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# M. STANLEY LIVINGSTON ELECTED TO ACADEMY

The election of M. Stanley Livingston, associate director of NAL, to the National Academy of Sciences was announced in Washington, D.C., April 28.

He was one of 50 new members elected in recognition of their distinguished and continuing achievements in original research.

Livingston's election took place during the business session of the 107th annual meeting of the Academy at its headquarters in the capital city.

Election to membership in the Academy is considered to be one of the highest honors that can be accorded to an American scientist or engineer. Up to 50 members may be elected each year. Those elected this year bring the total to 870.

The National Academy of Sciences is a private organization of scientists and engineers dedicated to the furtherance of science and its use for the general welfare. The Academy was established in 1863 by a Congressional Act of Incorporation signed by Abraham Lincoln which calls upon the Academy to act as an official adviser to the Federal government, upon request, in any matter of science or technology. This provision accounts for the close ties that have always existed between the Academy and the Government, although the Academy is not a governmental agency.



M. S. LIVINGSTON

Livingston, who was associated with the late Ernest O. Lawrence in the original development of the cyclotron, joined the NAL staff in the Spring of 1968. He came to NAL from the Massachusetts Institute of Technology (MIT) in Cambridge, Mass., and was director of the Cambridge Electron Accelerator from 1965 to 1967. In this position, he was concerned with the design and administration of the 6 BeV accelerator jointly operated by Harvard University and MIT for the U.S. Atomic Energy Commission.

Among other members of the National Academy of Sciences closely affiliated with NAL are its director, <u>Robert Rathbun Wilson</u>, and <u>Norman Ramsey</u>, professor of physics at Harvard University and president of Universities Research Association, Inc., which operates NAL for the U.S. Atomic Energy Commission.

Members of the Board of Trustees of the Universities Research Association, Inc., who are also members of the National Academy of Sciences include <u>Robert Bacher</u>, California Institute of Technology; <u>Edwin McMillan</u>, University of California, Berkeley; Leon M. Lederman, Columbia University; <u>Robert E. Marshak</u>, University of Rochester.

## AWARD MAJOR CONTRACTS TO BLACK-OWNED FIRM

NAL has taken another major step in its continuing "affirmative action" program to provide opportunities to minority group members. It has awarded two contracts with a total potential value of nearly \$600,000 to a black-owned manufacturing company on Chicago's South Side.

The contractor is the Walter H. Sanderson Manufacturing Company of 7701 South Avalon Avenue, Chicago.

Paul J. Reardon, director of business administration, National Accelerator Laboratory, said that the contracts were significant for two reasons:

- 1. They represent the largest contracts awarded by the Laboratory to date to any single minority entrepreneur anywhere in the United States.
- 2. They are equivalent to the largest contract value awarded by the Laboratory to any single supplier located in the Greater Chicago metropolitan area. Similar contracts have also been awarded to the Northern Metal Products Co., of Franklin Park.

The Sanderson Company will be engaged in the production of 2,000,000 laminations to be used in the development of magnets for the largest single component - the main accelerator - of the 200 Billion Electron Volt proton synchrotron being built by NAL.

In addition, the contracts provide for the Sanderson Company to build two large dies capable of producing the total required laminations.

There also is an option for an additional 1,200,000 laminations to be ordered by NAL if so desired. The laminations are to be delivered at the rate of at least 250,000 per month with delivery to commence after May 1, 1970.

In general terms, the contracts with Sanderson provide for approximate payments of about \$300,000 for the laminations and possibly another \$300,000 for stacking the laminations into finished cores. Initially, the Sanderson stacking contract calls for the stacking of about 10 per cent of the cores required during an experimental period when the company will develop techniques for the production stacking job. It is an unusual assignment requiring great precision and there are only a few other companies in the country with experience in this field.

On signing the contracts in Reardon's office, Sanderson said:

"This is an important day for me and my company. These contracts represent the largest total that I have received since I started business on Chicago's South Side about five years ago."

Sanderson said that he had employed <u>Richard Richardson</u>, of Boston, as plant manager to be responsible for the NAL contracts. Sanderson anticipated that he would employ 10 additional persons on each shift to work on the NAL assignment and that he would operate two shifts per day, although it might be necessary to go to three shifts.



K. C. BROOKS

Reardon expressed thanks to the U.S. Atomic Energy Commission's 200 BeV accelerator facility office, located in the NAL Village, for its cooperation in expediting award of the contracts. He noted that <u>Kennedy C. Brooks</u>, manager of the AEC office, and his staff had assisted in processing the contracts so that the Laboratory could continue to operate within the framework of its procurement schedule. Also, besides the 200 BeV accelerator facility office, the AEC's Chicago Operations Office and the AEC Washington Headquarters Office have joined the National Accelerator Laboratory in fostering a strong program of

Continued ...



-- Photo by Tony Frelo, NAL A belated but busy Arbor Day. Here (left to right) <u>Rene Tracy</u>, <u>Nancy Lupo</u>, Jacob Zouganelis, Quentin Kerns and Bob Hodge help to plant a tree in the Village.

## SECOND ARBOR DAY AT NAL

About 150 trees were planted in the area near the entrance to the NAL Village --Sauk Boulevard and Batavia Road -- in an Arbor Day festival belatedly held Wednesday, May 6, because of inclement weather both on April 24th and May 1st.

Some 100 NAL staff members took part in the planting party which met at the Curia and walked the six-block stretch to the site. Shovels and refreshments were provided for the participants, representing quite a variety of disciplines -- from theoretical physicists to secretaries.

Site Management helped to make the task of planting the trees a bit easier by machine-digging most of the holes required. The variety of trees planted included Norway Maple, Sugar Maple, Black Alder, Redbud, White Ash, Thornless Honey Locust, Black Walnut, Bird Cherry, Pin Cherry, Pin Oak and Weeping Willow. Maintenance has taken on the responsibility of periodically watering the new trees.

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## WORK BEGUN ON ROADS IN NAL AREA

Work has started on two segments of the proposed \$9,000,000 revamping of county roads around the National Accelerator Laboratory. The work is under the direction of William E. Carter, Kane county highway superintendent. It is being financed by the state of Illinois.

The Geneva Construction Company has begun the work on the \$1,300,000 widening of Kirk Road from the Ramada Inn near Aurora to Wilson Street east of Batavia and at the western edge of the NAL site. Crews have started on this effort at both ends -- near the Ramada and near Wilson Street.

In addition crews are widening Averill Road, east of Geneva, between Kirk Road and Route 25, which is near the northern boundary of the NAL site. This is an \$80,308 project.

## AWARD MAJOR CONTRACTS TO BLACK-OWNED FIRM (Cont'd, from Page 2)

support to minority manufacturers, whenever possible.

"These contracts offer dramatic evidence of NAL's commitment to offer minority suppliers and vendors an opportunity to take part in the construction of one of the most important scientific construction projects ever developed in the United States," said Richard J. Auskalnis, purchasing and contracts manager at NAL.



R. AUSKALNIS

Auskalnis noted that both <u>Dr. Robert R. Wilson</u>, NAL's director, and <u>Dr. Edwin L. Goldwasser</u>, deputy director, had emphasized a continuing commitment by the Laboratory to equal employment opportunities and to affirmative action on contracts.

Shortly after the Laboratory was established, Drs. Wilson and Goldwasser issued a policy statement which said, in part: "It will be the policy of the National Accelerator Laboratory to seek the achievement of its scientific goals within a framework of equal opportunity and of a deep dedication to the fundamental tenets of human rights and dignity."

Sanderson expressed an interest in serving the Laboratory some months ago to <u>Kennard Williams</u>, head of Equal Employment Opportunity activities at NAL. Williams brought his availability to the attention of the Laboratory purchasing and contracting sections.

Sanderson bought his first press about five years ago. He had it operating about six weeks and then put in an order for another one. His relatively small, but burgeoning company is one of the fastest-growing stamping shops in the metropolitan area. He has produced millions of stampings for many companies, including automotive parts such as headlamp and tail light housings, side-view mirror and radiator components, as well as such miscellaneous items as putty-knife blades.

Before starting his own business, Sanderson established a reputation as a hardworking leader as superintendent at another Chicago area stamping plant, where he spent 15 years helping it grow from five to 150 employees. His friends say he took such an interest in meeting customers' needs for well-made, competitively-priced, delivered-on-time stampings that his customers followed him when he started his own business.

Sanderson started in the metal-working business at the age of nine when he had a job sweeping out a machine shop in Fulton, Missouri. At 15, he was running a lathe. And, except for summers spent on a threshing crew (where he got the habit of working 14 hours a day), he has always been in metal-working. During his years at Lincoln University, Jefferson City, Missouri, he worked in the maintenance department and taught mechanical arts courses. He moved to Chicago in 1949 after serving in the Army Ordnance for two years. Sanderson gets to his plant at 7:30 every morning and has gone for years without a vacation. At present, he has 52 employees on his payroll.



(L to R) Kennard R. Williams, Paul J. Reardon, Walter H. Sanderson, Richard Richardson

## MAIN RING'S JOHNSON WINS CANOE RACE

For the last decade, one of the major events on the Fox River -- from South Elgin to Aurora -- has been the annual Mid-America Canoe Race. On Sunday, May 3, 480 two-man canoes competed in the 22-mile race while some 85,000 spectators flanked the banks of the river which flows near the western boundaries of the NAL site. It was a chilly, windy day with 15-mile-an-hour head winds.

The race began at 9:00 a.m. when the first ten canoes, comprising the first of some 48 scheduled heats, splashed away from the starting point in South Elgin and headed for the terminal point at Aurora's Illinois Avenue Park. The course is spiced by portages at St. Charles, Geneva, Batavia and North Aurora. It also is marked by high waters and strong currents.



DWAINE JOHNSON

Best time for the event this year was two hours, 43 minutes and 12 seconds. It was posted by William Schulte, of Kirkwood, Missouri, and Ted Holbrook, of Pine Ridge, Kentucky. That figure, however, was well off the record set in 1968 by Lynn Tuttle, of St. Charles, and Gus Carlson, of Tallmoon, Minnesota. They raced the distance then in 2:25:35.

What was news for sportsmen at NAL was the fact that a member of the Main Accelerator section and a daughter won first place in the Mixed Couple division of the race. Their time was 3:03:17.

The winners from the "NAL family" were <u>Dwaine Johnson</u>, a senior design draftsman in the Main Ring group, and his daughter, <u>Mrs. Martha Saunders</u>. Johnson is 49 years old; his daughter, 19.

Johnson and his daughter started from South Elgin at 9:25 a.m. in a light, "strip boat" -- a fiberglass cance he borrowed from a friend. Johnson, who lives in Batavia, has raced in the Mid-America classic since 1962, but missed in 1969. He previously had been entered in the Men's class and came in in sixth place in 1968.

"We were tied with the second place couple until the portage at St. Charles," Johnson recalled. "After that, we picked up speed, stayed ahead for the rest of the race and came in three minutes ahead of the second place couple."

"St. Charles is the most difficult of the five portages on the course," Johnson says. "But the portages provide you with time to jog and sprint and to revitalize your legs after they have been cramped in the canoe for quite a period."

For about four to five weeks before the competition, Johnson and his daughter practiced during the evening hours and on weekends to get in shape.

Johnson and his wife, Jane, have two other daughters, Karen, 22, and Julie, 17. In 1968, Karen and Julie won the 25-mile DesPlaines River Canoe Marathon, paddling from Libertyville to DesPlaines, and received a trophy for their triumph.

Johnson, an NAL employee since April, 1969, hopes to enter the race again next year. He may have some competition from other members of NAL's family -- for example, <u>John Barry</u>, Director's office, and <u>Rudy Dorner</u>, site manager, plan to enter, too. They had planned to compete this year, but Dorner was unable to because of illness.

### READING CLASS COMPLETED AT NAL

Top speed at the final session of the Speed Reading class conducted for NAL employees recently was reached by <u>Tony Frelo</u>, Photography, at 3,294 net words per minute. The rate is based on gross words read in a timed-session, adjusted to a net figure for comprehension.

At the same meeting classmates also voted <u>Dick Juergens</u>, Planning and Scheduling, as the best reporter-interpreter of material read during the class sessions.

Among those who received completion certificates from the 12-week course conducted by the Rapid Reading Foundation of Chicago at the NAL cafeteria were: <u>Ronald R. Currier</u>, Beam Transfer; <u>Charles Foulke</u>, Main Ring; <u>Tony Frelo</u>, Photography; John B. Heckman, Main Ring; <u>Ernest Ioratti</u>, Technical Services; <u>Richard Janes</u>, Booster; <u>Frank Jasek</u>, Technical Services; <u>Richard Juergens</u>, Planning & Scheduling; <u>Erich Laukant</u>, Main Ring; <u>Alice Lee</u> and <u>Kyu Lee</u>, Theory; John D. McCarthy, Beam Transfer; <u>Thomas Marshall</u>, <u>Ex-</u> perimental Facilities; <u>Michael May</u>, Radio Frequency; <u>Frank A. Nezrick</u>, <u>Experimental</u> Facilities; John E. O'Meara, Linac; <u>Margaret Pearson</u>, Public Information; <u>Janelle</u> <u>Quesenberry</u>, Radio Frequency; <u>Jan Ryk</u>, Booster; <u>Rajendra Sahai</u>, DUSAF; <u>Burton R. Sandberg</u>, Radio Frequency; <u>Fred Sarver</u>, Radio Frequency, <u>John A. Satti</u>, Main Ring; <u>Robert Scherrer</u>, Beam Transfer; <u>James Simanton</u>, Beam Transfer, <u>Stanley R. Tawzer</u>, Radio Frequency; <u>Ruyji</u> <u>Yamada</u>, Main Ring.

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## ARE YOU IN SHAPE?

The first NAL golf outing of the year will be held Friday, May 22, at 1:00 p.m. at the Arrowhead Country Club, Butterfield Road. The price of \$6.50 per person includes 18 holes of golf, a buffet dinner and prizes for all participants. Tickets may be purchased from Don Smith, co-chairman; Frank Walsh, co-chairman; Ralph Wagner, Ralph Stegman, Dave Sanders, Spike Severance, Gerry Boon, Ed West, Bob Kocanda, or John Burdette.

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# DON'T FORGET THE "SWING INTO SPRING" DANCE - Friday, May 15 - NAL Cafeteria - 9:00 p.m.

#### CLASSIFIED ADS

FOR SALE - 1965 Pontiac Grand Prix. Pwr s and b; aut. trans. Reasonable. Ron Currier, Ext. 541. Bata

FOR SALE - 2 kiddie car seats. \$7.50 ea. J. Jones, Ext. 275.

FOR SALE - Victorola Phono, Hand-cranked in orig. wood cab. w/voice box. Needs new gear to operate. Best offer - Call Mike Hall, Ext. 521.

APT. FOR RENT - 2 br, 5 rms; range, refrig, air con., wtr, heat furn. \$180 for 1 yr lease. Loc. Downers Grove. Call Ext. 261, Rich Mahler.

APT. FOR RENT - 1 br, carp, unfurn, garb disp; heat, wtr, gas furn; off-street pkg; pool, loc on E. side Aurora - \$153 rent. 3 mo. sublease. Dick Hauser, Ext. 394 or 896-1855. 
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