

Noustrial
Noustrial
Noustrial

1965-1966 ANNUAL REPORT

# HIGHLIGHTS OF THE FISCAL YEAR

Stockholders' Equity per Share

Net Income to Total Revenues

Net Income to Stockholders' Equity

Current Ratio

Employees at Year End .....

	Year Ended April 30 1966 1965				Percent Increase
Total Revenues from Sales and Rentals	\$1	0,455,771	\$!	9,474,501	10%
Net Income	\$	754,218	\$	622,338	21%
Cash Flow	\$	1,525,857	\$1	1,241,371	23%
Net Working Capital	-	3,623,922	\$2	2,987,627	21%
Stockholders' Equity	\$	4,054,758	\$3	3,365,941	20%
Total Assets	\$1	1,612,085	\$9	9,028,557	29%
Net Income per Share		\$ 7.81		\$ 6.42	22%
-					
Cash Flow per Share		\$15.79		\$12.81	23%

\$41.97

7.2%

20.3%

2.7:1

604

\$34.74

6.6%

20.2%

2.9:1

526

21%

15%



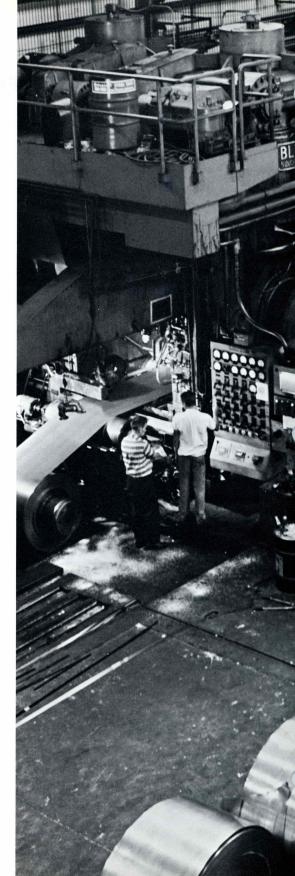
#### 1966 MARKED 16 YEARS OF SUSTAINED GROWTH

achieved by our entire AccuRay Team. By two very important measures of profitability we again showed improved performance. Net income, up 21 percent over 1964-65, was \$754,218, or \$7.81 for each share of outstanding common stock. Cash flow, up 23 percent over 1964-65, was \$1,525,857, or \$15.79 for each share of outstanding common stock.

Sales and rentals were \$10,455,771. In addition our marketing activities provided a 38 percent increase in our beginning backlog over 1964-65. Overall results, as reflected in financial and operating ratios, increased favorably in every major area. These factors when combined with the high morale and competence of our personnel provide an environment for continued success in the coming fiscal year.

# RAW MATERIALS AND THROUGHPUT CONTROL . . . OUR MAJOR OBJECTIVE

Raw materials and throughput control define the primary strategies by which we aid our customers in becoming "lower cost producers of higher quality products." Our systems and services for achieving these objectives represent a rapidly expanding potential market. The value of raw materials processed through American industry is estimated to be nearly 200 billion dollars, an amount equal to twice the total federal budget or approximately 30 percent of the Gross National Product. When related to the profitability of a manufacturing enterprise, materials are by far the largest single cost item, representing an average of 52 percent of the sales dollar. Industry has begun to realize that immense savings and incremental profitability can be obtained from better utilization of materials and machines through improved process control.



#### **OUR CONTRIBUTION**

AccuRay systems in the paper, rubber, plastic, and metals industries are now increasing the quality of our customers' products while providing 2 to 4 percent savings in raw material costs. Moreover, in this period of high market demand, our customers are obtaining 2 to 20 percent throughput increases without adding additional processing lines and facilities.

#### **OUR POSITION**

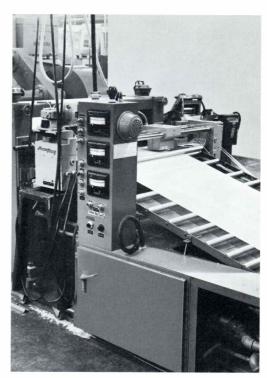
Current estimates from the Stanford Research Institute place the annual sales of process control instrumentation at 550 million dollars. Industrial Nucleonics is also named in this report as one of the twenty largest manufacturers of process control systems.

#### **OUR FUTURE**

Our goal is to maintain our leadership in this exciting and challenging field in which we provide industry with the tools and techniques to take full advantage of this profit opportunity. Our ability to meet this challenge is assured by continuing to acquire dedicated personnel with the capabilities and enthusiasm of our present employees.

W. E. Chope

President



Typical AccuRay measurement and control systems installed on a plastic sheet extruder (above), a cold rolled steel reversing mill (left), and an off machine paper coater (below), are reducing manufacturing cost through increased throughput and material savings.

The annual material throughput on processes similar to these is approximately 2 million dollars for the plastic extruder, 5 million dollars for the paper coater, and 25 million dollars for the reversing mill.



## FINANCIAL REVIEW

#### SALES

Total revenues from all profit centers — system sales, service and parts, and rentals—increased to \$10,455,771. Order levels improved in all major areas, and we entered fiscal 1966-67 with a backlog 38 percent higher than the previous year.

#### **EARNINGS**

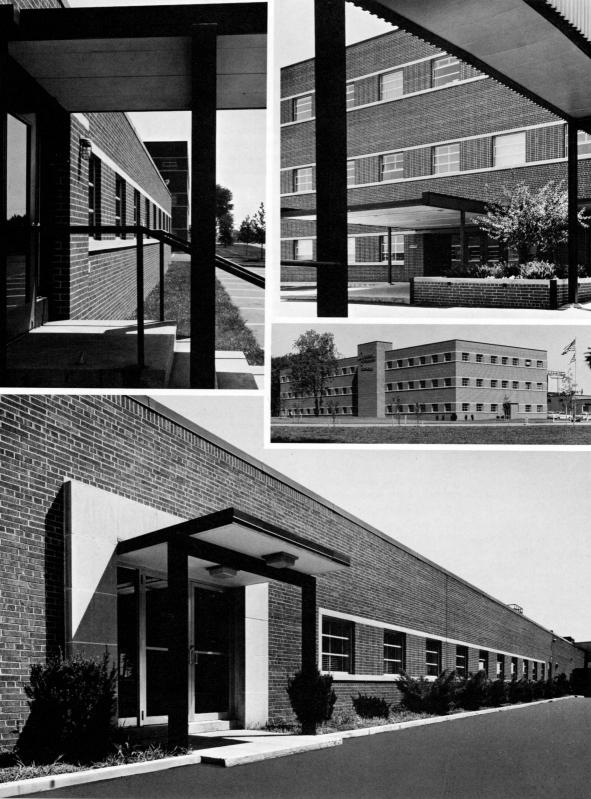
As a result of additional operating efficiencies, higher system sales, and increased rental, service, and parts business, net income increased 21 percent to \$754,218, or \$7.81 per share, as compared to \$622,338 in 1964-65. Cash flow (profits after taxes plus depreciation) continues to be approximately twice net income, and increased 23 percent to a level of \$1,525,857, or \$15.79 per share. It should be emphasized that our rental program produces many long term advantages both to our customers and to ourselves. However, since we account for rental income at the time of receipt, the rental program does have the effect of deferring income from the current year.

#### FINANCIAL POSITION

Net working capital increased from \$2,987,627 to \$3,623,922, an improvement of 21 percent. The ratio of current assets to current liabilities was 2.7 to 1. Stockholders' equity rose from \$3,365,941, or \$34.74 per share, to \$4,054,758, or \$41.97 per share.

Total assets increased 29 percent to \$11,612,085. Our additional investment in accounts receivables, inventories, and fixed assets increased as a function of our growth in shipments. The major factor in our requirement for more assets was the additional investment in leased equipment, which reflected greater customer awareness of the advantages of our Results/Rental Program. Our growth in rental shipments was financed by retained earnings and an increase in our revolving term credit with the First National Bank of Chicago from \$3,200,000 to \$4,300,000.

The percentage of our break-even income provided by recurring rental payments continued to improve. The economic and quality benefits received by satisfied customers resulted in numerous repeat rental orders.



# **MARKETING**



Marketing continued the planned expansion of its organization and personnel in all areas during 1965-66. New orders increased in all profit centers.

#### MARK VI SYSTEMS

Significant advancements in the dependability and performance of thickness and basis weight measurement and control systems were realized by the release of our Mark VI systems in December 1965.

#### INTERNATIONAL

International orders increased 50 percent over 1964-65 as our development of the world-wide market for AccuRay systems took a major step forward. Experienced field sales personnel were appointed to the positions of International Division Manager and Manager of Customer Engineering. These personnel are now located at our European Headquarters in Brussels.

#### SYSTEMS ENGINEERING

Our emphasis on complete customer economic and quality benefits from our systems and services led this year to the creation of a separate Systems Engineering Organization reporting to the Field Sales Manager. The group was staffed with experienced personnel from our Customer Engineering Department and further growth is planned for 1966-67.

#### INDUSTRY ORGANIZATION

Industrial Nucleonics has always recognized the importance of custom design of our systems for specific applications in each industry. This year we further concentrated our marketing resources for individual industry requirements by the selection of industry managers and staffs for the rubber, plastic, paper, metal and process industries. We also created national account specialists within each industry in recognition of the large corporation customer. The national account specialists are responsible for developing and coordinating marketing programs for individual accounts.

Mark VI was exhibited in February 1966 at the 5th Annual Pulp and Paper Exhibit in New York City, where it met with enthusiastic acceptance.



### NEW PRODUCT DEVELOPMENT

Industrial Nucleonics continued to invest in research and development leading to new and improved process control systems. Total research and development expenditures as a percent of sales continued to exceed the instrument industry average with the actual level of effort increasing by 43 percent over the prior year.

#### PRODUCT DEVELOPMENT

Our marketing position in all industries was aided during the year by the completion of our Mark VI systems line. In addition our capabilities in the steel and nonferrous industries were expanded by the introduction of a direct digital setup and readout display for computer controlled rolling mills. The introduction of a new back-scatter measuring system will add considerably to our position as well as to our potential in the rubber and plastics industries.

#### **FEDERAL SYSTEMS**

Advanced research effort with long range potential for commercial product development was accomplished





through government-funded contracts in our Federal Systems Department. A major contract performed during the year involved the development and production of a Cryogenic Quality Meter to measure the vapor/liquid quality of liquid hydrogen in a zero gravity condition. The system was one of two primary instruments involved in the recent AS203 mission of the Apollo-Saturn program. Another contract applicable to the process industries was a fundamental research program in mass flow measurements. Several potentially useful techniques were discovered and the research effort is being continued into the experimental stage.

In the avionics field we performed research on a helicopter formation keeping system. The new technologies involved have numerous aircraft applications including zero visibility landing aids. The effort is being continued, and airborne tests will be held at the Naval Air Development Center in early 1967. The Atomic Energy Commission featured this program in their Major Activities Report for the calendar year 1965.

# **PERSONNEL**

Our accomplishments over the past 16 years have been made possible because of the dedication and commitment of our 604 employees — our most valuable asset.

One out of six employees has been with Industrial Nucleonics for ten or more years and approximately 40 percent have been with the company at least five years. Almost half of all personnel employed ten years ago are still with Industrial Nucleonics providing invaluable experience and knowledge.

More than half of our present employees are salaried, professional personnel. In addition our requirements for new personnel continue to become more demanding because of the complexities of developing, marketing, and servicing custom systems for raw materials and throughput control.

In order to maintain the technical proficiency of our engineers and scientists, we conducted 13-week training courses taught by Ohio State University instructors in our communications center. In addition many of our employees took advantage of our tuition refund program and completed advanced courses at leading universities.



1300 employees and members of their family made this year's annual picnic the largest and most successful in the company's 16 year history.



The critical shortage of engineers and scientists required an expansion in our recruiting effort. We added professional recruiting personnel and organized programs to secure increased effort from all departments. Our results have been excellent as indicated by the accompanying photograph of our current training program for the 1966 graduating class.

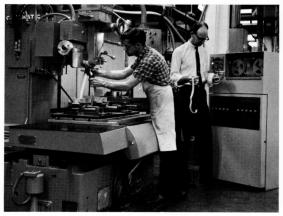
The next two pages illustrate the many applications for Accu-Ray measurement and control systems in the paper manufacturing process. Increased machine speeds, substantial raw material savings and higher quality product result at all phases of the process, from the pulping operation through the paper machine to the off-machine coater.

## MANUFACTURING

During the year our manufacturing personnel completed a number of special programs initiated to improve the quality of our products and lower costs. We installed an IBM computer facility and began the transfer of programs previously carried on by outside service centers. Computer inventory control and production scheduling programs were developed, and our installation drawing system was programmed for computer print out of all terminal drawings.

Our Purchasing Department maintained lines of supply despite the challenge imposed by the Viet Nam conflict, the copper shortage, and the high level of the economy.

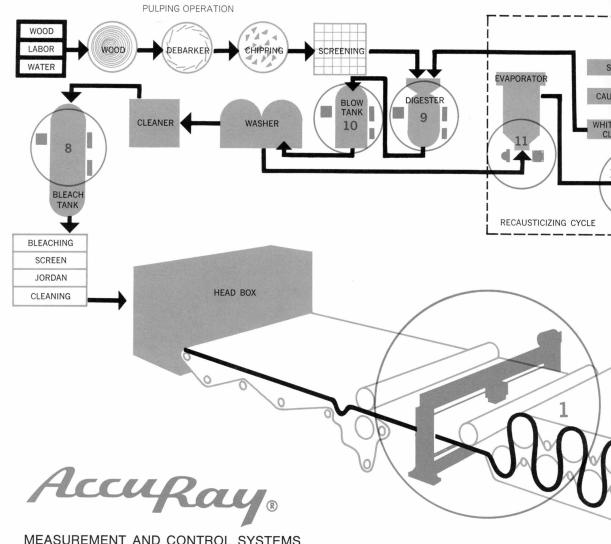
An expanded Industrial Engineering Department worked closely with our New Product Development personnel to insure the smooth introduction of the Mark VI systems into manufacturing for routine shipments.



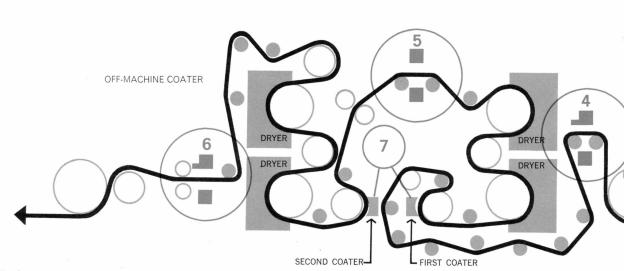
Quality production at lower cost is assured with our new tape controlled milling machine.

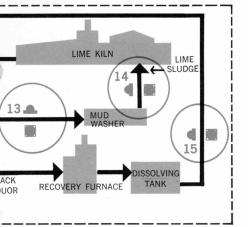
Quality standards for both industrial and military systems are met in the controlled environment of this electronic assembly area.





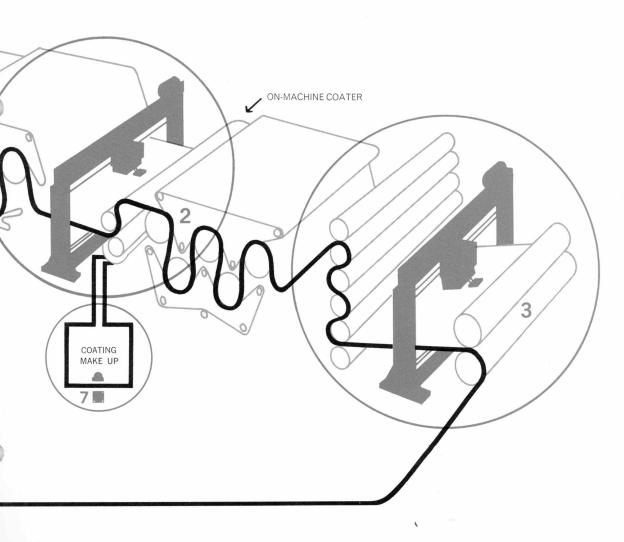
MEASUREMENT AND CONTROL SYSTEMS AND THE PULP AND PAPERMAKING PROCESS

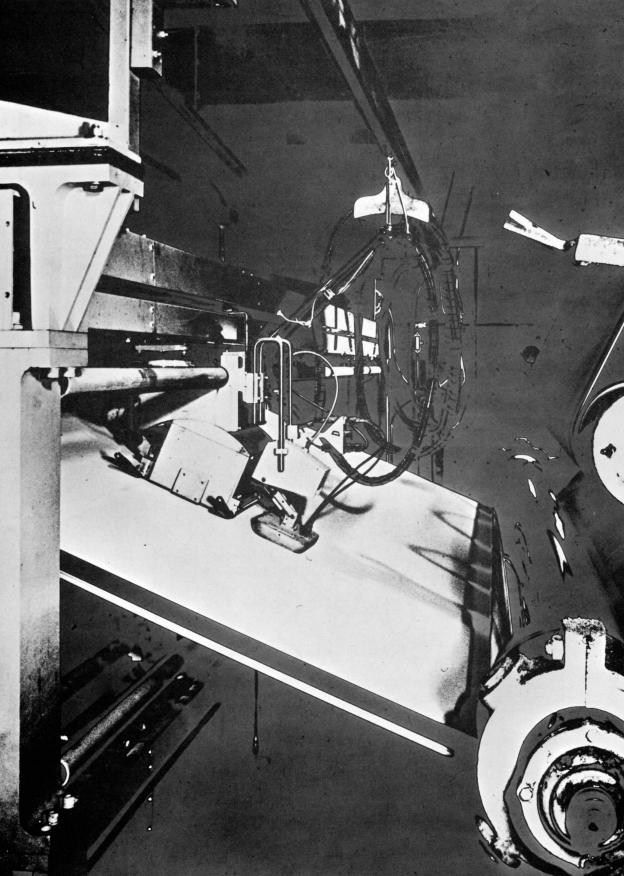




#### **LEGEND**

- 1. Wet end basis weight and moisture measurement.
- 2. Raw stock basis weight/moisture measurement and control.
- 3. Coated stock basis weight/moisture measurement and control.
- 4. Raw stock basis weight measurement plus moisture.
- 5. First coat weight measurement.
- 6. Finished coated stock measurement of total weight/moisture.
- 7. Percent solids content in coating make-up line.
- 8. Bleach tower level detecting system.
- 9. Digester level detecting system.
- 10. Blow tank level detector system.
- 11. Weak black liquor solids content measurement.
- 12. Strong black liquor solids content measurement.
- 13. Lime mud underflow solids content measurement.
- 14. Mud washer underflow solids content measurement.
- 15. Green liquor solids content measurement.





Directors broaden background, provide guidance and strengthen the dedication of the company.

With a broad background in science and business, the Board of Directors of Industrial Nucleonics contributes a wealth of experience to the long-range planning and guidance of company affairs.

We are saddened to report the untimely death of Marshall Field, prominent businessman, publisher, editor and philanthropist. Mr. Field's fifteen years of service on the Board materially assisted the company in obtaining its present position.

During the year, David A. Bossen was elected a director of Industrial Nucleonics and David L. Nelson was elected vice-president, operations. Mr. Bossen has fifteen years of experience with Industrial Nucleonics with previous positions as manager of market research, sales engineer, area sales manager, manager of process industries, and vice-president of marketing. Mr. Nelson also brings considerable experience to the position. Beginning as a systems engineer in 1956, he advanced through the positions of sales engineer, area sales manager, manager of marketing administration, manager of corporate planning and development, and manager of new product development.

Officers of the company who are not directors are: D. L. Nelson, vice-president, operations; W. C. Hays, vice-president, marketing; W. H. Canter, vice-president, manufacturing; K. E. Cameron, secretary; and C. J. Campbell, assistant treasurer.



HOWARD B. BEGG
management consultant and
director of other companies; retired president of
Squier, Schilling & Skiff;
guest lecturer and conference leader at Newark
College of Engineering's
Executive Development Conference Series



EDWARD
McCORMICK BLAIR
managing partner of William
Blair & Company; director
of Lake Central Airlines,
World Book Encyclopedia,
Field Enterprises, Inc.,
Marshall Field and Company; trustee of the
University of Chicago and
the Illinois Institute of
Technology.



DAVID A. BOSSEN vice president, general manager of Industrial Nucleonics Corporation; affiliated with the company since 1951; graduate of Massachusetts Institute of Technology.



GORDON B. CARSON educator and engineer; vice-president of business and finance of Ohio State University; former dean of the college of engineering; vice-president of Ohio State Research Foundation.



HENRY R. CHOPE
executive vice-president of
Industrial Nucleonics Corporation; electronic and
nuclear scientist holding
Masters Degrees from California Institute of Technology and Harvard
Graduate School; national
president-elect of Tau Beta
Pi, engineering honorary
society.



WILBERT E. CHOPE president of Industrial Nucleonies Corporation director of Lake Central Airlines; recipient of Distinguished Engineering Alumnus Award, Ohio State University; holder of Masters Degree from M.I.T. and honorary Doctor of Science Degree from Muskingum College.



JOHN ECKLER
partner in the law firm of
Bricker, Evatt, Barton and
Eckler; Chairman of the
board of trustees of Ohio
Wesleyan University; mem
ber of House of Delegates,
American Bar Association;
member of National Conference of Bar Examiners.



ROBERT E. SWENSON vice-president of finance and treasurer of Industrial Nucleonics Corporation; certified public accountant; graduate of Northwestern University.



GEORGE B. YOUNG noted Chicago businessman and civic leader; chairman of the board of Field Enterprises, Inc.; director of Chrysler Corporation, Field Enterprises Educational Corporation, Manistique Pulp and Paper Company; Vice President of the Art Institute of Chicago.

# LOCATIONS OF INDUSTRIAL NUCLEONICS SALES, SERVICE, AND SYSTEMS ENGINEERING PERSONNEL

The leadership established through volume production of continuous non-contacting measurement and control systems is supported by an outstanding team of over 160 experienced and capable AccuRay Sales, Systems and Service Engineers located in every major city.

With over 98% of all systems ever built still in daily service, AccuRay Systems have become a standard of reliability.



#### U.S.A. & CANADA

Albany, New York Appleton, Wisconsin Asheville, North Carolina Augusta, Maine Baton Rouge, Louisiana Berlin, New Hampshire Birmingham, Alabama Boston, Massachusetts Bucksport, Maine Canton, Ohio Charleston, South Carolina Chicago, Illinois Chillicothe, Ohio Cincinnati, Ohio Cloquet, Minnesota Columbus, Ohio Crossett, Arkansas Dallas, Texas Denver, Colorado Detroit, Michigan Duncan, North Carolina Grand Rapids, Minnesota Greensboro, North Carolina

Hamilton, Ohio Hartford, Connecticut Hendersonville, North Carolina Houston, Texas International Falls, Minnesota Jacksonville, Florida Kalamazoo, Michigan Kingsport, Tennessee La Grange, Georgia Louisville, Kentucky Madawaska, Maine Michigan City, Indiana Minneapolis, Minnesota Monroe, Louisiana Montreal, Ontario, Canada Moss Point, Mississippi New Orleans, Louisiana Newton Falls, New York New York, New York Palatka, Florida Panama City, Florida Pasadena, Texas

Pensacola, Florida Petersburg, Virginia Philadelphia, Pennsylvania Pine Bluff, Arkansas Pittsburgh, Pennsylvania Port Arthur, Ontario, Canada Portland, Oregon Richmond, Virginia Rochester, New York Rumford, Maine Salt Lake City, Utah San Francisco, California Savannah, Georgia Shreveport, Louisiana Simpsonville, South Carolina Tacoma, Washington Terre Haute, Indiana Toronto, Ontario, Canada Tuscaloosa, Alabama Tucson, Arizona Vancouver, Washington York, Pennsylvania

#### **OVERSEAS**

Brussels, Belgium

