

## What 1935 Will Mean for World Air-Travel

*With the Present Network of Air-Lines Expected to Extend Widely in Many Directions, the Globe Soon May Be Girdled With Regular Routes*

**W**HEN the twenty-five-ton Martin transport-plane successfully passed its preliminary tests at Baltimore a few days ago, preparatory to entering the regular service of Pan American Airways, it was an occasion of world significance. In all likelihood this new member of the famous Clipper series will be the first to establish regular passenger and mail service across the Pacific.

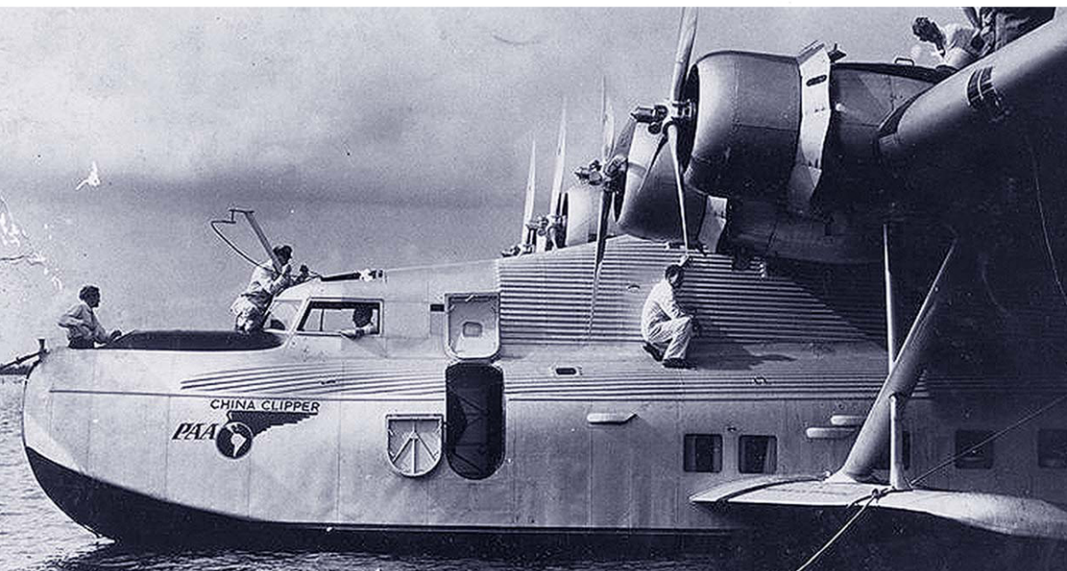
When this link across the world's largest ocean has been forged, commercial air-lines will girdle the globe with their swift, regular and safe transport-services. The extent to which air-lines already have been established is enough to astonish even the most land-bound. Before 1935 is out it is likely that every large city in the world will be connected with every other by air. Even now half the globe may be spanned without once taking recourse to land-travel.

### Competing Air-Lines

Swinging half around the earth, from Europe to the Far East, are three competing commercial air-lines: the British Imperial Airways, Air France, and the Royal Dutch Air Lines, which bears the formidable official title *Koninklijke Luchtvaart Maatschappij*, and is more familiarly known as the K.L.M.

These three lines follow what has been called "the outline of the British Empire's backbone": across the Mediterranean lengthwise, over Northern Egypt, and by the sun-baked banks of the Suez Canal, along the Red Sea, out into the Gulf of Aden, through the Indian Ocean to Bombay and Calcutta, thence across the Bay of Bengal. Air France now has as its eastern terminal Saigon, in French Indo-China. The K.L.M. terminal is Batavia, Java. Until recently the eastern terminal of Imperial Airways was Singapore, but last December, in cooperation with Qantas Empire Airways, it opened a new route south-eastward to Australia, commencing regular air-mail service there within sixty days of the London-Australia race of last October.

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The new twenty-five-ton Martin transport-plane, largest air-plane ever built in America.

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In the northern part of Eurasia, the Russo-German line between Berlin and Moscow has been extended recently by the Russians across Siberia to Vladivostok. Eastern China has been covered by a network of the China National Aviation Corporation, an organization associated with Pan American Airways, and one which probably will play an important rôle as the Eastern division of the great Pan American and related systems when the Pacific finally is spanned.

Across the South Atlantic three air-lines have regular service. Air France has a weekly mail-route from Paris to Santiago, Chile, flying by way of Marseilles, Barcelona, Rabat, and Dakar, on the westernmost point of Africa, and thence across the Atlantic to Natal, Brazil. The German Lufthansa sends a mail-plane across the South Atlantic on a similar route once every two weeks. Half-way across is the "floating air-port" *Westfalen*, a small, specially-equipped vessel, anchored there to supply fuel and repairs en route. In the next few weeks the *Westfalen* will have a companion in the 5,000-ton *Schwabenland*, which has a rotating catapult on her after-deck. When this ship has been anchored, it is expected that the Lufthansa will put its mail service on a weekly schedule.

The only passenger service across the South Atlantic at present is operated by the Hamburg-America Line. The craft employed is the famous dirigible *Graf Zeppelin*. The new German dirigible, the *LZ-129*, now nearing completion at Friedrichshafen, will supplement the *Graf* on the South American service. This ship will be the largest lighter-than-air craft in the world, being slightly longer and with a gas capacity of a half million feet more than the U.S.S. *Macon*.

At present, American prestige in international commercial flight is committed to the Pan American Airways, which has routes passing through thirty-two different countries and colonies, comprising a loop around the coast of South America as far south as Santiago and Buenos Aires, an inland line up the Amazon to Manaus, and a crisscross network around the Caribbean and over Mexico, with northern terminals at Miami and Tampa, Florida, and Brownsville, Texas.

Pan American has not been content with expanding the networks of lines in its own original territories, but has been experimenting with flight in other parts of the world, notably Alaska, where a V-shaped route inland from Bethel to Fairbanks and coastward again to Nome has been operated through two arctic winters, chiefly to gain experience for possible transpacific or transatlantic lines by the northern routes. This company has made other technical studies of possible routes, and is believed to be ready to begin operation to Europe by the Bermuda-Azores route, or to Asia by the Alaskan route, at any time passenger business or air-mail contracts warrant it.

## World Air-Travel

### Success of American Planes

European air-lines are making increasing use of American transport-planes or engines, a tribute to American designers and engineers. The success of American planes in the London-to-Melbourne race was partly responsible for the great recent impetus in this direction, but even before the race European air-lines had been driven to America for aircraft to meet the quest for speed, safety, and low operating cost demanded by competitive conditions abroad.

The new Martin ship just completed for Pan American is the largest air-plane ever built in America, and the largest transport-plane anywhere in the world. It is a flying-boat, capable of carrying forty-six passengers. Without passengers, but carrying 1,000 pounds of mail, it is expected to have a high speed of 180 miles an hour and a non-stop cruising range of 4,000 miles.



Some of the major longdistance commercial air-routes which are now in operation