August, 1935

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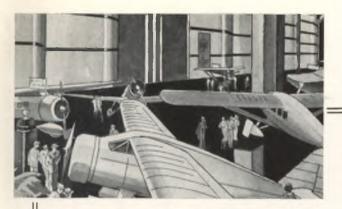


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AIRWOMAN, the magazine of sky talk for women who fly and for

AIRWOMAN, the magazine of sky talk for women who fly and for those who are still earthbound but interested, is the official organ of the 99 Club of women pilots and of Women's National Aeronautical Association.

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NINE-DAY PAGEANT

By RAY COOPER



Increasingly prominent in the bullet-swift progress of the aircraft industry are the women of America. This salient fact will be vividly reflected at the All-Amer-

ican Aircraft Show. The stage has been set at the Detroit City Airport for the aeronautical exposition and, as this story dives under the deadline, everything is in readiness for a nine-day pageant, with the doors of the gigantic municipal hangar ready to swing open on July 20.

Three years have elapsed since the last Aircraft Show. It was in 1932 that the industry last exhibited its wares to the public. Since then, despite economic conditions, aviation has forged on and on, moulding a powerful structure that ranks American flying high above that of any country in the world. Mr. and Mrs. Average Man are not completely aware of the tremendous development that has been chronicled in these three years, hence there is a fitting signficance to the 1935 show. Above all, it marks the revival of an annual aircraft show with every phase of aviation participating. Secondly, it heralds a renewed joy and hope in flying amongst the American public. The industry itself is vitally interested in the show, for it will give the producer an opportunity to feel the pulse of the buyer.

N planning the 1935 show, special emphasis has been given to airplanes for the sportsman pilot and the business executive. This, coupled with the exhibition of new developments, blends into a glowing pageant of aeronautical science.

Numerous aeronautical improvements will be prominently featured at the show. Three years ago the controllable pitch propeller was in its experimental stage. Today we find that controllable blades

are standard on air line ships in this country and numerous private planes are produced with this equipment. This year finds the propeller manufacturers displaying a "constant speed" propeller, with automatically controlled blades, which are designed to keep the motor at a constant pace regardless of the position of the plane.

In the field of navigation perhaps the most outstanding achievement has been the radio compass direction finder and Howard Ailor and William Lear will display the new Lear development. In both sport and air line planes, the radio has played an important part in the past few years.

WACO, Taylor, Stinson, Porterfield, Rearwin, Beechcraft, Ryan and Curtis-Wright had already been assigned space on June 25 with definite commitments from a dozen other aircraft builders. The engine field will be generously represented by Wright Aeronautical Corporation, Pratt and Whitney Aircraft Co., the Lycoming Manufacturing Co., Warner Aircraft Motors Corporation, Jacobs Aircraft Engine Corporation and the Continental Motors Corp.

The special women's section is being planned by the Detroit section of the 99 Club with Mrs. Hartung, Mrs. Ray Baker, Mrs. Florence Swanson, Mrs. Mabel Britton and Miss Alice Hirschman in charge. A miniature balloon race is to be conducted at the show, with the 99 Club as sponsors.

The 1935 pageant is under the auspices of the Aeronautical Activities Association, of which Robert B. Evans is president and Tom Colby is secretary. Many important meetings are being arranged in connection with the show, including a conference of airport managers under the auspices of the Airport Section, Aeronautical Chamber of Commerce, on July 23-24. Captain C. V. Burnett, manager

of the Detroit City Airport, is to preside at this meeting and several hundred airport managers from all parts of the country are expected to attend.

A meeting of the National Association of Aviation Editors has been called for Monday, July 22. James V. Piersol, aviation editor of the Detroit News, is in charge of local arrangements for the meeting and Piersol is planning to carry the visiting aviation editors on a flight tround Detroit in his paper's Lockheed Orion at the conclusion of the conference.

Miss Hirschman, North Central 99 governor intends to conduct a sectional meeting of the Club during the show period and Ladies' Day will be July 22. The Stinson Air Cab Operators will wing their way to Detroit from every corner of the nation for a national meeting.

S PECIAL sportsman pilot cruises will likewise plod the skyroads leading to Detroit for the show. Chester H. Warrington, vice president of the Sportsman Pilots Association, has organized a cruise from Washington, with more than fifty fliers participating. The group will fly from Cincinnati in a cruising speed race on July 23. This day has been set aside as Sportsman Pilots Day and the race will terminate at the Detroit City Airport at noon. Other groups are planning to fly from Boston, Chicago and also from the Long Island Aviation Country Club at Hicksville. The Detroit Yacht Club is preparing to receive a group of seaplanes and amphibians, which will fly to the show in cruise formation with George B. Post in command. At least a dozen ships will participate and beautiful trophies have already been donated for each cruise.

Government participation in the show has been assured. The Army Air Corps will be represented by the First Pursuit Group from Selfridge Field. Air mail and air express is also to be featured at the exposition and a special cache has been created by the Post Office Department for all air mail leaving Detroit from July 20 to 28.

A special transport section, consisting of exhibits by each of the major air lines of the country, has been planned with TWA and other systems participating. Accessory manufacturers, parachute makers and the oil companies will round out the show.

I hope that every reader of the Airwoman magazine will consider this a personal invitation to attend the All-American Aircraft Show at the Detroit City Airport from July 20 to 28.



Spin, owned by Tom Colby, is the official mascot of the All-American Aircraft Show. Judging by the picture, he seems to have the situation well

JUST AMONG US GIRLS

By Mister Swanee Taylor

WELL, girls, your old Bro. Swanee feels like riding hero some more this morning. He feels astir in his bosom an emotion akin (I suppose) to that of a devoted Collie who wants to guide the flock to greener pastures. So, do be sweet lambs and take heed of his friendly yappings. And friendly they are, for, as God is my judge, your old Bro. Swanee doesn't bite in the clinches!

The time has arrived, m'dears, for all good airwomen to come to the aid of their party. We have, Us Girls I mean, advanced out of the teething stage, and are expected to at least toddle along under our own tootsie-power. No longer will plaintive looks and wails do the trick. In the business of aeronautics dames are going to receive the same consideration extended to all journeyman pilots—no more, no less. And whatever comes our way, good or bad, will be our own making.

WHAT to do?... We'll tell you what to do; call attention to your growing little guild, but call it loud and long. Lift your voices in happy rime to the cash registers thoughout the industry. Let the various manufacturers know that you are around and kicking. And let certain ones know that you appreciate their aid and understanding. What's more, let the latter learn of your appreciation through the till.

When, for example, you have occasion to land at Grand Central Air Terminal, at dear old Los Angeles, drop around to the Aircraft Industries outfit for whatever you need. And thank them for the interest they've shown in your magazine. Likewise, when you happen to get out to Roosevelt Field, waltz in on Howard Ailor. He's quite human, and has been a bulwark of strength for a struggling magazine. Lester Erickson, over at Floyd Bennett, has long kept on hand a large supply of powder puffs and other accessories for visiting ladybirds. Thank him, along with thanking the rest of your-er -er-girls! I've got to say supporters.

A LONG with being sweet-as-apple-pie to the service people, get to work on the manufacturers and their distributors. There are a lot of the sales and services organizations who have jumped into print in our magazine. Stinson Air Cab Operators Ass'n., at Wayne, Michigan, is on our side. Rent a ship there when you gotta fly out in those precincts. In short, look through the book to find where to buy.

About our other advertisers, like the

Taylor Aircraft Co. and Sperry Gyroscope Co., there is a lot you can do in the way of actual sales stimulation. Or if you buy a Wright J-6 see to it that Tom Morgan hears about it. It'll let him know that the sales-overhead in AIR-WOMAN has been absorbed. He'll advertise some more and our baby will grow fat and strong.

The same holds true as far as B. G. Sparkplugs, and Dardelet Self-Locking Thread are concerned. Superb products both that will keep you young and beautiful, and made by people who hearken a bit beyond the tinkle of gold.

BUT don't stop at gracious gratefulness. Lordy no! Go right ahead after more and more recognition. When and if you arrive at Ray Cooper's Detroit Show, get busy on some good fast missionary work. You'll probably see Jimmie Doolittle and Jimmie Haizlip there. Make 'em tell you exactly why Shell Oil doesn't woo airwomen. Tell them that the girl flyers in this country burn up around fifteen thousand gallons of gasoline a month and that their company would be setting a new something or other low in sales-overhead by using our selected medium. Also, don't fail to impress upon them that the thousands of women who ride the airlines annually will see their copy, because more than 1,500 copies of AIRWOMAN are distributed monthly on the major air lines in the country.

Don't let that Doolittle fellow have a chance to open up his charm valves on you, girls. He's devastating, they tell me, and he's forgotten more about missionary work than you'll ever know—all of you.

BOOKS By MABEL BRITTON

The Poetry of Flight, An Anthology. Edited by Stella Wolfe Murray. Heath Cranton Ltd. London, 1925.

The first anthology of flight poetry to be attempted, Miss Murray has divided her interesting collection into four parts. The first deals with the desire for flight throughout the ages, expressed in prophecies and flights of the imagination. Here are quotations from Shakespeare, Milton, Keats, Shelley, (his Cloud Chariot), Tennyson's prophecy of the "heavens filled with commerce" from Locksley Hall and many others in which Wings are dream and not reality. Section II is subtitled "Achievement and Development as Reflected in Modern English Verse. "More than two-thirds of these are poems inspired by war flying, among them Alfred Noves' Island Hawk and his more gentle and lovely verse

describing an airship over London at sunset. Section III concerns Prophecy and Fulfilment as expressed in American verse. Of these quite the most charming to me was William Rose Benet's Wings. The last section is devoted to poems by women, the first four by Americans. Though few, they stand well in comparison to the larger selection by men.

Miss Murray states in her introduction that she read and discarded more than 200 modern poems in making this collection. Her discrimination and taste are to be commended.

From Wheel-Rut and Slip-Stream by Mary Linda Bradley. Printed privately.

How would the average instructor feel if he knew his student-pilot, soloing, would turn the experience into poetry? For thus in blank verse Mary Linda Bradley, Pilot 14781 describes her first lesson, progress, the solo flight. She is a daughter of the west, I'm sure, for nearly all the poems in this slender pamphlet, dedicated to her Terrier and to Pioneers and Pilots, concern the desert and the winds and the joy and freedom of wide open places. Rather than comment on separate examples of her charming verse I shall risk being allowed enough space to quote the one I liked best.

FLYING

"This is the utmost good that I have known

The goal of groping, the undreamed release,

To fly, remote, exalted into peace

Above the bauble's claim. In monotone The engine trails its supple rolling drone And, idling like a star, I swing at ease A wistful sister of the Pleiades

Who for love of earth has lost her throne.

And yet am I become a power that flings

An alien substance through a startled air; But all is merged, this plane, imaginings, In one obedience that the ship may fare As simply as a gesture, anywhere

For as the soul turns, so shall turn the wings."

Lost Horizon by James Hilton. William Morrow & Company. \$2.50.

During an uprising in Baskul the British used airplanes to evacuate the white residents. One of these planes, stolen by a strange Chinese pilot, carries its four passengers into a remote wild place in the Tibetan mountains. There, as enforced guests of a Tibetan Lamasery they live through strange adventures. Part fantasy, part allegory, this story is an altogether enthralling one with an ingenious plot which it would be unfair to sketch



His \$700 smile

A Few of the Boys



N.A.A.'s handshaking diplomat



"Men Pilots Only" is his creed



The Black Sheep of Commercial Aviation



Plane Master of Ceremonies at Detroit

DOWN LENS

By NANCY HOPKINS TIER

TO be interested in aviation is a very splendid and fine thing . . . To be interested in photography is likewise an absorbing and worthwhile hobby . . . But to be thoroughly devoted to both makes for that ideal state that comes near to perfection.

And you don't have to be an expert at either to enjoy it to a great degree. But you will enjoy amateur aerial photography longer if you see to it that you

are a pretty good flier.

As soon as you feel that this ideal combination is about to get you, prepare for a great deal of misery . . . Not that the outcome of your picture taking will be disappointing. Your pictures will be good on the whole if you take normal precautions . . . But I mean that from now on you will not be able to take a drive, ride, hike, sail or loaf, without at some time wishing—like thunder—that you were in your plane and could get that view from the air.

OR, on the other hand, you will be taking a short flight, and hadn't expected to see anything of interest so

the camera is left back in the car . . . and Mt. Washington erupts or something! Or possibly you have hurriedly gotten into your plane to make an especially scenic trip of some distance and you find that the camera is locked, well out of reach, in the baggage compartment.

But there are bright moments and they far outshine the gloom.

You are in your plane. The air is smooth. In your lap is your camera, fully loaded, and you are off on a trip with many fascinating miles of good earth beneath . . . As you snap one picture after another you just sit back and purr . . . You are very content. You know that no matter how fleeting your memory might be, these scenes need never be lost . . . And what happy flights they will recall.

NOT that you need to do your own developing, printing and enlarging, but a great deal of pleasure and a tremendous amount of satisfaction can be derived if you do.

A few things to remember in this picture-taking business are: (1) To use Aero "2" filter most of the time. Take it off only when flying low and on an exceptionally clear day; (2) Be sure that the camera is within reach and not back in the baggage compartment; and (3) Don't put the camera out the window under any circumstances unless you are planning on dropping it. In the case of movies, it just doesn't pay to take them when it is rough. You make everyone who sees them later dizzy.

In an open plane, take the pictures at an angle between the wing and the tail surface because you, therefore, have more time to take the pictures, and your body acts as a shield from the wind.

Finally, there are two main angles from which you can fire—vertically and obliquely. If you want to get a line on the old fences at the farm, take a vertical; but for practically all other purposes, take obliques for they give you the three dimensions and are far more artistic.

It's really great fun. Why don't you

CAM-AIRA CONTEST





Who is America's best an ateur aviation photographer?

Sherman M. Fairchild, president of the Fairchild Aviation Corporation, who developed the first practical aerial camera; Margaret Bourke-White who recently completed a magnificent series of photographs for TWA, and, incidentally, became an aviation enthusiast in the process, and Doris Day, noted photographic illustrator will decide who is America's best in AIRWOMAN'S CAMAIRA CONTEST.

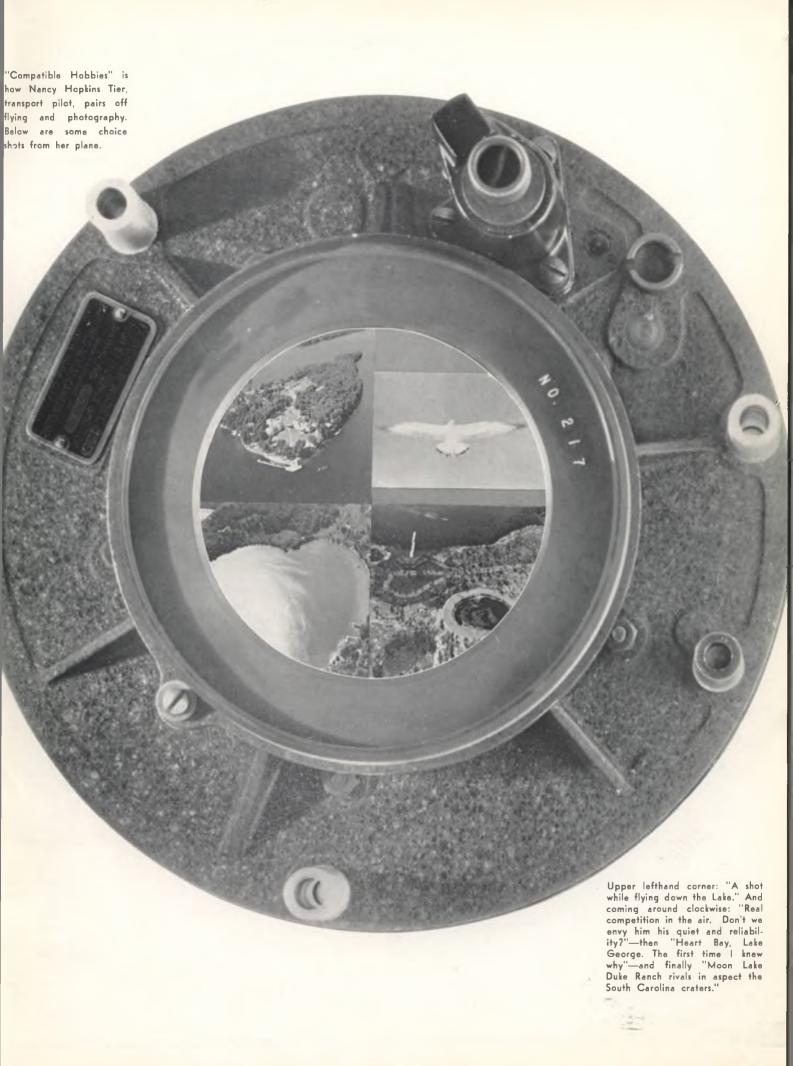
Every amateur photographer is eligible to enter our contest. Load your camera today and stalk your prey. Aviation people are doing amazing things these days—shoot them with your camera for posterity, and win a prize. And what

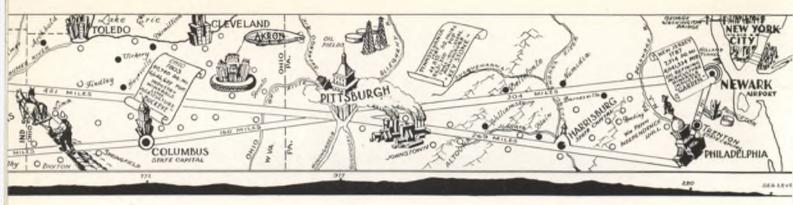
prizes! But we won't tell you what they are till next month because we want to know whether you are a photographer for the sheer fun of it, or must you have a specific prize as an incentive?

Rules for the Contest

- 1. Anyone who is not a professional photographer is eligible to enter the CAM-AIRA Contest, for amateur aviation photographers, sponsored by AIR-WOMAN magazine.
- 2. Any photograph, taken from the air, or taken on the ground with an aeronautical motif, may be entered in the CAM-AIRA Contest.
- 3. The contest closes at midnight, on November 15th, 1935. The postmark on the envelope will be considered the official time of mailing.

- 4. There will be a prize for the best photograph submitted by a man, and another prize, for the more deadly of the species.
- 5. You may enter any number of pictures in the CAM-AIRA Contest. Send them in as soon as they are developed.
- 6. Each picture must be marked "Entered in AIRWOMAN'S CAM-AIRA Contest."
- 7. Your name and address must be written on the back of each picture.
- 8. Pictures entered in the Contest are not returnable.
- 9. It is understood that any picture entered in the CAM-AIRA Contest may be reproduced in AIRWOMAN magazine without charge.





"I FEEL BETTER NOW"

By CLARA STUDER

THE quotation marks on the title are by way of apology to Margaret Fishback. I do feel much better—not because, like Miss Fishback, I've got a book of poems off my chest, but because I have just traveled nearly 4,000 miles in a TWA Douglas plane; from New York to Albuquerque and return.

Reason enough for a revival of self-respect, remembering that my last previous airway flight was made years and years ago. Curiously enough the woman who sat across the aisle from me on one stretch of the trip said that she too had not flown since the horse-and-buggy days of air travel. But, she confessed, it had seemed pretty wonderful even then, and I agreed with her.

Certainly then I went about feeling very superior (You should see me now, though!) after a trip via old T.A.T. out of Penn Station by airway special to Columbus. It all seemed quite extra ultra, from the tiny cinnamon buns at breakfast in the train diner to the casual statement by the co-pilot a few hours later that "that down there is the Missouri River flowing into the Mississippi." All trains in the Middle West were snowbound at the time and planes had been grounded for two weeks because of weather. (Which reminds me of the tremendous advances, such as the Sperry Automatic Filot, directional Gyro, radio and other safety devices in evidence today in the way of licking weather problems.)

Y only criticism of that long-ago / trip was that the plane seemed to be stationary even at the top speed of 115 miles per hour. Coming down to the present: it's as true as it sounds that the Douglas is effectively soundproofed. I found much less noise when we were putting 200 miles an hour of groundage behind us, than there is in a bus on the highway at 50. And the decrease in the effect of the noise on the ear drum accounts for the fact that in a Douglas you feel like you are going somewhere and you don't have to watch the changing landscape below to keep yourself convinced you're not standing still.

Of course there are other differences, very impressive ones. But I'd heard about those and nobody had ever told me that little thing about the actual as well as the theoretical consciousness of speeding ahead.

In 1929 Transcontinental Air Transport pilots struck me as being about as competent, intelligent and handsome a lot as you could comb out of a countryful. The crews on the Transcontinental and Western Air planes I flew on recently are up to exactly the same high par. No contrast here.

One very notable difference which I

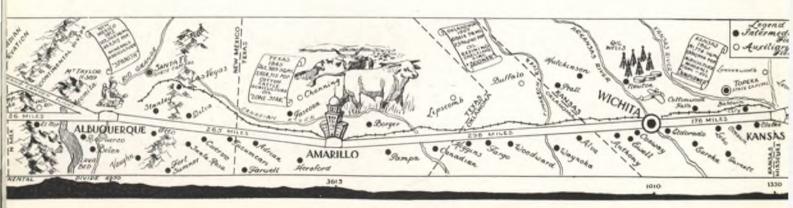
observed was in the larger number of women passengers—varying from 15 and 20 per cent in 1929 to between 10 and 75 per cent, with an average of 40 per cent, in 1935.

DURING the greater part of the trip I sat shamelessly—like the air travel greenhorn I was—with my eyes glued to the window pane or the strip map, playing appreciative audience to such dramatic bits as the flat plains of Texas shifting suddenly into New Mexico's rugged plateaus. But it was the hours between New York's midnight to breakfast aloft east of St. Louis that were the chief spell-binders for me.

Watching the revolving beams, boundary lights and all the night-owl glow of the earth below, I felt so proud of me for being there and of that handsome metal brute of an airplane, I wanted to reach out and pat a great silver wing by way of thank you.

Ground features of my trip were a tea party by the Women's National Aeronautical Association at Alburquerque, a visit with Katherine Stinson (Mrs. M. A. Otero, Jr.) at Santa Fe, and meeting Ruth Haviland in uniform. If my memory is correct, Ruth is the original air hostess of all time, and it's nice to know she is back on the job (which was more or less written around her) for TWA, as Station Hostess at Kansas City.

Strip Maps from TWA's Skypacket



LINES IN THE SKY

By PAT O'MALLEY

THE all expense air tour has arrived on the vacation horizon. Charles A. Rheinstrom, General Traffic Manager of American Airlines, has announced the "Circle Tour" of several major cities of the middle west and east, all by air. Transportation, hotel, and sightseeing expenses are included in a single ticket which carries the tourist more than 2000 miles.

Starting at Chicago, or any city on the "circle", the tour includes stops at Detroit, Buffalo, Boston, New York, Washington, Cincinnati and Indianapolis, returning to the starting point.

Nine days are required for the full trip, including all stops. A shorter trip, which omits Boston, is completed in six days! There is also a four day tour from Chicago to Washington in which minimum time is spent in travel and all possible for sightseeing in the beautiful capital city.

AIR Service to Bar Harbor for the summer season has been instituted by Boston-Maine Airways, three days each week. The new service will provide, on Fridays, Saturdays and Sundays, a connecting schedule via Boston between New York and the summer resorts in the vicinity of Bar Harbor.

ORTHWEST Airlines has increased its service between the Twin Cities and Chicago to four round trips daily, thereby providing the Twin Cities more scheduled air service than is given other cities of similar size in the United States. All services are being flown with new ten-passenger twin-engine Lockheed Electras.

TWA rushed five passengers who came from Havre, France, aboard the Normandie, on to the late afternoon Sky Chief, practically before they set foot in New York, and had them in Los Angeles at eight o'clock the following morning. The quintet included Mr. and Mrs. William Goetz, Miss Marcelle Chantal, a French actress and her maid, Ida Farr, and M. Rufus LeMaire; and doubtless no other five persons in the world ever crossed both the Atlantic and the American continent in so short a time—less than six days from France to Los Angeles.

THE trial flight of the new Sikorsky amphibian had the boys searching for adequate descriptive adjectives when it got off the water on one engine, the

fuel pump on the other having failed. No other multi-motored water-going plane had accomplished such a feat, thereby more than justifying the predictions of the engineers who designed and build it. The plane has a capacity for sixteen passengers, 1,000 pounds of cargo and two pilots; will be able to cruise at 180 miles an hour or better for 750 miles nonstop and have a top speed of 200 miles an hour. Such performance figures bring the amphibian for the first time into direct competition with the most efficient modern landplanes.

Well, it looks as though dreams are coming true for the scheduled air lines. Five or six years ago everybody talked about the time when the demand for airplane tickets would be greater than the supply, and today we have Pan-American Airways reporting 308 reservations already made for the San Francisco-Honolulu service and it hasn't even instituted service as yet!

The domestic air lines are well ahead of the past high figures at this writing. Eastern, American, United, TWA, Northwest and Boston-Maine all report in-

creases over the first six months of last year.

Fourth of July holiday traffic can only be described as tremendous. Extra sections were put on practically every route out of Newark, the demands for Los Angeles, Chicago, and Washington reservations being particularly heavy.

The new Sperry Airway Beacon atop the RCA building in Rockefeller Center, the first ever to be set in operation on a commercial building in Manhattan, has been checked by the pilots on American Airlines' Boston route. The maximum range, with ideal visibility, is estimated at 100 miles, but some doubt of its actual range existed because of the use of a red lens. However, it can be seen clearly at distances ranging from 60 to 75 miles away.

While the beacon is the regular Sperry Airway Beacon of the type now in use along all major lanes in the country, it is not on a regular air lane and hence a red beam is used so that aviators would not be misguided but only warned of the proximity of high towers.

Billy and Helanie Foster, three-year old twins, apparently like the idea of flying to California, on United Air Lines, with their mother, Mrs. Gay Foster, who directs stage shows at Roxy's theatre in New York.



Rubye Berau, Lakewood, Ohio, private pilot, climbing into her Travelair, which she flies for pleasure.



Edith B. Hight flies her Eaglerock whatever time she isn't busy in her beauty shop at Fort Peck, Montana. An L. C. pilot now, she goes up for her transport soon.



Janet Knight and her Kinner Fleet. This thousand-hour transport has soloed 40 or more students in her own flying school at San Francisco Airport.



International private pilot Ninette Heaton, who claims she has always liked flying, standing beside her open Waco, which would make anyone like flying.

OWNERS

Gayla Horrall, Oklahoma private pilot (No. 30,000) at the wheel of her cabin Waco. She claims to be a housewife but this picture certainly doesn't prove it.



Clara Livingston, transport No. 17242, beside her trusty Ken Royce which she flies back and forth between her plantation in Porto Rico and the mainland.



That is a Lockheed Altair owned and flown by Joan Fay Shankle, transport No. 7838, of Tubac, Arizona.



Amy Andrews, New York medical secretary and private, pilot No. 29124, spends her spare time—and some that isn't—up in the air in her Stinson.



FLYING SUPERSTITIONS

PURVEYORS of rabbit's feet may as well start digging ditches for a living, and Friday, the 13th, is just another day . . that is, as far as women who fly airplanes are concerned.

"The days of hunch flying and superstition are over," is how Dorothy Ruether, private pilot of Hynes, California, sums it up for seventy per cent of the

women pilots.

Which doesn't seem to gibe at all with a sweeping statement by Harriet Quimby (first American woman to hold a pilot's license) in the *New York World* of July 14, 1912, that:

"All women fliers are superstitious."

Nevertheless, in July, 1935, a tabulation of the results of a questionnaire sent to all the women pilots in this country proves beyond a shadow of a doubt that only thirty per cent of the women pilots are superstitious today. And not one of this number appears to take her superstitions very seriously, although they do seem to get a lot of fun out of them. And it's our guess that a few more who won't come right out and 'fess up to it', "touch wood" occasionally when nobody's looking.

However, the large majority turn up their noses at such things and serenely pin their faith to practical considerations like altimeters and motor checks.

like altimeters and motor checks.

Amelia Earhart's "superstition", for example, is "for a good mechanic"; and the superstition credo to end all flying superstitions is that of Nancy Hopkins Tier, Connecticut transport pilot. Namely: "My superstitions are for a well-examined plane and motor; my mascot is a good compass and my lucky charms are sane, sensible flying."

Transport pilot Melba Beard's "superstition" is "an obsession," to have her plane in the best possible condition." While the "lucky piece" of Gayle Horrall, Oklahoma, private pilot, is her Kodak, "Because it records trips and the pictures bring back pleasant memories

many years after."

Nellie Z. Wilhite's mascot "Hard Times" in appropriate costume





Osa Johnson and her flying ape, Wah

The only time "Max" Brunton of Montana and Michigan ever carried a luckpiece she nosed her ship over, was held up for a week, and was "cured" of superstition forever after.

As a matter of fact Harriet Quimby's personal story rather emphasizes the folly of trusting one's flying fate to a talisman. Her own little brass god had belonged to a French aviator who got rid of it when he began having reverses. But this pioneer woman pilot was so attached to Ganesha that when he appeared to be bringing her bad fortune she only had his head sawed off by way of punishment. And by concidence she crashed fatally soon afterward. Perhaps the small grinning 'eathen idol' didn't like being decapitated. He took his revenge, if you want to look at it that way, even before her own signed feature article on women's flying superstitions was off the

In the same article she reports that the Baroness de la Roche, first woman in the world to pilot a plane always wore a vivid green sweater for luck when she flew, while Mlle. Helen Dutrieu, another French pioneer, always carried a pair of disreputable-looking army gaiters worn by her father, who was an artillery officer, as a talisman in her plane. Jeanne Harvieu, one of the leading early speed fliers, had a baby pig presented to her for luck and until he became hog-size she took him along in the cockpit with her, squeals and all.

However some of the women fliers of today can compete with, yea even surpass

the pioneers in point of being original and different in the flying superstitions they go in for.

Transport pilot Mary Nicholson, North Carolina's first woman flier, who recently taught her brother Frank to fly, goes in for superstitions rather extensively, perhaps because she is a Southerner. She collects miniature elephants, trunks up; likes black cats, and if she can't fly on New Year's Day, she goes out and sits in the cockpit.

Margaret Kimball, Massachusetts transport pilot with 300 hours flying time, never buckles her helmet until she is inside the ship and the ship has started, and she never wears anyone else's helmet and goggles. Grace M. Cooper, private pilot of Glendale, California, always wears a certain parachute silk scarf when she flies; and Dora D. Skinner, Yakima, Washington, private, has a coral scull attached by a chain to her palot's license by way of a charm. Straight pins spell happy landings to Barbara Poole, New York City pilot, and she always sings at the top of her voice while flying. The flying talisman of private pilot Leona Dugelar, of Detroit, is a tiny glass rabbit from Shanghai.

Two women pilots carry their luck near their fingertips. Marjorie Hook, of San Francisco, always wears two rings when she flies—one her birthstone (topaz) and the other an Indian turquoise ring given to her at the Grand Canyon. Helen Marie Boyd, limited commercial pilot

(Continued on page 17)

Mary Nicholson of Greensboro, N. C., who has three superstitions



AIR MASS FRONTS

By PHILIP DEL VECCHIO



Air mass fronts are so important to the meteorologist these days that the system of forecasting which uses the air mass methods is often called Polar Front Forecasting.

In fact the action at various "fronts" constitutes the major problem to the Norwegian school of meteorologists who originated this method of weather anal-

Reviewing the April article briefly we find that the two most important air masses which affect the United States are the Polar Continental, a cold, dry body of air which forms in the cold interior of Canada and Alaska; and the Tropical Gulf mass which originates in the Gulf of Mexico and whose characteristics are the opposite of the Polar Continental—warmth and humidity.

Traveling as these masses do, in practically opposite directions, there is no question but that they must at times meet. Even to the layman with no weather knowledge at all, the idea of two markedly differing bodies of air meeting suggests dramatic action; and such is really the case.

N order to understand the action which takes place at the meeting line of these two masses we must realize that the colder air is much more dense, or heavier, than the warmer mass. Polar Continental air, then, hugs the

ground as it sweeps southward. As it encounters the Tropical Gulf mass several things happen. If the polar flow is strong and continuous the cold air keeps right on moving southward, lifting the warmer tropical air bodily over itself. The meeting line of the two masses in this case is called the Polar Front. I say "in this case" because if the warm tropical air were advancing into a stagnant mass of Polar air this meeting line would become a tropical, or warm front. In any event the type of air mass which is following the front usually determines the correct name for the meeting line.

Behind a vigorously moving cold front the action is dramatic enough as any experienced flyer will tell you. The consequence of the lifting of warm humid air results in the formation of heavy clouds and precipitation of one kind or another. Often the front is the scene of thunderstorms and line squalls. In winter snow squalls are almost invariably present, with zero ceiling and visibility. Happily, this condition lasts only a short time and the cold clear weather of the following polar mass soon dominates. In summer the fronts are almost always characterized by thunder-storms and heavy rain squalls.

NOTHER thing which may happen is that a storm may develop somewhere

when the cold air meets the warm

The Caribbean Mail.—An etching by William Heaslip



along the cold front. Although this is really a subject for a separate article it may be said that warm air which is being forced aloft may sometimes begin a counter-clockwise rotation which will eventually result in the formation of an intense low pressure area with its attendant bad flying weather.

Warm fronts on the other hand are not quite so dramatic as their more northerly neighbors; but can just as effectively put a stop to all flying for considerable periods of time. The movement of tropical fronts is comparatively sluggish, but curiously enough it is just this sluggishness which intensifies one of the common attendants of warm fronts: tropical fog.

The passage of a warm front over any one point will be accompanied by a considerable decrease in visibility due to tropical air haze, a rise in temperature, low clouds and often fog or mist. These tront conditions, like those of the polar mass front, do not last very long and soon give way to the tropical mass proper with its typical partly cloudy weather dotted here and there by thunderstorms of the heat variety.

A LTHOUGH fronts which may form in the upper air are impossible to detect from surface observations, the surface fronts yield readily to analysis of data which any pilot can obtain from the current weather map.

For instance, a sharp drop in temperature and a shift of the wind from south or southwest to northwest or north usually indicates quite clearly the Polar Fronts on the current map. Warm fronts are harder to find. Usually there is a gradual transitional zone from the old stagnant polar mass to the warmer tropical air. This zone may be several hundred miles wide and marked with scatered regions of fog, mist and indifferent visibility.

To thoroughly understand the physical action of the air at these fronts and within the various masses it is necessary that we pause here in the rendition of the highlights of air mass analysis and learn 1 little about the fundamentals of the behavior of air under various conditions. This we shall attempt in the next article: "Dynamics of the Air."

AND WHAT IS YOUR RECORD

By LOUISE THADEN

WOMEN seem suddenly to have wakened to the fact that there are things to be done in aviation and it sure looks as though we are off to a record-breaking summer. But so far most of the talking has been done by us while the girls across the seas bring home the bacon.

On June 17, Maryse Hilsz, France's ambassadress of the air, broke her own women's world altitude record by climbing 37,704 feet in a Morane-Saulnier, 600 horse power pursuit plane. Three days later the Marchesa Carina Negrone brought glory to Italy by climbing to 39,370 feet and taking Maryse's shortlived record from her. How about it girls? Our altitude record is 28,743 set by Ruth Nicholas in 1931—and we have rested on Ruth's laurels ever since. Surely the Italian aren't 11,000 feet better than we are!

N June 18, six girls, aged between 20 and 23, broke the world record for mass parachute jumping. They bailed out at a height of four and a half miles without oxygen apparatus. The Soviet government gave each her parachute and a prize of 1500 rubles in recognition of their achievement. Have we got six women parachute jumpers in America? Less than two weeks later Tamara Kutaloffa, another Soviet physical culture student, broke the world's record for women parachute jumpers by a leap of 25,426 feet without oxygen apparatus. Records don't last long these days!

England claims the first amateur woman parachutist. She is the Honorable Helen Naomi Heron-Maxwell. Honorable Helen is joining Sir Alan Cobham's famous "flying circus" as an amateur, which proves there still are people in the world who do things for the sheer fun of it.

ND what about our new records? Well to be frank with you there have been exactly two new official records, either national or international, made by American girls since 1932. Helen MacCloskey established a world's record for 100 kilometers in the light airplane class by flying 166.67 miles per hour in a Monocoupe, carrying Genevieve Savage as a passenger. On May 18, Mrs. Bernardine Lewis King, of Burbank, California flew upside down in her monoplane for 25 minutes and 26 seconds and was officially timed by the National Aeronautical Association. "I went up to establish a mark for other women fliers

to shoot at," Mrs. King said. Okay gals! You can start shooting any time. All you need is an airplane—any airplane to set some sort of a record.

T HERE are lots of Aeroncas tucked away in odd corners, barns, and hangars and they cost very little to operate. Find yourself an Aeronca owner, invite him out to cocktails and the following day you will find yourself in the air establishing either a Distance or an Altitude record, or maybe both unless your hang-over is too, too awful. It is unnecessary to be discriminating as a one or two seater will answer the purpose nicely. And don't turn up your nose at a Rearwin Jr., a Wiley Post, or an American Eaglet, they'll qualify too.

If the Aeronca happens to have floats, jump up and down and clap your hands at such good fortune because you can establish records for Airline Distance for the first, second, and third categories of light seaplanes.

NOW that these have been accomplished, your lust for further record making will be at white heat. You can climax your efforts (still holding onto

the Aeronca) by grabbing the prize plum of the lot, the Light Plane (Class C, Fourth Category) Speed for 500 kilometers (310 miles), as there is no record in this class either International or National, men's or women's. At the finish of the 310 miles you will find yourself in the hands of fame and glory, provided of course you have not followed the wrong railroad and landed out of gas short of your destination.

In the Airline Distance with Refueling, and the Broken Line Distance with Refueling there are no records, either International or National, men's or women's. Both should be duck soup for any of the gals who have suffered through a refueling endurance (without pay), and equipment is available. Here again you will have attained the signal honor of establishing a men's as well as a women's record, and that is something that has not been accomplished so far. (If that statement is not correct you can catch me and beat my ears down).

NOW, we get down to the ones where ingenuity and persistance will be necessary in the little matter of obtaining equipment. Take Autogiros, if you could



Marchesa Carina Negrone, who holds the women's world altitude record, with her son. Tha
Marchesa also holds the
women's light seaplane
altitude record.

get your hands on one, practically anything you did would constitute a record, including landing on top of a tree with a postcard in one hand, and a lollypop in the other, showing a pilot can eat lunch and deliver mail from yard to yard at the same time.

There is the Land plane Speed for 100 Km., without load.

There is the Land plane Speed for 2000 Km., without load.

There is the Land plane Speed for 1000 Km., with 500 Kg. load.

A Lockheed Orion, Beechcraft, or Northrop could help establish darned fine records of which we all would be proud. (Page Laura Ingalls!)

There are no feminine records established for amphibians. Unless someone springs a surprise there may not be for some time, however if an energetic person really tried there are the new Argonaut, the Douglas, and the Curtiss Wright.

THE record possibilities will by no means be exhausted when these are marked down on the books. Those mentioned are just a starter and have been selected for the comparative facility presented in the matter of obtaining equipment and the nominal expense involved. Cut your eye teeth on these, and when you get to be a big girl you may have some jaw-breakers in the form of Landplane Speed, Altitude, Airline Distance and such like.

SCORING UP

EVENT No. 4, Saturday, August 31, at the National Air Races in Cleveland, will be the Women's A.T.C. Handicap Race-total purse \$1,250. This Race will be a handicap event limited to eight planes with motors of 800 cubic inch displacement or less, each with a maximum speed of not to exceed 150 miles per hour. A special handicap committee named by the Committee for Women's Contests of the National Aeronautic Association will establish a handicap time for each plane entered. The distance will be 45 miles, 3 laps over a fifteen mile course. The prize money is divided-first prize 45%; second prize 25%; third prize 15%; fourth prize 10% and fifth prize 5%.

The race will be limited to eight entrants. The first eight entrants who meet the entry requirements will have priority. Postmark on envelope will be considered official time of mailing. Each woman pilot entered in a closed course event must furnish satisfactory proof that she has had at least 25 hours on the plane to be flown in the event. Entries must be made on the official entry blanks supplied by the Contest Committee of



Peggy Remey with her newest trophy

the National Air Races, 103 Terminal Arcade, Cleveland, Ohio, and accompanied by an entry fee of \$15. The closing date for all entries will be midnight, August 15.

Air Races after a year's absence, through no fault of our own, so let's bury the hatchet, be good sports and support the races this year one hundred percent. There will be no reason to grumble about not having sufficient notice—you have a month in which to file your entry blank—but remember that the race is limited to eight girls so send your entry at once if you want a crack at that \$1,250. Here is our chance to prove to the men that we are a decided asset to National Air Races in more ways than one

Even if you aren't going to race we hope you'll be in Cleveland for the 99 Club meeting and the election of national officers, etc. The girls in the North Central section are scouting around to find accommodations for us at more reasonable rates than the hotels seem to think they have to charge. For some reason or another the hostelries won't cooperate but we won't let that stop us. Start the pep talk now. On to Cleveland.

N the first women's race sponsored by the Y. W. C. A., which was held at the Jersey City Airport, June 15, Peggy Remey won first place and a silver trophy, Annette Gipson won second place and a gold medal, and Melba Beard won third place and a silver medal. The girls were also promised \$75, \$50 and \$25 respectively but to date the money has not been forthcoming—it seems to

have mysteriously disappeared from the bank.

At the air meet in Springfield the end of May, Mrs. Teddy Kenyon gave an exhibition of acrobatics and won first place in the spot landing contest for women. Dolly Bernson, Governor of the New England group, came in second and Elizabeth Horton, third. Mrs. Sansom had charge of the women's event and assisted the General Chairman in arranging the meet.

Women's National Air Races

The women's air meet, sanctioned by the National Aeronautic Association for August 3 and 4, has been postponed until August 18 and 19. According to latest reports there will be a transcontinental air race for women—qualifying speed, 150 miles an hour. The total prize money for the transcontinental dash will be \$5,000. Featured at the two-day meet to be held at Long Beach will be two closed course races, with \$1,500 prize money. For further details write to Gladys O'Donnell, 3723 California Ave., Long Beach, Calif.

FLYING SUPERSTITIONS

(Continued from page 14)

with more than 200 hours, who also holds a glider license, wears a jade ring. She cracked up both times she left same at home.

Several women favor good old Saint Christopher as a flying patron saint; and one woman flier still adheres to the ancient and honorable rabbit's foot school of thought.

Women pilots don't seem to consider their flying mascots as vested with any special influence over their flying destinies. The aforementioned reformedsuperstitionist, "Max" Brunton, has a cocker spaniel mascot who flies along now and then. Osa (Mrs. Martin) Johnson's mascot is her pet Gibbon ape, Wah, who flies everywhere with her, not because the ship might fall apart if he stayed home, bue because he gets lonesome if he's left behind. Bernice Batten, Kansas private pilot, who doesn't even "know of any flying superstitions" has a rat terrier mascot named "Spin" who hasn't flown yet. While Nellie Z. Wilhite's mascot, a bull terrier, is a confirmed hangar flier.

But though she leaves "Hard Times" on the ground when she flies, Transport Wilhite, in addition to being of the Lucky 13 pursuasion, carries a pebble (not rocks) in her mouth when she flies cross-country. We wouldn't know why and defy anybody anywhere to produce a more distinctive superstition.

(More about Superstitions next month).

CLOUD CLUB

By BETSEY BARTON

Baby Bat: From Tulsa, Oakla., comes news from Mrs. A. A. Fields that her daughter Gloria Darlane, age six, flier her own plane and has been in and around ships for the last four years. Gloria went up the first time when she was only six weeks old and at the age of two she could keep the plane level in the air. We hate to go on like this but at the age of five she had over 400 hours flying time to her credit while her father pedaled the rudder. Mrs. Fields' darling has flown in several air shows, not alone you understand, but without her father or anyone in the ship helping her. During all this time Gloria had not soloed her father's Doodle Bug but merely manoeuvered it in the air.

Gloria's favorite death defier is to let her father dive the plane until it is within 300 ft. of the ground—then quickly and fearlessly she pulls the ship up and leveling off throws a small smile of confidence towards those on the earth who

appear green around the gills.

Gloria now owns a Taylor Cub which she likes much better than the old Doodle as the sides are cut down for visibility, the rudder is within reach—she is allowed to solo at any time. She is going to fly in several air meets this summer and it is possible that the Taylor Air Craft Co. may sponsor her at the National Air Races. (Probably to prove how easy it is after all).

Mrs. Fields soloed in 2 hrs. and 40 mins. and is an active member of the WNAA, Tulsa chapter. Mr. Fields runs an airplane firm which owns and operates five planes. At present 37 students are enrolled.

It is hard for us to hand it to Gloria but you can see, my children, that with such a background as this no one could help but have a future like a summer sunset and a head perpetually in the clouds.

Squadron: From Elizabeth, N. J., comes news from Ruth Breese—graduate of Battin High School that she and her squadron are joining us this month.

Photos: We are starting an Amateur Photograph contest and would like any pictures dealing with aeronautical subjects. Margaret Bourke-White, famous photographer, is going to be a judge.

Air Meet: Results of the intercollegiate meet at the La Fleur airport in Northhampton, Mass. that took place May 11 did not turn out so well for the gals from Smith and we are afraid that they warranted worse than the promised bottle of catsup. 40 planes were entered and the lovely part of the whole thing was that no one was so much as scratched. Mary Kimball was the only girl representative but in spite of heavy competion she outclassed two sons of Harvard in the bomb dropping. Amherst won the meet with a score of 17 points, having won both the bombdropping and spot landing contests with second place in the balloon bursting. Next year we hope that La Fleur will have to spread her wings for innumerable girls and girl contestants.

Correspondent: From Chicago comes an article by Ruth Parmele on Girls—Aviation Bent. Ruth is a great enthusiast but is at present earth bound to the Windy City. Her mind soars aloft with ours however so let's see what she has to say:



Gloria Darlene Fields beside her Taylor Cub. Gloria is probably the youngest plane owner in the world.

GIRLS—AVIATION BENT By RUTH PARMELE

Let's get together under the wings of an old veteran plane in the Hangar, and see what we can do about an aeronautical education in spite of its expense.

We want to fly, don't we? We are a sincere and eager bunch of young women with our noses in the wind waiting for a chance to take off, and so long as our feet are still very much on the ground let's not waste any time mourning over thin pocket-books and parents' permission.

Right now let's climb into the cockpit of this ship, whose propeller has trembled and roared into its last sunset and come to rest for good. We can examine the instrument board, try the stick, jiggle the rudder bar and find out how the controls work, what happens when they do and why. Questions like-how do you kick out of a spin, or does it take nerve, a push, or necessity to make your first parachute jump have a way of popping up and it will be a little while before we get the answer, ask the right people. Books can always be begged, borrowed, or rented and there are excellent leads for the beginnings of an aeronautical library in Airwoman's Books' column.

Now let's go back to our airplane. Have you ever tried to draw one? It's a good way to get details in mind and memory. If your sketching talents are nil, then get out and dust off the little old Brownie that hasn't been used much since last vacation and try to get as many different types of airplanes in front of your camera as you can. Study them and try to distinguish their different characteristics. Aerial photography is worth working at, before and after we've won our wings.

Then we might try building models of the airplanes in our picture collection. That is one way—speaking from experience—to get an inexpensive ground course. There are any number of model supply shops, and usually some one in them to give advice, and put you back on the track if your patience gives out. There is a lot of satisfaction in assembling the parts, and the finished model should be something to be proud of whether it is a light build-up flying craft, a shining

(Turn to page 19)

FASHIONS IN FLIGHT

By FAY GILLIS

Look whom we have with us this month. One of us—a feminine flier who is also an authority on fashions. She is none other than Elvy Kalep, the first woman flier of Estonia, who took up flying cause bobsleding was too dangerous. And why did you learn to fly?

Elvy, who has been doing "different" things all her life, has created a new fashion medium for wood. But of course it is not wood as we imagine it. Rather Elvy's designs are made up of woven, paper-thin shavings of Japanese pine wood, which is extremely pliable and soft. It may be had in a beautiful range of colors, including jade green, sunshine yellow, golden glow, red and white, blue and white, and black and white. All the colors are fast except the black.

This woven-wood material—doesn't the idea intrigue you?—is used for hats, pajamas, divided skirts, bags, shoes—in fact it is adaptable to most everything. Elvy uses a blue square for a bathmat and has made a luncheon set out of the red and white color combination.

But to date she has featured her wooden hats-see illustration showing her haloed by one of these hats, which were the fashion rage of her Wood Weave Shop in Miami last winter. These hats will not blow off-isn't that good news after all these months of struggling to keep the current cock-eyed hats on our heads? They have been tested in the wake of an airplane propellor without avail. The secret is an idea of Elvy's which she has had patented. It is an inner bandeau made with a small piece of elastic that is adjusted to the individual headsize. This minor, but important device may be fitted into all your hats.

These wooden hats are not affected by sudden summer showers, and, if you inadvertently sit on one, the creases can be pressed out with a moderately hot iron. And guess what these hats costonly about 70 cents apiece-reasonable enough so that you may have several of them to match your various beach costumes. To complete the ensembles there are wood-weave bags, slippers, pajamas and beach mats, which are all priced in relation to the hats. Excuse it please, I forgot to mention that the chapeaux come in two sizes-a large brimmed number for beach wear, and one with a smaller brim for town or other sportswear.

Don't be surprised if you should find a gaily-colored pair of wooden bedroom slippers peeping out from under the bed to welcome you the next time you stay at a hotel. That is just another one of Elvy's ideas to make you feel more "at home" away from home. Haven't you ever caught a train by the tail light only to suddenly remember that you forgot your bedroom slippers, with the result that you spent the rest of the trip debating whether to buy a new pair or run the risk of Athlete's fool walking around in strange places in your bare feet-don't you read the advertisements? Well Elvy is going to eliminate the bedroom slipper problem by suggesting that the hotels



Elvy Kalep, Estonian woman flier, modelling one of her wooden hats. 1935

give you a pair of little wooden slippers, with their compliments. If the railroad in Southern Manchuria anticipates your lack of bedroom slippers surely the better hotels in America can afford us the same comfort. What do you think? Let's give Elvy a vote of thanks for solving our foot problems away from home.

She—suppose I should have been calling her Miss Kalep all this time but Elvy is such a cheery, informal sort of a person—has an office and manufacturing establishment at 693 Broadway so if you have any wooden ideas—not meant to be facetious—just write to Elvy and she

will probably sell you a hat along with the solution, or drop us a line and we will pass it on. Or if you wait long enough Elvy will undoubtedly swoop down on your home town with her wooden products in tow. But I wouldn't advise you to wait—her fashions are taking the countryside by storm, and she is completely swamped with wooden orders which will keep her here in New York for a long time.

FLASH!

Amelia Earhart Air-Light Luggage

Just as we are going to press, we learn that Amelia Earhart has gone in for wooden fashions too. Only she is specializing in airplane luggage—the first really practical and genuine airplane luggage, built on a three-plywood aircraft veneerbox. That's all for now. Will tell you all about it next month.

CLOUD CLUB

(From page 18)

solid model, a racing or sports type, a pair of Army or Navy wings, or a big transport.

Perhaps some of us who have ventured to build models know that, at first our friends and relatives who look absently and kindly at us, will soon change their expressions when they see how stubbornly we are going ahead.

The knowledge and progress of aviation is not new but is a different study, and everybody likes to be a little different. So let's locate a good model supply house and start in.

Let's really be builders, and once we have shown that our interest is crash proof, then we'll get the public where we want them, AIR MINDED. And—when we are proudly admiring the result of our first efforts, a completed model, don't let it get us if someone walks up and pulls the old crack—"Does it FLY?"

THE PLANE SPEAKER



If you are a bandit don't take up flying, or at least don't mention the fact. One man did and he got caught.

This man, noted for his aliases, was suspected

or naving robbed a mail messenger in Pennsylvania. He was also known to have been interested in aviation, so the G-men—gee, what men!—asked the Bureau of Air Commerce to check their files of licensed pilots against the various names used by him. Sure enough, they found their man, because he just couldn't resist the air and airplanes.

But to make doubly sure they—the G-men-can get their man every time in case they don't happen to know all his names, Mr. Vidal has directed the 619 Bureau of Air Commerce medical examiners throughout the United States to include in their physical reports complete information about marks of identification, such as scars, birth marks, tattooed designs or peculiarities of teeth. No more secrets—we might as well go nudist!

Cecile Hamilton and her erstwhile instructor, Joe Plosser, president of Grand Central Flying School at Glendale, Calif., recently completed a "swell" cross-country jaunt, when they flew two Aeroncas from the factory to Glendale.

A whoopee dinner was held in Brooklyn on June 13 by 169 employees of fifteen or more years' service with the Sperry Gyroscope Company. The occasion was the twenty-fifth anniversary of the founding of the company and the guests of honor were the twenty-year employees, among whom were Thomas A. Morgan, chairman of the board; Reginald E. Gillmor, president and general manager; Preston R. Bassett, vicepresident in charge of engineering; Herbert H. Thompson, secretary; Frederick C. Narvessen, assistant chief engineer, and John DePersia, foreman.

It isn't often that a world's champion flier turns to something as prosaic as teaching-or is it? But none other than Amelia Earhart has gone "school marm" on us. Gee I wish I were a kid again!

Amelia, as consultant in the department for the study of careers for women, will begin a series of lectures, at Purdue University, in September.

WHAT is said to be a remarkable new endurance record among aircraft engines has just been established by a Fairchild Ranger. According to Sherman M. Fairchild, president, Fairchild Aviation Corporation, a Ranger has been in operation three years by Charles Ward Hull, of Buffalo, under all kinds of flying conditions without requiring any maintenance, adjustment or even inspection. The recorded operation time was 319 hours, and the secret is the fact that the Fairchild Ranger is the first aircraft engine to have all parts automatically lubricated, thus eliminating twenty-hour

WHAT those qualified to speak call a "sweet, bimotored job" has just been test-flown at Dyer Airport, Los Angeles, by Slim Menefee, test pilot for Fuller, Hammond and Associates, its designers and engineers.

It's a two-place, side-by-side cabin ship that looks like a baby Douglas, weighs only 927 pounds net, including fuel, and is powered by two 45 h. p. Szekely's, although ultimately it will use two 65 h. p. engines of a new inverted in-line

Slim's performance figures showed a top speed of 117 m. p.h., cruising 100, landing without brakes 53, and with brakes 40. It cruised on one engine without losing altitude and showed fuel consumption of 18 miles per gallon These performance figures are expected to be improved.

The new plane has an overall length of 20 feet 6 inches, a span of 34 feet 6 inches, and includes combination split and flap type air brakes, flettner tabs, hydraulic shock absorbers, air wheels, and wheel brakes. It is expected to sell for less than \$2,000.

Ruth Chatterton, screen luminary, has bought herself a 1935 Stinson Reliant from Aircraft Industries at Grand Central Air Terminal, Glendale. She's as accomplished a pilot as she is an actress.

For the coordination of ideas, dissemination of information, and promotion of safety in aviation, the New York State Airport Managers Association has been formed with Robert Aldrich, director of the new municipal airport at Troy, as president. It is the first organization of its kind in the country and will serve as a clearing house for beneficial information regarding aviation.

Don't perform acrobatics unless you're qualified to do so and obey Bureau of Air Commerce regulations. Of the 80 pilot fatalities during the last half of 1934, 23 resulted from illegal acrobatic flights performed at low altitudes, without parachutes or by unlicensed pilots in licensed airplanes.

Pot and Pan Mechanics

NEW MEXICO—Albuquerque—land of artistic hotel lobbies and shiny red strings of chili peppers hanging beside the front doors of modern, stuccoedover adobe homes on 400-year-old underslung lines—has its own charactertistic adaptations of Mexican dishes also.

Here is a tried and truly Mexicanisto chili pie recipe from Mrs. Mark P. Beam, president of the New Mexico unit of the Women's National Aeronautical Association.

CHILI PIE

- 1 lb. ground lean beef
- 1 lb. ground lean pork
- 4 slices bacon
- 3 tbsp. chili powder 1 onion
- 2 or 3 cubes garlic
- 1 can tomatoes Salt

Grated Parmesan and American cheese Cube and fry bacon and onions. Add meat and sear until brown. Add chili powder, tomatoes and garlic. Cook 3 hours. If desired, add more chili powder when almost done.

Make cornmeal mush, to which is added butter and salt. Line a cassarole with mush, sprinkle with grated cheese, both kinds. Fill with mixture sprinkle generously with cheese and cover with a thin layer of mush. Bake 3/4 of an hour to 1 hour—450 degrees F.

And Mrs. J. S. Simpson, secretary of the group, contributes this thoroughly satisfactory cake recipe.

WHITE CAKE

- 13/4 cup sugar
- 3/4 cup butter
- 3/4 cup milk
- tsp. vanilla
- 21/2 cup pastry flour
- egg whites
- 2 tsp. baking powder Cream butter, add sugar. Put vanilla in

milk. Sift the flour and measure it accurately. Add baking powder and sift again. Add alternately the milk and the flour. Lastly fold in the egg whites that have been well beaten. Bake in 350 degree oven for 25 minutes. Makes two layers.

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THE 99ER

(Continued from page 20)

Rueckert soloing with a microphone over K. Y. A. in behalf of the Junior Birdmen organization. Marjorie Hook taking second place in a dead stick landing contest at the Bay Airdrome and Dolores Guinther flying these 'n' those and making the crowd say "oh" and "ah" at the same show. Harriet Isaacson and Kay Nidick harvesting an oats crop on the Oranges Bros. airport at Stockton and getting West Moreau's Great Lakes all sticky. Helen Moody helping the boy friend crop dusting in the Santa Clara Valley. Velma Johnston flying to Fresno Air Show on a nice cross country hop. Harriet Isaacson flying weekly to Rio to hear what the wild waves are saying. Rita Gerry, Helen Moody, Madeleine Royle, Ruth Wakeman, Ruth Marshall Rueckert, Afton Lewis, Harriet Isaacson, Kay Nidick at the San Jose Air Show. And everyone planning on the next winging party to Sacramento in July.

New Members

Ruby Berau, Lakewood, O.; Helen M. Budwash, Harvey, Ill.; Mrs. Harry R. Playford, Shaker Heights, O.; Barbara Poole, New York City; Vee Shakarian, Pittsburgh; Kay and Magoa Tisza, Englewood, N. J.

New Junior Members: Dorothy C. Carpenter, Ann Arbor, Mich.; Elsie W. Cooper, Alexandria, Va.; Betty Duncan, Woodbury, L. I.; Hope Noyes, Huntington, L. I.; Winifred Spencer, Pasadena, Cal.; Jessie Wachenheim, New Rochelle, N.Y.

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W. N. A. A. CONTACT

(Continued from page 21)

greeting by Brig. General A. W. Robins, Chief of Material Division; Flying exhibition by Air corps officers in honor of WNAA guests (magnificent flying); Journey through Wright Field Laboratories; Tea at home of Mrs. George Shaw Greene; Banquet, Country Club, in honor of visiting members. Banquet Speakers were: Greetings, Mrs. George Shaw Greene; Response, Mrs. Schuyler Terry, Chicago; "Horsepower of Homeliness", Capt. Carl Greene, Air Corps; "Stratospheres", Major W. E. Kepner, Air Corps; "The Founder Speaks", Mrs. Orra Heald Blackmore.

Second day—Business Meeting, Gold Room of Hotel Van Cleve: Opening by President; Reports of Secretary, Treasurer, officers and Unit Presidents presented. Telegrams and greetings. Chicago Junior Unit voted in. Discussion of Airwoman Magazine. Adjournment for Luncheon in Garden Restaurant. Meeting resumed. Reports of Committees. Election of officers. Presentation of gavel to new President. Tea at home of Miss Martha Smith in honor of visiting members.

Visiting Members

Mrs. Orra Heald Blackmore, Founder-President, Detroit; Mrs. Carlos Reavis, Denver; Mrs. Gordon Wright, Tulsa; Mrs. Schuyler Terry, Chicago; Marguerite Greene, Chicago; Alice Ademic, Chirago, came to Dayton for the event. The Dayton Unit, as always, worked nobly to aid in making the meeting a success. Official Dayton Delegates were Martha Smith, Mrs. A. E. Jones, Mrs. S. S. King, and Mrs. Carl Greene.

MARGUERITE JACOBS HERON, Corr'dt.

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