
GLOBAL ELECTRONICS

Issue No. 99

December, 1989

TAIWAN GETS WYSE

In the largest Taiwanese acquisition of U.S. assets thus far, Channel International Inc. has agreed to pay \$262 million for Silicon Valley-headquartered Wyse Computer, a producer of terminals and personal computers. The sale marks the ascendance of Taiwan, which has accumulated \$73 billion in foreign reserves through its export of manufactures, as a major player in the world of high-tech finance. It is also considered a major coup for Taiwanese computer-producer Mitac International, which is a participant in the Channel consortium.

Wyse was founded in 1981 by Bernard Tse, a Chinese from Hong Kong, and his wife Grace, from Taiwan. With production in Hong Kong and Taiwan, Wyse quickly became a competitive supplier of computer terminals. Wyse moved into the PC market in 1985, distributing through well known retailers such as Businessland. But the company could not quite keep up in the highly competitive IBM PC-clone business. It lost money in 1988-89 and laid off 15% of its workforce in January, 1989.

Today Wyse has about 2000 employees, including 600 in Silicon Valley and most of the rest at production facilities in Hong Kong and Hsinchu, Taiwan. The buyers have made no commitments to either lay off or retain the company's workers.

Wyse's management views the takeover as a rescue, providing needed capital at a crucial time. Tse remains at the company as vice-chairman, but some of Wyse's former shareholders are challenging the sale, saying their interests were overlooked in the negotiations.

The buyer, Channel International Corp., is a venture formed specifically for the purpose of acquiring Wyse. The Taiwan government holds 20% of Channel. Mitac International holds 12%. Three other large Taiwan companies hold at least almost all the rest. The investors expect to profit handsomely when the firm's stock trading is moved from the U.S. to Taiwan.

Mitac, Taiwan's second-largest computer producer, expects to take advantage of Wyse's highly developed distribution network. It hopes to use the deal to gain ground from rival Acer Computer, the

island's number one computer-maker. Acer reportedly was part of the original group considering the purchase of Wyse.

Taiwan's businesses, their pockets bulging with dollars earned through the export of computers and other manufactured goods, have been investing in the U.S. for several years. Early investors bought California real estate, but last August Taiwan's Continental Engineering bought American Bridge of Pittsburgh, a former USX (U.S. Steel) subsidiary. The Wyse deal was facilitated by the fact that the American side was led by overseas Chinese.

PEACE BREAKS OUT

The U.S. military budget is likely to decline over the next several years, even when measured in real terms—that is, adjusted for inflation. After the Berlin Wall opened up and the “Cold War ended,” Defense Secretary Cheney requested that the armed services cut \$180 billion from their fiscal 1992 through 1994 budget requests. Such cuts could turn out to be relatively modest, since the Pentagon was already figuring substantial increases.

Nevertheless, Cheney's statement, coupled with events in Europe, triggered the widespread expectation that U.S. military funding would fall dramatically. Leading business magazines publicized a Brookings Institution study proposing a 50% cut by 1997.

Whether the bulk of the “peace dividend,” funds freed through military cutbacks, is used to cut the Federal budget deficit or to invest in unmet domestic needs—environmental protection, education, infrastructure, housing, etc.—the national economy is expected to survive and perhaps even benefit from peace.

Still, individual firms and workers are likely to be hurt, unless the Federal government, as well as state and local agencies, quickly develops an economic adjustment or conversion program. Communities and regions dependent upon weapons programs or bases that are likely to be eliminated will also suffer, though problems can be

(continued on page 2)

overcome, or at least mitigated, by advance planning.

Despite Silicon Valley's \$4 billion—or perhaps \$5 billion, when secretly financed “black” programs are added—in military contracts each year, the area is likely to prosper through a Pentagon funding slowdown. The Valley's military “portfolio” is actually quite diversified. No matter which programs are cut, Silicon Valley will lose money, but no scenario of projected cutbacks will affect close to a majority of Valley military spending. Furthermore, certain programs, such as strategic intelligence systems, are expected to remain strong as the U.S. relies upon satellites and other high-tech equipment to verify that the Soviet Union is also cutting back.

In addition, the Pentagon's share of Valley research, development, and production has fallen since 1970—the time of the last big aerospace cutbacks—to about one fifth. Though certain high-tech sectors are experiencing problems, the Valley's civilian economy remains vibrant, and its growth continues to outpace the military sector.

The biggest obstacle to commercial growth in Silicon Valley today is not the market, but the shortage of skilled and professional workers. If anything, military cutbacks could free for commercial work thousands of technically qualified employees. And most of these people already have housing near the high-cost centers of Valley employment.

Thus, military cutbacks could actually stimulate the commercial sector, but there are two key problems. First, many professionals who have worked for several years at government contractors have absorbed the military industry's corporate culture of waste and inefficiency. It may take them some time to adapt to the demands of the commercial sector. Second, union machinists at firms such as Lockheed probably can find jobs easily in the civilian sector, but they face pay cuts as they move into the non-union high-tech shops.

PSC covers military spending issues in greater detail in the **California Military Monitor**. CMM, an eight-page newsletter published six times per year, is also available for \$12 per year (\$14 in Canada and Mexico, \$17 overseas.)

T.I.'S PATIENT PATENT

In November, the Japanese patent office awarded Texas Instruments a patent for the fundamental integrated circuit—twenty-nine years after the Dallas company first filed its application. Fairchild Semiconductor originally received the

U.S. IC patent in 1961, but Texas Instruments, which actually perfected a similar device before Fairchild, was awarded a patent in 1964.

The late Japanese patent award is expected to bring TI hundreds of millions of dollars each year in additional revenue with limited, primarily legal expenses. The patent applies to virtually all Japanese-made chips, and even at a one to three percent royalty, it means a significant, low-risk boost in TI income.

It will be some time before TI negotiates licensing deals with its Japanese competitors, so the precise impact of the award is not yet known. However, it is likely that the Texas firm will forego the fees in some cases in exchange for Japanese production technology.

LABOR SHORTAGE

Silicon Valley may be entering a period of labor shortage. Its low unemployment rate (3.5% in October, 1989) and high housing prices are making it difficult for service industries—particularly those requiring workers fluent in English—to recruit and retain entry-level employees. The **San Jose Business Journal** (December 18, 1989) reports that some firms are raising wages and improving the conditions of employment to attract workers.

Unless the economy slows, the shortage is likely to get worse. Fewer young people are expected to enter the workforce, and the immigrants and refugees who boosted the size of the local workforce over the last decade have occupied most of the available residential space.

GLOBAL ELECTRONICS

edited by Lenny Siegel

Issue No. 99

published monthly by the Pacific Studies Center

222B View Street

Mountain View, CA

94041 - USA 415/969-1545

US ISSN 0739-0416

subscription rates (12 issues)

United States: \$12.00

Canada and Mexico: US\$14.00

Overseas: US\$17.00

all back issues are available

Copyright ©, January, 1989

Mountain View, California

HONG KONG D.R.A.M. FAB

For the first time, memory chips are being fabricated in Hong Kong. RCL Semiconductors, one of three firms with wafer-fab operations in the colony, is producing 1,500 five-inch wafers per month in a plant reportedly capitalized at only US\$9 million. Not only are the five-inch wafers behind the state of the art, but the end-product 256K dynamic random access memory (DRAM) circuits are a generation behind the market.

The Far Eastern Economic Review (October 12, 1989) suggests that firms in Hong Kong have not been able to upgrade easily into front-end processing because they lack the government subsidies available to their counterparts in South Korea and Taiwan. Furthermore, there is a scarcity of qualified manufacturing engineers, due to a shortage of training programs, the emigration of professionals, and the lure of marketing compared to manufacturing.

Ironically, RCL may invest overseas in a larger DRAM fab operation. The Quebec, Canada provincial government is ready to sign an agreement promising loans and subsidies—in addition to the area's inexpensive supply of power and other inputs—to an RCL plant in Quebec.

MALAY WORKERS

From the beginning of semiconductor assembly in Malaysia in the early 1970's, factory work has had an enormous cultural influence on the young rural women recruited to staff the plants. Though sending much of their income back to families in rural areas, Malay factory workers usually have enough cash to adopt elements of western culture, including blue jeans or shorts, make-up, and rock music. Many are known as *Minah Karan*, which loosely translates as "hot stuff."

Recently, however, many Moslem workers have donned traditional clothing and the *tudung* (veil), the symbol of the *dakwah* movement. (The Malayan veil, unlike the familiar Persian *chador*, does not cover a woman's face.) The *dakwah* movement is a proselytizing movement that elevates traditional values and shuns materialism.

Though traditional Islam encourages women to play primarily domestic roles, economic need forces many factory workers to keep their jobs, even after marriage. Thus workers who wear the veil are not fanatic Moslems; they are cultural pioneers ambivalent about their role in a changing society.

Meanwhile, the predominantly Malay factory workforce remains isolated from the urbanized ethnic Chinese population. On the island of Penang, Malaysia's largest center of electronics assembly, Malay workers live in the residential township of Bayan Baru, and they infrequently venture into Georgetown, the older, Chinese dominated city just a few miles away. (Far Eastern Economic Review, December 21, 1989)

TOXICS UPDATE

•In June, 1987, electronics workers represented by attorney Josephine Rohr settled a lawsuit with their former employer, GTE Lenkurt. The workers had sought damages for health problems they experienced as a result of exposure to workplace chemicals at Lenkurt's Albuquerque, New Mexico plant.

Late in 1989, Rohr filed a second suit, in which 456 former workers and their dependents hold three major chemical companies—Dupont, Shell, and Dow—responsible for their exposure to industrial solvents. They seek \$4 billion in damages because the chemical manufacturers allegedly failed to warn Lenkurt of the potential health hazards of chemicals they sold.

Rohr told Pacific News Service (December 18, 1989), "About 80 percent of the workers [named in the suit] have permanent brain damage, including what doctors call early dementia, an inability to remember things.... We have central nervous system damage, we have 49 cancers; in the group I have 200 spontaneous abortions. We have 50 women of childbearing age who have lost their uteruses due to abnormal menstrual bleeding."

Lenkurt now operates the plant in Juarez, Mexico, where environmental and occupational protection are much weaker.

•The American Electronics Association, the major trade association of high-technology electronics and computer companies, is calling for accelerated reduction in the use of chlorofluorocarbons (CFC's) in high-tech manufacturing. The AEA voted to establish an industry-wide goal to cut CFC emissions in half by 1993 and to totally eliminate the use of such chemicals by the year 2000. CFC's are considered a major cause of ozone depletion in the upper atmosphere.

To further protect the ozone layer, the AEA has also called for significant reductions in emissions of trichloroethane (TCA), also known as methyl

(continued on page 4)

chloroform, and carbon tetrachloride. (San Jose Business Journal, January 1, 1990)

•Printed circuit board manufacturers—essentially electroplating shops—have historically been among the worst violators of clean water standards. In late October, the Los Angeles district attorney's office charged Diceon Electronics and its two top executives with feloniously discharging toxic wastes into the public sewage system in Chatsworth, California. The complaint said that "Diceon, one of the country's leading independent circuit-board manufacturers, illegally released large amounts of acid, lead, copper, and other toxic materials into the sewage system between November, 1988, and April [1989]." (Los Angeles Times, November 1, 1989.)

The complaint reportedly follows a \$262,000 fine levied by the US Environmental Protection Agency for illegal toxic releases in 1987.

•Around Silicon Valley, ground and water contaminated by high-tech manufacturing are limiting the land use options of property-owners, but in at least one case, a hazardous waste treatment plant lies in the path of a major high-tech firm's planned growth. Sun Microsystems plans to build a new headquarters complex in the 176-acre Ravenswood Industrial Park, in East Palo Alto, but it may be forced to scale back its vision because Romic Chemical operates a 11.5-acre treatment plant there. County plans would allow Romic to be moved, if another site could be found, but that is

unlikely. (Peninsula Times Tribune, September 6, 1989)

H.D.T.V. UPDATE

Despite all the hullabaloo about high-definition television (HDTV), the U.S. government is unlikely to expend significant resources soon to move the country into the next generation of broadcasting. Advocates of a massive federal investment in the technology, in fact, charge that the Bush Administration is seeking to cut drastically Defense Department funding for HDTV research.

Still, the House of Representatives voted to appropriate \$20 million for Defense-controlled HDTV research in fiscal 1990. (San Jose Mercury News, November 17, 1989)

More significantly, the American Semiconductor Industry Association (SIA) and the Electronic Industries Association of Japan have reached an agreement allowing U.S.-based firms to supply components to Japanese manufacturers of HDTV products. The Japanese have promised to share sufficient technical information to make it possible for U.S. chipmakers to tailor products for the Japanese HDTV market.

According to the Mercury News (November 14, 1989), the SIA also achieved a similar understanding with Europe-based electronics companies.



BULK RATE
Non-Profit Organization
U.S. POSTAGE
PAID
PERMIT NO. 155
MOUNTAIN VIEW, CA

Address Correction Requested

Pacific Studies Center
222B View Street
Mountain View, CA
94041 - USA