



BULLETIN

ISSUED IN THE INTERESTS OF THE PERSONNEL OF LMAL, NACA

Issue 6, Vol. 2

Langley Field, Virginia, April 5, 1943

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LMAL APPRENTICE CLASSES START ON MONDAY, TUESDAY

The spring term of apprentice related-study classes is scheduled to begin on the 5th and 6th of April. Although these classes are intended primarily for those formally indentured as apprentices, they are also available to prospective apprentices, women mechanical workers, and all others who may wish to attend them.

Under the NACA Apprenticeship Standards approved by the Federal Committee on Apprenticeship, apprentices are required to obtain 150 hours of related study each year. Inasmuch as many apprentices have already received some of the fundamental subjects necessary to their trade, they are allowed to take special exempting examinations which, if passed, will credit them with these classes and they will be

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HOUSING LEASES AVAILABLE NOW

Lease forms for rental of houses in Cavalier Court, the NACA housing project, are now available to the members of the staff. These forms may be obtained from William Thompson in the Personnel Office.

The first units will be

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BOND RECORD CITED

LMAL DISPLAYS MINUTE MAN FLAG IN RECOGNITION OF LEADERSHIP OVER OTHER LABORATORIES

The NACA has received from the Interdepartmental War Savings Bond Committee an Interdepartmental Committee Honor List Certificate and Minute Man Flag for attaining more than 90 per cent of participation and 10 per cent of gross pay roll invested in War Bonds. In a communication received here from John F. Victory, NACA Secretary, it was pointed out that the

LMAL's war bond record in January and February follows:

January—number of employees, 1,806; number participating, 1,758; percentage participating, 97.342; gross pay roll, \$290,735.87; amount allotted for bonds, \$37,677.88; percentage allotted, 12.960; average allotment, \$21.43.

February—number of employees, 1,821; number participating, 1,781; percentage participating, 97.804; gross pay roll, \$287,868.47; amount allotted for bonds, \$38,738.84; percentage allotted, 13.457; average allotment, \$21.75.

"NACA continues to lead all Governmental agencies with the highest percentage of pay roll subscriptions for organizations having over 90 per cent of employee participation."

'Well Earned Trophy'

Since LMAL "has made the best showing of the NACA laboratories," Mr. Victory wrote, "the Minute Man Flag is being forwarded to you for display as a well earned trophy." The banner was received here last week and is on display in the East Area Cafeteria.

NACA was the leader among

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LMAL IS SEEKING NEW EMPLOYEES

LMAL needs a number of new employees. If any members of the Laboratory Staff know of persons who might qualify for the various positions described below, please suggest that they communicate with the Personnel Office:

(1) Stenographers and typists; (2) toolmakers; (3) machinists; (4) computers; (5) patternmakers; (6) aircraft sheetmetal workers; (7) aircraft mechanics (applicants with automotive experience will be considered); (8) woodworkers; (9) under aircraft modelmakers; (10) plumbers and pipefitters; (11) carpenters; (12) laborers and truck drivers; (13) high school students for part-time employment in the Technical Service Shops.

EDITORIAL STAFF OF LMAL BULLETIN

Joseph P. Doyle, Jr.-----Editor
 H. Lee Dickinson-----Associate Editor
 Ben Vogel-----Art Editor
 LMAL Employees-----Reporters

LET'S DISSOLVE THE '40' CLUB (An Editorial)

There is at LMAL what might be described as a "40" club. We hope, in the interest of victory and freedom for our nation, that it does not grow in numbers. In fact, it is our sincere hope that its members decide soon to change the name to the "Zero" club.

The so-called "40" club is really not an organization at all -- but actually represents the number of LMAL employees who were not participating in the Laboratory's War Savings Bond program, as of the last day of February.

You perhaps have noticed the Minute Man Flag on display in the East Area Cafeteria. It was awarded the NACA, along with an Honor List Certificate, in recognition of the attainment of more than 90 per cent participation and 10 per cent of gross pay roll invested. The Washington Office forwarded the Flag here since LMAL made the best showing of the NACA laboratories.

We have good reason to be proud of our bond record. But no victory was ever won where a gladiator stopped to rest on his laurels. If at all possible, let's concentrate on making our participation 100 per cent.

RETURN TO THE SOIL (An Editorial)

In the interest of good health, economy, and patriotism, Victory Gardens should engage the attention of many LMAL employees this year. Viewing the matter from every angle, we must conclude that our obligation to participate in the program is inescapable.

Most important of all, our continued good health is essential to worthwhile war effort. We cannot attack the problems that face us here each day unless we maintain a satisfactory physical condition that is possible only through the enjoyment of wholesome, nutritious foods.

An abundance of fresh vegetables in our diet is necessary. Such food, however, will not be consistently available on the open market this year, and we may as well realize that the shortage will only be made up by resort to such activity as Victory Gardening.

Another aspect of the health phase is that most of us are office workers, a reality which denies us many of the benefits of fresh air and sunshine. It is wise, therefore, to assume an extra-curricular activity which will allow us to commune profitably with the great out-of-doors.

The economic angle is virtually self-explanatory. A shortage of fresh vegetables is bound to push the cost to the consumer way past normal, despite price ceiling regulations; and patriotically speaking, we anticipate that the food shortage will be so acute that it behooves all who can to cultivate Victory Gardens.

CLEVELAND CLIPPINGS

News from AERL indicates that E. Raymond Sharp, Manager, has returned to his office after being confined to his home on account of some broken ribs suffered in an automobile accident early last month in Cleveland. Mrs. Sharp, whose arm was broken in the mishap, is recovering-----

First reports show that 317 AERL employees contributed \$1,366.60 to the Red Cross campaign, \$4.21 per capita--- Marvin Scadron, who hails from Illinois Institute of Technology, is the thousandth employee of AERL----Charles Sullivan is teaching golf to a group of AERL girls----- Harry H. Bowles has been put in charge of AERL electricians as Electrical Superintendent-----First Lieut. R. G. Parke, Air Corps, has arrived at AERL to assume his duties as Materiel Command Liaison Officer. He represents the Army at AERL and assists in procurement of equipment and supplies from the Army for research programs-----Work is under way on a 440-unit housing development at Sherwood Park for AERL employees----- Alexander Krismanth is aiding Fred Bonnie in directing the symphony orchestra at AERL-----E. Laccohee has been appointed captain of the male quartet-----Jack Olsen, who leads his own band, is composing a song for NACA-----Connie Gaube is assistant to Emory Maison in charge of glee club activities. Officers of the glee club include Evelyn Lasch, president; Elizabeth Balint, vice president; Kay Hovanec, secretary, and Pearl Jares, treasurer-----Russell Dobrin is assisting with the dance band-----In other words, AERL is going in for music in a big way.

WE COUNTED 'EM: Names make news. Last issue the Bulletin contained 106 names.

NACA PIONEER OF U.S. AERONAUTICAL RESEARCH

FIRST COMMITTEE APPOINTED APRIL 2, 1915, BY WILSON; MEMBERS MAPPED LONG-RANGE PROGRAM

Members of the first National Advisory Committee for Aeronautics, who were appointed April 2, 1915, by President Wilson, assembled initially in the Washington Office of War Secretary Garrison on April 28 and began mapping a long-range research program. The Committee moved slowly at first, deciding that gradual development was desirable in view of the expansive problems to be attacked.

Among the pioneer group were Dr. Joseph S. Ames, retired former Chairman who served the Committee two decades; Dr. William Frederick Durand, former Chairman and present Committee member who had gained early attention by his research into propeller design while he was a professor at Leland Stanford, Jr., University, and Dr. Charles D. Walcott, persistent champion of an NACA.

Scrivens First Chairman

Temporary Chairman of the first Committee was Brig. Gen. George P. Scrivens, Chief Signal Officer of the U. S. Army at the time, while Naval Constructor Holden C. Richardson acted as temporary Secretary. Mr. Richardson's clerk was John Francis Victory, then a 23-year-old Georgetown University graduate, who has been Secretary since 1927. The Committee's first voucher, for \$26.67, was drawn in payment for clerical services performed by Mr. Victory.

Other charter members and their earlier titles were professors John F. Hayford, of Northwestern, and Michael J. Pupin, of Columbia; Capt. Mark L. Bristol, U. S. Navy; Charles F. Marvin, Weather Bureau Chief; Byron R. Newton, Assistant Treasury Secretary; Lieut. Col. Samuel Reber, U.S. Army, and Dr. S. W. Stratton, Bureau of Standards Director.

Visioned Great Future

With America on the verge of entry into a World War, the representative group began to formulate its plans. Records indicate that the first Committee foresaw a great future for aeronautics, but just how much of the present-day expansion it visioned is a matter for conjecture. At any rate, there was much room for im-

provement in aeronautics at the time the NACA began to function.

The vistas that were open to the Committee might be seen in a study of a typical early-day list of requirements for a Navy Department airplane, which stipulated a speed of 50 to 95 miles per hour, with a full load of one man of 160 pounds, two and one-half hours of fuel and oil, a 50-pound radio set, and the usual instruments, and with a wing span of not over twenty-eight feet.

Recognizes Its Duty

Mindful of its duty to "supervise and direct the scientific study of the problems of flight with a view to their practical solution," the Committee undertook immediately to utilize available facilities in an effort to "determine problems which should be experimentally attacked and to discuss their solution and their application to practical problems."

One of the first actions of the Committee was the determining of its problems, which it later listed as stability as determined by mathematical investigations; air speed meters for control and navigation; evolution of more efficient wing sections; development of motors of higher power and lighter construction; development of more efficient propellers, and improvement in the form of the airplane leading toward natural inherent stability.

The Committee's physical

problems were listed as non-corrosive materials for construction details and fittings; effect of flat and cambered surface combinations; development of reliable terminal connections for truss wires; characteristics of constructive material; standardization of nomenclature and specifications; bibliography of aviation; collection, revision and issuance of reports, and causes of accidents.

Two early problems of the NACA are not now concerns of the Committee--the generation of hydrogen economically on a ship rolling in a seaway, and the investigation of radiotelegraphy to assure a means of communication between a plane and its fixed base station.

Published Seven Reports

The Committee, which published seven reports the first fiscal year, depended heavily on facilities of universities in the early days, but concluded after a survey in the summer of 1915 that their interest was "more one of curiosity than in considering the problem as a true engineering one...." Consequently, the Committee emphasized the need of a Laboratory "for determining the forces acting on full-sized machines in constrained and in free flight."

So, in the \$85,000 appropriation for the Committee's second fiscal year, funds were included for "a movable combination field office, machine shop, dynamometer shed, hangar and power plant, including a dynamometer carriage and truck." It was proposed to set up these facilities at Hains Point in Washington, but the Commissioner of Parks objected. Thus, Hains Point, which might have been the scene of the NACA's first Laboratory, became a golf course instead while the Laboratory at Langley Field grew rapidly into the focal point of America's efforts in aeronautical research.

Start Apprentice Classes

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allowed to progress to more advanced work.

Students attend classes twice each week on either Monday and Wednesday or Tuesday and Thursday. Three terms are conducted each year, each term lasting for ten weeks. Competent members of the Laboratory staff, including both engineers and tradesmen serve as class room instructors.

The related study program is conducted through the War Training Program, headed by Dr. B. H. Oot. Luther Machen is the Local Director for this area. Apprentice classes are set up by the Apprentice Administration in conjunction with officials of the War Training Program. All of the classes offered are essential to the proper trade training of apprentices and are designed to immediately help them with their regular shop work. Classes to be offered for the spring term include: Shop Math I, II, III, and IV; Mechanical Drawing; Blueprint Reading I and II; Woodworking Theory; Machine Shop Theory; Sheetmetal Theory; Metallurgy; Physics I and II; Use of Handbooks; Machine Design; and Sheetmetal Layout.

Increases Efficiency

Shop superintendents in general feel that related study information obtained through the apprentice classes is increasing the efficiency of apprentices to a very marked degree. Through these classes apprentices are rapidly acquiring a proper knowledge of blueprint reading, including orthographic projection; fundamental laws of physics; shop mathematics, including the practical understanding of decimals and fractions; the algebra necessary for solving various shop equations; trigonometry, including the use of sine bars; proper machine operation and care; how to use all types of precision measuring devices; proper speeds and feeds for

HOLD TYPING & SHORTHAND CLASSES

The Administrative office is sponsoring classes in typing and shorthand for employees who have completed their ground work in either or both and desire to improve themselves. The classes are held Monday, Wednesday, and Friday of each week and were started March 29. The purpose of the training is to equip employees for advancement or for more congenial employment.

It is generally true that there is a shortage of good stenographic assistance in normal times and the shortage now is acute. Aside from the present possibilities for advancement, the training provides a means for qualified employees to raise them-

selves above the average level of proficiency. In the average level there is seldom a shortage of personnel, or much opportunity.

Any employees interested in the training are invited to join the classes. The hours are from 5:30 to 7:30 p.m., one hour being devoted to each subject. Miss Glendora Ellison is instructing the shorthand class. The classes are without cost to the trainee and except for the shorthand manual, no books are required. For information, call the Chief Clerk, phone 313. These are your classes if you have the ground work and are interested, how about it?

A FIRST REPORT: The first report to the NACA by Dr. George W. Lewis, Director of Aeronautical Research, was on poppet valves.

the various machine tools; how to sharpen drills and tool bits; and, sheetmetal theory and layout, involving the proper methods for laying out intricate and complex curves and streamlined forms. A special emphasis is now being placed on the use of handbooks. All apprentices receive some Mechanical Drawing in the apprentice drawingroom specially provided for this study. The more advanced apprentices who are serving their trades as Mechanical Draftsmen are engaged in the study of Machine Design and Strength of Materials. These classes have now progressed to the point that they are extremely useful to those apprentices now engaged in the actual design of various Laboratory projects.

All classes are conducted in classrooms set up in the Warehouse Building in the west area. All persons interested in attending these classes should contact S. Walter Hixon, Jr., at the Apprentice Administration, telephone 256.

LOOK TO THE FUTURE: "Seventy-five ton planes have already been built; two-hundred-and-fifty-tonners are predicted after the physicists have conducted the necessary research, and men like Kaiser and Higgins have shown us how they can be built at fairly low cost." (From New York Times Magazine).

CAMARADERIE: The 16-foot tunnel staff enjoyed a party Saturday, March 29, at the American Legion Hall on North King Street in Hampton. The evening's entertainment included dancing and refreshments.

'CHECK' THIS MORAL: Mary had a little check, she signed it upon receipt; but on her way to a Hampton bank, she lost it in the street. Moral: Wait until you reach the bank to endorse your pay check. If you must endorse it beforehand, make it read something like this: "For deposit to the account of" and then sign your name.

Need A Stove?

Joe Robbins, Laboratory telephone 269, has for sale a late table model four-burner gas stove, with automatic oven control.

BOND RECORD CITED *(Continued from page 1)*

the seven Federal agencies having over 90 per cent participation and more than 10 per cent of the total pay roll invested. The National Mediation Board was second with 11.6 per cent invested; the Federal Reserve Board, 11.4; Food and Drug Administration, 10.9; Treasury Department, and Tariff Commission, 10.5 each, and the National Capital Park and Planning Commission, 10.2.

During January, a Treasury Department report shows, the NACA was allotting for

bonds 12 per cent, or \$63,343 of its gross monthly pay roll of \$527,768. Of 3,191 employees on roll, 3,061, or a percentage of 95.9, were participating in the bond program.

The Navy Department is the leader of agencies with less than 90 per cent participation. With a total of 533,579 employees on the pay roll, 88.9 per cent or 474,143 were participating in January. The Navy was allotting 12.7 per cent of its \$114,568,612 monthly salary to War Bonds.

LANGLEY LINKS AVAILABLE TO NACA GOLFERS

The Special Service Officer has extended golfing privileges on the Langley Field course to NACA employees.

Membership cards may be obtained from the first to the fifth of each month from Jesse H. Hall, Laboratory telephone 215.

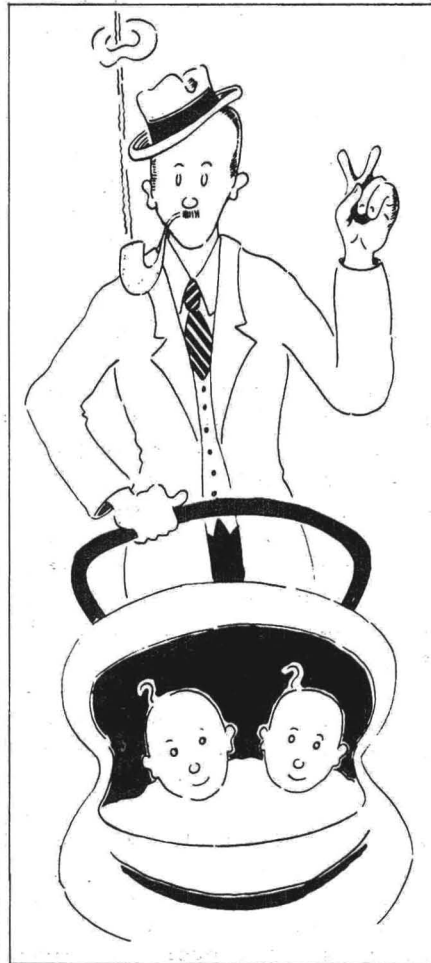
Dues are three dollars per month and must be paid by the fifth of each month or the membership card returned.

LITTLE THEATRE PLAY SUCCESSFUL

The Hampton Little Theatre production "Out of the Frying Pan", presented on the Hampton High School stage on March 29-30, proved to be one of the most outstanding successes in the history of the Little Theatre.

Playing to a large and appreciative audience, the cast of the fast moving comedy, after but four weeks rehearsal, gave a uniformly excellent performance.

COMES THROUGH: NACA won the Collier Trophy for the most outstanding aviation achievement in America in 1930; for its low-drag cowling for air-cooled engines.



DOUBLE FEATURE: Dr. R. E. Street, physicist in the Aerodynamics Division, and Mrs. Street, are receiving congratulations on the birth of twins, a daughter and son, on Wednesday, March 24, at Elizabeth Buxton Hospital in Newport News. Dr. and Mrs. Street make their home at 146 Hanover Avenue.

Housing Leases

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ready for occupancy by April 15, a delay of one month due to poor weather conditions retarding construction. John F. Christian, contractor, said last week.

The houses are not equipped with stoves or refrigerators, but Mr. Christian has stated that he will assist tenants in obtaining from the War Production Board certificates of necessity for their purchase. The rental price of the units will be \$39.99 per month.

Further information on these houses may be obtained from the Bulletins of December 11 and February 17 or from Mr. Thompson at 226.

WASHINGTON, APRIL 1 -- THE War Production Board yesterday ordered the release of 148,847 electric and gas-operated household refrigerators for sale to consumers who have no type of refrigeration in their homes, either because their equipment has worn out or for other reasons.

The refrigerators will be taken from a stockpile which was frozen February 14, 1942, to provide a reserve to meet demands by government agencies. The release of stocks for civilian use was made possible by recent reductions in estimated requirements for the Army, Navy and other agencies.

A SOCIABLE IDEA: Air-Flow Research and Atmospheric Wind Tunnel section employees frolicked at a joint semi-formal dance at the Chamberlin Country Club on Saturday night, March 27. Music was offered by the Dominionaires. The dance was the first of a series of gatherings that Air-Flow Research plans to have in conjunction with other sections.

Telephone No. 360 has been changed from "Cowling and Cooling" to "Engineering Section Office."

BOND DISTRIBUTION EXPEDITED

A new procedure inaugurated in the LMAL war bond section is expected to expedite the distribution of bonds to employees participating in the pay roll deduction plan.

The bond section formerly was required to type a list of LMAL employees as they were entitled to bonds and forward it to the Treasury Department, where the necessary information was typed on and the completed bonds dispatched to LMAL for distribution.

Under the new plan, each LMAL participant is allotted one of a long list of numbers already printed on cards. When it comes time for an employee to receive a bond, his or her number is circled and the card sent to the Treasury Department, which no longer types the information but has on hand a file of plates with which it prints the employee's name, address and other information as the bonds are due.

This should speed up the receipt by LMAL employees of their bonds, it was pointed out, although certain other factors affect the success or failure of the plan. For example, a late pay roll will automatically cause the bonds to be late. Another reason is that corrections in the bonds must be made on occasions. Employees sometimes find it necessary to make changes in their address, or beneficiary, although changes of address on the bonds are not considered by Treasury Department officials as necessary. Changes that are made must be made personally -- not by phone.

SECTIONS PLAN SOFTBALL LOOP

(By Si Diskin)

Comes spring and warm weather and it's time to think of softball again. Last season, twelve sections organized teams and a league was formed. A successful summer campaign was waged with the championship trophy going to the Structures Research Section.

Let's show that bunch that they can be licked. Organize your section teams, elect your captain, and send your team name and section roster to Len Bartone of the Structures Section. That's all there is to it. Of course, a slight fee shall be required of each team, the amount to be determined later. This fee is required in order to obtain trophies for the winning teams.

To Form Committee

A "Softball Committee" shall be organized for the purpose of formulating rules and regulations of softball, and plans for a successful

REQUEST FOR NEWS ITEMS GETS ENCOURAGING RESPONSE

The request in the last issue of the Bulletin for news contributions from LMAL employees met with an encouraging response.

Thanks are offered for those who are cooperating with our efforts; and don't forget -- we still hold forth at 313.

season. This committee shall be composed of several members to be elected by and from the captains of each participating team. Past experience warns us to remind each section to choose its captain with care; upon him rests the proper functioning of his team and consequently the success of the softball league.

It is also possible that an NACA baseball team may be organized. Those interested in playing baseball please send your names and section to Walter Robbins of the West Area Purchase Section.

Let's start the ball rolling now!

SOME NOT SIGNING THE ATTENDANCE RECORD SHEETS

Since the plan of signing Attendance Records was inaugurated, there have been some employees who occasionally fail to sign in or out, or both, thus causing much inconvenience in compiling the time records.

It has been suggested that supervisors, section heads, or some one delegated by the section head make a more careful daily check to determine who fails to sign and why. In sending Record sheets through the messenger service, they should be placed in a correspondence envelop to prevent their being lost en route to the Personnel Office.

The Attendance Records, not the time sheets, are used as a basis for computing pay rolls. Therefore, if these daily reports are incorrect, it will result in incorrect pay rolls and will also delay the pay checks.

The cooperation of employees in this matter is considered necessary in the interest of the employee and for Laboratory efficiency.

PERCY CRAIN NEW ELECTRICAL HEAD

Percy Crain has been appointed as Acting Head of the LMAL Electrical Department, according to a memorandum issued by Ernest Johnson, Head Mechanical Engineer.

The appointment became effective Monday, March 22.

Mr. Crain succeeds Gilbert Strailman, who resigned his affiliation with the Laboratory.

Bulletin Gets Results

A fluorescent desk lamp, listed in the last issue of the Bulletin as having been removed from the I.C.L. without a loan slip being filled out, was located by a Bulletin reader before the ink was dry.