WINGS over the OCEANS

Left, Martin Transatlantic Metal Flying Boat Now under Construction; Above, Probable Routes of Aircraft over North Atlantic; Southern Route Is Established

Top, Plane Being Catapulted from Deck of the "Westfalen," German Liner Converted into Floating Airport for the Use of Planes Engaged in Transoceanic Travel; Below, Proposed Round-the-World Air Route

ALL aboard for Europe by air! The long-awaited plans for transatlantic flight routes have crystallized beyond the blueprint stage, and are now up for immediate action. Five major operating companies of Europe and America have donated all transatlantic information to a common pool, from which any participant may take whatever data are needed. As a result, Pan American Airways, collaborating with Imperial Airways, Lufthansa, Air France, and K. L. M., the Royal Dutch Lines, will be in a position to decide at once which is the most favorable route. Lindbergh's report on his north Atlantic survey is also available to the foreign operators.

The American government, foreseeing the immense advantage of a merchant air marine, has expressed its willingness to build an experimental airdrome if the invention can be proved practicable. But airdrome or no, transatlantic air service may actually be in effect before the end of 1934. What chance have American interests to obtain and hold leadership in aerial commerce across the Atlantic? By all indications, they appear to have an advantage over all foreign competitors.

American aviators, flying American made planes, have had long and varied experience in long-distance ocean hops. The present Pan American system covers the longest scheduled over-water route on any commercial air line, the 600 miles between Kingston, Jamaica, and Barranquilla, Colombia. The same system operates about 2,000 miles of airways in Alaska, and a great network of lines in the Caribbean Sea and tropical South America.

The radio used by Colonel Lindbergh on his recent aerial survey defied the aurora borealis, tropical storms, and electrical disturbances to interrupt its operation. Its power and range are almost uncanny, and its value in commercial overseas operations will be tremendous. Whether seadromes or mother ships are stationed across the Atlantic will make little difference. American craft will keep in touch with sea-level stations constantly.

A big feather in the American hat at

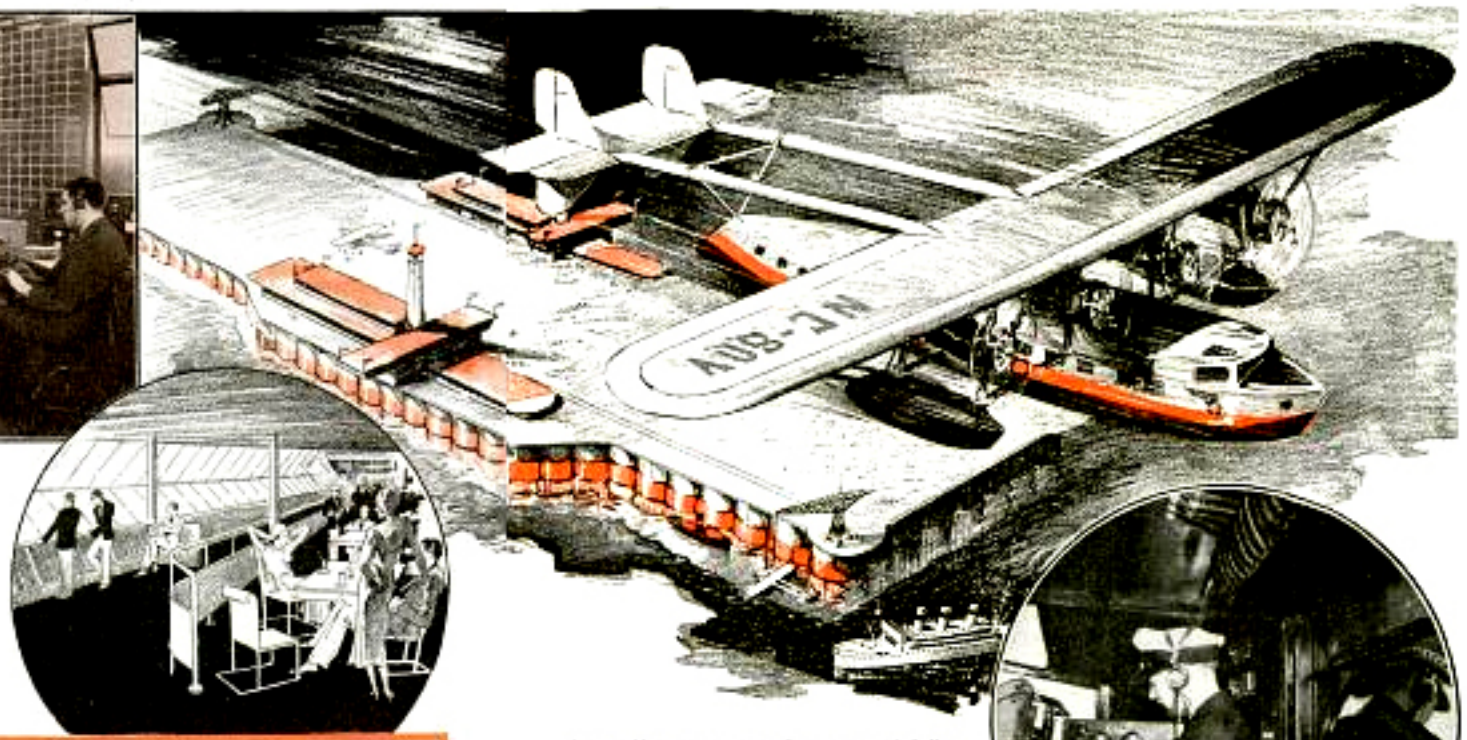
Above, Receiving Radio Reports from Pan American Planes at the Company's Miami Offices

present is the fleet of fast clipper ships, built especially for transatlantic service by Sikorsky and Martin. None of the foreign companies has equipment which compares with that now under construction for Pan American. The transatlantic clippers embody improvements which have been flight-tested for years in the great laboratory for ocean flying, the Caribbean sea. The experience gained there has given American aviators an advantage that will make the flying clippers as famous as the Yankee sailing clippers in their day.

The "S-42," flagship of the fleet, just launched, is the first of three sister ships under construction by Sikorsky. Three others will soon be launched by the Glenn L. Martin company, in Baltimore. Specifications called for a flying boat capable of transporting a full mail load more than 2,500 miles against head-wind conditions of thirty miles per hour. Actually, the "S-42" has a greater range. She is now fitted out as a thirty-two-passenger airliner. With these passengers, a crew of five, and 1,000 pounds of mail, the "S-42" has a range of 1,200 miles. The same clipper in transatlantic service would have a smaller passenger capacity on account of the space demanded by fuel tanks. Her fuel capacity will give her a range thirty per cent more than is necessary to cross the ocean at its widest point.

In Circle, Artist's Drawing of Promenade of Proposed New German Zeppelin; Below, Marine Air Terminal Being Built at Miami

After the trial flights of the "S-42," the government will undoubtedly come to the fore with an offer for mail bids. The



Top, Artist's Conception of Transatlantic Plane Passing over Ocean Airport; Below, Radio Operator at Work on a Clipper Ship

immediate success of commercial lines will depend largely on mail contracts, and when they are awarded, service will commence at once. A mail contract is a golden subsidy, and a prize worth fighting for because transatlantic mail traffic is very heavy.

With letters written on thin paper, it is possible to write about forty to the pound—at twenty-five cents per letter. Thus a 500-pound mail load would yield $5,000 for each trip. Present international air mail subsidies pay operators two dollars per mile. The cost of operations per mile across the Atlantic is uncertain, but experts point out that its initial cost can be reduced after a short experience in operation. Transcontinental lines succeeded in cutting the mileage cost of operations from $2.21 in 1929 to forty to sixty cents in 1932.

The principal argument advanced in favor of seadromes is that they can increase the pay load tremendously. Instead of 500 pounds of mail, aircraft will be able to carry 1,500 pounds; and instead of five or ten passengers, it will be possible to carry about twenty.

Plans have also been made for expediting transfer of passengers and air mail after they have reached a port of destination. American architects, engineers, and aviators have drawn designs for elevated airports to be built over the ship docks of congested cities. By means of pneumatic tubes, a letter from overseas can be transferred to the postoffice in record time.

In keen anticipation of transatlantic service, many have forgotten that the

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