THE AIR TRANSPORT PICTURE

By J. M. SHULMAN

Courtesy American Airlines.

Nightly coast-to-coast on all transcontinental air routes—Douglas Sleeper Transports.

THIS Spring will witness commercial aviation in America emerging from one of the most trying phases in its history. The brief but intensive history of the air transport industry is almost a paradox. Few business enterprises if any can show a speedier or a more phenomenal growth in the past ten years, nor, on the other hand, have there been many forced to undergo such severe trials and tribulations as this industry has met time and again in its efforts to build itself up to the point where a return can be realized on a tremendous investment.

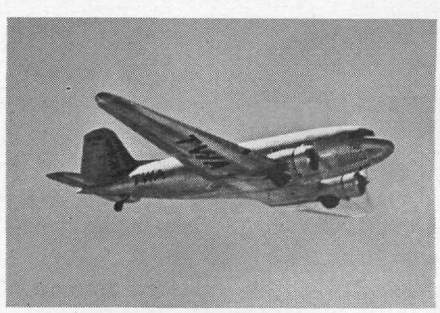
In spite of all the adversities experienced and all the obstructions in the way of its advancement, the airline industry today has more to show for its efforts than any other transportation industry has ever shown in an equivalent period of time since its beginning. Each year of airline history has seen large percentage increases over the preceding year in the total route mileage of commercial airways, the number of passengers carried, and the amounts of air mail and air express flown. The enterprise as a whole has developed from a nucleus of a few far-seeing individuals and a few airplanes into a vast industrial system employing thousands of people and taking its rightful place among the major transportation industries.

One of the brightest parts of the airline picture today is the technological state of the art of commercial flying. Technical obstacles have loomed up in every step of the expansion process, but none of them has proven too difficult to solve. One has only to read the current aviation magazines to realize that notwithstanding the progress already made, never have technical research and development in aviation been carried on as intensively by so many different bodies as they are today. Engineers of the army and navy, airline engineers, and those in the equipment manufacturing industries, never satisfied with the "best there is" at any given time, are ceaselessly engaged in improving equipment. Amounts of money all out of proportion to conventional research appropriations in other industries are expended in the never-ending drive to make air transportation safer, more comfortable for passengers, and more reliable.

Tangible results are to be expected from such a progressive technical policy, and they are being realized constantly. Each year of the last five has seen new improved machines go into regular airline service, accompanied by numerous improvements in auxiliary equipment, navigation aids, and airport facilities. With every such technological advance the standards of safety, comfort, and convenience of air transportation have been raised.

To mention safety in connection with air travel today is to touch a live coal which only recently has been made more live than ever by vivid newspaper accounts of aviation accidents. American newspapers are not to be criticized for presenting such news to the public as *news*. The deplorable fact is that as far as commercial aviation is concerned the trite saying that "All we know is what we read in the papers" is all too true for the majority of people. Content with what the newspapers have to say, this same majority goes no further in attempting to obtain facts, but instead proceeds to draw immediate conclusions in its own minds as to whether or not air travel is safe.

It is an old contention that air travel cannot be compared with automobile transportation with regard to relative number of accidents, since use of the automobile is so much more widespread. Certain facts which compare increments with increments in the two industries make this argument too weak to base any conclusions on. As the use of automobiles has increased over the period of time since they were invented, the number of auto accidents has *increased* very nearly in direct proportion to the increase in the amount of their use. The record of commercial aviation indicates that the number of airplane accidents



Skylounge type air transports—the utmost in passenger comfort for day flight.

—Courtesy United Air Lines.

has consistently *decreased* in ratio to the very large increase in the amount of transport flying in the period since it was first inaugurated.

"Air travel today is much safer than the family automobile," reads a statement in a pamphlet issued by a large transcontinental airline. The statistics on which the above facts are based prove this statement to be very much the truth, and not to believe it is just as unreasonable as to believe you are entirely safe behind the wheel of your car. The very fact that an aviation accident constitutes front-page news attests to the comparative uncommonness of such occurrences. Imagine the situation if every fatal automobile accident were given a front-page headline!

Be these things as they may, commercial aviation is still faced with the huge intangible task of obtaining public confidence. This confidence is something which cannot be built up on statistics of relative safety, nor is it something which will "just grow" as long as the large majority of people go along knowing little more about the airline industry than what appears on the front page of the newspaper. Confidence can be inspired only where knowledge and understanding exist. To educate the public to the degree where it will not only be willing to travel by air but will prefer to do so is at present one of the greatest problems confronting the airlines, one much more difficult than anything technical and requiring much more time and effort for its solution.

A peculiar circumstance which airlines face in regard to lack of cooperation on the part of other agencies engaged in parallel technical development and research is not encouraging to the airline picture. A recent situation relative to the navy illustrates what the airlines are sometimes up against. The navy has developed and perfected a device which takes bearings by radio on a plane in the air simultaneously from several ground stations. By means of its use a pilot can request and obtain his exact position by radio in two or three minutes time. Obviously, such an invention would be of inestimable value in air transport use. However, the navy forbids commercial use of the device—calls it a military secret. The fact that airline technicians have independently worked out an almost identical system does not affect the situation; they are prohibited from using what they have. Military policy is unquestionably of great importance, but there is something wrong when military secrets are allowed to hinder the sound growth of so vital an industry as air transportation.

From an economic standpoint the air transport picture has generally not been optimistic. Stockholders have been footing the bill for the progress made in aviation, and that state of affairs must be remedied just as soon as possible. This situation is laid in a large part to unsatisfactory payment for carrying the mail. Here again the industry has not been getting the cooperation from the government which it deserves and needs for its financial strengthening.

Colonel Edgar S. Gorrell, president of the Air Transport Association of America, appealed before a house appropriations sub-committee in January for an air mail appropriation of $19,250,000 for the year 1939. The appropriations committee recommended $15,800,000 in the annual treasury-post office supply bill. "The results," in Colonel Gorrell's words, "if no corrective measure be applied, are bound to be a pronounced retrogression in America's air-transportation service."

Undoubtedly the government has its side of the story. However, in the history of American railroads and the merchant marine, when crises arose in these

Over New York; one of United's Mainliners speeds swiftly over this great metropolis in comfort and safety.

—Courtesy United Air Lines.

industries of the nature that exists in air transport today, the government gave unhesitatingly in the matter of financial aid. Airlines are not asking for direct financial assistance. All they ask is the reasonable request that they be paid adequately for carrying the mail. It is difficult to justify lack of government support of air lines to this extent. To pay the airlines satisfactorily for air mail service is both in the public interest and in the interest of the government.

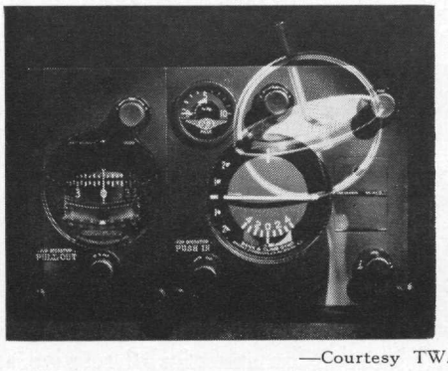
Facing the airlines is the necessity of establishing standard fare rates. In this regard governmental regulation is invited by the industry instead of being fought off, as is the case today in most business. Colonel Gorrell in his annual report of the Air Transport Association last December asked for the creation of an "I. C. C. of the air." Specifically he urged federal control of rates, of all new financing and consolidations, and a system of certificates of convenience and necessity similar to that now in effect in railroads and certain other public utilities, and suggested a "non-political, permanent agency of government" for the carrying out of these plans.

This appears to be a logical and sensible way to correct a detrimental condition. Unrestrained competition in the air transport industry is much more likely to result in permanent injury to the industry as a whole than in permanent good. Leaders in aviation are wise to seek reasonable federal regulation instead of allowing their enterprise to approach a state where this regulation will be forced upon them.

One of the large transcontinental airlines has adopted an admirable spirit of candor in dealing with the public by the issuance of a pamphlet describing in detail its operations policies and giving specific answers to the question, "What is being done to bring still greater safety to air travel?" Since the operations policies and safety measures of all airlines are of necessity much alike, this pamphlet and other advertising material of its type do more to instill public confidence in the airlines than a much greater amount of the more flashy advertising and publicity could do. A good sign is the recent trend of the airlines toward educational advertising in newspapers and magazines, and away from the more competitive and flashy type.

Boarding an airliner.

—Courtesy Braniff Airways.



—Courtesy TWA, Inc.

The famous Automatic Gyro Pilot is effectively a "third pilot".

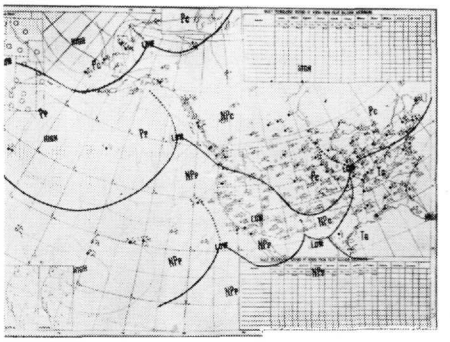
Until fairly recently a good deal of the air transport advertising did not make much mention of the safety factor in air travel, or if it did such mention seemed to have been subdued in the background, as if something almost to be taken for granted. Passenger comfort and convenience were and still rightfully are items to stress. However, this operations pamphlet brings out in positive and unmistakable

terms that safety *always* is the first factor in the dispatching and flying of planes. Passenger comfort is rated as the second consideration and schedule performance the third.

With the explanation of revised minimum flight altitudes to be adhered to henceforth, there is definite reason to hope and to believe that the aviation nightmare of an airliner crashing into a mountainside is now a thing of the past. Airlines which operate over mountainous terrain are requiring their planes to maintain flight levels considerably in excess of the margin required by federal regulation, so that they will clear the *highest point* of land for an airway width of from 50 to more than 100 miles by a distance of *over half a mile*. Maintenance of prescribed flight altitudes is rigidly enforced, and an automatic recording barograph in each plane is being used to provide a continuous positive check.

Flight planning and dispatching of scheduled flights are two of the most vital airline operations. Thoroughness and the most careful consideration of every factor relative to complete safety are characteristic of the manner in which every airline requires its flights to be planned and dispatched. Pilots and dispatchers must both make a complete study and analysis of the complete weather information at their disposal, and both must agree that the weather is flyable with complete safety before any flight is ever attempted. The idea that any pilot of any airline is ever "pushed" to make a flight against his better judgment is too ridiculous for consideration. If all phases of flight planning and dispatching operations were understood by the public, many of the fears and doubts so prevalent today would no longer exist.

When weather conditions are not favorable for a flight, the flight is either held on the ground at its point of origin or en route for an improvement in weather, or it is cancelled. An apologetic attitude has been the characteristic one assumed by the airlines in explaining delays and flight cancellations to passengers, inasmuch as passenger comfort and convenience may be sacrificed somewhat whenever such action is necessary. It is to the credit of the airlines, however, that their general policy is to inform passengers straightforwardly before a flight as to the possibility of delays or cancellation because of weather, and to explain to them in a frank manner that any such action is positively in the interest of the passengers' safety. Complete weather information is always available to passengers and others on request at airline operations and traffic offices.



—Courtesy TWA, Inc.

Weather maps and data—all-important factors in flight control.

Past history and present facts point toward a future of certain increasing expansion for the air transport industry. Public confidence will probably lag behind technical progress for a considerable time yet, but gradually the inertia of public reluctance will be overcome, by education more than any other single element. As people become more and more educated on the facts of commercial aviation they will come to see it in the same light that those see it who are intimately connected with the industry in their daily lives; as a vast enterprise in which hundreds of airliners daily take off, fly, and land at their destinations with the regularity and uneventfulness characteristic of an efficient, reliable public service.