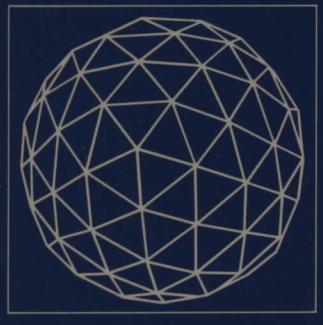
Intel Corporation Annual Report ▶ Delivering Solutions 1980



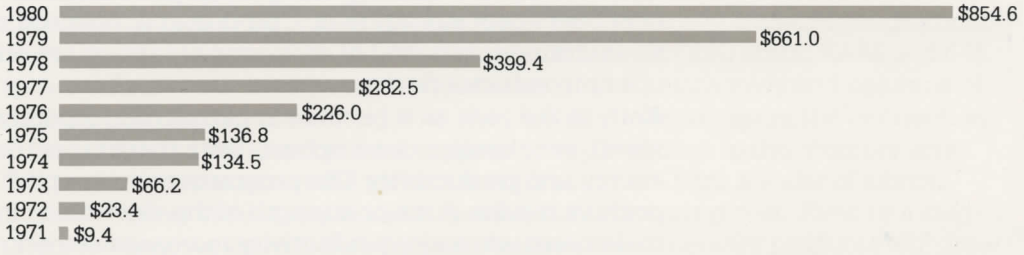
cover: The geodesic sphere symbolizes Intel's commitment to delivering total micro-electronic solutions to our customers. The sphere's elements, like Intel's varied products and services, combine to build complete systems.

Financial Highlights (Dollars in thousands-except per share amounts)

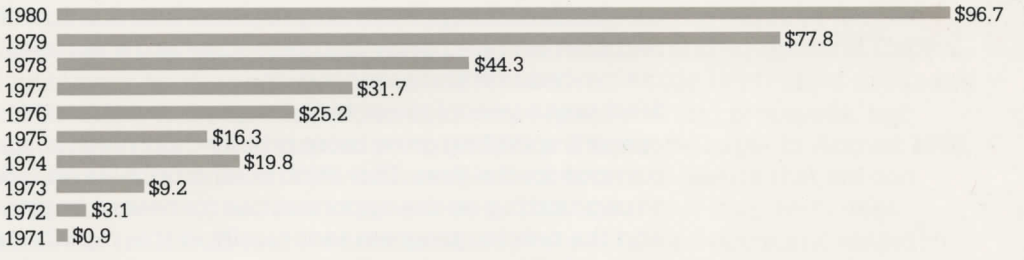
		1980	1979	Percent Change
Net revenues		$854,561	$660,984	29.3%
Income:	Before taxes	$185,329	$149,048	24.3%
	Net	$ 96,741	$ 77,804	24.3%
	Per share	$ 2.21	$ 1.85	19.5%
Return on revenues:	Before taxes	21.7%	22.5%	
	Net	11.3%	11.8%	
Return on average equity		26.3%	30.6%	

See page 26 for a description of our industry segment reporting.

Net Revenues
(Millions)



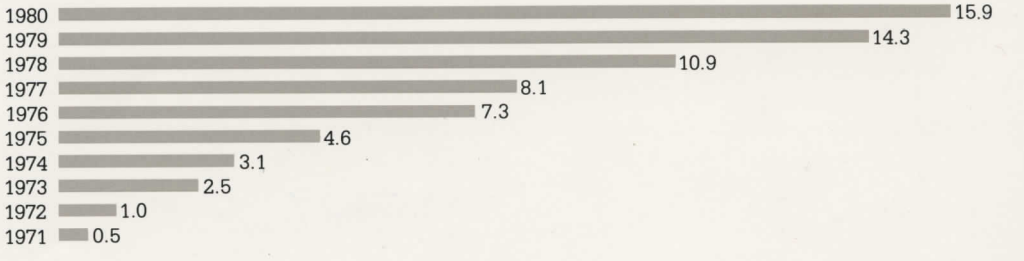
Net Income
(Millions)



Capital Additions
(Additions to Property, Plant and Equipment)
(Millions)

Research and Development
(Millions)

Employees
(At Year End)
(Thousands)

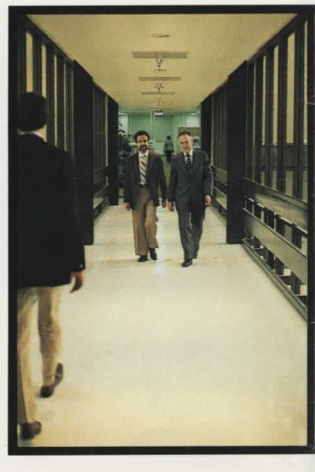


Although 1980 was a record year in which revenues grew by 29% and earnings by 24%, most of the growth took place in the first half of the year. In fact, earnings in the fourth quarter were down 1% from the comparable quarter in 1979, even though revenues were higher by about 13%. This is the first unfavorable quarterly comparison of earnings Intel has experienced since the recession year 1975. On a per-share basis, reflecting the two-for-one stock split in September 1980, earnings were $2.21 for 1980 vs. $1.85 in 1979. For the fourth quarter, earnings per share amounted to $0.52 vs. $0.54 in the similar 1979 period.

As the year progressed, an over-capacity situation developed in many product areas because of a sluggish economy and major world-wide expansions of manufacturing capacity. As a result, prices declined faster than we were able to decrease costs. It is likely that general price softness will continue until the economy again strengthens. Unit demand, however, has continued to grow. Even during this period of economic weakness we are shipping record quantities of semiconductor devices.

Early in the year, as it became apparent that capacity was likely to catch demand, we changed our emphasis from maximizing output to increasing efficiency and productivity. The programs to accomplish this have begun to have positive results. A major strength of the electronics industry has been its ability to demonstrate major productivity increases in manufacturing electronic functions through technological advances. In addition, we are extending productivity measures and improvement programs into administrative areas as well. The respite from rapid growth in personnel is giving us an opportunity to streamline our procedures and organization.

1980 was a year of major technological investment for Intel. Research and development spending grew more rapidly than revenue and averaged 11.3% of revenue for the year. This continued emphasis on R & D reflects our commitment to capitalizing on the opportunities for new or improved products and processes, and the need to progress technically in this rapidly moving field. This investment covered all our product lines, but was concentrated in microcomputer-related activities where we are working on a large number of new products.



We undertook a major campaign to describe to our customers the principal product directions they could expect from Intel over the next few years. We did this so that they could plan their product evolutions. Our plans include several new microprocessor advances as well as the development systems, board level products, software and peripheral circuits necessary to facilitate the use of our microprocessors. We integrated this campaign under the concept of Intel delivering "solutions" rather than simply "products." This idea is carried over as the theme of this report. Partially as a result of our campaign, we have been able to identify a large number of instances where customers have designed our 16-bit microprocessors into their system products. Each commitment should result in expanded business opportunities in the coming years.

Our R & D program has also produced a new generation of memory products. These include higher density static and dynamic RAMs and EPROMs, as well as a completely new type of memory function, the electrically erasable programmable read-only-memory or E²PROM. Our new 16,000-bit (16K) static RAM and 64K dynamic RAM both incorporate redundancy; that is, extra rows and columns of memory bits are included along with the circuitry to reconfigure the connections so that the extra bits can be used in place of any bad ones in the memory array. This technique increases the yield of memory circuits from a wafer of silicon, thus increasing availability and decreasing manufacturing cost. Even in a stagnant economy, we expect that demand for these new memory products will grow quite rapidly.

To grow and to move new technology into manufacturing requires that we maintain a high rate of capital investment in facilities and equipment. Capital investment for the year was a record $152 million. We are continuing to expand our facilities and capacity, especially for new products and processes, and anticipate that capital expenditures in 1981 will again be large. In August 1980, we issued $150 million of 7% convertible debentures to assure that we can maintain the required rate of investment. This is our only long-term debt.

1980 was a difficult year for Intel because of the confused economic situation, and 1981 is starting out the same way. We cannot predict how quickly growth will resume, but when it does, we feel Intel will be well-positioned financially and technologically to maintain its leadership position in the industry.

▼ left, Andrew S. Grove; right, Gordon E. Moore.

Gordon E. Moore
Chairman of the Board of Directors and Chief Executive Officer

Andrew S. Grove
President and Chief Operating Officer

This year's annual report looks at how Intel "delivers solutions" to its customers. In the group interview that follows, eight members of the company's executive staff discuss what the idea of delivering solutions means, how it is shaping Intel, and why it is essential to the company's future growth.

What do we mean when we say Intel delivers solutions?

▶ **Moore** It's basically a way to express our view that we have to do more than just produce microelectronic components. We have to help solve the common problem all our customers face: how to integrate Intel's circuits into their products as quickly and inexpensively as possible. To solve that problem, Intel has to offer not only a complete and well-integrated product line, but also quality assurance, software, applications support, customer training, product service and the other elements that add up to total service for the customer.

Davidow Maybe another way of looking at solutions is to say that our objective is to reduce as much as possible the investment customers have to make to use our products. The lower the investment, the more attractive it becomes to integrate Intel products into a word processor, instrument, automobile or whatever.

Noyce Our emphasis on delivering solutions also reflects a fact of life: we have succeeded in driving the cost of hardware down to a point of relative insignificance. The great majority of system cost now comes from software and all the other things a customer must have to use our hardware. So, if we want to continue selling hardware, we have to help the customer with the rest of the process too.

Carsten The hardware may be inexpensive but it has become so complex —and the applications it's going into have become so complex—that it becomes difficult to use it effectively unless the manufacturer supplies the development systems, software, debug aids and applications help needed to build up the solutions.

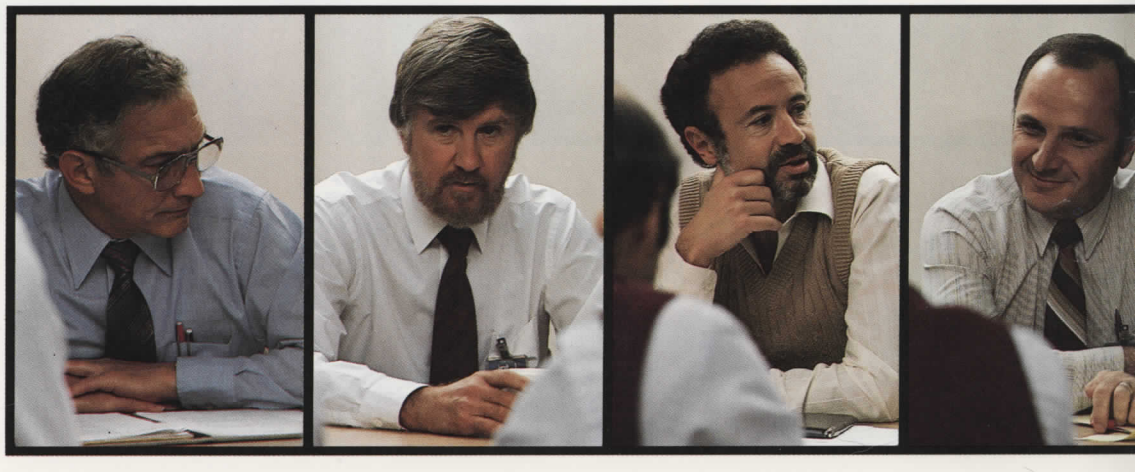
Gelbach We're one of the few companies that has the opportunity to provide the whole spectrum of solutions. We have expertise in silicon technology, obviously, but we've also developed strong capabilities in software and systems. As a result, we can bridge the gap effectively between the customer's problem and the solution.

Is this solutions orientation a change from Intel's past?

▶ **Grove** Rather than being a change, I think it's more an articulation of how we have evolved as a company in response to market needs. Since the beginning of Intel, really, we have been moving our product line and our capabilities in a direction designed to remove as much of the burden of implementation as possible from customers. This was the principle behind the introduction of our development systems, our peripheral processors, single board computers, in-circuit emulation and so on. That process is continuing with the integration of operating systems and high level languages into silicon.

Crane I think it's also important to note that all of these steps were taken

left to right: Robert Noyce, Edward Gelbach, Andrew Grove, Vaemond Crane, Jack Carsten, Gordon Moore, Leslie Vadasz, William Davidow.



with a philosophy of compatibility in mind. Processor architectures, board-level products, software, upgradeable development systems—everything must fit together.

Davidow What's being said here is that we couldn't be delivering nearly as high a level of solution today if we hadn't been working on the problem for years with a common plan in mind.

What effect has a solutions orientation had on the structure of the company?

▶ **Grove** Very significant, both in the field and the factory. In the field, we have built one of the largest networks of applications engineers in the semiconductor industry. We have also added field quality assurance, sales support specialists, on-site customer training and product service people. At the factory, one of the main trends is the increasing number of software professionals we have hired in recent years.

Carsten One important thing that hasn't changed, though, is that our OEM field sales force is still handling virtually the entire product line. We've looked at breaking it into systems and components but it doesn't make a lot of sense given our solutions emphasis. We tend to be less compartmentalized and that makes it much easier to integrate new technology. In an industry that moves as fast as this one, that characteristic can be critical.

What does a solutions orientation mean in terms of Intel's future technology and product development?

▶ **Davidow** It means that every time we develop a complex product we're going to have a much greater investment in getting that product to the market and making it useful in terms of the applications assistance, documentation, customer training and field sales force training required. While these steps make it more expensive, they also make the product more useful to the customer, which should enable him to use it more broadly in his products. It makes the job tougher on Intel, but it's also tougher on our competition.

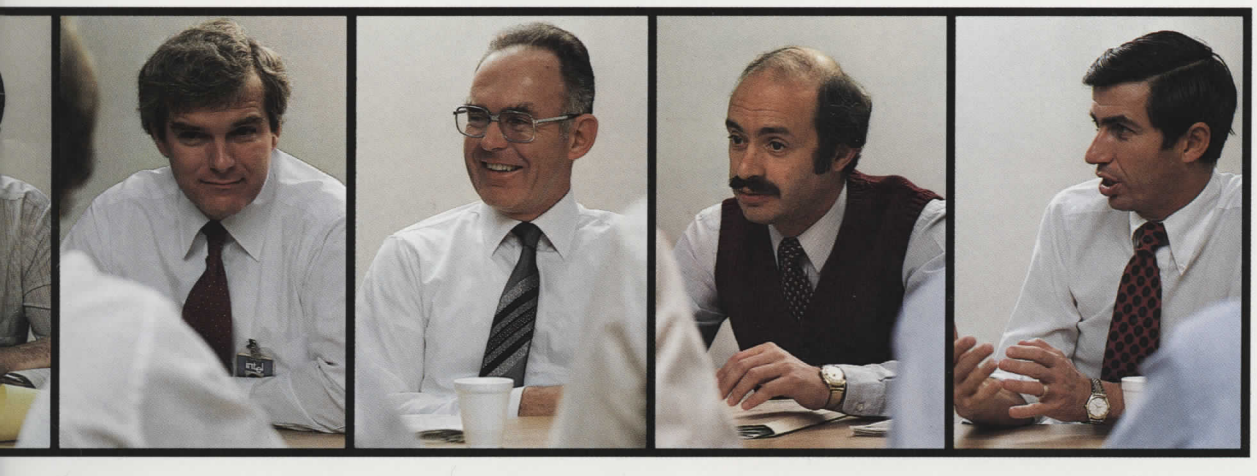
Grove Another answer to that question is that we now have the capability to put into silicon a number of functions formerly relegated to the customer. This is central to our product planning and technology development for the future.

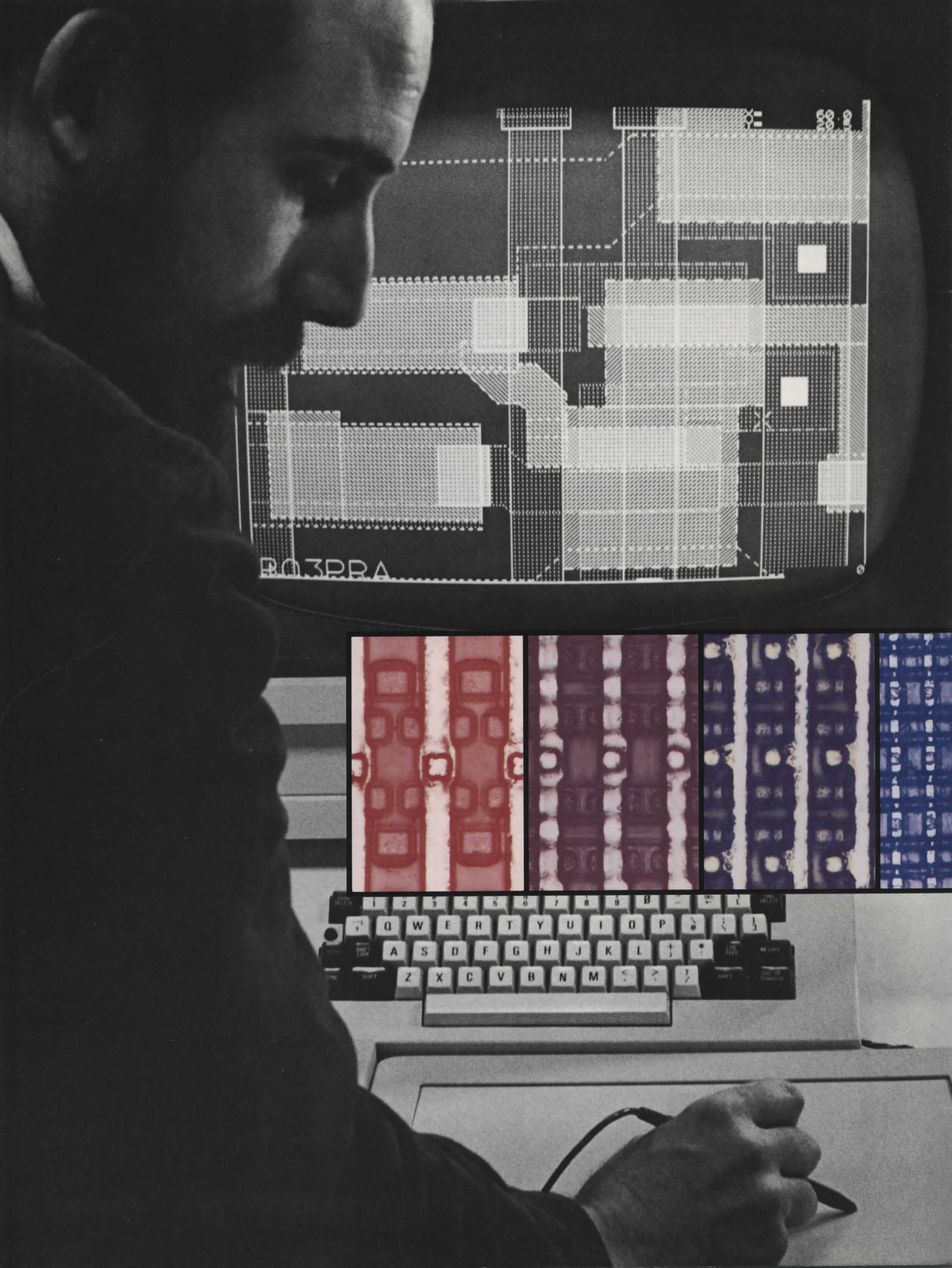
Gelbach One other impact of a solutions approach to product development is the human complexity of the process. The chips are no longer the property of one designer or even one group of designers. Products now become the responsibility of multi-organizations. Software people have to provide guidance; quality assurance experts are involved and systems professionals also affect the chip's architecture. Ten years ago, one person could develop a chip; today it's a team.

Finally, what does Intel's solutions orientation mean to the customer?

▶ **Vadasz** It should mean a shorter time to market for the customer's product because he has one central source that can give him the components and boards, software, design aids, applications help, reliability and costs that he would otherwise have to try to assemble from several suppliers.

The pages that follow discuss seven aspects of Intel's commitment to delivering solutions to its customers.




Q W E R T Y U I O P
A S D F G H J K L
Z X C V B N M

◀ **"Using the APPLICON graphics design system shown here, we can generate and revise circuit designs easily. This is a real plus when we're reducing the size of existing products to get more on a wafer. We can do the job quickly and inexpensively, and keep complete control over which design features to reduce in size."**

Steve Kastner, Computer-Aided Design Group

The solution begins with the product, and few other companies have delivered as many important microelectronic product innovations as Intel. LSI memory, the microprocessor, the erasable programmable read-only memory (EPROM), the single chip microcomputer—all have come from Intel. In the 1970s, these and other advances made it possible for designers to incorporate electronic intelligence into a broad array of products for the first time.

Success has brought its own problems, though. While the availability of low cost, increasingly powerful hardware has spurred the industry's growth, it has also driven us toward an emerging impasse. The cost of developing and maintaining the software required to make a general purpose microcomputer do a specific task has risen sharply. These costs now represent up to 75% of the total required to develop an electronic solution.

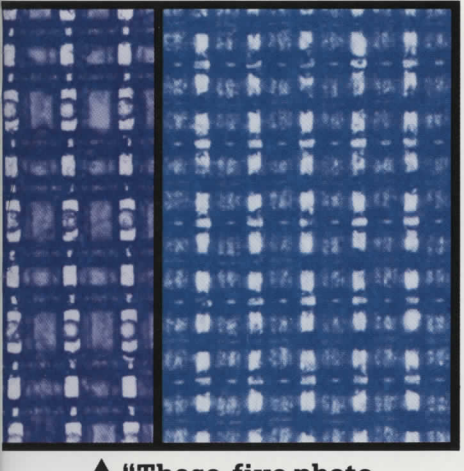
One of Intel's goals for the 1980s, then, is to reduce the cost of the total electronic solution—the cost customers incur when they incorporate microelectronics into their products.

Our approach to this task is to integrate into silicon hardware a number of functions traditionally executed in software routines. New "co-processors" such as our 8087 and 8089 address this need by executing arithmetic and input/output routines, respectively, in far fewer lines of software code. To gain a sense of the importance of this, consider that the average program size has doubled in the last five years as the complexity of applications has increased. Today's typical 16-bit application has up to 100,000 lines of software code, and the life-cycle cost to develop and maintain each line of code is approximately $40-60. Toward the end of reduced software development costs, Intel will soon introduce microprocessors that incorporate elements of operating systems and high level languages into silicon.

One of the key strengths Intel brings to the task of delivering minimum cost electronic solutions is the conceptual unity of our product line. It has grown from just two products in 1969 to over 300 today, and compatibility has been emphasized throughout this growth process. The result is a complete, smoothly integrated set of capabilities. For the customer, this offers assurance that central processors, peripherals, memories, development systems, de-bug aids and software will work together and that today's investment in Intel hardware and software will be protected and upgradeable to the Intel products of the future.

Intel's technological focus is not only on new products but on upgrading existing ones as well. Using advanced computer-aided design techniques we are able to introduce products like the 8048H and 8085AH, HMOS versions of our 8048 single chip microcomputer and 8085 microprocessor. As an example of the progress being made, the 8048H is 27% smaller, 33% faster and 16% less expensive than the original version. Smaller size means we can put more chips on a wafer of silicon. This gives us a competitive cost advantage that enables Intel to retain market position in mature products that are broadly second-sourced by competitors.

In new products, and in existing products, Intel is committed to staying on the leading edge.



▲ **"These five photomicrographs show the shrinking size of EPROM memory cells over the past decade. Our newest EPROM stores 32 times as many bits as our first model and operates 4 times faster."**

Ryan Wood, Special Products Division

◀ **"The bonus meeting is the primary communication vehicle for a fabrication plant. Production goals for both quality and quantity are compared to performance, and the monthly cash bonus for the fab operators is announced. Suggestions are made, questions are answered, and problems are discussed. I think bonus meetings promote quality and a team spirit."**

Jeff Wise, Fabrication Plant Manager

▼ **"Our new digital furnaces give us much tighter control over the diffusion process. The result is higher product quality for the customer and increased yield per wafer for Intel."**

Keith Reese, Diffusion Engineer

"**Q**uality assurance" may bring to mind the image of a worker inspecting every nth part manufactured. That certainly takes place at Intel, but it's only a fraction of the total job. Quality assurance is a process that never ends. It begins in the earliest stage of product design, affects virtually every phase of manufacturing and carries through to long-term monitoring of a product's field performance. Reliability data from the field then becomes the knowledge base for improving the next generation of products.

When new Intel products pass from the idea stage into initial planning, quality assurance professionals begin working with process engineers and circuit designers to eliminate characteristics that could cause reliability problems. As development proceeds, products are tested for initial performance and then exercised to simulate years of customer use. In addition to approving product performance, Intel's quality assurance group also certifies that the manufacturing process and the facilities that will be used to fabricate, assemble and test a product meet standards.

A new product is then tested in prototype applications by cooperating customers and Intel's systems operations. Given the complexity of today's components and systems, such on-site testing is critical to product quality.

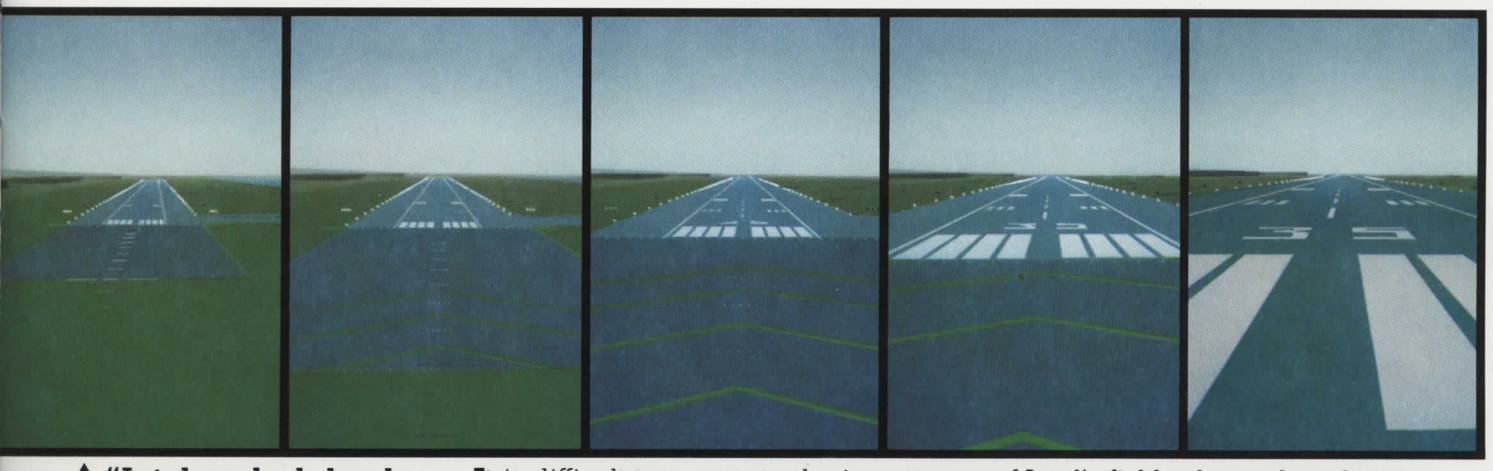
When a product has passed all the tests discussed above, it is ready to ship in volume quantities. It is noteworthy that the committee that makes the decision to release a product for shipment is chaired by Quality Assurance.

Once a product is in the field, the manufacturing process itself is monitored to make sure it is continuing to deliver to standards. Product testing involves the sampling of over 150,000 finished components per month and testing of every system-level product that comes off the line.

The Quality Assurance group also watches over field performance, receiving monthly "report cards" from major customers on the performance of Intel products, and working with Field Sales and Product Service to handle problems as they occur. Intel's product reliability laboratories in Paris, Tokyo and Santa Clara give customers rapid access to field quality assurance experts capable of analyzing and resolving problems.

Intel's recognized position as the pioneer in product development has demanded that we also be the pioneer in product reliability. The ability to develop a sophisticated product means little if it cannot be produced in high volumes and used with confidence. In these areas as well, Intel has set the pace.


DATALOGGER



▲ **"Intel worked closely with the Link Division of Singer Company when Link decided to use our standard Series 90 system as the bulk memory in this advanced flight simulator. The simulator provides an extremely realistic and energy-efficient way to train pilots."**

Ron Ferguson, Major Accounts Sales Development Engineer

◀ **"Core Laboratories is developing an advanced oil well logging system that collects data such as drilling depth, rate of penetration, and drilling mud properties. We have been assisting in the integration of Intel single board computers into the system."**

Dave Takacs, Distributor Sales Engineer

It is difficult to overstate the importance of Intel's field sales and applications engineers. They are the primary contact points with our customers and play a key role in the process of delivering solutions.

To understand their value, it is useful to look at the nature of the microelectronics industry. It can be characterized as recent, rapidly changing and technologically complex. These attributes can make it difficult for some customers to chart a clear course to the most cost-effective electronic solution. The problem is magnified by the fact that decisions about which manufacturer's equipment to use in a new product will have a critical effect on its performance and success. Enter the Intel field sales and applications team.

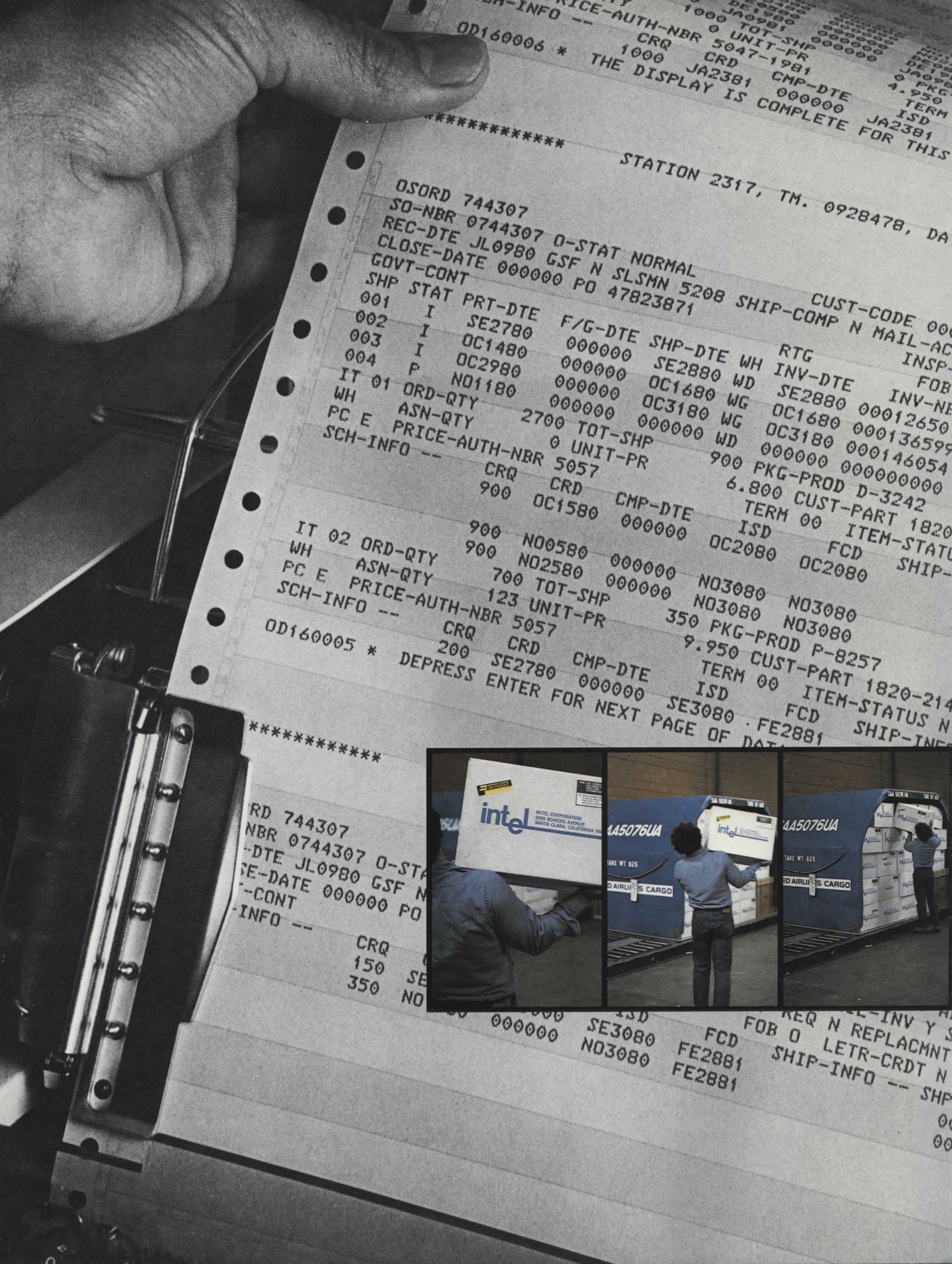
The field sales engineer's role is to identify application opportunities at a customer company, coordinate the human resources Intel can bring to bear and provide continuity before and after the sale. Once an opportunity has been identified, a field applications engineer joins the effort and helps match a customer's needs with Intel's capabilities. This involves choosing among our many components, memory systems, single board computers, development systems, debug tools and software and tailoring the best solution.

When the right solution has been chosen and designed into a customer's product, the applications team shifts its focus to providing the hardware and software development and implementation assistance needed to bring the customer's product to the market in the shortest possible time.

Intel's field sales and applications force in the United States, Europe and Japan is one of the largest in the semiconductor industry. It is being strengthened even more by the creation of a corps of applications specialists to provide in-depth consulting resources to field applications engineers and their customers. Specialists provide field-based expertise in operating systems, high level languages, signal processing, complex peripherals, microcontrollers, mid-range processing and the new iAPX 432 microsystem.

Intel has also taken steps to assure that customers served by our independent distributors receive the best possible applications assistance. We offer a certificate program that enables distributors' applications engineers to be trained and updated frequently on the array of Intel solutions available. Our own field applications engineers spend up to 20% of their time in field and factory training. Such training is begun up to one year in advance of the introduction of a complex product to assure that the field force is fully capable of meeting customers' needs when the product becomes available.

By 1984, Intel plans to quadruple the size of its field applications group—ample evidence of the importance the company places on this service for customers.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◀ **"Speed, accuracy and better productivity are the major benefits of our new computerized Sales Tracking and Reporting System. Orders are checked, entered, approved, scheduled, shipped and invoiced—all on one on-line system."**
Priscilla Standish, Sales Support Supervisor

▼ **"In Traffic, we are literally freight travel agents. We create packages that move freight in the fastest, least expensive manner. We have a 36-hour turnaround to our Brussels warehouse, a similar turnaround to Japan and a unique freight consolidation program for worldwide customers."**
Tom Gratiot, Traffic Manager

Three years ago, Intel handled an average of 5000 customer transactions monthly. In 1980, the figure grew to 17,000 and should continue to expand rapidly in the future. As a result, we have been investing heavily in the systems and people needed to continue meeting our commitment to prompt, accurate processing of customer orders.

A notable example is our Sales Tracking and Reporting (STAR) system. This computerized transaction processing and management reporting system replaces a labor-intensive procedure that was sufficient in the past but inadequate for our future.

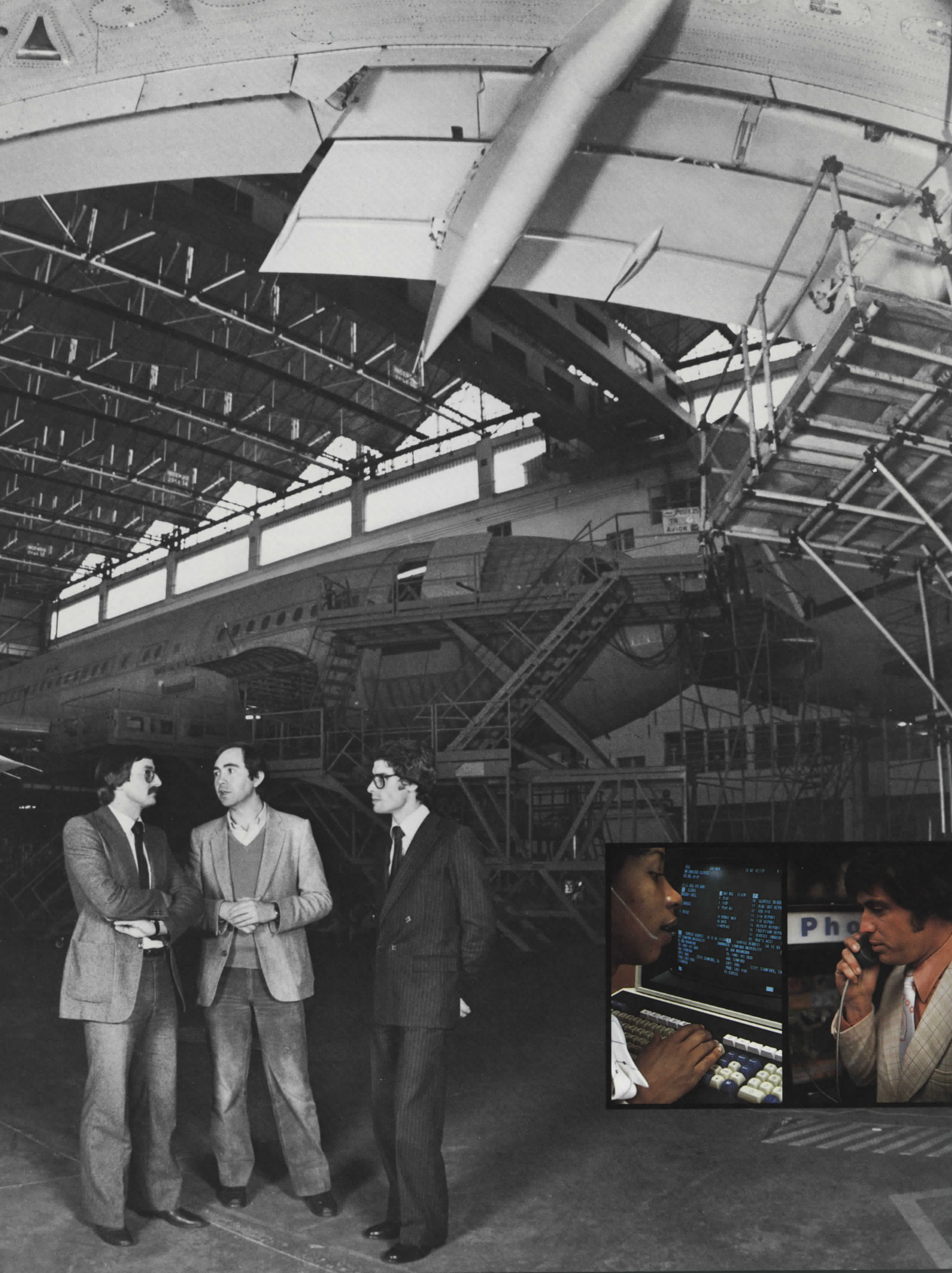
In the STAR system, new orders are entered via on-line terminals located in field sales offices. The order then is passed through the system electronically. At other terminals in Intel factories, offices and warehouses, the order is approved, specifications are checked, materials are scheduled, a shipping list is generated and an invoice is dispatched. STAR's on-line editing features enable it to check automatically whether part numbers are entered correctly, whether the order meets customer specifications, etc. As a result, incorrect orders are less likely to enter the system.

STAR currently links all our U.S. sales offices with the factory and will soon include our offices in Europe and Japan. For both Intel and its customers, STAR promises faster, more accurate order processing.

We are also putting into place a new force of sales support specialists. Soon many Intel accounts will be served by a three-person team: a field sales engineer, field applications engineer and a sales support specialist dedicated to expediting orders, handling inquiries and resolving problems for the customer.

An essential part of the Intel "culture" is a belief that we should measure every possible aspect of our performance. This belief is evident in our approach to customer service as well. We track how long it takes to input, approve, schedule and acknowledge orders, for example. We also measure missed and wrong shipments and are now working on a method to quantify customer satisfaction with Intel's order handling and shipping performance.

Our emphasis on performance measurement and our investment in new administrative systems are both designed to make sure that Intel's capability to deliver, literally, keeps pace as our customer base and range of products continue to expand.



◀ **"SFENA, a leading European manufacturer of avionics systems, is the prime contractor for the digital flight control system built into the new generation of Airbuses manufactured here in Toulouse, France. We have been working with SFENA for three years on the system, which includes Intel's 8086, 8085, 8748, 8741 and 2716. The system is much more reliable, uses less power and costs less to operate than analog systems."**

Jean-Luc Bouvresse, Field Applications Engineer, Paris

▼ **"Computerized dispatch shortens our response time for service calls on systems such as this FAST 3805 semiconductor disk system being installed at Stanford University."**

Paul Cook, Regional Specialist, Product Service

After an Intel product has been designed, manufactured, purchased and shipped, our responsibility changes but doesn't lessen. It is at this point, then, that a substantial number of Intel people operate to provide a variety of post-sale benefits to customers.

A prime example is product service. Customer engineers at 45 locations in the U.S., Europe and Japan serve users of Intel memory systems, single board computers and microcomputer development systems. One of their key responsibilities is to prevent problems through preventive maintenance programs. This service, offered as part of a total maintenance agreement, minimizes expensive system downtime.

When problems do occur, Intel has a responsive network to provide a quick solution. This is perhaps typified best by our hardware hot lines in Phoenix, England and Japan. About one-third of the time, a phone conversation with Intel on the hot line will enable customers to solve the problem themselves, eliminating unnecessary downtime and service calls. If that doesn't work, a customer service engineer is dispatched or, when customers are distant from a service facility, a replacement part is expressed for 24-hour arrival.

Other tasks performed by the product service group include installation of major systems and training the service personnel of customers from distant countries such as India.

Intel frequently updates its system software products to incorporate performance enhancements. This year, for example, we updated our CREDIT™ CRT-based text editor. Editing time has been cut in half as a result. This was one of 11 such updates issued in 1980. Under Intel's warranty and warranty extension programs, these improvements are delivered automatically to registered owners of Intel software products.

The first several months after customers begin shipping a new product that incorporates Intel components or systems are critical in refining the product's application software. During this period, Intel field applications engineers work closely with customers to iron out previously overlooked wrinkles in their programs. Backing up the field applications engineer are a field software specialist and software experts at Intel headquarters.

If a component reliability problem occurs, Intel's three reliability labs in Japan, Paris and Santa Clara will conduct field failure analyses to solve the problem. If necessary, the quality assurance group assembles multidisciplinary teams from its own staff that may include reliability physicists, chemical engineers, product designers and software engineers, among others.

In short, these various services help assure that at Intel the solution doesn't end when the sale is made.

◀ **"In customer training, Intel stresses hands-on experience, whether it be on microcomputer kits, development systems, in-circuit emulators or single board computers. Between 25-50% of each workshop is hands-on training, which we feel is more effective than an all-lecture approach."**

Jack Aiello, U.S. Customer Training Manager

When Intel invented the microprocessor in 1971, the company faced a fundamental problem; few potential customers knew how to work with this new breed of device. Shortly thereafter, Intel launched a customer training program that has since grown considerably. In 1980 alone, Intel offered 600 workshops worldwide to train over 7000 employees from customer companies.

Nineteen courses are offered at three levels to meet the needs of virtually every customer audience. For the manager there are two introductory courses dealing with microcomputer basics. More advanced courses for systems designers and programmers focus on 8 and 16-bit hardware and software, single chip microcomputers, peripheral chips, single board computers and development systems.

The common philosophy of all courses is "hands-on" training in 2-5 day modules that can either stand alone or be taken serially to construct a complete, well-integrated program. Class size is kept small—12-15 students in most cases—and workshops are fully equipped with Intel equipment.

For the customer, Intel training offers several advantages. It saves money by preventing the costly mistakes that can be made by under-trained employees. It also works to shorten the product development cycle by assuring that engineers are both fully aware of the features of Intel products and capable of exploiting them. Intel's objective is to have a training course available whenever we introduce a new group of products such as the 8051 microcontroller family.

One very strong feature of the Intel program is its worldwide scope. In the United States, there are three permanent centers in the San Francisco, Chicago and Boston areas. In Europe workshops are offered at centers in France, Germany, Sweden and England, and Intel also has a training center in Japan.

When a customer wants to train several engineers simultaneously in a given course, Intel will bring an instructor and van of equipment to the customer's site. In 1980, over 150 such on-site courses were given in the United States and Europe.

▼ **"Intel has 8 customer training centers around the world, but we also do workshops such as this one in Dallas, Texas. We have a number of training vans that bring equipment to the locations so customers get the same experience as at a training center."**

Dave Potter, Instructor, Customer Training

In addition to the formal curriculum of customer training workshops, Intel field application engineers also present hundreds of local seminars each year to keep customers current on new products coming from Intel.

Training is becoming even more important as the technological complexity of both Intel products and customer applications continues to increase. Customers must have a way to bring their engineers through steeper learning curves quickly and effectively. Intel training is the solution.

◀ **"These scanning electron microscope photos of MOS contact layers, magnified 25,000 times, show how our new plasma etching process is superior to the wet etching process formerly used. Notice how the wet-etched layer on the left is undercut. With plasma etching, shown at right, we eliminate this problem. This gives us better control, which results in higher manufacturing yields and smaller products."**

Yaw Hu, Process Engineer

In an industry that moves forward as rapidly as our own, it is fair to say a company begins to fail the moment it becomes satisfied it has succeeded. For this reason, we work continually to learn from our successes—and our failures—in order to build the next level of solutions for our customers.

To make sure that experience gained in the field benefits our planning process, we have our field applications engineers participate regularly in meetings of the groups that decide future design, marketing and production strategies for specific products. Field applications engineers offer a unique perspective to these sessions because they are the people who work most closely with customers in developing solutions from Intel's array of components and systems.

Another perspective is provided by the customer engineers who install and repair Intel systems in the field. They sit in on product planning sessions and work closely with designers to assure that new systems are readily serviceable.

We also work to learn from our customers' experiences with our products. In one-on-one meetings, seminars and symposia, we seek their assistance in monitoring and improving the performance of old products as well as defining and developing new ones.

Over 10% of Intel's revenues are devoted to research and development into improved processes and products. The experience gained from this effort has enabled us to advance in one decade from the era of Large Scale Integration (LSI) of electronic functions into today's Very Large Scale Integration (VLSI). We can now design and manufacture devices that integrate more than 100,000 transistors per chip and perform functions traditionally done in software routines.

The idea of learning from experience, however, has meant more than pushing the technology to produce ever-more-complex devices. It has been the guiding force behind the evolution of our product line. Starting from a base as a components manufacturer we have added the compatible, interrelated products and services needed to build electronic solutions for our customers. This process will continue to guide the growth of the company in the future.

▼ **"We bring in product service engineers to give us advice during the design stage of a new development system. They're the people who will ultimately have to service the system, so they have a strong interest in making sure it's designed right from a service point-of-view."**

Mike Fister, Development System Design Project Leader

Consolidated Statement of Income (Thousands—except per share amounts)

Three Years ended December 31, 1980	1980	1979*	1978*
NET REVENUES	**$854,561**	**$660,984**	**$399,390**
Cost of sales	399,438	313,106	196,376
Research and development	96,426	66,735	41,360
Marketing, general and administrative	175,577	131,974	76,611
Operating costs and expenses	671,441	511,815	314,347
Income before interest and other and taxes on income	183,120	149,169	85,043
Interest and other	(2,209)	121	(1,508)
Income before taxes on income	**185,329**	**149,048**	**86,551**
Taxes on income	88,588	71,244	42,237
NET INCOME	**$ 96,741**	**$ 77,804**	**$ 44,314**
Earnings per capital and capital equivalent share	**$ 2.21**	**$ 1.85**	**$ 1.08**
Capital shares and equivalents	**43,720**	**42,145**	**41,031**

*Amounts have been reclassified to conform with 1980 presentation.

Consolidated Statement of Shareholders' Equity (Thousands)

Three Years ended December 31, 1980	Capital Stock			
	Number of Shares	Amount	Retained Earnings	Total
Balance at December 31, 1977	**38,692**	**$ 58,611**	**$ 90,331**	**$148,942**
Repurchase and retirement of capital stock	(16)	(18)	(201)	(219)
Proceeds from sales of shares through employee stock plans and tax benefit thereof	1,156	12,025	—	12,025
Net income	—	—	44,314	44,314
Balance at December 31, 1978	**39,832**	**70,618**	**134,444**	**205,062**
Proceeds from sales of shares through employee stock plans and tax benefit thereof	1,180	19,869	—	19,869
Acquisition of MRI, Inc.	372	4,562	(4,108)	454
Net income	—	—	77,804	77,804
Balance at December 31, 1979	**41,384**	**95,049**	**208,140**	**303,189**
Proceeds from sales of shares through employee stock plans and tax benefit thereof	1,352	32,930	—	32,930
Net Income	—	—	96,741	96,741
Balance at December 31, 1980	**42,736**	**$127,979**	**$304,881**	**$432,860**

See accompanying notes.

Consolidated Balance Sheet (Dollars in Thousands) Intel Corporation

December 31, 1980 and 1979	1980	1979
ASSETS		
Current assets:		
Cash and cash equivalents	$ 15,642	$ 19,846
Short-term investments, at cost which approximates market	112,039	14,305
Accounts receivable, net of allowance for doubtful accounts of $4,296 ($4,820 in 1979)	195,644	139,177
Inventories	91,401	78,733
Prepaid taxes on income and other	31,883	30,641
Total current assets	**446,609**	**282,702**
Property, plant and equipment:		
Land and buildings	165,831	84,961
Machinery and equipment	222,140	168,047
Construction in progress	48,417	41,129
Equipment leased to others	10,546	9,498
	446,934	303,635
LESS Accumulated depreciation and amortization	126,375	86,244
Net property, plant and equipment	**320,559**	**217,391**
TOTAL ASSETS	**$767,168**	**$500,093**
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current liabilities:		
Notes payable	$ 11,844	$ 19,124
Accounts payable	30,350	29,972
Deferred income on shipments to distributors	46,033	41,644
Accrued liabilities	39,902	34,105
Profit sharing retirement plan accrual	15,250	8,100
Income taxes payable	3,892	34,949
Total current liabilities	**147,271**	**167,894**
7% Convertible subordinated debentures	**150,000**	**—**
Deferred taxes on income	**23,266**	**18,866**
Unamortized investment tax credits	**13,771**	**10,144**
Shareholders' equity:		
Capital stock, no par value, 75,000,000 shares authorized	127,979	95,049
Retained earnings	304,881	208,140
Total shareholders' equity	**432,860**	**303,189**
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY	**$767,168**	**$500,093**

See accompanying notes.

Consolidated Statement of Changes in Financial Position (Thousands)

Three Years ended December 31, 1980	1980	1979	1978
Working capital provided by operations:			
Net income	$ 96,741	$ 77,804	$ 44,314
Charges to income not involving the current use of working capital:			
Depreciation	48,983	40,375	24,134
Non-current portion of deferred taxes on income and deferred investment tax credits	8,027	6,782	9,577
	153,751	124,961	78,025
Working capital provided by proceeds from issuance of convertible subordinated debentures	150,000	—	—
Working capital provided by proceeds from sales of shares through employee stock plans and tax benefits thereof net of repurchases in 1978	32,930	19,869	11,806
	336,681	144,830	89,831
Working capital used for net additions to property, plant and equipment	(152,151)	(96,681)	(104,157)
Working capital effect of MRI, Inc. at acquisition	—	(491)	—
Increase (decrease) in working capital	**$ 184,530**	**$ 47,658**	**$ (14,326)**
Increase (decrease) in working capital by component:			
Cash and cash equivalents	$ (4,204)	$ 7,568	$ 6,287
Short-term investments	97,734	(1,690)	(17,477)
Accounts receivable	56,467	40,994	41,732
Inventories	12,668	27,018	18,038
Prepaid taxes on income and other	1,242	12,387	6,716
Notes payable	7,280	24,514	(43,638)
Accounts payable	(378)	(7,881)	(9,653)
Deferred income on shipments to distributors	(4,389)	(15,599)	(11,710)
Accrued liabilities	(5,797)	(14,902)	(3,982)
Profit sharing retirement plan accrual	(7,150)	(8,100)	—
Income taxes payable	31,057	(16,651)	(639)
Increase (decrease) in working capital	**184,530**	**47,658**	**(14,326)**
Working capital at beginning of year	114,808	67,150	81,476
Working capital at end of year	**$ 299,338**	**$ 114,808**	**$ 67,150**

See accompanying notes.

ACCOUNTING POLICIES

Basis of presentation The consolidated financial statements include the accounts of Intel Corporation and all of its subsidiaries. In February 1979, Intel acquired all of the outstanding shares of MRI, Inc., a supplier of software products for data base management, in exchange for 372,000 Intel capital shares. This transaction was accounted for as a pooling of interests; however, prior year financial statements were not restated as the amounts involved were not material.

Inventories Inventories are stated at the lower of cost or market. Cost is on a first-in, first-out basis for materials and purchased parts and is computed on a currently adjusted standard basis (which approximates average or first-in, first-out cost) for work in process and finished goods. Market is based upon estimated realizable value reduced by normal gross margin. Inventories at December 31, are as follows:

	1980	1979
	(Thousands)	
Materials and purchased parts	$33,269	$26,572
Work in process	41,208	39,732
Finished goods	16,924	12,429
Total	$91,401	$78,733

Property, plant and equipment Property, plant and equipment are stated at cost. Depreciation is computed for financial reporting purposes principally by use of the straight-line method over the estimated useful lives of the assets. Accelerated methods of computing depreciation are used for tax purposes.

Deferred income on shipments to distributors Certain of Intel's sales are made to distributors under agreements allowing right of return and price protection on merchandise unsold by the distributors. Because of rapid technological obsolescence and frequent sales price reductions in the industry, Intel defers recognition of such sales until the merchandise is sold by the distributors.

Investment tax credits Investment tax credits are accounted for using the deferral method whereby credits are treated as a reduction of the U.S. federal tax provision ratably over the useful lives of the related assets.

Earnings per capital and capital equivalent share Earnings per share are computed using the weighted average number of outstanding capital shares and capital equivalent shares. Capital equivalent shares consist of shares issuable under employee stock option plans computed by the treasury stock method. Capital equivalent shares relating to Intel's 7% convertible subordinated debentures have not been included because they are antidilutive when considering interest on the debentures.

Capital stock In September 1980, Intel increased its authorized shares from 37,500,000 to 75,000,000 and declared a two-for-one stock split. Three-for-two and five-for-four stock splits were declared in April 1979 and August 1978, respectively. Shares and per share amounts reported herein have been restated to reflect the effects of these stock splits.

BORROWINGS

Intel's borrowings are comprised of 7% convertible subordinated debentures and notes payable. The debentures were issued in August 1980, are due in August 2005 and are subject to annual sinking fund requirements of $5,400,000 commencing in August 1991. These debentures may be converted into shares of Intel capital stock at a conversion price of $60.50 principal amount for each share of capital stock. Intel may redeem all or any part of the debentures at any time subject to a premium through August 1999. Such premium is 7% as of December 31, 1980 and declines by .35% annually. Approximately 2,480,000 shares of capital stock are reserved for issuance under terms of the debenture agreement.

Notes payable have been issued under established foreign and domestic lines of credit which approximate $190,000,000 at December 31, 1980. These lines are generally renegotiated on an annual basis. The weighted average interest rate on borrowings outstanding under these lines at December 31, 1980 approximated 10.7%. Intel complies with compensating balance requirements related to certain of these lines of credit. Such requirements do not legally restrict Intel's use of cash.

INTEREST AND OTHER

	1980	1979	1978
		(Thousands)	
Interest expense	$ 6,784	$ 2,758	$ 769
Interest income	(9,280)	(2,012)	(1,230)
Foreign currency (gains) losses	287	(625)	(1,047)
Total	$(2,209)	$ 121	$(1,508)

Interest capitalized during 1980 in accordance with FAS No. 34 approximated $750,000.

TAXES ON INCOME

Taxes on income are comprised of the following:

	U.S.	Foreign	Total
		(Thousands)	
1980			
Pretax income	$153,221	$ 32,108	$185,329
State income taxes	$ 12,309	$ —	$ 12,309
U.S. Federal income taxes	60,449	—	60,449
Foreign income taxes	—	15,830	15,830
Taxes on income	$ 72,758	$ 15,830	$ 88,588
Effective tax rate	47.5%	49.3%	47.8%
1979			
Pretax income	$115,146	$ 33,902	$149,048
State income taxes	$ 9,833	$ —	$ 9,833
U.S. Federal income taxes	44,636	—	44,636
Foreign income taxes	—	16,775	16,775
Taxes on income	$ 54,469	$ 16,775	$ 71,244
Effective tax rate	47.3%	49.5%	47.8%
1978			
Pretax income	$ 63,935	$ 22,616	$ 86,551
State income taxes	$ 5,705	$ —	$ 5,705
U.S. Federal income taxes	27,293	—	27,293
Foreign income taxes	—	9,239	9,239
Taxes on income	$ 32,998	$ 9,239	$ 42,237
Effective tax rate	51.6%	40.9%	48.8%

U.S. Federal income taxes differ from the statutory rate (46% in 1980 and 1979 and 48% in 1978) principally as a result of the amortization of investment tax credits. Such amortization approximated $3,900,000, $2,600,000, and $1,500,000, respectively, during each of the three years in the period ended December 31, 1980.

Prepaid (deferred) income taxes are provided for items of revenue and expense which are recognized in different time periods for tax and financial reporting purposes. These items, as well as Intel's method of accounting for investment tax credits and benefits which are derived from stock plan transactions result in a provision for taxes on income which differs from estimated income taxes currently payable.

Prepaid income taxes result primarily from the financial deferral of income on sales to distributors and from franchise tax accruals. Deferred income taxes result from currently providing estimated U.S. income taxes on the earnings of Intel's Domestic International Sales Corporation (DISC) subsidiaries and its foreign subsidiaries to the extent that such amounts are not deemed to be permanently invested. Additionally the deferral method of accounting for investment tax credits (ITC) results in such credits being utilized to reduce taxes payable prior to the time that they are recognized as a reduction of the provision for taxes on income.

Income taxes payable are also reduced and capital stock increased as a result of tax deductions arising from stock plan transactions.

Following is a summary of estimated income taxes currently payable:

	1980	1979	1978
		(Thousands)	
Taxes on income	$ 88,588	$71,244	$42,237
Prepaid (deferred) items:			
Distributor sales	2,321	7,571	7,070
DISC earnings	(9,326)	(4,365)	(4,126)
Deferred ITC	(3,627)	(2,244)	(3,962)
Other, net	1,336	2,031	(2,734)
Net	(9,296)	2,993	(3,752)
Current taxes on income	79,292	74,237	38,485
Benefit from stock plan transactions	(13,643)	(7,454)	(4,576)
Estimated taxes currently payable	$ 65,649	$66,783	$33,909
Prepaid (deferred) items:			
U.S. Federal	$(10,406)	$ 2,471	$(6,162)
State	385	1,209	827
Foreign	725	(687)	1,583
	$ (9,296)	$ 2,993	$(3,752)

Intel's U.S. income tax returns for 1975, 1976 and 1977 are presently under examination by the Internal Revenue Service. Management does not anticipate any material effect upon Intel's results of operations or financial position as a result of these examinations.

EMPLOYEE BENEFIT PLANS

Stock option plans Intel has two non-qualified stock option plans under which officers and key employees may be granted options to purchase shares of Intel's authorized but unissued capital stock at not less than 85% of the fair market value at date of grant. Options expire no later than ten years from the date of grant. No material charges have been made to income in accounting for options. Proceeds and income tax benefits realized by Intel as a result of transactions in these plans have been credited to capital stock. Additional information with respect to employee stock options is as follows:

	Options Available For Grant	Outstanding Options	
		Number	Aggregate Price
		(Thousands)	
December 31, 1977	1,440	4,910	$ 41,983
Options granted	(2,262)	2,262	35,135
Options exercised	—	(906)	(5,055)
Options cancelled	1,256	(1,256)	(17,800)
Additional shares reserved	6,000	—	—
December 31, 1978	6,434	5,010	54,263
Options granted	(1,728)	1,728	42,635
Options exercised	—	(884)	(7,942)
Options cancelled	478	(478)	(6,780)
December 31, 1979	5,184	5,376	82,176
Options granted	(1,165)	1,165	45,478
Options exercised	—	(1,026)	(11,189)
Options cancelled	398	(398)	(7,693)
December 31, 1980	4,417	5,117	$108,772
Options exercisable at December 31: 1978		1,368	$ 9,512
1979		1,572	$ 13,866
1980		1,730	$ 19,809

The average exercise price for options outstanding at December 31, 1980 was $21.25 while the range of individual exercise prices was $1.25 to $48.25. Individual options outstanding at that date will expire if not exercised at specific dates ranging from January 1981 to December 1990. The range of exercise prices for options exercised during the three year period ended December 31, 1980 was $1.25 to $42.66.

Intel also has a separate stock compensation plan for key employees of one of its subsidiaries whereby these employees may acquire common stock of the subsidiary; however, Intel is entitled to reacquire this common stock in exchange for an estimated 100,000 shares of Intel capital stock which are reserved at December 31, 1980. During 1980 and 1979 approximately $750,000 and $3,300,000, respectively, was charged to income under this plan.

Stock participation plan Under this plan qualified employees are entitled to purchase shares of Intel's capital stock at 85% of the fair market value at certain specified dates. Of the 1,688,000 shares authorized to be issued under this plan, 638,000 shares are available for issuance at December 31, 1980. Employees purchased 326,000 shares in 1980 (290,000 and 252,000 in 1979 and 1978, respectively) for $8,098,000 ($4,473,000 and $2,394,000 in 1979 and 1978, respectively).

Profit sharing retirement plan Effective July 1, 1979, Intel adopted a profit sharing retirement plan for the benefit of qualified employees. The plan is designed to provide employees with an accumulation of funds at retirement and provides for annual contributions to trust funds based on a formula which considers return on both equity and revenues. Employee annual entitlements vest five years after each plan year or upon retirement and are based upon accumulated fund assets. It is Management's intention to fund annual contributions on a current basis.

The amounts charged against pre-tax profits for the twelve-month period ended December 31, 1980, and the six-month period ended December 31, 1979, were approximately $15,000,000 and $8,000,000, respectively.

COMMITMENTS

Intel leases a portion of its capital equipment and certain of its facilities under leases which expire at various dates through 1991. Rental expense was $11,007,000 in 1980, $8,269,000 in 1979, and $4,538,000 in 1978. Minimum rental commitments under all noncancelable leases with an initial term of one year or more are payable as follows: 1981-$7,740,000; 1982-$4,819,000; 1983-$1,999,000; 1984-$1,270,000; 1985-$740,000; 1986 and beyond $1,812,000.

Commitments for construction or purchase of property, plant and equipment approximate $135,000,000 at December 31, 1980. Specific contracts for a portion of these commitments have not yet been signed.

SUPPLEMENTAL INFORMATION (unaudited)

Quarterly information Quarterly information for each of the three years in the period ended December 31, 1980 is presented on page 27.

Inflation adjusted information A financial summary adjusted for changing prices as required by FAS No. 33 is presented on page 30.

INDUSTRY SEGMENT REPORTING

Intel and its subsidiaries operate in one dominant industry segment and are engaged principally in the design, development, manufacture and sale of LSI (large scale integrated) semiconductor components and systems incorporating these components. Operations are conducted both within and outside of the United States.

Outside of the United States, assembly and test facilities are maintained in Barbados, Malaysia and the Philippines while sales subsidiaries are located throughout Europe and other parts of the world (Other). Summary balance sheet information for operations outside the United States at December 31 is as follows:

	1980	1979
	(Thousands)	
Current assets	$93,547	$75,300
Current liabilities	28,934	33,314
Net property, plant and equipment	37,765	18,104

Geographic information for the three years ended December 31, 1980 as required by FAS No. 14 is as follows:

NET REVENUES

	Products Sold Within			
	U.S.	Europe	Other	Total
	(Thousands)			
1980 Net revenues of:				
U.S. operations	$515,474	$ 94,174	$11,892	$621,540
European operations	—	185,369	—	185,369
Other operations	—	—	47,652	47,652
1980 Net revenues	$515,474	$279,543	$59,544	$854,561
1979 Net revenues of:				
U.S. operations	$416,427	$ 57,250	$15,938	$489,615
European operations	—	122,599	—	122,599
Other operations	—	—	48,770	48,770
1979 Net revenues	$416,427	$179,849	$64,708	$660,984
1978 Net revenues of:				
U.S. operations	$257,818	$ 43,247	$12,723	$313,788
European operations	—	59,107	—	59,107
Other operations	—	—	26,495	26,495
1978 Net revenues	$257,818	$102,354	$39,218	$399,390

Transfers between geographic areas are accounted for at amounts which are generally above cost and consistent with rules and regulations of governing tax authorities. Such transfers, which are eliminated in the consolidated financial statements, are as follows:

	1980	1979	1978
		(Thousands)	
U.S.	$140,175	$110,279	$52,641
Europe	5,528	5,096	3,497
Other	30,051	23,902	17,193

OPERATING INCOME

	1980	1979	1978
		(Thousands)	
Operating income allocable to:			
U.S.	$169,889	$132,177	$72,769
Europe	29,604	26,672	14,924
Other	6,008	8,527	7,703
Unallocated	(22,381)	(18,207)	(10,353)
	$183,120	$149,169	$85,043

Operating income is net revenues less operating expenses and does not include an allocation of general corporate expenses and interest and other.

IDENTIFIABLE ASSETS

	1980	1979
	(Thousands)	
Identifiable assets of:		
U.S.	$498,315	$370,133
Europe	69,115	47,859
Other	62,197	45,545
General assets, net	137,541	36,556
Total assets	$767,168	$500,093

General assets are principally cash, short-term investments and prepaid taxes on income.

REPORT OF CERTIFIED PUBLIC ACCOUNTANTS

The Board of Directors and Shareholders
Intel Corporation

We have examined the accompanying consolidated balance sheets of Intel Corporation at December 31, 1980 and 1979, and the related consolidated statements of income, shareholders' equity and changes in financial position for each of the three years in the period ended December 31, 1980. Our examinations were made in accordance with generally accepted auditing standards and, accordingly, included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the statements mentioned above present fairly the consolidated financial position of Intel Corporation at December 31, 1980 and 1979, and the consolidated results of operations and changes in financial position for each of the three years in the period ended December 31, 1980, in conformity with generally accepted accounting principles applied on a consistent basis during the period.

Arthur Young & Company

San Jose, California
January 12, 1981

FINANCIAL INFORMATION BY QUARTER (unaudited)

(Thousands—except share data)

	Quarter Ended			
	Dec. 31	Sep. 30	Jun. 30	Mar. 31
1980				
Net revenues	$219,213	$216,497	$214,978	$203,873
Cost of sales	108,244	98,768	97,504	94,922
Research and development	25,866	26,028	22,898	21,634
Marketing, general and administrative	45,413	43,597	44,012	42,555
Interest and other	(4,098)	364	2,904	(1,379)
Taxes on income	20,931	22,822	22,780	22,055
Net income	$ 22,857	$ 24,918	$ 24,880	$ 24,086
Earnings per capital and capital equivalent share	$ .52	$ .57	$ .58	$ .55
Market price range (A) High	$ 49.50	$ 47.50	$ 34.13	$ 37.38
Low	$ 38.50	$ 33.38	$ 27.50	$ 28.75
1979				
Net revenues	$194,798	$176,245	$154,978	$134,963
Cost of sales	89,590	84,106	73,803	65,607
Research and development	20,743	17,816	14,841	13,335
Marketing, general and administrative	40,904	34,657	30,202	26,211
Interest and other	(503)	(304)	389	539
Taxes on income	21,061	19,108	17,082	13,993
Net income	$ 23,003	$ 20,862	$ 18,661	$ 15,278
Earnings per capital and capital equivalent share	$ .54	$ .49	$ .44	$ .38
Market price range (A) High	$ 35.75	$ 32.25	$ 26.00	$ 21.50
Low	$ 28.75	$ 23.75	$ 20.19	$ 16.31
1978				
Net revenues	$119,725	$106,749	$ 93,280	$ 79,636
Cost of sales	58,148	52,864	45,954	39,410
Research and development	11,900	11,017	9,803	8,640
Marketing, general and administrative	23,498	20,912	17,043	15,158
Interest and other	(132)	(267)	(388)	(721)
Taxes on income	12,840	10,845	10,185	8,367
Net income	$ 13,471	$ 11,378	$ 10,683	$ 8,782
Earnings per capital and capital equivalent share	$ .33	$ .27	$ .26	$ .22
Market price range (A) High	$ 18.81	$ 20.50	$ 16.44	$ 12.19
Low	$ 15.00	$ 14.00	$ 11.06	$ 10.25

(A) Intel stock is traded in the over-the-counter market and is quoted on NASDAQ and in the Wall Street Journal and other newspapers. Intel has never paid cash dividends and has no present plans to do so.

Ten years ended December 31, 1980

	At December 31				Year Ended December 31		
					Working Capital Provided By:		Working Capital Used for Net Additions To Plant & Equip.
	Net Investment In Plant & Equip.	Total Assets	Long-Term Debt	Shareholders' Equity	Operations	Employee Stock Plans	
1980	$320,559	$767,168	$150,000	$432,860	$153,751	$32,930	$152,151
1979	217,391	500,093	—	303,189	124,961	19,869	96,681
1978	160,140	356,565	—	205,062	78,025	12,025	104,157
1977	80,117	221,246	—	148,942	49,777	7,766	44,881
1976	51,069	156,568	—	109,460	38,018	10,073	32,073
1975	28,474	102,719	—	74,173	24,232	7,100	11,169
1974	22,186	75,410	—	50,799	25,515	3,135	12,783
1973	13,015	50,567	—	27,888	12,402	1,278	9,113
1972	5,376	21,944	—	17,396	3,552	684	2,104
1971	3,623	14,840	—	13,456	1,096	195	855

	Year Ended December 31					
					Net Income	
	Net Revenues	Cost of Sales	Research & Development	Other Costs & Expenses, Net	Total	Per Share
1980	$854,561	$399,438	$96,426	$261,956	$96,741	$2.21
1979	660,984	313,106	66,735	203,339	77,804	1.85
1978	399,390	196,376	41,360	117,340	44,314	1.08
1977	282,549	143,979	27,921	78,933	31,716	.80
1976	225,979	117,193	20,709	62,863	25,214	.63
1975	136,788	67,649	14,541	38,324	16,274	.42
1974	134,456	67,909	10,500	36,271	19,776	.53
1973	66,170	35,109	4,565	17,282	9,214	.25
1972	23,417	12,425	3,442	4,466	3,084	.09
1971	9,432	6,071	1,569	878	914	.03

Overview Intel was incorporated in 1968 and since that time has operated in one dominant industry segment; the design, development, manufacture and sale of LSI semiconductor components and systems incorporating these components. Since inception, both the complexity and functional utility of Intel's products have increased and the per function cost of these products has decreased dramatically. Intel's ability to enhance existing products and develop new products has been possible primarily because of a commitment to invest significant amounts of money in research and development efforts and in the most modern and technologically advanced facilities and support equipment available. Following are comments relevant to Intel's financial condition and results of operations.

Financial Condition Intel's Balance Sheet has grown substantially during the ten year period ended December 31, 1980. Annual net investment in plant and equipment has risen from a $40 million level in 1977 to $100 million in 1978 and 1979 and to approximately $150 million in 1980. Current plans indicate that for 1981, net investment will approximate $180 million. These increases in investment in plant and equipment relate to significant increases in manufacturing capacity and support facilities; however, the dollars expended are impacted severely by inflationary trends which prevail throughout our economy, particularly in construction costs, and by an ever increasing amount of sophistication and resultant cost in manufacturing equipment.

Until recently, Intel has been able to finance its growth and current operations with funds provided by equity, operations, employee stock plans and modest amounts of short-term borrowings under existing lines of credit. During 1980 it became apparent that these sources of funds would not be adequate to support near-term capital expansion plans. Accordingly, Intel issued $150 million in convertible subordinated debentures. Proceeds from these debentures coupled with funds provided from the conventional sources mentioned above are considered adequate for near-term needs.

Results of Operations Significant year to year revenue growth has occurred in nine of the last ten years. In each year, growth in unit shipments surpassed growth in revenue dollars as unit selling prices historically have declined over the life span of a specific product. During 1978, 1979 and early 1980, unit selling prices remained relatively stable and did not decline as significantly as they have historically. This stability was created primarily by an excess of market demand over industry manufacturing capacity. During the third quarter of 1980, increased product availability, due to expanded industry capacity, coupled with a leveling of market demand created severe competitive conditions and a dramatic decline in unit selling prices occurred. The effects of these price declines were most apparent in the fourth quarter of 1980 when gross margin declined to 50.6% of net revenues compared with 54.1% for the first half of 1980. It is impracticable to estimate when market demand will increase to relative proportions which existed prior to mid 1980.

Costs and expenses have increased substantially but in relative proportion to revenue growth. Direct manufacturing costs which are included in cost of sales tend to follow sales price trends in that manufacturing yields generally improve and per unit manufacturing costs decline as specific products mature. The significant narrowing of gross margin in the fourth quarter of 1980 was predominantly a factor of unit sales prices declining at a faster rate than manufacturing costs. Research and Development costs have increased proportionately with revenues in line with Management's long range objective of reinvesting approximately 10% of net revenues in development efforts. Other costs and expenses are comprised primarily of support costs associated with sales, marketing and administrative efforts essential to support existing levels of business. On the next page are financial data adjusted for changing prices and designed to reflect the effects of inflation.

For the Year Ended December 31, 1980

	As Reported in the Primary Statements	Adjusted for General Inflation (Constant Dollar)	Adjusted for Changes in Specific Prices (Current Costs)
NET REVENUES	$ 854.6	$ 854.5	$ 854.6
Cost of sales	399.5	416.9	407.6
Research and development	96.4	97.6	97.6
Marketing, general and administrative	175.6	176.1	176.1
Interest and other	(2.2)	(2.1)	(2.2)
Taxes on income	88.6	88.7	88.6
NET INCOME	$ 96.7	$ 77.3	$ 86.9
Earnings per capital and capital equivalent share	$ 2.21	$ 1.77	$ 1.99
Purchasing power loss on net monetary items held during the year ($2.2 in 1979)		$ 3.6	$ 3.6
Depreciation included in costs and expenses above	$ 47.8	$ 58.5	$ 57.6
Amounts of inventory and property, plant and equipment at December 31			$ 462.6
Increase in specific prices of inventories and property, plant and equipment (net) held during the year			$ 47.5
Effect of increase in general price level			$ 56.6
Excess of increase in general price level over increase in specific prices ($8.4 in 1979)			$ 9.1

Five Year Comparison of Selected Financial Data Adjusted for Changing Prices

	Net Revenues in Millions of 1980 Constant Dollars	Market Price Per Common Share at Year End in Constant 1980 Dollars	Average Annual Consumer Price Index—Urban (CPI-U)
1980	$854.5	$38.45	246.8*
1979	750.6	36.23	217.4
1978	506.0	18.75	195.4
1977	384.2	13.64	181.5
1976	327.1	17.88	170.5

*Estimated

The statements of selected financial data adjusted for changing prices are presented in accordance with the requirements of FAS No. 33. Two types of information, constant dollar and current cost, are presented as a supplement to the traditional financial statements. The constant dollar information is a general restatement of traditional data to monetary units having the same general purchasing power. The current cost information is a restatement of selected traditional data to reflect the effects of changes in the relative prices of specific items. The following explanatory comments are provided to assist in understanding the summary.

Constant Dollar Information—Pervasive inflation causes dollars earned and spent in the current year to have less value than dollars earned and spent in the prior years. The constant dollar revenue, cost and per share data is calculated by adjusting historical dollar amounts to average 1980 dollars using the CPI-U. No adjustments have been made to taxes on income for deferred taxes that might be deemed to arise as a result of differences between income on a constant dollar basis and income reported for tax purposes. Constant dollar amounts for 1980 and 1979 have been computed by reference to historical data for each quarter.

Depreciation expense is calculated by restating the historical cost of assets acquired in prior years into 1980 dollars using CPI-U indices and calculating depreciation thereon using the same methods and estimated useful lives as used in the traditional statements.

The economic significance of monetary items (cash, receivables and obligations of fixed amounts) is related to the general purchasing power of money. As a result, Intel has experienced purchasing power losses on net monetary assets held during 1979 and 1980.

Intel's constant dollar net assets at December 31, 1980 and 1979 valued at average 1980 dollars are $464.5 and $376.2 million, respectively. Constant dollar net income and earnings per capital and capital equivalent share for 1979, adjusted to average 1980 dollars, are $74.1 million and $1.76, respectively.

Current Cost Information—Current cost data has been computed by restating depreciation expense into 1980 dollars based upon specific indices relevant to Intel's capital assets rather than using a general index such as the CPI-U. The method of restatement is the same as used for constant dollar information. No adjustment has been made to inventories other than their depreciation component inasmuch as historical costs approximate current cost.

Intel's current cost net assets at December 31, 1980 and 1979 valued at average 1980 dollars are $481.3 and $360.2 million, respectively. Current cost net income and earnings per capital and capital equivalent share for 1979, adjusted to average 1980 dollars, are $69.1 million and $1.64, respectively.

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Max Palevsky
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Arthur Rock*†•
Chairman of the Executive Committee; General Partner of Arthur Rock and Associates, venture capital investors

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President, Executive Action, Inc., a management consulting firm in the computer industry.

Charles E. Young
Chancellor of the University of California at Los Angeles

**Member of the Executive Committee*
†*Member of the Audit Committee*
•*Member of the Compensation Committee*

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Transfer Agent and Registrar

Wells Fargo Bank
San Francisco, California;
Wells Fargo Securities Clearance Corp.
New York, New York

Certified Public Accountants

Arthur Young & Company
San Jose, California

Corporate Headquarters

3065 Bowers Avenue
Santa Clara, CA 95051

Additional copies of this report are available at the following locations:

Intel Corporation
3065 Bowers Avenue
Santa Clara, CA 95051

Intel International
Rue du Moulin à Papier 51, Boîte 1
B-1160 Bruxelles, Belgium

Intel Japan K.K.
Flower Hill-Shinmachi East Bldg.
1-23-9 Shinmachi, Setagaya-ku
Tokyo 154, Japan

Form 10-K

If you would like to receive, without charge, a copy of the Corporation's 'Form 10-K' which will be filed with the Securities and Exchange Commission prior to March 31, 1981 for the 1980 year, please send your request to:
Roger S. Borovoy, Secretary
Intel Corporation
Mail Stop 4-105
3065 Bowers Ave.
Santa Clara, Ca. 95051.

Annual Meeting

The Intel Annual Meeting of Shareholders will be held April 23, 1981 at the Santa Clara Marriott Hotel, Santa Clara, California.

At December 31, 1980 there were approximately 20,000 holders of Intel common stock.