

AIR SCOOP

LANGLEY MEMORIAL AERONAUTICAL LABORATORY

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LIGHTPLANE CONFAB HELD LAST FRIDAY

In an all day session devoted exclusively to problems of the personal airplane, the NACA last Friday took the wraps off a large fund of wartime research knowledge for the benefit of lightplane industry engineers. The meeting marked the first extensive application of the invaluable information gained from military aircraft designs during the war to the design of light aircraft for private use.

Out of the large number of NACA wartime reports, those that have a direct bearing on small airplane design have been selected and indexed and are being declassified to make them easily drawn upon by the design engineer.

In addition to a general tour of the Laboratory, the technical discussions during the day covered every aspect of light airplane design.

The philosophy of the whole conference was to make available to the private airplane industry the work of the war years, that had to be channeled to the large war contractors.

NIGHT COURSES OFFERED AT HAMPTON HIGH

Luther W. Machen, director of night school, announced this week that registration for night courses, to be conducted at Hampton High School, will be held from 7 to 8:30 next Monday and Thursday nights at the office located near the Victoria Avenue entrance to the school.

Persons may also register from 9 a.m. to 4 p.m. during the regular school days at the Vocational Education Office at the high school.

Registration will be for adult education courses and individual classes will start as soon as a sufficient number have registered. It is important that all persons interested in taking a course make application promptly.

The night school courses will be conducted under authority of the Hampton school board in cooperation with the State board of trade, industrial education, and the adult education division. A small fee is charged for each course which is payable at the time of registration.

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RECORD-BREAKING REGISTRATION FOR U. OF VA. EXTENSION

Alfred Gessow, Faculty Chairman, stated that the results of the registration for the coming semester of the University of Virginia Extension, held on September 18, were "most gratifying". He pointed out that the number of students enrolled in the courses exceeded by far previous registrations, thus allowing the formation of a greater number of classes than have ever been given during previous semesters.

Classes will meet at the Hampton High School and the first period is scheduled for Monday, September 30. Following is a list of courses which will be taught and the nights on which classes will be held: Monday evenings: Differential Calculus, Advanced Calculus, Fundamentals of Aeronautical Engineering; Aerodynamics of Compressible Flows, Aerodynamics of Supersonic Flows, Elementary Spanish, College Algebra, and Aircraft Instrumentation. On Thursday evenings: Differential Equations, Mathematical Methods in Engineering, Aerodynamics of Compressible Flows, Functions of a complex Variable, Application of Aerodynamic Theory to Stability and Control, Physics, Elementary Electronics, and Electronics.

Some classes are still short of eight students, the minimum

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STACK DELIVERS PAPER ON SUPERSONIC RESEARCH

John Stack, Chief of Supersonic Research, left Thursday, September 19, for Paris, where he will speak at the Sixth International Congress for Applied Mechanics". Stack's paper, "Phenomena at High Air Speeds," discusses research findings on supersonic airfoils when operated at low speeds, such as takeoff and landing of a supersonic aircraft.

Following the Congress, Stack will visit German, Swiss, and British aeronautical research centers, the latter as guest of the Director-General of Scientific Research.



Shown above is a group picture taken last Friday in the Induction Aerodynamics Laboratory during the inspection of the Laboratory research facilities by representatives of personal aircraft manufacturers.

FROM AVIATION'S LOG BOOK

By Len Arnow

Advanced Thinker-----

Some of our modern ideas regarding the airplane were foreseen as much as seventy-three years ago in France by Alphonse Penand when he patented his airplane design. The Penand design was a monoplane amphibian able to operate over land or water with a retractable landing gear. At that time a retractable landing gear was almost unheard of, and it was about fifty years later that this principle became generally accepted.

Another of Penand's achievements was his demonstration of the present standard method for obtaining longitudinal stability by placing a horizontal stabilizer far behind the airplane wing. He also thought of connecting two separate control surfaces to a single lever and has been credited with the origination of the "joystick" used on many present day airplanes.

The wing plan form of Penand's airplane was elliptical in shape, a feature that was used in World War II. A wing loading of four pounds per square foot was proposed by the French scientist based on a total weight, with two passengers, of 2,640 pounds. He estimated that it would require 20 to 30 horsepower to fly this airplane at 60 miles per hour; an obstacle which prevented successful completion of the Penand airplane since there were no light engines of such power at the time.

NACA Notes-----

The first voucher made out against the first NACA appropriation in 1915 was for the services of John F. Victory, thus making him the first NACA employee.-----During the spring of 1916, Captain Billy Mitchell, later to become America's prophet of air power, was in charge of the Signal Corps' aviation section and was consequently in close touch with work done at the NACA at that time.

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FILED at the LABORATORY

Passing out cigars and candy.

last Monday in a manner typical of proud fathers was Walter Hixson, Personnel. He became the father of a daughter, Sharon Lynn, on Sunday, September 22.

Announcement of a new arrival.

was received this week from two former Laboratory employees. Helen, formerly of Payroll, and John McMichael, formerly of West Engineering, are the proud parents of a son, John, Jr.

Two employees from.

the Washington Office, Parmely Daniels and Jim Kelly, were down this past week-end to see their old friend, T. Melvin Butler, get married off to Frances Leigh of Files.

Two more Laboratory employees.

Rachel Chapman, Flight Research, and Don Lietzke, West Engineering, will join the list of newly weds when they tie the final knot on Saturday, October 26.

Another romance was.

climaxed last Friday when Porter Brown, Flight Research, married Irene Reeter of Norfolk.

Today is the big day.

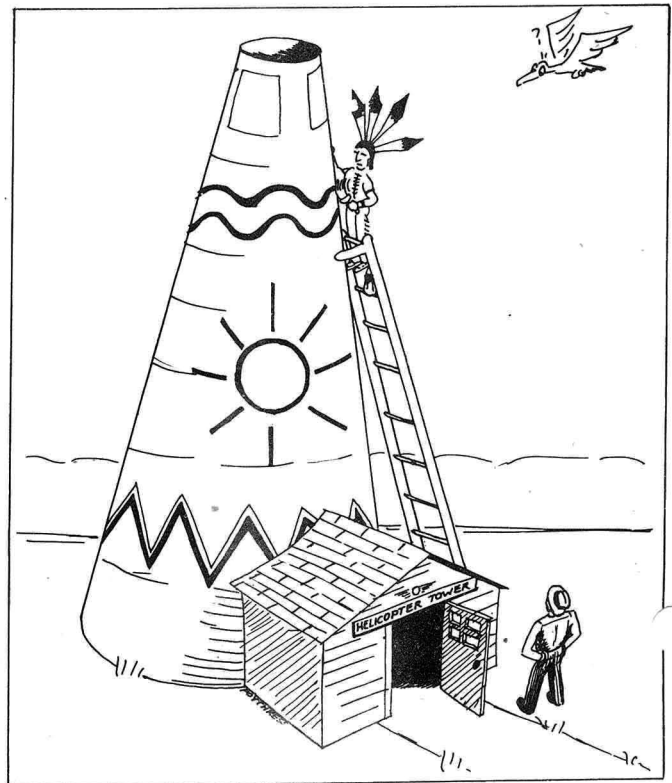
for Rachel Withers of West Machine. She will change the "Miss" to "Mrs." when she says "I do" to Carl Cecil of East Sheetmetal in Tabbs, Virginia.

As far as we can determine.

only two Laboratory employees have been entered in the "Queen Newport News" contest. They are Dorothy Comstock, Flight Research, and Joy Smith, Report Typists. Votes are gathered by sending in "vote coupons" that appear in the daily newspapers and by buying tickets to the pageant "Between Two Eras" which will be shown from October 14 to October 18.

Despite the outward appearance.

of being the perfect physical specimen of young manhood, "the body beautiful," and what have you, Charlie "Bruiser" Forsyth, FRD, evidently has a weak streak somewhere 'cause he fell hook line and sinker and went and got himself engaged to Becky Ramsey, formerly of the Library. No definite wedding plans have been announced but no doubt the big day will take place sometime in the future. When questioned Forsyth stated, "I've nothing to say, it happens to the best of us - and the worst."



Runner-up



Shown above is the Full Scale Tunnel softball team, runner-up for the 1946 championship title. Front row (left to right) Erma Twyman, scorekeeper; Tony Proterra, second baseman; Jerry Pasamanick, outfielder; Jerry Brewer, third baseman; John Harrington, outfielder; and Hal Sweberg, first baseman. Second row - Jim Morris, catcher; Clarence Brown, shortstop; Roy Lange, pitcher; Don Davis, outfielder; and Kaz Czarnecki, outfielder.

NIGHT SCHOOL

(Continued from page 1)

All classes will be in session two nights each week, Mondays and Thursdays. Adult education courses will last for about two hours while certain practical arts courses will be in session for two and one half hours each night.

Adult education courses will, in most cases, be in units of 40 hours and certificates will be awarded for successful completion of each course.

If the demand for standard high school courses is sufficient, arrangements will be made to award high school credit for such courses.

Courses to be offered are as follows: Algebra, Geometry, Trigonometry, Business English, English Grammar and Usage, Public Speaking, English-American Literature, Hobby Woodworking, Sewing, Art Sketching and Painting, Electricity, Radio Theory, Chemistry, Physics, Current History, U. S. History, Typing, Shorthand, and Bookkeeping.

WANTED: Ride to Denver, Colorado, or vicinity, on October 18 or 19. Call Newport News - 2-2497.

STABILITY OPENS BOWLING SEASON

The Stability Division Duckpin Bowling League began its season last Wednesday night with four teams, Hot Shots, Alley Oops, Spare Squares, and Scotch 'n Tapers, winning all three games. Tom Snyder, bowler for the Spare Squares, took top honors for the men with a 340 set and a 116 game. Edna Lishman, Pin Maulers, led the fairer sex with a 283 set and a 105 game.

After the Wythe Bowling Alley went up in flames in the fall of 1943, members of the Stability Division were such bowling enthusiasts that they formed a seven team league and journeyed to the Sports Bowl once a week despite gas rationing. The effort was such a success that since that time the division has formed its own league. Last year's league was the largest with fifteen teams. This year twelve teams are in the running, they are: Atomic Bums, 7 X Foots, Alley Oops, and Pin Maulers, all from the 7 X 10-Foot Tunnels; Scotch 'n Tapers and Spare Squares from Spin Tunnel; Hot Shots and Bouncers from Stability Tunnel; Fliers and Deadwood from Free Flight; Guided Missiles from Stability Analysis; and Balsa Butchers from DTOS.

EXTENSION

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number necessary to form a class. These courses include the following: Operational Calculus, Strength of Materials, Theoretical Aerodynamics, Appreciation and Prediction of Flying Qualities.

In most cases, only two or three more registrants are needed. Chairman Gessow urges that those persons who have put off their enrollment until the first class period register now in order to insure a full class for those courses with a marginal registration. In addition, he stated that those who have indicated a desire for a course which will not be given, should consider taking a different one which will definitely be offered.

Veterans may enroll in these courses and have their tuition paid under the G. I. Bill of Rights. Only one-fourth of the time actually spent in taking the courses will be deducted from the total eligibility. A veteran may therefore take one or two extension courses, with a total deduction, in either case, of only one month. Interested veterans should contact the Training Office immediately so that Certificates of Eligibility may be obtained with the least possible delay.

LAST PERFORMANCE OF MINSTREL TONIGHT

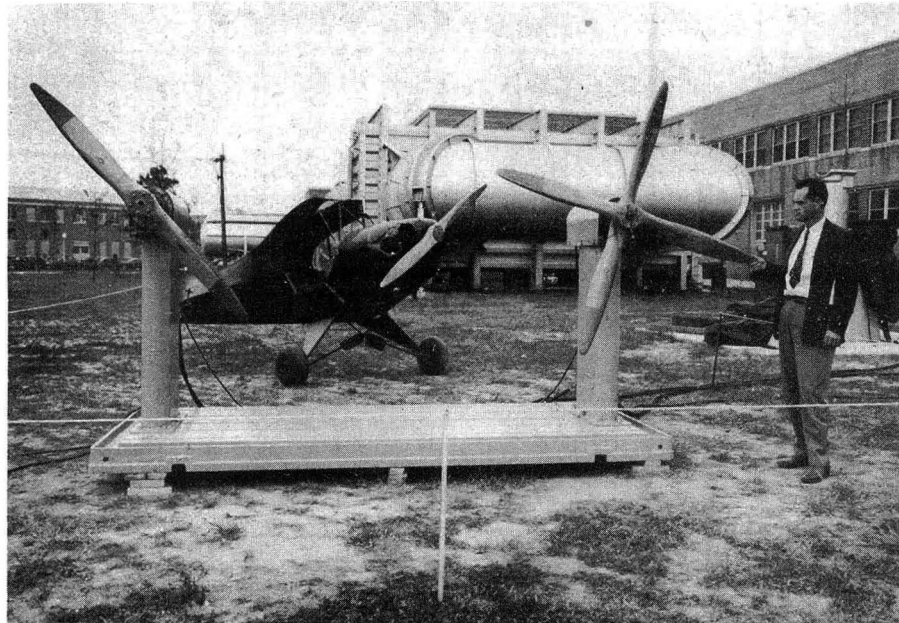
The last performance of the Kiwanis Minstrels of 1946 will be presented tonight at 8 p.m. at the Hampton High School auditorium. The proceeds of the show will be used for the benefit of underprivileged children.

Jack Parkinson, Chief of the Hydrodynamics Research Division, is interlocutor of the minstrel and other laboratory employees taking an active part in the show are: Percy Keffer, Head of Woodwork and Foundry Shop; Marvin Forrest, Maintenance; John Ankeney, formerly of PARd; Granville Derby, 8-Footer; and Tiny Hutton, formerly of "Air Scoop."

As the paper went to press the possibility of giving a repeat performance on Saturday night was under consideration.

WANTED: One complete set of "Aero Dynamic Theory" by W. F. Durand. William O'Sullivan, PARd.

LOST: NACA recording flight instrument No. 558. Anyone knowing the location of this instrument please notify R. H. Lincoln, Instrument Service.



One of the features of the NACA-Industry Conference on Personal Aircraft Research was a noise demonstration given on the grounds of the Physical Research Laboratory. An appreciable reduction in propeller noise was noted in operating the four-bladed propeller (right) at low tip speed. The conventional two-bladed propeller is shown at left, and a personal airplane, with a two bladed propeller, may be seen in the background.

--Photo by Andy Sea

RESEARCH HELPING TO ELEMIMATE NOISE IN PERSONAL PLANES

Government aviation officials and commercial plane operators are taking steps to decrease the noise nuisance of airplanes. Results of studies in airplane noises made by the NACA show that propeller noise dominates engine exhaust noise even though the exhaust has a relatively high intensity. To reduce the total, it will be necessary to modify the propeller to operate at low tip speeds and to have a large number of blades. An effective engine exhaust muffler also will be required.

Manufacturers are experimenting with new-type propellers. A fan-type prop is shown to be practically inaudible. A small plane with a low-tip-speed fan-type propeller, and an engine exhaust muffler, may eliminate the noise nuisance.

One of the important features of the lightplane conference held at the Laboratory last Friday was a demonstration of a new design for propellers which greatly reduces the noise at no sacrifice in performance. By using as many as eight blades, turning at one-third the speed of a two-bladed propeller of equivalent power, the many bladed fan-type can be made virtually silent. Further information on propeller design summarized recent NACA propeller research making possible substantial increases in efficiency. The two problems of noise and efficiency have been combined in one analysis, with the specific objective of showing how efficient propellers can be designed incorporating a reduction in noise level.

HOLD HIGH HOLY DAY SERVICES

Samuel G. Gordon, Director of the USO-Peninsula Jewish Welfare Board, announced that High Holy Day Services will be held at the Graff Servicemen's Center in Newport News under the auspices of the Peninsula Army-Navy Committee of the National Jewish Welfare Board.

WANTED: Ride for two to Cincinnati, Chicago, or Cleveland around October 12. Alma Alexander, Personnel Services, or call Hampton - 6648.

FOR SALE: Hampton One Design sailboat. Registered for racing. First place winner in local fleet races. Bunny Klawans, Flight Research, or call Hampton - 8618

OPEN EXAMS FOR TYPISTS, STENOS

The Fourth United States Civil Service Region has announced the opening of an examination for the positions of Typist, Grades CAF-1 through CAF-4, and Stenographer, Grades CAF-2 through CAF-4. Application card Form 5000-AB, which may be obtained from the Employment Office, must be received in the Fourth United States Civil Service Region, Nissen Building, Winston-Salem 3, North Carolina, not later than October 17. All Federal employees with War Service or Temporary appointments should apply for this examination. The time and place for the exam will be designated later. For further information, call the Employment Office, telephone 2272, or see copies of the announcement on bulletin boards in the Technical Service, Administration, Utility, and West Area Warehouse Buildings.

EXTEND ENTRY DATE FOR TOURNAMENTS

Bruce Amole announced that the date for entries in the volley ball, badminton, and horse show tournaments, has been extended to Wednesday, October 2. All entries should be sent to Chet Furlong, 19-Foot,

WANTED: Tripod for camera. E. McSmith, Hampton-6661.

"JUNIOR MISS" SELECTED FOR OPENING PLAY

John C. Houbolt, Chairman of the Hampton Little Theater membership drive, announced that the drive is still underway and will run through October 16. Season tickets may be purchased from section representatives for \$1.50 each.

The Little Theater plans to present 3 three-act plays this season. The first one, "Junior Miss," will be presented on November 21 and 22 at the Hampton High School auditorium. The production will be under the direction of Sally Rodriguez who played the part of "Fluffy" in the Broadway production of the same play.

EMPLOYEE DIES IN ACCIDENT

William Luster, Maintenance, died Thursday night, September 19, when he was struck by a taxi on Queen Street in Hampton. Luster, who resided at 610 West Queen St., came to work at the Laboratory as a janitor on August 6, 1945. At the time of his death he was 39 years old.

He is survived by his father, a sister, and one brother. Funeral services were held last Monday.