



Don G. Hooper's
microelectronics

NEWS with manager's casebook

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RECEIVED

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Jerry Kiachian

Good Friends

TURN-ON. Determination of National to get serious about the optoelectronics business was evidenced this week by the appointment of Jack Magarian as group director for light emitting diodes. This puts the LED department on a par with each of the other four major product lines, and places Black Jack at the third tier, reporting to v.p. Pierre Lamond.

Magarian is a Fairchild veteran, where he is best remembered for running the South Portland (Me.) plant. Later he ran Bowmar's LED facility in Ottawa, where he received a raw shafting (MN, July 22, 1972).

Jack has strong personal ties with National prexy Charlie Sporck, the two going back before Fairchild days to General Electric. He is probably the best satellite plant manager in the business, but his headquarters performance has been less distinguished. It will be interesting to see how he fares in the middle of the snake pit at Santa Clara (Ca.).

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TENSION RELIEVED. Signetics this week closed the loop on a long-vacant key job, with the importation of Owen Williams, former digital IC product manager at Fairchild. Williams joins Monday (29) as manager of bipolar memory products. This wraps the job for which Sig came within a trice of recruiting Ward Gebhardt, marketing v.p. at Teledyne (MN, Nov. 11, 1972).

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ITCHY FEET. Don't put Gebhardt in your book as a Teledyne old retainer, however. It is most unlikely that either he or president Gene Blanchette will still be there by summer. Among those Gene has been talking to: Litronix and American Microsystems.

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SAVIOR. Don Yost, onetime operations manager at Fairchild and later president at Illumination Industries, has been in the East in recent weeks, trying to straighten out production problems at Opcoa. He was brought in at the behest of Bessemer Securities, a key stockholder. Yost had previously undertaken a similar task at Advanced Memory Systems, where he turned down the job later accepted by Larry Regis (MN, July 22, 1972).

BAD NEWS, GOOD NEWS. Monsanto jarred the industry again this week with still another price jump in silicon, this time of 25 per cent, and effective on all new business written starting yesterday (26).

But prices will eventually move downward again, as Monsanto standardizes its silicon product line and gets out of the custom business. By the beginning of this year the situation was near chaos, with 570 different geometries going through the plant, and quality assurance people spending 85 per cent of their time testing to customer specifications, and only 15 per cent on overall quality.

By March 1 the company intends to have a standard product line, pared down to about 20 basic products, with each wafer marked as to either p- or n-channel. Don't expect the resulting economies to be reflected in lower prices for at least a year, however.

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TESTING, TESTING. Monsanto is also diddling with the consumer market, testing customer response to a luxury-item electronic clock dubbed the Montema. Using a Monsanto LED display (of course) and having a built-in interval timer, the clock is now being offered through premium catalogs and by direct mail.

Present price is \$175, possibly dropping to \$150 by mid-year if volume warrants. Although the consumer clock is still an iffy proposition, the firm is rather definitely committed to an interval timer for industrial applications.

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FATTENING. First-quarter (Dec. 31, 1972) results of Advanced Memory Systems are expected momentarily, and you can look for about \$6.5 million in sales and earnings of 20 cents a share, fully diluted. Meanwhile the company has moved into its third building, and will erect a fourth for wafer fabrication.

If you are still wrestling with the numbers, trying to extrapolate AMS future sales from its \$7 million order to Galamar for polished silicon (MN, Jan. 20), here are some additional clues. Try \$6.50 as a wafer price instead of \$4. Assume silicon cost to be about 8 per cent of device selling price, and assume Galamar is providing about 70 per cent of AMS requirements.

This scales down the astronomical numbers arrived at last week, but still not to the \$35 million which appears to be the AMS goal for the year, and \$100 million by 1975. Yet president Bob Lloyd must be reasonably sure of his ground, for he helped Galamar get financing for the deal and it was he who insisted on a contract, including a 25 per cent penalty clause for default by either party. Meanwhile the company is in its brownout period because of its new offering (MN, Dec. 23, 1972) and Robert is as tight-lipped as an old maid in a one-hole outhouse.

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OPTIMIST. Of all the projections for the MOS market for 1973, the most bullish I have seen is that of John Davis at American Microsystems. John thinks that 1972's \$150 million will move up to \$250 million this year, while the unit ASP holds fairly steady, going from \$5.88 to \$5.20. John's oracular method is more statistical than investigative, but many industry seers agree that earlier projections have been too conservative.

PACKAGER. Since the ascension of Marshall Cox to the presidency of Intersil (MN, Jan. 6), there has been renewed investor interest in the company, and security analysts have been trooping through the place like Sherman through Georgia. Said Cox last week: "I'm so tired of hearing my own pitch, I think I'm going to have it canned like Campbell's soup."

Comes the day that old trouper Marsh defers to a hunk of mag tape, Micro-electronics News will immediately publish a Special Memorial Edition.

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DESIGNATED PINCH-HITTERS. There has been a rapid shift in suppliers of calculator chips in recent weeks, with Nortec, Computer Microtechnology and Intersil virtually dropped out of the market. Intersil sold its masks to Fairchild, which is taking up some of the slack, along with stepped up activity at Cal-Tex, Standard Microsystems and National.

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MATERIAL MATTER. Vince Bert has been named director of materiel at Opto-Ray. He thus rejoins the new president, Ed Day (MN, Dec. 23, 1972), with whom he had unsuccessfully tried to start a photomask firm. Vince has probably hit as many spots as anyone in Silicon Valley, having previously been at Electronic Arrays, Cal-Tex and Nortec.

Opto-Ray has received by far its largest order to date, \$900,000 for 3-digit displays from a customer in Taiwan. The company is now moving from Santa Clara (Ca.) to Mountain View, increasing its space from 2500 to 8000 sq. ft., with an option for an additional 7000.

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DEFERMENT. The Industrial Modular Systems division of GCA is having digestion problems with its recent acquisition of the Ortec line of ion implanters. IMS had hoped to have a 200kev model, largest in the industry, onstream with a major customer right now, but that unit still faces a 9-month pregnancy and the company is now trying to palm off the 150kev version instead.

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PROMOTED. Several key marketing appointments were made at RCA Solid State this week, three of them in linear ICs. Ralph Iovino has joined as marketing administrator for consumer electronics, from Westinghouse Semiconductor where he was a sales engineer. Seymour Reich moved up from applications engineering leader to marketing administrator for industrial markets. Bill West, most recently QC manager, is now price analyst for industrial markets. Meanwhile in power devices, Bill Glaser, former OEM sales manager, has become manager of thyristors and rectifiers.

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LATE DEBUT. With seven units installed and an eighth ready to ship in two weeks, Western Digital now believes its Spartan LSI test system is ready for the general market. Besides three units installed at WDC, the firm has also made deliveries to Solitron, Tokyo Electronic Laboratories, Burroughs and Microsystems International. No. 8 is slated for Addressograph-Multigraph. Although modular and therefore amenable to customizing, the basic configuration is for memory testing. System includes 32 memory channels, 15 drivers, and 10-microamp resolution high-speed comparator, priced at \$59,770.

DON'T WRITE, WIRE. Advanced Micro Devices is anxiously waiting completion of installation of its big new dual-beam evaporator. The giant has a capacity of 63 3-in. wafers, and will be used for two-layer metalization of bipolar LSI. But so far the best thing the machine does is blow fuses, since somebody screwed up the wiring of the variac in the power supply.

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ANOTHER ROUND. Monsanto ESP lost its customer service manager this week, as Barry DeVita jumped ship to join American Microsystems as market planning manager. Barry will now be able to apply his EDP know-how to developing new forecasting systems. Meanwhile Mon has not yet picked up a successor for him.

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BETTER BITTER. Zeev Drori's boys at Monolithic Memories cont nue working up new products back in the woodshed. Next on tap is a 4096-bit programmable ROM. Target date: about April 1.

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HOW SWEET IT IS. Fairchild earnings have slammed back with a vengeance, confounding the wiseacres who predicted they would fall out of bed in the last quarter. The company reported earnings for the year of \$11.03 million or \$2.26 a share, on sales of \$25.9 million. More than one-fourth of this amount (\$3.3 million or 68 cents a share) was due to a tax loss carryforward. In 1971 the company lost \$7.8 million or \$1.79 a share on \$193.1 million.

The company for the first time broke out its fourth-quarter earnings, reporting \$5.2 million or \$1.01 a share on \$65.4 million. This includes tax credit of \$1.9 million or 38 cents a share.

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INTEL-LECTUALS. Net income at Intel rose to \$1.9 million or 71 cents a share on 1972 sales of \$23.4 million, against a loss of \$513,000 or 21 cents on \$9.4 million the year before. Results do not include tax credit of \$1.1 million for 1972, or \$1.4 million for know-how from Microsystems International in 1971.

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SISTER ACT. It seems like only yesterday--but really it was the depths of 1970--that the g.m. at Fairchild, Wilf Corrigan, told me the industry would soon be fighting for people. Last Sunday (21), Fairch broke full-page newspaper ads, announcing its recruiting van which would scoop up warm bodies at shopping malls. Job opportunities range from \$2.10 an hour to \$1950 a month. Four days later (25), ever-helpful Big Brother announced that it too has a van, and it too will tour shopping centers. If these two coordinate schedules, one can get his pickets filled and picked at one stop.

**The Fairchild
Career Caravan
is headed
your way**

**IRS Taxmobile
Visiting Cities
In Bay Area**

Don C.

Manager's Casebook

by Don C. Hoefler

CASE NO: 220

SUBJ: Great Thoughts
to Great Acts

Think Big and you'll live big.
You'll live big in happiness.
You'll live big in accomplish-
ment. Big in income. Big in
friends. Big in respect...
Start out with this thought of
the great philosopher Disraeli:
"Life is too short to be little."
Dr. David J. Schwartz
"The Magic of Thinking Big"

PREDESTINED. When the first public offering of Advanced Micro Devices made a millionaire of president Jerry Sanders (MN, Sept. 30, 1972) and most of the company's other founders, it was not at all unexpected to the man his subordinates now refer to as "The King," directly to his face, and more in awe than whimsy.

"It was no surprise. I always expected to become a millionaire. I never intended anything else," says the man who concedes the ownership of "an unbelievable ego." But passing that milestone has merely spurred him on to still higher attainments. "A million dollars isn't enough," he adds. "I want to build a company that's a major factor in the American economy, a company on the Fortune 500 list. When it's done, it will probably no longer be named AMD, and it certainly won't look very much like the AMD we know today.

"And there's one other prerequisite: the guy who'll be running it will be me."

MAKE HASTE SLOWLY. Those are big dreams, but the dreamer is a realist. "I take a very conservative attitude toward building a company," says Sanders. "I'm a nut on preserving capital. We haven't yet touched a dime of our public offering. I'm real proud of that. It means we're making real money, not phony money. It takes lots and lots of capital to build a multi-million dollar company, and I want to get that capital as cheaply as possible.

"This is not a quick-buck world. The Varadynes and Cogars and Computer Micro-technologies and Viatrons will come and go, because life is quick to punish, but slow to reward. We want to continue to move forward at a prudent pace, never to be a turnaround situation." Although prematurely gray, Jerry is still on the fair side of 35, so he has time working in his favor.

AMD is now operating at the \$1 million a month level (MN, Jan. 20), but Sanders expects to continue doubling, with the company approaching \$25 million in its next fiscal year (beginning April 1), and \$50 million-plus by 1975. If they make it, the then six-year-old company should rank No. 6 in the nation.

(OVER)

LINEUP. Assuming the top of the batting order remains constant, AMD would surpass all the other companies spawned in the 1967-69 spurt, and come in right behind today's Big Five: Texas Instruments; Motorola; Fairchild; National; Signetics--and then Advanced Micro Devices. "And I know exactly how to do it," says Jerry.

There is certainly no denying that he knew exactly what to do to get his company to its present position. "I first perceived that it is easy to get a piece of a big market. That's the easy way to enter," Sanders says. "And there are two ways to sell: you sell on price and forget the engineer--which I think is idiocy--or you give the engineer a better product.

"We went out to find other companies' dissatisfied customers, and to find out why they were unhappy," Jerry says. "We looked for that irritating difficulty which we could correct for a selling edge. If you have happy customers, you have a good solid company."

RANK DISSENSION. The first radical departure from custom instituted by Sanders was the testing of every part going out the door to military standard 883. The heretical innovation is typical of his independence and drive for excellence. And it was unanimously opposed by all of the other seven founders. It would take a strong man to win them over, but Jerry has that kind of fiber. That single decision elevated the company from the me-too to the better-mousetrap class, and might well be said to have been the making of the company. Today there are no more dissenters.

"Having cleared that hurdle, the next thing was to go to the top of the market, to the guys who pay top dollar, to the quality-conscious EDP customers and the military," says Sanders. "Gucci doesn't compete with Kinney in the shoe market, and when we built to MIL standard, we didn't have to sell on price. We developed brand preference, and that permitted us to develop proprietary products on which we could set out own price structure.

"It's still the engineers who decide what to buy in this industry. Engineers like to buy from us because we bust our ass for them, and when you've got customers that like you, you can't lose. One of the things they like right now is that we are running less than 2 per cent overall returns--for any reason--and only 0.7 per cent returns on bipolar LSI."

NO VENTURE, NO GAIN. Jerry Sanders is fond of quoting a line from Robert Browning: "Ah, but a man's reach should exceed his grasp, or what's a heaven for?" And Jerry Sanders has a long reach.

He realizes that to reach the growth he is charting in the given time frame will require some merger and acquisition activity. "ICs are the vehicle to get the company to the \$50 million level. Solid-state technology is vital. You can't live without it," says Sanders. "Getting into an alien business sucks up money, and I won't mess around with anything unrelated until we pass the \$20 million mark." Reminded that that benchmark is tickered for the coming year, he adds, "We will be open to new opportunities in the next fiscal year."

Expansion into peripheral areas will take place in the \$20-\$100 million frame, and then some plunges into some really far-out regions. By this time Jerry Sanders is talking not about business expansion, but whole new industries. There's only one hitch: "There aren't enough people with imagination and vision to make it happen."