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# GLOBAL ELECTRONICS INFORMATION NEWSLETTER

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## MATTEL STRIKE

Three thousand of Mattel Philippines' 4,000 workers went on strike June 19 to protest low pay and speed-up. Mattel, the largest employer in the Bataan Export Processing Zone, produces Barbie Dolls and accessories. Eighty percent of the employees are women, most of whom sew.

The strike demonstrates an additional advantage for employers who locate in enclaves such as the Bataan EPZ. When the strike began, Zone police confiscated the passes (for entering the zone) of striking workers, prevented them from picketing near the gate, and on June 22 some 1000 strikers were prevented from marching on the zone.

## AMERICAN MICROSYSTEMS

American Microsystems, a Silicon Valley-based producer of custom integrated circuits, has announced two foreign projects recently. It has established a joint venture with Voest-Alpine of Austria to build a \$50 million facility in Austria to design, produce, and sell integrated circuits. In addition, the company has agreed to provide the Indian government's Semiconductor Complex Ltd. with the technology to design chips and manufacture wafers in Punjab. (Electronics News, May 25, 1981)

## AUSTRALIA

Australia, a late-comer in the Silicon sweepstakes, has negotiated a joint venture with National Semiconductor to establish a wafer fabrication plant in Canberra. The government will spend some A\$20 million, providing land and the building, toward a total investment of A\$100 million. National will sign a lease promising to operate for at least thirty years. Projected to open in 1984, the facility will employ up to 1500 people, including 500 university graduates. (Electronics News, July 20, 1981)

## PLEASE SEND INFO

Most of the material in this newsletter comes from two types of sources. First, PSC staff monitor trade and news publications for news on the semiconductor and related industries, and we select the most pertinent items for the newsletter. Second, correspondents around the world submit either clippings from local publications or original information about the industry. We value these submissions, for they are our primary source on working conditions and worker activism. We greatly appreciate this information, and urge other newsletter subscribers to participate in this ongoing exchange of news.

## MAQUILADORAS

Mexico City-based Centro de Estudio Economico y Sociales del Tercer Mundo has published a three-part, Spanish-language study on Mexican assembly plants, or *Maquiladoras*. The first section, written by Monica-Claire Gambrill examines the Mexican labor force. It reviews the workforce demographics, wages and working conditions, and migration patterns.

Elisa Chavez prepared the second part of the study, which compares the garment industry in the U.S. and Mexico. Chavez examines working conditions and the impact of automation on workers.

The final section, written by Ernesto Calderon Calderon, places the Mexican plants in a global perspective. He discusses the motivations behind export-oriented industrialization and its impact on countries that host offshore assembly plants. (CEESTM is located at Porfirio Diaz No. 50, Sn. Jeronimo Lidice, Mexico 20, D.F., Mexico.)

## H.K. INDUSTRIAL HEALTH

Electronics workers in Hong Kong are suffering ailments similar to their counterparts in the U.S. The *South China Morning Post* disclosed the results of a health center study, as well as interviews with individual workers, showing such problems as eyestrain, respiratory problems from acid fumes, skin inflammation from chemical exposure etc. The *Post* (July 20, 1981) disclosed that workers, by and large, were unaware of the risks they faced.

## TAIWAN

In the June, 1981 *Multinational Monitor*, James Shapiro describes the growth of export processing zones in Taiwan. He notes that EPZ workers average a lower wage (US\$170 per month vs. US\$217) than workers outside the zones. He portrays one electronics factory in the Kaohsiung EPZ, "Bells, buzzers, punch-cards, supervisors and strict monetary policies keep workers at this woman's workplace punctual. . . . 'Workers in the United States don't tolerate as much discipline.'"

## EQUIPMENT FOR JAPAN

U.S.-based producers of semiconductor production and test equipment still supply more than half of the Japanese market, but their lead is slipping. Consequently, a number of U.S. companies are setting up sales offices or manufacturing plants, wholly or jointly owned, in Japan. Kulicke and Soffa, for instance, established a Tokyo office to service its wire bonding equipment. TRE semiconductor has announced a joint venture with Tokyo Electron to manufacture wafer steppers and microlithographic equipment. Applied Materials is "opening regional sales and service centers and is planning a \$4 million design center." And GCA and Perkin-Elmer already operate successful Japanese subsidiaries. (*Electronics*, July 14, 1981)

## N.E.C. TO ROSEVILLE

Electronic Arrays, Nippon Electric's Silicon Valley chip-making subsidiary, has announced plans to build a \$100 million, 120,000-sq. ft. wafer fab, assembly, and testing plant in Roseville, California. Roseville, near Sacramento, appears to be a new electronics boom town, with Shugart and Hewlett-Packard already established there.

NEC spokesman Charles Wood told *Business Week* (July 6, 1981) that half of NEC's U.S. chip sales will soon be supplied from its U.S. production facilities. NEC bought Electronic Arrays in 1978 for \$8.5 million. (See also *Peninsula Times-Tribune*, June 26, 1981.)

## FAIRCHILD TO JAPAN

Fairchild Semiconductor, which formerly operated a production facility on Okinawa, has announced plans to undertake wafer fabrication in Japan by 1983. *Semiconductor International* (May, 1981) states that Fairchild will be the fourth American firm to do so, following Texas Instruments, IBM, and Motorola, but Fairchild is now owned by Schlumberger, generally considered a French firm.

## LAY-OFFS

Most major semiconductor companies have finally been hit by recession, but eager to avoid the re-starting costs they suffered following the mid-1970's recession, they are avoiding lay-offs. Advanced Micro Devices, for instance, is not reducing its workforce, but it is requiring 4,000 employees to take two weeks vacation this summer. Signetics similarly will close its plants for 10 working days, but in most cases it will require four-day week-ends.

Texas Instruments, however, is releasing 2,800 employees, about 3 percent of its workforce. This is not the direct result of a cyclical sales slowdown. Rather, TI is dropping several product lines, such as bubble memories and digital watches.

## MAURITIUS

Mauritius, the small island nation off the coast of East Africa, never panned out as an offshore assembly site. Litronix, the Silicon Valley-based opto-electronics subsidiary of Siemens, has closed its plant there.

## OFFSHORE WAGES

Although new technologies have created the possibility for moving offshore production to the U.S., low labor costs abroad remain an significant incentive for assembling products overseas. Richard Bolin, president of International Parks, Inc., notes: "While wage difference may be the principal driving force for putting plants offshore, labor at any price is not the objective. A country must supply a balance of favorable factors to attract firms, including stability, industrial infrastructure, good communications, and pleasant living conditions for managers and technicians." Bolin cites the following minimum wages for various countries: U.S. - \$4.10; Mexico - \$1.50; Hong Kong - \$1.21; Panama - \$1.03; Haiti - \$.34; Philippines - \$.32.

## MALAYSIA

At least 82 companies, including 22 based in the U.S., produce electronics in Malaysia. Of Malaysia's \$935 million in 1979 electronics exports, \$520 million were shipped directly to the U.S. Singapore is listed as the second largest recipient, at \$118 million, but many of those devices are merely tested or fitted into more sophisticated products for re-export. The U.S. was also the largest source of Malaysia's \$858 million in 1979 electronics imports. Partially processed chips, sent to Malaysia for assembly, make up most of that total. The U.S. supplied \$413 million while Japan supplied \$132 million. ("The Electronics Industry in Malaysia," December 23, 1980, National Technical Information Service, U.S. Department of Commerce, DIB-81-03-0113)

Although Malaysia has a more democratic image than its dictatorial neighbors, the government does not permit the unionization of electronics workers. Nevertheless, a spontaneous wave of strikes for higher wages swept the Bayan Lepas Free Trade Zone in Penang in September, 1980. Factory women demanded higher pay, and in cases they won it, but many companies responded by tightening surveillance of their workers. (This strike information is taken from a Case Study prepared by Australia Asia Worker Links in January, 1981. AAWL, Box 94, Fitzroy, Victoria 3065, Australia, is an independent organization established to document working conditions in Asia and to build links between Australian and Asian workers.)

## WESTINGHOUSE BUYING SILICONIX

Westinghouse has upped its share of Siliconix from 22% to 43% by buying out the holdings of British-based Lucas Industries. Spokesmen for both Siliconix and Westinghouse deny that a merger is necessarily on the horizon, but most industry observers believe it inevitable. (San Jose Mercury, July 8, 1981)

## NORTH CAROLINA

Criticism of Governor Hunt's plan to turn North Carolina into an Atlantic Coast Silicon Valley has been growing. Hunt has essentially painted the microelectronics industry as an economic panacea, and he has pushed through the state legislature a \$24 million appropriation to finance a microelectronics research center. Economist Thomas Vass, writing for the Conservation Council of North Carolina (307 Granville Road, Chapel Hill, NC, 27514) has prepared a 43-page paper, "North Carolina and the Microelectronics Industry." Vass argues on the one hand that the state is ill prepared to absorb the environmental costs of a rapidly expanding chip industry and on the other hand that the industry will not bring the high-paying, glamorous jobs promised by the Governor. Vass cites U.S. Labor Department input-output tables, "Out of a total of 93 manufacturing industries surveyed by the Bureau of Labor Statistics, the electrical components industry will rank [in 1985] 10th in intensity of water use, 26th in electricity, and 26th in chemical usage."

## SUB RENEWALS

PSC has been publishing this newsletter for one year. Therefore, many subscriptions are due for renewal. If you subscribed beginning with the first or second issue, even if ordered later in the year, please send in your renewal.

We have circled, on the back of this issue, the address labels of subscribers we believe to be due for renewal. However, our records, particularly those covering early subs, are not quite complete. If we have erred, please let us know. If you have an exchange or complimentary subscription, please remind us.

The basic subscription rate remains US\$5.00 per year. Foreign subs cost an additional US\$5.00 to cover air post, while Canadian and Mexican subscribers need pay only US\$1.25 for first class delivery. Thus, subscription rates are \$5.00, \$10.00, and \$6.25.

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