



BULLETIN

ISSUED IN THE INTERESTS OF THE PERSONNEL OF LMAL, NACA

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Langley Field, Virginia, April 21, 1943

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SEVERAL OF THE SECTIONS CHANGE THEIR LOCATIONS

East is East and West is west--but the twain met last week as some LMAL sections had "moving day".

The main Purchase Office was moved from the Technical Service building in the East area to the second floor of the Structures Laboratory building in the West area.

The new telephone numbers are: Warren Gilman, 274; purchase clerks and files, 273; Sherwood Butler, Procurement officer, who moved from the Administration building to the second floor of the Warehouse building in the West area, 269, and the Property Clerk, also on the second floor of the Warehouse building, 252.

Moving into space formerly occupied by Purchase was the Personnel Section, which transferred from the Administration

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PLAN WOMEN'S DORMITORY WILL HOUSE EMPLOYEES OF LABORATORY BACK OF KECOUGHTAN COURT

A quarter million dollar dormitory project to house women employees of LMAL will be constructed back of the Kecoughtan Court apartments in Wythe District of Elizabeth City County. Occupancy of the First of the proposed 372 residential units will take place approximately in mid-summer.

LEASES SIGNED BY 12

Twelve LMAL employees have already signed leases for rental of houses in Cavalier Court, NACA housing project, which is rapidly nearing completion.

Others who wish to obtain lease forms or further information concerning the project may communicate with William Thompson, telephone 377.

Cavalier Court is located adjacent to the Langley Field-Hampton highway and is but a short distance from LMAL. John F. Christian is the contractor.

The project, financed by the Federal Public Housing Authority, will be of temporary construction. Williams, Coile, and Pipino, Newport News architectural firm, is preparing plans. Bids will be sought within a week and construction will likely be inaugurated by the last of this month.

The Kecoughtan Court section was selected as the site of the project because of its convenient location. It is near an already-established shopping center, and is between and in close proximity to the trolley and bus lines.

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APPRENTICE CLUB AWAITS OPENING OF USO CENTER FOR WAR WORKERS

The NACA Apprentice Club, composed of members of the Laboratory staff, at a recent meeting of its membership at the Hampton USO voted to postpone temporarily the rental of a local building for recreational purposes pending the outcome of the negotiations to open an Industrial USO activity for local war workers. Leigh K. Lewis, chairman of the Apprentice Club, explained to the members the proposed USO facility for war workers. He pointed out that negotiations had been under way through H. J. E. Reid, Engineer-in-Charge and J. S. Darling, Chairman of the local USO and the Syms-Eaton Community Center Association to obtain suitable recreational

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APPRENTICE LIBRARY IS AVAILABLE TO ANY MECHANICAL WORKER

During the past year the Apprentice Administration has carefully selected and obtained a relatively large collection of trade handbooks, text books, and various other recently published copies of works dealing with the various phases of practical shop work. Although these books were obtained

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EDITORIAL STAFF OF LMAL BULLETIN

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

'WAR EFFORT' IS COOPERATION

"War effort" has become a well-worn phrase in American conversation and daily thoughts since the Axis trio raised their ugly heads and inaugurated a campaign of world pollution--or protection as their propagandists would have us believe. We hear much about "war effort" at LMAL, but the exact definition of the two words has apparently never been adequately given.

We are inclined to conclude, however, that their meaning inevitably adds up to the amount and the importance of the energy, inspiration, and cooperation that we as a group offer our Nation in its efforts to abort the fiendish program of the enemy. The most important of these is cooperation, since without it such intangibles as energy and inspiration would be of little avail.

What is cooperation? Let's describe it as "going beyond the line of duty to help the other fellow, who might include superiors, subordinates, or those of other sections who are of equal rank." Cooperation is not an essential to be practiced only by the Service Sections. The Research workers and the Service personnel must cooperate in order that all interests will best be served.

America is embroiled in a war that is far more catastrophic than any in history. Air power is playing a vital role--a fact which makes our part in the conflict an important one. Let us so govern our daily program that there will never be an American air venture which failed because of the lack of something which cooperation at LMAL would have made a reality.

EARLY BIRD: One of the first technical reports published by the NACA was written by Jerome C. Hunsaker. The title: "Experimental Analysis of Inherent Longitudinal Stability for Typical Biplane." Dr. Hunsaker is the present Chairman.

AERO DIARY: In its first two and one half years of existence, the NACA published 23 technical reports.

BIG WIND. The NACA was the first aeronautical organization in the world to operate a full-scale wind tunnel.



BONDS
 Are as Valuable
 as PEARLS-
 HARBOR Them

CLEVELAND
CLIPPINGS

Miss Pearl Young, AERL Technical Editor, is one of Charles Sullivan's golf pupils. In explaining the reason for a recent successful shot, she exclaimed, "I got mad." ----- A Wing Tips contributor has a home in Cleveland near the Laboratory which he will consider "trading for one in either Washington, D.C. or Santa Monica, California."

----- AERL leads all Federal agencies of Greater Cleveland in the Red Cross campaign, more than \$4,000 being contributed by the 1,000 employees. ----- The basketball team, paced by Lou Held and Foxy Scharer, wins the West Park championship, defeating West Park in an exciting finals contest, 34-28. Other team members: Harold White, Karl Kovach, Merritt Preston, and Dick Maurer ----- John Collins, Jr., Chief of Engine Research Division, says the "most outstanding power-plant development which has recently appeared is a combination of all the best features which have long been known." It is, unfortunately, a German BMW-801, he adds ----- Harold J. Schum, Supercharger, is engaged to Miss Colette Hollis of Cleveland ----- Clifford Gildersleeve, AERL Priorities Chief, and Industrial Commissioner of the Cleveland Chamber of Commerce, is new chairman of the American Industrial Development Council. His term ends April 30, 1944.

----- Flight Research has acquired a second plane - a Republic P-47G Thunderbolt ----- Levi B. Smith is the AERL representative of the LMAL Credit Union. He accommodates LMAL Union members who are transferred to Cleveland ----- A.M. Lord is instructing a purchase procedure class ----- Wing Tips has a girls sports columnist, Dorothy Morris, of the Secretarial Section.

BUILD 600 M.P.H. STRATO TUNNEL

Engineers of the York Ice Machinery Corporation are building at Wright Field a 600-foot wind tunnel to conduct research in the behavior of planes traveling at high speeds in subzero temperature.

Tests will be conducted on engines, scale models of fuselages, wings and other parts of planes, according to an article in the New York Times.

The speed of the air blast will be 600-miles-per-hour and the temperature of the air will be 67 degrees below zero. Four million cubic feet of air will rush through the tunnel every minute.

A 40,000-horsepower motor whips up the gales. As the wind travels around the first turn of the O-shaped tunnel it passes over a network of cooling coils, where the temperature is seven degrees below zero. By the time the wind reaches the throat it is minus 67 degrees.

At sea level the air presses against every square inch of us with a force of 14.7 pounds. At 40,000 feet and more the pressure is only 2.7 pounds, because there is less air. To reproduce the conditions in the lower stratosphere, it is evidently necessary to pump out some air. This is done.

The cold gale is produced by two 40-foot fans, each provided with 16 blades. Motor and fan are housed in a separate building. The blades, made of wood for flexibility at low temperatures, each have a 200-ton driving force.

Calcium chloride is the cooling agent and because of the huge amount used it will require about 20 hours to make the tunnel ready for a test. The maximum temperature of minus 67 degrees can be maintained for an hour or so.

AVIATION STUMPED JEFFERSON

Thomas Jefferson, whose 200th birthday anniversary was celebrated last week, boasted success in many fields of endeavor---but he had to admit defeat on the subject of propulsion for aircraft.

Located in the Administrative building is a letter written by Mr. Jefferson from Monticello on April 27, 1822, to Wm. B. D. Lee, in which is discussed briefly the subject of aviation.

The letter follows:
"Your letter of the 15th is received, but Age has long since obliged me to withhold my mind from Speculations of the difficulty of those of your letter. that there are means of artificial buoyancy by which man may be supported in the air, the Balloon has proved, and that means of directing it may be discovered is against no law of nature and is therefore possible as in the case of Birds. but to do this by macanacal means alone in a medium so rare and unresisting as air must have the aid of some principal not yet generally known. however I can really give no oppinion understandingly on the subject and with more good will than Confidence wish you success."

SWING AND SWAY: One young couple, with doctor's approval, put their new baby on a schedule to fit in with Papa's Swing Shift routine, according to the Douglas Aircraft Company's monthly magazine. Now Junior sleeps when Dad does, and has his meals and bath accordingly.

SERVICE WIVES MEET AT USO

Service men's wives, some of whom are employed at LMAL, are eligible for membership in the Service Wives' Club which meets at 3 p. m. each first and third Tuesday of a month, and at 8 p. m. on the second and fourth Tuesday at the Hampton USO Club on Academy Street.

Service wives at LMAL who are not yet affiliated with the organization are invited to become members. The club programs include lectures on current events, sewing for a military police detachment, knitting for the Red Cross, and partying together once a month with their husbands. Refreshments are served each time.

The Hampton USO is open at all times to service wives, who may visit the center either with their husbands or alone.

BEATING THE BREEZE: First application of an NACA Cowling to a complete plane occurred at Langley Field on Oct. 12, 1928. Its uncowled high speed: 118 mph; cowled: 137 mph.

INTRODUCING
NACA NAN
& **NACA NED**

Bringing you messages of

SAFETY IN YOUR HOME
ON THE STREET
AT YOUR JOB

Watch for them

in your LMAL Bulletin.



LMAL OFFERS OPPORTUNITY TO STUDENTS

More than 100 local high school students are learning to accomplish all types of work necessary to the vital military aeronautical research work in which LMAL is engaged.

Students interested in this opportunity to serve their country and at the same time receive valuable experience and training are assigned to various laboratory shops where they are immediately engaged in one of the following assignments:

Precise machinist's work, aircraft sheetmetal work, precise model building, or aircraft woodworking. Under the competent instruction and supervision of a group of shop instructors, these students are rapidly obtaining proficiency in the operation of engine lathes, milling machines, drill presses, Do-All saws, planers, slotters, all types of grinders, as well as all types of machinist's hand tools and precision measuring devices.

In the sheetmetal shops they are becoming familiar with the techniques necessary to the intricate forming of special streamlined shapes and double curvature aircraft metal working. They are learning to operate power-driven rolls, shears, punches, and brakes, as well as all types of hand tools, measuring devices, and lay out procedures.

In the woodworking and model shops, working under close supervision, they are learning to operate planers, jointers, cut-off saws, sanders, band saws, and routers, as well as the skillful use of hand tools and accurate measuring instruments. These boys are learning to work from blueprints and to construct all types of accurate models essential to urgent aerody-

USE NEW SYSTEM WHEN EMPLOYEE FORGETS BADGE

LMAL will henceforth issue special yellow badges to employees who have forgotten their regular badges. Whereas formerly an employee who forgot his badge was required to return home for it, he will now be issued a large yellow badge showing his name and section and valid for the one day only.

These badges will be issued by the pass officer at the main gate after which the employee will be required to report to the Personnel Office before going to his section.

LILLY RETURNS: Howard Lilly, Flight Research pilot, who spent three weeks at AERL in Cleveland on a temporary transfer, has returned to LMAL before being permanently transferred to Cleveland. dynamic tests.

The finest shops, machine tools, and equipment are being made available to these students and in certain cases the entire regular second shift is being re-assigned in order to make these shops available exclusively for part-time high school workers.

A number of positions are still open. Employment at this Laboratory offers young students an opportunity not only to receive trade training, but also to obtain a valuable background of work experience and aeronautical knowledge which will greatly assist them in the pursuit of an engineering degree. These employees receive pay at the rate of approximately 70 cents per hour and may work on any of the following schedules:

(1) Eight hours a night every other night alternating each week, making a total of three evenings or twenty-four hours each week.

(2) Four hours every night and eight hours on Saturday, making a total of twenty-eight hours each week.

APPRENTICE CLUB

(Continued from page 1)

facilities for the large number of war workers concentrated in this area. Mr. Lewis explained that the operation of such a facility would eliminate the necessity of the Local Apprentice Club having to rent a building, since this USO activity, as it is planned, will provide for the general recreation of the apprentices. The Club would be relieved of a large financial burden and will then be free to continue its activities.

According to word received from the Regional USO meeting in Richmond, April 12, the operation of a local Industrial USO facility has been given approval.

Upon final approval at the New York office, the Industrial USO will select a director for this activity and will supply necessary furniture and equipment. The Apprentice Club, meanwhile, is continuing to accept new members and is going ahead with plans for various activities.

Those desiring to become affiliated with the Club are urged to contact any of the following directors: Leigh Lewis, chairman; Jack Kinzler, vice chairman; Joe Dodson, treasurer; Francis Dreisbach, secretary; Bertram Miller, publicity director; Gene Hicks, activity director; Bob Stewart, councilor, or Karl Lambroff, membership director.

The number one plan is considered preferable, since transportation is greatly reduced and students are afforded considerably more spare time.

Those desiring employment need simply report to the NACA pass office at the main Langley Field gate, preferably on Saturday mornings. They will be given a short mechanical aptitude test by the U.S. Civil Service Commission and immediately assigned to work.

ADMINISTRATIVE OFFICE CLASSES ARE A SUCCESS

The response of Laboratory employees to the classes in typing and shorthand has been good and the progress of those participating excellent. The perseverance and stamina of participants after their regular hours is really surprising.

In view of the success of with which the classes have opened, employees who may have the necessary groundwork in either or both subjects are again invited to participate. The hours are in the afternoon from 5:30 to 7:30 for persons taking both or from 5:30 to 6:30 for those taking one. Classes are held on Mondays, Wednesdays and Fridays in the Stenographic Office.

SOFTBALL

The current softball season is slowly rounding into shape. Many sections have not yet sent in their team lists. All interested sections should send them in immediately to Len Bartone of the structures section.

Soon thereafter, all team captains will be called upon to select from their group three men to form a "Softball Committee."

Team competition may possibly begin early in May. It is suggested that sections start practicing now.

SECTIONS CHANGE THEIR LOCATIONS

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tration Building.

Personnel in the Technical Service building retains its old phone number, 226.

The Personnel office on the second floor of the Administrative building will also move to the Service building.

Another group to move to

APPRENTICE LIBRARY IS AVAILABLE TO ANY MECHANICAL WORKER

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primarily for the use of apprentices, they are also available to any of the Laboratory's staff of mechanical workers or others who may find need for them in their Laboratory work.

These books deal with the latest developments in such subjects as modern aircraft sheetmetal procedures and techniques, precision machine work, instruments, drafting, aircraft maintenance, woodworking and patternmaking, metallurgy, physics, electricity, and radio. Many employees are finding in the use of this library ways and means of developing and improving their mechanical procedures. Any of these books may be obtained from the Apprentice

Library located in the Warehouse Building.

Miss Martha Willis is in charge of this Library and will be happy to assist employees in selecting suitable books for their particular need. A cordial invitation is extended to the entire staff to make use of this facility.

Rooms Needed

A number of LMAL women employees are in need of housing facilities. Anyone having one or more rooms available, or know of such vacancies, may communicate with Miss Mary Jean Prince of the Personnel office, telephone 226.

the first floor of the Service building will be the Selective Service Section and the office of Dr. William Anthony Aery.

The Electrical Office moved from the second floor of the Structures Laboratory building into space vacated by the Personnel Section in the Administrative building. The phone number remains 219.

ONLY EMERGENCY CALLS ACCEPTED

Personal messages cannot be handled over LMAL's telephone system, except where a serious emergency exists. This ruling is necessary, it was pointed out, because the Laboratory has only five outside telephone lines and they must be kept available for use in the conduct of official business.

Any person outside of Langley Field who seeks to communicate with an LMAL employee, must acquaint the operator at the switchboard with the nature of the message. If there is an emergency, the employee will be contacted or the message relayed to him.

CIVIL AIR PATROL

A meeting for the purpose of organizing a Hampton unit of the Civil Air Patrol will be held at 8:00 P.M., April 21, at the Hampton Armory. All pilots with currently valid licenses (private or commercial) are urged to attend.

CAMERA MISSING

Anyone locating a camera, either removed from the Photo Lab or loaned out, please notify Stanley Clason, Photo Lab. Its description: A folding hand camera, picture size 2 1/4 by 3 1/4 in.; 620 Eastman Special, lens No. 2465; shutter No. 5404587; inventory No. 11926.

PLAN DORM

(Continued from page 1)

It is expected to solve a growing problem--that of adequately housing women workers.

In addition to employees of LMAL, the project will house women civilian employees of the Langley Field air base.

BOND STANDINGS CHANGE

The war savings bond status of LMAL see-sawed during March, with some of the figures going up and others taking a slight dip in comparison with the February record.

There were 1,810 employees on the payroll in March, 1,786 or a percentage of 98.674 participating in the payroll deduction plan. This left only 24 non-participants as compared with 40 in February.

The percentage allotted for bonds in March dropped 2.507 percent, principally on account of the method of computing. January and February, percentages were computed from base pay only, while percen-

tages for March and thereafter are computed on base pay plus overtime.

The difference in the figures is shown in a comparison of the base pay total of \$287,868.47 for February and the base pay plus overtime of, \$352,594.22 for March. The amount allotted for bonds in February \$38,738.84, which is a 13.457 percentage of the base pay, while the March allotment was \$38,609.88, only a 10.950 percentage of the base pay plus overtime.

The average allotment took a slight drop in March, \$21.62 as compared with \$21.75 in February.

STOCKROOM NOTES

(By Johnny Bergbom)

In order to provide quicker service and to cut through a lot of unnecessary red tape, the present method of requesting storage of material in the Warehouse will be changed as of this date and this procedure followed:

Sections requiring storage of articles will contact the Warehouse office at 252 and state their desires. The stockroom will send someone to look over the articles and ascertain the method to follow in storing them that is best suited to the case. The stockroom will have the articles picked up, identi-

DIAPER COLLEGE: Curtiss-Wright's plane factory in Buffalo has a nursery school on its grounds, where children frolic while their mothers forget diapers and things and help in the war effort.

fied, properly marked and stored and then send a receipt to the section concerned.

If, when the stockroom looks over the material and there is any indication that it might be a fire hazard, then the stockroom will contact the fire board for its opinion. If the board has no objections, the articles will be stored as promptly as transportation can be obtained.

REPORTS 18 GET CARDS FOR USE OF BASE LINKS

Jesse H. Hall, Laboratory telephone 215, reports that 18 LMAL employees have obtained membership cards entitling them to golfing privileges on the Langley Field course.

Other Laboratory linksmen who wish to take advantage of the air base facilities may procure membership cards from Mr. Hall from the first to the fifth of each month.

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

With the advent of warm weather, the golf season at LMAL is expected to get in full swing. Mr. Hall suggested that an NACA golf team might be formed.

REQUESTS SEARCH FOR MISSING ITEMS

Vern G. Rollin, Mechanical Engineer, reports the following items as having been misplaced and requests that the Supercharger Section be notified if any are located:

(a) Costumer, tubular steel, olive green with eight hooks and crossbar, Inventory No. 34, Serial No. 360; (b) costumer, tubular steel, olive green with eight hooks and crossbar, Inventory No. 35, Serial No. 361; (c) Brentwood chair, oak, cane-seated, without arms, Inventory No. 3201; (d) metal, revolving typewriter chair with leather back and seat, Inventory No. 15384; (e) rotary chair, quartered oak, slat back, rotary type, Inventory No. 3061 (was in storage in full-scale tunnel); (f) waste basket, 14 by 14 by 16 inches, green fibre, Inventory No. 4473; (g) drawing board, 20 by 26 inches, shellacked pine or basswood, Inventory No. 4555.

FILBERT FUMBLEFOOT

Fil toppled down
The steps, a feat
That brought forth oaths
We can't repeat.

Fil felt his foot:
"First aid?" he mused,
"Oh, not today,
"It's just a bruise."

But Fil was wrong;
And now, you see,
He cannot work
For VICTORY.

