitachi Chemical, Hitachi Metals, and Hitachi Cable.

In early 2006, the company employed a total of 355,879 personnel.

## **Structure and Personnel**

Etsuhiko Shoyama

Chairman

Kazuo Furukawa

President

Michiharu Nakamura

Executive Vice President and Executive Officer Hiroaki Nakanishi

Executive Vice President and Executive Officer Takashi Hatchoii

Executive Vice President and Executive Officer Takashi Miyoshi

Executive Vice President and Executive Officer Tadahiko Ishigaki

Senior Vice President and Executive Officer Kunihiko Ohnuma

Senior Vice President and Executive Officer Manabu Shinomoto

Senior Vice President and Executive Officer Taiji Hasegawa

Senior Vice President and Executive Officer Kazuhiro Mori

Senior Vice President and Executive Officer



Shozo Saito Senior Vice President and Executive Officer Junzo Kawakami Senior Vice President and Executive Officer Minoru Tsukada Senior Vice President and Executive Officer

### **Product Area**

Hitachi is Japan's largest comprehensive electric machinery manufacturer, although this is not its only product line. In the defense and aerospace markets, Hitachi manufactures communications equipment, avionics, training and simulation equipment, and space systems. Hitachi has six general areas of operations, managed as follows:

- 1. Information and Telecommunications Systems
- 2. Electronic Devices
- 3. Power and Industrial Systems
- 4. Digital Media and Consumer Products
- 5. High Functional Materials and Components
- 6. Logistics, Services, and Others

# Information and Telecommunications Systems. Products for this segment include computers, software

Products for this segment include computers, software, servers, mainframes, PCs, hard disk drives, and wireless communication base stations.

**Electronic Devices.** This segment produces semiconductors, memory chips, liquid crystal displays (LCDs), and medical electronics equipment. **Power and Industrial Systems.** This segment produces nuclear power plants, hydroelectric plants, thermal power plants, control equipment, automotive equipment, chemical plants, elevators, industrial robots, and rail vehicles.

**Digital Media and Consumer Products.** Hitachi's consumer products include television sets, VCRs, video cameras, air conditioners, washing machines, refrigerators, kitchen appliances, and batteries.

#### High Functional Materials and Components.

This segment handles production of electric wire and cable, copper products, optical fiber cable, special steels, synthetic resin materials and products, printed circuit boards, chemical products, and ceramic materials.

**Logistics, Services, and Other.** This final segment handles general trading, transportation, property management, printing, and financial services.

## **Facilities**

Hitachi Ltd, 6, Kanda-Surugadai 4-chome, Chiyoda-ku Tokyo 101-8010, Japan. Telephone: +81 3 3258 1111. Corporate headquarters.

Hitachi Chemical Co. Ltd, Head Office, Shinjuku-Mitsui Building, 1-1 Nishi-Shinjuku 2-chome, Shinjuku-ku, Tokyo 163-0449. Telephone: + 81 3 3346 3111.

Web site: http://www.hitachi-chem.co.jp

Hitachi Cable Ltd, Head Office, Otemachi Building, 6-1 Otemachi 1-chome, Chiyoda-ku, Tokyo 100-8166, Japan. Telephone: +81 3 3216 1611.

Web site: http://www.hitachi-cable.co.jp

Hitachi Metals Ltd, Head Office, SEAVANS North Building, 1-2-1, Shibaura, Minato-ku, Tokyo 105-8614. Telephone: +81 3 5765 4000.

Web site: http://www.hitachi-metals.co.jp

Hitachi America Ltd, 2000 Sierra Point Parkway, Brisbane, CA 94005-1835. Telephone: +1 (650) 589-8300. This address is the location of Hitachi's U.S. representative offices.

Web site: http://www.hitachi.us

## **Corporate Overview**

Hitachi, like many of its Japanese competitors, is a worldwide company. It operates subsidiary companies in almost every country in Europe, and has an extensive presence in North America. The company is also becoming involved in Eastern European and CIS markets. The company boasts 700+ subsidiaries

worldwide and a manufacturing output of over 20,000 products.

#### **New Products and Services**

No major aerospace or defense-related products or services were announced by Hitachi in the past year.

### **Plant Expansion/Organization Update**

Restructuring Plan II. In January 2003, Hitachi unveiled the next phase of its medium-term management strategy, dubbed "i.e.HITACHI Plan II" (the "i.e." stands for information electronics). This latest restructuring effort will see the company exit noncore operations while realigning its major businesses to be more competitive.

### Mergers/Acquisitions/Divestitures

No recent activity has been announced.

### **Teaming/Competition/Joint Ventures**

**Babcock-Hitachi KK.** Environmental protection is an area in which Hitachi is known to possess outstanding technology. Babcock-Hitachi KK, a wholly owned subsidiary, is working on the development of plants that remove SOx and NOx, both causes of acid rain, from boiler flue gas. Some 30 SOx removal plants have been delivered to customers in Japan, and over 100 NOx removal plants to customers in Japan and overseas. Hitachi also licenses the technology employed in both types of plants to overseas companies.

Web site: http://www.bhk.co.jp

Computer Sciences Corporation. In November 1999, Computer Sciences Corporation (CSC) and Hitachi Ltd formed a long-term strategic alliance to offer customers of Hitachi leading-edge information technology (IT) systems and services in Japan. Under the alliance, CSC and Hitachi will collaborate to provide IT systems and services incorporating "world-class business practices enabling customers to compete more effectively on a global basis." The alliance will primarily support large projects, such as those resulting from the mergers of financial institutions. CSC and Hitachi will take advantage of the synergetic effect of using both companies' IT technology and consulting capabilities to respond to customers' needs with comprehensive global solutions.

**GE.** In December 2001, GE Nuclear Energy and Hitachi extended their agreement for the development of advanced nuclear technology. The agreement continues for the next 10 years a relationship that dates back to 1967 and has been instrumental in the global development of safe, inexpensive, and environmentally friendly nuclear power. This new agreement leverages the strengths of the parties as equal partners. The companies said that this technology agreement represents a major step in ensuring that owners of boiling water reactor nuclear plants will continue to

have access to state-of-the-art technology for the safe and efficient operation of their plants.

Global Nuclear Fuel. In January 2000, General Electric, Hitachi Ltd, and Toshiba Corp jointly established Global Nuclear Fuel (GNF), an international nuclear fuel joint venture. The three companies have integrated their nuclear fuel marketing, design, development, and manufacturing functions into the new company, which established business bases in both Japan and the United States. Through the two subsidiaries, GNF will market, design, develop, and manufacture fuel for light water reactors.

Web site: http://www.gnf.com/

**IBM.** In April 2002, Hitachi and IBM announced plans to form a strategic business alliance to accelerate the delivery of advanced storage technologies and products to market. Under the terms of the preliminary agreement, the companies planned a multiyear alliance to research and develop new open standards-based technologies for next-generation storage networks, systems, and solutions. One of the first ventures to arise from this collaboration was Hitachi Global Storage Technologies. This stand-alone joint venture company combines the two firms' hard disk drive (HDD) operations into a single entity. Hitachi is believed to hold 70 percent of the joint venture and has made a payment to IBM for its HDD assets.

Web site: http://www.hitachigst.com

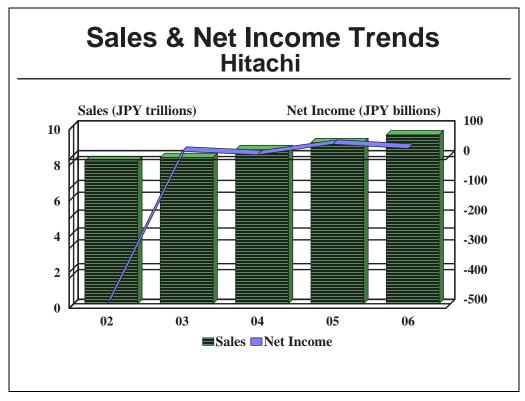
Rocket System Corporation (RSC). RSC was established in July 1990 as the first commercial launch service company in Japan, funded by 75 Japanese space-related companies. Since its foundation, RSC has developed marketing activities to provide launch services using the H-IIA launch vehicle developed by JAXA, the Japan Aerospace Exploration Agency (formerly NASDA), for customers such as Japanese government offices and worldwide spacecraft manufacturing and operating companies. In 2003, Japan decided to privatize the H-2A program to save costs, and Mitsubishi Heavy Industries assumed full responsibility for booster production and launch operations. Following this privatization, Rocket Systems Corporation was officially closed in March 2006.

Web site: http://www.rocketsystem.co.jp

## **Financial Results/Corporate Statistics**

Hitachi posted sales for the year-end March 31, 2006, of JPY9,464 billion, an increase of 4.8 percent over 2005 sales of JPY9,027 billion. Net income for 2006 fell to JPY37.3 billion, compared to JPY51.5 billion in 2005. The 2002 loss was due to a weak world market for IT products, a situation that was exacerbated by the terrorist attacks on 9/11. The U.S. dollar figure, in millions, is translated at the rate of USD1 = JPY117

| Y/E March 31   | 2002    | 2003    | 2004    | 2005    | 2006    | 2006  |
|----------------|---------|---------|---------|---------|---------|-------|
| (JPY millions) |         |         |         |         |         | USD   |
| Net Sales      | 7993784 | 8191752 | 8632450 | 9027043 | 9464801 | 80896 |
| Net Income     | -483837 | 27867   | 15876   | 51496   | 37320   | 319   |

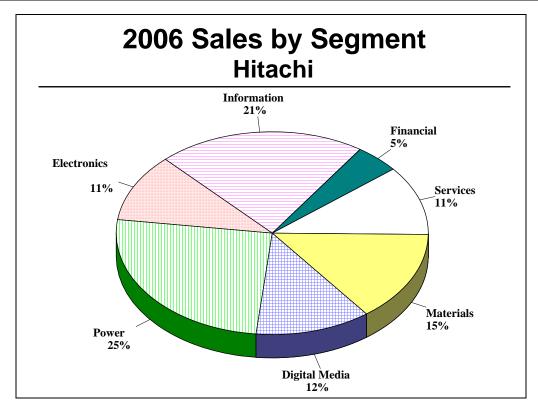


#### **Industry Segments**

A breakdown of Hitachi's sales and income by major market segment is provided below.

| SALES                               | 2002     | 2003     | 2004     | 2005     | 2006     |
|-------------------------------------|----------|----------|----------|----------|----------|
| (JPY millions)                      |          |          |          |          |          |
| Information and Telecommunication   | 1829661  | 1899651  | 2314552  | 2268386  | 2360956  |
| Electronic Devices                  | 1487200  | 1570069  | 1312380  | 1320177  | 1204407  |
| Power and Industrial Systems        | 2266895  | 2297068  | 2297913  | 2515366  | 2805169  |
| Digital Media and Consumer Products | 1170744  | 1205551  | 1226955  | 1280302  | 1305658  |
| Materials                           | 1250248  | 1248550  | 1297085  | 1504312  | 1600246  |
| Services and Other                  | 1430825  | 1449594  | 1256266  | 1248296  | 1214784  |
| Financial Services                  | 567138   | 579267   | 550982   | 529695   | 517975   |
| Eliminations                        | -2008927 | -2057998 | -1623683 | -1639491 | -1544394 |
| TOTAL                               | 7993784  | 8191752  | 8632450  | 9027043  | 9464801  |

| OPERATING INCOME                    | 2002    | 2003   | 2004   | 2005   | 2006   |
|-------------------------------------|---------|--------|--------|--------|--------|
| (JPY billions)                      |         |        |        |        |        |
| Information and Telecommunication   | 35757   | 110523 | 69932  | 67761  | 84687  |
| Electronic Devices                  | -163633 | -23242 | 30424  | 37017  | 20439  |
| Power and Industrial Systems        | 55004   | 53253  | 33933  | 73661  | 92552  |
| Digital Media and Consumer Products | -14675  | 6204   | 6951   | 8694   | -35771 |
| Materials                           | -22024  | 18301  | 46767  | 87514  | 110069 |
| Services and Other                  | 3257    | 10352  | 533    | 9808   | 19511  |
| Financial Services                  | 37403   | 12067  | 22388  | 31073  | 35001  |
| Eliminations                        | -48504  | -34491 | -26065 | -36473 | -70476 |
| TOTAL                               | -117415 | 152967 | 184863 | 279055 | 256012 |



## Strategic Outlook

Historically, it has always been Hitachi's policy to concentrate its activities on the global telecommunications and consumer electronics markets. Lately, however, the firm has entered into various aerospace and defense projects, including, most notably, its component work for major space systems throughout the world. Nevertheless, the majority of its revenue is derived from its involvement in commercial and business electronics markets.

As it looks to the future, Hitachi will continue to break into new markets in an attempt to retain a broad base of operations. Due to the company's high level of research and development, and its own efforts to match production rates to changing demands, the company is expected to remain one of the top 20 industrial firms in the world.

## **Prime Award Summary**

Information not available.



## **Program Activity**

**Business Interests.** Some important aerospace and defense programs currently under way at Hitachi are listed below. The following are the company's defense and aerospace business interests:

- Electronics Subcomponents
- Space Systems

### **Electronic Programs**

#### DE 1167/1191

This is a hull-mounted/variable-depth sonar used for the detection and tracking of enemy submarines. DE 1167 sonars provide smaller patrol vessels with an ASW capability previously found only aboard larger ships. The DE 1167/1191 Solid State Transmitter (SST) provides an upgrade capability for older SQS-23 sonars. The main platforms are considered to be frigates and destroyers. Raytheon is the prime contractor on this program. Hitachi holds a license for DE 1167 production in Japan.

### **Engine Programs**

Hitachi is involved in the General Electric Model 3000 program as a licensee. This program develops single-and two-shaft, axial-flow, simple-cycle and regenerative-cycle heavy-duty industrial and marine gas turbines.

Hitachi Ltd is also participating in the GE Model 5000 program. It is developing a single- and twin-shaft, simple-cycle, axial-flow, heavy-duty industrial design gas turbine. The Model 5000 is also referred to as the Frame 5; its GE designations are MS5001 (single-shaft) and MS5002 (twin-shaft).

Hitachi is involved with the General Electric/Nuovo Pignone Model 1002 two-shaft, axial-flow, heavy-duty industrial and marine gas turbine. Hitachi is a licensee of GE Power Generation, Schenectady, New York, and Nuovo Pignone SpA, Florence, Italy, for this gas turbine.

The company is also involved in the General Electric Model 6000 and 7000 programs. Both are single-shaft, simple-cycle, axial-flow, heavy-duty industrial gas turbine machines. The Model 6000, privately developed by GE and licensed to Hitachi, is also referred to as the Frame 6; its GE designation is MS6001. The Model 7000 is also referred to as the Frame 7; its GE designation is MS7001.

The General Electric Model 9000 is a simple- or combined-cycle, single-shaft, heavy-duty industrial gas turbine machine for 50 Hz operation. The Model 9000

is also referred to as the Frame 9; its GE designation is MS9001.

Hitachi also holds a license for the Nuovo Pignone PGT 10. This is a high-efficiency, two-shaft, axial-flow, industrial gas turbine machine.

Hitachi also manufactures the H-25, a single-shaft, high-efficiency, axial-flow, industrial gas turbine machine that has been developed privately. This gas turbine is designed for utility and industrial power generation, especially in cogeneration plants. Hitachi unveiled the H-25 in 1988. The Japanese firm is also developing a scale model of the machine.

Hitachi provides packaging for the General Electric LM 500 simple-cycle, two-shaft, axial-flow, free turbine aero-derivative industrial and marine gas turbine, licensed from GE Marine & Industrial Engines, Evendale, Ohio, USA, and Fiat Aviazione SpA (Fiat Avio), Turin, Italy.

### **Space System Programs**

#### **DigitalGlobe**

DigitalGlobe Inc (formerly EarthWatch) is a private provider of commercial remote-sensing satellite services. The EarthWatch system initially was to provide 3-meter digital imagery of Earth's surface, with 1-meter imagery to follow. After both systems were lost to launch failures, Ball Aerospace & Technologies Corp became the majority owner of EarthWatch. Additional partners and owners include Hitachi Ltd (operation of the Asian distribution gateway for EarthWatch products). Development of the WorldView satellite is proceeding on schedule for a launch in 2006. The U.S. National Geospatial Intelligence Agency ultimately helped DigitalGlobe build its nextgeneration, high-resolution satellite through the \$500 million NextView contract award in 2003. The satellite is designed to have a ground resolution of 50 centimeters, as specified by the NGA contract.

#### JEM

Hitachi's space ventures also include the Japanese Experiment Module (JEM), which includes a Pressurized Module, an Experiment Logistics Module, and an Exposed Facility for docking with the NASA space station. JEM, the Japanese contribution toward the space station program, will be optimized for scientific microgravity research in space and for Earth/astronomical observation missions.

Mitsubishi Heavy Industries Ltd is the lead company on the JEM program and is responsible for the module's

pressurized and supply portions. Other subcontractors include Ishikawajima-Harima Industries, Nissan Motor Co's Aeronautics and Space Division, Toshiba Corp's Space Station Program Division, Kawasaki Heavy Industries Ltd, Mitsubishi Electric Corp, and Hitachi Ltd. NEC Corp has formed a Space Station Division specifically relating to JEM R&D work.

The Japanese Preliminary Design Review of the JEM was completed in February 1992, and work began on the JEM prototype later that year.

The JEM facility will be launched in three parts, once the Space Shuttle resumes flight.

## **Unmanned Vehicle Programs**

#### J/AQM-2 and J/AQM-4

These are vertical takeoff and landing unmanned aerial vehicles. This program is known as the Forward Flying Observation System. The air vehicle will be built by the team of Fuji Heavy Industries, NEC, and Hitachi. Fuji Heavy Industries is responsible for the forward-looking infrared (FLIR) sensor, and NEC will develop an image processing system, while Hitachi will provide the vehicle's terrain reference system. Fuji will also develop an air vehicle recovery system.

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