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# AIRWOMAN

NOVEMBER 1934

Vol 1 #12

November 1934

FORMERLY THE 99ER

Vol. 1, No. 12

SPORTS

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RATION



This Issue

W. H. B. TATE

LOUISE THADEN

MAJOR C. C. MOSELEY



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Joyce Hartung of Detroit (center), daughter of Gladys and Howard Hartung, flies in a cockpit built into the family Bird especially for her. She has hundreds of hours as an observer on her log with one or both of her parents at the controls.

TIME FLIES, WHY DON'T YOU? was the slogan of Vance Air Service of Great Falls, Montana. Together Esther M. and Earl T. Vance have barnstormed, hopped passengers, taught flying, etc. Recently they introduced the Autogiro to the Northwest.



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

THIS MONTH'S issue promises to be something of a Christmas surprise package. It will serve as a delightful introduction to the 12 months of Volume II for new and old readers. . . . For the December feature article, *Christmas and the Aviation*, we would be glad to have you lend us for reproduction any flying Christmas cards which you may have saved because they were too beautiful, unusual or amusing to toss out with the customary allotment of "Season's Greetings." In January we plan to do a piece on *Flight Posters* and readers are also urged to cooperate in this either by sending in photographs or by referring us to the source of choice pictures based on the aviation motif. . . . Another December feature will be *Aviation in American Hotels*. If any hotel in your city has set aside headquarters for flying folk, don't fail to let us have complete information on the subject by November 15—the closing date for December. . . . *Flight Movies* by Fay Gillis is another feature scheduled for the December issue.

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# SCORING UP

## London to Australia

**B**ECAUSE American transport ships won 2nd and 3rd place in the MacRobertson London to Australia race in competition with specially built British racing ships, not only Great Britain but all the world is full of acclaim for American aircraft builders. According to a dispatch from Keith Hutchison in London they feel "the Douglas has done the work of a van horse at race-horse speed, and its achievement inaugurates a new era in international communications."

Jacqueline Cochran was the only American woman entry in the 12,000 cross-hemisphere dash, flying a Hornet-powered special racing Granville monoplane with Wesley Smith. They withdrew from the race in Roumania. With Amy Mollison and her husband also forced down and out of the race, no woman piloted a ship through the race, although two well-known women, Thea Rasche of Germany and Miss E. M. Lay of England, flew in it as passengers.

## Air Race Resolutions

**T**HE following resolutions, as endorsed by the 99 Club and the Women's National Aeronautical Association, were presented before the Contest Committee of the National Aeronautic Association in October by Margaret Cooper, a member of the committee and national 99 Club president.

1. Whereas, the members of the 99 Club, national organization of licensed women pilots, have participated in the National Air Races for the past four years, therefore; Be it resolved that we protest the discrimination against women fliers, eliminating them from the schedule of events of the 1934 National Air Races and prohibiting their participation in events for men.

2. Whereas the term "National Air Races" implies participation of a national character and equal representation without discrimination, therefore: Be it resolved that we protest the name "National Air Races" being applied to any event in which women do not have fair representation on the schedule of events and that national events which are limited to contestants of either sex be qualified by the words "Men's" or "Women's."

3. Whereas there has been a persistent rumor that steps are being taken to insert a clause in the rules of the



Jacqueline Cochran

National Aeronautic Association which will prohibit women pilots from participating in closed course racing events, therefore; Be it resolved that we protest such action and present the past record of women's participation in such events to support our contention that such action is prejudiced, unjust and without any foundation whatsoever.

**A**FTER discussion the resolutions were favorably acted upon and Senator Hiram Bingham, as president of the N.A.A., suggested that before an air meet or air races be given sanction by the Contest Committee that a special event or events for women be put into the program. Phoebe Omlie and William T. Enyart were therefore promptly appointed to serve as a committee in this capacity.

## The Miami Races

As a result of the aforementioned action, Mrs. Omlie and Mr. Enyart are now working a program of women's events for inclusion in the program of the Seventh Annual Miami All-American Air Races, to be held Thursday, Friday and Saturday, January 10-12. Mr. Enyart is also arranging for any women pilots who wish to attempt to break any of the world's records in which they have an interest over the two splendid courses: the 50-kilometer and the 3-kilometer, which the Coast and Geodetic Survey are helping the city of Miami to establish under the

direction of the National Aeronautic Association.

Miami's Director of Aviation, A. Heermance, in a letter to Margaret Cooper states: "It would be highly important, I should think, to organize any of the 99's who may be in the Greater Miami area before the event into a sort of Entertainment Committee in order that a most enjoyable time may be arranged and the details taken care of well in advance of the arrival of other club members."

## Washington All Women's Meet

Twenty-seven women pilots and parachute jumpers gathered at College Park (Md.) Airport for the Washington (D.C.) All Women's Meet held by the Washington Women Pilots' Association (and not the Washington Air Derby Association as stated in error last month).

**O**N Sunday five aerial events were scheduled—a spot landing contest, a bomb-dropping contest, a 25-mile handicap race, an acrobatic contest and a parachute jumping (spot landing) contest. The only entrant to win the firsts was Melba Beard, who carried away the honors in the bombing contest and the acrobatic event. Ed Gardner, Washington transport pilot who has won a number of prizes at recent air meets, was chairman for the aerial show.

A crowd of 15,000 witnessed the first aerial show of its kind for Washington, D. C. Even the booth where hot dogs, coffee, candies, etc., were dispensed, was managed by the Washington Women Pilots, and before 3 o'clock came round their stock was so depleted that a rush call to nearby "Eat Shop" was placed.

**A**FTER the awarding of the trophies, a buffet supper was arranged for visitors and a theater party wound up the evening.

It is hoped that this type of friendly sportsmanship may become an annual affair at Washington each fall.

GENEVIEVE SAVAGE

## Michigan Girl Fliers' Day

**T**HE Women's Aeronautical Association of Detroit decided that it was about time the Michigan girls of the sky became better acquainted with each other.

(Continued on page 10)

Nov. 1934 Air Woman





# Plane News

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## Faster

WITHIN a few hours of the Union Pacific's streamline record trip across the continent with a top speed of 120 miles—that is two miles in one minute flat—Lieutenant Francesco Agello was up and at raising his own world speed record to 440 miles or a little better than 7 miles per minute.

How about making it 600? *Il Duce* wanted to know and made Agello chief of an "air speed school." And Arthur Brisbane, Hearst columnist, points out that Agello could at said rate break-fast comfortably in Rome and reach New York in time to take a bath and dress before luncheon.

## International Service Looms

BEFORE sailing last month for Europe, to make a thorough study of aeronautical development as it applies to civil and commercial aviation, Rex Martin, Assistant Director of Air Commerce in charge of air navigation, declared that "international" airplane and airship service is certain to occupy a prominent place in the future and the nation that leads in air transportation has a better chance of obtaining its fair share of world commerce.

## F.A.I. and N.A.A.

TWENTY-TWO nations were represented at the 34th congress of the Federation Aeronautique Internationale, which was held in Washington, D. C., from the 6th to the 11th of October. The National Aeronautical Association, acting as host for the first time since the inception of the organization, arranged an extremely entertaining program which included a reception by President Roosevelt at the White House and ended with an International Banquet at the Mayflower Hotel. The guests included such distinguished people as His Excellency Prince Georges Bibesco of Roumania who is president of the F.A.I., and his famous literary wife, Princess Bibesco, Louis Bleriot and Madame Bleriot. The only woman delegate was Miss Hyacinthe Lambart from Canada. Hiram Bingham, president of the N.A.A. for the past six years, gave the official welcome address. During the congress Wiley Post was presented with the Gold Medal of the F.A.I. for the outstanding aviation achievement of the past year.

The new officers-elect of the National Aeronautical Association are presi-

dent, Senator William G. McAdoo; vice president, Major James H. (Jimmy) Doolittle; secretary, Louise Thaden; treasurer, John F. Victory, who has served in this office since 1929.

## Pilots Still on Decrease

ACCORDING to figures from the Bureau of Air Commerce, there were 13,812 pilots holding active licenses as of October 1, 1934, or 2,364 more than the number holding licenses a year ago. The most heartening angle on this figure is that the total of women pilots (358) is not less at any rate than it was according to the Department's figures of May, 1934. In other words women are not now losing their licenses faster than they are getting new ones. The decrease in the number of pilot licenses is due largely to the reversion of many private and solo licenses to the student grade when the private pilots' requirements were raised to 25 hours for the minimum or amateur license and issuance of new solo licenses discontinued. This is borne out by the fact that last October 1 there were 9,056 student licenses, while this October 1, 13,456 men and women hold licenses to prepare themselves to qualify as pilots under the new ratings.

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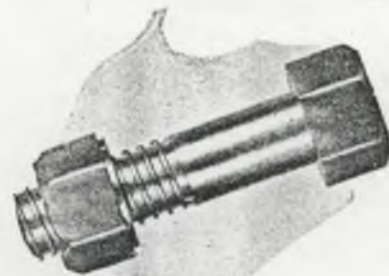
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Nov. 1934



## My American Friends:

I believe the future of aviation is the most important and the most interesting subject with which we have to deal today. I came out here on my first visit to the United States because of my tremendous belief in its future importance. I had heard that aviation in America was ahead of that of all other nations of the world. I now know that to be true.

In America you have made full use of your opportunities. I knew your aeroplanes were rapid, regular, comfortable and safe, but not until I had actually slept in a sleeper plane could I possibly know how great the degree of comfort was.

And because I have traveled nowhere except by air I have seen more of America in one month than I could have seen in three months had I used old-fashioned modes of transport.

Thus the aeroplane is wiping out distance. It will enormously increase travel. A larger number of us will go and see for ourselves. We shall be less ignorant, have more imagination and therefore we shall understand one another better. Since war is caused by ignorance and misunderstanding, combined with a wrong sense of values, we must recognize aviation as being what it in reality actually is: the greatest instrument for forging bonds of peace the world has ever known.

I believe that in less than a year I shall be able to write to friends here and receive an answer in five days. It takes anywhere from twelve to twenty now. It is going to mean that goods made by you will be selling in Europe three days after leaving your factory. Your Pan American Airways has given you a perfect slogan—"Wings for Trade." And it is your trade with the whole world they are talking about. I believe, then, in a few years aviation may have created a trade boom and have opened up and made popular large stretches of country now wholly undeveloped.

Therefore, if you want to go ahead yourself and see your country ahead, you cannot afford to ignore aviation another day. You must find out what is being done to support flying in your town, your state, your country.

Many of the most remarkable developments in aviation today are here in America. You are producing the automatic pilot, the most remarkable aid to safe flying. You have been the first people to put on sleeper planes. I have traveled in them and can assure you they give you a perfect night's rest. They are used today by American Airlines on their route between Los Angeles and Fort Worth. America, with her Douglas, has produced the most comfortable and most beautiful airplane in existence today.

In America you have the first high school to teach aviation as part of the school course, and the Teaneck High School in New Jersey deserves credit not only for being the first to do that but what is more important to be doing is so thoroughly and confining it to those boys and girls who are specially qualified to take advantage of the course.

Help your children to be air-minded. If you are planning what to get them for Christmas, ask the toy shops for accurate model airplanes and new games with maps of air routes. If you ask often enough, the shops will begin to provide them.

I believe that air traffic can never increase as it should unless women are encouraged to fly. If you interest a woman, you will find that women are interesting more than one new person in aviation. For you can be quite certain that she will not rest until she has interested the whole family. It is imperative that aviation should be guided by the best, the ablest and most far-seeing people we have, be they men or women, married or single.

MRS. H. B. TATE, Member of Parliament.

(From a radio address over Station WJZ in New York City)



The Pattersons, formerly of California, Utah and Chicago, now of Charlotte, N. C., namely: Walter C., Pat, Jr., and Clayton. Young Pat is rarin' to be old enough to co-pilot with his folks, both pilots of long standing.

With no caption at all most aviation people would recognize Gladys and Lloyd O'Donnell of Long Beach, California, not to forget a couple of young O'Donnells, missing from this picture. Gladys is one of the world's most active boosters for women in flying.



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# MASS PSYCHOLOGY IN AVIATION

By FAY GILLIS

**T**HE Soviet Union is going aviation mad.

The program of the Pioneer League in this country specifies that each of its 5,000,000 members, young men and young women alike, must learn to pilot a glider and to jump with a parachute.

## 1,000,000 Parachute Jumpers

**O**SOAVIAKHIM (The Soviet Society for Aviation and Chemical Defense) has undertaken to train 1,000,000 parachute jumpers, 40,000 glider pilots and 25,000 aviation mechanics during the current year. Every factory and every collective farm in the land is being urged to organize a gliding club. In fact, gliding is scheduled to become a "mass sport" of the proletariat.

The Bolsheviks have built the largest land plane in the world, the "Maxim Gorki," with its 200-foot wing-spread. They claim the record for ascents in the stratosphere, and they are now going in for glider-trains on an extensive scale. The Soviet League of Model-Airplane Builders boasts a membership of more than 4,000,000.

The call to the air was sounded by "Komsomolskaya Pravda," organ of the League of Pioneers, in a recent editorial, which read in part:

"We love our brave fliers, heroes of the atmosphere and of the stratosphere.

But why should we live in dreams and envy of them? All of us can place ourselves in a position to explore the skies."

**T**HE fact is that in no other country in the world is so much being done by the government to acquaint the man in the street with things aeronautical.

"Soviet citizens will soon be as much at home in airplanes as Americans are in automobiles," an official of Osoaviakhim told me recently.

## 10,000 Cardboard Planes Daily

The Soviet child is hardly out of the cradle before he is introduced to the air and airplanes. The Osoaviakhim toy plant, near Moscow, is daily turning out 10,000 miniature cardboard planes. These toys are scale models of real planes, so that the child learns much about airplane design while he plays.

And even the young people and the grown-ups mix their aviation training with their pleasures. Instead of playing golf on the Soviet "sabbath"—one day in six—they move en masse to the parachute-jumping and gliding fields where they indulge in their somewhat precarious pastimes-in-the-air. Osoaviakhim is especially interested in promoting gliding as a sport, for this society, so it claims, has proven statistically that the expense of training airplane

pilots can be cut 65 percent by introducing them to the air in gliders.

## Peasant Glider Pilots

In 1933 there were three aviation clubs in the Soviet Union. Now there are 95 of them. Last year there were 60 glider stations. This year there are 162. In addition, there are seven glider schools and 850 circles for amateur glider pilots. The Soviet glider factories are working three shifts, around the clock, to supply the growing demand for motorless planes. Through gliding circles on collective farms peasants, who saw their first automobile only a very few years ago, are taking to the air.

**N**OT content with the glider-design which they have borrowed from foreign countries, principally Germany, the Bolsheviks are experimenting with new Soviet types of motorless planes, some of which were on display at the annual All-Union Glider Meet, at Koktebel, Crimea, in September.

Among the new types is a two-seater glider of the "Rot Front" series, used with air trains. It is a two-seater with dual controls. The novel designs also include a six-place glider, and a two-seater for glider "stunting."

Then there are the new "glider planes," gliders equipped with small



Women students mapping out their course at the Osoaviakhim School located in Tushino, Moscow's Aviation City. The girl third from the left is now a flying instructor in the oil fields of Baku, on the Caspian Sea.

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motors. One, called the "Planetka," carries a 7 h.p. motor, which is said to give it a cruising range of more than 62 miles. Another, the "Planerolek," weighs 2½ tons and is powered with an M-11, 100 h.p. motor. Its dimensions are nearly as large as those of the Soviet ANT-14, the second largest land plane in the world. The "Planerolek" is scheduled to be used with "air trains" as a freight and baggage carrier.

### Air Trains

"Air trains," or "glider trains," generally considered a novelty with no immediate practical purpose, are being taken seriously by the Bolsheviks. Already they have flown such "trains" for long distances without mishap. A plane towing two gliders made the trip from Moscow to Bataisk, in the Caucasus, a distance of 812.5 miles in six flying hours. A "train," consisting of a plane and three gliders, covered the 3,140 miles from Moscow around the Crimea with only slight delay, due to a storm.

NEXT in importance to gliding, in the minds of the Soviet air authorities, comes parachute jumping which, as indicated above, is being turned into a proletarian sport."

The Bolsheviks are determined to "debunk" the professional parachutists of the "bourgeois" world. Thousands of Soviet citizens from all walks of life are already quite at home with parachute harnesses strapped to their backs. And they are wont to leap from the wing of a plane and pull the "rip-cord" with as much nonchalance as they would manifest in "hopping" a crowded Moscow tramcar.

### Parachute Towers

To initiate the proletariat into the new "sport," the Moscow park authorities have rigged up a number of 80-foot parachute-jumping towers, from which are suspended open parachutes. The jumper is strapped to the chute with a regular parachute harness, pulled up to the top of the stand, and floats gently to the earth. The descent of the parachute is regulated by means of a pulley, but it acquaints the novice with the feeling of falling through space and affords an opportunity to practice landing with a parachute. In the evenings, after work and on "free days," long lines of people may be found before these parachute stands, waiting their turn to jump. During the past year, more than 100,000 people have leaped from these parachute platforms, in Moscow alone.

In the Osoaviakhim parachute school in Tushino, near Moscow, one always witness parachute jumping

in the late afternoon, when factory workers, office assistants, street cleaners, chauffeurs, and shop girls are delving into the mysteries of the atmosphere, earning their right to be called "parachutists," which entitles them to wear a blue-enameled badge the shape of an open parachute. A figure at the bottom of the badge indicates the number of leaps chalked up to the wearer's credit.

The seeming indifference with which the Soviet parachutists regard their equipment is amazing to those who have been taught that parachutes are something to be handled with the greatest respect. As soon as a jumper has landed, his chute is brought back to the place of take-off where it is immediately repacked. Recently I was out at Tushino and watched such an operation.

The chute was laid out on a piece of canvas while the shroud lines extended into the damp weeds. First the chute was casually folded and then the shroud lines brought more or less into line and the whole thing jammed into the pack in a slipshod fashion. Rather a contrast to the American method where chutes are packed under careful supervision in a most precise manner, but the Soviets boast that since the Parachute School was opened last year, they have had neither a fatal accident nor a serious injury to any one of their students.

THE training period in the school lasts only ten days, during which time the students are taught to pack parachutes, the different theories of landings, as well as the actual practice of jumping.

### Jumping Band

As a final gesture in the "parachute-debunking" campaign, the Osoaviakhim authorities have organized a "jumping" band of thirty pieces. Instrument in one hand and rip-cord in the other, the musicians leap into the air and strike up a lively Soviet tune as they float earthward.

On August 18, 1934, Soviet aviation day, the Bolsheviks established a record for simultaneous jumping. Leaping from several planes within a few seconds of each other, thirty-seven of them from the giant ANT-14, approximately one hundred jumpers were in the air at one time, each with two gaily-colored parachutes.

BUT aviation in the U.S.S.R. does not consist solely of gliding and parachute jumping. As indicated above, the Soviets go in as well for giant land-planes. Witness the recent appearance above Moscow of the eight-motored "Maxim Gorki," which is the first of

the ANT-20 series. The ANT-20 ships are sufficiently large to carry 72 passengers but in the case of the "Maxim Gorki," the number is reduced to 43 to make room for equipment designed to spread propaganda on a mass scale throughout the Soviet countryside. There will be a rotary press, a photographic studio, radio transmitting and receiving equipment with a powerful loudspeaker which can be heard at a distance of more than two-thirds of a mile, a motion picture theatre with sound recording apparatus, a 2,800,000 candle power searchlight and an automatic telephone system with sixteen instruments. As the "flagship" of the propaganda air fleet the Maxim Gorki will fly to the remote corners of the U.S.S.R., bringing the Soviet "gospel" to peasants and herdsmen.

### 128 Passenger Airliner

It has been proposed that the ANT-20 type of plane—the largest land planes in the world—be put into service on the through airlines between Moscow and Vladivostok, which will probably be inaugurated next year. It has also been rumored that planes of the K-7 type, accommodating 128 passengers, might also be scheduled for this air route.

But in their excitement to build the world's largest airplanes, the Soviet aviation officials have not forgotten other branches of aviation. In reference to the apparent lack of interest in balloon flights, "Na Strazhe," the official Osoaviakhim newspaper, points out:

"To catch up with and surpass capitalist countries means to do so in all fields of aviation. Aerostat flights must be encouraged and developed just as much as gliding."



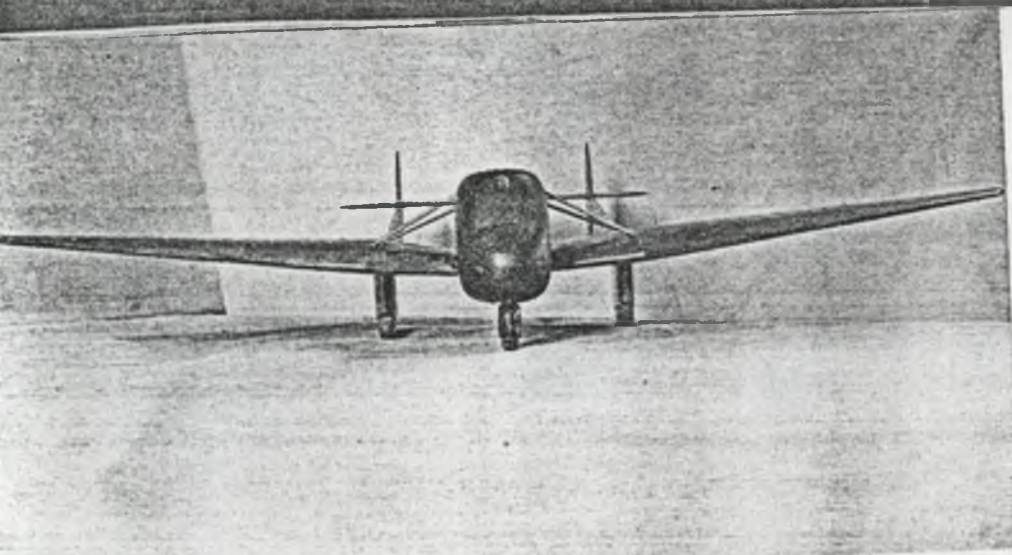
### Police Reserve Officers

MAUDE MILLER, Marjorie E. Hook and Patricia Kendall, all licensed pilots of San Francisco, were sworn in as reserve officers in the air corps of San Francisco on October 26 by Chief of Police William J. Quinn. They will be called upon in any emergency where they can be of assistance.

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## AERIAL PHOTOGRAPH



**T**HIS trim little craft will be used by the Department of Commerce Aeronautical Inspectors. An order for 15 of the Hammond Model Y, with an option on more, has been placed with the Hammond Aircraft Corporation of Ypsilanti, Michigan . . . A wind tunnel model is shown in the photograph. The streamlined, metal fuselage with its two-place, side-by-side closed cabin, the three-wheel fool-proof landing gear and the simplicity of the controls are features of this plane.

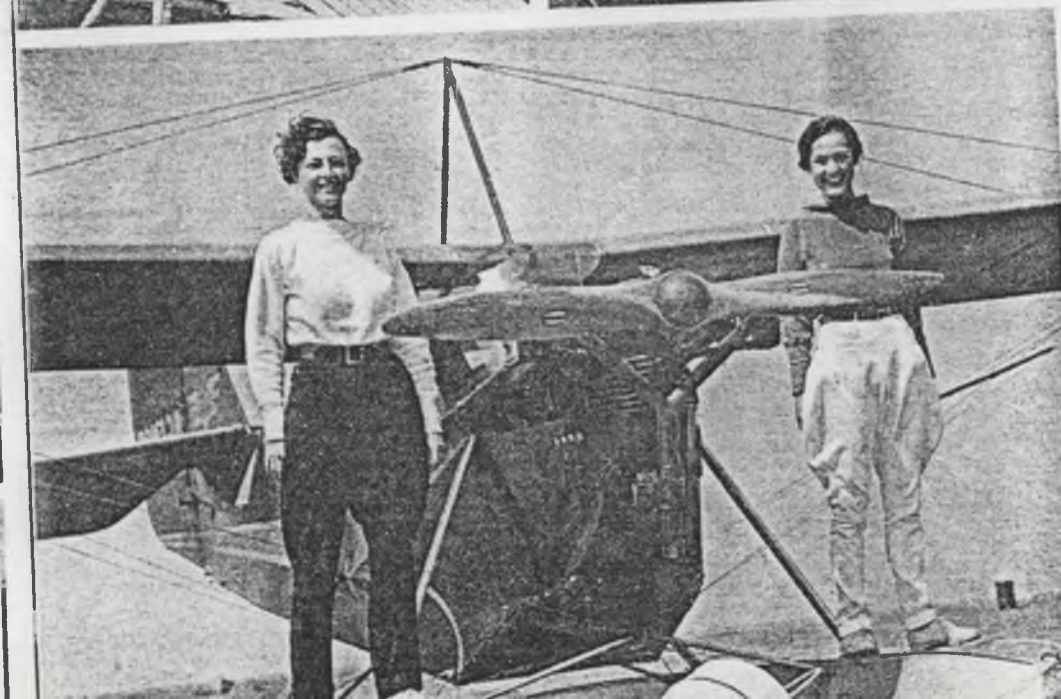


**F**OUR Generations of an Air-Conditional Family Travel by Plane in Sweden. Mrs. Katherine Bedford Henry (left), daughter, granddaughter and great-granddaughter, of New York, boarding a Swedish Aerotransport plane in Stockholm for a trip to Finland.

*Photo by courtesy of American-Swedish News Exchange*

**M**RS. H. B. Tate, M.P., of Los Angeles, who with her husband recently toured America by air. He is a licensed pilot and she is ready for her flight license tests . . . The two of them were enthusiastic about our air transport line and accommodations. Mrs. Tate found "amazing (as who doesn't?) to leave New York at 4 o'clock in the afternoon and arrive in Los Angeles at 7 the next morning; to go from Washington to Pittsburgh in an hour and 45 minutes—a journey which would have taken 12 hours by train."

*Photo by Metropolitan Photos*



**M**ARGO Bain Tanner (left) and May (Mrs. Frederick) Brunton have just arrived at Plymouth, Massachusetts, from New York in Mrs. Tanner's Aeronca to attend a 99 meeting. Tanner and her mother, Mary Foster, one of the first of the flying grandmothers, conduct a seaplane flying school at Point, Westchester County, N. Y. Mother and daughter hold private pilot licenses . . . Mrs. Brunton holds an instructor's license, and she and her husband are about to leave their home in Bozeman, Montana, in their Waco to point west and in the middle of the United States.

*Avi Women Nov. 1934*







# WHAT'S WHAT IN AMERICAN AIRPORTS

## GRAND CENTRAL KEEPS STEP

By Major C. C. Moseley, Managing Director, Grand Central Air Terminal, Glendale, California



This Southern California port of entry by air has been undergoing a series of minor expansions and major improvements. For almost five years, Grand Central

Air Terminal in Glendale has been able to boast of having the only concrete runway west of the Mississippi River, and within the past several weeks, there have been completed various runway improvements such as widening the approach by addition of what formerly was the parking lot, also through oiling the majority of adjoining area.

Only those acquainted with this terminal will recognize the new developments, such as, establishment of the United States official port of entry, a new ticket office, creation of a great airplane building factory, the most active used airplane department on the Pacific Coast, an internationally famous parts and accessories department, an equally celebrated repair shop, outstanding improvements in several aeronautical schools and amazingly superior schedules for the group of air lines.

With the air lines making such magnificent improvements in their flying equipment and record-breaking schedules, it is good business for the airports to keep in step. That is just what Grand Central is doing. It is going to be just as up-to-date as the TWA overnight schedules between California and New York—or the American Air Lines' new sleepers. The airport is going to be in the same class as the two well-patronized tri-weekly services between Glendale and the important cities throughout Mexico—all now within a few hours of Southern California.

The ten-acre parking lot at the northwest corner of the airport has been divided diagonally, the wedge-shaped land adding materially to the width of the runway and approach. The battery of flood lights formerly in this corner of the airport, has been moved to the southwest corner—all about doubling the former advantages for the pilot. The fence along the street has been moved back to the property line and the entire area well oiled and brought up-to-the-minute. The flying field was enlarged for such flying as appropriate and timely for even the fastest of airplanes which, after all, must land occasionally, and usually require a lot of room.

The national government's port of entry set-up includes a customs house branch, immigration bureau, quarantine station and agriculture inspection service. The new ticket office has been built right in the middle of the huge waiting room.

**A**ir lines using Grand Central at the present time are four in number: TWA, which carries the mail and maintains the overnight passenger and express service across the continent, American Air Lines and its well-patronized sleeper-airplanes, Central Airways of Mexico and the Varney Speed Lanes, also serving Mexico.

The Airplane Development Corporation factory, meaning full realization of "Gerry" Vultee's dream of years, is one of the busiest places in the entire industry. Gerry occupies a very large hangar and the shops adjoining, and his overflow flows over a lot of the surrounding acreage. Gerry is employing hundreds of men. Incidentally, he is building a single-motored transport which can show a lot—mostly tail assembly, to almost anything looking like a really fast plane.

**C**HARLEY BABB, main spring for "Babb's Bargains," occupies about half of a large hangar which is crowded with his used aircraft. Air Associates has a tremendous parts and accessories department; this branch is about the most active of all in their whole nation-wide chain. The Timm boys have their airplane repair shop at Grand Central now and everybody in aviation appreciates that the Timm outfit knows just about all there is to know about repairing anything that will fly. Also, Grand Central is now the Southern California home for authorized Wright motors distribution, sales and service. In conjunction there is an approved repair station under the personal supervision of Charles (Chief) Kidder.

Then there is the Curtiss Wright Technical Institute for Aeronautics with more than one hundred students taking either the engineering or mechanical courses—and the Grand Central Flying School, Joe Plosser in charge, which is having its best season.

### (SCORING UP—from page 2)

other, so they dedicated Sunday, October 14, to Michigan girl fliers. Of course the licensed pilots, as 99's, were well acquainted, but the student pilots were mostly plotting a lone

course, so they invited all girls in the state, whether they had pilot tickets or student permits, to a luncheon and to participate in some competitive flying.

At the luncheon each girl received a beautiful leather manicure kit, compliments of William Horlick, Jr., and a helmet from Kendall Refining Co. October 14, to Michigan Girl Fliers' Prizes for the flying program which followed were donated by Waco Aircraft, Stinson Aircraft, Warner Aircraft, Continental Aircraft Engine Co., Berry Bros., Dibble Color Co., and the Detroit Times Wing of the Junior Birdmen of America.

There was a precision landing contest for solo students, the first scheduled event ever held for students around here, and Martha Devereaux, with three and a half solo hours on her log book made the best precision landing of the day, beating even the licensed girls. Florence Swanson, with eight solo hours, took second, and Len Baker took third.

**M**AHEL BRITTON was the champion of the day, taking first in both events for licensed pilots, the precision landing and bomb-dropping contest. Alice Hirschman was second, and Jeannette Lempke third in the bomb dropping, and Faye Davies second and Alice Hirschman third in the precision landing for the pilots.

Lt. Taylor from Selfridge Field gave a beautiful exhibition of stunting in a new Boeing P-36, and a "Mystery Girl," who turned out to be Sta Prescott dolled up in a blond wig, made a parachute jump.

The judges for the day were Howard F. Rough, supervisor for this district for the Bureau of Aeronautics, Department of Commerce; Col. Floyd Evans, Director Michigan State Board of Aeronautics; Walter E. Leister, Joseph R. Salzman, Howard H. Hartung, and Carl Snyder. The affair was so successful that everyone felt that Michigan Girl Fliers' Day should become an annual event.

**ALICE HIRSCHMAN**

### Est-est-est Treasure Hunt

Fifty-nine airplanes double-lined on November 11 at Holmes Airport, Flushing, L. I., to do some plain fancy hunting for treasure posted by Mrs. I. J. Fox. Directed by Clarence Chamberlin and Jack Erdman, the event had the longest entry list of all in competitive-flight history.

Nov. 1934



# PRACTICAL PILOT

By LOUISE THADEN

A MONTH ago I gaily set forth in a shiny new Jacobs powered Beechcraft, with keen anticipation. Now I mumble and jerk in my sleep. Demonstrating new airplanes is not all it seems on the surface, particularly if the "demonstrator" is a woman and the "demonstratee" is a man. There must be some psychological reaction which reacts on the male in the form of an urge not only to show the female the superbness of the male, but in the process turning the airplane wrong side out and hind side before. In all justice it should be said that the least experienced of the males are usually the worst offenders. But what profit traces of gray in my hair and wrinkles on my cheeks?

It was during this demonstration trip that I came to the conclusion that women pilots have an inferiority complex themselves. At least this woman pilot. I dislike taking the controls away from a he-pilot. Hence the gray hairs. I've let them hang me on the strap, skid turns, make drop landings,

and have a marvelous time flying wing low. I've ridden more sloppy flying than instructors at both Brooks and Kelly Fields. I've mushed mile upon mile. I've been rattled from one side of the cabin to the other by neophytes "trying out the controls." I've been landed at five miles an hour faster than cruising speed. Patiently I have forced a somewhat worn out grin, and sat as nonchalantly as possible with folded arms and itching feet.

One memorable day the worm turned. Just what can be determined of an airplane's flying characteristics from the power dive I have never figured out. Of course this method will determine beyond great doubt whether the wings stay or go in the pull-out. To make a long story pleasantly short, we went into a power dive. The air speed touched 200, passed rapidly on to 220 and flew on to 245 or so when, patience and respect of male pilotage completely exhausted, I gingerly regained controls.

In due course of time we left the vertical and regained the horizontal with a thousand feet to spare and the normal number of wings.

Having once broken the ice, and having had more than enough of the male brand of determining the flight characteristics of a strange airplane, I have become very commanding and force a glint of firmness into the eye, and push, pull, or turn whatever is necessary to cause the airplane to fly in a reasonably normal fashion. In numbers of instances it amounts to dual instruction, for which I cannot charge, unfortunately.

Thank engineers for stable airplanes! Going X-C from here to there I can set my course, fold my hands and relax in a good book, with now and then a peek out of the window to catch drift, if any. The Beechcraft and I go cruising serenely along at 150 miles an hour or more and thank the powers that be that we each have the stamina to "take it."

## BREAD and BUTTER and AVIATION

YES, aeronautical engineering is a good field for women if they are given a chance," said M. Elsa Gardner, who is one of the handful of women who hold degrees in aeronautical engineering.

The world is still so wide that it is difficult to say offhand, according to Miss Gardner, exactly how many women hold such degrees. As a matter of fact one of the best reasons for the existence of AIRWOMAN is to build up a storehouse of complete, dependable information about activities of women everywhere in aviation. At any rate Miss Gardner knows of three other women besides herself who hold a master's degree in aeronautical engineering. Probably the first girl to win such a degree was Elsie McGill of Toronto who took her degree at Michigan University in 1927.

Hilda Lyon, an English girl who was one of the designers of the R-101, was a fellow student of Elsa Gardner's at M.I.T. for two years. Later she went to Goettingen in Germany to study and has probably by this time won the distinction of being the first woman to hold a doctor's degree in aeronautical engineering.

Miss Gardner, who hails from Montclair, N. J., drifted into engineering via mathematics, her major at St. Lawrence University, when she was

assigned to the British Ministry of Munitions of War in the United States. There she received training in the British system of inspection of gauges for munitions and French airplane manufacture. Transferred to the Signal Corps as inspector of airplanes and airplane engines, toward the end of the war she introduced this British System of inspection into the torpedo plant of E. W. Bliss Company at the request of the navy.

Convinced that engineering was her field she worked in factory machine shops and laboratories while studying mechanical engineering at Pratt Institute at night and spent a summer vacation in the Engineering College of Michigan University. Finally New York University's College of Engineering let down the bars and admitted her, as its first woman student, in the evening engineering division.

During this time she worked for E. W. Bliss Company, Wright Aeronautical Corporation, Eclipse Aviation Corporation, Pratt and Whitney Company, the American Machinist and the American Society of Mechanical Engineers where she worked as associate editor of the engineering index. Then by dint of hard work, it was her good fortune to receive a scholarship in the aeronautical engineering department of M.I.T., where she studied many a

twenty-four hours or with only two hours off for sleep. Besides her program of study she was also writing (and still does) the "Digest of Foreign Technical Articles" for *Aero Digest*.

Elsa Gardner has just completed three months' service in the Langley Field aeronautical laboratory of the National Advisory Committee for Aeronautics at Langley Field, Va.

She works with a right good will in wind tunnels and engine test labs—clad in a long grease-smeared coat shot full of holes from the welding torch—testing airplane models and engines.

M. Elsa Gardner



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## X-C

## FROM LOS ANGELES TO DANBURY

By MELBA BEARD

OUR flight to New York is now ancient history, but it was interesting. Not being speed specialists, we wandered here and there across the U. S. between friends' houses. It is much more fun to zoom a small town, stake the plane out in a cow pasture, and be heroes for an evening, than staying at an unknown airport.

Starting late one afternoon, after Mr. Beard had corrected the morning's final exam papers, we arrived over Ashfork, Arizona, emergency field a little after dark (we know the place well). Next day we easily made Amarillo, Texas, and my first experience with a muddy field. We slept at the airport to the accompaniment of teletype machines in the next room. That day's flight had also introduced me to a dust storm, 50 miles long and a mile high. Already the terrible drought was showing its effect on the parched earth below.

LEAVING Amarillo and the air routes, we cut straight across several states to Ames, Iowa. Navigation here required more careful attention, but we did not get off our course, though at times I was sure my husband was practically flying in a circle, or he thought I was surely flying with the wrong map. The drought was most noticeable in this section. Stopped at Salina, Kansas, for gas only to find the airport closed up. We were about to lower our dignity to using commercial gas when a Texaco truck brought out 20 gallons of a special racing gasoline, remnants of a previous air derby no doubt. So we finished the flight in record time, though the sight of a small town being entirely consumed by red crackling flames, while the people

stood helplessly by without water, rather wilted our spirits.

Thus to Chicago, and down into Ohio, and after lunch, on east to our night's stop. Frantic friends in cars followed us up and down the Ohio River while I "shot" dozens of fields trying to get into an unplanted one. I had to give up, and landed on a tiny strip between a railroad track and the river that was too small to take off from with our heavy load. The only other good field was populated by cows who would not scare in the same direction at one time. Next morning we unloaded the plane and Mr. Beard just managed to get it out, and thus to the larger field.

WHILE flying happily over the Pennsylvania hills, the tachometer and gas gauge were both "out," a broken rocker box forced us down into a man's newly planted corn field. I am sure it was the only level place in western Pennsylvania. The remainder of the day was spent by my husband trying to find a Warner motor part in that farming district, and myself trying to keep people off the man's corn field, or from tearing up the plane, not to mention telling exciting flying stories to the property owner for 6 or 7 hours so he wouldn't notice the damaged field.

Finally, with a discarded, handmade rocker box and a young garage mechanic, whose tools were mainly hammer, chisel and saw, we got the motor running again, reaching Newark and Danbury, Conn., next day, where we stored the plane and started on our trip to Russia.

And how many times since then we wished for our speedy (?) plane!

## CROSS-COUNTRY LOG

Clara Livingston flew her K. Royce biplane from Porto Rico to New York this summer, accompanied by William Caldwell, Military Aide Porto Rico's governor. She spent several months visiting her family and friends up state. While here her Challenger engine went in for a major overhaul by Engine Brokers at Roosevelt Field which is Miss Livingston's flying alma mater. She flew back here recently to Dorado, P. R., where she owns one of the largest plantations on the island as well as an airport.

MARGARET COOPER and August Roberts flew up from Roosevelt Field, Long Island, in Mrs. Robert Bird to the opening of the Troy Airport at the invitation of Mayor C. Burns to New York 99's.

Lady Hay-Drummond-Hay, English pilot, is visiting Egypt in her car. Waco . . . Elly Beinhorn, German pilot, who recently toured South America, flew from Panama to Los Angeles. While there she was entertained luncheon by Mrs. Lloyd Stearns. Mrs. Ulysses Grant McQueen, of Women's International Association of Aeronautics . . . Thea Rasche, on leave of absence from her duties as editor of *Deutsche Flugillustrierte*, will return to Germany from Australia via Los Angeles and New York. Miss Rasche is vice president of the W.I.A.A. . . . a charter member of 99 . . . Chieko Mabuchi, 23-year-old Japanese woman pilot, was all set, the last we heard from our Roving Reporter, for a 2,000 mile solo hop from Yokohama to Hsining, Manchuria. And Marie Shoda, Tokyo has just bought her own plane and is going into training for a flight some day to Austria, which is her native home . . . Ninette Heaton, 99, recently flew her Waco F-2 back from California to New York, has set out once again for England where she will do some more flying.

PILOTS or airline passengers, news (brief or lengthy) of cross-country flying to AIRWOMAN this department. A cash prize will be at the end of the year to the two most interestingly told cross-country stories, one of them by a pilot and one by a passenger.



Melba Beard, Transport Pilot and licensed radio operator as well as half of a flying couple.



# STREAMLINE PIONEER

Seattle Public Library

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"The outgoings and the incomings of the quadruped and fish are already suc-



He wrote a book on *Animal Locomotion or Walking, Swimming and Flying*, first published in 1867 and in its fourth edition in England in 1891, which was published in America by D. Appleton in 1874. The Royal Institution of Great Britain, the Linnean Society and our own Smithsonian Institution included treatises by him *On the Mechanical Appliances by which Flight is Attained in the Animal Kingdom*.

With years of research to his credit on such abstruse subjects as the muscular fibres of the ventricles of the vertebrate heart, Dr. Pettigrew approached the problem with infinite patience and imagination as well as the true scientist's passion for thoroughness and accuracy. Beginning with the hoof of such swift creatures as the deer (see Fig. 45, top, left) and the antelope and the Chillingworth bull, as an example of the "compressed foot" he took up next the "expanded foot" for swimming shown here in its extreme form (Fig. 45, top, right) in the ornithorhynchus—(whatever that may be)—and right on through the "animal kingdom."

Some of the other creature appliances studied, as reproduced here, are: Penguin, swimming (Fig. 57, middle,



Yours sincerely  
J. Bell Pettigrew

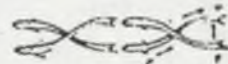
left); blur or impression produced on the eye by the rapid oscillation



of the wing of the blow-fly, when the insect is fixed, seen from above; and the same thing when the insect in progressing at high speed, seen from above and from the side (Figs. 58 and 59, respectively, bottom, left); right wing of beetle, dorsal surface (Fig. 65, middle, top); right wing of red-legged partridge (Fig. 70, top, right); common house-fly, showing the kite-like action of the wing, seen from above and from the side (Figs. 70 and 72, middle, right); and diagram showing the course described by the fish in swimming (Fig. not numbered, bottom).

Dr. Pettigrew points out that: "In the animal kingdom, the movements are adapted either to the land, the water, or the air; and, as a result, the instruments by which they are produced are specially modified. This is necessary because of the different densities and the different degrees of resistance furnished by the land, water, and air respectively. On the land the extremities of animals, encounter the maximum of resistance, and occasion the minimum of displacement. In the air, on the contrary, the pinions experience the minimum of resistance and effect the maximum of displacement, the water being intermediate both as regards the degree of resistance offered and the amount of displacement produced."

In evidence of the essentially practical quality of his mind the Doctor points out further that: "In order to construct a successful flying machine, it is not necessary to reproduce the filmy wing of the insect, the silken pinion of the bat, or the complicated and highly differentiated wing of the bird, where every feather may be said to have a peculiar function assigned to it; neither is it necessary to reproduce the intricacy of that machinery by which the pinion of the bat, insect, and bird is moved: all that is required is to distinguish the properties, form, extent, and manner of application of the several flying surfaces, a task attempted, however imperfectly executed, in the foregoing pages. When Vivian and Trevithick devised the locomotive, and Symington and Bell the steamboat, they did not seek to reproduce a quadruped or a fish; they simply aimed at producing motion adapted to the land and water, in accordance with natural laws, and in the presence of living models."



cessfully imitated, and the insects and fowls of the air, though clamorous and noisy, are not necessarily beyond our reach. Much has been said and done in clearing the forest and fertilizing the prairie: can nothing be done in reclaiming the boundless regions of the air?"

So wrote James Bell Pettigrew, eminent Scotch surgeon in 1867, having completed an exhaustive study of the traveling surfaces by means of which animals walk, swim or fly and determined in each case how the basic problem of air resistance is solved from a design and function point of view.

Personally I'm grateful to know that Dr. Pettigrew lived long enough—until 1908—to know that man had at last learned how to see eye to eye with a mosquito.



though it seems rather too bad he might not have sat in on some of our current flying history. For certainly Dr. Pettigrew did his workmanlike share in helping us find out how to go about the business of "air reclamation."

It was he who "first successfully analyzed—in 1867—the movements of living creatures and reproduced them by the aid of artificial wings." And according to the Encyclopedia Britannica, 11th Edition, "Pettigrew's artificial wing was a more effective imitation of nature than any other up to that time." The peculiarity of the wings and screws constructed by him consisted in their elasticity, their twisting action and their comparative length and narrowness. They offered little resistance to the air when at rest and when in motion the speed with which they were driven was such as to ensure that the comparatively large spaces through which they traveled were practically converted into solid bases of support.

"After James Bell Pettigrew enunciated his views as to the screw configuration and more especially after his introduction of spiral, elastic artificial wings and elastic screws, a great revolution took place in the construction of flying models," says the encyclopedia. He first discovered the figure-eight waved movements made by the wing in stationary and progressive flight, later confirmed.



Nov. 1934



# FASHIONS IN FLIGHT

By FAY GILLIS

**S**A-AA-AY, have you ever been baggage-conscious?

If you haven't, just take a trip with your old cowhide suitcase, anywhere in America on the safest, smartest, fastest, most luxurious airlines in the world (how is that for superlatives? Learned the secret from the Soviets.) and you will be baggage-conscious like you will never want to be again.

The airline porters, unaccustomed as they are to proponderous luggage, will stagger under the weight of your old-fashioned bag and attempt to slay you with the proverbial glance, your outdated suitcase will immediately pigeon-hole you as a novice of ethereal travel, nobody likes to be a novice at anything—and some dear old lady—they are to be found on most transport planes—will probably take you in a corner and tell you how sorry she is that you had to pay the extra tariff for your overweight baggage, that you could save your money by buying one of those smart aviation suitcases like she has.

Really the end more than justifies the expenditure, and *such* service snap-py suitcases bring you, you've no idea. Shabby baggage seems to have the same effect on the masculine-minded as run-down heels and crooked seams in the stockings. But enough on the morals, when the solution is so simple.

**B**REEZED into one luggage shop and was pleasantly surprised to find that the suitcase manufacturers have been flying formation with the new air-

liners. Their models are just as streamlined as the planes they fly in. There are all sizes and shapes of so-called aviation luggage, made of all sorts of trick fabrics—duckoid, fabricoid and all the other "oids." Plain material and striped, or plain with just one dashing stripe for distinction.

One manufacturer has conceived of the bright idea of a cushion top to keep your favorite frocks from slipping as your bag goes into a spin en route to the baggage compartment on the plane. Most of the wardrobe suitcases are so arranged that the whole compartment on which the clothes are hung may be taken out and hung up anywhere, thus saving you the job of having to rehang your dresses. Some of the cases have dustproof covers to keep your gowns spotless. Others have all sorts of collapsible convertible compartments for all manner of things.

But the trickiest suitcase for flying passengers is an arrangement 21 inches by 5 inches deep by 16 inches wide, weighing 6½ lbs. with a zipper compartment on the top of the suitcase, having no connection with the rest of the bag. Zip-p-p and behold a special place with several hangers—space for five or six dresses, all depending. The dresses are doubled over the hangers by some very efficient arrangement so that they won't wrinkle or slide around. Zip-p-p again and the dresses are forgotten about and suitcase proper is opened where are to be found compartments for shoes, stockings, collapsible hats, beauty aids, or all the things you consider necessary for cross-country. A piece of luggage to be proud of, and the price no more than for old-fashioned baggage.

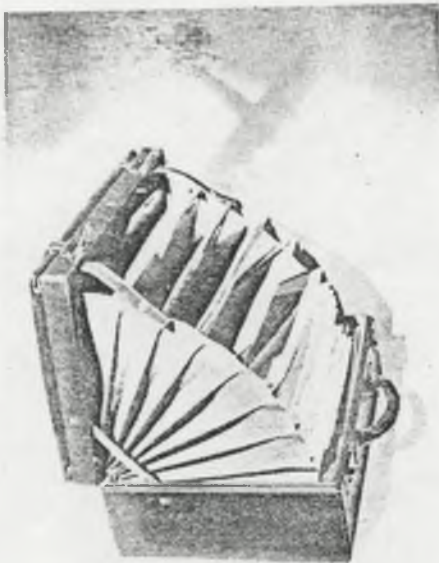
**H**OWEVER, we all won't be flying the airlines, all the time. In fact, all you lucky girls who own your own planes won't be interested in all this smart luggage for passengers unless, of course, you have one of those trim cabin jobs which are almost as luxurious as the airliners. But you feminine fliers who still wear coveralls and change your own spark plugs—the manufacturers haven't forgotten you either. In fact, they had you in mind all the time when they made the about-to-be-described, extremely smart and utilitarian piece of baggage—just the sort of thing to throw in the baggage compartment without having to worry about its appearance when you

reach your destination. It is made of some new suede-like fabric, same color as dirt, is waterproof, snowproof, completely immune to weather. It is 61 inches long—don't be too quick to compare the 61 with the length of your baggage compartment—has three hangers for dresses and the whole thing is full of pockets with elastic tops for what you want to take with you.

Having packed your bag, you zip it all around—much more fun than both-ering with straps and locks and things—snap the two handles together and Lo and Behold you have a club bag. There is some sort of a gadget about twelve inches wide, in the middle of the bag which, when the bag is folded up, becomes the bottom of the bag and saves everything from collapsing in the middle. And the best part of it is that you don't have to unpack your things—just open up the bag and hang it on a hook—your dresses are already on hangers, and your accessories are laid out, each in its own compartment. Last but not least, it is most reasonably priced—under ten dollars, and I don't mean \$9.95. Please don't scorn it just because it is so reasonable. Some people have the idea that things have to be expensive to be good.

**F**OUND something else for you business people who are always carrying an extra brief case full of papers or you fliers who can never find your maps. Amy Andrews, a Ninety-nine, who flies her Stinson thither and yon—thither being New York, and yon, California—owns one and told me about it, even let me have its picture taken. It is most useful two-purpose piece of baggage for people with papers and plans. Fitted into the top of the case is an accordion file case where you can stow away your maps according to country, city or your custom. If the file becomes full to overflowing, just loose the straps and the collapsible top takes care of the bulge. All of which leave the bottom of the case for your uncrushable costume and slippers. Tried what?

While I'm on the subject of luggage I must tell you about the travel diaries. Diaries are as indispensable to some travelers as a toothbrush is to others, so guess it is all right to bring up the subject here. These "travel diaries" were designed by Chanel, and you literally wear your heart on your sleeve. No more heart throbs between plush covers locked from the world.



A. Gravesen, New York

Nov. 1934



little golden keys, but very chic bracelets with twelve golden or silver plated discs on which you have inscribed the date and name of the city and any details you care to mention. It saves you the trouble of carrying a book around and you literally have your travels at your finger tips.

These bracelets only cost two dollars. There are others with eighteen discs and more elaborate for \$7.50. Chanel also designed the "travel diaries" as clips, single and in pairs, and in belts which would look gorgeous on grey, brown or black dresses. The single clips are \$2 and the double clips and belts are \$7.50. They would be ideal Christmas gifts for the air-conscious. Really shouldn't have mentioned them this month but they are so smart I'm trying to pretend that diaries are part of everyone's luggage.

If you want to know where to buy the "travel diaries," or any of the aforementioned luggage, I will be glad to pass on the information, or if you are very nice, I might even find an extra minute to dash out and buy them for you personally.

## THE WELL-READ AIRWOMAN

Mabel Britton, Editor

*Final Flight* by Francis & Katharine Drake, Collier's, October 20.

An expert mail pilot, promoted to airline executive, flies his old course once again in dangerous weather to rescue passengers of a derelict plane. Fighting snow and sleet under a low ceiling in wild mountains, he spies the wreck below; makes a breath-taking landing on the canyon's edge, a still more incredible take-off, to bring back the three passengers, father, mother and baby, alive. Flying back to the home port the hero receives the radio message of the birth of his own son.



This vividly told imaginative tale by the authors of "Big Flight" makes us wish they, and others like them, would turn their attention to the proper chronicling of

real flights—such, for instance, as the spectacular rescue of Ernst Udet, German Ace, in East Africa in 1931. Campbell Black, co-winner with C. W. A. Scott of the recent London to Melbourne race, was the hero of that exploit. Udet had been forced down during an expedition to make sound pictures of wild animal life. Black spotted the derelict plane, made a difficult landing in the sand, and shared his rations with the German before flying back to the British base at

Khartoum to summon a relief expedition. The ablest pilots are notoriously inarticulate and need the services of the trained fiction writer, properly to present their exciting experiences to the public.

*Exploring the Stratosphere* by Captain Albert Stevens, National Geographic, October, 1934.

"We were imprisoned in a stout metal shell, hanging from a huge balloon, more than eleven miles above the earth. We had only to open a hatch to be free, but no one made a move toward the lever. To have opened it would have meant almost instant unconsciousness from change of pressure." Thus Captain Stevens begins his thrilling account of the stratosphere flight from the Black Hills of South Dakota last July. "Weighing off" at dawn, they had risen to nearly 60,000 feet at one o'clock when a rent appeared in the balloon. Slowly it increased until finally the whole bottom of the bag had fallen out causing a more and more rapid descent of the gondola. From instruments they knew that outside it was 80 degrees below zero. Everything inside the gondola was working perfectly and it seemed strange to realize their downward flight was so ominous. After forty-five minutes they were down to 40,000 feet and, the speed increasing, a half hour later, 20,000 feet. Then two hatches were opened and at last they felt free. The three had parachutes and were all set to leave but wished to stay with the balloon as long as possible in order to be near it when they landed. A little more than half a mile from the ground they began baling out. After Captain Anderson left, the balloon exploded and the gondola dropped like a stone. "Twice," says Captain Stevens, "I tried to push myself through the hatch of the gondola, but wind pressure around the rapidly falling sphere forced me back. So I backed up and plunged headlong at the opening. I managed to hit it fairly and went out in a horizontal position, face down, with arms and legs outspread like a frog." The gondola was smashed to bits and most of the scientific instruments destroyed; luckily the perfect barograph record of the flight was salvaged.

Necessarily the preparations for such a flight are long and exacting. Captain Stevens explains these and gratefully acknowledges the help of everyone concerned. There are beautiful and varied photographs of the Strato-camp, of the balloon, moored, in flight, and descending ripped in bits. These photographs alone make this Geographic desirable to keep and I cannot imagine anyone reading the first sentence able to put it down until the end of the exciting narrative.

## Just Among Us Girls

by

Mister Swanee Taylor

GIRLS!!! I'm peeved at the way most newspapers handled that marvelous balloon landing by Jeannette Piccard. (The D is silent, girls, as in alphabet soup.) What I didn't like about it was that those horrid editors carried headlines to the effect that sister Jeannette made a rough landing. (She's one of us, isn't she?) Why, some of 'em went so far as to say that the balloon crashed. Perfectly insane, stupid and abominable!! Why? Well, m'dears, every balloon landing is rough—it's even a crash landing. You may not know it, dear sisters, but you're listening to an old spherical balloon pilot.

Yes, darlings, I even instructed, in lighter-than-air, early in the war. So I know whereof I speak. And I'm here to say that you're as much out of control, on the last 500 feet down, as ever any gal was on her first prom night. You know whereof I speak, there. The reason you're out of control, in the balloon, girls, is that the gas in the bag is highly susceptible to heat radiation from the earth. Really, there's nothing to do about it but wait for the basket to wallop the ground and turn over, that is, if you're in the clear.

Now what I mean about heat radiation is this: The under side of the balloon is influenced by, and reacts to, thermal changes more and more positively as you get closer to the ground. For example, squashing down into the hot air over a dry grain field will quickly heat the bottom of your balloon—and upsy you go. Contrariwise, coming-in over woods you hit cooler air which contracts your sustaining gas, and down you drop. See? What makes it difficult, the silly globules don't respond to control like flippers. It takes more than a full minute to determine what the old girl has in mind.

By then it's too late to do anything constructive other than shovel out ballast to "jump" her, or take a tree-top. And, if there is a loose tree anywhere within easy commuting distance, your balloon is sure to find it. That is where most free balloons elect to nest—high in the trees.

All of which makes me get madder and madder when I think of what they said about Jeannette. She made a swell job of getting down through a lot of goppy clouds, girls. This was borne out by one of the stories that told how she brought her ship down to where it was "sitting" on the drag-rope—tatamount to a three-point landing.

And as the balloon drifted before the slight breeze a farmer, Yclept Glen Hope, grabbed the rope causing the big bag to lunge into the top of that slippery elm tree. Certainly not her fault!! Likewise, her take-off was plenty okay. I saw newsreel shots of it, and I was very proud of her. She had lots of room getting out, despite all the ground hysteria.

And, girls, who says there's no justice? His, Dr. Piccard's foot got hurt!! Too, isn't it simply ducky to think that a married couple were the first co-ed team to soar into the stratosphere looking for, for . . . what was it they were looking for, the cosmic urge???

Nov. 1934





### New Members

**D**OROTHY GEORGE, Los Angeles; Claire Maravage, New York City; Mary Lee Reed, Chattanooga, Tenn.; Harriet W. Sackett, Washington, D. C.; Ellen Smith, Meadville, Pa.; Margo Bain Tanner, Hartsdale, N. Y.

### Sectional News

The *New England Section* held its September meeting at the lovely home of Margaret Kimball in Lexington, Mass. Maud Tait Moriarity made a report on her two years as sectional governor and the New England group as well as the national group owes her a vote of thanks for her splendid work. It is no simple job to hold the New England gang together because of the distances to be traveled to meetings. Officers as elected at the meeting for the coming year are: Dolly Bernson of Brookline, Mass., governor; Novetah Holmes Davenport, sectional reporter.

Margaret Kimball presented the cup she has donated to the New England group for a point-system contest based on aviation progress achievement. Mary Sansom of Hartford, having the highest number of points, won the beautiful "cup," which is a lovely silver bowl about 8 inches in diameter.

Louise Sisson of Providence was present at this meeting minus the plaster cast but still on crutches.

The October sectional meeting was

Genevieve Savage



held at East Boston Airport, with Bertha Gardner of Providence as hostess. The meeting was originally scheduled for Providence, but on the evening before our hostess returned from a bear hunt in New Brunswick to find the field under repair. Early Wednesday morning she phoned everyone, packed the refreshments and "beat it" for Boston . . . Dolly Bernson, new governor, presided . . . Bernice Blake of Manchester, N. Y., flew in for the meeting which is the first one she has been able to attend for some time.

NOVETAH HOLMES DAVENPORT

The October meeting of the *New York-New Jersey Section* was held at the home of Miriam Blagden, where the new officers were elected. They are as follows: Marjorie Ludwigsen, governor; Clara Gilbert, corresponding secretary; Amy Andrews, treasurer; Vilma M. Johnston, recording secretary.

There was so much business that it could not be coped with at one meeting, so a special meeting was called for October 22, at the home of Tiny Goddard. There were eighteen girls at the meeting. The new chairmen elected were: Project and publicity, Fay Gillis; dinner program, Tiny Goddard; membership, Paula Lind; entertainment, Miriam Blagden. The meeting adjourned at eleven P.M., the business still uncompleted. It looks like a busy winter ahead for the New York Section.

The *Middle Eastern Section* held its fall meeting on October 13 at College Park Airport at the invitation of the Washington Women Pilots' Association, of which Genevieve Savage is president; Edna Gardner, vice president; Helen Frigo, secretary; and Johanna Busse, treasurer. Genevieve Savage was elected governor for one year to succeed Dorothea Leh of Allentown, Pa. Harriet Sackett was elected secretary-treasurer.

After the meeting all the women pilots were honored at a tea given by Mr. and Mrs. C. H. Warrington at the Congressional Country Club. A dinner dance was arranged for the visiting girls at the Roosevelt Hotel for the next day, where "Aviation Washington" assembled to greet the girl fliers. Phoebe Omlie, well-known pilot and 99, was toastmistress at the dinner.

Margaret Cooper, national 99 president, was prominent on all occasions. Among the visitors were Viola Gentz Blanche Noyes and Evelyn De Sever of New York; Dorothea Leh, Jay Patterson and Helen McCloskey of Pennsylvania; Katharine Stinson of North Carolina; Melba Beard, Ponce Barnes, Bobbie Trout, Viola Neill and Nancy Drake Chaffee of California. There were at least a dozen 99 chapter members present at the meeting.

The *North Central Section's* September meeting was held at the home of Mabel Britton, Ypsilanti, Michigan. Sixteen girls attended, with Chicago, Cleveland, Detroit, Bay City and Flint represented. Officers were elected as follows: Governor, Alice Hirschman, Grosse Pointe Park, Mich.; vice governor, Clayton Patterson (at that time of Chicago); secretary-treasurer, Ruth Wakeman, Oak Park, Ill. After the business meeting Clayton Patterson showed movies of the Women's Air Meet at Dayton.

*Southwestern Section:* The *Ninety Nines Club* is saddened by the death of our very good friend, Jim Granger, and our hearts go out to Clema (Mrs. Granger) and her three sons. We loved Jim very much. He was one of the best and most likeable pilots in the country.

He was to have been in the *Lone Star* to Melbourne race on October 20 and was making the last test of his high speed Keith Rider special built plane when he crashed.

We will all miss Jim, he was like a big brother to the Ninety Nines. He promoted air shows, arranged for us and coached and took care of us on many occasions. We could always depend on Jim to help us in anything we set out to do. We are sorrier than words can express to have him leave us.

With vacation time over, several of our members have returned home and are trying to settle down to business again. Ardetta Cadwallader is back from Chicago. Dick Clark has been back and active again for some time. Gail Stewart is home from the East and has gone back to school. She and Esther Johnson are school teachers. I'll bet none of their pupils play hooky.

A party for Mr. and Mrs. Will Beard was given at the Grangers' home.

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# Women's National Aeronautical Association's

## CONTACT

17



With this number of AIRWOMAN, W.N.A.A. acquires a space of its own. Here each month members will find news and messages from the various units and from

from the Chicago Unit; Mrs. Robert Goolrick, Mrs. Louise Barlow Heikes, and Mrs. Robert Austin served for the Dayton Unit.

After presentation of treasurer's and secretary's reports, other reports and messages were presented; Marguerite Greene outlined the activities of the Chicago Unit during the year, pointing to the number of pilots in their organization, and their activities as hostesses at the Century of Progress Exposition. Mrs. Minnie Jackson, Governor of Colorado, who had expected to be present, wrote of the uniforms adopted by the women of the Denver Unit, the song dedicated to them, of the Flying Circus sponsored by them. Mrs. Ulysses Grant McQueen, second vice president, described the Aviators' Shrine and emblems in Mission Inn, Riverside, California, likewise her work on the West Coast. Martha Smith, President of the Dayton Unit, reported monthly meetings with aeronautical programs of outstanding speakers.

Letters were read from Mrs. Orra Heald Blackmore, Founder President, Governor Spear of Maine, Mrs. Nancy Hopkins Tier of New Haven, Connecticut.

PRESIDENT GREENE closed the meeting with an inspiring address, closing with the words: "I visualize for this organization a type of endeavor which can wield a very powerful public opinion, but this opinion must hold prejudice toward none and encouragement toward all."

Members adjourned to meet again slightly later at the Country Club where at a banquet the guest pilots gathered to enter the Air Meet events which were presented. This was but the start of social events held in connection with the Air Meet. On Saturday night after the Meet the Air Corps officers of Wright and Patterson Fields entertained with a supper dance at the Officers' Club. On Sunday night, President Greene opened her home to all the visitors and their hostesses with a buffet supper.

M. J. H.

### Officers of Denver Unit

The Denver Unit sends in the following list of officers:

Mrs. Carlos L. Reavis, President; Mrs. W. J. Dexheimer, First Vice President; Mrs. John Welch, Second Vice President; Mrs. Lester Deuzer, Third Vice President; Mrs. Sidney Adams, Recording Secretary; Mrs. Bernice Lang, Asst. Recording Secre-

tary; Mrs. Dorothy Kaiser, Corresponding Secretary; Mrs. H. H. Montague, Asst. Corresponding Secretary; Mrs. Larry Neff, Press Chairman; Mrs. Anna Vaughan, Treasurer; Mrs. T. L. Orr, Auditor; Mrs. Gertrude Hopkins, Historian; Mrs. Harrison Wellman, Director; Mrs. Walter Lowry, Director; Mrs. Earl Wettengel, Director; Mrs. Neil Kimball, Director; Mrs. T. J. McKernon, Director.

These officers, writes Mrs. Reavis, the President, serve until March 1, 1935, and are an enthusiastic group.

### New Governor Appointed

Mrs. Phoebe Terry, Chicago, has accepted a Governorship for Illinois. Mrs. Terry's qualifications are so highly regarded that W.N.A.A. feels especially fortunate in securing her services. It is believed she will be a potent leader in her state.

WE should like to mention another comparatively recent gubernatorial appointment, that of Mrs. Barbara Collier, Tulsa, for the state of Oklahoma: "Mrs. Collier," wrote Gerry Honomichl to us, "is a charter member of the Tulsa Unit and has been one of its most tireless workers. She is well known in aviation circles throughout the state, and what is more important, is well liked. I am sure with her keen personality, social attainments and organization ability she would make a splendid governor."

W.N.A.A. congratulates itself on these acquisitions.

### Opening Meetings

Some Units of W.N.A.A., we learn, do not discontinue meetings during the summer season, but the majority of them we believe do. It is gratifying to think of renewed interest and work after a period of relaxation and from some of the Units we have had letters describing the getting together of members once more. Such a letter comes from Mrs. E. P. Comer of Miami, Florida, Unit saying the spirit of the meeting was enthusiastic and ambitious plans for the coming year had been made.

### W.N.A.A. Insignia

W.N.A.A. pins and bracelets are still obtainable in sterling silver and very good gold plate finish at quite reasonable costs. In view of rising prices it might be well to consider getting orders in. The designs are most attractive.

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headquarters, such matter in fact as formerly appeared in "Contact." CONTACT will be embodied in AIRWOMAN. CONTACT was a jolly little magazine, but when the opportunity came for the W.N.A.A. by joining forces with THE POWER to gain the benefit of a professionally issued monthly magazine embodying general aviation as well as our own specific association news, there seemed no argument against the plan, with everything in its favor.

So it is sincerely hoped that each member of W.N.A.A. will thoroughly enjoy our new periodical, will stand behind it mentally as well as financially, and that each unit will appoint a correspondent to get interesting news and photographs to the National Secretary so that goodly pages may greet W.N.A.A. members each month.

Send all material to Mrs. Marguerite Jacobs Heron, The Tavern Arms, Apartment 28, Dayton, Ohio.

We cannot but feel that the AIRWOMAN is a step in the right direction and will be eagerly endorsed by all women truly interested in aviation.

M. J. H.

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**Annual Meeting and Air Meet**

The 1934 Annual Meeting was held of his high Dayton, August 3. Since there was 1 built plan election of officers this year, business was confined to one day, the remainder he was like of the week-end being turned over to Nines. He Women's National Air Meet sponsored for shipored by W.N.A.A. and brought to book care of aviation by its members.

ive members of the Chicago Unit flew to Dayton to attend the meeting the Air Meet: Miss Marguerite Greene, President of the Chicago Unit; Mrs. Clayton Patterson, National Director; Miss Mary Sims, Miss Goldsmith, and Mrs. Clare Rohlf. This group arrived in time for the opening luncheon at the Hotel Biltmore and remained until the last ceremony was completed, enthusiastically welcomed all members of the Dayton Unit who attended neither energy nor enthusiasm toward making the events a success, and this when the thermometer perched in the neighborhood of a hundred in the shade. Miss Greene, delegate



# POT AND PAN MECHANICS

I'm thinking the proudest thing Ruth Nichols is of at the moment is that for 3 months she has been eating lunch several times a week at a restaurant which keeps a huge bowl of luscious fudge squares on location at a point the eye can't miss—*without buying a single piece*. Of course she has achievements aeronautical to her credit that anyone might well take pride in. It wasn't exactly simple for a woman to win a transport pilot's license way back when only one other woman held such a license—(there now being 68 women transports)—nor was it a cinch to go out and break altitude transcontinental, etc., records. On the other hand if you think it is easy for Ruth to consistently pass up that bowl of fudge, you don't know Ruth and her love for chocolate in any shape, form or size; and you've never seen the wound-

ed look on her face when the Nichols family dessert turns out to be of the blonde persuasion.

Oh my, yes, this woman pilot loves chocolate, and inquiry elucidated the information that of all the chocolate concoctions Ruth's favorite is chocolate blanc-mange made after Fanny Farmer's cook book with variations. Here is the recipe:

## Chocolate Blanc-Mange a la Ruth Nichols

- 1/3 cup Irish moss
- 4 cups milk
- 1 cup boiled rice
- 1 1/2 squares unsweetened chocolate
- 1/4 cup sugar
- 1/4 teaspoon salt
- 1 1/2 teaspoons vanilla.

Soak Irish moss fifteen minutes in cold water to cover, drain, pick over and add to milk; cook in double boiler thirty minutes; the milk will seem but little thicker than when put on, but if cooked longer blanc-mange will be too stiff. Melt the

chocolate, add the sugar, boiling water and rice; stir until perfectly smooth, add to blanc-mange in double boiler before taking from fire. Serve with whipped cream and chopped nuts sprinkled on top. N. B. If you have difficulty finding Irish moss at your grocers you may use an ordinary corn starch blanc-mange recipe, adding the rice and chocolate as directed.

Mrs. Lassie Honeyman Reardon who started in to do her traveling air after reading THE 99ER for a few months, likes corn oysters according to the recipe developed by her mother who has, by the way, promised to show us sometime how to cook a duck with oranges.

## Corn Oysters

Grate 6 ears of corn (or use a can of niblets), season to taste with salt and pepper, add 3 stiffly beaten egg yolks; then add the mixture to 3 stiffly beaten egg whites. Fry in butter on a hot pan or griddle, dropping the mixture on the griddle by spoonfuls. If it seems too "runny" add cracker crumbs to stiffen.

## (THE 99ER—cont'd from page 16)

on Tuesday, October 2. Mr. Beard and Melba have just returned from a tour of Europe and are at home only temporarily. They expect to live in Washington, D. C., soon. Those present at the party were Mary Alexander and her fiance, Herbert King; Myrtle Mims, Lauretta Schimmoler, Esther Johnson, Esther Jones, Hilda Jarmuth, Elliott Roberts, Dick Clark, Mary Charles, Kay Van Doozer, Peg Gauslin, Dorothy Kinsman and Gail Stewart. We are sorry to lose Melba because she has been a very active member, but we wish her lots of luck and are sure the Eastern girls will appreciate her as much as we have.

The Los Angeles Chapter is having a Hallowe'en party on Saturday, November 3, at Grand Central Airport. We expect about two hundred guests and should have a marvelous time.

Myrtle Mims flew down to San Diego recently.

Dorothy George, new member; Beverly Dodge, Eastern member; and Lucille Orman, new member, were present at the October meeting.

On October 21, Clema Granger arranged an aviation program for the Women's Bay City Club of Santa Monica. The interesting films depicting aviation history from the beginning were shown. Afterward a luncheon was served and guest speakers were: Ruth Elder, Capt. Ira C. Eaker, Harry

Esther Jones and Elliott Roberts were present also. Elliott is our new chairman for the Southern California Chapter and we do hope she can find time from all of her other activities to give us generously of her charming personality. Elliott is one of California's most outstanding horsewomen and has cups and ribbons galore for performances in the most exacting contests. She shares honors with her young daughter, Marilyn, in practically every riding and driving exhibition in California.

On October 23 the Southwestern Chapter was favored by a visit from Louise Thaden. Louise is out here on a sales tour for Beechcraft and if good wishes can make sales we're sure Louise will have that factory working overtime. By the way she is the new secretary of the N.A.A., and it looks as how the gals ought to get a break.

EDNA CRUMRINE

## (CONTACT—cont'd from page 17)

### Dayton Report Presented at Annual Meeting

The Dayton Unit is somewhat different in its makeup from most of the others in the Women's National Aeronautical Association, for until this last spring, we had no flier among our members. We have been a group of women interested in aviation from the lay viewpoint, whether as wives of

Dayton, and therefore our program have been devoted, in a great measure, to acquainting ourselves with various phases of aeronautics and familiarizing ourselves with flying terms and learning of planes. We endeavor to keep ourselves informed on the outstanding events in aviation throughout the world.

WE have interesting meetings every month. Following lunch, which is usually potluck, we have a program. This past year we have enjoyed the following:

A talk on aviation medicine by Mr. Fisher, Flight Surgeon, Wright Field; a trip through the factory of the N. C. Company to acquaint the Army members with one of Dayton's industries; a talk on his experiences in free ballooning in the early days of the sport by Luzern C. C. a social afternoon devoted to bridge, furthering acquaintance between the military and civilian members; a delightful evening as guests of Wright Field at luncheon, movies of the early experiments in aviation and the present day developments in Government laboratories, and a visit to the interesting Wright Field Museum program by Mrs. Manila Davis. Our new flying member, who told us her own experiences in the air, graciously answered questions regarding them and other women pilots; another evening devoted to discussion of the possibility of having here in Dayton an All-Women Air Race.

And now our year is coming to its most satisfactory culmination in the actuality of the once "proposed" women's race, which has developed into the Women's National Air Race. MARTHA C. SMITH, President,

Nov 1934

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