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# GLOBAL ELECTRONICS INFORMATION NEWSLETTER

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## OFFSHORE OFFICE WORK

Advances in data communications, coupled with international pay differentials, have created an international division of labor in office work similar to the structure of the semiconductor industry. **Business Week** (March 15, 1982) reports that U.S. companies are contracting for "data entry" (what used to be the keypunch typing pool, but now is done on computer terminals) in the Caribbean and the Far East. **Business Week** cites a spokesman for Satellite Data Corp., which relays printed matter to St. Michaels, Barbados, via satellite. Low paid clerks there key the information into computers, and it is beamed back, via satellite, to New York. He says, "We can do the work in Barbados for less than it costs in New York to pay for the floor space."

PSC is interested in pursuing this subject. If you know of any similar operations, please contact us immediately.

## CONTROL DATA KOREA

About 100 Korean workers - almost all young women - held two officials of Control Data hostage for more than nine hours on June 3 when negotiations over the reinstatement of six union leaders reached an impasse. (See Issue No. 20.) Control data employs 300 people at its

Seoul assembly plant.

A 20% work slowdown, coupled with international pressure spearheaded by Christian activists, forced the company to offer a 19.9% wage increase on March 22. However, Control Data refused to re-instate six union activists who had been fired on March 13. The company contended that the six were not protected against dismissal because they were not union officers. However, they had been officers until the government decertified them in a December, 1980 "purification" campaign.

On May 31, Control Data sent two vice-presidents to Korea to settle the dispute, but the South Korean Ministry of Labor insisted that it determine the settlement. Unable to appease the union officials, the vice-presidents were held in the negotiating room by the workers for nine hours after they tried to leave at 5:30 p.m.

Police broke up the demonstration at 2:45 a.m. on June 4, and detained more than half the workers' for a short period of time. The dispute remains unresolved, and U.S. supporters of the Korean workers are requesting people to continue writing letters to both Control Data and the Ministry of Labor. (**Labor Letter No. 3**, June 8, 1981, from the North American Coalition for Human Rights in Korea, 110 Maryland Ave. NE, Washington, DC, 20002; **New York Times**, June 7, 1982)

## MOTOROLA AUTOMATES

Motorola, the world's second largest merchant producer of semiconductors, has announced plans to open a fully automated assembly facility at its new Chandler, Arizona site. **Electronics News** (April 26, 1982) reports that the company currently does a small amount of assembly in Austin, Texas, but the bulk of its assembly is done at two Malaysian locations and in South Korea. **Electronics News** quotes a Motorola spokesman who said that the company intends to continue to operate the Far Eastern plants at capacity.

## PUERTO RICO

Puerto Rico's Economic Development Administration (FOMENTO, Box 2350, San Juan, Puerto Rico, 00936) has made available a report on the island's electronic computing industry, in addition to the earlier report on electronics (see **Newsletter** no. 19).

Thirty-one of the 32 plants manufacturing computers and peripheral equipment in Puerto Rico are U.S.-owned. Applied Magnetics and Digital Equipment operate three plants each. ITT and Wang operate two each. In 1979 total employment reached 4,264. In 1981, Digital Equipment was the largest employer, with more than 1,000 employees. Qume ranked second with 500-1000 workers.

Puerto Rico is covered by the U.S. minimum wage, but the average hourly earnings for the industry as a whole are lower than the U.S. - in 1979 the average wage was \$4.01, compared to \$6.24 in the U.S. FOMENTO does not explain, but it is likely that the Puerto Rican average is lower because most jobs there are in assembly. FOMENTO reports that an assembler's pay ranges from \$3.95 to \$6.00 per hour.

The report lists each company, its parent firm, product line, and start-up date.

## INDIAN EXPORT ZONE

Despite a moderate increase in exports over the past seven years, several companies in India's Bombay-area Santa Cruz Electronics Export Processing Zone (SEEPZ) are having financial problems. Some have quit the zone, while others are switching product lines. At least ten ventures out of thirty-eight are no longer producing for export.

The most outstanding problem company is CGR India Ltd., an Indo-French joint venture. Set up about four years ago to produce X-ray equipment, it earned a satisfactory US\$5.5 million in its first three years. However, the French partner, Compagnie Generale Radiologie, pulled out in 1981. The Indian partner, Escorts Ltd. of New Delhi, is seeking a new product line that can utilize at least some of the X-ray manufacturing plant.

On the positive side, the SEEPZ administration lists 26 more companies which are planning to initiate operations in the zone, including Clarostat, Computer Automation and Burroughs from the U.S., Sony from Japan, Peerless Fabrikkerene from Denmark, and Systime Ltd. of Britain.

Though SEEPZ was established in a Bombay suburb in May, 1973, exports did not begin until the fiscal year ending March, 1975. In that year, exports from five plants totalled \$55,000, but in 1980-81 they reached \$21 million, about 40% of India's electronics exports. In 1981-82, SEEPZ's exports grew to \$33 million, 60% of India's electronics exports.

## INDIAN SINGAPORE VENTURE

Raunaq Enterprises of New Delhi, India is negotiating with business interests in Singapore to establish a semiconductor plant there, to be capitalized at US\$1.62 million. Partners in the venture will include the Punjab State Industrial Development Corporation and Orion Corporation of Hong Kong.

## KOREAN REPORT

The Christian Institute for the Study of Justice and Development has published a 123-page report in English, **The Power of TNC's in Korea**. The report describes the activities of foreign corporations in several sectors of the South Korean economy, including electronics, and it offers some conclusions on their social and economic impact. For instance, it offers statistics showing that foreign companies, such as the investors in the Masan Free Export Zone (MAFEZ), pay lower wages than domestic manufacturers. The report is available from the Institute at C.P.O. Box 3668, Seoul, South Korea.

## U.N.I.D.O. REPORT

The United Nations Industrial Development Organization has recently published a weighty report entitled, **Restructuring World Industry in a Period of Crisis - The Role Of Innovation: A Analysis of Recent Developments in the Semiconductor Industry** (UNIDO/IS.285, December 17, 1981). Drafted by German scholar Dieter Ernst, it is probably the best study thus far on the subject.

Ernst integrates current data on the semiconductor, semiconductor equipment, and data processing industries with a solid theoretical background to describe and project global employment trends in high-technology electronics.

## CANADA'S SILICON VALLEY

The Ottawa-Carleton area is touting itself as Canada's Silicon Valley. At least 38 high-tech companies, employing 16,600 at the end of 1981, are located in the area. Only 8,000 worked in local high-tech industry in 1976. To bolster that growth, the Ontario provincial government is establishing a micro-electronics research center. ("High Technology: Annual Report on the Local High-Technology Industry," **The Citizen** (Ottawa), March 23, 1982)

## U.S. PLANTS IN JAPAN

For many years, Texas Instruments has been the only U.S.-based firm producing semiconductors in Japan. Fairchild (if the company, owned by Schlumberger - originally a French corporation, can be considered American) and Motorola have been trying to establish Japanese production outfits for several years, and they now appear to be on the verge of success. The Japanese government's Japan Development Bank has offered a low-interest loan to help Fairchild start up an IC plant in Nagasaki. Motorola and other U.S. firms are now negotiating for similar assistance. (**Electronics**, June 2, 1982, p. 73)

Meanwhile, Norwood, Massachusetts-based electronics firm Analog Devices has opened a \$2.5 million plant in Shiroyamacho, twenty-nine miles west of Tokyo. It plans to eventually employ 100 to 150 Japanese there. Analog Devices is already a leading supplier of precision data acquisition devices to Japanese companies, holding 39 percent of the Japanese market for computer-interface components, analog-to-digital converters, and digital-to-analog converters. (**Semiconductor International**, April, 1982, p. 32)

## NON-RESIDENT INDIAN INVESTMENT

The government of India, which strictly controls both foreign investment and the import of capital goods, has relaxed its restrictions on Indian citizens living outside the country. Non-resident Indians now qualify for a special electronics investment scheme. Non-resident investors are permitted to import all the machinery needed for a project under open general license. That is, they need not apply for "indigenous clearance," provided the Indian investor's share is not less than twenty percent and the required machinery is purchased from the investor's foreign exchange earnings.

The scheme permits the establishment of a variety of electronic equipment and components ventures, but manufacturers of radar and navigation equipment must obtain special approval.

## CHIPEX

Chipex, a semiconductor firm owned by Hong Kong-based Hua Ko Electric Co., plans to establish a semiconductor plant in North San Jose, in Silicon Valley. Hua Ko, reports the **San Jose Mercury** (May 6, 1982), is a joint venture of two Hong Kong firms, one of which is an agency of the People's Republic of China.

## HAPPY DELAY

Issue No. 22 of the Newsletter did not appear at the end of May, as planned, because editor Lenny Siegel's daughter, Misha Emma Siegel-Rivers decided to be born one month early, on June 1. Everyone is healthy, but Lenny was too busy to prepare the Newsletter. All subscriptions have been extended one month to cover the missing issue.

## PSC TO MOVE

On September 1, 1982, PSC will move to a more visible, larger location two blocks from its present office. The new address will be 222B View St., Mountain View, CA, 94041. The phone number will remain the same. Anyone who can help pack, move, or unpack PSC's voluminous library should call us at 415/969-1545.

## SUBSCRIPTIONS

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Studies  
Center**



867 West Dana Street, No. 204  
Mountain View, California 94041  
U.S.A.  
(415) 969-1545

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