

Signetics History

In March of 1961 Mark Weisenstern visited individually with David Allison, David James and Lionel Kattner, all engineers at Fairchild Semiconductor research labs. The above individuals had expressed disappointment with the direction and leadership of Fairchild. After the exit of Jay Last and Jean Hoerni and rumors of others leaving there seemed to be a lull in the atmosphere at the labs and very little direction from Gordon Moore.

Mark suggested to each of us to meet privately to discuss our futures. At the meeting it was decided that we would explore opportunities of financing to start a new company devoted exclusively to the development integrated circuits. Each founder had specific technical expertise to offer. At that time everyone referred to ICs as Solid Circuits (TI), Micrologic Circuits (Fairchild), molecular circuits, miniature circuits and microelectronics by others. I believe Signetics was the one of the first to refer to them as Integrated Circuits. After several meetings of the group of four, we realized that all of the known investors on the west coast represented a close knit group with connections to Fairchild, Teledyne and other Valley companies therefore we were reluctant to reveal our plans for fear of them being revealed. David Allison contacted his brother a stock broker in New York regarding financing. It was suggested by Allison's brother that we contact a Mr. Smith of Merrill Lynch Fenner and Smith which he did. We did not receive a response for over a month. Allison then called Merrill Lynch only to discover that Mr. Smith had passed away and our letter was in limbo. Merrill suggested that with our permission they would forward the letter to Lehman Brothers. Several weeks passed and we were becoming a little discouraged.

In the meantime I discussed our plans with a friend and a neighbor of mine that was a sales rep from TI by the name of George Pantazi. We had visited on numerous occasions since I was an ex Tler. I revealed to him my plans and he said he knew Mark Shephard, CEO and President of TI who might have an interest and he would call him and mention a group from Fairchild was interested in starting a new company for the production of integrated circuits. At that time TI had not yet been successful in producing a pure monolithic device in silicon nor did they possess the planar technology which was a requirement for monolithic devices. Mark Shephard immediately came to California to meet with our group. We revealed our plans for starting a new company. Shephard was extremely interested in our plans and told us TI would fund us for a startup in California. He returned to Texas and discussed his plans with the TI attorneys and management. The attorneys told him that TI would probably be sued by Fairchild and lose. He had to decline. It would have been very costly as well. Again our hopes were not good.

Within days after the TI disappointment we were contacted by Warren Hellman of Lehman Brothers and had a phone discussion of our plans. After the phone call Warren Hellman invited us to visit them in New York. We knew that if all of us left at one time

the management at Fairchild would be alerted. It was agreed that David James and I would represent the group at Lehman.

David James and I visited Lehman sometime in June of 1961. We discussed our plans and answered most of their questions except for a business plan which we did not have nor did we even know exactly what was involved. In any case Hellman said he would give us an outline of what they wanted to know. We left with a good feeling returning to Calif. We supplied financial information they requested as a business plan. Since there was no known market for ICs the only information we could give Lehman was the cost estimates. Lehman said they would be in touch in about a month to six weeks. In August of 1961 Lehman informed us that they would fund our new company. We immediately informed Gordon Moore of Fairchild of our plans to leave the company. It was short and sweet. We exited immediately.

The group explored several locations for our new company but space was limited except for the City of Sunnyvale south of Mountain View. We discovered a site that was being constructed on Maude Avenue. We contacted the developer, Perry Real Estate. The initial building was ~18,000 Sq. Ft. We were able to request design changes and immediately signed an agreement. Perry allowed us to use one office at their company for our use. To say the least it was crowded with the initial four followed by Jack Yelverton and Orville Baker both from Fairchild. We set up shop making plans for the facilities, and organization of the Company. We contacted Brobeck Phleger and Harrison in San Francisco to be our attorneys.

The initial name for the Company was Dynalog Corporation (not very appropriate to say the least). I discovered that the Foxboro Co. had a product called Dynalog which was a process recorder. Our attorney Whit Budge said we would need to come up with a new name. During the next several weeks we would all put suggested names on the blackboard but none really caught on. We were becoming somewhat frustrated when one day I entered the office and noticed a book on Baker's desk with the words networks and signals in its title. Suddenly it clicked and I wrote the word Signetics on the board after signals and a popular term "netics" currently in use by other companies such as Autonetics. After awhile everyone agreed that that would be the name, thus Signetics was conceived. Shortly thereafter our building was completed and we commenced operations.

Before the end of the year we had produced our first circuit a gate. After we left Fairchild we let it be known that we were planning to make only custom circuits in order to avoid direct competition with Fairchild. We did however try to solicit some custom business but it never really developed. The reason for custom business was that there was no established market for any products. We soon learned that only a set of standard circuits would be viable. David Allison and Orville Baker designed a product line of DTL circuits which would be much more difficult to make than the DCTL circuits we built at Fairchild. Further we knew these would become more desirable in the market place. In order to obtain the necessary specifications a much more difficult design and process

would be necessary. The Fairchild process involved a diffused isolation region in silicon for electrical isolation of components. Transistor characteristics would require a new process and design where the transistor would need to be smaller and the collector would need to be diffused in the silicon substrate. Emitter, base and collector would need tight tolerances.

A special designed step and repeat camera for fabrication of masks was built by Electromask out of Los Angeles. All other lab equipment required custom design. The rest of the start up is covered in other documents.

The initial organizational structure of the Company was as follows:

Directors: Warren Hellman, Lehman Bros.
Theodore Petterson, former Pres. Of Standard Oil of California
David James, President
Lionel Kattner, Vice President
Whit Budge, Attorney

Additional information is outlined in other documents to be supplied.