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# GLOBAL ELECTRONICS INFORMATION NEWSLETTER

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## FAIRCHILD INDONESIA

INDOC, the Indonesian Documentation and Information Center (Box 11250, 2301 EG Leiden, Netherlands) has published an update of its May, 1981 book, **Indonesian Workers and their Right to Organize**. The update includes the following report, based on stories in **Merdeka, Kompas, Indonesian Observer, and Sinar Harapan**:

After a series of actions beginning in early 1981 concerning wage rises and social insurance, one thousand workers from the electronics factory, PT FAIRCHILD, East Jakarta, went on strike on 20 May 1981 in protest at employer interference with trade union rights. The employer demanded the union's dissolution, replacement of the board, and election of a new board more to the employer's liking. On 25 May, 52 workers were dismissed. Most of them either supported the union which had been set up on April 4 in the FBSI building, or were members of its board.

At the end of July, the Central Committee for the Settlement of Labour Disputes (P4P) recommended the re-employment of the 52 who had been sacked, and the payment of full wages during their suspension, plus the special annual bonus. The decision was reached because of lack of proof that the workers had been guilty of inflicting damage and inciting co-workers, as

had been charged by Fairchild. By 23 August 1981, 28 of these workers had not yet been reinstated: the employer had appealed to the Minister of Manpower to revoke the P4P decision.

The secretary of the central executive board of the Electronics Workers Union, Sarmin, said that 90% of the 4,800 Fairchild workers are women, earning Rp. 750/day (US\$1.12) and admitted that "after working at the Fairchild factory for some time they are now suffering eye troubles."

## KRYPTON 85 HAZARDS

California health authorities are expected to announce more strict regulations on the use of Krypton 85 within the next six months. Krypton 85 is an inert, radioactive gas used as a tracer in leak detection. **Electronic Buyers' Guide** (April 12, 1982) reports that "the move comes in the wake of at least two incidents within the last year in which the use of the radioactive gas for semiconductor QA [quality assurance] tests has raised public health issues."

State health physicist Gerard Wong says that Kr 85 is less hazardous than some other radioactive materials, since it emits little gamma radiation. But sustained exposure "can be a significant problem."

## TAIWAN MOVES UP

Public and private interests in Taiwan are working to upgrade that island's electronics industry. Long a center for labor-intensive assembly work, for both consumer electronics and components, Taiwan's electronics industry is beginning to move into more capital-intensive and technology-intensive product lines such as microcomputers, software, and IC wafer fabrication. However, high-tech Taiwanese companies are not at the cutting edge of new technologies. They still must concentrate on "mature" technologies, primarily for export. Thus, they still remain dependent on companies and markets in the U.S., Japan, and other industrial countries.

In 1976, the government's Electronics Research and Service Organization bought IC design and wafer-fab technology from RCA. *Electronics* (April 21, 1982) reports, "After several years of working with the technology, ERSO transferred it to United Microelectronics Corp. in return for a 10% share in the company. United, with \$21 million in capital, opened Taiwan's first commercial IC plant in February." That plant does not compete in the international market. Rather, it is supplying chips for consumer products, such as watches, calculators, and telephone dialers, that are already assembled in Taiwan and other Far Eastern locations such as Hong Kong.

In addition to a number of locally owned software houses, Taiwan now hosts design and development groups run by industry giants such as Texas Instruments, Motorola, Wang, and Matsushita. (*Electronics*, March 10, 1982)

Tatung, Taiwan's largest indigenous electronics firm, has ambitious plans for upgrading, but in most of its operations it will need to team up with U.S. or other foreign ventures. It plans to establish a software house, produce and market personal computers, develop a minicomputer, and produce its own integrated circuits. Last year the company started manufacturing video monitors and com-

puter terminals for export, in cooperation with Algol Technology, a firm based in Redwood City, California, at the northern edge of Silicon Valley. (*Electronics*, April 21, 1982)

## JOB DISCRIMINATION

A Federal study, "Report on Affirmative Action and the Federal Enforcement of Equal Employment Opportunity Laws," (February, 1982) shows that the electronics industry is making slow progress in overcoming racial and sexist patterns in employment. That progress is probably more significant than the numbers indicate, if one considers that the statistics cover long-term as well as new employees.

For instance, the proportion of female managers and officials rose from 5.1% in 1975 to 8.5% in 1979, compared to a rise from 14.2% to 18.1% in all private industry covered by the survey. Minority (including blacks, Spanish-surnamed, Asian/Pacific, and American Indian) rose from 4.0% in 1975 to 6.2% in 1979. In all private industry, the minority share rose from 5.4% to 7.2%.

The number of female professionals jumped from 6.1% to 10.9%, while the share of minority professionals rose from 5.8% to 8.8%. Significantly, Asians make up the largest minority group in professional positions, with 4.0% of employment in 1979, while blacks (by far the largest minority in the U.S.) are the minority most represented in management.

Not surprisingly women and non-whites make up a larger share of the technical workforce. The percentage of female technicians rose from 13.9% in 1975 to 18.2% in 1979. The minority share climbed from 9.3% to 12.8%.

The percentage of women operatives fell slightly between 1975 and 1979, from 57.4% to 56.9%, while the proportion of minorities rose from 20.9% to 24.7%. Unfortunately, the report does not carefully define its categories, so without further exploration there is no way to know where all the white, male operatives are.

## MOTOROLA

While other major U.S. producers of semiconductors and electronic equipment are struggling to keep ahead of the recession, with little success, Motorola, the second largest semiconductor marketer, is performing well. In fact, Motorola is acquiring other ventures to establish itself as a key competitor in the growing "telematics" (computers and communications) market.

Though U.S. semiconductor sales fell 6% in 1981, Motorola's semiconductor business rose 8%. Though Motorola's profits dropped 6%, other major chip-makers, such as Texas Instruments and Intel, experienced larger declines (49% and 72% respectively). The largest factor in Motorola's relative success is the company's retention of its discrete semiconductor product line (transistors and diodes). While its competitors are dropping such mature products to chase state-of-the-art business, Motorola has found that discretos are a steady source of income. Because they are mature products, there is little price cutting, a common practice in the drive to establish market shares in newer technologies.

Motorola continues to dominate the land-mobile radio business that got the company started in 1928 (Motorola stands for "motor" plus "Victrola"). Its 1977 acquisition of Codex, a data communications firm, and 1981-82 purchase of computer-maker Four Phase Systems have placed the company in a solid position to take on telematics. **Business Week** (March 29, 1982) reports, "Motorola's favorite scenario for the future is a data or voice message that originates at a Motorola radio, is picked up and transmitted over a Codex-controlled telephone, microwave, or satellite network, and ends up on a Four-Phase computer." (See also **Electronics**, April 7, 1982)

## AUTOMATION

The experts are looking into their Silicon balls but they see different futures. **Electronics** (April 21, 1982) reviewed the future of offshore manufacturing, and found that automation may alter the international division of labor, but that experts and executives disagree on the timing and the degree.

An officer of Stanford Microsystems, a Philippines-based assembly contractor, argues that offshore, automated assembly is still advantageous. RCA is upgrading its Southeast Asian test operations by linking them directly, via satellite, to computers in Florida.

On the other hand, Indy Electronics, affiliated with Dynetics, another Philippine subcontractor, sees automated onshore assembly as a growing business. It plans to boost its Manteca, California workforce from 400 to 1500 by 1983.

**Electronics** cites hourly pay rates for eight countries with semiconductor assembly. The 1980 figures were provided by Integrated Circuit Engineering. These figures differ from another set, offered by Motorola's Ben Adamo, and printed in issue no. 20 of the **Newsletter**.

United States	\$8.09
Mexico	\$1.54
Hong Kong	\$1.26
South Korea	\$1.10
Singapore	\$1.00
Taiwan	\$0.90
Philippines	\$0.62
Indonesia	\$0.45

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Do you have friends or colleagues who might be interested in the **Newsletter**? If so, please tell them about it or send us their names so we can send along samples.

## PHILIPPINES

**Electronics News** (April 12, 1982) has discovered the Philippines. Geoff Lewis reports that there are about a dozen U.S. electronics firms there, including semiconductor assemblers Intel, Zilog (Exxon), Texas Instruments, Advanced Micro Devices (partially owned by Siemens), American Microsystems (Gould), [he doesn't mention National Semiconductor], and Fairchild (Schlumberger). "Data General, however, has graduated to complete board assembly and testing for shipment to final assembly plants in Hong Kong and the U.S."

The nominal wage is now US\$.65 to .70 per hour, lower than the other popular assembly locations. Turnover, according to a Data General manager, is extremely low, "perhaps 1 per cent per month compared with 6 per cent in Hong Kong."

There is a large English-speaking workforce. In fact, "the government claims the Philippines is the third-largest English speaking country in the world." There is an oversupply of engineers. Qualified engineers reportedly are often hired for assembly line positions.

Most Philippine electronics plants are still clustered near the Manila International Airport. Those firms that have ventured into Export Processing Zones have had problems. Fairchild has had problems with electricity and water supply at its Mactan EPZ (Cebu area) plant, while TI has had problems attracting workers to remote Baguio City.

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