

INDUSTRIAL NUCLEONICS CORPORATION

NINTH ANNUAL REPORT

FOR THE YEAR ENDED APRIL 30, 1959

INDUSTRIAL NUCLEONICS CORPORATION

COLUMBUS, OHIO

DIRECTORS:

<u>NAME</u>	<u>POSITION</u>
* Howard B. Begg	President Squire, Schilling & Skiff
Edward McC. Blair	Partner William Blair & Company
* Gordon B. Carson	Vice President Ohio State University
Henry R. Chope	Executive Vice President Industrial Nucleonics Corporation
Wilbert E. Chope	President Industrial Nucleonics Corporation
* John Eckler	Partner Bricker, Evatt, Barton, Eckler & Niehoff
Marshall Field	President Field Enterprises
George B. Foster	Vice President & Technical Director Industrial Nucleonics Corporation
* Robert E. Swenson	Treasurer & General Manager Industrial Nucleonics Corporation
George B. Young	Vice President Field Enterprises

* Elected at June 15, 1959 Annual Stockholders Meeting.

INDUSTRIAL NUCLEONICS CORPORATION

COLUMBUS, OHIO

OFFICERS:

Wilbert E. Chope President

Henry R. Chope Executive Vice-President

George B. Foster Vice-President and Technical
Director and Secretary

Robert E. Swenson General Manager and Treasurer

Francis E. O'Riordan Assistant Treasurer

To Our Shareholders:

HIGHLIGHTS OF 1958-59

The fiscal year ending April 30, 1959, was the most significant year in the Company's nine-year history. During this year the Company introduced more products and entered more markets than in any previous year. Data processing equipment and a complete line of products for the process industries came into their own this year and greatly expanded the Company's potential. The Company's base line of products for the sheet materials industries was completely redesigned in the past eighteen months. In addition, the Company entered an entirely new field of endeavor; conveyor controls. Substantial shipments were made to the United States Post Offices in Washington, D. C., and Chicago, Illinois.

In the sales field, the Company's purchase orders were the highest in its history. Our field sales force was expanded approximately three times, and a rental program was established to make it easier for companies to procure AccuRay equipment.

Industrial Nucleonics' new building was built during the year and has been occupied.

Sales and profits for the year were lower than in the previous years.

With the current backlog and order rate, the Company is anticipating its largest sales year and profitable operations.

PRODUCTS & POTENTIAL DEVELOPMENT

The Company's growth in the first seven years of its operation was accomplished entirely by the sale of equipment to five major American industries. These were rubber, plastics, paper, metals, and tobacco. In these industries the Company was selling a substantial percentage of all the instruments sold. In early 1957 a program was initiated to expand the Company's potential market on a broad

horizontal basis. Considerable money was spent developing products and markets in the following categories:

1. A line of products for the Process Industries to measure liquids and gases
2. Controls for Conveyor Systems
3. Data Processing Equipment
4. Complete Automatic Process Control Systems

Process Industry Products

While progress has been made in expanding the Company's potential in all these areas, the most significant progress has been the development of products for the process industries. Two-thirds of all measuring instruments sold in the United States are sold to the Chemical and Petroleum Industries. Much of our product development has been directed towards this market, as well as the Food, Mining and Sewage Industries. The products which have been introduced to the market for these industries include the following:

Density Analyzer - The Density Analyzer is a product designed to measure the composition of materials flowing in pipes without contacting the measured material. The materials may be in liquid, slurry, or gaseous form. The applications are extremely diverse including such processes as Portland Cement manufacture; ore beneficiation (coal, iron, copper, etc.); sewage treatment; rocket fuels; food products such as grape juice, instant coffee, and cereal products; chemical and petroleum refining operations such as distillation columns, alkalization units, evaporators, polymerization processes, extraction processes, and many others.

Level Measurement Systems for Tanks and Vessels - One of the largest applications of instrumentation is the measurement of level of material inside closed vessels. Two different AccuRay systems were introduced to the market for this purpose: a simple "above or below" measurement unit and a continuous level measuring system. The primary advantage of both of these systems is that they require no contact with the material and may be mounted completely external to the tank or the vessel.

Practically every manufacturing operation requires the use of level measuring equipment. Several large markets among original equipment manufacturers are being explored. The measurement of level offers the broadest possible potential base for the Company's products.

Container Fill Control System - One of the major problems facing the canning industry is the measurement and control of the level of fill inside containers. The accuracy of level control determines how much material is "given away". The Container Fill Control System is designed to both measure the level of fill inside the cans and automatically control the filler machine, in order to maintain close tolerance on average fill. Applications include frozen orange juice, lubricating oil, or any product filled from a rotary piston type filling machine.

Can Fill Inspection-Rejection System - This system is designed as a companion to the Container Fill Control System. Cans moving along a conveyor line at rates up to 1,000 per minute are automatically inspected for proper fill. Under-filled cans are rejected from the line automatically.

Portable Pipewall Thickness Gauge - This portable gauge can be used for the detection of thin spots in pipes caused by corrosion, erosion, or faulty manufacture. Inspection is readily performed while the pipes are in place with no preparation of the pipe required. Primary markets for this equipment exist in the petroleum and chemical industries, and in marine usage.

The introduction of these Process Industry products has expanded the Company's potential market five times. Sales are expected to increase by this ratio in the coming years. These products were designed to be standard, mass-produced, and sell for \$500 to \$4,000. This price is in contrast to the Company's custom built systems which sell for \$15,000 to \$30,000. These products will enable the Company to have mass-produced, off-the-shelf products for the first time in its history.

Conveyor Control Systems

The second major product development was conveyor control systems for materials handling installations. The Company bid on a number of contracts with the United States Post Office Department. This has resulted in contracts for AccuRay installations in the Washington, D. C., and Chicago, Illinois post offices. These installations consist of miles of conveyors to automatically move letters among

the many sorting points in the post office. Electronic controls identify the destination of the letters in each tray and automatically speed them to their proper sorting point. The installation in the Washington, D. C. Post Office has been completed and is open to visitors. Additional prime contracts for the Pittsburgh Post Office and the second half of the Chicago Post Office have just been awarded.

The Company has developed a standard line of modular "hardware" which offers great promise for sales in the whole field of automated materials handling. The potential market for automatic warehouses is considerable. The conveyor systems will be integrated with data processing equipment for billing the customers and automatically keeping inventory.

Data Processing Equipment

The first shipments of the AccuRay Process Control Centers were made in early 1958. These data processing centers consist of a logging scanner, an analog computer for computing the standard deviation of a process, a transistorized analog-to-digital converter, and a typewriter readout. In addition, electronic counters for recording and comparing actual production against standard rates were designed and installed during the past year. To date the shipments of this equipment have been limited to the tobacco and plastics industries, but sales are expected in other industries.

Heavy Industries Control Systems

The Company's line of equipment for the metals, paper, plastics, and rubber industries has been redesigned and standardized during the past eighteen months. This redesign was undertaken to make the equipment more reliable, flexible, and easily produced. Many customers are trading earlier models of AccuRay equipment for these new models. This replacement market will expand the potential market considerably.

Over-all Control Systems

Additional progress was made in the design of complete control systems. In the paper industry basis-weight measurement was combined with moisture measurement to give a more complete control of the process.

Other Products

Other products developed during the year include a width gauge for sheet materials, a gauge for detecting missing filter tips from cigarettes, and a gauge for counting objects inside a sealed carton.

The Company also has in research and development many other products to measure the physical and chemical properties of materials, to automatically control processes, to control the transportation of materials from point to point, and to process the data necessary for effective process and management control.

These substantial development programs were undertaken to assure the Company's position in the industrial controls field and greatly expand its potential market. The development costs and the manufacturing start-up costs for these products have been considerable. Many of these programs could have been drastically curtailed because of the drop in business. However, the current order rate and the Company's backlog for these products justifies the previous decision to complete these developments.

MARKETING

The purchase orders during the past fiscal year were the highest in the Company's history, \$6,576,000. The Company's backlog as of April 30, 1959 was \$3,190,000. As of June 30, 1959, the backlog was \$6,725,682 and the incoming order rate is continuing to expand. It is expected that the Company's sales for this fiscal year will exceed \$8,000,000.

To take advantage of the increased potential the Company expanded its sales force to three times its 1957 size. (See attached.) These additional sales engineers increased the Company's overhead, but it has given the Company one of the finest industrial electronics sales forces in the United States. This sales force and the greatly expanded potential are expected to considerably increase the Company's sales in the next few years.

The service organization has been expanded so that local service coverage is available for most customers. Service contracts are being obtained to finance this expansion and to make this an important "money making" segment of the business. This service organization is a very valuable asset in the sale of industrial electronic control equipment.

Four years ago the Company introduced a lease program for its equipment and the ratio of leases to sales has been increasing every year. Last year a rental program which includes service was introduced. These programs have made it easier for customers to obtain Industrial Nucleonics Corporation's capital equipment. It was patterned after IBM's rental program and is expected to produce a similar favorable result with continuing and steady profits over the years.

Sales and profits have been lower during the past few years because an increasing percentage of our total shipments has been for leased or rented equipment.

The Company has acquired and equipped with Industrial Nucleonics Corporation products three mobile display busses. These units were originally used by the General Motors Corporation in their Parade of Progress caravan. The displays have been effective in illustrating the features and suggesting possible applications of the equipment to potential customers.

The Company's sales efforts were increased in the overseas market and in government business. Both of these offer unlimited possibilities and can be expanded considerably as more funds become available.

PATENTS

Additional U. S. patents and foreign patents were issued on Industrial Nucleonics Corporation's products during the past year. The filing rate of patent applications has also been increased. The Company's competitive position will be strengthened as more patents are issued.

A lawsuit between Tracerlab and Industrial Nucleonics Corporation regarding a patent is still pending. It is the opinion of our counsel that the outcome of this will be favorable to Industrial Nucleonics Corporation.

FINANCE

The company's financial results were not as good as previous years for the following reasons:

1. Decrease in sales
2. Higher development costs
3. High production start-up costs on new products
4. Expanded sales force
5. Lease and Rental program

The Company's sales for the current fiscal year 1959-60 are expected to exceed \$8,000,000. Operations will be on a profitable basis.

A program for financing the Company's leases has been arranged with the Continental Assurance Company by William Blair & Company. During the past year the First National Bank of Chicago provided a construction loan for our new building and a working capital loan for some of our large orders. The Company's working capital position is expected to improve considerably in the next twelve months.

PERSONNEL

The Company employs approximately 415 people. Of these, 100 are in the field sales organization in 37 territories covering the United States and Canada. The Company continues emphasis on its strong sales, applications engineering, and service organizations. This field sales organization is an increasingly important factor in competition and is unmatched by anyone in our industry.

The acquisition and development of outstanding technical personnel continues to be a major goal of the Company. A company in our field must rely heavily upon its technical operations to design and develop reliable products which can be produced economically and sold at a profit.

Continued emphasis is placed on the development of key management personnel, both for today's operation and for our future growth. Most of our top managers have been with the Company from seven to nine years. This "experience" factor which would be considered insignificant in older companies is nevertheless outstanding in our industry. Our future becomes brighter every year that we gain experience as an operating team.

The loyalty and support of the people in the Company contributed significantly to the progress made last year. Company personnel worked long and hard to meet completion dates in the various operations. With this enthusiastic support, the rough spots of last year were met and overcome, paving the way for a profitable fiscal 1959-60.

FACILITIES

The Company is moving into its new air-conditioned plant, which will be leased from the Continental Assurance Company. This arrangement was negotiated by William Blair & Company. Operations have previously been scattered in eleven different buildings throughout Columbus. It is believed that the additional rental costs of the building can be saved through greater efficiencies. The 26-acre site offers room for expansion and is located in a most desirable section of Greater Columbus.

FUTURE

During the past two years Industrial Nucleonics Corporation has been making the difficult transition from a small "high spotting" operation to a medium sized national company covering a greater segment of American industry. For the first time, we have a broader product line, a truly national sales organization, adequate facilities, and a more experienced management team. This combination should enable us to be a profitable growth company as well as a leader in the industrial electronics field.

A handwritten signature in cursive script that reads "Bert".

President

Columbus, Ohio

July 31, 1959

SALES AREA & TERRITORY ORGANIZATION

NORTHEASTERN AREA		Manager - New York City
Territory	2	New York City - H.I.
	28	New York City - Process
	1	Hartford
	22	Newark - H.I.
	10	Nashua
EASTERN AREA		Manager - Philadelphia
Territory	3	Rochester
	4	Philadelphia - H.I.
	30	Wilmington
	31	Philadelphia - Process
	24	Baltimore
	33	Schenectady
SOUTHEASTERN AREA		Manager - Birmingham
Territory	12	Atlanta
	15	Charleston
	23	Birmingham
	32	Charlotte
	7	Cincinnati
	37	Indianapolis
	43	Jackson
CENTRAL AREA		Manager - Columbus
Territory	5	Pittsburgh N.
	6	Cleveland E.
	36	Cleveland W.
	34	Detroit
	151	Montreal
	152	Toronto
	35	Pittsburgh S.
MIDWESTERN AREA		Manager - Chicago
Territory	8	Chicago E.
	18	Chicago C.
	38	Kalamazoo
	11	Minneapolis
	41	Neenah, Wisc.
	16	St. Louis
	48	Chicago N.
SOUTHWESTERN AREA		Manager - Houston
Territory	17	Houston E.
	20	Dallas
	25	Baton Rouge
	26	Tulsa
	27	Kansas City
	47	Houston W.
WESTERN AREA		Manager - San Francisco
Territory	9	San Francisco
	19	Los Angeles
	14	Portland
	21	Denver