

More Speed on the Airlines!

by E. STANTON BROWN

The intense rivalry and competition between the various airlines has led to the present tremendously high speeds on the American airlines. Whether higher speeds will be necessary to meet further demands by a speed-mad public remains to be seen.

SPEED! Speed! Give us more speed! From every air traffic man's throat the cry went up. Speed to sell. Speed to make air travel more advantageous and necessary to the American business man. Speed to compete with other airlines.

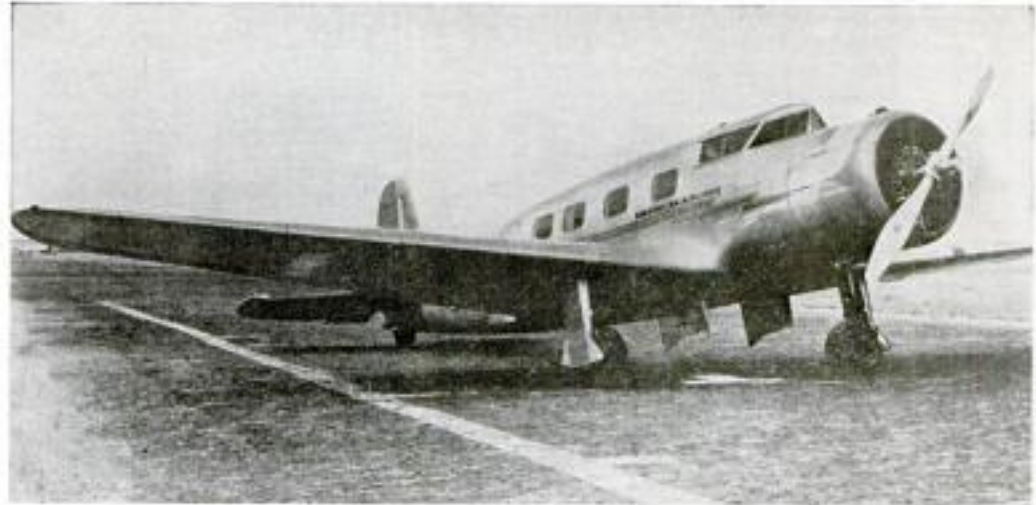
Slide rules gleamed whitely. Eyes strained over mathematical formulae. Backs bent over drawing tables. Models tugged at sensitive balance arms in the blasts of roaring wind tunnels. The click and clang of tools and the scream of metal being worked into shape rang through factory fabrication and assembly rooms.

Slowly the dreams of designers took form under skilled fingers. Tests on the ground to destruction. Flying tests. At last the final O.K. One by one the new ships lift their tails, then their noses and cleave the free-flowing air of the sky lanes.

Schedules reduced. More comfort. The flying public flocks to try the newest in air transportation.

Fascinating business, this, to create something better than that which has gone before. Fascinating also, to closely observe the endless struggle in America for air supremacy, to note changes wrought by that struggle, to watch the rhythmic rise and fall of airline supremacy, to follow the trend in the air.

When, in April, 1933, United Air Lines flung the Boeing 247 on their routes, they had the air transportation world by the tail. There was nothing like the 247 on any other line to compete for speed, comfort and graceful streamlined appearance that suggested the very essence of air transporta-



A "Vultee" low-wing monoplane of the ultra-high-speed class in use on the American airways. It is said to be the fastest transport plane in the world.

tion, swift flight, strength and safety.

For over a year United reigned supreme. Then in spring and summer of 1934, the race of equipment began in deadly earnest. American Air Lines and TWA first took up the challenge United had flung at them.

First, what is without doubt one of the greatest forward steps in air transportation—the sleeper plane. In March, 1934, American Air Lines began operation of the Curtiss-Wright "Condor" sleeper plane between Dallas and Los Angeles. No more half-sitting, half-reclining, fully clothed throughout the night, dozing intermittently and awakening with a stiff neck and cramped muscles. Now one could fly at 150 m.p.h. resting comfortably in a berth, in pajamas and in a cabin as quiet as a Pullman car.

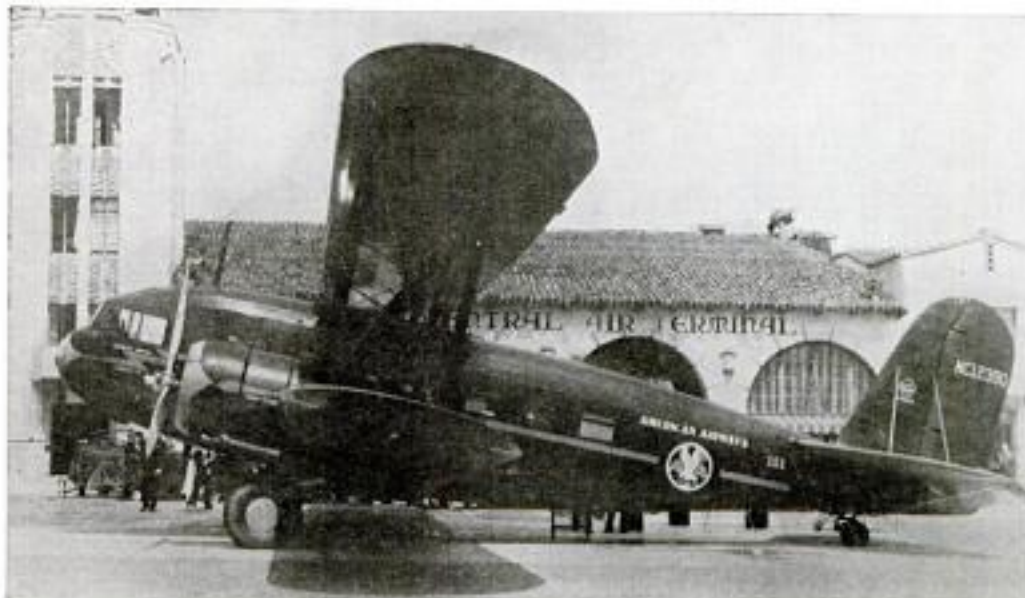
June first saw TWA courageously be-

gin operations with the new Douglas between Chicago and New York without a mail contract, depending solely upon the passenger and express revenue to pay the plane's way. One ship a day at first, flying the 725 miles in four hours and twenty-five minutes against United's four hours and fifty-five minutes and American Air Lines' five hours and fifty-six minutes with Condors on a 786-mile route between the two cities.

The finer equipment won. Swifter schedules, the larger and more commodious Douglas made a deep impression upon the flying public. Soon two Douglasses were flying between Chicago and New York daily. Then three and then four. United Air Lines had been struck a hard blow. Starting the summer season with an ambitious and laudable schedule of thirteen round trips daily between Chicago and New York, and the slogan "Every Hour on the Hour" during daylight hours, United was soon forced to reduce the number of trips. One could not help but notice that every time TWA put a new Douglas trip on, a United Air Lines trip was soon discontinued.

American Air Lines still further increased the keen competition, when, in July, 1934, they put a Condor sleeper plane on the Chicago-New York run, offering, in the opinion of the writer, the finest service between the two cities for the hurried business man. Leaving Chicago at 11:05 P. M., he can now rest comfortably all night and awaken at 6:00 A. M. refreshed and ready for the business day, in New York. If he wishes, he may board the plane an hour before departure and remain aboard an hour after landing. It is not necessary now to lose any portion of a business day or one's rest.

Eloquent testimony to the need for



A "Condor" biplane "sleeper" used on the American Air Lines, the latest development in comfort on long distance flights.

such a plane, and its popularity, is given in the statistics of the number of passengers it has carried. Since March, 1934, when the ships were put on the Dallas-Los Angeles route, and since July, 1934, when they went into operation on the Chicago-New York route, to November first, 1934, more than four thousand revenue passengers have flown in it on the two routes.

United Air Lines, once king of the airlines, has continued taking it on the chin during the summer and fall. Northwest Air Lines, flying the faster Lockheed "Electra" from Chicago to Seattle over a shorter and more direct route and offering a lower fare, has cut in heavily on the North Pacific Coast business. TWA, with overnight service from New York to Los Angeles, via Chicago, is taking its full share of the South Pacific Coast business with the Douglas.

Northwest Air Lines, flying in competition with Hanford Air Lines between Chicago and Fargo, North Dakota, which latter line has the mail contract for that route, and operates Ford Trimotors and Lockheed Vegas, has been cornering practically all of the passenger business with their Electras. Hanford carries little else besides the mail with their equipment which is 75 m.p.h. slower than Northwest's equipment.

American Air Lines, operating the Vultee, the fastest transport plane in the world, on the Chicago-Dallas-Fort Worth route, has driven two smaller competitors out of Chicago, Bowen Air Lines and Braniff Airways, both flying the tried-and-true, but out-of-date Lockheed Vega. The two latter lines are now operating routes which are non-competitive, or virtually so.

The race of equipment has been an exciting one and its benefits to air transportation and the industry in general are numerous. One says "has" been an exciting race because now a period of stabilization of equipment on the airlines is in sight; will be here, in fact, by the first of the year.

The airlines, for the most part, will have shot their bolts and a generally improved equipment condition will exist throughout the country. Their money is sunk in the new equipment, their financial condition at the present not as good as it should be, though sound, and will limit purchases of much new equipment for one or two years. United Air Lines will probably be the first to lead the way again, since their equipment, being older, will warrant replacement sooner than that of the other lines.

The Douglas, which Colonel Lindbergh said represented, with the Sikorsky Brazilian Clipper, the greatest forward stride that had been made in aviation at any one period of time, promises to be monarch of the air and will be in operation on four important lines.

American Air Lines, completing a \$2,500,000 re-equipment program, will have the Douglas on its New York-Chicago, New York-Washington-Nash-



A Douglas plane operated by the Pan American-Grace Airways. This line also operates the well-known "Clipper ships" on its South American system.

ville-Memphis-Dallas and Chicago-Dallas routes. Condors and Vultees will replace the Fords and Stinson Model U's on other routes.

Eastern Air Lines have the Douglas on their New York-Miami and Chicago-Jacksonville-Miami routes. General Air Lines is now flying it on their Salt Lake City-Los Angeles route and TWA will continue with the ship, opening up new schedules as more Douglases are received.

United Air Lines, by putting the Boeing 247-D on their routes, will rise almost to par, in the matter of speed, with the rest of the lines. The 247-D, an improved 247, with geared motors, three-bladed adjustable props and cleaned up motor cowling, has a top speed of 200 m.p.h., cruising at 189 m.p.h. at 12,000 feet and at 180 m.p.h. at 8,000 feet. Further insulation of the cabin, the less noisy three-bladed props on geared motors and an improved ventilating system, will make the ship as quiet as any in the air. New seats in the cabin will add to the comfort of the plane.

Pan American Airways, while not operating in competition with any of our domestic airlines, is strengthening its position against the encroachments of European airlines with the addition of Douglases and the Brazilian Clipper.

All in all, the equipment race has marked a period of healthy development, both in air transportation and in the industry. The mechanical benefits have been numerous. Speeds on the major airlines have increased from the neighborhood of 125 m.p.h. to those approaching 200 m.p.h. The most encouraging thing about the increases in speed is that they are due more to cleaning up of design and greater aerodynamic efficiency than to stuffing more power under the motor cowls. Improved structural practices have aided a great deal in the general speeding up of air transportation also. The all-metal airplane with stressed surfaces is being developed into a more practical and safer aircraft with the passing of each month.

Retractable landing-gears, wing flaps, adjustable pitch propellers and geared engines have appeared on transport aircraft as a direct result of the striving of each airline to gain an edge on its competitors. The direct gains

to the air transport industry have been manifested in airplanes which are speedier, safer and more economical to operate.

With the new aircraft on our lines, operating costs have been pared down to the point where a passenger load factor of between 90 and 100 percent of available space would enable the lines to show a profit from this form of traffic alone, at present fares. At the present time, however, the highest mark reached is 57 percent of available passenger space sold.

In the matter of equipment, the airlines of America have still further strengthened their position as the finest in the world, bar none. The performance of the Douglas in the MacRobertson London-Melbourne race, was an unhappy revelation to European countries. The London Evening News was not backward in its indictment of British commercial aviation:

"It gives irrefutable tragic proof," said the Evening News, "that we are miles behind other countries in commercial air transport. The race was an ordinary trip for the Douglas. The efficiency of American engines and aircraft is such that at no point did it have to stay long on the ground. Only one Royal Air Force fighting plane is as fast as this flying train. Comparison with our civil aircraft is too degrading."

So much for the rosy side of the picture. There is yet another side which is not so pleasant. That side has to do with the airlines themselves, with their attitudes and practices toward each other and with the executives of the lines.

In the struggle for airline supremacy competition has not been merely a matter of equipment. It has also been a matter of getting the jump on the other fellow as often as possible, by fair or foul means, in an effort to snare his passengers. Instances in which one line has stolen another's passengers are too numerous to recount. It has always been, as it is in any competitive enterprise, "use my service rather than the other fellow's, and the devil may care how I get you to use it just as long as you do."

Now, aviation, air transportation in the whole, is too big and important a

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More Speed

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thing and too young an industry for the air-lines to continue with a policy which is comparable to the nationalistic policies of countries which are fomenting war in Europe and the East at this instant.

The consequences of such practices are already becoming apparent. The year 1934 showed little increase over 1933 in the number of passengers carried. True, there has been an increase in the number of passenger miles flown, but this merely shows that people who already fly are traveling longer distances by air, and is as it should be. The present of air transportation depends upon those who now fly, but the future depends upon getting a goodly portion of those millions who annually use surface transportation to use the air.

Such is the vitally important problem facing the airlines now. In spite of the finer equipment, the improved service offered, the figures show that for the most part all the lines have accomplished in the past year has been the pilfering of passengers from each other. Each airline, by cutting the others' throats, by refusing to cooperate with the others, by being petty and mean and small, has contributed its part toward the retardation of the realization of the true meaning and purpose of air transportation.

With the stabilization of equipment coming about, the major airlines in the United States will have little to offer over each other beyond departure times and the routes they traverse between the competitive terminal points. Now they will have two avenues of effort open to them—to continue their past practices or for once in their lives to get together and make a great cooperative effort to increase air traffic in general, and thereby all reap the benefits thereof.

In 1933 there were *ninety million* passengers carried by the railroads in the United States as against *one-half million* carried by air. When one thinks of the possibilities of increasing air traffic it staggers the brain, numbs the imagination. When one observes the all too few intelligent efforts to tap this great potential traffic, one is numbed again, but in another way.

If the airlines would but realize that their individual efforts, limited by their finances and overlapping each other, are but little splashes in a mighty big pond, and that their concentrated efforts to increase air traffic would bring about results which would astonish them out of their stupidity and benefit all, then we might look forward to the swift realization of the progress air transportation rightly deserves. The most important thing in commercial aviation today is not "Use my line," but "USE AIR TRANSPORTATION."

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