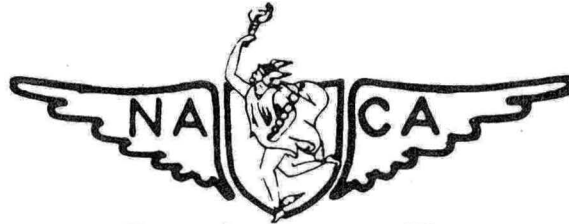


GREEN COW

March 5



RED CROSS

March 6

BULLETIN

ISSUED IN THE INTERESTS OF THE PERSONNEL OF LMAL, NACA

Issue 4, Vol. 2. LANGLEY FIELD, VIRGINIA, MARCH 5, 1943

Page 1.

ATTENDANCE RECORDS BEGIN TODAY

ANNUAL LEAVE LIMITATION

NOW 20 DAYS

Effective March 5, each member of the Laboratory staff will be required to sign in and out on the *Attendance Record* sheet in his section, noting thereon the times of his arrival and departure. The enactment of the recent legislation establishing a more definite relation of pay to working hours has made this procedure necessary, in the interest of uniform administration, in order that there may be determined the actual number of overtime hours worked

15 MINUTES TARDINESS ALLOWED

Also effective March 5, any employee who is tardy up to 15 minutes may work on equivalent time at the end of the working day without being charged with annual leave.

This regulation may, with the prior approval of the section head, be applied to the lunch period. That is, up to 45 minutes may be taken for lunch, the additional time being worked at the end of the day.

Tardiness over 15 minutes will be charged to annual leave

(Continued on page 5)

RED CROSS DRIVE STARTS MARCH SIXTH THIRTY LMAL WOMEN EMPLOYEES TO SOLICIT CONTRIBUTIONS

Employees of LMAL will have another opportunity to contribute to the war effort, beginning Saturday, March 6, as the combined membership drive and war fund campaign of the American Red Cross gets under way at the Laboratory. The campaign will continue through the following week, and officials anticipate concluding the drive and preparing reports by Saturday, March 13.

Campaign chairman will be Mrs. Lucy Bainbridge, of the Stenographic Office, who has appointed thirty women employees of the Laboratory to seek contributions from LMAL personnel. Mrs. Bainbridge has requested that employees of the Laboratory cooperate with the solicitors by having their contributions ready on March 6, thereby enabling the volunteer workers to complete the canvass as soon as possible.

(Continued on page 5)

E.T. ALLEN KILLED IN BOMBER CRASH

Last mid-February former LMAL test pilot Edmund T. Allen, who had proudly watched from his cockpit as aeronautical research emerged into maturity, made his final flight. Director of the Boeing Flight and Aerodynamics Department, Allen was piloting a four-motored army bomber, with eleven other experts aboard, when the plane flared into

(Continued on page 6)

90-DAY LEAVE MADE RETROACTIVE TO '39

The LMAL Personnel Office has received notification of a decision of the Comptroller General in Washington, changing the effective date of the provisions of the Act of Congress approved on Dec. 17, 1942, designated as Public Law 806 and which concerns the accumulation of leave.

It was previously announced in the Bulletin that annual

(Continued on page 6)

PENINSULA BANKS' SCHEDULES LISTED

For the convenience of the Laboratory staff the following schedule is presented showing the banking hours of the Peninsula banks:

SCHEDULE A

9:30 A.M. to 2:00 P.M. weekdays. 9:30 A.M. to 2:00 P.M. and 6:00 P.M. to 8:00 P.M. on Fridays. 9:00 A.M. to 12:00 N. on Saturdays.

The above schedule is used by:

First National, 2715 Washington Ave., Citizens Marine Jefferson, 2501 Washington Avenue, Crown Savings Bank, 2411 Jefferson Ave., Morris Plan Bank, 2612 Washington Ave., Bank of Warwick, Hilton Village.

SCHEDULE B

9:00 A.M. to 2:00 P.M. weekdays. 9:00 A.M. to 12:00 N. on Saturdays.

This schedule is followed by:

Old Point National, Old Point; Phoebus Bank, 30 S. Mallory; Fox Hill Bank, Fox Hill, Va.; *Merchants National, King and Queen Sts.; *Citizens' National, King and Queen Sts. *Also 4:00 P.M. to 5:30 P.M. on NACA paydays.

SCHEDULE C

9:00 A.M. to 2:00 P.M. weekdays. 9:00 A.M. to 2:00 P.M. and 4:30 P.M. to 8:00 P.M. on Fridays. 9:00 A.M. to 12:00 N. on Saturdays.

This schedule is used by the Bank of Hampton Roads, 3214 Washington Avenue and its Wythe branch at 2409 Kecoughtan Road.

SAVE FOR FREEDOM: This is the bond age. But there is no bondage in war bonds.

YAWING CHARACTERISTICS OF WHEELCHAIRS

By Robert A. Weinberger, Inv.

SUMMARY

Wheelchairs tend to yaw. This extraordinary phenomenon is quickly noted upon attempting high velocity transits of hallways. It can be proved that the angle of yaw, ψ , is a function of the square of the deflecting force, ΔP , which is the excess wheel force applied to the wheel opposite the direction of yaw. I shall not prove it.

Purpose

It is the intention of this report to establish qualitative and perhaps (if the author feels like it) quantitative criteria on the stability of two wheel drive wheelchairs. At the time of this writing, no one wheel, three wheel, or power driven wheelchairs have been invented, hence it seems logical that this report should confine itself to the conventional, even unique, type of wheelchair. The stability in yaw will be the only case considered because the modern wheelchairs have no tendency to pitch. Furthermore, with reference to stability in roll, it is an obvious fact that a wheelchair must roll or it would be an exceedingly worthless thing indeed.

DESCRIPTION OF THE WHEELCHAIR

For the benefit of those unfamiliar with this vehicle for locomotion, a lengthy description of a wheelchair is given. (See fig. 1).

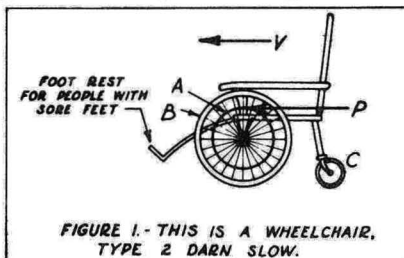


FIGURE 1.- THIS IS A WHEELCHAIR, TYPE 2 DARN SLOW.

CAN YOU SOLVE IT?

PROBLEM IN PERSONNEL: Edgar, that super-salesman, was all set to completely furnish a big defense laboratory with supplies. First, though, he had to straighten out a little tangle about who was who in the place. He knew that there was a Mrs. Simpson, a Miss Green, a Miss White, a Mr. Jones, a Mr. Smith, and a Mr. Brown. He didn't know which was which, but the firm had a President, a Vice-President, a Chief Chemist, a Laboratory Technician, a Stock Clerk and a Stenographer. If he only knew who belonged to what job, he could sell a whole raft of stuff. So he got very busy (for a change), and unearthed these facts:

1. The Vice-President is the President's grandson.
2. The Stock Clerk is the Chief Chemist's son-in-law.
3. The Technician is Miss White's niece.
4. Mr. Jones is 25 years old.
5. Mr. Brown is a bachelor (handsome too).
6. Mr. Smith is the President's neighbor.

Marjorie, Edgar's assistant, of course, untangled her boss, and so he landed the order.

(See page 5 for answer).

A force, P , applied at the periphery of drive wheel A sets in motion rolling wheel B . As yet no successful device to keep the patient's fingers out of the wire spokes has been suggested. The author firmly believes the only way to do this is to amputate the fingers.

Back again to the wheelchair -- little wheels C have no mind of their own, hence simply follow big wheels B .

(Continued on page 3)

BUTLER BROTHERS GET APPOINTMENTS

Sherwood L. Butler, Technical Assistant in charge of all purchasing for LMAL, has been named Procurement Officer of the Langley Laboratory, according to an announcement by W. Kemble Johnson, Administrative Officer. His appointment was effective March 1.

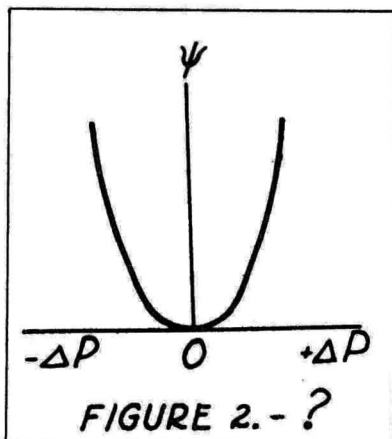
Mr. Butler has been employed at the Laboratory since 1938, coming from Richmond where he was affiliated with the General Electric Company. Since coming to LMAL, Mr. Butler has seen service in several sections of the Laboratory. Born in Portsmouth on May 27, 1913, Mr. Butler attended Portsmouth public schools before entering Virginia Tech. He graduated in 1934 and studied post-graduate work in 1935, going then to General Electric. He makes his home in Newport News.

Yawing Characteristics (Continued from page 2)

Directional control is obtained by greater angular velocity of the outboard wheel in the opposite direction of desired turn. Since turning is accomplished in this manner, just how in the heck do you differentiate between turning and yaw?

DISCUSSION

Extensive experiments carried out by the author prove that the curve of figure 2 exists, if only on this



T. Melvin Butler, who started his career at LMAL about four years ago as a messenger, has received his appointment as Personnel Officer of the Langley Laboratory, effective March 1, it was announced by W. Kemble Johnson, Administrative Officer. Mr. Butler has been in charge of the Personnel Office since June, 1941.

Mr. Butler, born on July 2, 1917, in Portsmouth, attended public schools in that Hampton Roads City before entering Virginia Tech. After his graduation in June, 1939, he shortly afterwards began his affiliation with the NACA.

He makes his home in the Kecoughtan Court apartments, in Wythe District of Elizabeth City County.

Yawing Characteristics

sheet of paper. Some curves are meant to give quantitative data, but it is the author's contention that all curves are appreciated, especially if they are in the right places. The curve of figure 1, however, is not meant to be appreciated in this sense. Note that the curve reminds one -- even two -- of the familiar second degree parabola. It should, that's what it's intended to represent.

In the light of the above argument, it seems that turning can be called yaw only when the turning is accomplished by no desire to turn.

CONCLUSION

Only a darn fool will use a wheelchair if he can walk.

EDITOR'S NOTE: This paper was prepared in the true spirit of scientific endeavor by Mr. Wienberger while confined to the Marine Hospital with a broken ankle.

'OUT OF FRYING PAN' INTO FIERY REHEARSAL

"Out of the Frying Pan", a fast-moving three-act comedy by Francis Swann, will be presented the latter part of March in the newly-remodeled auditorium of Hampton High School by the Hampton Little Theatre, with David Goldenbaum, of the LMAL Tank, as director. Preliminary rehearsals have already started and the complete cast of characters will be selected soon.

Made hit in New York

Described as "a gay bit of humor that makes an agreeable evening", the drama was originally produced with success at the Windsor Theatre in New York City by William Deering and Alexander Kirkland.

"Out of the Frying Pan" deals with the efforts of three young women and three young men to break into the theatre. Stagestruck, and embarrassed financially, the six are forced to share an apartment. Their apartment is immediately above that of a Broadway producer who has a hit running and is about to cast a road company. They rehearse the show that he is currently producing and then set about to get him upstairs to see it. Complications develop and the fun begins.

CLAUDE F. INGELS NAMED

LMAL PROPERTY CLERK

Claude F. Ingels has been appointed, effective March 1, as Property Clerk of LMAL to succeed Charles Gustavus Haas, whose death occurred in Portsmouth on Thursday night, February 25.

An employee of the Langley Laboratory for the past three years, Mr. Ingels was formerly a clerk in the purchase office. He may be reached on LMAL telephone no. 261.

CG. HAAS DIED FEB. 25

Death came last week to Charles Gustavus Haas, LMAL Property Clerk, whose adventures included bird's-eye views of the Philippine Insurrection, the Boxer Rebellion, and the disturbances in the Dominican Republic and other West Indian Islands. He won a medal for distinguished service in the Boxer Rebellion.

Mr. Haas was absent from his duties Feb. 24, on account of illness, but his death the following night at the Norfolk Naval Hospital in Portsmouth was unexpected to his associates at LMAL, where he had been employed since Aug. 24, 1929.

Joined Marines in 1899

Employed as a butcher and meat cutter in 1899, Mr. Haas decided to enlist in the U.S. Marine Corps. Then began a continuing series of exciting assignments which carried Mr. Haas through two wars, the Spanish-American and World War 1.

From Aug. 31, 1917, to May 30, 1921, Mr. Haas held a warrant as Marine Gunner and a temporary commission as second lieutenant, first lieutenant, and then captain. He retired as sergeant-major on Jan. 15, 1922, after 23 years of continuous service in the Marines. He was an Ordnancemen from 1922 to 1926 and acted as a warehouseman at Fort Eustis for a brief period before beginning employment at LMAL.

GREEN COW DANCE WILL BE TONIGHT

The spirit of the gay '90s, which typified a period in American History when men were men and "women were glad of it," will be exemplified in the mode of travel to the Green Cow Dance at the Hampton Armory tonight.

(Continued next column)

THIS IS MY WAR

This is my war, and I will do my best
To carry my full share whate'er the test,
It matters little what my station be:
To know and do-----these are enough for me.
If student, let me work to give my all
To master many skills before a sterner call
May bid me leave to join the work-a-day,
Or take my place in front lines of the fray.

This is my war, and I will do my best
To carry my full share whate'er the test.
It matters little what my trade or name--
My country calls, more precious, this, than fame.
Let me but work with whate'er skills are mine
At tasks that help to feed the far-flung line
That meets the force of angry, hostile foes
And beats him back with Freedom's mighty blows.

This is my war, and I will do my best
To carry my full share whate'er the test.
It matters little what my race or creed.
'Tis FREEDOM calls and I come to her need!
All streams, whate'er their source may be,
Flow on to join the vastness of the sea---
And so with faiths and races let us be
Working towards God, the Ultimate, the Free.

This is my war, and I will do my best
To carry my full share whate'er the test.
It matters little what my age or place,
For there are tasks for every strength and pace.
It MATTERS MUCH that I give my whole heart,
My loyalty, --- my self, --- my every art
To build united strength that we may be
Today---tomorrow---and FOREVER FREE!

- Anonymous

With rationing regulations in force, LMAL employees and their guests are expected to abandon their "gasoline chariots" in favor of such emergency transportation as bicycles, buggys, and the use of good ole shoe leather.

Public transportation will be available; in fact, the Langley Field bus stops near the Armory, located at 504 North King Street. The reason for holding the dance from 7:30 to 11:30, it was explained, is to encourage the use of public transportation.

T. Melvin Butler, chairman of the Noble Order of the Green Cow, announced that \$2 membership tickets are being sold in various sections and will entitle purchasers to attend the remaining Green Cow dances this year. No single-admission tickets will be sold at the door tonight.

The affair will be strictly informal and music will be furnished by Red Overton and his orchestra, featuring songs by Dick Giersch. Other Green Cow officials are Axel Mattson, Frances L. Winder and John Garvin.

Attendance Records*(Continued from page 1)*

or leave without pay as the case warrants.

LEAVE LIMITATION NOW 20 DAYS

In view of the discontinuance of compensatory time off for time worked in excess of 48 hours per week, with the subsequent result that employees have had to use their leave in small amounts for minor personal and business matters, the Washington Office has authorized the extension of the limitation on annual leave from 15 days to 20 days for the calendar year 1943.

PERSONNEL PUZZLE ANSWER*(See puzzle on page 2)*

From facts 1, 4, 5 and 6, Marjorie knew that the President must be a married woman. Mrs. Simpson is the only such, so she must be the big boss.

From facts 1 and 2 she could see that the Vice-President and the Stock Clerk were men, and that the Stock Clerk, at least was married. That made Jones the Stock Clerk, and Brown the Vice-President.

From fact 2 she knew that the Chief Chemist was married, and old enough to have a married daughter. Mr. Smith was it.

From fact 3 she could tell that Miss Green is the Technician.

Only Miss White is not accounted for, so she has to be the Stenographer.

(Edgar's note: This one should have been easy, even if I couldn't get it.)

DOMESTIC FIGURES: LMAL's computing Section served a buffet supper at the Hampton USO Club Sunday night, Feb. 28, as the recreation center observed its first anniversary of operation.

RED CROSS DRIVE*(Continued from page 1)***SEEKS INCREASED DONATIONS**

In view of the fact that no membership drive was conducted last November, and because the war has resulted in an expanded Red Cross program, Mrs. George W. McAllister, executive secretary of the Elizabeth City County Red Cross Chapter, has asked LMAL employees to double the sum they usually give to membership campaigns, if possible. She said this is necessary in order for the Red Cross to continue its accelerated program at home and abroad.

The Elizabeth City County Chapter, which will be presented with all contributions collected in the LMAL campaign, has a \$14,000 goal. Mrs. McAllister said that a large percentage of the funds collected at the Laboratory will remain with the County Chapter for the financing of its local program.

The national campaign goal is \$125,000,000 which, with \$20,000,000 as a balance from the first war fund drive, is expected to finance the organization to Feb. 28, 1944. Estimated expenditures and commitments from Jan. 1, 1942, to Feb. 28, 1943, amount to \$57,600,000 for the national organization and \$30,000,000 for the chapters.

VOLUNTEER WORKERS LISTED

The following is a list of solicitors and the sections they will canvass:

Miss Katherine C. Thomas, Administrative Division; Miss Ida Young, Chief Aero. Div. Offices, Editorial Office and Power Plants Installation; Miss Marjorie Mumford, Chief T. S. Div. Office; Miss Elizabeth T. Saunders, Maintenance Section; Mrs. Anna Land, Hydrodynamics Div.; Miss Vera Huckel, Physical Research Division; Mrs. Elizabeth B. Keetch, Power Plants Division; Miss Vivian Smith, Electrical Section; Miss Louise Moss, 16-Foot Tunnel; Miss Annetta R. Gwaltney, Propeller Research Tunnel.

Also Miss Marjorie T. Gildner, Stability Research Section; Mrs. Clara C. Anderson, Instrument Calibration, Blueprint Room and Photographic Lab.; Miss Emilie C. Coe, Flight Research Loads and Computers; Miss Jeannette Cooper, Pressure Tunnel; Mrs. Temple Cook, Flight Research Maneuvers - Office; Miss Kathryn J. Puckett, Flight Research Pilots and FRL Maintenance and Repair; Miss Katherine F. Kelsey, Atmospheric Wind Tunnel; Mrs. Katherine A. Livesay, High-Speed Tunnel and 24-Inch Tunnel; Miss Frances Winder, Full-Scale Tunnel; Mrs. Iris Geer, Structures Research, Construction and Construction Inspectors.

Also Miss Katherine Thomason, Air-Flow Research; Miss Jeanne Goddin, Engineering Section; Miss Kathryn A. Banick, Machine Shop (East Area) and Erection Shop; Mrs. Phyllis Riley, Model Shop (East Area) and Dynamic Model Shop; Miss Marjorie Barber, Stock and L.W. Purchase; Mrs. Anne R. Robinson, West Sheet Metal Shop and Model Surfacing and Finishing Shop; Mrs. Frances Powell, West Machine Shop, Foundry and Prop. Shop; Mrs. Jessie A. Pere, Instrument Service; Miss Dorothy Cole, Instrument Research Section, and Miss Martha Willis, Apprentice Administration.

RELY ON PERSONNEL TO CLOSE OFFICES

The reports of the night watchmen have disclosed an increasing number of windows left open, lights left burning, and in some cases doors left unlocked. Few buildings have escaped mention and the condition is general. In checking on these items it has been found that the belief is generally held that a janitor will take care of all such items. However, the staff is reminded that there is a shortage of janitors and in many buildings no janitor works as late as the end of the second shift.

Request Cooperation

Due to the shortage of janitors it is necessary to rely on the personnel of each shift to see that all windows are closed, and all lights out when the shift ends, unless another shift takes over. In regard to the doors found unlocked it is felt that this is due to carelessness on the part of the employees occupying the building, since all doors are required to be kept locked in the absence of the day-light shift.

The solution to these difficulties lies in having the person in charge of each night shift see that his subordinates keep the doors locked and close the windows and turn out the lights on leaving the building. Even though there might be, normally, another employee to take care of this, it is desired that Section Heads assume this responsibility.

A WINDY WELCOME: A daily newspaper reported recently that the NACA had included in its 1943-44 budget estimates \$60,000 for a new "guest" tunnel. It's dis(gust)ing.

A MOLEHILL: The first fiscal year's appropriation for the National Advisory Committee for Aeronautics was \$5,000.

E. T. Allen killed (Continued from page 1)

flames and began to disintegrate. As Allen sought desperately to maneuver the craft to a forced landing on the Boeing Field, it plowed blazing into a Seattle packing house. Allen was among several killed.

Allen's death takes the nation back to post-war days when the world was busy healing its wounds. Edward P. Warner, now a member of the National Advisory Committee for Aeronautics, had departed the Massachusetts Institute of Technology to become chief physicist of the NACA. At Langley Field there was a personable young man who occasionally served as pilot for Warner in his early research into the flight characteristics of planes.

Risked Life Often

The young man was Allen and the planes then were nothing more than crates in comparison with today's air giants. It was left to men like Allen to risk their lives in valiant efforts to help obtain data necessary to develop the crates into masterpieces of design and performance. Allen had come a long way since the pioneering days, but he had returned to the Langley Laboratory frequently and was a friend of Melvin N. Gough, head LMAL test pilot, and others here.

Allen's contemporaries described him as an outstanding test pilot of large airplanes and a great figure in the aircraft sciences. He won many honors, among them the Chanute award for accomplishment in test flying in 1939. The Boeing Company, in mourning the loss of the pioneer airman, commented: "It has been the efforts of men like Allen and his crew, who even at the time of their death were engaged in aeronautical research, that have helped make American planes the best in the world".

GENERATING PLANT FILLS REAL NEED

Most NACA personnel do not realize what an impetus the Electric Generating Plant has given to war research of the LMAL. Previous to November 7, 1941, when the Plant was established, the tunnels had to make arrangements for each run with the local utility company and even then often had to wait until late at night to get sufficient power. Now they can run whenever the model is ready. One large tunnel used almost as much power in the past year of our operation as it had in the previous five years.

The Generating Plant itself is Diesel powered--a highly efficient and flexible power supply. In ten minutes' time, the Plant can go from all-engines-shut-down to full load output of 10,000,000 Watts, and this is often done several times in a day.

During the first year of operation the Plant supplied the LMAL with 7,499,000 KWH which, if you were buying for your own home at the low rate of two cents per KWH, would entitle you to a bill of \$149,980.

Leave Retroactive

(Continued from page 1)

leave earned at the rate of 26 days per calendar year may be accumulated at that rate up to a total of 60 days and thereafter may be accumulated at a rate not to exceed 15 days a year up to a total of 90 days.

The effective date of this law has been changed from Jan. 1, 1943, to Sept. 8, 1939, the date on which the President declared a national emergency to exist. LMAL officials pointed out that the leave records of employees will be reviewed and where forfeiture of leave occurred in the past four calendar years, adjustments within the limits authorized by law and the Comptroller General's decision will be made.