

# America Has the World's Best Airlines!

## Flying Tourist Abroad Finds Aviation Techniques Vary as Do Languages

London.

By WAYNE THOMIS

AN AMERICAN traveling by European airliners after having flown extensively over airways within the United States quickly discovers that aviation techniques can vary as greatly as languages. He also gains an appreciation of the high quality of American transport airplanes.

Within the last month I've flown in Imperial Airways, Air France, Ala Littoria, and Luft-hansa airplanes in the course of short journeys. My view of airline operations necessarily has been superficial, but I have seen a fairly representative cross section of European commercial air lines.

My general conclusions are that American airliners are faster, more comfortable, quieter than European ships; that American airports with their paved runways or large paved landing areas are superior to the sod fields almost universally used over here. And in general I believe that American air traffic control methods are superior and pilots of American airliners fly more conservatively than those of European lines.

One blessing of American flying that generally is unappreciated at home is the absence of customs and passport requirements. We can fly for 2,500 miles east or west and for 1,800 north and south and need never look a customs officer in the eye.

Over here a 500-mile flight in any direction from any capital city in Europe with the exception of Moscow will take you to a border, where you go through the inspection routine, having your baggage examined and your passport scrutinized.

First of all let's consider flight technique.

In general the European pilots tend to treat their airliners with less respect than do American airmen. The machines are whipped into steep banks close to the ground immediately after takeoff. Frankly, my hair stood on end several times watching the apparent disrespect with which the German Luft-hansa pilots maneuvered the Junkers Ju-52 trimotored planes.

I must admit that accidents do not seem to result from such maneuvers. The crashes over here for the most part, like our own, occur in conditions of poor visibility.

The Junkers ships, though, habitually are banked beyond 45 degrees into climbing turns immediately they are off the ground. I've repeatedly seen the German pilots make a complete reversal of direction—180-degree turns—while still within boundaries of airports no larger than Chicago's municipal field—and this with a heavy trimotored plane carrying fifteen persons, mail, and express.

The Ju-52 has a light wing loading and a relatively low stalling speed. It's probably true that the pilots know their machine perfectly and are able to do these things with the utmost safety—but to my eyes it looked like dangerous piloting and unacceptable for air line work.

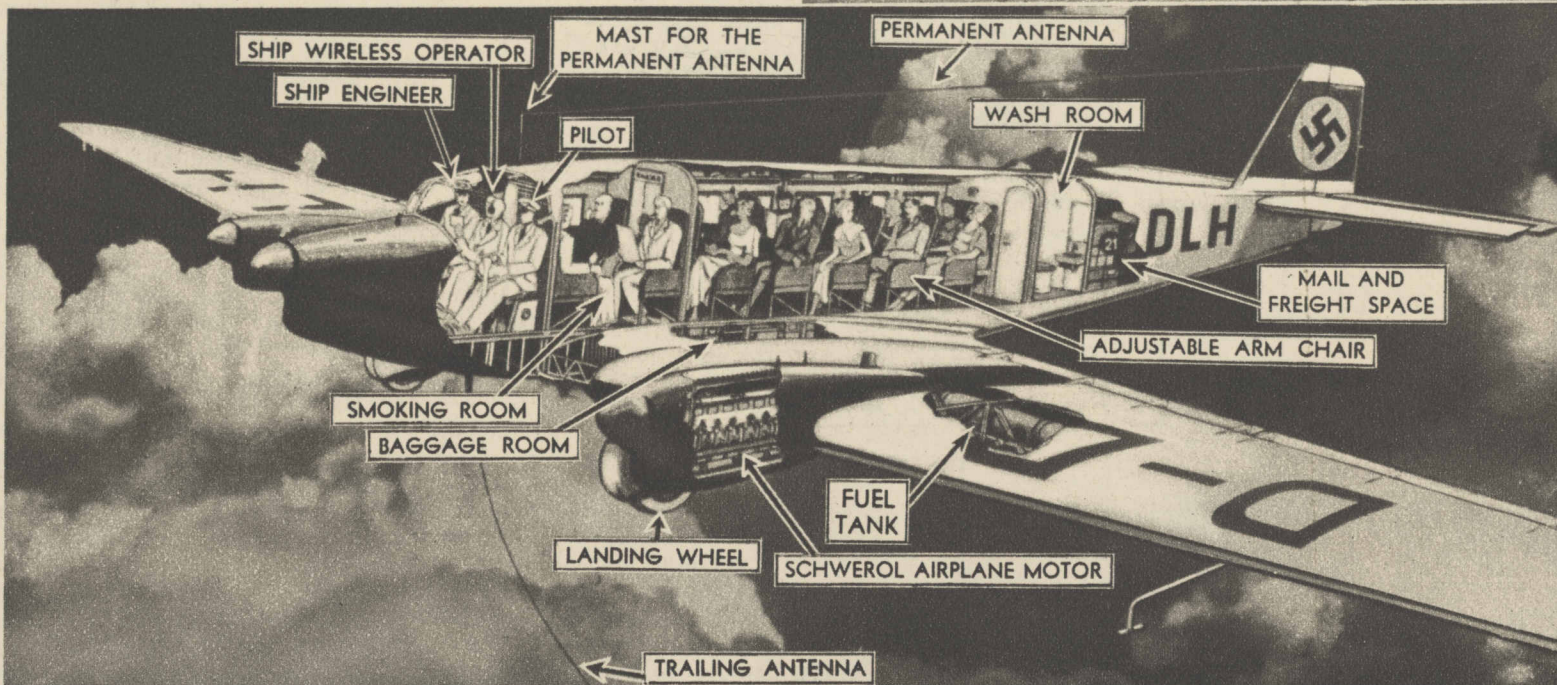
An Italian airliner captain sent cold chills down my spine in a trimotored Savoia-Marchetti S-75. This is a big and heavy machine, wing span 98 feet, 32,000 pounds gross weight (larger and heavier than our familiar Douglas DC-3 planes). We were landing at Le Bourget field on a trip from Rome.

The weather was bad, ceiling under 500 feet, and we came in through rain squalls and beneath the cloud layer, throttled back and obviously flying not much over 100 miles an hour.

When the field showed up through the general gloom the pilot slid down to a height of 200 feet and began his circle. The wind was very light but was definitely from the east. We straightened out and began our final approach. At that moment the wind shifted to the north. I was watching a wind cone and saw the change occur.

pilot pours the coal to his engines and you are off. In the United States it is universal practice to open up each of the motors, be it a twin, tri, or four-motored machine, just before takeoff, in order to be certain that they are delivering full power and every pressure indicator shows proper fuel and lubricant flow. But not here.

One result of this neglect was apparent in another Ala Littoria plane at Rome. We taxied out, the motors were opened up, and we staggered into the air. Our progress remained sluggish. There wasn't the usual accelera-



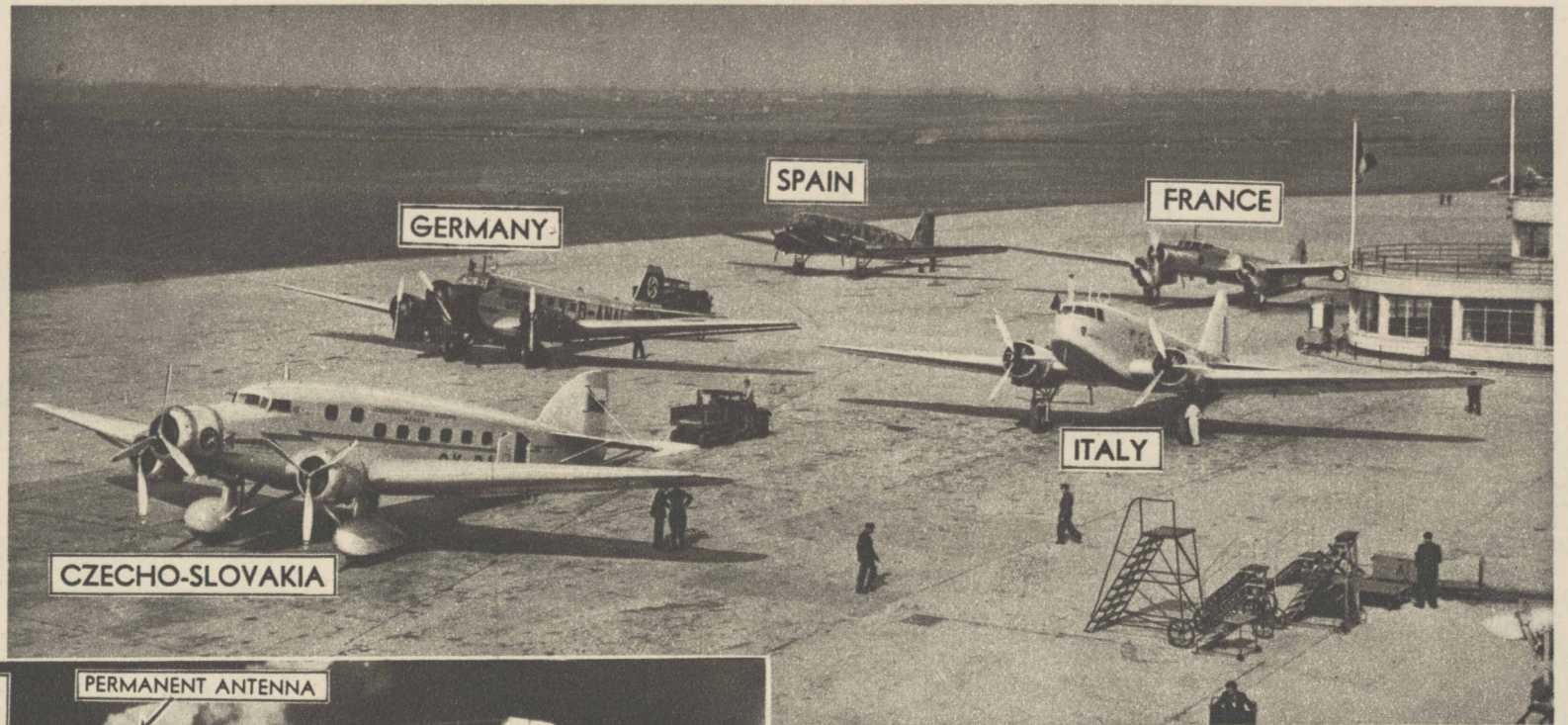
Diagrammatic drawing of German Luft-hansa Junkers Ju-52.

Apparently unafraid of stalling his machine, the pilot immediately made a steep turn to the right, seeming as he did so almost to dip the right wing tip into the rooftops below us. The motors were opened up and the plane made a wide swing to the south and then swung around

tion to cruising speed. The pilot kept the plane in a straight gradual climb, then made a slow circle of the field and brought the machine back to a landing.

There were little beads of sweat on his brow, although it was not a hot day, when he walked back from the cockpit and addressed the passengers. "The center motor went phutt," he explained in English. We had maintained our height on the two wing motors while getting into position for the landing, but the pilot had been worried. A test run-up of the motors just before takeoff probably would have showed the malfunctioning of the motor.

Opening up engines before takeoff has another important function. The modern blind-flying instruments, turn and bank indicator, giro-compass, artificial horizon, and the giros of the automatic pilot are driven off suction pumps on airliner en-



Planes of five nations (before Munich) at Le Bourget field, Paris.

is unpleasantly small as well. Furthermore, it has a roll in the land, so much so that from the passenger station airplanes landing from the east pass almost out of sight as they enter this dip.

As to distance from centers of population, the European traveler has the same complaint as the American—the fields are all too far from town. At London, Paris, Brussels, Vienna, Madrid, Warsaw, and Rome from forty to fifty minutes is required to travel from mid-city to the flying field. Berlin is fortunate in that Tempelhof can be reached from the main business and the main hotel sections by

hour, the British flying boats at 165, the De Havilland Albatross planes at 170, and the new Ensigns at 165.

Here is the way I would compare a DC-3 with the various machines in reference to comfort. In each case the comparison is from actual flight experience:

Savoia-Marchetti S-75—Noisier, with more vibration.

Ensign—More room, more comfortable furnishings, but more vibration. Noise level about same as DC-3.

Albatross—Much noisier, far less comfortable seats, extreme vibration, bad interior arrangement.

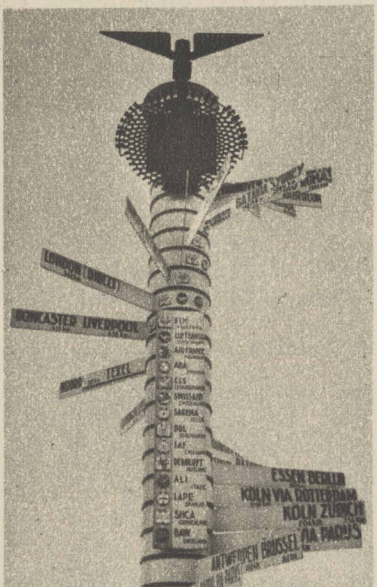
Junkers Ju-52—Much noisier, less room. Reminds one of the old Ford trimotors.

Junkers Ju-86—This bi-motored ten-place machine is about like the old Boeing 247D airliners that United Air Lines flew for so many years. The cabin is smaller and noisier and not so comfortable as the Douglas.



Air France's trimotored all-metal Devoitine.

(Acme photo.)



Aerial signpost at Royal Dutch air lines terminal, Amsterdam.

in another violent turn until it headed north into the wind.

All this took place within an area not more than a quarter mile from the field and at a flying speed that was breathtakingly slow. There was obviously no thought on the part of the pilot of making any second complete circuit of the airport, as an American pilot almost certainly would have done.

Another practice that always frightened me a little was the universal one of not testing the motors of airliners before takeoff. What happens over here is that the passengers are loaded aboard a ship, the motors started and allowed to idle until requisite temperatures are reached.

Then the machine is taxied out to the takeoff point and the

gines. Unless the motors are functioning somewhere near normal cruising revolutions the suction pump cannot deliver its normal suction to the gyroscopic rotors. And if the rotors are not turning at rated speeds their indications on the dials of the turn and bank indicator, the giro-compass, and horizon will not tell the truth.

In other words, the indicators may say your progress is in a

the crashes came at points that were off the line that should have been followed—indicating that the planes turned from the intended line of flight apparently without the knowledge of the pilots. It is now believed that the giro instruments mislead the pilots by not telling the truth.

Blame for such disasters, however, rests on the pilots. They know how the blind-flying instruments operate and their limitations. Because the pilots failed to open up their motors on the ground and allow the rotors to reach operating speed, the instruments couldn't tell the truth. Every pilot who does any instrument-flying training in the United States learns that he must get his instruments up to working speed before takeoffs in conditions of poor visibility.

Very few airports in Europe or England have any paved runways, while hard-surfaced areas for takeoff and landing are considered essential in the United States for airdromes where large and heavy airplanes are to be flown. Pavement for runways obviates troubles with mud and soft ground, facilitates the cleaning of snow from landing areas, and generally is regarded as highly beneficial and worth its cost.

Many of the European fields are as large as or larger than American airports, but this added size is needed because heavy airplanes accelerate to flying speed much more slowly on sod than on pavement. One of the largest fields over here is Tempelhof at Berlin. It is now some 450 acres in area and is being enlarged to 750 acres, considerably more than a square mile in extent.

Le Bourget field is nearly a mile square, and has buildings on only one side. The other three—east, north, and south—are encircled by cultivated fields. But Croydon at London is in the midst of thousands of exactly similar workmen's cottages and



(European photo.)

De Havilland Albatross four-motored plane of Imperial Airways.

straight line while actually your machine may be turning.

It is the practice over here to take off in conditions of exceptionally poor visibility, sometimes when the ceiling is less than 100 feet and visibility less than a quarter mile. The pilots follow a predetermined line of direction that takes them over the least obstructed route and climb above the fog.

But in the last eighteen months a number of accidents have occurred during such takeoffs. In virtually every instance



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