



Litton
Industries
Inc.
1970
Annual
Report

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To Our Shareholders:

Litton Industries' worldwide sales for fiscal year 1970 of \$2,404,327,000 were the highest in the company's history. It was the sixteenth consecutive year of increased revenues with sales 10 per cent greater than fiscal year 1969.

Earnings for the year were \$68,751,000 compared to \$82,258,000 in fiscal year 1969. Earnings per share were \$1.90, assuming conversion of all common stock equivalents with a dilutive effect.

As reported earlier, profits in 1970 were less than had been anticipated at the beginning of the year and lower than 1969 when they reached \$2.34 per share on a similarly computed basis and adjusted for the 2½ per cent stock dividend declared in November 1969.

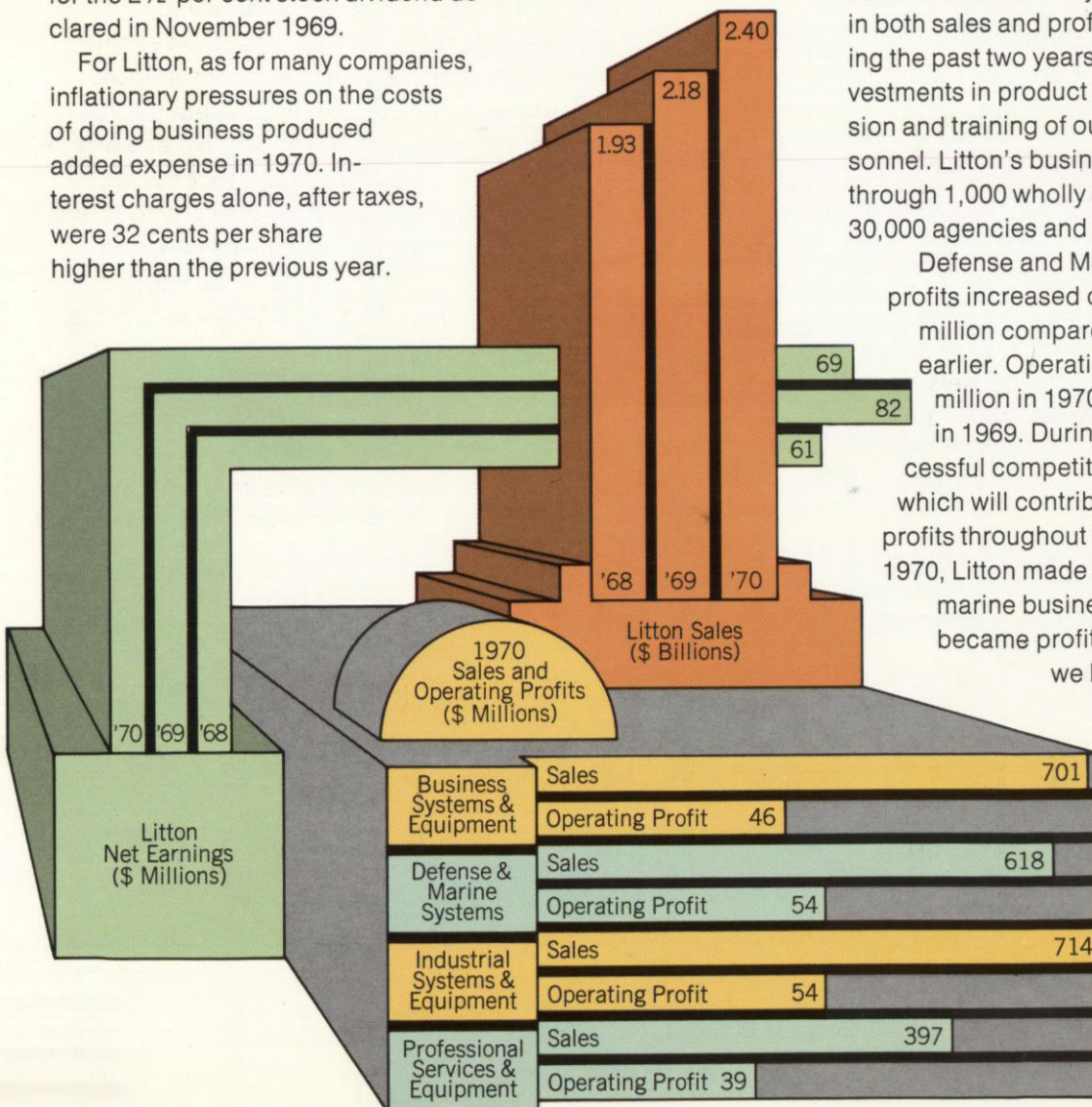
For Litton, as for many companies, inflationary pressures on the costs of doing business produced added expense in 1970. Interest charges alone, after taxes, were 32 cents per share higher than the previous year.

Litton ended fiscal year 1970 with a strong financial base. On July 31, the company had available unused credit arrangements of \$136 million. The internally generated cash flow for 1971 will exceed the \$130 million generated in 1970. With a major three year multiple-plant expansion and modernization program now completed, capital expenditures for 1971 will be directed more toward making operations increasingly efficient. Such expenditures in 1971 are expected to be about \$90 million compared with \$155 million in 1970.

In 1970 Business Systems and Equipment sales grew from \$608 million to \$701 million, and operating profits climbed from \$32.6 million to \$46.1 million. This is the second consecutive year of substantial increases in both sales and profits for these operations. During the past two years, Litton made substantial investments in product development and in expansion and training of our sales and service personnel. Litton's business products now are sold through 1,000 wholly owned sales offices and 30,000 agencies and dealers throughout the world.

Defense and Marine sales and operating profits increased during 1970. Sales were \$618 million compared with \$570 million a year earlier. Operating profits climbed to \$54.0 million in 1970 compared with \$45.7 million in 1969. During the year, Litton was the successful competitor on five major programs which will contribute significantly to sales and profits throughout the 70s. In 1968, 1969 and 1970, Litton made substantial investments in the marine business. Our marine operations became profitable in fiscal year 1970, and we look forward to continued

profits and increased sales during the 70s. We began fiscal year 1971 with long-term contracts in



excess of \$3 billion for work to be performed in Litton's newest and the world's most modern automated shipbuilding facility.

Industrial Systems and Equipment sales increased from \$657 million in fiscal year 1969 to \$714 million this past year. Operating profits were \$53.9 million in 1970 compared with \$64.8 million for 1969. This decline in earnings was experienced primarily in the material handling business and in activities related to electric motors, power drives and controls.

Bulk material handling profits were affected by cost pressures and the expenses associated with starting up a new 200,000 square-foot plant. The unit material handling operations were affected by a two month labor strike at one plant. The completion of new plants for these operations and for those in electric motors, power drives and controls, along with modernization of existing plants, should produce a positive effect on earnings in the current year.

Professional Services and Equipment sales and profits continued to increase in fiscal year 1970. Sales grew to \$397 million compared with \$373 million for the previous year. Operating profits were \$39.1 million for 1970 compared with \$38.0 million in 1969. During the year, substantial expenditures were made to develop new products for medical and educational markets. Major capital investments were made to widen our geophysical exploration services.

Litton's activities continued to grow throughout the world in 1970. During the past year, sales outside the United States increased and represent approximately 17 per cent of the company's total revenues. We expect this trend to continue as we strengthen Litton's world around production and marketing organizations.

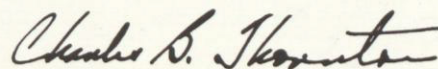
Cost pressures are continuing as we begin fiscal year 1971. Our investments in new plants, products and markets will contribute earnings improvement in the periods ahead. A strengthening in the economic climate will provide further impetus to that trend. Management throughout the company is committed to those steps necessary to achieve increasing profitability.

Litton's plan, as described over the years, is to build a leading industrial company centered on the application of evolving technologies to create new products and markets and to bring new concepts and products to existing markets. Toward realizing this objective, Litton has forged a worldwide business serving 17 product-market areas. This is the base on which we intend to build during the present decade and beyond.

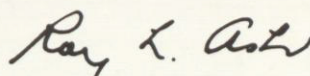
In the following report, we have described each of these product-market areas. All have considerable potential to be realized during the decade of the 70s and many will experience expansive growth in the near term.

We have substantial resources to realize the full potential of these areas. The management, scientific, engineering, production and marketing talent now assembled at Litton is the strongest it ever has been.

In summary, our goals for the 1970s are to improve our base of profitability across our 17 basic product-market areas; to realize the full potential of those areas where near term growth is indicated; to prepare all of them for the dramatic changes expected throughout the 70s, and to develop positions where innovation and the progress of technology can open up new areas for profitable business.



Charles B. Thornton,
Chairman of the Board of Directors



Roy L. Ash, President



Litton's activities in the fast growing field of business machines and systems include those of Monroe, a leading supplier of calculators and desk-top computers, and of Litton ABS (Automated Business Systems), a manufacturer of automated billing and accounting systems and a supplier of computerized accounting services. Sales in 1970 were \$177 million, up 14 per cent from the year before. Business machines and systems account for 7 per cent of Litton's total sales.

The world market for business calculators is currently estimated at \$600 million annually. Monroe offers the broadest choice of electromechanical and electronic calculators to be found the world around. Its marketing and service force numbers more than 4,000 people working out of 475 branch offices and distributor outlets in the United States and Canada, throughout Western Europe and in South America and the Far East.

A worldwide market is fast developing for a new type of calculator, more a desk-top computer, for the scientific-engineering community. By 1975 this market alone is anticipated to be more than \$300 million. During the past year, Monroe introduced into its line five machines—the 1265 and four models in the new 1600 Series—that were specifically designed for scientific and engineering use.

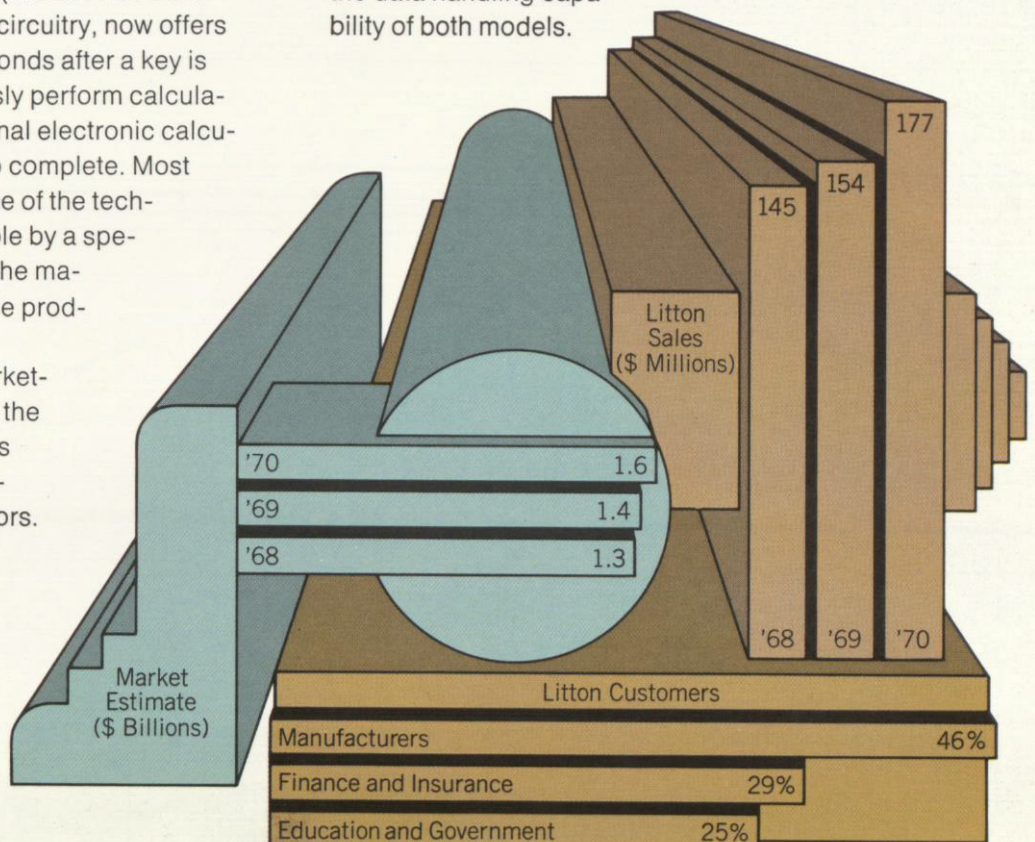
When large computers are not accessible or are too costly, scientists, engineers, mathematicians and statisticians, as well as students doing advanced work, have had to depend upon simple electronic or electromechanical calculators for their tedious calculations. Monroe's 1600 Series, employing the latest advances in design made possible by MOS/LSI (metal oxide semiconductor/large scale integration) circuitry, now offers escape from that drudgery. Milliseconds after a key is pressed, these machines soundlessly perform calculations that might require a conventional electronic calculator many time-consuming steps to complete. Most importantly, they "talk" the language of the technical man, a capability made possible by a special microprocessor designed into the machines. Yet the cost of these versatile products is in the \$3,000 price range.

Monroe through its extensive marketing organization is now able to offer the business and technical communities alike the broadest choice of electro-mechanical and electronic calculators.

Litton ABS was organized by Litton in 1968 to develop and

market automated electronic accounting systems. The new division evolved from McBee Systems, which markets a widely used electromechanical system for office automation. To the original McBee market, Litton now brings special-purpose computer systems for businesses and institutions that require economical in-house accounting and billing systems. The market for these self-contained systems is currently valued at \$1 billion a year, worldwide, and has been expanding at a rate of 10 to 15 per cent annually. ABS' sales in the U.S. and Europe doubled in the past two years. They are expected to double again during the current year.

As the cost of doing business rises, more and more firms are being forced to automate their accounting and billing functions. The market materializing over the next five years consists in part of some 3.5 million small and middle-size businesses whose volume justifies a transition to a single-unit electronic installation. A second segment represents departments within larger corporations that could effectively use networks of such advanced, special-purpose automated machines. ABS began deliveries last year of the Model 1231 electronic business system, priced in the \$20,000 range. The system provides an internally stored program for its computer which performs the accounting and billing functions. To further expand its product line, ABS is introducing this year a follow-on model, the 1241; this system will have a larger storage capacity for computer programs and data. Both systems are equipped to interconnect with other business systems, and new peripheral equipment now under development will expand the data handling capability of both models.



Business Machines and Systems



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SWEDA

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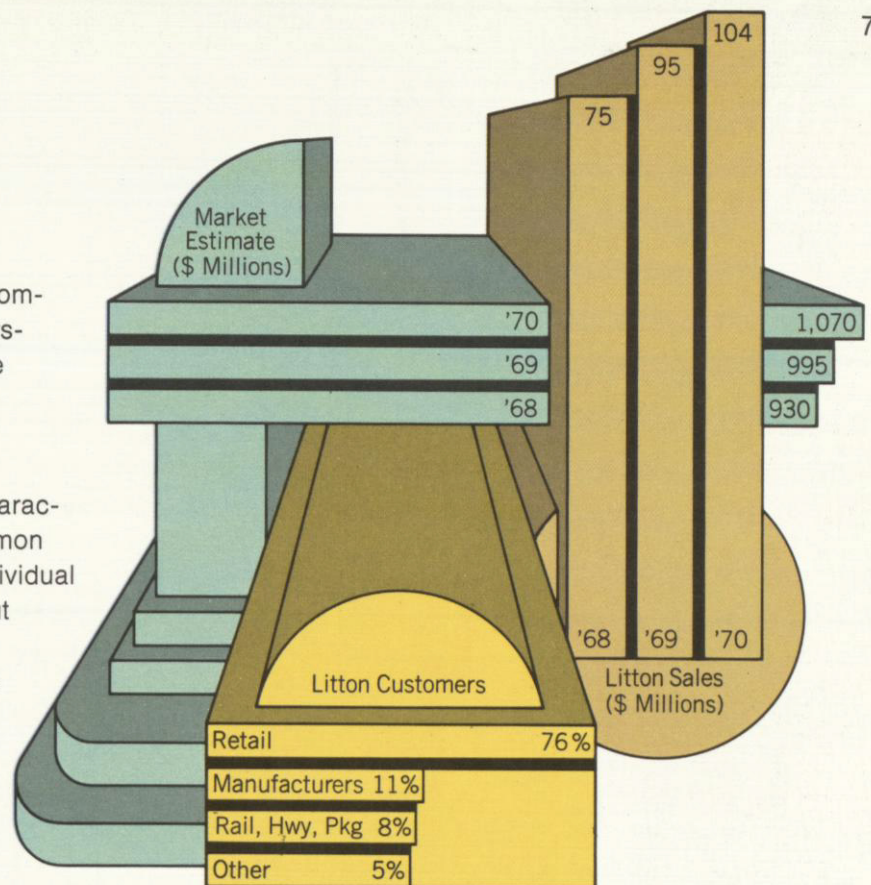
Retail and Revenue Systems

Litton's sales of retail and revenue systems, accomplished through Sweda International, Kimball Systems and RCS (Revenue Control Systems), were \$104 million for 1970. The principal customers served by these divisions—mostly department stores and supermarkets—differ greatly in the character and scope of their operations. One characteristic and one requirement, however, are common to all. The businesses are built on myriads of individual transactions, individually small in themselves but enormous in the aggregate. For retail management, the urgent requirement is for an automatic data handling system that will keep it informed, in a timely, accurate and economical way, precisely where the business stands.

The world market for cash registers is valued at \$450 million a year. Sweda's order backlog for registers is at an all time high. Sweda, in second place, now has about 15 per cent of the world market for cash registers. In product development, Sweda is a leader, and, in certain areas, is well ahead of its principal competitors.

A dramatic change is occurring in this business. For generations, the cash register has been—and remains, in most retail establishments—the initial source of data for managing the business. Now, the cash register, linked for the first time with the computer, in a systems sense, is emerging as the fundamental, central component in a completely automated data processing system for high volume retail operations.

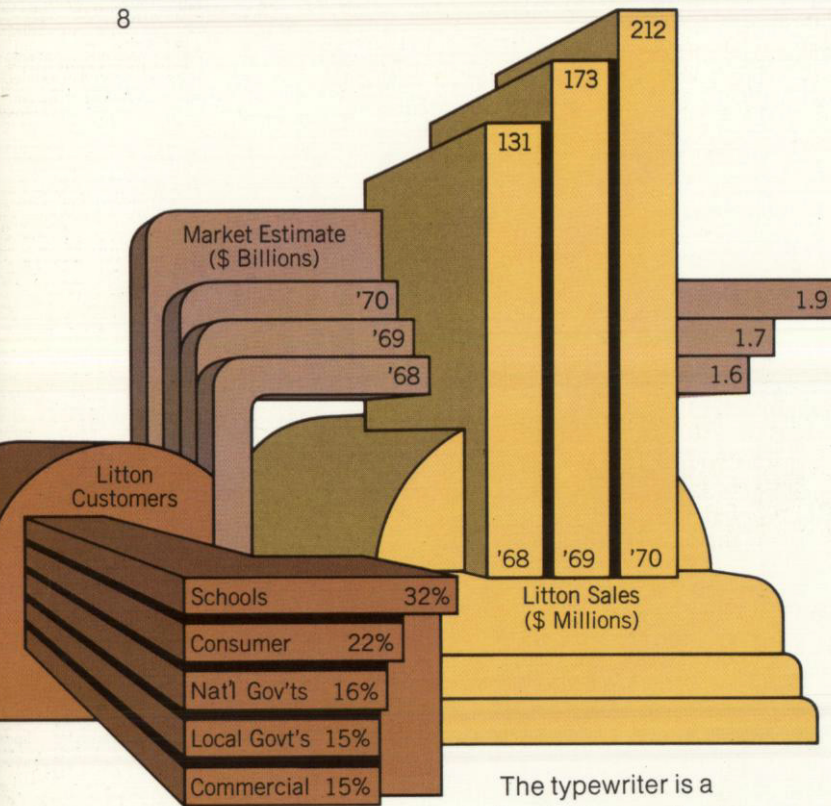
Sweda's Dataregister® Machine is the most advanced register now on the international market. Sweda has expanded this machine's capability with an electronic data scanning device, called the Datapen™ reader. This device gathers, from a magnetically encoded label affixed to the merchandise, all stock identification and price information about the product. It also can read customer identification and credit cards. Data automatically fed into a microcomputer in the register are processed, and the resulting printout records all elements of the business transaction. The tape produced by the register can be read optically and entered into a central computer for further data processing. Still more advanced is a new Litton system in which a storewide network of Datapen and register terminals supplies data directly to a central computer. The system provides management instant access to current retail statistics.



Development models of the new equipment are now being tested in a large department store in Louisville, Kentucky. The system provides record keeping, automated billing and inventory control as well as readouts on cash, credit and profit with accuracy and speed heretofore unknown in the retail business. The installation is designed to prevent misuse and error. It continually instructs clerks in the proper sequence of actions to be followed. Finally, it speeds up the sales transaction, in the customer's interest. Competition is keen in this field. Litton is well established in the cash register market and has an entire system of its own development including register, data gathering scanner, central processor and magnetically readable data bearing tag. Kimball, a major supplier of identification tags and labels, is working closely with Sweda on the development of the advanced tags and labels to be used in the new systems.

Other Kimball products greatly reduce the costly paperwork load of hospitals, banks and educational institutions by providing computer-printed labels for indexing identification and addressing.

Litton's automatic toll collection business declined in 1970 due to the pressures on financing new highways, bridges and tunnels. Work continues on the Italian autostrada fare collection system; our Japanese licensee is undertaking a major program for that country's railroads, and we are installing during the current year in Sydney a new computerized bridge toll collection system.



Typewriters and Office Copiers

deluxe machine designed to compete with other leading executive correspondence electric typewriters.

Royal has strengthened its representation in Argentina, Brazil, Singapore, Malaysia and elsewhere through exclusive distribution arrangements with leading trading firms. In Japan, Royal has entered into a joint venture with Silver-Seiko, forming the new firm, Royal-Seiko, to produce typewriter parts. The electric and manual portables produced from these parts gained a growing share of world markets. Worldwide sales of portables increased for Litton in fiscal year 1970, even though there was considerable softness in the U. S. market demand for portable typewriters.

Both the Royal and Imperial lines have been broadened by the addition of two medium priced, all purpose electric typewriters. Ideally adapted for the international trade, these office machines are priced in a range to suit the economy-minded outlook of many business customers.

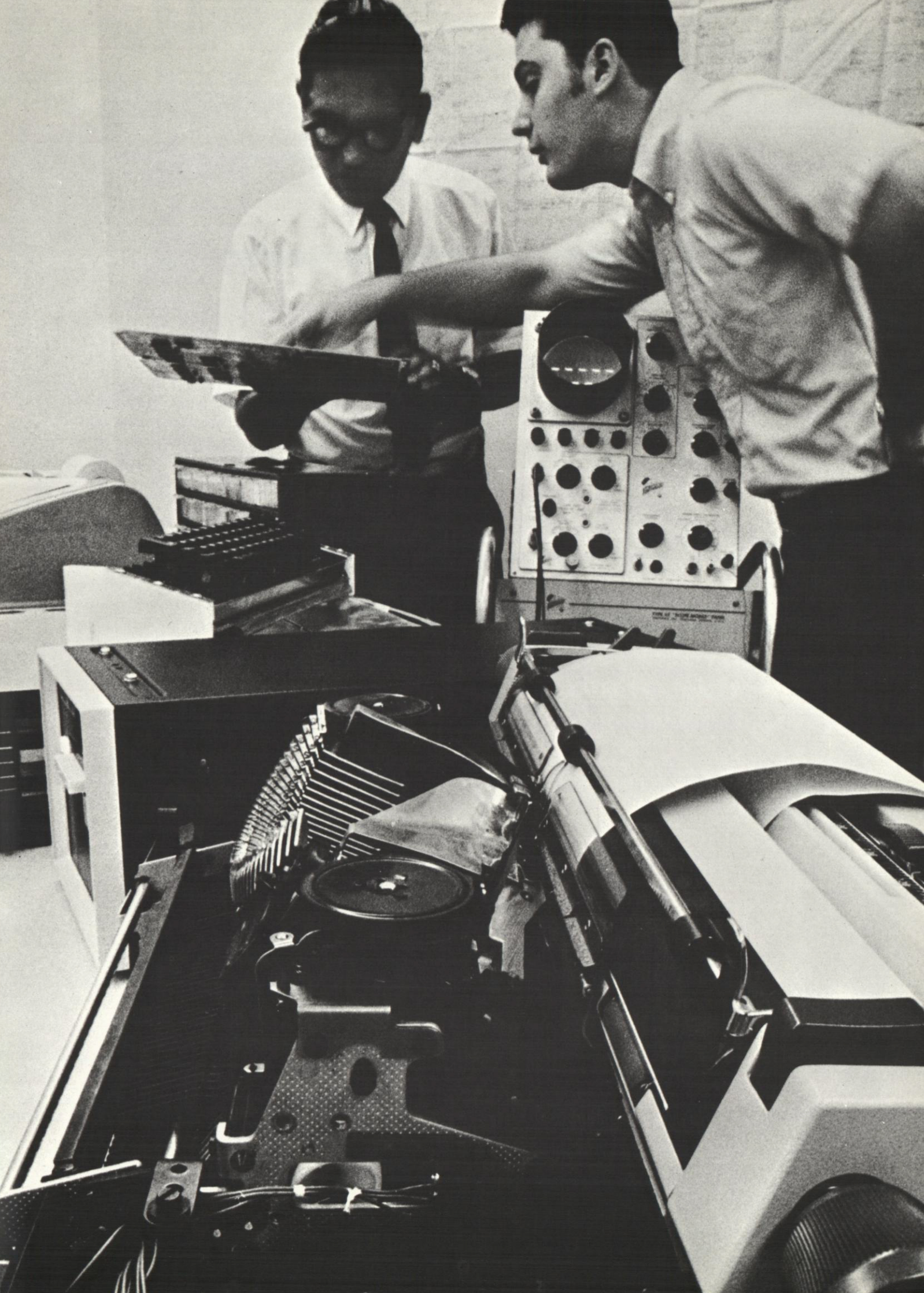
Typewriters contributed about 8 per cent of Litton's total 1970 sales. The business is on the verge of a dramatic technological change. The all electronic typewriter is not yet on the market, but a versatile composing machine, employing an electric typewriter and a memory bank and capable of being programmed for automated use, is in near prospect. Litton's engineers are working on such products and developing the related office equipment needed for a complete office communication system.

In the electrofax copier market, sales of Royfax® equipment during the year have grown faster than the rate for the industry as a whole. Part of this growth was achieved by the introduction of Royfax products through a broadened distributor network in Europe, South America and the Far East. Litton's copiers continue to fill a need in a special segment of the copier market. Royfax copiers are designed for the low to medium price range where reliability, convenience and cost are valued.

The typewriter is a classical example of a product with a worldwide market which can be made in one place and (with minor modifications) marketed for ready use almost anywhere. Worldwide, the typewriter market is growing faster, relatively, than the U. S. market alone. Litton's typewriter sales outside the U. S. constitute more than 40 per cent of our total typewriter sales. Triumph-Adler, a strong producer-marketer in Europe and a formidable competitor in Africa, Latin America and Asia, has increased annual sales by over 50 per cent since the company joined Litton. Triumph-Adler entered the 1971 fiscal year with record backlogs for office as well as portable typewriters. These backlogs assure that the additional production capacity brought on-stream during the past year will be operating at full capacity. Portable typewriter sales for this division were further strengthened during fiscal year 1970 with the introduction of a new full-featured electric. In the office electric field, Triumph-Adler's Model 21, also a full-featured machine, gained a growing share of the world markets for the top-of-the-line executive office typewriter.

Litton's Imperial division, a major typewriter producer for British and Commonwealth markets, during the past year received Britain's highest recognition for business achievement, the Queen's Award, citing a 300 per cent increase in the division's worldwide exports during the three-year period, 1967 through 1969.

In fiscal year 1970, the Royal division introduced for the U. S. and Canadian markets the 970, a full-featured



Specialty paper and printing and business forms sales were \$124 million in the fiscal year 1970, up 6 per cent over the previous year and about 5 per cent of Litton's total sales. In the past year, the printing divisions did well and the market for such specialty products as bank stationery and bank checks was very good. Sales were level for paper products, declining for those used in housing construction.

In this business, Litton is a specialist, producing high grade, high value-added paper, and products making use of that paper. Litton's printing business is equally specialized.

Litton laboratories continue to press the search for special-purpose synthetic pulps, lighter and more stable papers, and special coatings and bases.

Paper in its various forms—as a structural material, as a laminate and as a decorative item—is emerging as an increasingly valuable and cost-reducing item in quantity-produced housing and general construction. It is less expensive than wood or metal, is readily formed, shaped and toughened, and is well suited to prefabricated, modular assembly techniques. Our Fitchburg division produces a paper which can be bonded as an exterior laminate to the new polyester resin plastics now coming into wide use in the building industry in the shape of panels, wallboards, molding, desk tops and kitchen cabinets. Our Decotone division imparts to the laminate a handsome simulated wood grain finish, or other decorative hue or pattern.

These products are now accepted by architects and builders as dimensionally

stable, finished building materials, requiring no paint or other covering. Because they cost less, and require little maintenance, they will command attention in designs for hospitals, hotels, schools and other institutions.

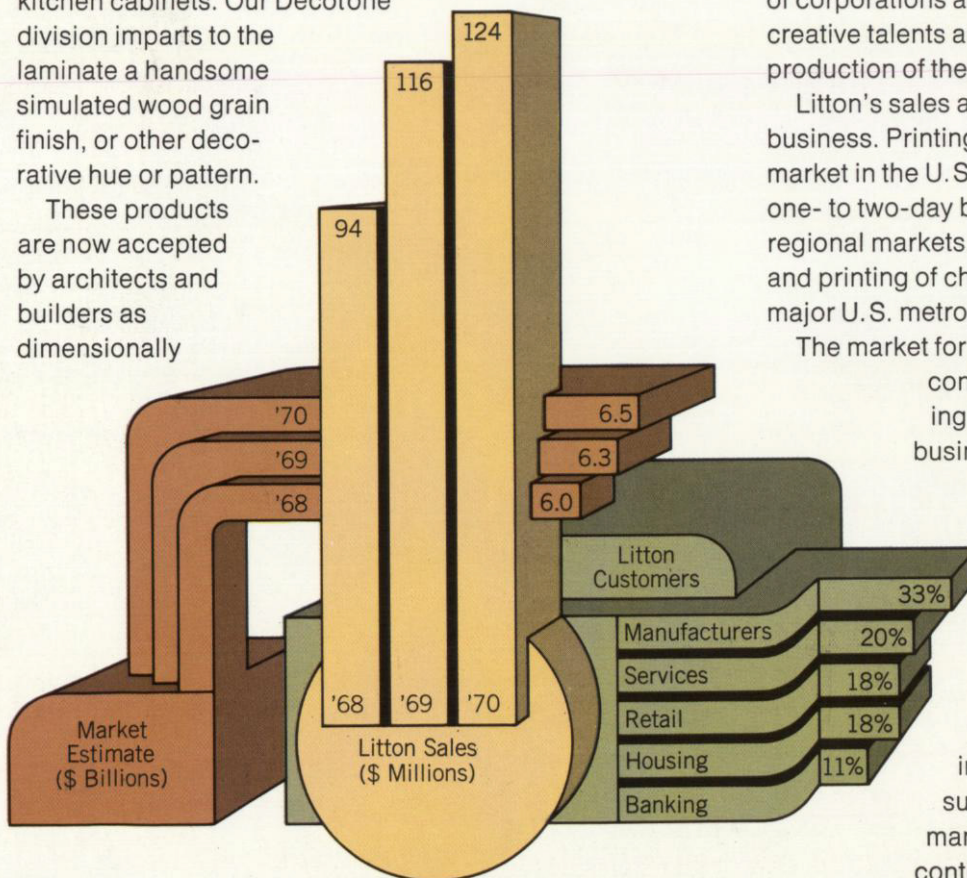
Litton also has established itself as an innovator in convenience packaging. One of the new products, for which a patent has been filed, is a special sterilizing paper. By custom, medical instruments are sterilized immediately before use by placing the kit into a gas chamber where a germ-killing vapor penetrates the paper envelopes in which the instruments are packed. By the new process, the sterilizing is done in the factory and the paper shielding around the instruments keeps them sterile on the shelf and ready for immediate use for two years or more.

The market for sterile packages and sterile disposable kits includes hospitals, clinics, medical supply houses and doctors' offices. The market already consumes about \$100 million worth of these products annually, and demand is increasing 20 per cent a year.

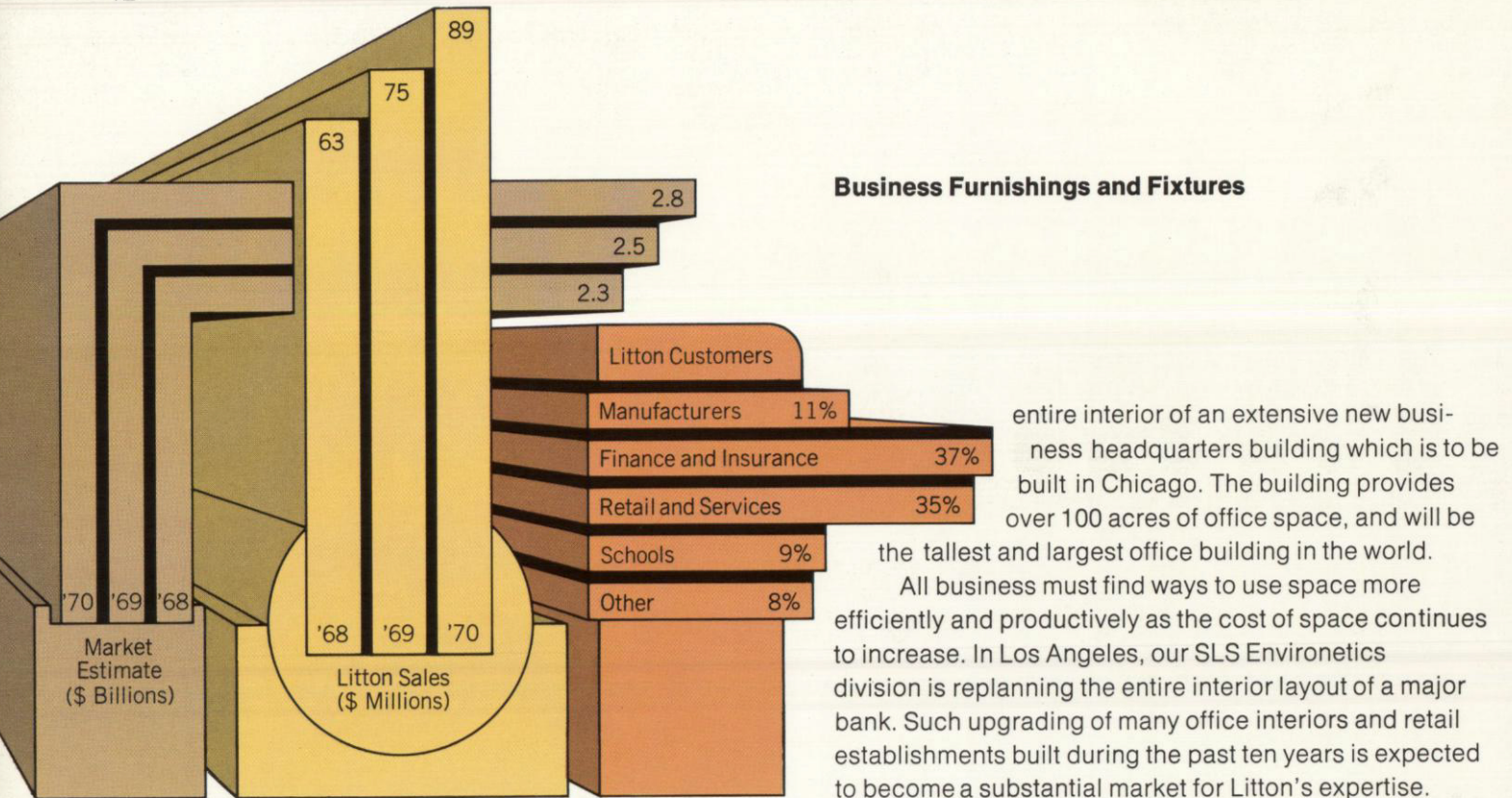
Litton's specialty printing operations at Eureka and Carlisle divisions are among the most efficient and advanced in the industry. Eureka's new fully automated plant, into which the operations were moved during the past year, prints tens of millions of trading stamps every year for a number of customers. A growing number of corporations and business firms use Carlisle's creative talents and superb printing resources for the production of their annual reports.

Litton's sales are increasing in the bank stationery business. Printing of checkbooks alone is a \$300 million market in the U.S. Because deliveries tend to be on a one- to two-day basis, operations must serve local or regional markets. Litton divisions specialize in the design and printing of checkbooks in 11 plants located to serve major U.S. metropolitan areas.

The market for printing and supplying business forms continues to increase each year. A growing part of the Sturgis - Newport division's business is to supply continuous forms for computer printout. Litton's office product centers, now numbering 30, provide computerized warehousing and order filing services for office supplies of all kinds used by their subscribing customers. The service also provides each customer with continual inventory cost and usage data for his supplies management. We expect the demand for these products and services will continue to increase.







Furnishings for offices, from the completely outfitted executive suite to clerical desks and file cabinets, along with an equally wide variety of fixtures for retail stocking and display of merchandise, have an exceedingly large market. In total, over \$2 billion are spent each year for these products and for the services of architects and other specialists who design office buildings and stores and the layout and decor for them. A sales level of \$89 million was realized in this field of business in fiscal year 1970, an increase of 18 per cent over the preceding year. Currently, business furnishings and fixtures account for 4 per cent of Litton's total revenues.

Litton provides office and retail customers with complete design plans for effectively organizing and fitting out their office and work space or retailing establishment, and implements those plans.

During the past year, the Streater division provided design services and fixtures for department stores and drug and discount chains across the U. S.

Our SLS Environetics® division, which stands foremost among the designers in the business environment field, won the contract in fiscal year 1970 for planning the

entire interior of an extensive new business headquarters building which is to be built in Chicago. The building provides over 100 acres of office space, and will be the tallest and largest office building in the world.

All business must find ways to use space more efficiently and productively as the cost of space continues to increase. In Los Angeles, our SLS Environetics division is replanning the entire interior layout of a major bank. Such upgrading of many office interiors and retail establishments built during the past ten years is expected to become a substantial market for Litton's expertise.

Office furniture and design is a \$1.25 billion-a-year market. Four Litton divisions make and market furniture for business—Lehigh-Leopold and Cole in the U. S., Standard Desk of Canada and ATAL of France. New design ideas are exchanged freely among the French, Canadian and American divisions. Cole's broad line of metal furniture spans business office needs at several price ranges. Cole's marketing network of 12,000 independent dealers in the U. S. and Canada is one of the strongest dealer organizations of its kind in North America. Lehigh-Leopold makes fine wood furniture for executive offices. Standard Desk was recently cited by the Canadian government for the outstanding quality of its design and its marketing methods. The division's new Solve™ line of desks, tables, cabinets and chairs raises the modular concept in office equipment to a high level. In France, ATAL is expanding its plant to accommodate a rising demand for its metal office furniture.

The trend of the business for both office and retail furnishings and fixtures is toward integrated designs and the use of modular techniques to obtain a more efficient as well as esthetic arrangement of office space and retailing layout.

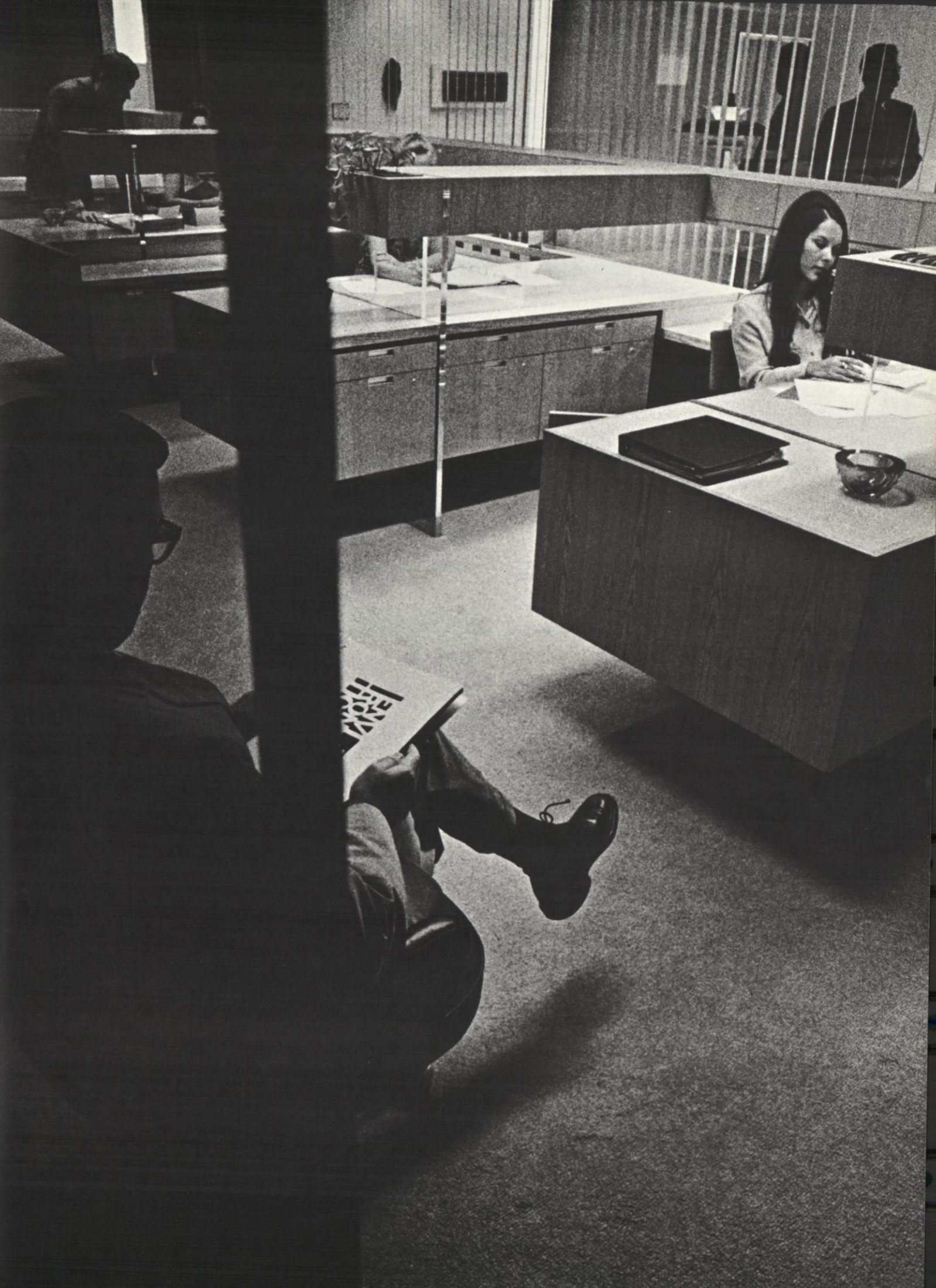


Photo: The compact, lightweight LTN-51 Mark II, Litton's newest commercial navigation system, enables aircraft to fly routes outside crowded air lanes.

Litton is a leading world manufacturer of inertial guidance navigation systems for aircraft. The unique value of the inertial system—a gyroscope-centered group of instruments including specialized airborne computers—is that it enables the pilot of an airplane, by means of its self-contained instrumentation, to proceed automatically on a predetermined true course without reference to the ground or without navigational radar, radio or other aids.

Sales of \$221 million of such equipment in the fiscal year 1970 equaled 9 per cent of Litton's total sales. There was little change from the year before, when the corresponding sales figure was \$222 million. Since 1954, the Guidance and Control Systems division has manufactured and delivered more than 8,000 Litton-designed inertial systems to its customers.

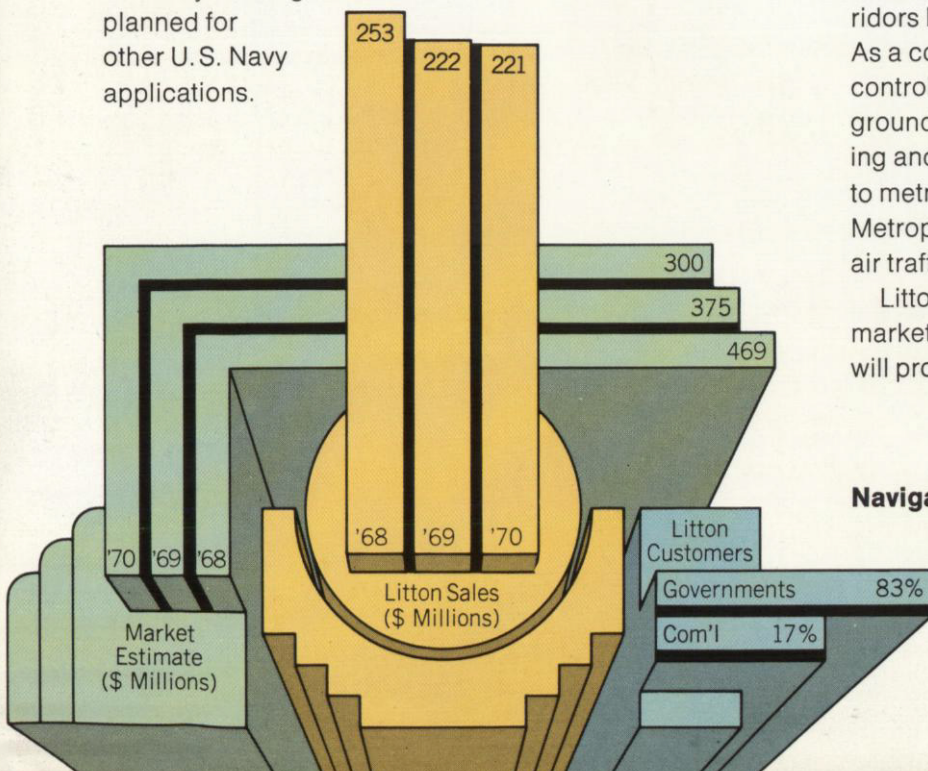
For military aircraft, the Guidance and Control Systems division will supply the U.S. Air Force's forthcoming air superiority fighter, the F-15, and the U.S. Navy's F-14A, both now in the development stage. The division delivered to the Navy this year the first development models of its CAINS (for Carrier Aligned Inertial Navigation System) which is to become standard equipment for carrier aircraft. The system is scheduled to be installed not only in the F-14A series, but also in the E-2C (a Grumman airplane designed to take a tactical command and control system aloft), the S-3A (an antisubmarine airplane), and currently is being planned for other U.S. Navy applications.

The business, which was exclusively for military aircraft over a number of years, is increasingly becoming balanced with a greater proportion of equipment installed in commercial aircraft. The LTN-51 system, now flying aboard Boeing 747s and 707s and McDonnell-Douglas DC-8s, was the first inertial navigation system to be certified for service for both scheduled and supplemental carriers, in a joint program with American Airlines.

Today, hundreds of Litton systems have flown over 750,000 hours in U.S. and European commercial jets with the highest reliability performance of any operating system. Forty-four Litton systems are installed on Air France's ocean-spanning jets. Shortly after the end of the fiscal year, McDonnell-Douglas and the KSSU group consisting of KLM, Swissair, SAS and UTA (French) jointly selected Litton's ARINC-571 inertial sensor system for the long-range DC-10 aircraft which the consortium has ordered. McDonnell-Douglas will also offer the Litton navigator as original equipment to all other customers of the DC-10.

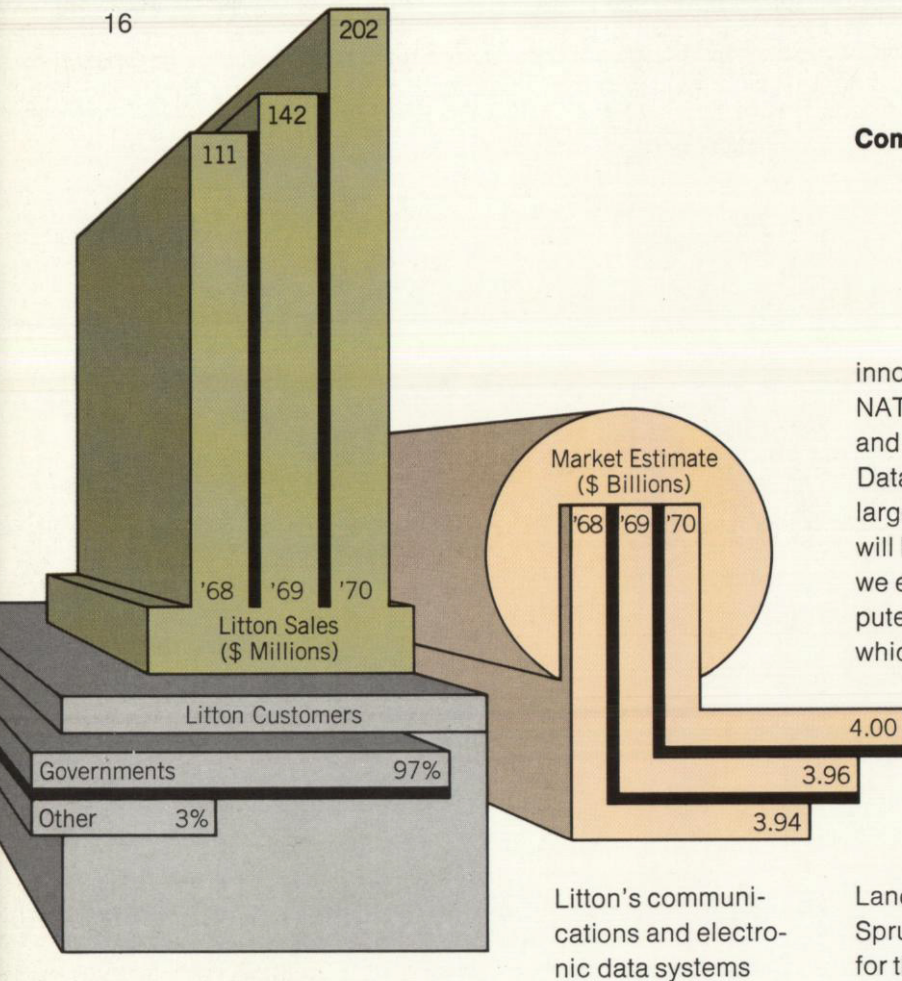
This new navigation system, along with ancillary computational equipment, opens up a new and potentially large market based on the concept of area navigation. The new system, called R-NAV by the U.S. Federal Aviation Administration, is scheduled to be operational in 1972. The system will provide air crews a means for flying with improved navigational accuracy over both land and sea by shorter routes. Its use will permit the expansion of the now narrow and crowded traffic corridors leading in and out of major metropolitan areas. As a consequence, there will be much less burden on air controllers with less need for communication between ground controllers and the planes in the air. The frustrating and costly stacking up of traffic on the approaches to metropolitan areas should be largely dissipated. Metropolitan airports will be able to handle increased air traffic more effectively.

Litton is in a leading position to profit from the future market which the 1970s generation of aircraft will produce.



Navigation and Control Systems





Litton's communications and electronic data systems

business uses innovative technology to devise faster, more reliable and less expensive ways of processing and utilizing massive amounts of information. With sales in fiscal year 1970 of \$202 million, an increase of 42 per cent from 1969, this business now produces 8 per cent of the corporation's total sales. Ninety-seven per cent of our sales in the past year were to defense services.

Our product lines (hardware) as well as our systems concept and design capabilities (software) have contributed to the strength of this business. Our divisions have been highly selective in contract bidding, concentrating on high priority defense programs, especially those for which Litton has unique capability and which have follow-on requirements. Present activities include more than 30 programs. Together, they give Litton an order backlog for military information and command control systems unmatched in the electronics industry.

The Data Systems division has a unique competence in the application of computer technology to tactical command and control systems which provide information and capability to facilitate decision making in combat situations. The division has led in the adaptation of solid-state electronics and electronic miniaturization to computer technologies. Tacfire, the U. S. Army's new artillery fire control technique, is a Litton designed data processing system using the Litton L-3050 integrated circuit general purpose computer which embodies an

Communications and Electronic Data Systems

innovative concept for quick, low cost maintenance. NATO forces as well as those of Switzerland, Australia and Japan are evaluating the system. Data Systems is now designing a fourth-generation large scale integration (LSI) computer, the L-3070. LSI will be the dominant circuit technology of the 1970s and we expect the L-3070 to become a state-of-the-art computer of the decade. Compared with the L-3050, with which it will have common software, the new computer will be faster, have a less expensive memory with greater capacity and reliability, will cost considerably less to produce, and will be one-eighth the size.

Other advanced multipurpose information systems are also being developed by Data Systems for the Landing Helicopter Assault ships (LHA) and the new Spruance class of destroyers which Litton is producing for the U. S. Navy. The world market in shipboard electronic and control systems is estimated to be several billion dollars through the next 10 years.

While sharp reductions have been made in U. S. defense spending generally, budget approvals for superior command and control systems have increased. With fewer military personnel, defense systems need to be more efficient, more accurate, faster responding and more maintenance free than at anytime in history. As a result, the market demand for command and control systems and subsystems could well aggregate \$9 billion through 1975.

In the communications area, the Litcom division won a U. S. Navy order to build 16 high powered, very low frequency radio transmitters for eight Omega transmitting stations to be deployed throughout the world by 1974. Omega will provide a low cost, accurate global navigation capability to ships of all nations equipped with appropriate receivers. Anticipating the demand, Litcom has also developed fully automated Omega receivers for military and commercial ships.

In a new and increasingly important data collection and processing market, our Environmental Systems division won 12 of 16 contracts awarded air pollution districts designated by the U. S. government for computerized air monitoring systems. A \$250 million-a-year market for air and water pollution monitoring systems, including instrumentation, is foreseen in the U. S. alone by 1975.





The \$2.1 billion contract which the U. S. Navy awarded Litton in June for the production of 30 multipurpose destroyers of the new Spruance (DD-963) class is the largest single contract in the annals of American shipbuilding. The task also becomes Litton's biggest single undertaking. Ingalls West division, at Pascagoula, Mississippi, will build the destroyers in its new automated facility.

Currently under way is work on the U. S. Navy's new class of Landing Helicopter Assault ships, the LHA series. Both the LHAs and the DD-963 destroyers will employ electronic and control systems on a scale never before approached in seagoing technology. The value of the electronic equipment in the ships is about 20 per cent of the total contract value. Our Data Systems division will provide many of the electronic systems and will be responsible for their installation in the fleet. By 1975, Ingalls West expects to be launching destroyers, each weighing about 7,000 tons, at the rate of one a month.

Litton's decisive innovation in American shipbuilding has been to unify engineering and production—to design a ship not only for high performance but also for economical production.

The total contract value of the backlog for marine business now surpasses \$3 billion. The destroyer contract will be funded in five separate annual increments. The first increment, covering three ships, was funded at contract inception. The second increment, for six ships, was before the U. S. Congress for approval as this report went to press. Preliminary development work on the destroyer series has begun; the first ship will be delivered in 1974. Now being produced in the new facility at Ingalls West are eight advanced-design container ships for the Farrell and American President Lines.

Along with completion of the new ship production facility, the original yard, Ingalls East, was modernized for the specialized construction of nuclear submarines, a business in which it has achieved eminent qualification. As part of this program of modernization, a nuclear repair facility, the first of its kind, was recently dedicated and opened.

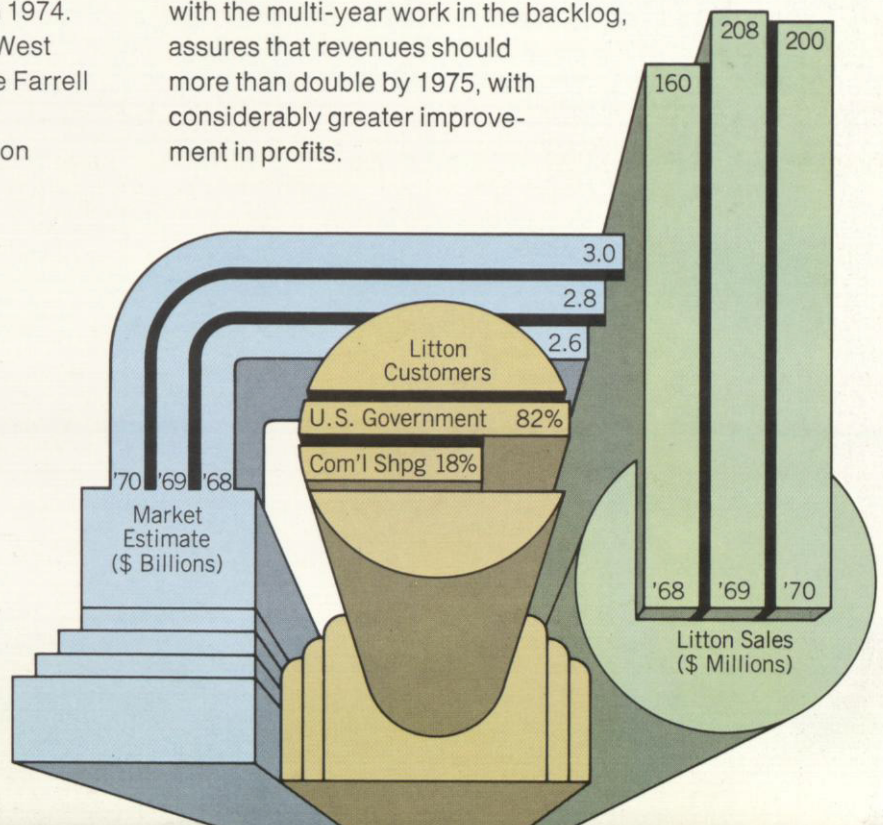
Ingalls has built and delivered eight nuclear attack submarines during the past 10 years. Two more are on the ways and two in the backlog. During the past year, Ingalls also has com-

pleted the modernization and overhaul of two submarines and has contracts for two more. Four ammunition ships are in the backlog and four oil tankers and a chemical tanker are in process. Litton, at its Ingalls East operations, is strongly in the competition for the U. S. Navy's next class of nuclear attack submarines, the high speed SSN-688.

Litton's third shipbuilding division, at Erie, Pennsylvania, specializes in building ore boats for Great Lakes transport, using modular techniques. The division is presently fabricating for Bethlehem Steel the midbody of a 1,000-foot, \$18 million ore boat. The bow and stern sections, which were built by Ingalls East, were welded together and the truncated vessel steamed under its own power to Erie in June. There the bow and stern sections are being mated to the midbody. Litton also operates the Wilson Marine fleet of Great Lakes ore boats and will be replacing some of these with newly constructed 1,000-foot boats.

Building modern ship production facilities capable of achieving the highest possible efficiencies has required substantial capital commitments. Since the beginning of 1966, Litton has invested more than \$132 million in building new facilities and improving old ones. This sum was equal to 41 per cent of all the capital expenditures made by the entire U. S. shipbuilding industry in calendar years 1966-69.

Litton's marine sales were \$200 million in fiscal year 1970; a small operating profit was realized. The completion of the new efficient facilities, along with the multi-year work in the backlog, assures that revenues should more than double by 1975, with considerably greater improvement in profits.



Marine Engineering and Production



Machine Tools

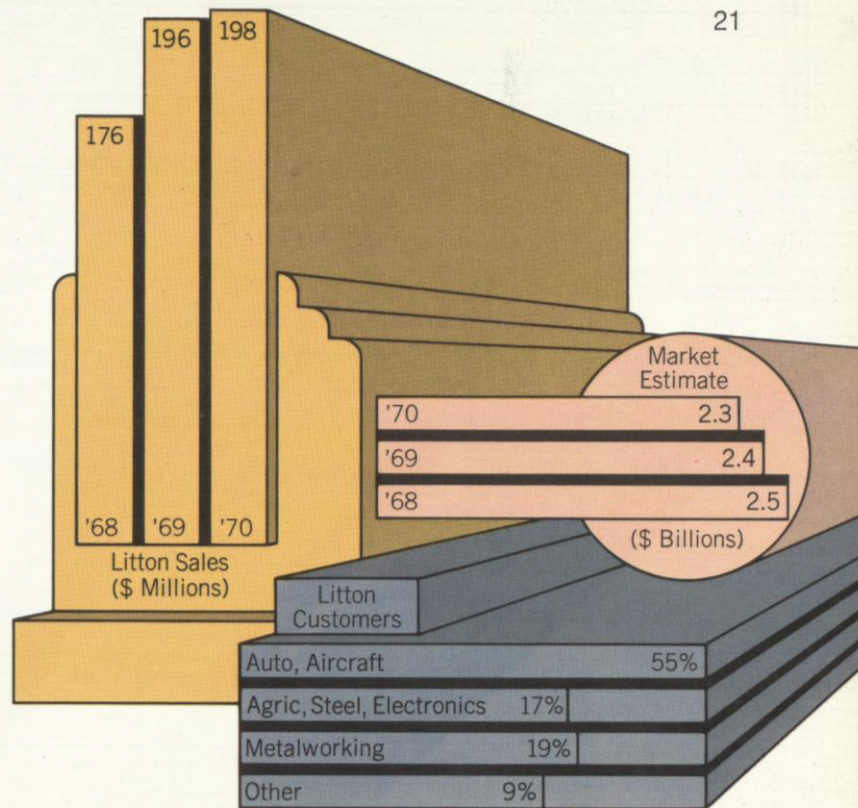
Litton has become a major factor in the machine tool industry. Sales during the past year were \$198 million, up nearly \$2 million from the previous year. This performance was in contrast to the industry in general, for which 1970 sales appear to be the lowest in eight years. In a period such as this, the composition of Litton's machine tool business provides a defensive strength with less vulnerability to the capital goods cycle than the industry as a whole.

About one third of our sales, originating mostly with the Landis Tool division, are of precision grinding machines that are specifically designed for manufacturing operations where model changes are the rule. Thus, a significant portion of the Landis market is renewed annually. Another third of the sales, originating primarily with the UTD and Gardner Machine divisions, is in tools that are expended in the manufacturing process—bits, drills, reamers, discs and other consumables. The use of these tools relates more closely to industrial production levels and thus is less affected by capital spending cycles.

The remaining third of our machine tool business, primarily that of the New Britain Machine division, is the manufacture of cutting, turning, boring and related machines which are generally associated with expenditures for major capital goods.

Irresistible economic factors are forcing machine tool innovation at a faster pace. The upward push of labor costs compels industry to accelerate the productivity of its machines. At the same time, available technological developments are providing the basis to meet these demands. The combined effect of these factors is to render a great part of existing tools technically and economically obsolete. (An estimated 22 per cent of all the metal cutting machine tools in use today are more than 20 years old, and two thirds are more than 10 years old.)

Litton entered this field with a perception of the developing potential for computer controlled, automated tools to broaden plant capacity and increase productivity. During the past year, the UTD division created a model of the factory of the future in its highly automated production plant for drills in South Carolina. The New Britain division introduced a unique numerically controlled dual chucking machine of high precision and



capacity. Landis division brought out the first computer monitored automatic crankshaft grinding machine for the automobile industry.

Litton has a strong position in the development and manufacture of machine tools for the plastics industry. Years of product development assure a leading role in this new market in the making. In fiscal year 1970, New Britain introduced a plastics injection molding system, incorporating an analog feedback control, which has demonstrated an unequaled competence for meeting extremely close tolerances.

Litton's machines and systems have made notable progress in the markets of Europe and the Far East. Landis-Lund in England and Landis-Gendron in France serve automotive and aircraft industries throughout Europe, and they enjoyed a sales increase of 6 per cent during the past year. New Britain Machine division is doubling its facilities in France by adding 200,000 square feet of new production space to its plant at Lyon.

In April, the Japanese government approved a licensing agreement and the purchase by Litton of a 20 per cent equity interest in the Nippei Industrial Company, a leading manufacturer of grinding machines. The agreement admitted Litton into the first equity position in an existing Japanese machine tool company for an American company.

Litton's machine tool business has fared better than the industry in a down period of the capital goods cycle, and is poised for leadership as the upturn begins.



Photo: Europe's largest blending system, which mixes nonuniform ores to like consistency, was built by Litton for Hoogovens, a Dutch steel firm.

Litton's Hewitt-Robins Bulk Handling division designs, manufactures and installs conveyor and processing systems for the ore, coal, rock and other heavy materials industries. It also manufactures self-unloading systems for bulk cargo vessels. Litton's Unit Handling division makes automatic conveyor systems for the in-plant transportation of bottles, boxes, packages and other unitized products. It also manufactures and markets palletizing systems as well as complete handling systems for automated warehouses.

Material handling sales for fiscal year 1970 were \$102 million, compared to \$94 million the previous year. Even though sales increased over 8 per cent, operating profits were measurably down. Considerable cost pressures, a two month strike at one plant, special one time costs of moving into two new major facilities, along with a contract loss on a turnkey conveyor installation in Canada, were the primary causes. During the past year, there were substantial outlays for plant improvement. Our plant at Buffalo, New York, has been modernized, and a new 200,000 square-foot facility has been brought into production in South Carolina.

Our Bulk Handling division is a leader in world sales of bulk conveyor systems, as well as of related machinery and engineering services. It is, moreover, the only supplier in the bulk conveyor business that makes both the rubber belting and the machinery that moves, feeds and unloads the belting. In the course of a year Hewitt-Robins conveyors will move millions of tons of material, including gold, silver, diamonds, copper and iron ore in the mines of South Africa. Other world markets are developing as excavation continues for nickel in New Caledonia,

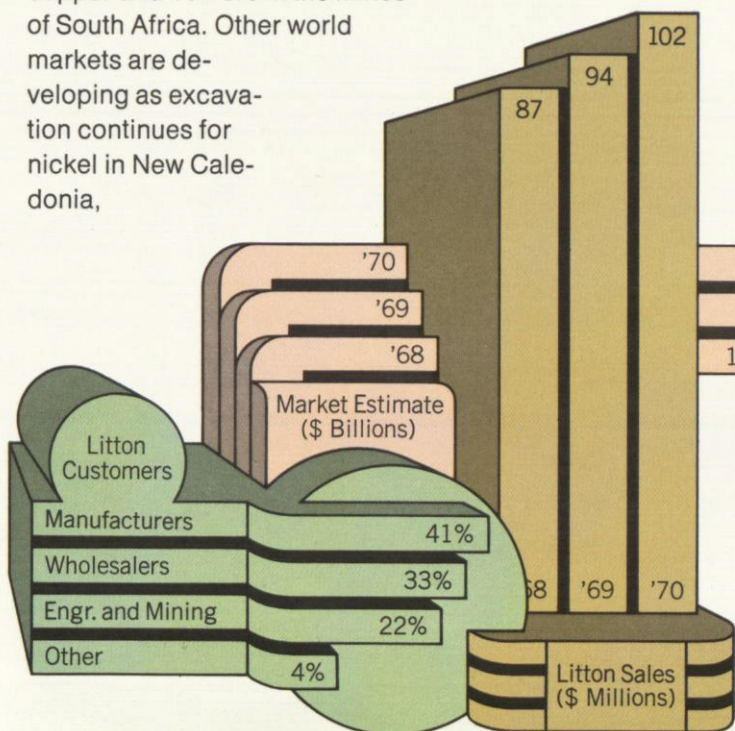
copper in the Philippines and tin in Malaysia.

The long range prospects for bulk material handling systems are firm. In the mining industry, an ever larger volume of earth and rock is being moved for a shrinking quotient of pay minerals. Increased efficiency through greater material handling automation is a necessity. Soaring labor costs are also forcing the steel, chemical, road building and many other industries to call for larger, more economical material handling installations.

In this field, technological innovation is currently proceeding somewhat faster in Europe than in the United States due to the more rapid growth of European capital investment in industrial processes. Hewitt-Robins, through International Handling (N.V.) in Amsterdam—a joint venture serving the European market—has just received its largest single contract for a cement plant material handling installation in Italy.

The largest part of Litton's unit material handling business relates to consumer products where sales growth has continued. During the past year, a unique conveyor and palletizing system for handling thousands of pastries at freezing temperatures was completed for the bakery operations of Burney Brothers, Chicago. Another conveyor system was supplied the R. T. French Co., in the Philadelphia area, for its line of condiments. A bottle-handling line, representing a complete turnkey operation, is being installed at the Anheuser-Busch brewery in Merrimac, New Hampshire. A \$2 million transport and distribution system for appliances, also a turnkey job, is being assembled in the General Electric plant at Columbia, Maryland. The division is also finishing extensive conveyor systems for both the Dayton Tire & Rubber Company at Oklahoma City and the Gulf Coast Aluminum Company at Lake Charles, Louisiana.

Conveyor systems, both bulk and unit, are increasingly important elements of automation. They provide effective means for bringing down production and transportation costs. They further relieve the need for manual labor in those menial tasks where available labor has become scarce. We foresee an increasing need for automated materials handling equipment, making use of the most advanced forms of computer and electronic controls.



Material Handling



Photo: Aluminum plant being built by our Rust division for Revere Copper and Brass incorporates advanced air pollution controls on production-line roofs.

Litton's Rust Engineering division, with headquarters in Pittsburgh and operations world around, is among the leading engineering and construction concerns. Sales in fiscal year 1970 were \$127 million. The aggregate value of the engineering and construction projects in which Rust was engaged, including all the equipment which was specified and installed, was \$700 million. The comparable figures for 1969 were \$97 million in sales and \$590 million for the aggregate value. The division's present sales backlog is \$168 million, an all time high.

Rust designs and constructs plants for four major industries—pulp and paper, ferrous and non-ferrous metal, chemical, and rubber and plastics—with the greatest concentration on the first two of these. Over the years ahead, efforts will be directed to expansion serving those industries for which Rust is fully qualified yet today holds a smaller market share.

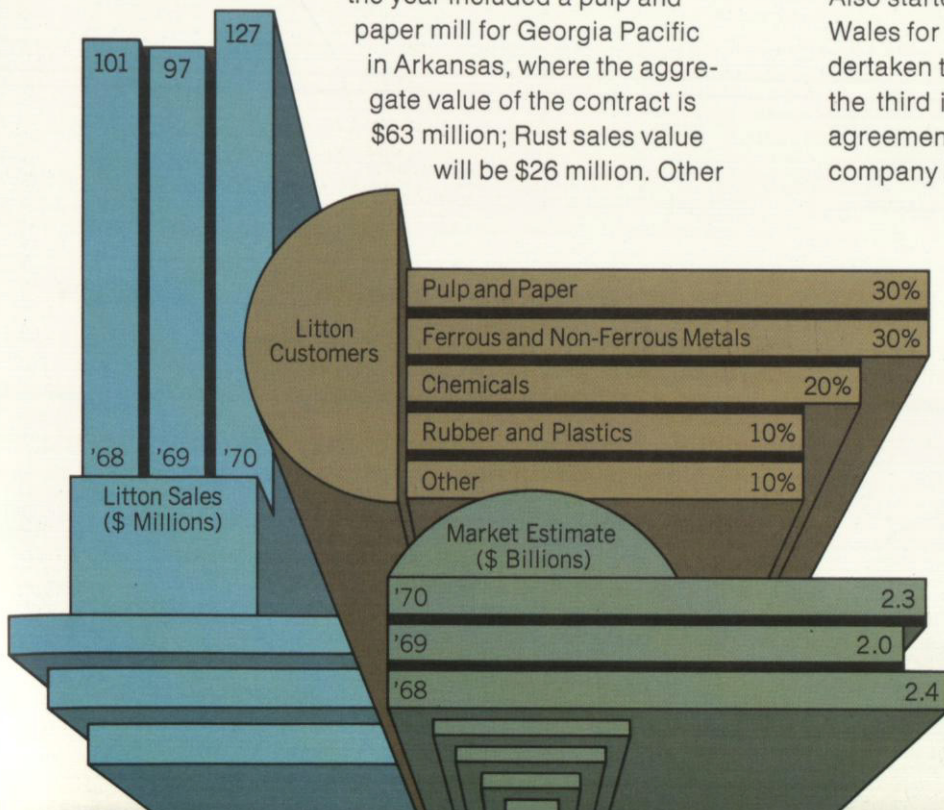
Rust, for years, has participated in the pollution control field by engineering systems to insure pure water intake into the chemical process plants it builds. The same technology is being applied to control the output of processing plants. A recently begun project to construct additions to the Allegheny County (Pittsburgh) waste water treatment facility is one of the largest water pollution control projects financed under U. S. federal grant. Rust's sales value for the contract will be \$36 million.

Major projects in progress during the year included a pulp and paper mill for Georgia Pacific in Arkansas, where the aggregate value of the contract is \$63 million; Rust sales value will be \$26 million. Other

major projects, at their aggregate value, included a contract for engineering of a \$133 million Weyerhaeuser Company pulp and paper mill in Oklahoma. This is the largest contract for such a facility Rust has ever received and the mill is believed to be the largest ever built as a single engineering-construction project. Also in Oklahoma, Rust is constructing a \$73 million tire plant for Uniroyal. This will be similar to Uniroyal's facility in Alabama, also designed and built by Rust, where a one million square-foot addition is now being built to double the size of the existing plant. The division continued work on a reduction plant for a major aluminum producer in Alabama under a contract valued at \$85 million. In Georgia, a substantial construction contract from Pabst Brewing Company for the building of a 1.5 million barrel-per-year brewery is nearing completion.

In Canada, Rust Associates, Ltd., has been growing with that country's expanding pulp and paper industry. In the near future, Rust plans to widen its operations by entering the Canadian steel, mining, metallurgical and chemical markets.

In Europe, Rust's affiliated companies in Brussels and London have increased their staffs by 50 per cent to cope with the influx of new business. During the past year, work began on a new \$24 million tissue mill for Kimberly-Clark at Prudhoe, England, and the expansion of another mill for the same company in West Germany. Also started was a new 150 ton-per-day mill in South Wales for British Tissues, Ltd. A contract was recently undertaken to build a chemical processing plant in Hungary, the third in five years. Rust is presently discussing an agreement with a major engineering and construction company in Japan. If this develops, Rust will offer its industrial engineering services to the markets of the Far East.



Engineering and Construction

Photo: Inter/Pak Electronics division wire-wraps an AccurFrame® assembly, one of the principal components of fourth-generation computers.

Sales of electronic components rose to \$175 million in fiscal year 1970, equal to 7 per cent of the corporation's total and 7 per cent above the \$163 million in 1969. Profits rose proportionately. Litton did well in an industry that had a difficult year on the whole.

The components business keeps changing subtly in character all the while it is being propelled ahead by technology. New, fully solid-state fourth-generation computers currently are being introduced. The demand for computer components is no longer for the relatively uncomplicated first-generation discrete, or separate, devices. As the total computer state-of-the-art advances, the role of the components manufacturers has become more demanding and more critical.

Litton is prepared with a broad line of components for fourth-generation computers. It has developed a new technique in electronic packaging called AccurSystem™, an assembly forming a major part of the back panel of the computer itself and bringing a new concept into the interconnection of electronic systems.

Litton offers a wide variety of electronic components from attitude and directional gyroscopes produced as standard navigational equipment for aircraft, to high power traveling wave tubes used

in the radar of military aircraft for detecting hostile weapons and equipment. As in other Litton operations, the philosophy of investment has been to concentrate research and development efforts on high technology, high value, proprietary products.

The Electron Tube division is a leader in the power and special purpose tube industry in the adaptation of microwave techniques to electronic countermeasure systems for the military. The division also produces a new low cost magnetron for Litton's home electronic cooking unit. Microwave tubes alone represent a \$250 million-a-year market worldwide.

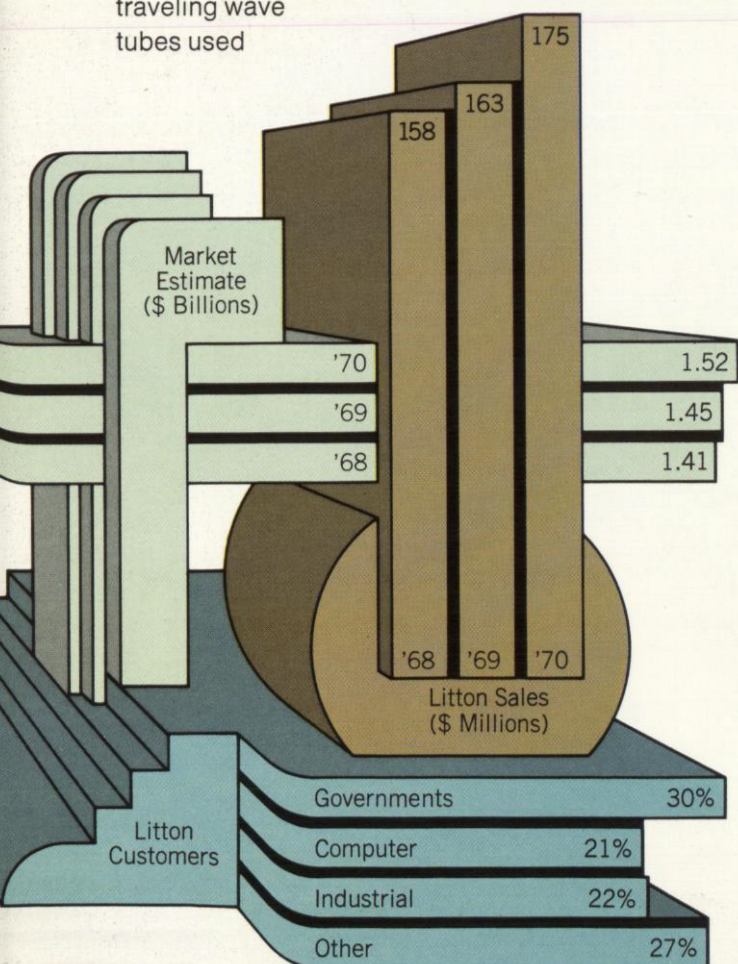
The Encoder division in the past year introduced for aircraft use an electric driven gyroscope more reliable, truer and less expensive than the vacuum driven unit it replaces, opening a considerable original equipment and replacement market to the division. Several manufacturers of private aircraft have specified gyroscopes of this type as standard equipment on their new models.

The Airtron division, which produces crystals for laser systems and the world's finest simulated diamond, the Diamonair® gem, has introduced a new simulated emerald, the Emeraldair™ jewel. Airtron also has introduced new rare earth orthoferrites used in miniaturized high capacity computer memory and logic banks.

Microminiature synchros, highly accurate components used in Litton's new-generation guidance platforms, have been developed by our Clifton division. Kester Solder division, which makes thousands of different varieties of solder for use in electronic systems, recently opened a facility in Singapore to serve the fast growing electronics industry of the Far East.

The Potentiometer division, a major manufacturer of precision potentiometers, now serves the heavy construction equipment market with an extraordinary crane safety device that uses a combination of electronic sensors, a computer and instruments to enable a crane operator to sense the forces acting on his machine about all of its axes in order to avoid overturning the crane. Regulatory agencies in New York and New Jersey have certified the Compulift™ system, and major insurance companies view it favorably as a safety device.

The components business continues to grow, keeping pace with Litton's overall growth and providing the basic building blocks for new and more advanced systems.



Electronic Components





Litton's operations in this field are conducted through two divisions—the Louis Allis division, with headquarters in Milwaukee, and the Power Transmission division, centered in West Hartford, Connecticut. Sales of electric motors, power drives and controls in fiscal year 1970 were \$117 million, equal to about 5 per cent of the corporation's total, and were up 5 per cent from the year before.

Louis Allis' business is primarily the manufacture of electric motors, adjustable speed drives, electronic digital controls for automated operations and combinations of these components to form complete industrial control systems.

During the past year, an extensive capital improvement program was completed, focused on rationalizing the production capabilities of the Louis Allis plants to achieve a higher degree of product specialization in each plant.

During the past two years, the operation has been re-established in new or modernized plants. Production of the largest-size motors is now concentrated in the headquarters plant in Milwaukee, which has been thoroughly modernized. Medium-output motors are being manufactured in a new plant in Evansville, Indiana, and the smaller ones are being produced at another new plant in Greenville, South Carolina.

Electric motors, ranging in size from ¾ hp to 6,000 hp, produce about 60 per cent of the division's revenues. The Armor Line™ motor, the most powerful made by the division, is widely used in the burgeoning utility, petroleum pipeline, refinery and chemical processing markets. Other special large motors power air conditioning units in office buildings, factories and shopping centers. Pacemaker® and Pacer® induction motors, from ¾ hp through 250 hp, are applied to drive pumps, fans, blowers, compressors and other equipment.

In the power drive field, a \$100 million-a-year market, the division's customers are mainly industrial. Demand is strong, and an annual growth rate of 12 per cent is forecast.

Electric Motors, Power Drives and Controls

Digital control products have a faster growth rate than any other Louis Allis product line. Dynapar® sensing, indicating and control instruments are used extensively in the basic metals, metalworking and machine tool industries, as well as in papermaking/converting, wire and cable and other continuous production processes.

In the past decade, the cost of the electronic control components in the more complicated machine tools has risen from 15 per cent of the total cost to more than 50 per cent. We expect the market for digital controls on machine tools to double during the next five years.

The Power Transmission division makes the broadest line of mechanical power transmission machinery available from any manufacturer. It includes high power, high precision gears, a wide variety of industrial gearing, an extensive line of speed reducers and chain drive equipment. In addition, the division manufactures special fractional horsepower motors and a variety of gear motor drives. These products have wide application in farm machinery, automotive products and heavy industries, including steel foundries, lumbering, shipbuilding and mining. For the near term, the forecast is a steady but slow market; over the longer run, the market for such products will grow with the trend of automation generally. The division is vigorously upgrading its distribution organizations and will be introducing several new products in the coming months.

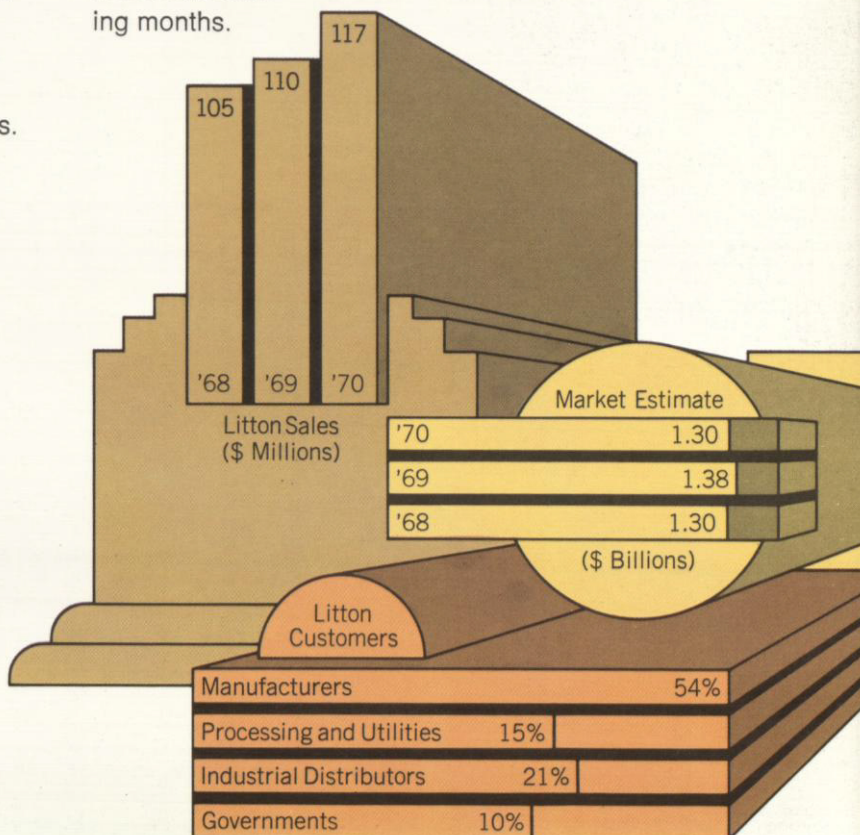


Photo: Console of Litton's Hellige Series 19 patient monitoring system in a new Swiss hospital displays heartbeats and other vital functions of seven patients.

The market for medical products holds considerable potential for Litton. Concern for personal health and well-being is increasing throughout the world, prompting an impressive expansion of governmental and private medical services. As a result, there has been a growing demand for increasingly advanced medical instrumentation.

Beginning with \$2 million in sales in 1960, Litton's medical products business accounted for sales of \$121 million in fiscal year 1970, 5 per cent of Litton's total sales.

The growing sales of Profexray radiological systems in the past year placed Litton in the top three producers of medical X-ray apparatus and supplies. The Hellige division is a leader in Europe in the development, manufacture and marketing of solid-state electronic systems for medical diagnosis and research. Last year two companies were acquired in Europe—Mijnhardt, of The Netherlands, manufacturer of lung function test equipment, and Sterimed, in Germany, producer of disposable medical products. These companies have excellent technical reputations and possess a group of products which will supplement the Litton line.

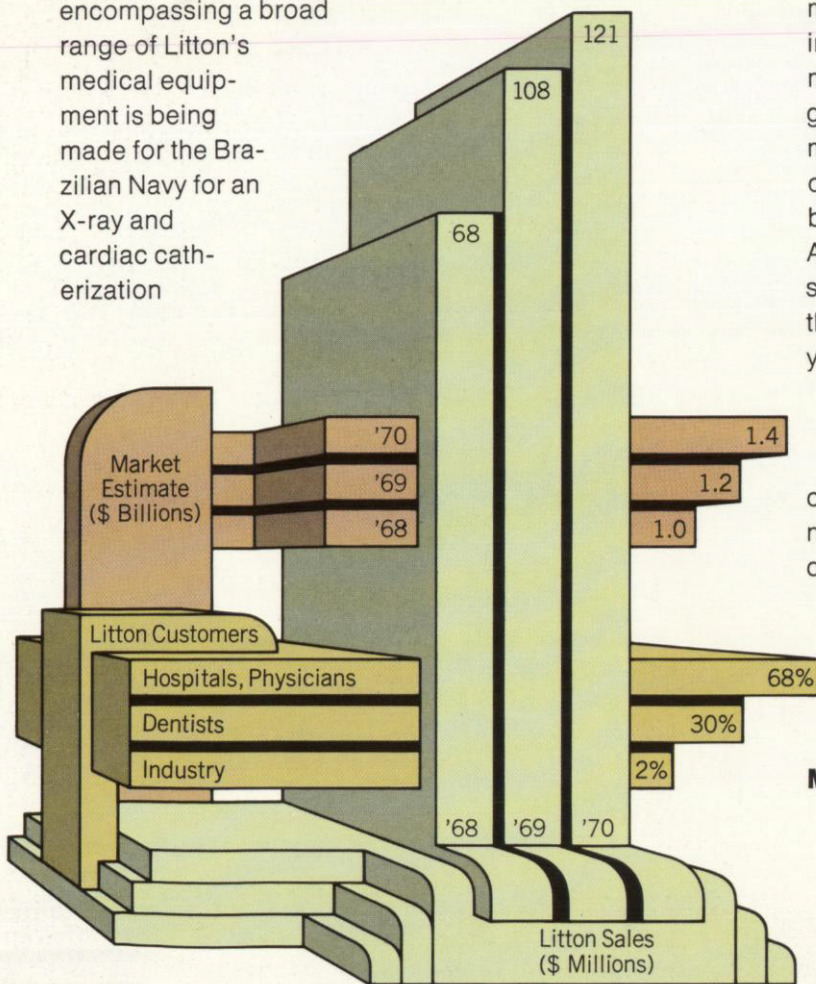
Litton markets its broad line of medical products through 160 sales offices in the U. S., Canada and Western Europe. An installation encompassing a broad range of Litton's medical equipment is being made for the Brazilian Navy for an X-ray and cardiac catheterization

installation in Rio de Janeiro. In the completed system, Profexray will supply a special diagnostic X-ray system, X-ray image intensifiers linked to closed circuit television, and a 35mm *cine* subsystem that provides a continuous motion picture of the patient's heart action. Hellige will complete the system with recording devices for monitoring blood pressure, heart action and other vital life functions; an emergency unit with a pacemaker, and a defibrillator designed to automatically overcome cardiac arrest and cope with other serious emergencies.

Our projections envisage Litton's sale of medical products more than doubling by 1975. In particular, we foresee an enormous demand for diagnostic equipment. Over the past several years, Hellige's entire product line, embodying the latest state-of-the-art adaptations of solid-state circuitry for medical instrumentation, has been redesigned for use in the North American market. In the process, instruments were reconstituted in modular form, making them easier and more economical to use, an important feature in hospitals where the time of technicians is always in great demand.

As long as physicians and medical technicians are critically needed, the requirement for increasingly automated electronic instrumentation in diagnosis, patient surveillance and medical laboratory procedures will remain urgent. Litton foresees an especially rapid growth in the market for diagnostic systems to be used in routine medical screening as a means of practicing preventive group medicine. Expanded use of disposable instruments, computerized storage and retrieval of medical data, and the transmission of data within hospitals or between specialists—all represent expansive markets. Another fast growth market is the dental equipment and supply business—a \$320 million-a-year business in the U. S., where Litton is already well established. Last year, Litton introduced one of the few new and different dental X-ray units to enter the market in 20 years.

Still more products are being developed to provide the dentist with new equipment which will increase his productivity and justify the capital investment needed, and at the same time make dentistry easier on the dentist and the patient.



Medical Products



Educational and professional publishing sales were \$69 million during the past year, 3 per cent of the corporation's total. Publishing operations were begun in Canada and sales offices were opened in Australia and Japan. Our textbooks are being used throughout the world.

When Litton entered selected sectors of educational publishing three years ago, it was based on a judgment that continuous and dramatic change would occur in the market, with governments and public and private institutions committed to meeting expanded educational needs. Not only would a growing demand exist for textbooks but also a need would evolve for new learning techniques, new methods of storing and retrieving fundamental information, new kinds of teaching aids and more effective texts. Dramatic changes are already occurring in textbooks and associated materials used for teaching as new learning techniques are being developed.

The world market for textbooks is now estimated to be over \$800 million annually. Of this total, elementary and high school textbooks serve a market of \$450 million, increasing about 8 per cent yearly. About 80 per cent of Litton's textbooks are sold to elementary and high schools with particular focus currently being given to urban and suburban school systems. We look to continued increases in these markets.

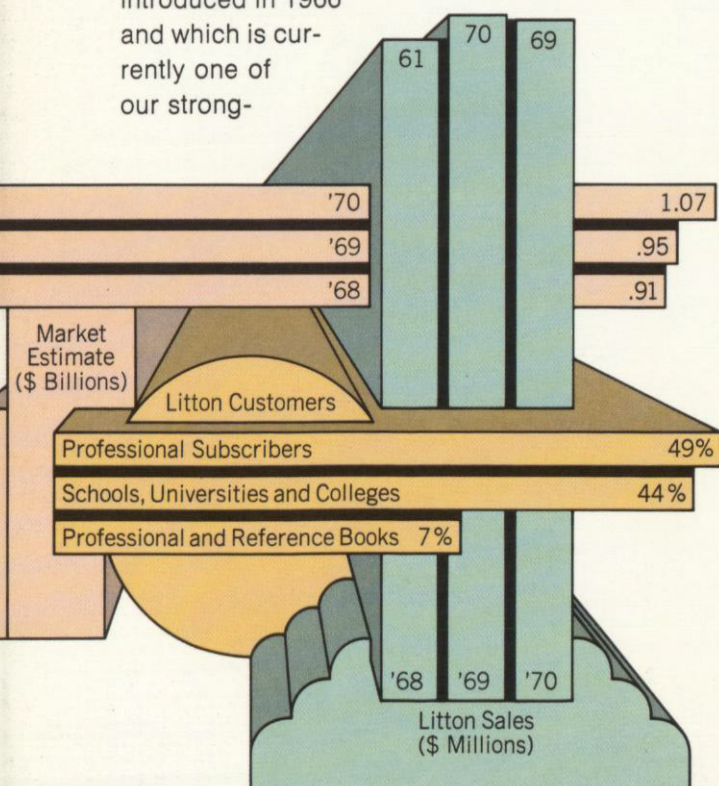
By the end of fiscal year 1970, Litton had added 565 new titles to a book list of 5,500. For elementary schools, our American Book division is introducing the new Triple "I" series of books. They will be a part of the READ™ SYSTEM which we introduced in 1966 and which is currently one of our strong-

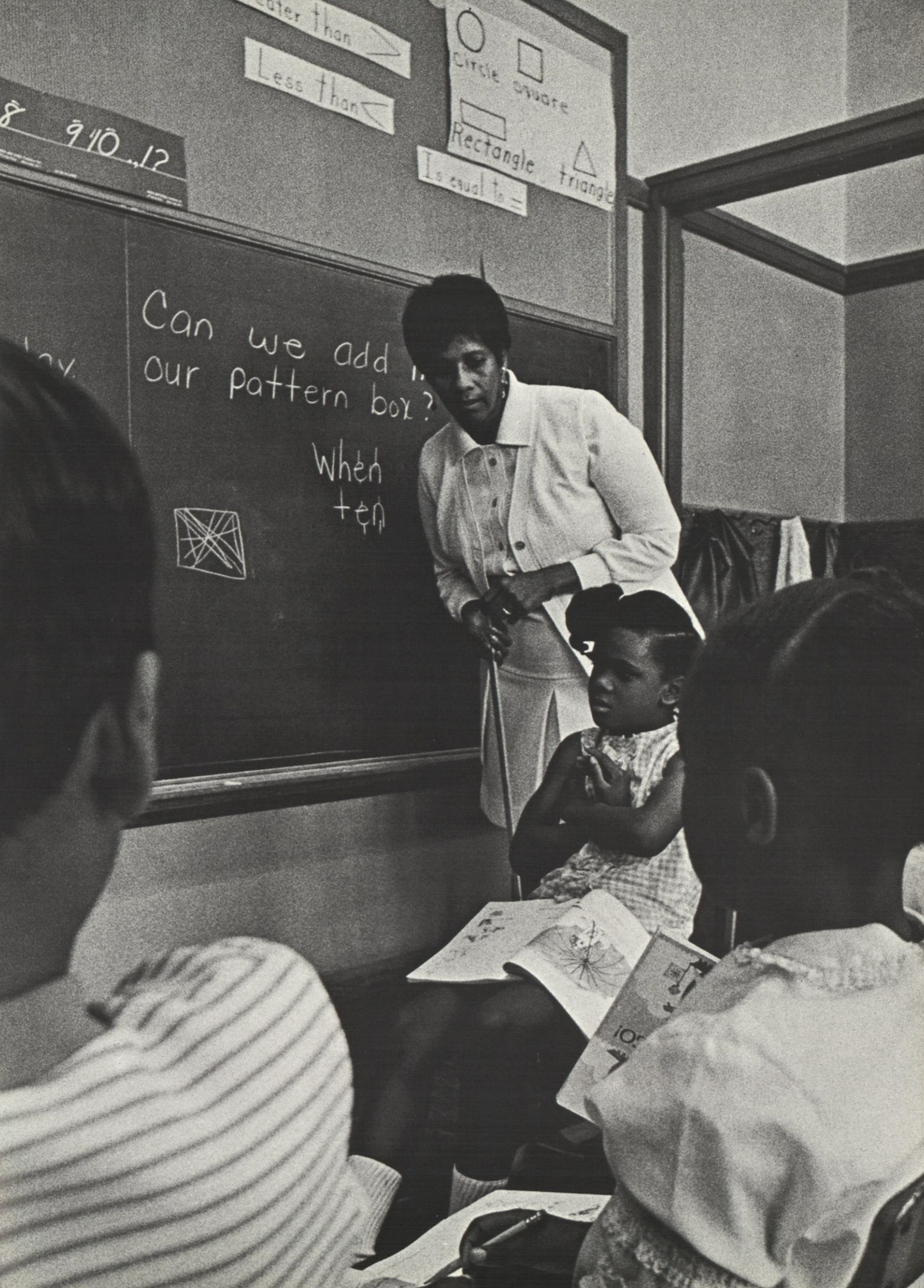
est lines. These new books enable the urban student to learn in the context of his own cultural background and, for him, are more meaningful than conventional school books. The new series has been designed to help children in urban elementary schools where differences in language make beginnings of the learning process hard for many. Our editors are working with municipal school authorities in developing new teaching materials that will better fit mixed cultural and linguistic backgrounds. The first books and teaching materials from this work are scheduled for publication soon. McCormick Mathers, which publishes elementary and high school textbooks, also produces workbooks, paperbacks and other material that supplement basal texts.

Van Nostrand-Reinhold, strong in college textbooks in the U. S., has lately found good reception overseas for its technical and scientific titles. College enrollments in the U. S. will rise to 9.5 million in 1975 from 7 million now. Van Nostrand-Reinhold expects to double its sales in that period.

Ongoing education includes keeping up with new knowledge even after completing a college education. Litton's professional magazines and directories serve this purpose. They function as information sources for doctors, medical technologists and pharmacists, engineers, architects and managers. Medical Economics, the most successful magazine in its field, goes to 190,000 physician subscribers. In fiscal year 1970, Medical Economics published the first supplemental issue in its 47 year history, a one-subject issue reporting on drugs and drug abuse. Medical Laboratory Observer, introduced during the past year, is a bimonthly for pathologists and laboratory technicians. Also added in the year was Nursing Opportunities, an annual employment directory. A further important development in fiscal year 1970 was the acquisition of Delmar Publishers, an established and respected publisher of vocational and occupational books. Its market has long been one of the largest in publishing and even now is further being broadened as lifetime learning is becoming a reality.



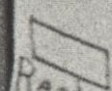

Educational and Professional Publishing





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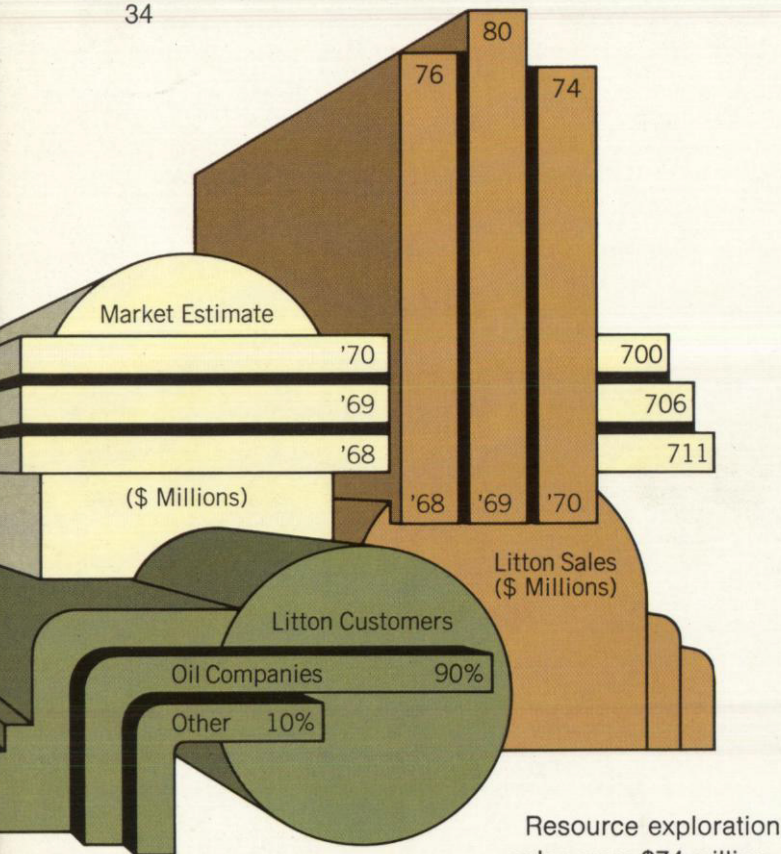
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Resource exploration sales were \$74 million in fiscal year 1970, a decline

of 7 per cent from the year before, reflecting a temporary slowdown in expenditures for oil exploration.

Over the longer term, world demand for energy in all forms and for new sources of raw materials will intensify the global search for oil and minerals. Litton is one of two exploration companies with land, sea and air capabilities to seek out deposits of these resources. Litton's two highly experienced divisions in this field — Western Geophysical and Aero Service — deploy a fleet of 20 oceangoing vessels, 18 aircraft and 40 huge land vehicles, all equipped for exploring and mapping the earth structure by geophysical means.

Litton has been engaged in resource exploration for years in nearly all sectors of the Free World and presently has about 10 per cent of the market.

Because the technology itself is constantly changing, this is a dynamic business. Thirty-five years ago, after seismic techniques for exploration came into wide use, there was a general assumption that about 20 years of intensive exploration would elicit all the information the petroleum industry could possibly need to know about the structure of the earth. Now, geophysicists predict that more than a full century of further hard work by seismic means will be needed to fill out the knowledge of the continental shelf around the world — all this because the geophysical technology keeps growing more exact, more productive.

Last year, Western Geophysical began to use a new navigation system of its own development, which is much

Resource Exploration

more precise than any other positioning system in use anywhere at sea. Signals from satellites in space provide exact periodic references to a central navigation unit which determines the vessel's position; a doppler-sonar component gives exact readings of its drift. Now, a vessel can for the first time be navigated with extreme precision in the open sea along a preplotted line over the ocean floor. Because the vessel no longer has to stop at dusk when the radio signals presently used for navigation become unreliable, an exploration vessel can now work around the clock and reduce the per-mile cost of exploration.

While Western Geophysical is best known for its work on ocean exploration, its search for oil structures in land has lately widened. The division has been importantly involved in the exploration of the vast oil deposits of Alaska. In recent years, Western Geophysical has kept from six to eight land crews at work through the winter dark on the North Slope. Western Geophysical is expanding its land crews for large scale surveys elsewhere in the world and is developing a new line of technically advanced equipment for the business.

Aero Service, which conceived the idea of using lasers for exploring geological structures from the air, has introduced for commercial use a proprietary laser device capable of constructing vertical profiles of the earth's surface. Aero Service, like Western Geophysical, has adapted geophysical data to digital processing, an advance which has provided more useful and accurate information. Aero Service also has pioneered the use of the airborne magnetometer. The high-validity readings of this instrument, when interpreted by digital computers, yield computer-constructed maps of the earth's sedimentary structure that are far more revealing than any maps previously constructed by the older extrapolation techniques.

The division's map making procedures are approaching full automation. Its technical competence and experience across the world undoubtedly accounted for its winning in the past year one of the largest single geophysical exploration contracts ever negotiated — an \$8 million contract for the aerial survey of a major region of North Africa, including the little-penetrated Ahaggar region. For a developing country, accurate maps are a prerequisite for all primary programs — roads, agriculture, mining.

Photo: Contour map drawn by computer at our Aero Service division shows magnetic field values of area surveyed for an oil firm.



Photo: Stouffer pre-prepared frozen foods combined with a new Litton Minute Master™ electronic oven permit home cooking in minutes.

Sales of food products and services were \$133 million in fiscal year 1970, up 15 per cent from the year before. The business accounted for about 6 per cent of Litton's total sales.

Litton is not a generalist in the food business. Our objective remains what it was at the start: to develop a line of pre-prepared frozen dishes for both conventional and electronic cooking, to the end of making the actual preparation of the meal all but effortless for the cook and producing an excellent meal at the same time. In its analysis of this industry, Litton concluded that methods of pre-cooking, pre-preparing and the packaging of frozen foods bore critically on the final preparation of the food in the home. This observation led Litton from the electronic cooking unit, a development from Litton's microwave technology, to our present position in the prepared frozen food and electronic cooking market.

Litton's first markets for electronic cooking units were in large establishments — factories, institutions, restaurants and vending operations. Litton has sold over 40,000 of the institution-size commercial electronic cooking units. During the past year, the Atherton division introduced a model designed for home use, the Minute Master™. We expect that the electronic cooking unit will greatly affect the life styles of users as they grow accustomed to the convenience of near instant cooking.

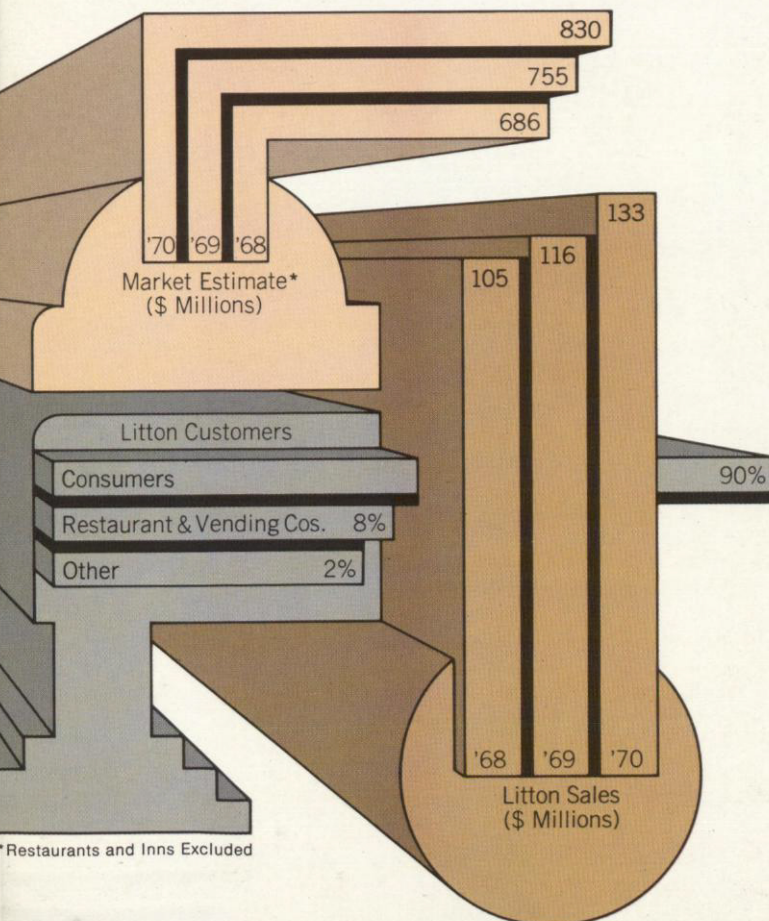
The home units are being marketed under private labels. The price of less than \$400 is within the price range of family appliances. Current order rates indicate sales of 35,000 units in fiscal year 1971, a three-fold increase over the past year.

That part of the pre-prepared frozen food market in which Litton participates is growing at an average rate of between 10 and 12 per cent a year. Litton's sales of pre-prepared frozen foods have increased at an average annual rate of 20 per cent over the past three years. The division's product lines include frozen entrees, side dishes, bakery goods (a new line of breads and cakes was added during the year) and institutional bulk foods. This "menu" currently numbers 60 items, 30 of which are new. Each item is expected to generate more than \$1 million in annual retail sales.

Eating habits are undergoing radical change. More and more people favor simple menus pre-prepared professionally. Keeping ahead of this revolution, Litton is building at Solon, Ohio, a new food research center and laboratory where master chefs will continually develop high-quality products for people bent on living and entertaining effortlessly, escaping from the tedious routines of the kitchen, and making more time for leisure.

The Stouffer Restaurant and Inn division now operates nine inns and 47 restaurants. Reflecting the general slowdown in the industry, the past fiscal year's business was only slightly ahead of 1969. During the year, Litton opened the new 30-story, 482-room Riverfront Inn in St. Louis. Construction of a luxury inn in Atlanta has begun.

American eating habits outside the home are changing too. Travelers and young adults now prefer modern settings, with good food and entertainment. In conjunction with our restaurants and inns, we have opened a chain of 16 Stouffer Grogshops™, reproducing the easy informality of the old style pub and grill. Using display cooking and offering simpler menus, these very profitable Grogshops make a return on investment substantially better than conventional restaurants. During 1970, Stouffer Food Systems won a blue-ribbon contract when it entered into an agreement which will amount to \$3 to \$5 million in annual sales volume to manage the food services and provide food for the various cafeterias, executive dining rooms, snack bars and a penthouse restaurant in U. S. Steel's new 62-story headquarters building in Pittsburgh.



Food Products and Services



Litton Industries
Financial Highlights

(Dollar amounts expressed in thousands of dollars)

	1970		1969		1968	
	Amount	Per Cent	Amount	Per Cent	Amount	Per Cent
Sales and Service Revenues by Product Group						
Business systems and equipment _____	\$ 701,488	29%	\$ 607,703	27%	\$ 503,009	26%
Defense and marine systems _____	618,486	25	570,078	26	517,278	26
Industrial systems and equipment _____	713,803	29	656,970	30	627,005	32
Professional services and equipment _____	397,187	17	372,887	17	310,288	16
Subtotal _____	2,430,964	<u>100%</u>	2,207,638	<u>100%</u>	1,957,580	<u>100%</u>
Intergroup eliminations _____	(26,637)		(31,040)		(27,154)	
Totals sales and service revenues	\$2,404,327		\$2,176,598		\$1,930,426	

	1970		1969		1968	
	Amount	Per Cent	Amount	Per Cent	Amount	Per Cent
Operating Profit by Product Group						
Business systems and equipment _____	\$ 46,104	24%	\$ 32,607	18%	\$ 21,598	15%
Defense and marine systems _____	54,047	28	45,681	25	37,417	27
Industrial systems and equipment _____	53,946	28	64,750	36	51,794	36
Professional services and equipment _____	39,056	20	37,974	21	31,302	22
Subtotal _____	193,153	<u>100%</u>	181,012	<u>100%</u>	142,111	<u>100%</u>
Interest and other unallocated expenses _____	(73,963)		(49,457)		(35,468)	
Income taxes _____	(50,439)		(49,297)		(45,706)	
Net earnings	\$ 68,751		\$ 82,258		\$ 60,937	

	1970	1969	1968
Other Highlights			
Depreciation expense _____	\$ 61,058	\$ 54,662	\$ 46,354
Capital expenditures _____	155,072	168,996	97,731
Net working capital _____	653,029	501,268	482,881
Current ratio _____	2.2	2.1	2.4
Total assets _____	1,934,012	1,580,306	1,258,800
Shareholders' investment _____	770,079	704,308	624,739

The 1968 data give effect to the restatement of the 1968 operations to include operations of businesses acquired in 1969 in poolings of interests. There were no significant poolings of interests in 1970.

Litton Industries, Inc.

Major Divisions

Business Machines and Systems

Litton ABS, Monroe

Retail and Revenue Systems

Advanced Retail Data Systems, Kimball, Litton RCS, Sweda

Typewriters and Office Copiers

Imperial, Royal, Roytype, Triumph-Adler

Specialty Paper, Printing and Forms

Checkmaster, Check Printers, Decotone, Decotone-Permaco, Eureka-Carlisle, Fitchburg, Fitchburg Coated Products, Office Product Centers, Papeterie De Versoix, Ritter-Ardes, Sturgis-Newport

Business Furnishings and Fixtures

ATAL, Brand Worth, Cole, Lehigh-Leopold, McCray, SLS Environetics, Standard Desk, Streater

Navigation and Control Systems

Aero Products, Guidance and Control Systems, LITAL, LITEF, LSL (Canada), C. Plath

Communications and Electronic Data Systems

Amecom, Bionetics, Data Systems, Environmental Systems, Litcom, Mellonics, Skyphone, Westrex

Marine Engineering and Production

Ingalls East, Ingalls West, Litton Great Lakes

Machine Tools

Butterfield, Contromatics, Eldorado, Gardner Machine, Koehler-Dayton, Landis-Gendron, Landis-Lund, Landis Tool, Lucas Machine, Merriman, New Britain Hand Tools, New Britain Machine, Plastics Machine, Reed, UTD

Material Handling

Hewitt-Robbins Bulk Handling, Unit Handling

Engineering and Construction

Rust Engineering

Electronic Components

Advanced Circuitry, Airton, Clifton, Dumont Aviation, Electron Tube, Encoder, Inter/Pak, Jefferson Electric, Kester Solder, Liberty-Wire, Litton Memory Products, Litton Precision Products, Poly-Scientific, Potentiometer, USECO, UTRAD -TRIAD, Veam, Winchester

Electric Motors, Power Drives and Controls

Louis Allis, Power Transmission

Medical Products

Dental, Eureka, Hellige, Henke, Medical Supply, Mijnhardt, Profexray, Sass Wolf, Sterimed

Educational and Professional Publishing

Litton Educational Publishing, Litton Professional Publishing

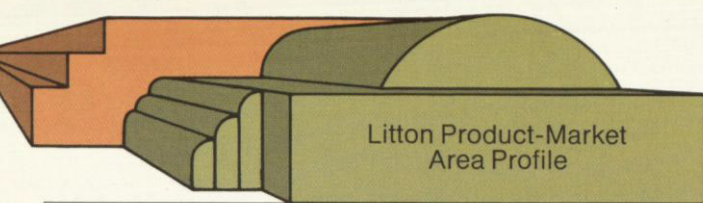
Resource Exploration

Aero Service, Western Geophysical

Food Products and Services

Atherton, Stouffer Food, Stouffer Food Systems, Stouffer Restaurant & Inn

	Major Customer Groups***	Near Term Outlook	Long Term Opportunities
	Manufacturers — 46% Finance, Insurance — 29% Education and Government — 25%	Expansive growth	Evolving technology, lower costs expand markets
	Retail — 76% Manufacturers — 11% Rail, Highway, Parking — 8% Other — 5%	Expansive growth	New terminal systems
	Schools — 32% Consumers — 22% National Governments — 16% Local Governments — 15% Commercial Offices — 15%	Expansive growth	Development of office communication systems
	Manufacturers — 33% Services — 20% Retail — 18% Housing — 18% Banking — 11%	Steady growth	Increasing world markets
	Manufacturers — 11% Finance, Insurance — 37% Retail and Services — 35% Schools — 9% Other — 8%	Steady growth	Modular design concepts
	Governments — 83% Commercial, Business Aircraft — 17%	Steady	Area navigation systems
	Governments — 97% Other — 3%	Expansive growth	Automated command and control
	U.S. Government — 82% Commercial Shipping — 18%	Expansive growth	Major U.S. Naval and Maritime programs
	Auto, Aircraft — 55% Agriculture, Steel, Electronics — 17% Metalworking — 19% Other — 9%	Depends on capital expenditures and production levels	Automated machines to increase productivity
	Manufacturers — 41% Wholesalers — 33% Engineering, Mining — 22% Other — 4%	Depends on capital expenditures and replacement market	Automatic systems for factories and warehouses
	Pulp and Paper — 30% Metals — 30% Chemicals — 20% Rubber and Plastics — 10% Other — 10%	Expansive growth	Pollution control projects
	Governments — 30% Computer — 21% Industrial — 22% Other — 27%	Steady growth	Integrated sub-systems
	Manufacturers — 54% Processing, Utilities — 15% Industrial Distributors — 21% Governments — 10%	Depends on capital expenditures and replacement market	Digital control systems
	Hospitals, Physicians — 68% Dentists — 30% Industry — 2%	Expansive growth	Expanding world health needs
	Professional Subscribers — 49% Schools, Universities, Colleges — 44% Professional Reference — 7%	Expansive growth	Development of new educational techniques
	Oil Companies — 90% Other — 10%	Depends on oil exploration expenditures	Increasing world demand for resources
	Consumers — 90% Institutional — 8% Other — 2%	Expansive growth	Changes in cooking and eating habits


 Litton Product-Market Area Profile

Litton Product-Market Area Profile		Sales* (Thousands of Dollars)		Litton 1970 World Markets** (Millions of Dollars)
Business Systems and Equipment	Business Machines and Systems	1970	\$176,761	Calculators — \$600 Electronic Accounting Machines — \$1,000
		1969	154,422	
		1968	144,738	
	Retail and Revenue Systems	1970	\$103,900	Sales Registers — \$450 Revenue Control Systems — \$20 Identification Tags, Labels and Cards — \$600
		1969	94,549	
	1968	74,732		
	Typewriters and Office Copiers	1970	\$211,957	Office Typewriters — \$900 Portable Typewriters — \$300 Electrofax Copiers — \$700
		1969	172,771	
		1968	130,527	
	Specialty Paper, Printing and Forms	1970	\$123,793	Specialty Printing — \$3,000 Banks Checks, Stationery and Forms — \$1,200 Specialty Paper — \$2,000
		1969	116,283	
		1968	93,872	
	Business Furnishings and Fixtures	1970	\$ 88,960	Office Furniture, Space Planning and Design — \$1,250 Retail Fixtures and Services — \$1,500
		1969	75,317	
		1968	63,383	
Defense and Marine Systems	Navigation and Control Systems	1970	\$221,493	Defense Aircraft Inertial Navigation — \$250 Commercial Aircraft Inertial Navigation — \$50
		1969	222,175	
		1968	252,793	
	Communications and Electronic Data Systems	1970	\$202,031	Information Systems — \$2,000 Electronic Reconnaissance — \$500 Computer Software — \$1,000 Environmental Data Systems — \$500
		1969	141,820	
		1968	111,171	
	Marine Engineering and Production	1970	\$200,242	U. S. Navy — \$2,000 Commercial (U. S.) — \$1,000
		1969	208,045	
		1968	160,320	
Industrial Systems and Equipment	Machine Tools	1970	\$197,917	Machine Tools — \$1,100 Metal Cutting Tools — \$700 Other Tools — \$500
		1969	195,932	
		1968	176,368	
	Material Handling	1970	\$102,055	Bulk Handling — \$1,100 Unit Handling — \$300
		1969	94,197	
		1968	86,859	
	Engineering and Construction	1970	\$126,661	Engineering Design — \$1,100 Engineering Construction — \$1,200
		1969	96,933	
		1968	100,859	
	Electronic Components	1970	\$174,597	Eleven basic markets ranging from \$45 to \$250 million each.
		1969	162,642	
		1968	158,409	
	Electric Motors, Power Drives and Controls	1970	\$116,725	Power Transmission Equipment — \$775 Electric Motors — \$300 Precision Gearing — \$130 Variable Speed Drives — \$100
		1969	110,197	
		1968	104,510	
Professional Services and Equipment	Medical Products	1970	\$120,975	Electronic Medical Equipment — \$320 Radiological Equipment — \$675 Dental Equipment — \$320 Medical Supplies — \$100
		1969	108,014	
		1968	67,901	
	Educational and Professional Publishing	1970	\$ 69,204	Elementary and High School — \$450 College and University — \$350 Professional Reference — \$135 Professional Journals — \$130
		1969	69,734	
		1968	61,493	
	Resource Exploration	1970	\$ 73,992	Geophysical Research includes magnetic, seismic and photo services — \$700
		1969	79,635	
		1968	76,262	
	Food Products and Services	1970	\$133,016	Specialty Frozen Foods — \$800 Restaurants and Inns — over \$5 billion Electronic Cooking Units — \$30
		1969	116,144	
		1968	104,819	

*Includes intergroup sales of \$13,315, \$11,172, \$11,436 in 1970, 1969, 1968 respectively, which must be eliminated to obtain total sales by product group.

**Estimated size of those product-market areas in which Litton competes.

***Estimated for fiscal year 1970.

Financial Statements

Ten Year Financial Review
Sales and Earnings

Litton Industries, Inc. and Subsidiary Companies

(Sales and net earnings expressed in thousands of dollars)

Year Ended July 31	Sales		Net Earnings		Earnings per Share	
	Historical	Restated for Poolings of Interests	Historical	Restated for Poolings of Interests	Historical	Restated for Poolings of Interests
1970	\$2,404,327	\$2,404,327	\$ 68,751	\$ 68,751	\$1.90	\$1.90
1969	2,176,598	2,176,598	82,258	82,258	2.34	2.34
1968	1,855,007	1,930,426	58,456	60,937	1.70	1.70
1967	1,561,510	1,852,787	70,070	87,276	2.38	2.56
1966	1,172,233	1,607,419	55,614	80,443	2.01	2.37
1965	915,574	1,289,289	39,752	57,334	1.49	1.68
1964	686,135		29,767		1.19	
1963	553,146		23,296		.96	
1962	393,808		16,316		.69	
1961	250,114		10,158		.46	

Other Data

(Dollar amounts expressed in thousands of dollars)

Year Ended July 31	Shareholders' Investment	Depreciation Expense	Capital Expenditures	Common Stock Dividends	Number of Employees	Number of Shareholders
1970	\$770,079	\$ 61,058	\$155,072	2½ %	118,300	173,300
1969	704,308	54,662	168,996	2½	116,400	162,900
1968	624,739*	46,354*	97,731*	2½	106,600	155,700
1967	426,987	33,778	60,480	2½	95,500	131,800
1966	308,879	26,577	43,978	2½	75,900	118,700
1965	231,998	22,998	34,220	2½	65,500	75,100
1964	154,750	16,780	28,954	2½	46,900	67,500
1963	121,968	11,467	25,950	2½	43,000	43,400
1962	102,934	8,527	17,457	2½	37,700	32,700
1961	63,731	5,131	12,015	2½	23,000	21,900

There were no significant poolings of interests in 1970.

Earnings per share are based on the combined number of common shares and dilutive equivalent common shares outstanding.

*Restated to reflect subsequent poolings of interests. Data for other periods are historical, as reflected in the Company's annual reports.

Consolidated Statements of Earnings

Litton Industries, Inc. and Subsidiary Companies

	<u>Year Ended</u> <u>July 31, 1970</u>	<u>Year Ended</u> <u>July 31, 1969</u>
	(thousands of dollars)	
Sales and service revenues	\$2,404,327	\$2,176,598
Costs and expenses:		
Cost of sales	1,730,573	1,563,114
Selling, general and administrative	449,566	402,737
Depreciation	61,058	54,662
Interest	43,940	24,530
Federal and foreign taxes on income (Note I)	50,439	49,297
	2,335,576	2,094,340
Net earnings	\$ 68,751	\$ 82,258
Earnings per share (Note G)	\$1.90	\$2.34

Consolidated Balance Sheets

Litton Industries, Inc. and Subsidiary Companies

Assets

	<u>July 31, 1970</u>	<u>July 31, 1969</u>
Current Assets:	(thousands of dollars)	
Cash, including certificates of deposit and treasury bills	\$ 89,428	\$ 58,057
Accounts receivable	574,187	462,945
Inventories, at lower of cost or market, less progress billings of \$127,408 and in 1969 of \$108,725	523,524	435,015
Prepaid expenses	16,595	12,611
Total Current Assets	1,203,734	968,628
Equity in Unconsolidated Finance Subsidiaries (Note B)	49,381	45,353
Long-term Investments — at cost	13,866	14,963
Property, Plant and Equipment — at cost		
Land	24,967	20,095
Buildings	288,708	234,373
Machinery and equipment	490,097	422,517
	803,772	676,985
Less accumulated depreciation	267,646	236,120
Net Property, Plant and Equipment	536,126	440,865
Cost of Businesses Purchased over Corresponding Net Assets	121,606	102,728
Other Assets, including Patents	9,299	7,769
Total Assets	\$1,934,012	\$1,580,306

Consolidated Balance Sheets

Litton Industries, Inc. and Subsidiary Companies

Liabilities and Shareholders' Investment

	<u>July 31, 1970</u>	<u>July 31, 1969</u>
Current Liabilities:	(thousands of dollars)	
Notes payable	\$ 137,300	\$ 194,146
Accounts payable	202,051	158,851
Payrolls and related expenses	77,125	70,111
Federal and foreign taxes on income	12,702	18,855
Current portion of long-term liabilities	121,527	25,397
Total Current Liabilities	550,705	467,360
Long-term Liabilities (Note C)	410,743	243,916
Future Principal Payments for Leased Facility (Note D)	116,232	79,196
Deferred Federal and Foreign Taxes on Income	28,002	26,604
Deferred Service Contract and Other Income	29,537	29,614
Convertible Subordinated Debentures (Note E)	28,714	29,308
Shareholders' Investment (Note F):		
Preferred stock:		
Series A	517	530
Series B	14,385	14,372
Preference stock	9,368	12,347
Common stock	28,552	26,213
Additional paid-in capital	394,356	362,041
Earnings retained in the business	322,901	288,805
Total Shareholders' Investment	770,079	704,308
Total Liabilities and Shareholders' Investment	\$1,934,012	\$1,580,306

See notes to financial statements.

Consolidated Statements of Shareholders' Investment
 Years Ended July 31, 1969 and 1970

Balance, August 1, 1968 _____
 Net earnings for the year _____
 Cash dividends on preferred stock:
 Series A—\$3 a share _____
 Series B—\$2 a share _____
 Transfer among accounts to record the 2½ % common stock dividend _____
 Transfer among accounts to record the conversion of debentures, preference and preferred stocks _____
 Premium on redemption of convertible subordinated debentures _____
 Value ascribed to shares issued for businesses acquired _____
 Balance, July 31, 1969 _____
 Net earnings for the year _____
 Cash dividends on preferred stock:
 Series A—\$3 a share _____
 Series B—\$2 a share _____
 Transfer among accounts to record the 2½ % common stock dividend _____
 Transfer among accounts to record the conversion of debentures, preference and preferred stocks _____
 Value ascribed to shares issued for businesses acquired _____
 Balance, July 31, 1970 _____

Share Information:

Shares outstanding, August 1, 1968 _____
 Shares issued for 2½ % common stock dividend _____
 Shares exchanged for conversion of debentures, preference and preferred stocks _____
 Shares issued for businesses acquired _____
 Shares outstanding, July 31, 1969 _____
 Shares issued for 2½ % common stock dividend _____
 Shares exchanged for conversion of debentures, preference and preferred stocks _____
 Shares issued for businesses acquired _____
 Shares outstanding, July 31, 1970 (Note F) _____

Shares authorized:

Voting preferred, convertible, cumulative, par value \$5, issuable in series _____
 Voting preference, convertible participating series, par value \$2.50 _____
 Common, par value \$1 _____

Litton Industries, Inc. and Subsidiary Companies

(Dollar amounts expressed in thousands of dollars)

Capital Stock				Additional Paid-in Capital	Earnings Retained in the Business
Preferred		Preference	Common		
Series A	Series B				
\$ 564	\$ 14,365	\$ 13,890	\$ 24,525	\$ 316,806	\$ 254,589
					82,258
					(322)
					(4,238)
			616	41,966	(42,582)
(34)	(22)	(1,882)	918	3,269	
					(900)
	29	339	154		
530	14,372	12,347	26,213	362,041	288,805
					68,751
					(309)
					(5,753)
			664	28,368	(29,032)
(13)		(3,013)	1,368	2,252	
	13	34	307	1,695	439
\$ 517	\$ 14,385	\$ 9,368	\$ 28,552	\$ 394,356	\$ 322,901
112,710	2,873,049	5,555,839	24,524,987		
			615,821		
(7,050)	(4,348)	(752,977)	918,398		
	5,947	135,895	153,876		
105,660	2,874,648	4,938,757	26,213,082		
			664,241		
(2,349)	(8)	(1,205,238)	1,368,164		
	2,422	13,778	306,895		
103,311	2,877,062	3,747,297	28,552,382		
—————22,000,000—————					
8,000,000					
120,000,000					

Consolidated Statement of Source and Application of Funds
Year ended July 31, 1970

Litton Industries, Inc. and Subsidiary Companies

(thousands of dollars)

	July 31, 1969	July 31, 1970	Increase
Total current assets _____	\$ 968,628	\$1,203,734	\$ 235,106
Total current liabilities _____	467,360	550,705	83,345
Working capital _____	<u>\$ 501,268</u>	<u>\$ 653,029</u>	<u>\$ 151,761</u>
Working capital was provided by:			
Net earnings _____			\$ 68,751
Depreciation _____			61,058
			<u>129,809</u>
Conversion to term notes of borrowings under revolving credit agreements (includes \$80,000 borrowed during 1970) _____			200,000
Other term borrowings _____			60,063
Increase in future principal payments for leased facility _____			37,036
Other transactions _____			4,983
			<u>431,891</u>
Working capital was applied to:			
Payments made or due within one year on long-term liabilities _____			93,236
Additions to property, plant and equipment comprised of expenditures of \$155,072, assets acquired in business combinations of \$16,042 and dispositions of \$19,053 _____			152,061
Increased investment in finance subsidiaries _____			4,028
Cash dividends on preferred stock _____			6,062
Investments over net assets acquired in business combinations _____			18,878
Other transactions _____			5,865
			<u>280,130</u>
Increase in working capital _____			\$ 151,761

Notes To Financial Statements
Year Ended July 31, 1970

Litton Industries, Inc. and Subsidiary Companies

Note A—Principles of Consolidation

The accounts of the Company and its wholly-owned subsidiaries (other than its finance subsidiaries) are included in the accompanying financial statements.

During the year ended July 31, 1970 the Company acquired a number of businesses. Purchase acquisitions have been included from the dates of acquisition. Poolings of interests have been included for the full year. Operations of these pooled companies are not significant and the comparative amounts for 1969 have not been restated.

Note B—Equity in Unconsolidated Finance Subsidiaries

The Company's equity in its wholly-owned finance subsidiaries at July 31, 1970 is stated at cost, represented by investments and advances, and undistributed earnings of \$12,640,000. At July 31, 1970 these subsidiaries had total assets of \$105,189,000 and liabilities to banks and others of \$55,808,000.

Note C—Long-term Liabilities

Long-term liabilities at July 31, 1970 consisted of the following:

	(thousands of dollars)
Notes payable to insurance companies:	
Due to 1984 with interest from 3 $\frac{3}{8}$ % to 4 $\frac{7}{8}$ %	\$ 71,975
Due to 1993 with interest from 5.35% to 6 $\frac{3}{4}$ %	12,282
Notes payable to banks:	
Due 1972 with interest at 5 $\frac{3}{4}$ %	39,750
Due to 1975 with interest at $\frac{1}{4}$ % above prime rate	185,000
Due 1973 with interest at 8 $\frac{1}{4}$ %	20,023
Bonds payable to 1984 with interest at 6 $\frac{1}{4}$ %	13,889
Miscellaneous debt due to 1994 with average interest at 5%	67,824
	<u>\$410,743</u>

The long-term liabilities mature as follows:

Year ended July 31, 1972	\$106,660
Year ended July 31, 1973	90,563
Year ended July 31, 1974	61,841
Year ended July 31, 1975	44,659
Years subsequent to July 31, 1975	107,020

The Company has complied with its agreements to maintain specified ratios of assets to debt.

Note D—Future Principal Payments for Leased Facility

The State of Mississippi issued \$130,000,000 of general obligation bonds to finance the construction of a new ship production facility which is under long-term lease to the Company. The lease gives the Company the right to acquire the facility under certain conditions.

The amount reflected on the balance sheet represents the total amount expended to date, and the corresponding assets are included in Property, Plant and Equipment. Annual payments of approximately \$9,000,000 from 1972 through 1997 will amortize the principal and provide for interest costs.

Note E—Convertible Subordinated Debentures

At July 31, 1970 there were outstanding \$27,219,000 of 3 $\frac{1}{2}$ % debentures due April 1, 1987 and \$1,495,000 of 5 $\frac{1}{4}$ % debentures due December 1, 1974.

The 3 $\frac{1}{2}$ % debentures are convertible into common stock of the Company at \$40 a share until April 1, 1972, \$42.50 a share until April 1, 1982, and \$45 a share thereafter. The sinking fund requirement on these debentures has been satisfied to April 1, 1986.

The 5 $\frac{1}{4}$ % debentures are convertible into common stock at \$20 a share. The sinking fund provisions on these debentures will require redemptions of \$295,000 on December 1, 1972 and \$600,000 each on December 1, 1973 and 1974.

The debentures are subordinated to all existing debt and future debt of the Company with limited exceptions. The Company has complied with the terms of the debentures.

Note F—Shareholders' Investment

The Series A preferred stock receives a \$3 annual dividend. Each share is convertible into two shares of common stock and is redeemable on or after April 1, 1972 at \$100 per share plus accrued dividends. In the event of liquidation each Series A preferred share is entitled to receive \$50 a share plus accrued dividends.

The Series B preferred stock receives a \$2 annual dividend. At July 31, 1970 each share was convertible into .69189 of a share of common stock. On the day following the record date for a stock dividend in common stock, the conversion rate is adjusted upward in the event the value of the stock dividend which a holder of Series B preferred stock would receive had he converted his shares immediately prior to the dividend exceeds the cash dividends paid to holders of Series B preferred stock since the last stock dividend in common stock and downward in the event the value of such stock dividend is less than such cash dividends. As a result of the 2½% stock dividend on the common stock payable November 15, 1970 the conversion rate of the Series B stock is .58978 as of September 18, 1970. Each share of Series B preferred stock is redeemable on or after January 15, 1978 at \$80 a share plus accrued dividends and, in the event of liquidation, is entitled to receive \$25 a share plus accrued dividends.

Each share of preference stock is currently convertible into 1.1294 shares of common stock. If a cash dividend is paid on common stock, each share of preference stock is entitled to receive a cash dividend in an amount equal to the dividend per common share times the then applicable preference stock conversion rate. Each share of preference stock is redeemable by the Company at any time after January 31, 1976 at prices ranging from \$67.75 in 1976 to \$100.95 in 1989 and thereafter. In the event of liquidation each preference share is entitled to receive \$25 a share plus accrued dividends.

At July 31, 1970, 6,429,429 shares of common stock were reserved for the exchange of all the preferred and preference stocks described above. In addition, 755,218 shares of common stock were reserved for exchange of the convertible debentures described in Note E.

Under certain acquisition agreements capital stock may be issued as additional consideration for businesses acquired. The number of shares to be issued is dependent, among other things, upon future earnings of acquired businesses and future market value of Litton stock. Based upon current estimates, the maximum number of additional shares which could be issued as additional consideration is approximately 187,000 common shares and 54,000 preference shares.

Under the provisions of the Company's stock option plans described below (and those plans assumed by the Company in connection with certain acquisitions), there were outstanding options to purchase 40,713 shares of Series B preferred, 46,000 shares of preference and 122,363 shares of common stock.

In December 1966, the shareholders of the Company approved a Qualified Stock Option Plan ("1966 Plan") under which 250,000 shares of the Company's preference stock are available for grant of options to key employees to purchase stock at not less than market value at date of grant. Options are cumulatively exercisable, beginning one year from the date of grant, in equal installments over the remaining term of the option. During the year ended July 31, 1970 no options were granted and, at July 31, 1970 options to purchase 46,000 shares at prices ranging from \$55 to \$86.50 were outstanding. Options representing 15,860 shares at prices ranging from \$55 to \$86.50 were exercisable at July 31, 1970, and during the year then ended no options were exercised.

Under the 1969 Tax Reform Act, the Company is no longer able to issue options for its preference stock, without such issuance resulting in adverse tax consequences for the shareholders of the Company. The Company, therefore, will not grant any further options to purchase preference stock and has provided for the cancellation of outstanding options under the 1966 Plan upon approval by the shareholders of the Company of the 1970 Qualified Stock Option Plan described below.

As a consequence of the adverse impact of the 1969 Tax Reform Act, the Board of Directors on February 24, 1970, adopted a new 1970 Qualified Stock Option Plan ("1970 Plan"), which will be submitted to the stockholders for approval at the Company's annual meeting in December 1970.

Under the 1970 Plan, up to 250,000 shares of common stock are available for sale to key employees under option contracts at prices not less than the market value on the date the option is granted. During the year, options to purchase 113,050 shares were granted at prices ranging from \$16.19 to \$22.32. No option may be exercised while there is outstanding any qualified or restricted stock option previously granted to the same individual covering shares of any class of the Company's stock at a higher exercise price. Any option issued under the 1966 Plan, although cancelled, is considered to be outstanding for this purpose, for its original term. This plan is fully described in the Proxy Statement sent to shareholders.

Notes To Financial Statements

Litton Industries, Inc. and Subsidiary Companies

Year Ended July 31, 1970

Subsequent to July 31, 1970, the Board of Directors declared a common stock dividend of 2½ % payable November 15, 1970 to holders of record of such common stock at the close of business September 17, 1970. This transaction has not been reflected in the financial statements.

Under the terms of the Company's borrowing agreements, consolidated earnings retained in the business of approximately \$213,959,000 were available for cash dividends at July 31, 1970. Earnings retained in the business are not restricted by the excess of the liquidation preferences (\$146,504,000) of the preference and preferred stocks over their par value.

Note G — Earnings Per Share

Earnings per share are based upon the combined number of common shares and common stock equivalent shares deemed to have a dilutive effect. Securities considered as common stock equivalents with a dilutive effect in 1970 and 1969 are the preference stock and Series A preferred stock. The effect of other potentially dilutive securities is not significant.

Note H — Lease Obligations

Current annual rentals under long-term leases, expiring between 1972 and 1999, are approximately \$11,318,000 plus property taxes and insurance in some instances.

Note I — Federal and Foreign Taxes on Income

The provision for federal and foreign taxes on income includes current charges to income of \$2,200,000 to provide for temporary reductions in income taxes arising from differences between tax and financial reporting of depreciation and other items. The provision includes foreign income taxes of \$18,500,000.

The investment credit provided under the Revenue Act of 1962 is treated as deferred federal income taxes and amortized over the expected life of the related facilities through reduction of federal income tax expense. For the year ended July 31, 1970, \$1,900,000 was credited to income and at July 31, 1970, \$3,700,000 is deferred.

Touche Ross & Co.
3700 Wilshire Boulevard
Los Angeles, California 90005

September 25, 1970

Board of Directors
Litton Industries, Inc.
Beverly Hills, California

We have examined the accompanying consolidated balance sheet of Litton Industries, Inc. and subsidiary companies as of July 31, 1970, and the related statements of earnings, shareholders' investment and source and application of funds for the year then ended. Our examination was 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 consolidated financial statements referred to above present fairly the financial position of Litton Industries, Inc. and its subsidiary companies at July 31, 1970, and the results of their operations and the source and application of funds for the year then ended, in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Touche Ross & Co.
Certified Public Accountants

Litton Industries, Inc.

Board of Directors

Charles B. Thornton, Chairman
 Roy L. Ash
 Glen McDaniel, Chairman, Executive Committee
 Ransom M. Cook
 Harry J. Gray
 M. A. Hollengreen
 George E. Monroe
 Fred W. O'Green
 Henry Salvatori
 Jayne B. Spain
 Vernon Stouffer
 Joseph A. Thomas

Corporate Offices:

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 Beverly Hills, California 90210

Transfer Agents:

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 Company of New York
 30 West Broadway
 New York, New York 10015

Litton Industries, Inc.

P. O. Box 5555
 Beverly Hills, California 90210

Registrars:

Chemical Bank
 20 Pine Street
 New York, New York 10015
 Security Pacific National Bank
 P. O. Box 3546
 Los Angeles, California 90054

Officers

Charles B. Thornton, Chairman of the Board
 Roy L. Ash, President
 Glen McDaniel, Chairman, Executive Committee
 Harry J. Gray, Senior Executive Vice President
 Fred W. O'Green, Executive Vice President
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Litton Industries, Inc., 360 North Crescent Drive, Beverly Hills, California 90210