

# LITTON INDUSTRIES ANNUAL REPORT

1967









FRONTISPIECE :

This stained glass window symbolizes the ethics of 15th Century commercial life at Tournai, Belgium. The citizen in the purple robe has volunteered to authenticate weights

and measures. A shopman is moving a cask onto the scale while a clerk records the weight in circles and crosses. The towers embossed on the hexagonal and conical weights are the official mark of the town.



Stained glass is an illustrative form that is internationally understandable.

Conceived to embody ideals and to record heritage, constructed to resist the elements, this art form is typical of man's need to materialize his dreams through practical means. ✘ The role of a responsive corporation, like Litton, in a challenging environment calls upon a similar respect for vision joined to enterprise. Stained glass is as technical as it is artistic. It is a unique combination of creativity and craftsmanship in conveying meaning through symbol, parable and allegory from one age to the next. ✘ Furthermore, the unity of design from a diversity of shapes and colors suggests an

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organizational form also respected by Litton: A flexibility of management in bringing together a diversity of talents into a meaningful whole. The flexible leads of the windows, adaptable rather than brittle, are an integral part of the design, yet these pliable channels make possible a far greater selection of arrangement than possible within a rigid framework. ✘ Included herein are some of the oldest examples of the craft as well as the most recently experimental. ✘ Blended within these pages is the inspiration of this illustrative form so that we may signify our respect and responsibility toward the achievements of the past, establish the milestone of this annual review, and convey our vision for furthering the promise of creative enterprise.

<p>Building a Creative Environment 4</p> <p>A statement of Litton's management concept—to provide an atmosphere in which creative people can function best—and a description of how we put that concept to work in Litton's daily operations.</p> <p>To Our Shareholders 12</p> <p>A letter from the Chairman and the President—their personal views of the year's achievement and the prospects for the future.</p> <p>Marks of Growth: 1967 16</p> <p>A brief listing of major accomplishments during the year.</p>	<p>Table of Contents</p>	<p>Litton 1967: Anticipating Tomorrow 15</p> <p>A review of some of the most notable events and achievements at Litton in 1967 and a look at future opportunities in four main fields of operation: business equipment (p. 18-26); industrial systems and equipment (p. 27-33); defense and space (p. 35-41); professional services and equipment (p. 43-49).</p> <p>Financial Statements 53</p> <p>Litton Locations Worldwide 65</p> <p>Index 66</p> <p>Directory 68</p>
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Litton Industries is a large and growing group of creative people. The main task of Litton's management is to provide the sort of climate in which these people can satisfy their own ambitions as they work to achieve the ambitions of the company. We believe the way to build such an environment is to put to work internally the same powerful forces that energize, guide and govern the free economic system of which Litton is a part. We want to create for Litton people the kind of atmosphere in which Litton itself operates—an atmosphere that invites creativity and rewards achievement.

*Human Potentials Challenged:* Every day physical scientists are finding extraordinary new qualities in ordinary substances. In the same way, social scientists and business managers are finding new ways to release the almost unlimited potential of people. □ As we see more clearly how the free economy works, and as we come to understand what makes it so productive, we are learning how to challenge human abilities more and more fully. □ For a long time, the strength of the free economy was a mystery. The United States, which became its main proving ground,

### Building a Creative Environment

was a world-wide enigma. The nation's achievements were most often attributed to America's physical frontier, to supposedly boundless natural resources, or to the industrial revolution. In other words, America's success was usually thought to be mainly the product of discovery and technological change. But the country's strength was really the result of her choice of the free-market



*Proclamation of American independence, that also offered economic challenge, as symbolized in Philadelphia landmarks. In Calvary Episcopal Church, Pittsburgh.*

method of organizing economic life. American businessmen were more free to act than men had ever been before. The businesses they built became explosively productive. The world was astonished and puzzled. □ The working principles of the free economy were abstracted after the fact. It happened, and the theory

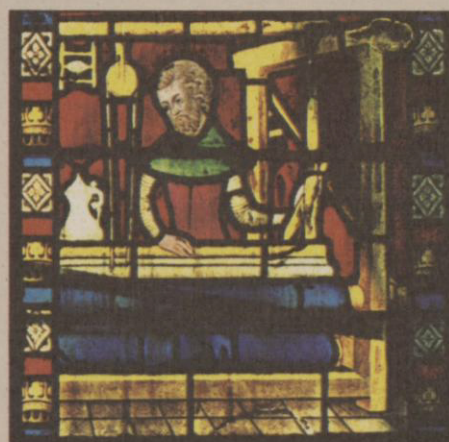


followed. Even now the metabolism of the market is not understood very widely. Its least unusual element, the profit motive, is usually held up as its essential feature. Most people call our system "capitalism," as if a special awareness of the need for capital were at the bottom of America's economic success.

But statist systems are also built on strong, often brutal incentives. And statisticians have never overlooked the importance of capital. They use the same basic ingredients—capital, motivated manpower, technical know-how—as the American economy does. But centrally planned systems are clumsy and comparatively unproductive.

□ The free system became as productive as it is mainly because it saw the unique importance of change, created opportunities for constructive change and then worked to digest change quickly. In short, the system recognized that the production line is only a part of the economic problem—not its central force. Productivity is not just a matter of mixing capital and manpower and know-how together in tested proportions. The real economic problem is deciding how much of what to produce at what time, by what method—in a world where

literally all the facts are changing all the time. □ The free economy worked mainly because it replaced a system which naturally resisted change with one which sought it out. By rewarding foresight, the system put the premium on the acceptance and creation of constructive change—on the prompt, orderly conversion of "discovery into use." □ The free economy's ability to digest change quickly



*From an era of slower change, a window fragment depicts the craftsmanship of Brussels' weavers. It appears as part of a large window donated to the basilica of Hal, Belgium, in 1408.*

can be traced to three specifics. □ In the first place, the system produced an unparalleled flow of primary economic data and know-how. The torrent of shifting information businessmen needed to make sensible economic decisions was translated into the universal language of price and communicated widely and automatically. The



ever-adjusting price system became a very complex, sensitive instrument for recording and communicating change. Each of thousands of separate entities could find its relationship to the whole economic process without comprehending the whole process. Each business could “coordinate” itself, because business managers could observe concrete signals of change and modify what they did accordingly.

□ Secondly, competition for customers and capital produced reliable controls which made clumsy, day-to-day official controls from the top unnecessary. The market provided clear measures of successful adjustment to change. At the same time, competition supplied stern, automatic economic control. Capital moved to businesses which successfully digested change. It moved away from businesses which didn't. The competitive process provided built-in controls. The concept we know now as feed-back, the automatic perception and correction of error, was an integral part of the price system. Scholars had been searching for years for ways to use resources wisely without

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*Individual details integrated into a meaningful whole, conveying five hundred years of Swiss economic history. By Paul Boesch, 1954, Schaffhausen, Switzerland.*

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central coordination, for a reliable “system” of self-coordination which would put thousands of minds to work on the economic problem and then automatically fit the results of what each did into an optimum total result. The free economy accomplished this aged goal. □ Third, and most important, the psychological climate of the free system attracted growing numbers of creative, venturesome



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The creative craftsman-business man of an earlier era, Roemt Roomen, Dutch tilemaker, dated 1660, Burrell Collection, Glasgow Art Galleries and Museum.

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people to business careers and drew unprecedented achievements from them. The psychology of the free economy was rooted in the fact that the enterpriser got his sense of direction from objective economic data which both he and his competitors could observe but which neither could direct or arbitrarily control. The market

revealed clearly which businessmen were succeeding and which were failing in the race to absorb change. There was no need for a central economic authority to dictate methods or for any subjective judgment of results. Thus, the free economy became a giant model of effective human organization, embodying the best we yet know about sound organizational design. It provided the



*In a unity of shapes, colors and concept, the furrier is seen in this Thirteenth Century signature from a large window the furriers dedicated at Chartres, France.*

kind of atmosphere in which men work best, with the largest satisfaction and sense of fulfillment. □ Men were free to pursue goals in their own way. The system provided positive rewards for achievement. At the same time, the competitive process sternly directed enterprisers' efforts toward desirable economic goals. But that

direction was objective and impersonal. No enterpriser knew he would succeed, but he did know how the results of what he ventured to do would be evaluated. Because the system rewarded those who got results rather than those who most diligently imitated established ways of doing things, business became a creative, innovative process. Work became less an ugly necessity than an outlet for the often latent but nearly universal human impulse to create. Men took risks, investing themselves in their beliefs that they, in one way or another, saw the future more clearly than did their competitors. □ So America's free economy developed without much structure. It was not closely guided or supervised. It had no Czar. It consisted of thousands of separate enterprises, each pursuing its own goals in its own way. The free economy seemed chaotic to observers who looked vainly for some bureaucratic structure or for someone in charge. For a long time its main defense was simply that it worked. □ America produced more and more with less and less effort. Productivity multiplied. American enterprisers put a back-log of experimental technology to work

and then went on to develop more. Innovation became commonplace. The free market had begun to conquer the problem of change, and the system stamped an immigrant people as uniquely resourceful, energetic and imaginative.

*Technological Change Accelerates:* When Litton was formed fourteen years ago, the perennial economic



Spanning seven centuries of technological advance, the constructive work of their hands is recorded in this Thirteenth Century glass of masons, Chartres, France.

problem of digesting change had become more urgent than ever. The rate of technological change had suddenly and radically quickened. In a handful of years, the cascade of technological discovery had exceeded that of all previous human history. The fact of change is not new, but the pace of change is accelerating so greatly that

unique new demands are being put on business enterprise. □ Traditional concepts of management are being tested and are found wanting. The daily competitive pressure to absorb rapid change is forcing business organizations to review and modify their organizational ideas and practices. The modern corporation is taking on a new look both inside and out. Its internal organization resembles more and more the free economy of which it is a part and less and less the top-heavy bureaucratic institutions which early corporate forms imitated. □ Litton, as a young company, has built the newest physical technologies into its operation from the beginning. But equally important, the company has from the start been watchful for new management concepts best suited to an era of constant change and for ways to apply them in the company's daily operations. □ As we find specific, practical ways to do it, Litton is adapting the tested principles of the free economy to our internal operations:

1. A free flow of primary information promptly communicated.
2. A system of precise, quantitative goal-setting and

measurement of results.

3. A company-wide emphasis on entrepreneurial management.

Litton lives on accurate, primary information—quickly and freely communicated. For example, the telephone and the jet airplane permit prompt voice-to-voice and face-to-face communication. In this way, information travels fast, is most comprehensive and free



Thirteenth Century communicating by glass and example at Chartres, France. Charlemagne, on horseback, instructs masons erecting a church at Pamplona.

of the clouding or filtering that less direct forms of communication often produce. Thus, many decisions, once necessarily dictated by remote central authority, are made on the spot by those who are closest to the vital data and who understand it best. Decisions can be communicated almost simultaneously to others affected

by them. □ In setting company goals, new business and profit opportunities are carefully and continuously identified; resources are allocated and reallocated; and specific operating strategies are devised. These in turn are converted into objective goals which guide management as they review the actual performance of the operating divisions. Variances signal the need for corrective action or suggest branching opportunities. In other words, the “feed-back” principle, basic to any automatic system and the key to the free economy’s disciplined agility, is a basic Litton management concept and a guide to its daily operation. □ Observers find Litton different. They find the pace faster. They see in Litton people the confident enthusiasm that freedom of action so often generates. Because the basic strength of an entrepreneurial company is in its operating entities, Litton’s central administration is unusually small. It works closely with the divisions—guiding, complementing, and assisting them with its own expertise—but does not prescribe the divisions’ detailed operating decisions. A company’s climate is the product of its management’s

philosophy and attitude, not of its size. □ As we continue to refine our objectives, express them more precisely, and make them more widely understood, every day's experience reaffirms our belief that sterile protocol is a needless formality. As we rely increasingly on more direct methods of communication, we find that less pace-limiting and information-filtering paperwork is necessary.



*Individual patriotic responsibility honoring Francis Scott Key, as created by Charles J. Connick for the Calvary Episcopal Church, Pittsburgh, Pennsylvania.*

As we define individual responsibility more and more clearly, we eliminate the need for many conventional but cumbersome committee-type procedures. □ Because Litton's goals are set by objective, non-personal methods, relationships within Litton can become uniquely personal. Litton people feel free. We do not resist

new ideas as threats to comfortable, customary methods, but welcome them as possible new ways to achievement. □ Confidence, energy, excitement and a contagious sense of adventure are the outward signs of Litton's inward commitment to the creative individual. □ We find an atmosphere like this attracts and challenges the kind of talent a corporation needs to succeed in today's world—men who are neither afraid to dream nor to act—men who see opportunity in change and find fulfillment in creating it. □ Thus Litton is attracting growing numbers of achievers, men who welcome responsibility, who would feel restrained and frustrated in more traditionally structured environments. Most men respond more to large challenges than to small ones. Men like these thrive in the kind of environment Litton is working to provide—an internal environment designed like the economic system of which Litton is a part. □ Because Litton is a deliberate microcosm of the free economy, we are confident that it will keep growing, taking the shape of the ambitions and achievements of the creative people who are part of it.

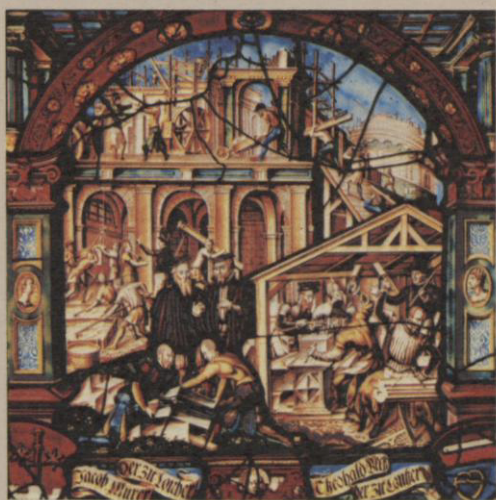
In a world economy marked by burgeoning opportunity, multinational Litton Industries continues to advance steadily. For the fiscal year ended July 31, 1967, Litton's sales rose to \$1,561,510,000, a 33 per cent increase over the fiscal 1966 figure of \$1,172,233,000. At the same time, earnings rose to \$70,070,000, a 26 per cent increase from the \$55,614,000 reported during the comparable period last year. □ Even while attaining these results, Litton made substantial research and development expenditures in several promising areas. These expenditures, totalling millions of dollars, were made in many fields, including commercial inertial navigation, office copying equipment, and advanced marine technologies. □ The results of Litton's activities during fiscal 1967, as well as post-fiscal year developments, point up a fact that has been well-noted during the corporation's 14-year existence. That is, Litton grows by changing—progressively and constructively. Litton in the mid-1950's was a U.S.-based company with a small but growing number of facilities abroad; Litton in fiscal 1968, in contrast, is a multinational company with more than 100,000 employees in 26 countries—including the United States. In terms of products, people, performance and potential, moreover, ever-changing Litton is becoming a better and stronger company each year. □ Of necessity, then, even while Litton

#### To Our Shareholders:

people work on current activities, they are constantly alert to possible future ventures. And as each correlative opportunity area is developed, steps are taken to define its dimensions and emerging needs, and to maximize its potential. □ It is significant, in this connection, that the role of private enterprise is taking on a new dimension. Industry's capability for providing innumerable products, to myriad markets, is now also being applied to man's higher-order needs. □ Such a transformation, for example, is taking place in the fast-growing business equipment markets, where customers are increasingly seeking total problem-solving systems. □ Another case in point is the broad area of transportation systems. In this field, Litton has been stressing the close interrelationship between ship operations, design and construction methods. In terms of the innovations necessary to tomorrow's efficient high-performance vessels, this approach portends increasingly favorable results. □ Litton has also been strengthening its commitment to the challenging areas of health and education, where onrushing technology is changing not only products and processes, but even the methodologies of medical care and learning. At the same time, Litton is aware that these closely related fields are being given higher and higher priorities by the whole of society. □ Concurrently, the world's nations are



universally giving attention to raising their economic levels, thus providing broadened horizons for the company's problem-solving capabilities. Litton's economic development program in Greece is an example. □ Shortly after the close of the fiscal year, Stouffer Foods Corporation joined Litton. Stouffer's experience in the processing, packaging and marketing of food, coupled closely



The masterbuilders, directing and blending talents in creating an edifice beyond the capabilities of a single man, are honored in this window dated 1564. Schutzenhaus, Basel, Switzerland.

with Litton's capabilities in electronic cooking technology, should produce major advances in the fast-growing markets of home, commercial and institutional food preparation.

□ In this growing market, as well as those described elsewhere in this report, competition at the product level is increasingly being supplemented by competition at the systems or problem-solving level. In such an

environment, Litton's continuing role will be to further innovate in a manner that advances our company's growth.

□ As a concomitant to that growth, Litton's present annual rate of internal financing, from earnings and depreciation, has increased substantially. The company's favorable current condition, additionally, is evidenced by significant amounts of cash and marketable securities, as well as an unused major line of credit. Thus Litton is in a strong financial position for continued growth. □ The company has reached a significant size, it is true. In the context of today's world, however, the critical size required of a company is far larger than anything that we have known in the past. Much is ahead of us, and in that spirit, the people of Litton pledge themselves to continue and expand the success and growth that they have achieved. With renewed dedication, we shall apply our technologies, our know-how, and the financial resources with which you have provided us, to the demands and promises of tomorrow.

Sincerely yours,

Charles B. Thornton,

Chairman of the Board of Directors

Ray L. Ash, President



LITTON

1967:

Anticipating  
Tomorrow

Twentieth century  
stained glass  
artists are moving  
beyond conventional  
subject matter and  
using the medium  
for bold abstractions.  
Georg Meistermann  
created this window  
in 1952 for the  
Broadcasting House  
in Cologne,  
Germany. 15



Glass, color and lead take on meaning as they are artfully joined to portray the Niederbusslingen hearing chamber, surrounded by family crests of counselors. By Wolfgang Breny, 1591. Thurgau Museum, Frauenfeld, Switzerland.

### Business Equipment

- Royal, offering the most complete typewriter line on the market, increased office electric sales 30 per cent—nearly double the industry average.
- Monroe raised unit sales of electromechanical printing calculators 56 per cent.
- Royfax, which will introduce its new 1700 book copier this Fall, operates an expanding U.S. sales and service network which now numbers 125 locations.
- Sweda increased automation register deliveries 153 per cent and Dataregister sales 98 per cent.

Total Litton office environment features a Monroe Mach 1.07 printing calculator, Royal 660 deluxe office electric and complete Cole furnishings. (right)

### Industrial Systems and Equipment

- Hewitt-Robins raised sales of equipment for materials handling by 37 per cent.
- The Louis Allis Co., a widely respected manufacturer of industrial-electrical components and systems, joined Litton.
- Litton increased Advanced Circuitry division sales of conventional and multilayer circuits 130 per cent.

### Defense and Space

- Guidance and Control Systems division delivered military inertial navigation systems at a current rate of 150 a month; production through the years now totals more than 6,000 units.
- G & CS sold the LTN-51 inertial guidance system to American Airlines for international flights.
- Clifton division tripled sales of automatic stabilization actuator synchros for helicopters.
- Data Systems division began production of the CCS-280, the world's first microelectronic shipboard command and control system, for the Canadian Navy.
- Ingalls became the first shipbuilder to use lightweight, high-strength steel which is 18 per cent lighter and three times stronger than conventional ship plate.

### Professional Services and Equipment

- A 43 per cent gain in Profexray sales of X-ray equipment advanced Litton to third place in the U.S. segment of this growing market.
- American Book Co., a leading textbook publisher and pioneer in developing new educational materials and techniques, joined Litton.
- Litton formed International Development Corp. (LIDCO) to initiate and effect private enterprise solutions to public problems.
- Atherton division raised by 93 per cent its sales of electronic cooking equipment for restaurants.





Ageless respect for man's capabilities in harmony with the yearly seasonal cycle is portrayed in this Fourteenth Century rosette in the Lausanne, Switzerland, cathedral that depicts man's labors during the seasons.

Fiscal 1967 marked Litton Industries' 14th consecutive year of uninterrupted growth. Sales increased 33 per cent and net earnings increased 26 per cent. □ Constant change creates a demanding climate for society and thus for business. Litton grows by changing—by anticipating evolving needs and creating better ways to meet them. Litton people work in the present, but their eyes are also on the future. □ Here is a review of some of Litton's achievements in 1967 and a partial preview of the opportunities our people see ahead. This account is arranged under four headings: Business equipment, industrial systems and equipment, defense and space, and professional services and equipment.

**Business Equipment.** The business equipment industry is one of the fastest growing in the world economy. Worldwide sales of office equipment amounted to about \$15 billion in 1966. They should reach at least \$24 billion by 1970. This expected rate of growth of about 15 per cent a year is several times that projected for the world economy. It represents a rapidly multiplying opportunity for increased sales of office equipment. □ World retailers in 1966 spent approximately \$3 billion on: Store planning and design; fixtures and equipment; revenue receipt and control systems, including sales and data registers; and new merchandising materials and services. We expect them to be spending close to \$5 billion a year for such products and services by 1970. Sales to world retailers should increase substantially as they continue the trend of adapting American merchandising methods to their individual retailing conditions. □ A continuing demand for improved business systems by all major phases of the industries

Royal's new all-electric portable typewriter, designed to sell at a highly competitive price, will be marketed in 1968. This light weight, full-featured machine also offers an electric carriage return. (right)

we serve underlies this growth. Litton in 1967 continued to expand its sales to these vast and growing markets. □ Royal office electric typewriter sales rose 30 per cent in 1967—nearly double the increase for the whole domestic industry. The Royal 660, our deluxe office electric, heads the most complete typewriter line on the market. Its cost and effi-

ciency advantages won many customers in its first full sales year. □ The new Royal 550, introduced during 1967, is the lowest-priced, full-sized office electric typewriter. Schools use the 550 widely for both teaching and office work. This running mate of the 660 brings the efficiency and speed of electric typing to routine and high volume office tasks. Large,



contoured keys for fast, easy typing are one of the most popular of the 550's many advanced design features. □ In 1968 Royal will begin manufacturing and marketing a new all-electric portable typewriter. This lightweight, full-featured machine with electric carriage return is designed to sell at a competitive price. It will be produced in Hull, England at Litton's Imperial Typewriter facility. Imperial, which joined Litton during the year, also introduced the Royal 660 deluxe typewriter as the Imperial 660 for sale in England, the Commonwealth countries and Europe. □ In 1967, our Monroe International division further expanded its worldwide position in the rapidly growing electronic calculator market. Sales of the desktop Epic 3000 electronic calculator led this growth as its initial popularity in the scientific field extended to the large business and education markets. Monroe increased unit sales of electromechanical printing calculators 56 per cent with a line expanded to include printing multipliers. Reflecting record total sales, Monroe service revenues also reached a new high.



□ Our Royfax division, which entered the highly competitive office copying market only 18 months ago, has rapidly expanded its marketing and service facilities. Royfax operates a growing U.S. sales and service network which now numbers 125 locations. □ In 1967 Royfax broadened its product line with the Royfax 12, the fastest copying machine in its price class, which produces up to 720

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McBee's 360-4 Keysort tab punch reader has more automatic features than any competitive unit, offering simultaneous data tabulation and classification.





The evolution of standards and goals typical of the medieval guild is implied in this 1554 glass pane of the tailors' guild meeting room. The glass maker's art made possible a vivid testimonial that rendered guild commitments in a pictorial manner understandable to both the illiterate and the lettered. Historical Museum, Basel, Switzerland.



copies an hour. Copying from a continuous 465-foot roll, Royfax 12 reproduces documents of widely varying size:

Accounting work sheets, engineering drawings—even electrocardiograms. □ This Fall, Royfax will introduce the 1700 book copier which will reproduce any page size up to 11 by 17 inches. No competing model of comparable speed and size has this feature. Addition of the 1700

Monroe Epic 3000 desktop electronic calculator (above), primarily designed for scientific uses, commands a wide market in business, financial and educational areas.

will give Litton a product line able to meet practically any copying requirement. □ This year our Sweda International division again increased its share of the worldwide sales register market. Paced by demand from smaller retailers, deliveries of automation registers rose 153 per cent in 1967. Dataregister sales rose 98 per cent. Automation registers record

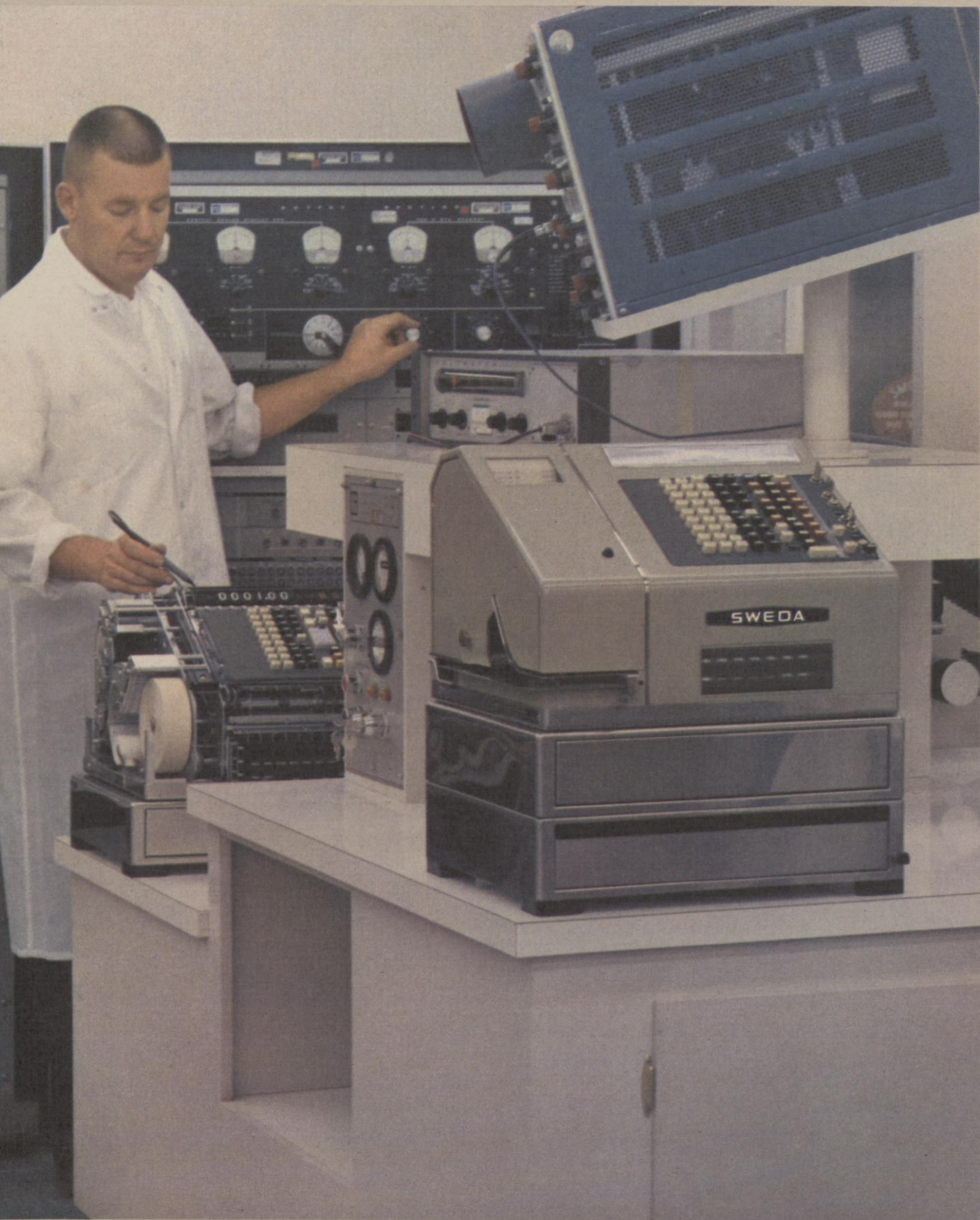


*Integrating patterns from individual pieces is a glassmaker's talent. Niccolo da Varallo, a painter who worked exclusively in glass the last two decades of the 1400's portrayed the making of a royal throne; a vignette to creating an object of value. Milan, Italy.*

Sweda division (right) conducts its research and development program on a worldwide scale. R & D facilities include laboratories in Stockholm and Orange, N. J. Producing advanced automation and Dataregisters to serve the multinational market, Sweda introduced its Series 6 sales register line during the year. Especially created for small and middle-sized businesses, the line has modular design features that include an adaptable keyboard capacity.

#### Business Equipment

sales and, in addition, provide punch tapes for processing; Dataregisters produce figures and totals for up to 37 classifications of retail information. □ Last year Sweda introduced the new Series 6 sales register simultaneously in all world markets. This new sales register system is especially designed to serve the needs of small and middle-sized businesses. Its modular design features allow Sweda's field sales and service people to adapt keyboard capacity to the individual customer's special needs. □ To extend Litton business equipment technology in growing commercial markets, we formed a new Automated Business Systems division. It brings together management and marketing of related products and services, meeting complete systems requirements for business use. Automated Business Systems provides equipment and customer services, ranging from McBee record and management report systems, through our Electronic Business Systems (EBS) billing and accounting machines, to country-wide computer centers. With these combined capabilities, the division manufactures and markets



through a worldwide sales organization of more than 500 skilled people in the U.S., Canada, Mexico and Europe. ABS will soon develop and introduce a broad line of electronic business machines and large-scale management information systems.

□ Litton products and services are meeting the manifold requirements of a growing number of customers. We design facilities and provide systems, equipment, services and supplies for offices, retail establishments and public agencies, ranging from a one-person operation to offices or stores employing thousands. For large organizations, we provide our Order-mation system for automatic cost and inventory control. For small and middle-sized businesses, our Business Equipment Centers offer the same services and also design and supply complete management information systems. Many Litton operations, including Royal, Office Furnishings, Sweda, McBee, Kimball and Monroe, are performing research and development programs to make the office and retailing environments more efficient and comfortable.

□ In other business equipment achievements during 1967, Litton: Continued worldwide



expansion as Business Equipment Holdings, Ltd., of Melbourne joined the company, adding Australia's largest sales and distribution organization . . . Introduced in Pomezia, Italy new Sweda automation register production and soon after initiated second-phase expansion of manufacturing . . . Marketed through Carlisle division seven types of election ballots for use in electronic voting machines . . . Introduced the McBee 360-4 automatic card processor which offers the advanced capability of dual computation for data tabulation and classification . . . Tripled production of Kimball's unique source-marked data tags which provide detailed sales unit information to retailers . . . Added merchandising system capabilities as the Streater division introduced new concepts in design and manufacture of retail display units and fixtures, including an advanced tubular line . . . Opened a 235,000



Royfax 1700 book copier (left) reproduces any page size up to 11 by 17 inches, a feature not available on any competing model of comparable speed and size. Royfax, whose advanced line meets practically any copying requirement, operates a 125-location sales and service network.

Litton's EBS/1210 (above) is the first in a new series of high-speed electronic billing and invoicing machines which will be capable of performing virtually every important office accounting function.



Sales records and measuring gauges of the Fifteenth Century are reflected in the notched wood strips for buyer and seller in this scene from a series of windows portraying privileges of the marketplace. Tournai, Belgium.

square-foot plant in Scranton, Pa. to provide for the expansion of the Eureka division into sophisticated graphic products, including catalog systems and point-of-sale material . . . Introduced the EBS 1210 electronic billing machine, with a unique Distributape programming feature capable of performing 10 times the range of calculation offered by comparable machines . . . Provided an ever-expanding office furnishings line through our Cole,

Lehigh and Leopold divisions, which introduced new selections of both high-quality and popular-priced products . . . Installed 12 of Advance Data Systems division's revenue control stations in Chicago for the Illinois Central Railroad, of a total of 48 commuter locations scheduled to be in operation early in 1968 . . . Extended Sweda's electronic research with a new laboratory in Orange, N.J., supplementing existing R & D facilities in Stockholm.





Warehouse control in the Sixteenth Century, portrayed by a grocer weighing goods in his store. Probably originated in Flanders, now in Victoria & Albert Museum, London.

### Industrial Systems and Equipment.

Litton's growth in the industrial systems and equipment market accelerated in 1967. Our Hewitt-Robins division increased the sales of equipment for materials handling by 37 per cent, installing advanced systems for many different industries all over the world.

□ To meet the rapidly growing bulk materials handling needs of world industry, Hewitt-Robins' technology has made possible the manufacture of a high-tension steel cable belt 10 feet wide. It can operate at the unprecedented rate of 1,000 feet per minute and deliver more than 40,000 tons of raw material per hour, equal to more than 2,000 twenty-ton trucks loading and unloading every 60 minutes. □ Applying this technology, Hewitt-Robins is building the largest automated conveyance system ever constructed in the U.S. for the Anaconda Company at Twin Buttes, Ariz. And Hewitt-Robins won complete turn-key responsibility for a South African iron ore plant, including storage, retrieval, processing and reclaiming. The division will also install a computerized storage and retrieval system for a Canadian cement firm

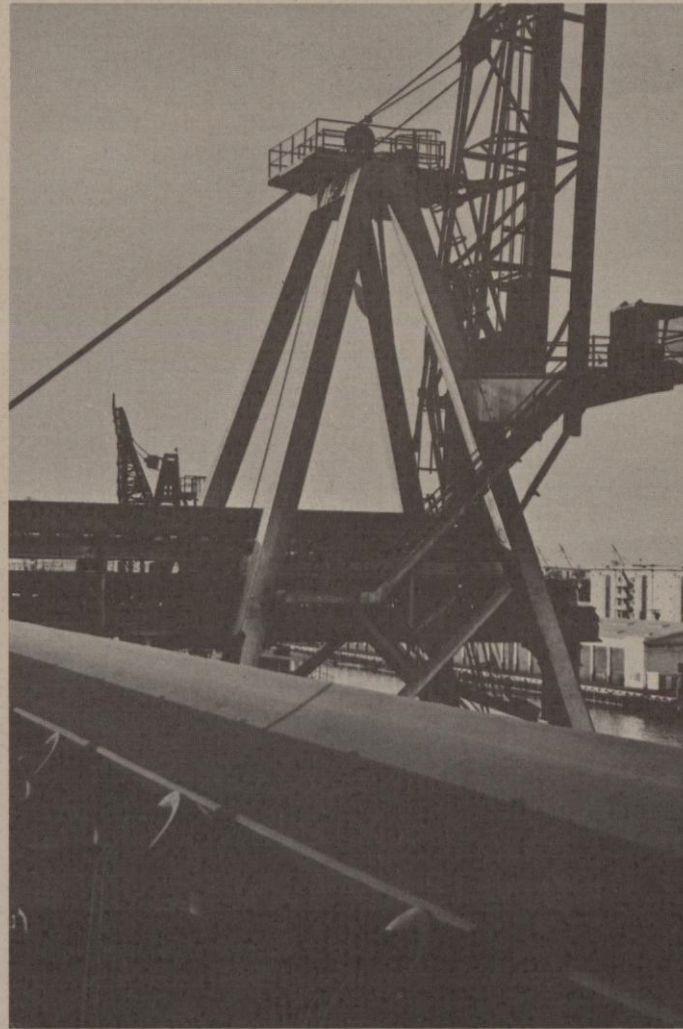


The Royal 550, the lowest-priced, full-sized office electric typewriter, is used widely for both teaching and school administrative work. It brings the efficiency and speed of electric typing to routine, high volume office tasks.

Kimball's high speed reader (left) converts 1200 coded data tags a minute into sales unit information, which is transmitted to a computer for processing.

and has completed a bulk materials handling complex to stockpile and load iron ore at the port of Paradeep in India. □ Hewitt-Robins is designing and installing hose systems that will allow gigantic tankers in the 100,000-ton dwt class and above to unload fuel without docking. In one installation a unique float-sink monomooring system is located underwater in the middle of a shipping channel. When a tanker approaches, the monomooring system is floated, fuel is pumped through the system to a dock facility, then the unit is sunk so that ship traffic may continue. Hewitt-Robins will also supply two hose systems for monomooring units in Tokyo Bay. □ We have also developed new and better ways to handle units in industrial plant production processes. Hewitt-Robins completed at a major automobile transmission plant an automated conveyor system and storage rack—the first one of its type in the world. It automatically

Industrial  
Systems and  
Equipment



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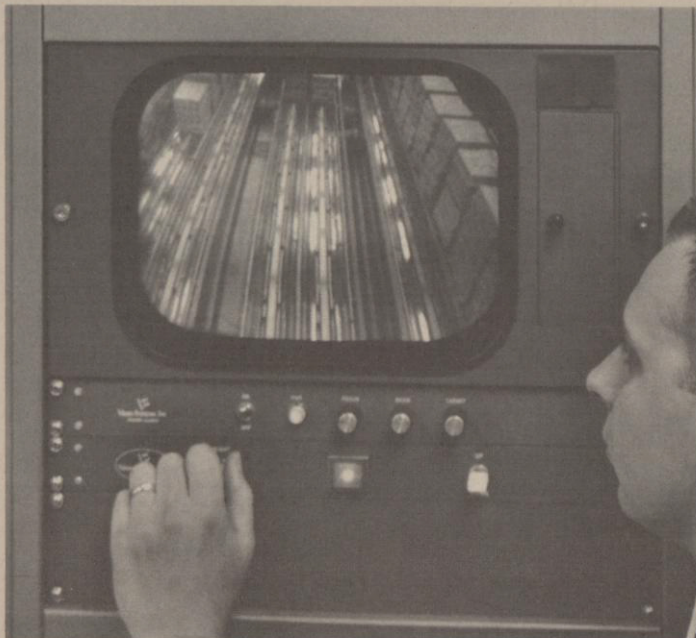
Hewitt-Robins bulk materials handling and automated ship loading (above) transports tons of taconite (iron ore) pellets at the busy port of Los Angeles.

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Materials handling in 1531 A.D., before the ingenuity of man's brain transcended the limits of brawn. A porter's crest from 32 guild shields, St. Jacques church, Liege, Belgium.



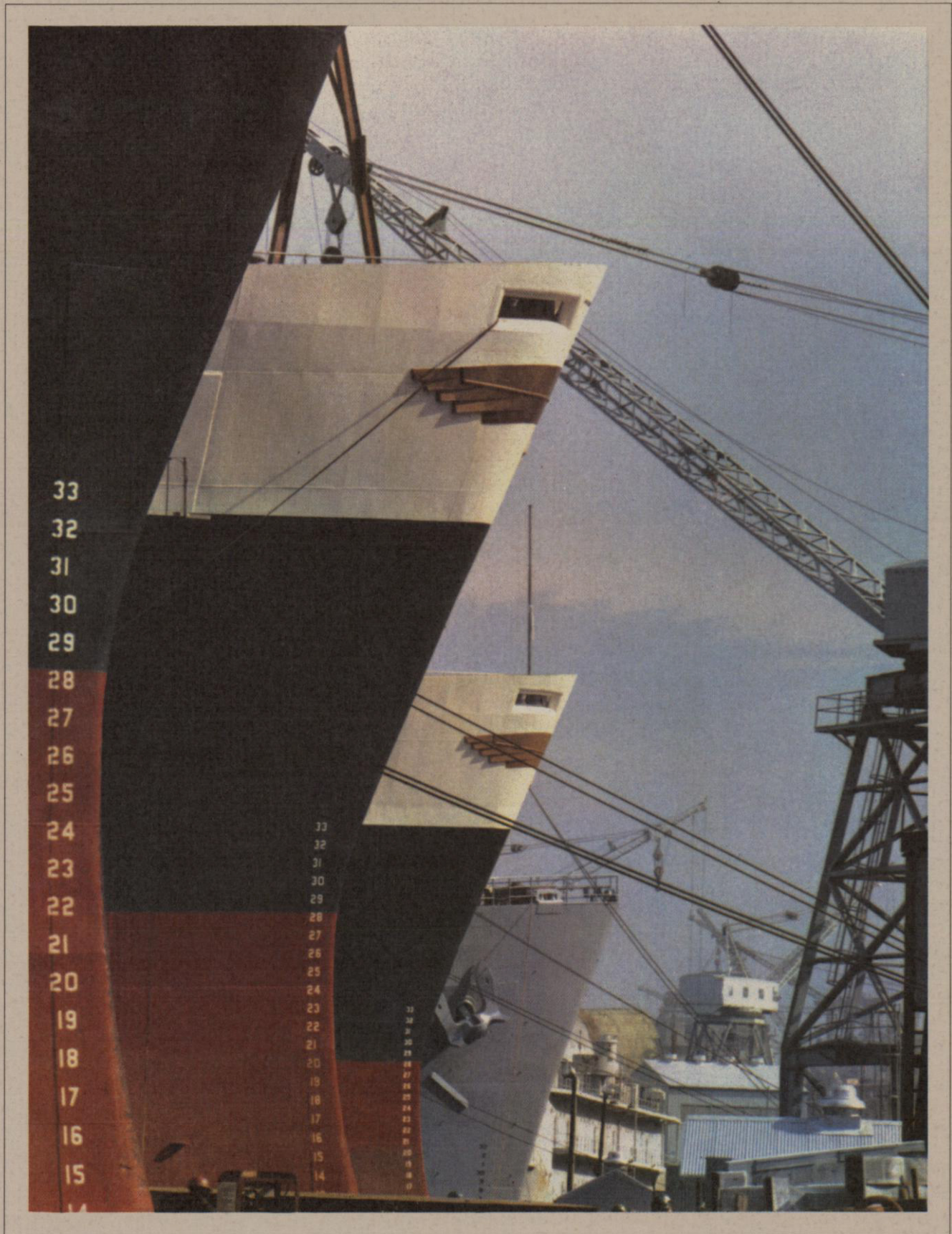




transmits gears and parts from inventory storage to and from assembly line operations. The demonstrated efficiency of this equipment has greatly expanded its sales potential to other industries.

□ Our Alvey-Ferguson unit handling systems and component sales continued to increase.

Alvey-Ferguson unit handling system (above) moves bakery goods by automated conveyor from baking through freezing and shipping operations. Closed circuit television (left) allows remote monitoring by control room operator.



Completed contracts included an automated retail shipping and packaging program for a large San Francisco department store and an advanced freight handling system for BOAC at London International Airport. With the new Alvey-Ferguson system, BOAC can handle 100,000 tons of cargo a year, double its present capacity. □ The Louis Allis Co., a widely respected manufacturer of industrial-electrical components and systems, joined Litton in 1967. Sales in the rapidly expanding market which Louis Allis serves were \$769 million in 1967. The company provides customers with an extensive line: Electric motors up to 5,000 horsepower; variable speed drives; and drive systems for basic industries □ At Erie, Pa., Litton is launching a program to fabricate boats for a new, comprehensive industrial transportation system. Litton will manufacture vessels for Great Lakes transport, initially to move huge shipments of iron ore pellets—taconite. Much of the present Great Lakes fleet is a generation or more out-of-date.

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Four vessels stand ready for completion at Ingalls Shipbuilding. The three similar ships are highly automated cargoliners; the fourth is the Navy's USS Dubuque.

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Litton is equipping itself to serve a taconite transportation market that is expected to move 42 million gross tons in 1970 and grow by 7½ per cent annually to 1975. □ Litton will build each ore boat in modules of similar configuration by constructing subassemblies in a unique fabrication facility, then move these subassemblies to a floating drydock for final assembly. Bow and stern portions constructed elsewhere will be transported to Erie, and assembled to the

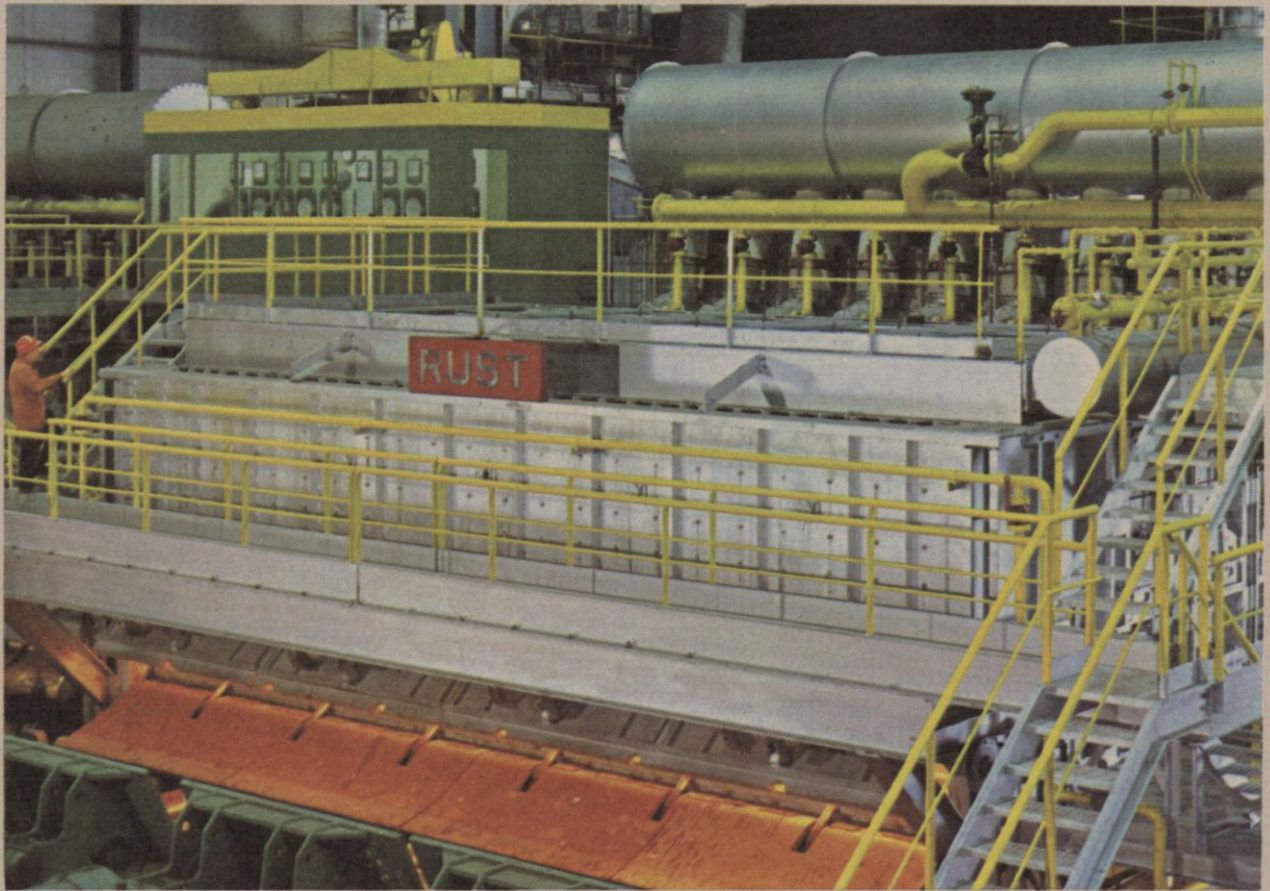


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Commercial prosperity made possible by Prince William of Orange, standing beneath Delft's skyline, is honored in this window entitled Relief of Leyden. Dirck Jansz Verheyden, 1603. St. Janskerk, Gouda, Netherlands.

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cargo-carrying modules. □ A typical Litton ore boat will carry 50,000 long-tons of bulk material,



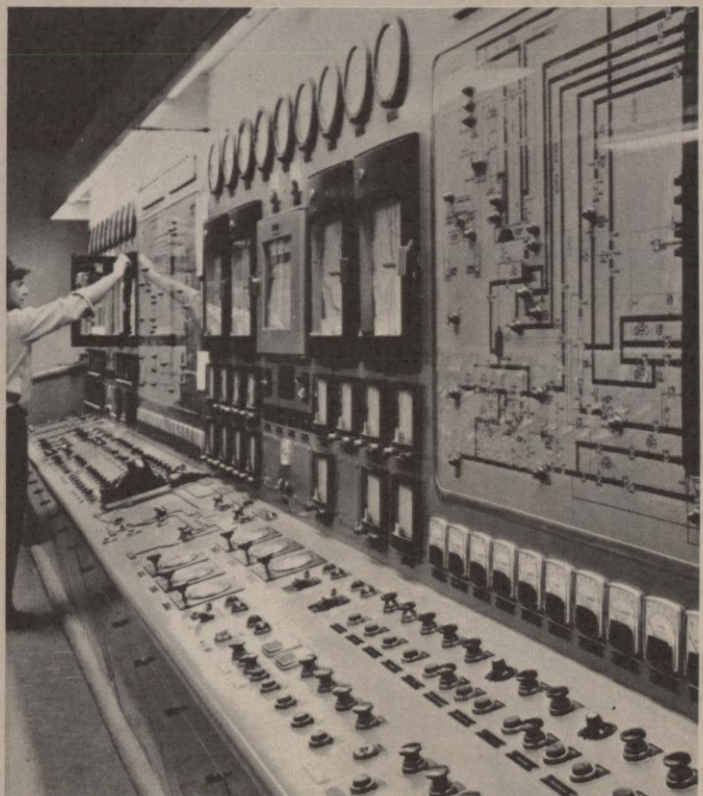
compared to the 25,000 long-ton capacity of the most modern vessel in the present Great Lakes fleet. Thus, each Litton boat will be able to move more than 2 million tons of material a year, and advanced automatic loading and unloading equipment will result in significant savings for every ton handled by the Litton method. □ In other industrial areas

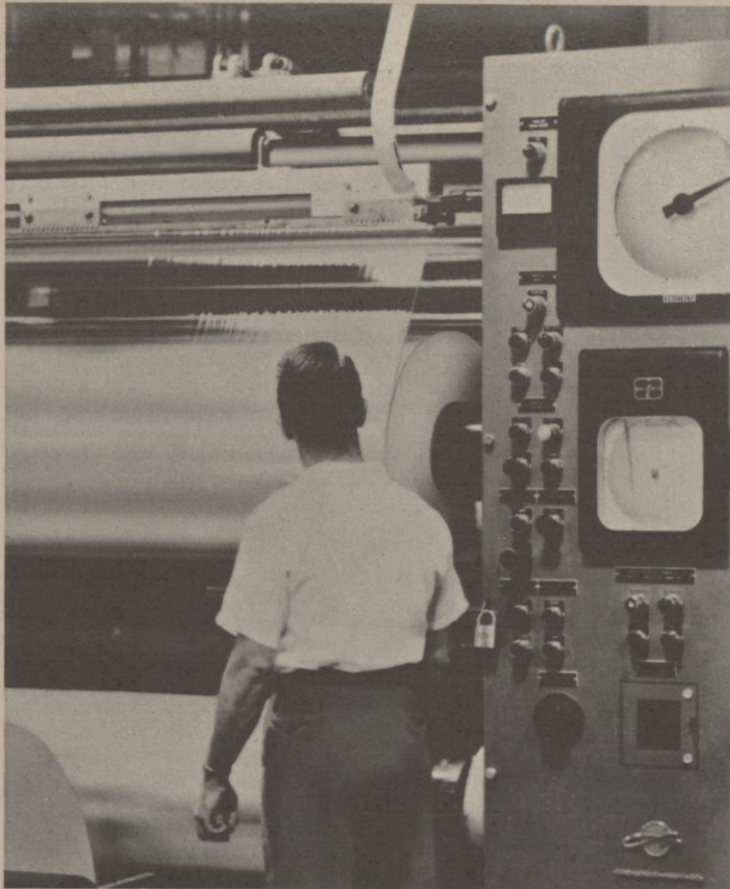
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A 2200 degree F. steel heating furnace (above) built by Rust Engineering rolls slabs weighing up to 27 tons at a rate of 150 tons per hour.

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Rust Engineering division builds entire production facilities, including this master control panel (right) which directs intricate industrial processes.





of progress during 1967, Litton: Increased sales of conventional and multi-layer circuits 130 per cent as our Advanced Circuitry division introduced a greatly improved technique which virtually eliminates interconnection problems . . . Acquired Wilson Marine Transit Company's 11-vessel Great Lakes fleet and transportation business . . . Introduced through our USECO division electroluminescent and solenoid switches with broad usage in the information display field . . . Introduced for basic instrumentation a new line of low-cost optical encoders of such simple and rugged design that years of trouble-free service are assured . . . Produced and marketed through our Kester Solder division the only high quality line of core solder in the industry that includes any required diameter from 0.375 to 0.004 inch . . . Designed and built four of the world's largest steel reheating furnaces, bringing to 900 the total of metallurgical furnace projects that our Rust Engineering division has completed in the past 40 years.



Coopers and wheelwrights honor their profession and transmit a vision from the Thirteenth Century to the present through this window fragment at Chartres, France.

Louis Allis Ajusto-Spede variable drives (above), here control winding during cellophane production, are available in 1-100 HP with speed ranges to 3400 RPM.



Defense and Space. In 1967, as in most recent years, sales to defense and space customers represented about a third of our total revenues. □ Litton continued to set the pace in military inertial navigation technology, delivering systems at a current rate of approximately 150 a month. These units guide Air Force and Navy planes, including the A-6, F-4, F-111A and F-111B fighters and the E-2A command and P-3B anti-submarine patrol aircraft. Our inertial system production through the years now totals more than 6,000 units. □ The international market for military navigation equipment will continue to be substantial, totalling an estimated \$1 billion between now and 1970. The military has a growing need for integrated avionics systems that are even more compact, economical and accurate. These systems perform vital control and attack functions for an aircraft in addition to precisely navigating it to targets. □ These advanced avionics systems require greatly improved inertial units. Our new LN-30 is one-quarter the volume

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Combat information center (left) aboard USS Dubuque compiles real-time reconnaissance, location and logistics data for coordinated battle planning.



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Defense of that which man holds dear is represented in this siege by the Danes of the Saxons at Canterbury. Created about 1200 A.D., this roundel is affixed in the Canterbury Cathedral, England.

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and weight of present inertial equipment and potentially more accurate. The LN-30 is now in its final development and scheduled for demonstration in flight tests within six months. We also plan to introduce in the near future even more advanced inertial systems which, augmented by Litton stellar, radio and satellite navigation techniques, promise further gains in performance and reliability. □ We expect the related commercial market for inertial systems to reach \$60 million a year by the 1970's. Our specialized research and development effort meets the commercial user's threefold need for compactness, economy, and accuracy with the new LTN-51 inertial guidance



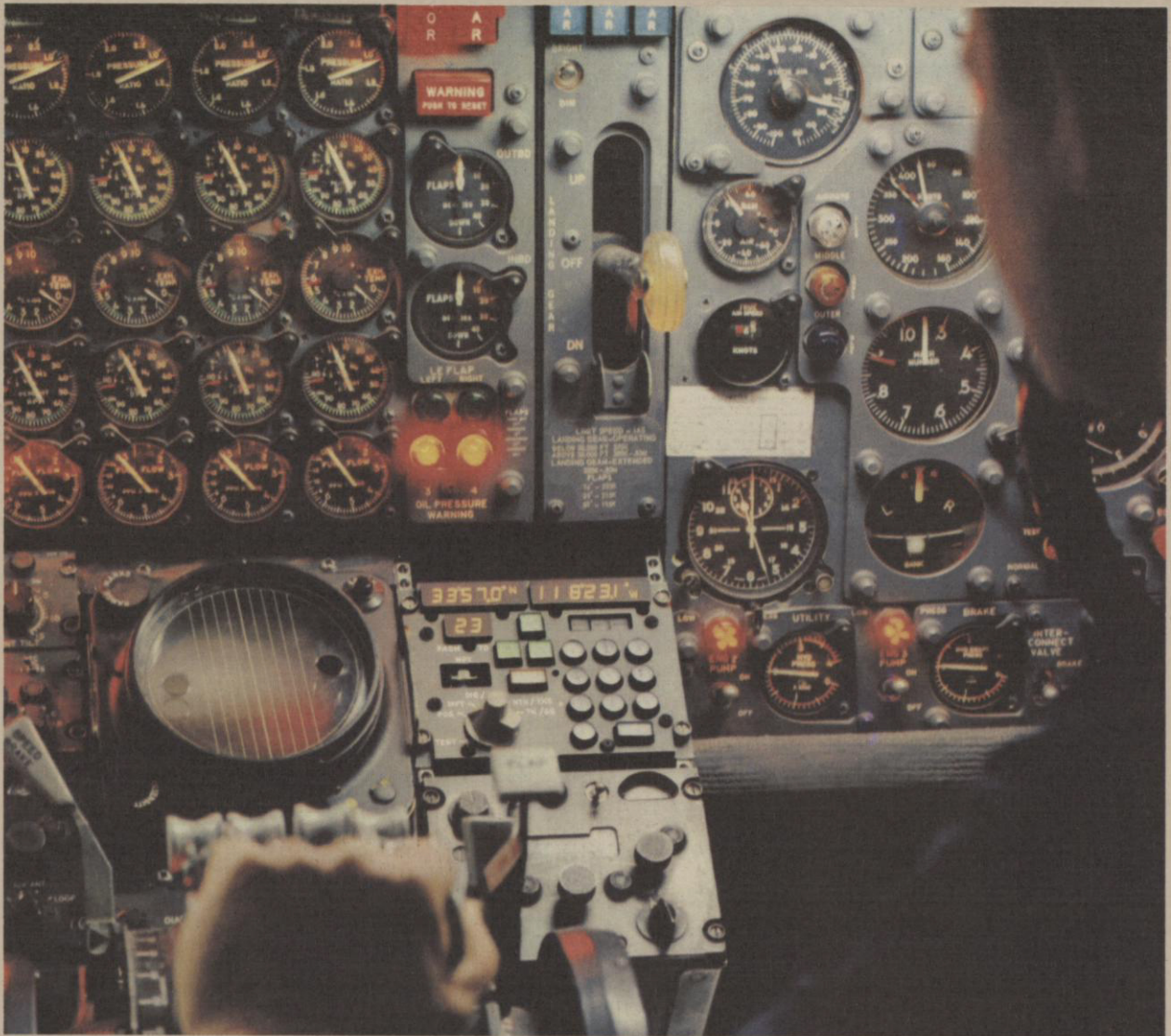
Clifton's automatic stabilization actuator (above) is used extensively in military helicopters such as this CH-46A Sea Knight.



A becalmed navigator, . . . "as idle as a painted ship upon a painted ocean," . . . is recalled in this glass of Coleridge's "Ancient Mariner" installed by Connick of Boston at Kenyon College, Gambier, Ohio.

system. It was selected in production quantity by American Airlines for international flights. The LTN-51 units, installed in American Airlines transpacific jet freighters, are the only inertial systems now guiding commercial jets. Litton inertial systems are sold and serviced through five major international distributing organizations. The success of tests now underway will make the LTN-51 the first commercial inertial system certified by the Federal Aviation Agency for passenger aircraft. □ The military market for synchros and servomechanisms continues to expand rapidly. These components are vital to the control of military aircraft, space vehicles and missile weapons systems. Litton's Clifton division sales of automatic stabilization actuator synchros for helicopters tripled in 1967, primarily for the mass-produced CH46A, now used extensively in Viet Nam. To military customers we also increased by 47 per cent sales of servo packages for communication equipment, and Airtron division doubled the sales of its laser crystals for range finder instrumentation. □ We expect the U.S. market for tactical command





and control systems, non-existent before 1960, to exceed \$4 billion through 1971. Worldwide demand will expand this market still further. Keeping pace, Litton's Data Systems division supplies components, subsystems, and entire systems. Such highly mobile communication and data processing equipment is especially necessary in limited warfare situations. Data Systems is now performing

study definition contracts on two important U.S. defense programs that promise to lead to major production in the 1970's: The Air Force's Airborne Warning and Control System (AWACS) and the Army's Tactical Fire Control (TACFIRE). □ Developing even

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Litton's LTN-51 commercial inertial navigation system (above) guides American Airlines jet freighters flying U.S. and Pacific routes. Other airlines are negotiating for the LTN-51 which is designed to meet stringent FAA requirements.

better communications equipment now hinges on state-of-the-art advances using limited bandwidth channels. Our Litcom division has made important breakthroughs in this technology and will soon deliver transmitters and receivers which will meet the demanding performance requirements of the Defense Communications Agency. □ A scientific revolution, Large Scale Integration (LSI), comparable in importance to the invention of the transistor, is well underway, expanding microelectronic technology to improve electronic systems still further. Litton's rapidly evolving LSI techniques permit fabrication on tiny silicon wafers of electronic circuitry equivalent to thousands of individual components or hundreds of integrated circuits. □ LSI opens wholly new opportunities for improved military and commercial electronic systems. The technique promises improvements by factors of 10 to 100 in

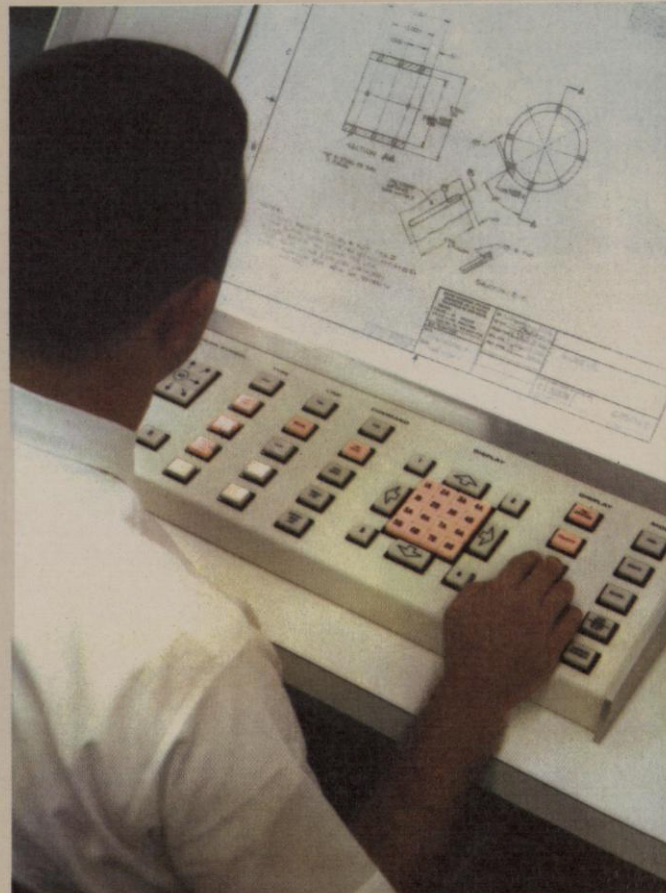
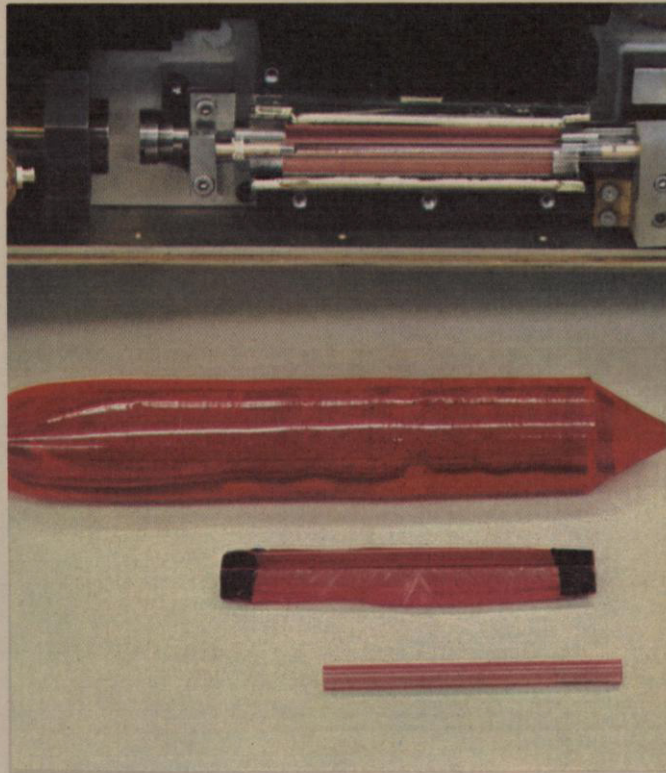
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Airtron precision-grown ruby laser crystals (above) are used extensively in military range finder systems. Airtron also produces crystals of yttrium aluminum garnet and calcium tungstate for similar applications.

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USECO division supplies custom consoles and illuminated push-button switches for information display applications such as this microfilm storage and retrieval system used by the Army Weapons Command.

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the size, weight, reliability and cost of a variety of electronic systems. □ We are conducting extensive LSI research and development, with both government and Litton funding, probing design philosophy as well as fabrication techniques, building a broad-based leadership position in LSI applications in navigation, command and control, communication and computers. □ In the maritime field, Litton has established itself as a major force through the operations and plans of Ingalls Shipbuilding, complemented by related expertise in many other Litton divisions. □ Litton's success in winning the design competition for the U.S. Navy's Fast Deployment Logistic (FDL) Ship demonstrated our growing maritime systems capability. In organizing the FDL program, the Navy for the first time asked a contractor to design the total ship system, including full, final responsibility for integrated logistics support, maintainability and life cycle costs. If Congress funds the program, the Navy will award the contract to Litton after further negotiations. We are also one of three firms to win contract definition awards for the Navy's

LHA amphibious assault ships, a program with an \$800 million potential. □ The planned modernization of Ingalls is intended to make Litton a world leader in maritime construction. It will be the most fully automated shipbuilding facility in this country. The newest maritime production techniques will be employed, making possible potentials of efficiency not realized even in the most advanced foreign yards. Replacing the costly shipway construction method with assembly-line work stations,



By means of an organized assembling of shapes and colors, "The Marksman" gave glassmaker Linaud Gontier an opportunity to display an appreciation for precision when he created this window in the 1620's. Now in the Library, Troyes, France.

Ingalls will be able to efficiently build virtually any type of vessel currently afloat or contemplated.

□ To finance the project, Litton is completing a lease agreement with the State of Mississippi which has authorized a multimillion dollar public bonding program. We have concluded long-term contracts with labor unions in the area, and construction is scheduled to begin early next year. □ During 1967, Ingalls Shipbuilding division launched

four new cargoliners for American President Lines—all highly automated: The SS Presidents Van Buren, Taft, McKinley and Grant.

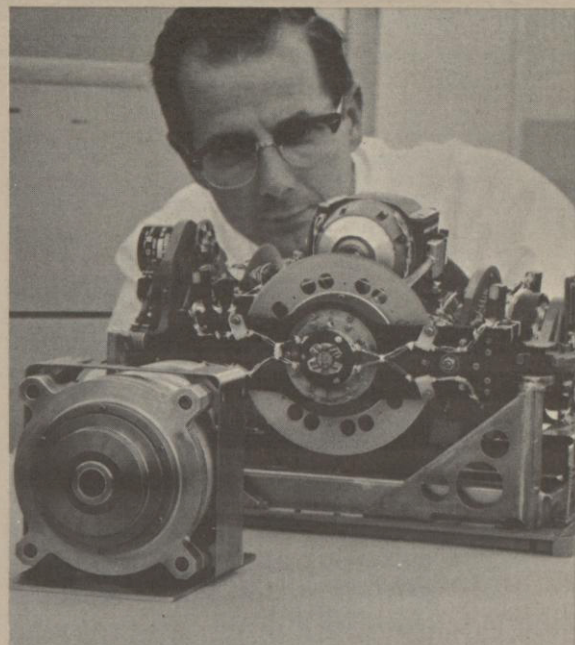
□ These ships are the first to use high-strength, lightweight steel in approximately 90 per cent of the hull and superstructure. Our technological breakthroughs in production welding have made this innovation feasible. This steel is 18 per cent lighter and three times stronger than conventional ship plate. Reducing the weight



of each APL ship by 850 long tons, it permits increased cargo capacity and higher speeds.

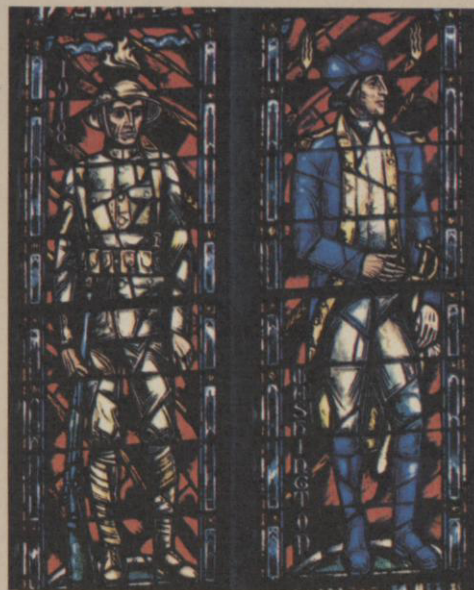
□ In other defense and space accomplishments during 1967, Litton: Began building the CCS-280, the world's first microelectronic shipboard command and control system, scheduled for delivery to the Royal Canadian Navy early in 1968 . . . Increased Electron Tube division sales of traveling wave tubes 40 per cent to the military for use as drivers in high power microwave transmitters and in space communications . . . Began to design a data automation system for the Mariner/Mars 1969 flyby spacecraft similar to the system we built for the 1967 space vehicle which made the Mars flight this Fall . . . Flew and operated within specifications a prototype digital inertial navigation system in the aircraft of a large international carrier for over 300 hours without a single failure . . . Launched the Tautog, sixth in a series of eight nuclear attack submarines being constructed for the Navy . . . Delivered three Naval amphibious assault ships to the fleet: The Tripoli, the Dubuque and the Cleveland . . . Introduced a new core memory system for high-reliability computers.

Defense  
and Space

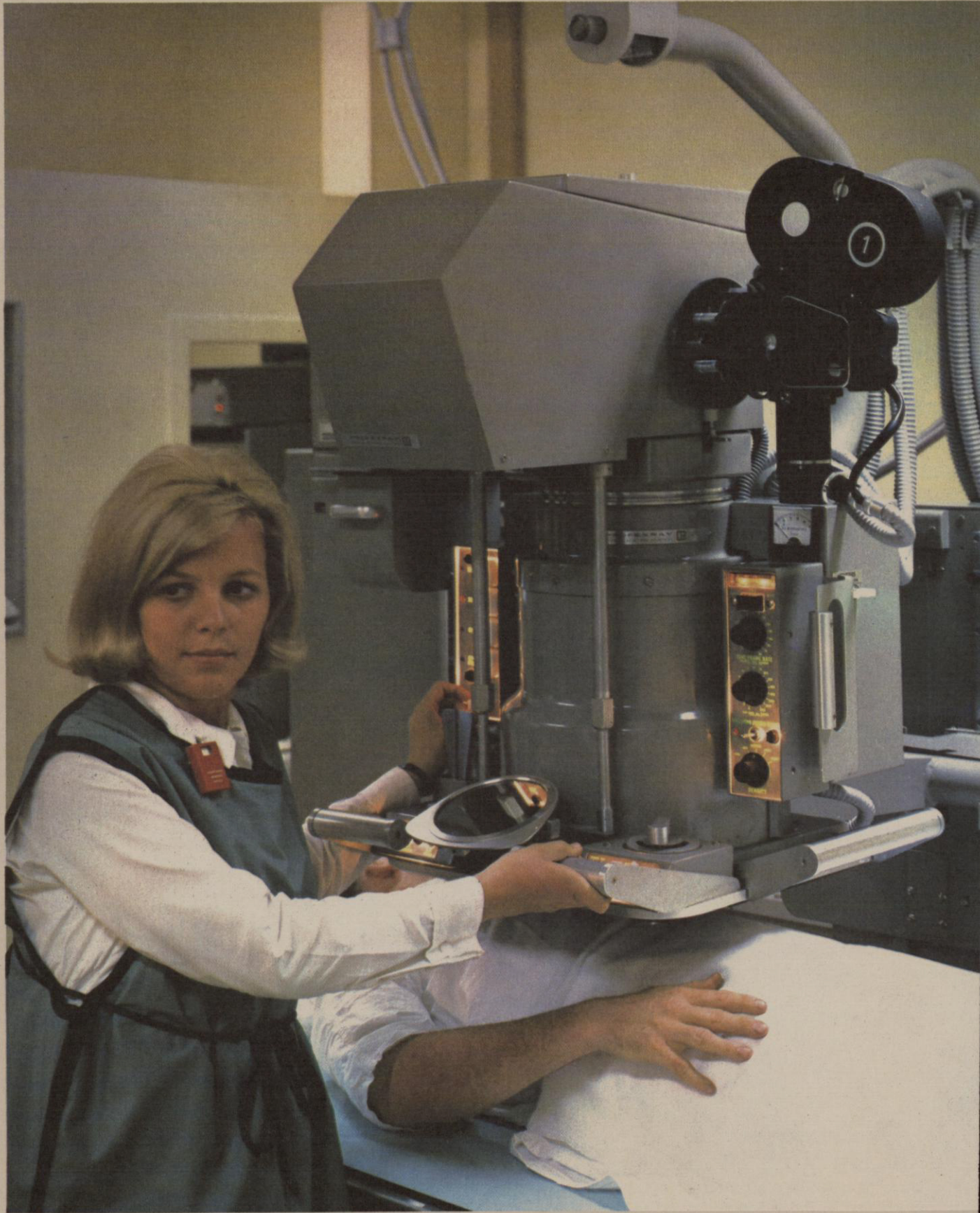


Litton's LN-30 inertial navigation unit (foreground) is one-quarter the volume and weight of present equipment and potentially more accurate and reliable.

Litton L-304 general purpose, microminiature computer (left) is being delivered for a variety of military applications including ship, ground and air command and control.



Recalling and honoring both the American alliance with France in World War I and French support of the American Revolution, this window is in the American Church in Paris.



**Professional Services and Equipment.** The worldwide demand for medical products is growing more than 13 per cent a year. Total sales in fields in which Litton is now involved were \$965 million in 1966. They should reach \$2 billion in 1971. □ In this rapidly expanding market, there is a premium on developing and introducing new products that help provide better medical care at lower cost. Litton has grown 60 per cent a year in this field since 1965. □ Litton's Profexray division increased its sales 43 per cent, advancing to third place in the U.S. X-ray equipment field. For greater marketing effectiveness, Profexray set up its own network of 56 domestic sales offices. These now employ nearly 400 Litton-trained people to provide rapid, direct customer service. Profexray is a leading supplier of image amplifying X-ray equipment to radiologists and hospitals. Its sales of portable field units to all the military services are increasing. □ Hellige division, which markets an important share of the medical electronic

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Profexray image intensifier provides two methods of viewing fluoroscopy—direct display or remote television monitoring. It also records X-ray images on 90-mm still and 35-mm motion picture film.

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instruments sold in Common Market countries, introduced new systems for diagnosis, teaching, research, and treatment. □ Two of the newest Hellige units are the T-20 portable electrocardiograph and the Servocard, an advanced system for emergency hospital use. Servocard combines all essential heart-care instrumentation in one



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Visiting the sick, from the Fifteenth Century interpretation of corporal acts of mercy as recorded in *All Hallows*, a church built on Tenth Century foundations in York, England.

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unit. □ Doctors making house visits have long needed a portable EKG for emergency applications in patients' homes. The solid-state, T-20 EKG unit, designed for this

and similar purposes, weighs less than 8 pounds and operates without warm-up. The T-20 is also ideal for examining athletes on the field, for battlefield use, and in rural or underdeveloped areas without electrical power.

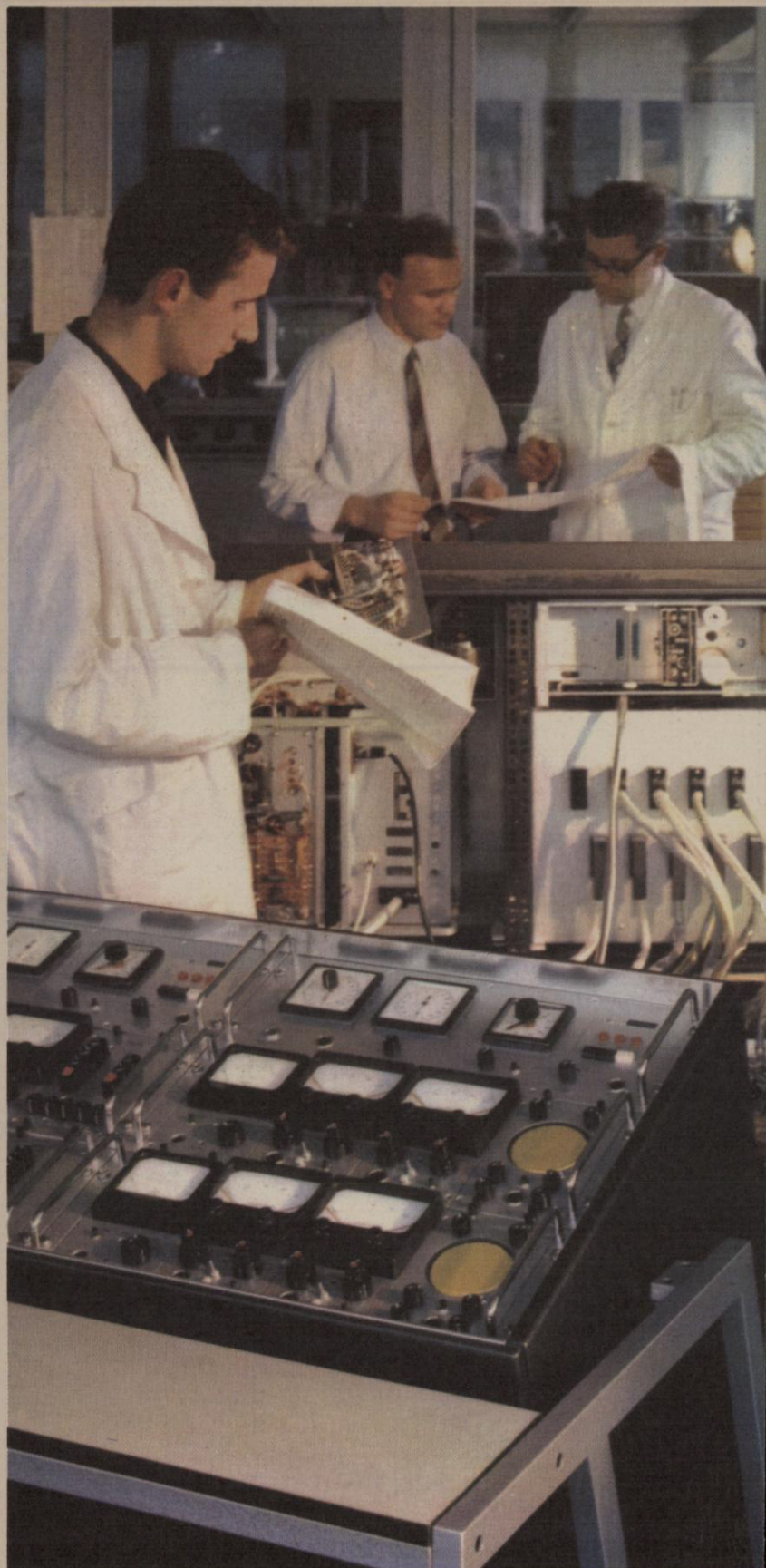
□ Hellige's Servocard contains all instruments doctors need to examine stroke or heart patients and give emergency treatment. The Servocard has an oscilloscope, a pulse meter, a pacing unit to regulate the heartbeat, and a defibrillator for restoring heart action. All are easily accessible and visible for instant use.

□ Hellige developed an advanced electrocardiograph, the EK 100, scheduled for the market early next year. The lightweight EK 100 meets the most demanding American Heart Association standards.

□ Today education is changing more radically than it has since the invention of movable type. A surge of technology is changing our traditional thinking about the role of the teacher, the classroom, and even the nature of the learning process itself. □ Teachers need new ways to present a vast

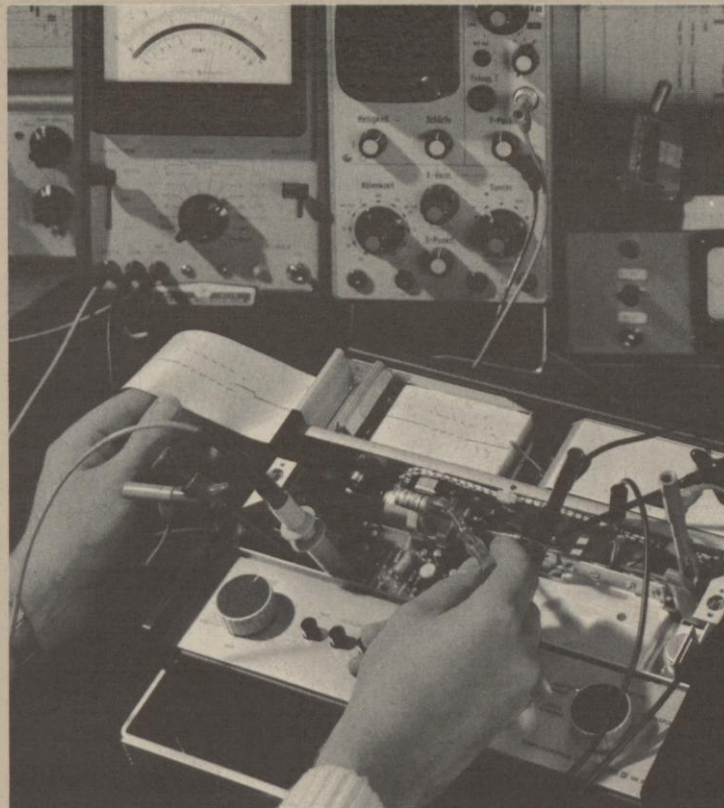
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*Hellige Model 15 (right), a centralized medical electronic monitor for extensive patient care, continuously measures temperature, respiration, pulse and blood pressure. The unit monitors up to eight patients.*





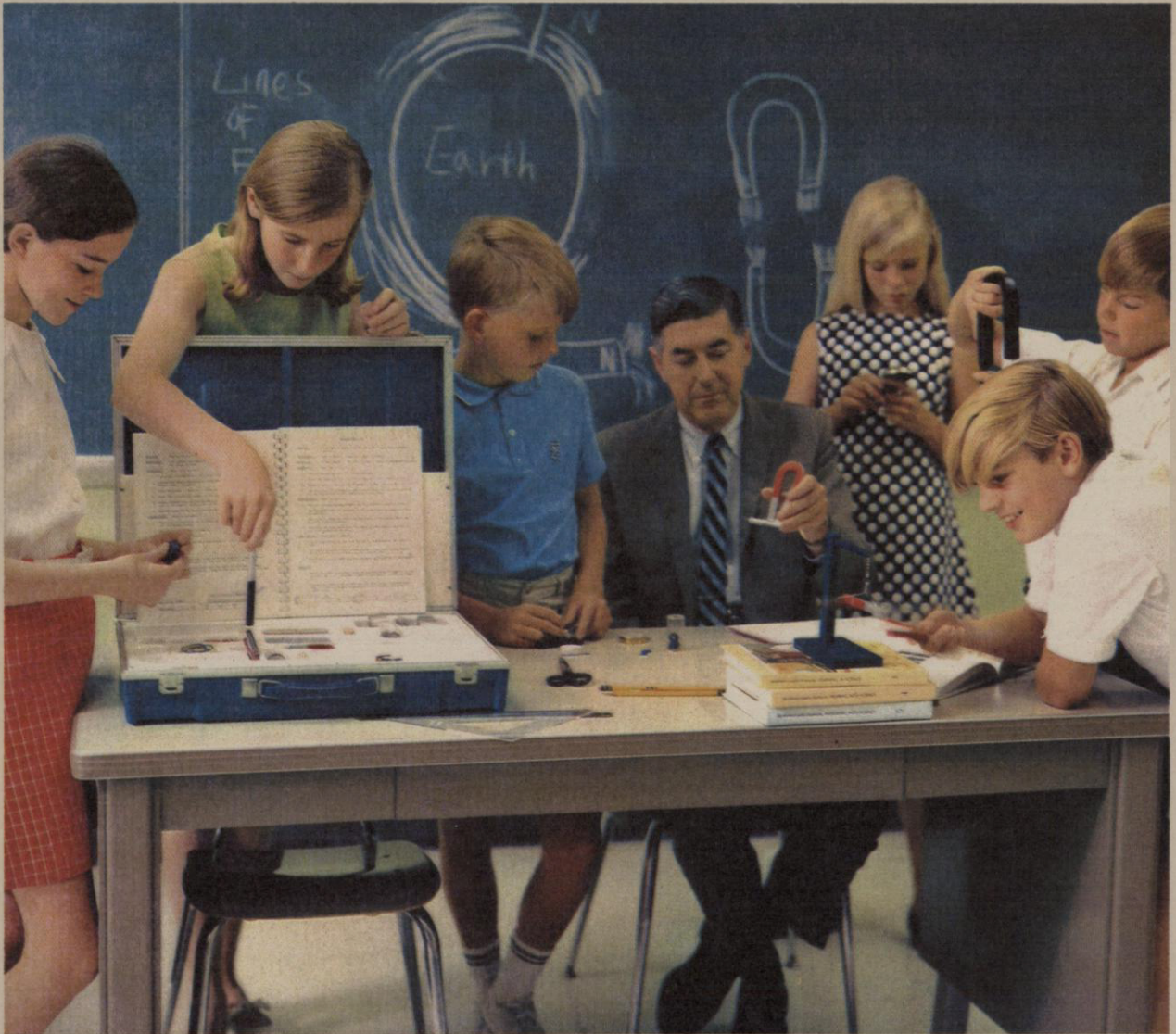
and growing backlog of material. Educators are seeking integrated approaches to instruction, which tie together learning elements ranging from books to the most advanced audio-visual devices. □ The demand for all types of teaching materials is creating a U.S. market which reached about \$2 billion in 1966. The world market is also of significant size and expanding rapidly. □ Litton is building an expanded capability to serve both the new and traditional areas of education. Our American Book division supplies textbooks and other educational materials to schools all over the world. It has been a leader in developing new techniques and materials that apply the systems approach to the learning process, incorporating related tools to gain a specific educational objective. □ One such learning program is the American Book science series for elementary and junior high schools. This series coordinates motion slides, overhead trans-



Hellige T-20 portable electrocardiograph (above) is designed for physicians making house visits. Hellige's unit weighs 7.9 pounds and operates on a single transistor battery.

Man's scientific quest to reduce phenomena of the universe to useable information is reflected in this 17th Century window sundial by Henry Gyles, Nunappleton Hall, England.





parencies, film strips, experimental kits, laboratory manuals, workbooks and annotated teacher's guides into a comprehensive integrated learning program. American Book's science texts cover a broad range of subject areas from elementary schools through college. □ American Book has developed a unique reading program using the highly effective phonetic or linguistic approach,

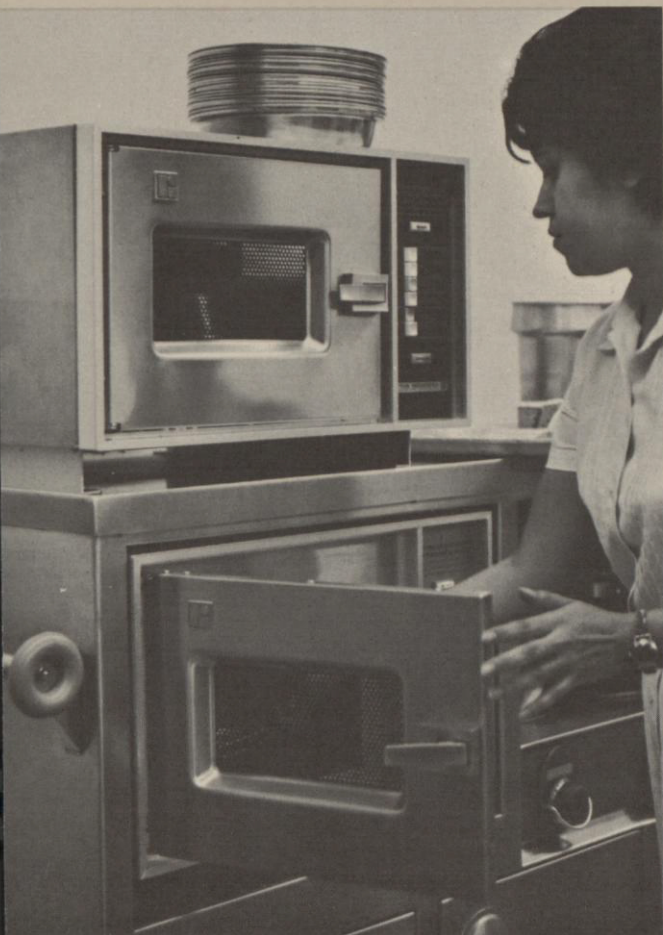
enabling grade school students to learn to read faster and retain more. □ Society is finding that it can benefit by turning to private enterprise for solutions to public problems in agriculture, transportation, housing, employment, health, as well as air and water pollution.

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*American Book educational portable resource kits (above) contain all necessary study tools to transform the classroom into a science laboratory.*



Symbolizing the purposeful inquisitiveness of the scientist, this Purdue University Memorial Union Building window portrays a student holding a chemist's retort.

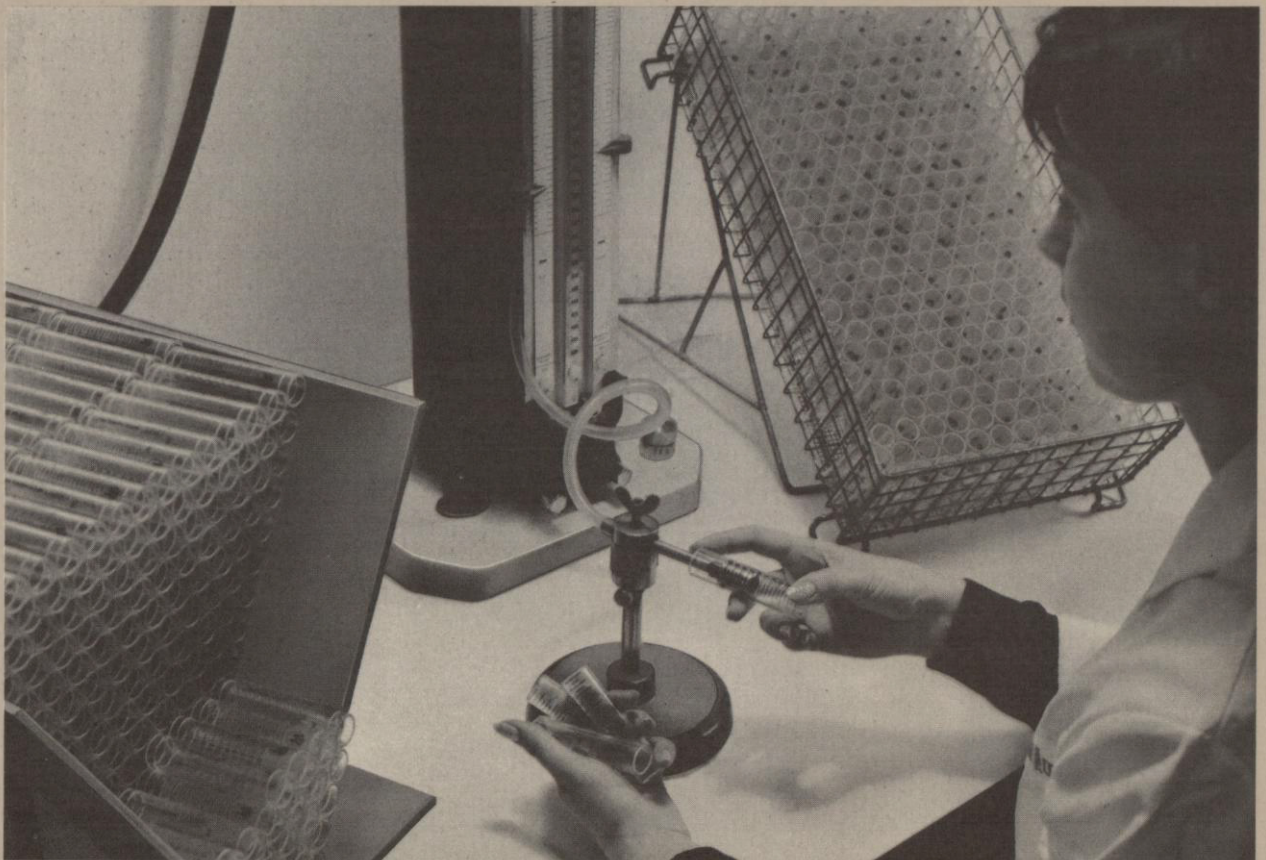


□ Public Systems Management, Litton's term for industry's approach to public projects, deals with these problems from financing through ultimate implementation by the application of advanced systems management techniques. □ Through our Litton International Development Corp., we took a major step into this field in 1967. We signed an agreement with the Greek Government to effect economic development for the island of Crete and the western Peloponnesus. The overall aim of the program is to improve living standards and increase per capita income in the two regions. □ With the concurrence and assistance of the Greek Government, Litton will work to define the problems and opportunities, set goals, weigh various alternative approaches, establish coordinated performance and implement the plans. □ The plan for Crete includes increasing tourism, irrigating thousands of acres of farmland and developing natural resources and industry to increase employment. In the western Peloponnesus, we have

Atherton electronic cooking units (left) quickly prepare about 1200 tasty meals a day for patients at Tucson, Ariz. Medical Center. Atherton equipment is widely used in restaurants, schools and institutions.

proposed new hotel facilities, new airports, industrial centers and harbors. The initial phase of the program is for three and a half years, during which Litton will implement projects with a total value of \$240 million to be raised from international investment sources. □ Litton is presently planning similar projects in other countries. Through an agreement with the Portuguese Government, we have underway a study of the economic potential of that country's Alentejo region. Our Aero Service division also is conducting a socio-

economic study of Ecuador's Guayas Basin. This project is being administered by the Inter-American Development Bank. □ We view these economic development programs as precedent-setting steps by progressive government agencies and private enterprise to develop growing human and natural resource potential to the maximum. □ Our Atherton division increased by 93 per cent its sales of electronic cooking equipment for restaurants—a vast, virtually untapped market. Sales for industrial and institutional

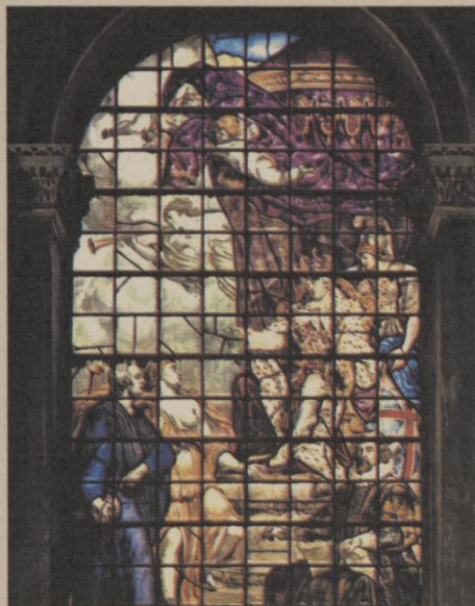


applications, which represent a great and growing potential, also continued their rapid increase.

□ In other representative professional field highlights during 1967, Litton: Equipped five Aero Service division planes with our advanced gradiometer used to locate mineral deposits through magnetic data gathering techniques which are 10 times more sensitive and accurate than earlier airborne equipment . . . Continued an Aero Service aerial photography program for topographic mapping of 4 million acres in Thailand and Laos, the largest such contract ever performed for the Agency for International Development . . . Expanded worldwide marine petroleum exploration capabilities as Western Geophysical division introduced the exclusive Aquapulse system, which is safer and more efficient than previous seismic energy sources . . . Established three new Western Geophysical digital data centers for processing seismic survey results at Houston, Los Angeles and Milan, Italy, increasing the total number of such centers to five . . . Completed plans through the Henke division to market disposable medical injection

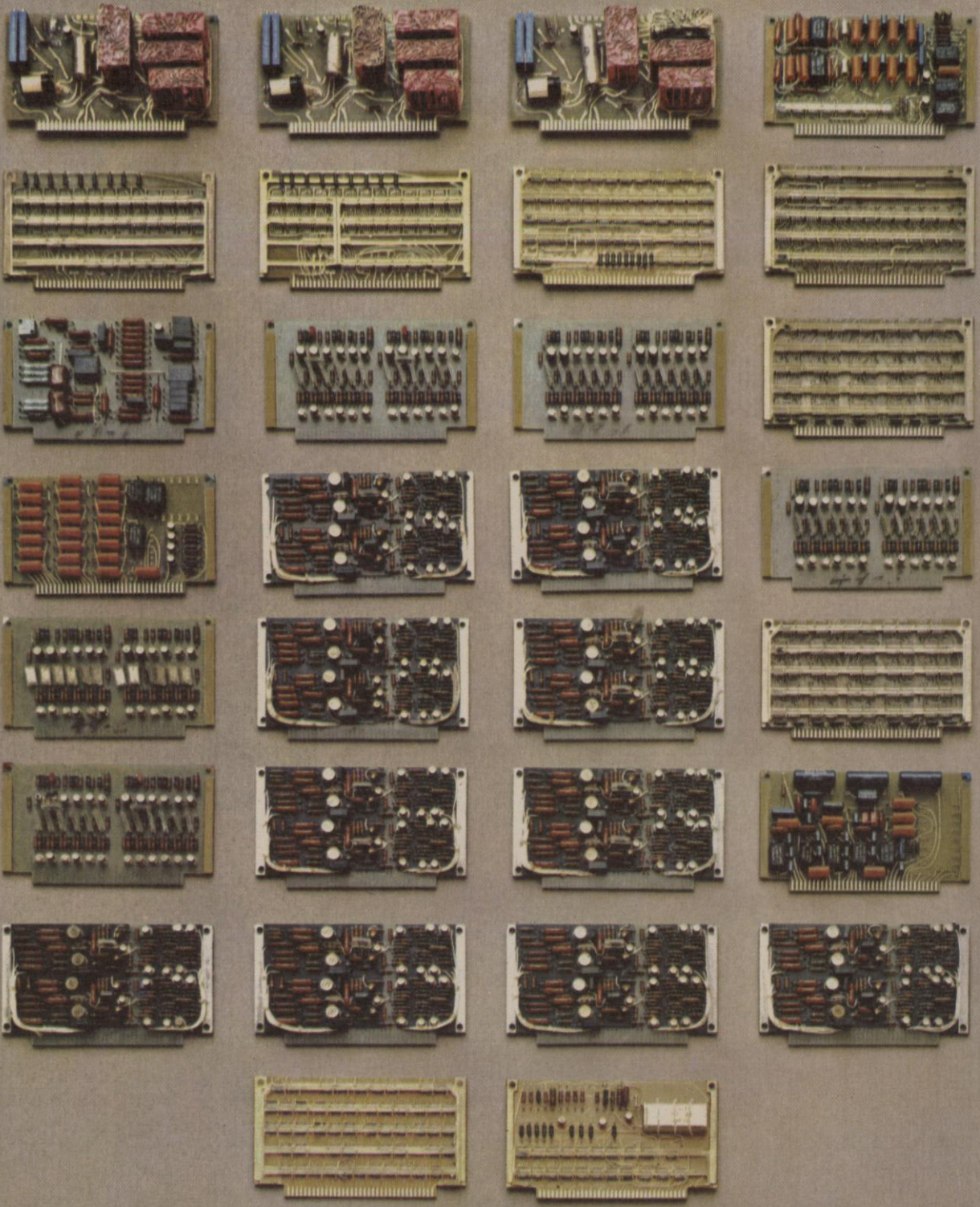
Professional  
Services and  
Equipment

products in Europe, where this concept which insures cleanliness and patient safety is gaining acceptance in the medical and dental professions . . . Produced and marketed at Westrex division an optical sound recorder for the super-8 mm. format, which is growing in popularity for training and educational films . . . Launched through American Book division a new system providing expanded dimensions for teaching U.S. history, consisting of a textbook, source materials reflecting different viewpoints, documents and motion slides.



*In an allegory honoring science scholarship, Francis Bacon, seated, records as Sir Isaac Newton is introduced to King George III. In Trinity College Library, Cambridge, England.*

*Henke medical injection products (left) must pass stringent quality tests before reaching world health markets.*



The needs of man and his society are changing at an accelerating rate, creating massive and complex new problems.

These problems, diverse as they are, have in common a single characteristic:

A magnitude that defies easy solution by narrow approaches or limited means.

□ Yet even while the new challenges are formidable, they are uniquely suited to solution by today's integrated multinational corporations. As the preceding sections of this report have shown, Litton is such a company. By applying a wide range of complementary sciences and technologies, through modern management techniques, Litton is preparing to meet tomorrow's challenges even while mastering those of today. □ But it is vital that corporations continue to grow. For only enterprises which continually improve their effectiveness command the resources, the personnel and the multinational scope necessary to meet the awesome demands of tomorrow. □ We believe Litton's present and future growth will enable us to maintain such stature, and to be in the forefront of tomorrow's successful industrial leaders.

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Structural simplicity and unencumbered design are embodied in this theme panel at the entrance to the Hall of Glass, Smithsonian Museum of History and Technology, Washington, D.C. Created in 1962 by George Robert Lewis.

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Large Scale Integration (LSI) technology at Litton: This single, microminiaturized electronic wafer, being held by tweezers at the bottom of the picture to the left, does the work of 30 complex circuit boards shown above it. Similar improvements may be achieved through LSI technology in all Litton military and commercial electronic systems.



LIATOR





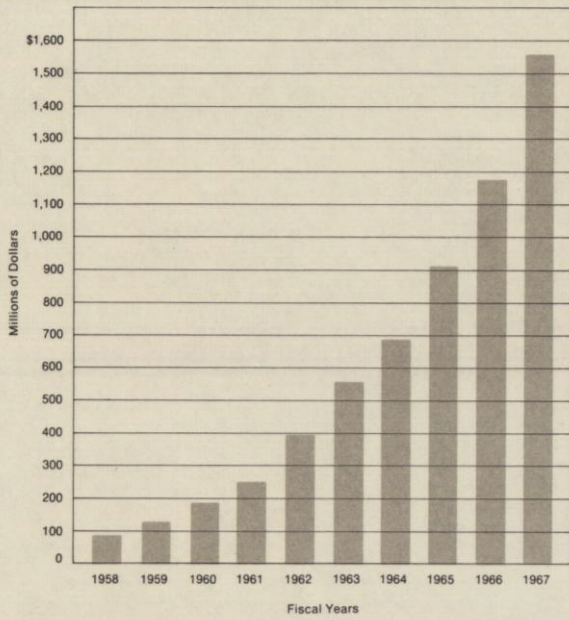
**Financial  
Statements**

LITTON  
INDUSTRIES,  
INC.

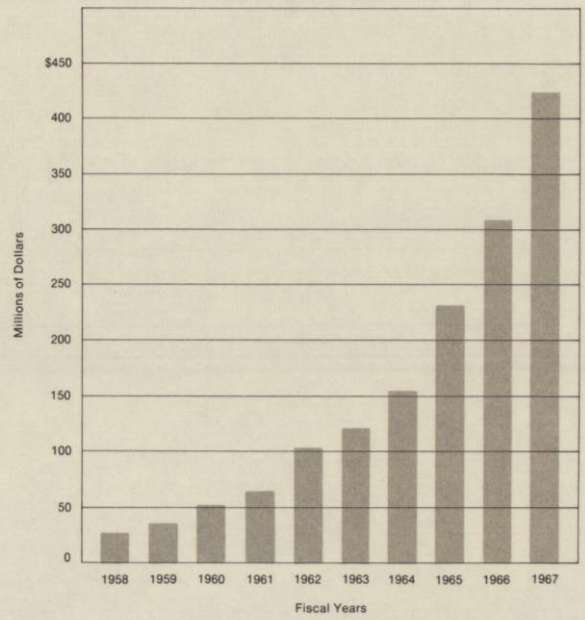
Annual  
Report  
for the  
fiscal year  
ended  
July 31, 1967

A parable advising  
profitable investment  
is recalled in this  
early Thirteenth  
Century window  
of the sower  
following the  
admonition to plant  
where growth is  
assured. Located in  
Canterbury  
Cathedral,  
England.

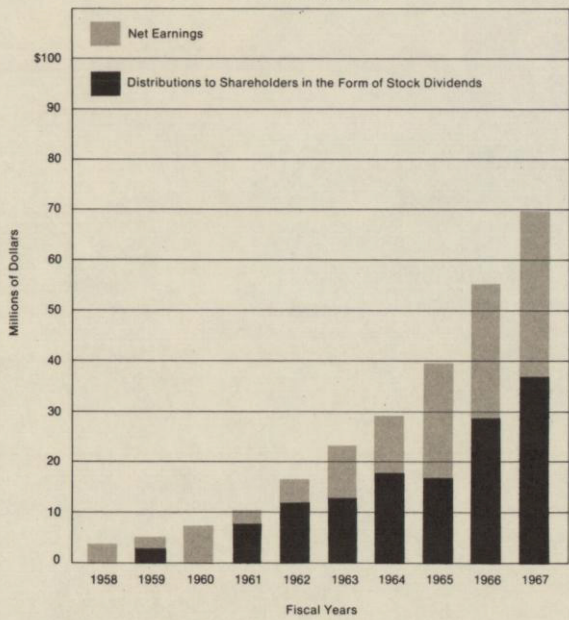
SALES AND SERVICE REVENUES\*



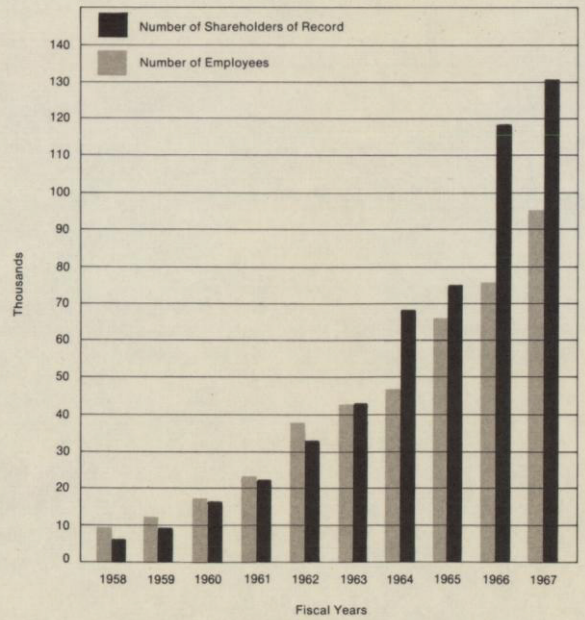
SHAREHOLDERS' INVESTMENT\*



NET EARNINGS\*



SHAREHOLDERS AND EMPLOYEES\*



\*As reported in the Company's annual reports

## OPERATIONS IN PERSPECTIVE

REVENUES FROM PRODUCTS DELIVERED AND SERVICES RENDERED . . . . .	<u>\$1,561,510,000</u>
31% of these revenues were generated by business systems and equipment, 32% by defense and space systems, 27% by industrial systems and equipment and 10% by professional products and services	
COST OF DOING BUSINESS	
Employment costs . . . . .	\$ 741,670,000
Salaries and wages paid to our 95,500 employees, including pension, group insurance, social security and other employee benefits	
Outside purchases . . . . .	605,418,000
Payments to other companies for the purchase of materials and services; for insurance, interest and other expenses of doing business	
Facility costs . . . . .	83,665,000
Maintenance, repairs, rents and that portion of original cost of facilities and equipment allocated to current year's operations	
	<u>1,430,753,000</u>
DISTRIBUTION OF EARNINGS	
Federal, state, local and foreign income, business and property taxes . . . . .	60,687,000
Dividends paid to holders of preferred stock . . . . .	\$ 402,000
Earnings reinvested by our 132,000 shareholders to finance continued growth . . . . .	<u>69,668,000</u>
	<u>70,070,000</u>
	<u>\$1,561,510,000</u>

# HIGHLIGHTS OF TEN YEARS' OPERATIONS

As reported in the Company's annual reports

	1967	1966	1965
<b>Operating Results</b>			
Sales and service revenues	\$1,561,510,340	\$1,172,233,328	\$915,573,929
Earnings before taxes on income	120,061,135	96,212,024	71,539,247
Federal and foreign taxes on income	49,991,008	40,597,821	31,787,234
Net earnings	70,070,127	55,614,203	39,752,013
Per share*			
Per proforma share outstanding at year end**	2.60	2.19	
Per common share outstanding at year end			1.64
Depreciation	33,778,000	26,577,000	22,998,000
<b>Financial Position (Year-End)</b>			
Net working capital	\$ 401,424,847	\$320,364,523	\$235,752,097
Property, plant and equipment—at cost	364,685,240	278,666,273	246,306,480
Accumulated depreciation	144,001,824	110,438,942	89,427,211
Net property, plant and equipment	220,683,416	168,227,331	156,879,269
Total assets	945,024,472	742,535,485	630,023,274
Shareholders' investment	426,986,538	308,879,441	231,998,008
<b>General Statistics (Year-End)</b>			
Shares of common stock outstanding*	21,536,644	20,982,316	22,980,730
Shares of preferred stock outstanding	128,257	169,292	888,905
Shares of preference stock outstanding	5,125,338	3,989,239	
Stock dividends on common stock	2½%	2½%	2½%
Stock splits of common stock		Two for one	
Number of shareholders of record:			
Common	90,455	78,744	59,009
Preferred	4,153	4,346	16,175
Preference	37,272	35,703	
Number of employees	95,500	75,900	65,500

The above tabulations summarize the company's financial statements as contained in its annual reports for each of the years 1958 through 1967 which include the operations of businesses acquired under the pooling of interests concept from the beginning of the year in which the acquisition occurs. On the basis of including operations of pooled businesses prior to their years of acquisition, operating results would have been as follows:

	Sales and Service Revenues	Net Earnings	Earnings Per Share
1966	\$1,340,964,000	\$60,928,000	2.28
1965	1,069,422,000	43,264,000	1.65
1964	832,377,000	33,085,000	1.31
1963	723,800,000	26,263,000	1.04

1964	1963	1962	1961	1960	1959	1958
\$686,135,497	\$553,146,239	\$393,807,709	\$250,114,456	\$187,761,242	\$125,525,561	\$ 83,155,473
56,151,444	43,796,403	30,849,499	19,687,457	15,365,182	10,805,756	7,044,437
26,384,123	20,500,296	14,533,547	9,529,134	7,910,328	5,851,725	3,342,234
29,767,321	23,296,107	16,315,952	10,158,323	7,454,854	4,954,031	3,702,203
1.28	1.04	.74	.50	.37	.28	.22
16,780,000	11,467,000	8,527,000	5,131,267	3,213,720	2,235,128	2,090,083
\$198,260,860	\$151,350,137	\$113,478,440	\$ 73,631,064	\$ 53,846,309	\$ 38,741,071	\$ 23,117,831
175,228,276	140,975,286	106,787,138	60,860,252	41,545,708	29,633,695	22,781,070
70,560,357	55,085,040	43,820,326	22,987,124	17,563,971	11,850,224	7,915,605
104,667,919	85,890,246	62,966,812	37,873,128	23,981,737	17,783,471	14,865,465
423,697,443	354,945,287	269,491,286	172,771,125	119,004,373	83,254,170	57,750,861
154,749,892	121,967,925	102,934,058	63,730,972	50,568,249	34,546,600	27,994,799
22,632,720	22,396,842	21,876,263	20,263,430	19,773,084	17,080,977	16,486,346
463,681						
2½%	2½%	2½%	2½%		2½%	
	Two for one			Two for one		
57,323	43,417	32,755	21,936	16,322	8,589	5,801
10,203						
46,900	43,000	37,700	23,000	17,400	12,400	8,600

\* Adjusted for stock dividends and stock splits.

\*\* Litton's convertible preference stock was first issued in March 1966. The earnings per share have been computed on the basis of the number of common shares that would have been outstanding, assuming full conversion of the preference stock, at July 31, 1967, and July 31, 1966, respectively.

## Consolidated Statement of Earnings

	Year Ended July 31, 1967	Year Ended July 31, 1966	
		After Adjustment for 1967 Poolings of Interests	Prior to Adjustment for 1967 Poolings of Interests
Sales and service revenues . . . . .	\$1,561,510,340	\$1,340,964,413	\$1,172,233,328
Costs and expenses (including depreciation of \$33,778,000, \$28,514,000 and \$26,577,000):			
Cost of sales . . . . .	1,147,719,716	975,117,860	851,546,658
Selling, general and administrative. . . . .	283,437,105	249,200,255	214,751,429
Interest . . . . .	10,292,384	10,399,082	9,723,217
	<u>1,441,449,205</u>	<u>1,234,717,197</u>	<u>1,076,021,304</u>
Earnings before taxes on income . . . . .	120,061,135	106,247,216	96,212,024
Federal and foreign taxes on income . . . . .	49,991,008	45,318,778	40,597,821
Net earnings . . . . .	<u>\$ 70,070,127</u>	<u>\$ 60,928,438</u>	<u>\$ 55,614,203</u>

The 1966 data, "Prior to Adjustment for 1967 Poolings of Interests," represents the operations of Litton as shown on its 1966 report. The 1966 data, "After Adjustment for 1967 Poolings of Interests," gives effect to the restatement of the 1966 operations to include operations of businesses acquired in 1967 in poolings of interests.

## Consolidated Balance Sheets

### ASSETS

#### CURRENT ASSETS:

	July 31, 1967	July 31, 1966
Cash, including certificates of deposit and treasury bills . . . . .	\$ 50,774,319	\$ 45,200,145
Accounts receivable . . . . .	297,904,664	274,964,863
Inventories, at lower of cost or market, less progress billings of \$86,760,184 and in 1966 \$88,201,223 . . . . .	275,933,009	259,272,085
Prepaid expenses . . . . .	9,233,776	8,822,187
Total Current Assets . . . . .	<u>633,845,768</u>	<u>588,259,280</u>
PROPERTY, PLANT, AND EQUIPMENT—See page 60 . . . . .	220,683,416	186,159,191
INVESTMENTS AND OTHER ASSETS—See page 60 . . . . .	90,495,288	64,459,943
	<u>\$945,024,472</u>	<u>\$838,878,414</u>

### LIABILITIES AND SHAREHOLDERS' INVESTMENT

#### CURRENT LIABILITIES:

Notes payable to banks . . . . .	\$ 11,104,199	\$ 8,304,971
Accounts payable . . . . .	130,179,031	127,140,216
Payrolls and related expenses . . . . .	47,580,722	41,887,830
Federal and foreign taxes on income . . . . .	40,469,859	54,203,106
Current portion of long-term liabilities and debentures . . . . .	3,087,110	3,930,275
Total Current Liabilities . . . . .	<u>232,420,921</u>	<u>235,466,398</u>
LONG-TERM LIABILITIES (Note C) . . . . .	192,141,283	156,512,886
DEFERRED FEDERAL TAXES ON INCOME . . . . .	22,840,993	18,051,019
DEFERRED SERVICE CONTRACT AND OTHER INCOME . . . . .	21,650,737	20,766,861
CONVERTIBLE SUBORDINATED DEBENTURES (Note D) . . . . .	48,984,000	57,897,000
SHAREHOLDERS' INVESTMENT—See page 60 (Note E) . . . . .	<u>426,986,538</u>	<u>350,184,250</u>
See statement of properties, investments and shareholders' investment and notes to financial statements.	<u>\$945,024,472</u>	<u>\$838,878,414</u>

## LITTON INDUSTRIES, INC. &amp; SUBSIDIARY COMPANIES

## Properties, Investments and Shareholders' Investment

	July 31, 1967	July 31, 1966
PROPERTY, PLANT AND EQUIPMENT—at cost:		
Land . . . . .	\$ 11,148,093	\$ 9,877,207
Buildings . . . . .	90,496,767	81,936,016
Machinery and equipment . . . . .	263,040,380	223,957,742
	<u>364,685,240</u>	<u>315,770,965</u>
Accumulated depreciation . . . . .	144,001,824	129,611,774
	<u>\$220,683,416</u>	<u>\$186,159,191</u>
INVESTMENTS AND OTHER ASSETS:		
Equity in unconsolidated finance subsidiaries (Note B) . . . . .	\$27,658,376	\$ 20,687,195
Long-term investments—at cost . . . . .	21,295,902	12,276,631
Excess of cost over related net assets of		
businesses purchased . . . . .	37,913,264	28,171,415
Other assets, including patents . . . . .	3,627,746	3,324,702
	<u>\$ 90,495,288</u>	<u>\$ 64,459,943</u>
SHAREHOLDERS' INVESTMENT (Note E):		
Capital stock:		
Voting preference, par value \$2.50 a share, issuable in series:		
Authorized 8,000,000 shares		
Convertible participating series issued 5,162,040 shares, and 5,149,734 shares less 36,702 shares in treasury . . . . .	\$ 12,813,346	\$ 12,782,581
Voting preferred, convertible, cumulative, par value \$5 a share, issuable in series:		
Authorized 3,000,000 shares		
Series A issued 128,257 shares, and 169,292 shares . . . . .	641,285	846,460
Common, par value \$1 a share:		
Authorized 39,000,000 shares		
Issued 21,536,644 shares, and 20,687,116 shares . . . . .	21,536,644	20,687,116
Additional paid-in capital . . . . .	220,559,427	169,588,042
Earnings retained in the business (less \$138,022,917 and \$100,462,478 transferred to paid-in capital for stock dividends paid) . . . . .	<u>171,435,836</u>	<u>146,280,051</u>
	<u>\$426,986,538</u>	<u>\$350,184,250</u>

See notes to financial statements.



## Consolidated Statement of Earnings Retained in the Business

Year Ended July 31, 1967

Balance at beginning of year . . . . .		\$146,280,051
Net earnings for the year . . . . .		<u>70,070,127</u>
		216,350,178
Deduct:		
Market value of 2½% stock dividend . . . . .	\$ 37,560,439	
Premium on redemption of convertible subordinated debentures . . . . .	6,951,462	
Cash dividends on preferred stock—\$3 a share . . . . .	<u>402,441</u>	<u>44,914,342</u>
Balance at end of year . . . . .		<u><u>\$171,435,836</u></u>

## Consolidated Statement of Additional Paid-In Capital

Year Ended July 31, 1967

Balance at beginning of year . . . . .		\$169,588,042
Excess of market value of stock dividend over par value of common stock issued . . . . .		36,867,351
Excess of market value over par value of preference stock issued to purchase businesses . . . . .		7,212,730
Excess of principal amount of debentures and par value of preferred and preference stocks converted over par value of common stock issued . . . . .		<u>6,891,304</u>
Balance at end of year . . . . .		<u><u>\$220,559,427</u></u>

Year Ended July 31, 1967

## Notes to Financial Statements

## NOTE A—Principles of Consolidation

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

During the year ended July 31, 1967, the Company acquired the net assets of businesses which have been accounted for as poolings of interests. The 1966 financial statements have been revised to include these businesses. The Company also purchased other businesses, the operations of which are included from dates of acquisition.

## NOTE B—Equity in Unconsolidated Finance Subsidiaries

The Company's equity in its wholly-owned finance subsidiaries is stated at cost, represented by investments and advances, and undistributed earnings of \$4,259,103 at July 31, 1967. These subsidiaries had total assets of \$102,569,914 and liabilities to banks and others of \$74,911,538 at July 31, 1967.

## NOTE C—Long-term Liabilities

Long-term liabilities at July 31, 1967 consisted of the following:

## Notes payable to insurance companies:

Due to 1984 with interest from 3 $\frac{3}{8}$ % to 4 $\frac{1}{8}$ %	\$ 89,435,120
Due to 1977 with interest from 5% to 6%	2,147,255

## Notes payable to banks:

Due 1970 with interest at 4 $\frac{3}{4}$ %	35,250,000
Due 1972 with interest at 5 $\frac{3}{4}$ %	39,750,000
Due to 1980 with interest from 3% to 5 $\frac{1}{2}$ %	3,776,457

## Miscellaneous debt due to 1985

with average interest of 4 $\frac{1}{2}$ %	24,209,561
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194,568,393

Less current portion	2,427,110
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\$192,141,283

The principal maturities due during each of the next five fiscal years is as follows:

Year ended July 31, 1968	\$ 2,427,000
Year ended July 31, 1969	9,503,000
Year ended July 31, 1970	6,822,000
Year ended July 31, 1971	42,078,000
Year ended July 31, 1972	46,505,000

The Company has complied with its agreements to maintain specified ratios of assets to debt and shareholders' investment to debt.

NOTE D—Convertible Subordinated Debentures

Convertible subordinated debentures at July 31, 1967 were as follows:

3½% due April 1, 1987, issued 1962, 1963, 1964, and 1965	\$ 43,669,000
5¼% due December 1, 1974, issued 1959	2,495,000
4¾% due June 1, 1974, issued 1959	3,480,000
	<u>49,644,000</u>
Less current portion	660,000
	<u>\$ 48,984,000</u>

The debentures are convertible into common stock of the Company at conversion prices as follows: 3½% debentures—\$40 a share until April 1, 1972, \$42.50 a share until April 1, 1982, \$45 a share thereafter; 5¼% debentures—\$20 a share; 4¾% debentures—\$16.25 a share. These conversion prices are subject to antidilution provisions.

The Company has agreed to retire annually principal amount of debentures as follows: 3½% debentures—\$2,819,000 commencing April 1, 1972; 5¼% debentures—\$600,000 commencing December 1, 1968; 4¾% debentures—\$470,000. Required annual retirements of the 3½% debentures have been met through April 1, 1980.

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 E—Shareholders' Investment

Each share of preference stock is currently convertible into 1.0309 shares of common stock. This conversion rate increases by 3.09% in each of the years 1968 to 1989 and, additionally, is subject to antidilution provisions. 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 at any time after January 31, 1976 at prices ranging from \$67.75 in 1976 to \$100.95 in 1989 and thereafter. The Company has the right, at its option, each calendar year to redeem shares of preference stock by offering to each preference stockholder the right to call upon the Company to redeem up to 3% of his shares at prices ranging from \$51.65 in 1967 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.

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

At July 31, 1967, there were reserved 1,430,629 common shares for conversion of debentures, 256,514 common shares for conversion of preferred stock, and 5,283,711 common shares for conversion of preference stock.

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 which could be issued as additional consideration is approximately 112,000 common shares, 41,700 preference shares and 2,300 preferred shares.

Under the terms of the Company's borrowing agreements, consolidated earnings retained in the business of approximately \$124,359,000 were available for cash dividends on common stock at July 31, 1967.

A 2½% common stock dividend paid on November 8, 1966 is reflected in the July 31, 1967 financial statements but has not been retroactively reflected in the July 31, 1966 financial statements.

On May 19, 1967 the Board of Directors declared a common stock dividend of 2½% payable November 15, 1967, to holders of record of such common stock at the close of business September 29, 1967. This transaction has not been reflected in the financial statements.

NOTE F—Lease Obligations

Annual rentals under long-term leases expiring between 1970 and 1999 are approximately \$8,236,000 plus property taxes and insurance in some instances.

TOUCHE, ROSS, BAILEY & SMART

Los Angeles, California

September 27, 1967

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, 1967, and the related statements of earnings, earnings retained in the business, and additional paid-in capital 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 procedures as we considered necessary in the circumstances.

In our opinion, the financial statements referred to above present fairly the consolidated financial position of Litton Industries, Inc. and its subsidiary companies at July 31, 1967, and the consolidated results of their operations 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, Bailey & Smart*

Certified Public Accountants

## LITTON LOCATIONS WORLDWIDE

Among the More Than 1,900 Litton Facilities are the Following Major Regional Offices and Plants:

▪ AUSTRALIA, *Melbourne*, Business Equipment Holdings ▪ AUSTRIA, *Vienna*, Fritz Hellige ▪ BELGIUM, *Brasschaat*, Fitchburg Specialty Paper; *Brussels*, Litton Benelux, Rust Engineering; *Liege*, Rust Engineering ▪ BRAZIL, *Sao Paulo*, Hewitt-Robins ▪ CANADA, *British Columbia*, *Vancouver*, Rust Engineering; *Newfoundland*, *Stephen*, Marine Technology; *Ontario*, *Brantford*, Kester Solder; *Ottawa*, Aero Service, Litton Systems; *Port Credit*, Eureka-Carlisle; *Rexdale*, Litton Systems; *Scarborough*, Gear Products; *St. Catharines*, Marine Consultants and Designers; *Toronto*, Automated Business Systems, Kimball Systems, Litton Systems; *Quebec*, *Montreal*, Royal Typewriter, Rust Engineering ▪ EIRE, *Dublin*, Litton Business Systems ▪ ENGLAND, *Cardiff*, Litton Business Systems; *Hounslow*, Western Geophysical; *Leeds*, Eureka-Carlisle; *London*, Hewitt-Robins, Litton Business Systems, Rust Engineering, Westrex; *Norwich*, Litton Business Systems; *Nottingham*, Litton Business Systems; *Rayleigh*, Litton Business Systems ▪ FRANCE, *Grenoble*, Monroe; *Mulhouse*, Monroe; *Paris*, Hewitt-Robins, Litton Industries, Monroe, Royal Typewriter, Rust Engineering ▪ GERMANY, *Berlin*, Henke, Monroe; *Bonn*, Guidance and Control; *Freiburg*, Fritz Hellige, Guidance and Control; *Hamburg*, C. Plath, Guidance and Control; *Merzhausen*, Fritz Hellige; *Offenburg*, Monroe; *Tuttlingen*, Henke ▪ HONG KONG, Westrex ▪ INDIA, *Calcutta*, Robins Engineering; *Jamshedpur*, Hewitt-Robins ▪ ITALY, *Genoa*, Royal Typewriter; *Milan*, Fritz Hellige, Hewitt-Robins, Royal Typewriter, Western Geophysical; *Pescara*, Western Geophysical; *Pomezia*, Guidance and Control, Monroe; *Rome*, Westrex ▪ JAPAN, *Osaka*, Westrex; *Tokyo*, Westrex ▪ MEXICO, *Mexico City*, Automated Business Systems, Memory Products, Monroe, Rust Engineering; *Tijuana*, Memory Products, Triad ▪ NETHERLANDS, *Amsterdam*, Hewitt-Robins, Monroe; *Cuyk*, Royal Typewriter; *Gemert*, Royal Typewriter; *Leiden*, Royal Typewriter; *Medemblik*, Monroe; *Nieuwkoop*, Royal Typewriter; *Puillijk*, Royal Typewriter ▪ PAKISTAN, *Lahore*, Westrex ▪ PHILIPPINES, *Manila*, Westrex ▪ PORTUGAL, *Coimbra*, Monroe; *Faro*, Monroe; *Lisbon*, Monroe; *Porto*, Monroe ▪ SCOTLAND, *Edinburgh*, Litton Business Systems, Westrex ▪ SOUTH AFRICA, *Johannesburg*, Hewitt-Robins ▪ SPAIN, *Barcelona*, Westrex; *Lugo de Llanera*, Cole Steel; *Madrid*, Aero Service, Sweda ▪ SWEDEN, *Soina*, Sweda; *Stockholm*, Sweda; *Sundbyberg*, Sweda; *Varberg*, Sweda ▪ SWITZERLAND, *Bern*, Monroe; *St. Gallen*, Monroe; *Versoix*, Fitchburg Specialty Paper; *Vesenez*, Fitchburg Specialty Paper; *Zurich*, Business Equipment Group, Guidance and Control, Litton Industries, Royal Typewriter ▪ TAIWAN, *Taipei*, Westrex ▪ TRINIDAD, *Port of Spain*, Westrex ▪ VENEZUELA, *Caracas*, Monroe.

United States ▪ ALABAMA, *Birmingham*, Rust Engineering; *Clanton*, Sturgis-Newport; *Huntsville*, Rust Engineering ▪ ALASKA, *Anchorage*, Western Geophysical ▪ ARIZONA, *Phoenix*, Automated Business Systems ▪ CALIFORNIA, *Anaheim*, Kester Solder; *Beverly Hills*, Advance Data Systems, Applied Science, Litton Industries, Memory Products, Western Geophysical; *Canoga Park*, Guidance and Control; *Chatsworth*, Encoder; *City of Commerce*, Ritter-Western Check; *Culver City*, Litton Industries; *Encino*, Mellonics; *Fullerton*, Kester Solder; *Hayward*, Gear Products; *Hollywood*, Aero Service, Westrex; *Los Angeles*, Business Equipment Center, Chainveyor, Cole Steel, Kimball Systems, Profexray, Sweda, Western Geophysical; *Monterey*, Data Systems; *Palo Alto*, Automated Business Systems; *Pasadena*, M & M Manufacturing; *Pleasanton*, Educational Systems; *Redwood City*, Ritter-Western Check; *Salinas*, Streater; *San Carlos*, Electron Tube; *San Francisco*, Carlisle, Datalog, Hampton, Saphier, Lerner, Schindler; *Santa Fe Springs*, Robins Engineering; *Sunnyvale*, Mellonics; *Van Nuys*, Advanced Circuitry, Data Systems, Encoder, USECO; *Venice*, Triad; *Woodland Hills*, Guidance and Control ▪ COLORADO, *Colorado Springs*, Clifton ▪ CONNECTICUT, *Hamden*, Profexray; *Hartford*, Automated Business Systems, Business Equipment Center, Royal Typewriter, Whitney Chain; *New Britain*, Business Equipment Center; *New Milford*, Winchester Electronics; *Oakville*, Winchester Electronics; *Stamford*, Automated Business Systems, Hewitt-Robins, Royal Typewriter ▪ DELAWARE, *Smyrna*, Advanced Circuitry ▪ DISTRICT OF COLUMBIA, *Washington*, Litton Industries ▪ FLORIDA, *Orlando*, Automated Business Systems; *Pompano Beach*, Sturgis-Newport ▪ ILLINOIS, *Bellwood*, Jefferson Electric; *Chicago*, Gear Products, Kester Solder, Kimball Systems, Litton Industries; *Danville*, Eureka; *Des Plaines*, Monroe, Profexray, Sweda; *Downers Grove*, Gear Products; *Gurnee*, Louis Allis; *Melrose Park*, Rubber Operations; *Pontiac*, Louis Allis ▪ INDIANA, *Evansville*, Louis Allis; *Huntington*, Utrad; *Kendallville*, McCray; *Roanoke*, Utrad ▪ IOWA, *Burlington*, Leopold ▪ KANSAS, *Wichita*, American Book ▪ KENTUCKY, *Florence*, American Book, Alvey-Ferguson; *Louisville*, Profexray ▪ LOUISIANA, *New Orleans*, Western Geophysical; *Shreveport*, Western Geophysical ▪ MAINE, *Brewer*, Automated Business Systems ▪ MARYLAND, *Bethesda*, Applied Science; *College Park*, Amecom; *Rockville*, Amecom; *Silver Spring*, Amecom ▪ MASSACHUSETTS, *Boston*, Business Equipment Center; *Fall River*, Airtron, Clifton; *Fitchburg*, Fitchburg Specialty Paper; *Springfield*, Business Equipment Center; *Waltham*, Mellonics; *Westminster*, Fitchburg Specialty Paper ▪ MICHIGAN, *Saginaw*, Automated Business Systems; *Sturgis*, Sturgis-Newport ▪ MINNESOTA, *Albert Lee*, Streater; *Duluth*, Guidance and Control; *Minneapolis*, Applied Science, Atherton ▪ MISSISSIPPI, *Corinth*, Sturgis-Newport; *Jackson*, Automated Business Systems; *Pascagoula*, Ingalls Shipbuilding ▪ MISSOURI, *Grandview*, Profexray; *Springfield*, Advanced Circuitry, Automated Business Systems, Royal Typewriter; *St. Louis*, Kimball Systems ▪ NEW HAMPSHIRE, *Manchester*, Automated Business Systems ▪ NEW JERSEY, *Belleville*, Kimball Systems; *Bloomfield*, McKiernan-Terry; *Carlstadt*, Automated Business Systems; *Clifton*, Automated Business Systems; *Morris Plains*, Airtron, Monroe; *Newark*, Kester Solder; *Orange*, Monroe, Sweda; *Paramus*, Educational Systems, McKiernan-Terry, Royfax; *Passaic*, Robins Conveyor; *Trenton*, Automated Business Systems ▪ NEW YORK, *Albany*, Profexray; *Buffalo*, Hewitt-Robins, Rubber Operations; *East Farmingdale*, Kimball Systems; *Long Island City*, Profexray; *Melville*, Litcom Communications; *Mount Vernon*, Potentiometer; *New Rochelle*, Litcom Communications; *New York*, American Book, Business Equipment Center, Business Equipment Group, Cole Steel, Eureka, Fitchburg Specialty Paper, Litton Industries, Royal Typewriter, Saphier, Lerner, Schindler, Transportation, Westrex; *Pelham Manor*, Litcom Communications; *Pleasantville*, Litcom Communications; *Syracuse*, Automated Business Systems; *White Plains*, Educational Systems; *Yonkers*, Lehigh ▪ NORTH CAROLINA, *Murphy*, Clifton ▪ OHIO, *Athens*, Automated Business Systems; *Cincinnati*, Alvey-Ferguson, American Book; *Cleveland*, Marine Consultants and Designers, Wilson Marine; *Columbus*, Profexray; *Dayton*, Kimball Systems; *Sandusky*, Union Chain ▪ PENNSYLVANIA, *Clifton Heights*, Clifton; *Drexel Hill*, Clifton; *Erie*, Erie Marine; *King of Prussia*, Wire Products; *Kingston*, Automated Business Systems; *Moosic*, Fitchburg Specialty Paper; *Philadelphia*, Aero Service, Sturgis-Newport; *Pittsburgh*, Rust Engineering; *Scranton*, Eureka; *South Williamsport*, Aero Service; *Troy*, Eureka; *Williamsport*, Electron Tube; *York*, Cole Steel ▪ SOUTH CAROLINA, *Greenville*, Automated Business Systems, Louis Allis ▪ TENNESSEE, *Calhoun*, Rust Engineering; *Johnson City*, Automated Business Systems; *Memphis*, Profexray ▪ TEXAS, *Austin*, Business Equipment Center; *Brownsville*, Business Equipment Center; *Corpus Christi*, Business Equipment Center; *Fort Worth*, Automated Business Systems, Profexray; *Houston*, Western Geophysical; *Lubbock*, Guidance and Control; *Midland*, Western Geophysical; *San Antonio*, Business Equipment Center; *Victoria*, Business Equipment Center ▪ UTAH, *Ogden*, Automated Business Systems; *Salt Lake City*, Automated Business Systems, Data Systems, Guidance and Control ▪ VIRGINIA, *Ashland*, Hewitt-Robins; *Blacksburg*, Poly-Scientific; *Bristol*, Monroe; *Chesterfield City*, Business Equipment Center; *Hampton*, Business Equipment Center, Sturgis-Newport; *Lynchburg*, Business Equipment Center; *Norfolk*, Business Equipment Center, Rust Engineering; *Richmond*, Business Equipment Center, Everett Waddey, Rust Engineering ▪ WEST VIRGINIA, *Wheeling*, Automated Business Systems ▪ WISCONSIN, *Appleton*, Automated Business Systems; *Brookfield*, Louis Allis; *Greendale*, Louis Allis; *Milwaukee*, Lippman Products, Louis Allis; *Whitewater*, Sturgis-Newport.

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