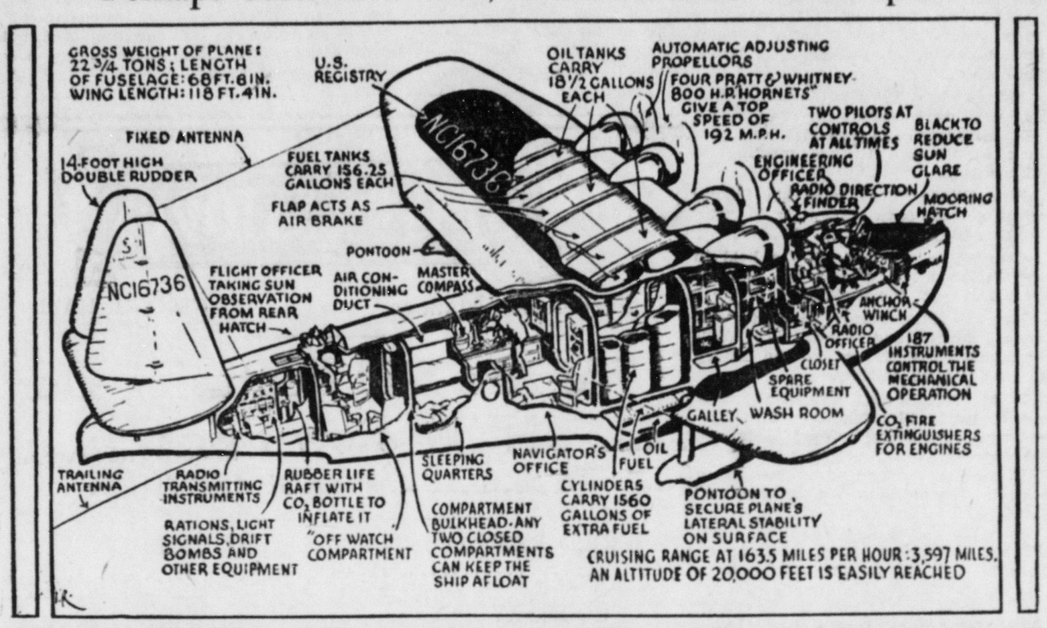
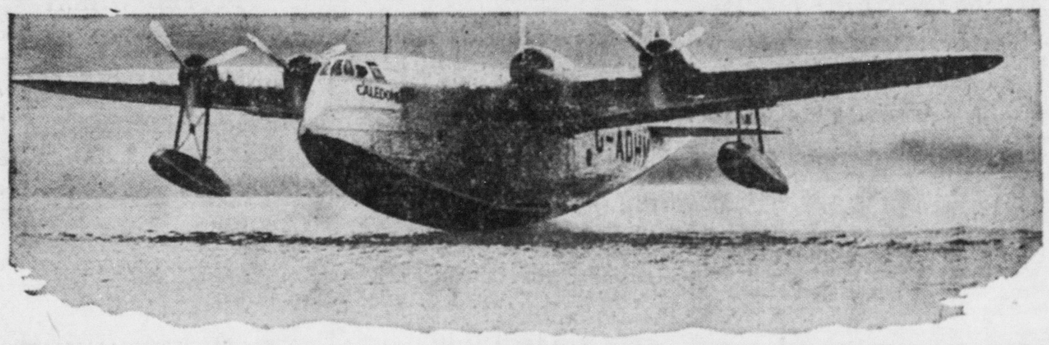
12 HOURS TO CROSS THE ATLANTIC

Great Flying Boats Blaze Trails for Regular Commercial Hops Perhaps Soon to Follow; "Weather Man" Triumphs.





The drawing is a self-explanatory cross-section of the Pan American Clipper III, America's entry in the race to establish a trans-Atlantic airline. The photograph shows the Caledonia, one of Great Britain's oceanic flying boats.

By WILLIAM C. UTLEY

SO COMMONPLACE have become the passings of the great flying boats blazing the trail for a trans-Atlantic air mail and passenger service that their arrivals and departures now rate only a short paragraph, buried on an inside page. But the very fact that these operations have ceased to be news is, in itself news. For it indicates that we may be not unduly optimistic in anticipating regularly scheduled service over aviation's toughest sea route before the end of next year.

The consistent absence of incident in these experimental crossings is not due to a phenomenal string of good luck, nor to a long series of coincidences. It is a direct tribute to the meteorologist—the "weather man." For it is he who maps out the course the craft shall follow.

Commercial flights over land are made along regularly charted airways. These are marked by radio beams and beacon markers whose signals provide a "path" or a number of "paths" from which there is no deviation except under extraordinary conditions. Radio provides a track through the sky; the fact that the track is invisible does not alter the fact that it is there.

But for spanning the Atlantic ocean there is no definite, radio-marked airlane. There is a "great-circle" course which is the shortest distance between landing points, but weather conditions prohibit its being followed exactly in most cases. The great circle course over the Atlantic includes a non-stop flight of some 2,000 miles. As far as distance is concerned, this is not as long a hop as the Pacific flight from San Francisco to Hawaii, which is 2,400 miles.

Leave Nothing to Chance.

The Clipper ships on the Pacific route fly by weather maps, too. And although the weather there is far less turbulent than over the North Atlantic, the Clippers, in two years of flying, have followed the Pacific great - circle course only three times. They have flown the course which follows the best flying weather, as forecast by the weather bureau. Crews are willing, even anxious, to fly a much longer distance than the great-circle course if the longer flight will insure favorable winds, pleasanter weather and speedier flying.

The ships most important in the present pioneering are the Pan-American Clipper III, and the British Caledonia (the latter is now supplemented by a sister ship, the Cambria). Both have four engines apiece. They have been carrying large crews, each member a specialist in some phase of flying, such as navigation or communications. They have transported more than sufficient fuel supplies to take care of errors in navigation or unexpected and sudden weather conditions which were not likely to be accounted for by their aerial weather map. If it is possible to fly the Atlantic without leaving anything to chance, that is what they have done.

Preparing for the first trip across, the Pan American meteorologists reviewed 50 years of weather records over the Atlantic. From these they drew average for seasons, for months and even for days.

Meager first-hand reports were forthcoming from weather stations at Port Washington, N. Y.; Shediac, New Brunswick; Botwood, Newfoundland; Reykjavik, Iceland; Foynes, Ireland, and Southampton, England. These formed the basis for an estimation of upper air conditions.

How Crews Get Bearings.

For Trans-Atlantic flight communications, Pan American has two stations, one at Port Washington and one at Shediac, from which long-distance bearings can be made. The British air ministry has stations at Botwood and Southampton, and the Irish Free State has one at Foynes.

On each of the great flying boats there is a smaller station. These enable the crews to take bearings on themselves from shore stations or from ships they meet en route.

When a plane calls for bearings the task requires plenty of dexterity and co-operation from the shore stations and the crew to get them back in time to do any good. These systems usually work in the following manner: The radio on the flying boat sends out a constant stream of signals. These are picked up by the shore station; the direction from which they are coming is determined from the movement of the receiving station's antenna. The shore station then sends out a bearing. In the same way, the ship gets bearings from one or more stations. The spot upon which the ship is flying is the spot at which all the bearings cross.

It was indeed a triumph for commercial aviation that, in the first flight, the weather and communications plans worked out as well as or better than expected.

On July 6, 1937, two flights were completed. The Caledonia left Foynes and landed at Botwood 15 hours and 3 minutes later. The Clipper III made the crossing from west to east in 12 hours and 40 minutes.

An "Uneventful" Journey.

Almost every prediction the meteorologists made came true. Where their maps had said there would be wind and rain, the pilots found wind and rain. Patches of fog were in the sky where they were on the map. It was said by the experts that this was one of the most successful weather charts ever prepared for a great flying venture. Radio communications worked out beautifully, too.

Interesting were the different altitudes at which the two ships flew. Capt. H. E. Gray, commander of the Clipper, described his trip as an uneventful one, and indeed a small one, compared with some of those to which he was accustomed above the Pacific. He reported flying almost the entire distance at 10,000 feet, with the clouds below them and the sun shining brightly nearly all the way after daybreak. He had the advantage of a 25-mile tailwind.

The Caledonia fought an 18-mile headwind the entire distance, making the whole flight through thick clouds and occasional rain at 1,000 feet.

The two ships passed each other when they were 67 miles apart. All the way over the ocean they were in constant communication with each other. This was of great benefit, for the skipper of the Caledonia was able to tell Skipper Gray what kind of weather awaited him on the last half of his journey, and vice versa.

There is actually no direct communication from ship to ship, however, any more than the crew of one ship has ever actually seen the other crossing the Atlantic. The British and American flying radio stations operate on different frequencies, so that all inter-ship communication must be accomplished with relays through the shore stations.

The difference in the flying times of the two ships may be put down to the prevailing westerly winds. It is a simple matter to determine the ground speeds (or in this case it might be "sea speeds").

The Caledonia, taking a course south of the great circle, traveled 2,020 miles. Computed from elapsed time for the flight, the ground speed would be 133 miles an hour for the trip. Adding to this the headwind of 18 miles an hour, it is seen that the average air speed would be 151 miles an hour.

Computing Comparative Speeds.

The Clipper III flew 1,995 miles in an amount of time which would set its surface speed at 157 miles an hour. However, in computing the airspeed, 25 miles an hour must be subtracted for the tailwind, giving the ship an air speed of 132 miles an hour.

It may be seen that the Caledonia was maintaining her calculated best air speed of 150 miles an hour, while the Clipper III was able to throttle back, saving fuel and wear and tear on its engines, while favored by a tailwind.

It is apparent from the flights completed this summer that the route from Newfoundland to Ireland will be ideal for trans-Atlantic flying during the warmer months. But the North Atlantic winter is a "humdinger," and only time will tell what freezing temperatures and ice will do to the big ships. It will probably be necessary to install deicing equipment on all the planes in regular service.

There are alternate routes which may be more feasible in the winter, and these will be tested in the months to come. The most likely is that from New York to Bermuda, the Azores and thence to Southampton. New York to London by way of Shediac and Botwood is 3,417 miles; by way of the Azores and Bermuda it is 4,865 miles.

One of the most important considerations in planning trans-Atlantic air service is the carrying capacity of the planes. Although the Caledonia is allowed to load 45,000 pounds, its empty weight is 25,000 pounds, and it requires 19,000 pounds of fuel and oil; thus only 1,000 pounds remain for crew, mail and passengers. It is believed, however, that the maximum load may be increased 5,000 pounds safely enough.

Considerably more "payload" might be carried if the ships did not need such heavy engines for the purpose of getting them into the air. The Germans have been experimenting with flying boats which are given a "boost" on their way by means of catapults, and have been successful with ships up to 37,000 pounds. There are three of this type now being used or under construction by them.

© Western Newspaper Union.

STAR DUST

Movie • Radio

★★★By VIRGINIA VALE★★★

RADIO amateurs played a big part in the preparation of the dramatization of Peary's dash to the pole, presented recently. If they had not come to the rescue of the authors, Henry Lanier and Alan Bunce, it might have been a year or more before this program could have been heard.

In dramatizing historical events it is necessary to get permission of all living participants to impersonate them on the radio, and of Peary's North Pole expedition Matt Henson, the negro who was the only one to accompany him on the final dash, Capt. Bob Bartlett and McMillen still survive.

It was easy enough to locate Matt Henson; he was right in New York. But Bartlett and McMillen were off somewhere in the Polar seas. Lanier and Bunce appealed to various clubs of radio amateurs and for days the short wave channels were filled with calls to the two polar exploration ships. Finally communication was established with the Bartlett and McMillen ships, and permission to go ahead with the program obtained.

—★—

The best picture of the week is "Dead End," the most breathtakingly-dramatic of all stories of New York. The setting is an East river street where a millionaire apartment house is surrounded by squalid, sinister tenement houses. Back to this neighborhood comes Baby Face Martin, a hunted gangster who had left ten years before and things begin to happen. Sylvia Sidney and Joel McCrea play what are supposed to be the leading roles of the picture, but Humphrey Bogart as Baby Face Martin and Claire Trevor as the sweetheart he deserted, just take possession of the picture and romp away with the honors.

Sylvia Sidney

—★—

It is nothing new for secondary players to steal a show. You may remember that it was in "Flying Down to Rio" in which Gene Raymond and Dolores del Rio were supposed to be the stars, that Fred Astaire and Ginger Rogers scored the knockout success that made them about the most popular young couple in the country.

—★—

Fred Waring is getting to be an industrial magnate of such proportions that he has had to take a whole floor of an office building in New York to house his music arrangers, secretaries, contract signers, and scrap books. No sooner had he and his versatile boys worked their way East from Hollywood where they made "Varsity Show" for Warners, than he up and signed a contract to play at the Drake hotel in Chicago. There he and his frenized cohorts are working up new specialties, madder than ever.

—★—

When you see Metro-Goldwyn-Mayer's "Madame X," you will see a scene made under most unusual circumstances. John Beal, making voice and make-up tests when they were getting ready to produce the picture, ran through the biggest dramatic scene, largely to see if he had his lines all memorized. After the picture was shot, some of the staff were a little disappointed in the way he played the courtroom scene where he defends his mother. Then they remembered the test shots—dug those out of the film vaults and substituted them for the less-spontaneous performance he gave later.

—★—

Carole Lombard is going to have such fun in her next Paramount picture, "True Confessions." She plays the part of a confirmed liar, such a habitual liar that she even confesses to a murder that she did not commit. John Barrymore will support her, playing an eccentric amateur detective who falls for every false clue, and Fred MacMurray will be the patient, long-suffering hero, who is the victim of her weird falsehoods.

Carole Lombard

—★—

ODDS AND ENDS. Greta Garbo has become a Deanna Durbin fan . . . Gloria Blondell, sister of Joan, will make her screen debut in "Accidents Will Happen." For a long time Warners would not give her a job because she looks so much like Joan they thought it might be confusing, but they finally gave in lest some other company take her . . . Rudy Vallee will film "Howdy Stranger" for Warners this fall. He wanted a part that would permit him to wear a stunning uniform, but Warners convinced him that a cowboy suit would be just as becoming . . . Frank Parker, who is a big radio favorite himself, played the role on the Broadway stage.

© Western Newspaper Union.

Vying for Your Favor

ONE, two, three smart frocks on the line ready to go—shopping, kitchenwards, to the office downtown. And as every woman knows, a well stocked wardrobe needs all three.

From Now On.

Says the jaunty model to the left, "I can tell I'm gonna feel well dressed in this little peplum frock: ready for sports, a matinee or dinner in town, and the confident high spirits my new lines give make me sure that I will be wanted at all three.

"I made my version of sheer wool with a subdued herringbone weave. It will be my number one attire for a long spell ahead."

One Who Knows.

Miss Keep-the-Home-Beautiful, in the center, expresses herself: "Even when I do housework I like to look and feel fit.

"When I dash out to the store or go across lots to the neighbor's to borrow an egg, I don't bother to change my dress because I have the feeling I'm doing all right as I am. I wouldn't think of a new season coming on without running up a generous supply of crisp, fresh dresses for myself. They seem to set one right, you know, and give you the spirit to pitch into any day's work like a champion."

The Last Word.

Miss Third Party goes in for that new kind of glamour in the simple model at the right. Says she: "I feel that Fall is really the season to step out and hob-nob with Fashion and the Joneses. This frock, which is my weakness in plum-colored wool, was as easy to make as it is to wear.

"Later on I'm going to have a velvet version with short sleeves—these slim lines and elegant shoulders were just made for this queen of all fabrics—and evidently I go for things royal."

The Patterns.

Pattern 1348 is designed in sizes 12 to 20 (30 to 38 bust). Size 14 requires 4⅛ yards of 39-inch material, plus 1⅞ yards for contrast.

Pattern 1304 is designed for sizes 34 to 46. Size 36 requires 3¾ yards of 35-inch material, plus ½ yard contrasting.

Pattern 1374 is designed for sizes 12 to 20 (30 to 38 bust). Size 14 requires 2⅝ yards of 54-inch material. With short sleeves, size 16 requires 4 yards of 39-inch material, plus ½ yard for collar in contrast. To trim the collar requires 4½ yards of braid.

Send your order to The Sewing Circle Pattern Dept., 247 W. Forty-third street, New York, N. Y. Price of patterns, 15 cents (in coins) each.

© Bell Syndicate.—WNU Service.

Scandal!

"Remember," said Mrs. Hobson to her new maid, "I expect you to be very reticent about what you hear when you are waiting at table."

"Certainly, ma'am," replied Mary. Then, hopefully: "May I ask, will there be much to be reticent about?"

Said the toe to the sock:
"Let me through, let me through!"
Said the sock to the toe:
"I'll be darned if I do."

Plentiful

Ogdonelle—Have you ever met the only man you could ever be happy with?

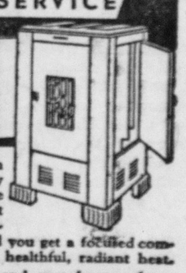
Sally—Oh, yes, lots of them.

Same Thing

Mrs. Snicher—Getting this $50 from my husband was like taking candy from a baby.

Mrs. Snoach—Yes, he certainly did put up a terrific holler.

2-WAY HEATING SERVICE with Coleman OIL BURNING HEATERS



With a Coleman you can have 2-Way Heating Service whenever you want it. Open the Heat-Reflector Doors and you get a focused comfort zone of quick, healthful, radiant heat.

Close the doors and you have a large volume of freshly warmed air continually circulating throughout the room. Keeps whole room cozy and comfortable. Burns low-cost fuel oil. Have your dealer show you these Coleman Oil Heaters.

FREE FOLDERS—Send a postcard now!

THE COLEMAN LAMP AND STOVE CO. Dept. WU803, Wichita, Kans.; Chicago, Ill.; Philadelphia, Pa.; Los Angeles, Calif. (7808)

CHEW LONG BILL NAVY TOBACCO 5¢ PLUG

LIFE'S LIKE THAT — *By Fred Neher*

"He's gettin' out tomorrow . . . his sister goes out with a politician's watch dog."