

The Skies

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Can Be Made Safer!

With no punches pulled,
a controversial expert tells
what aviation must do to prevent future tragedies

WE CAN AND MUST make our skies safer. We must improve air safety or risk disaster because it is a fact that with today's aircraft speeds the human eye cannot see far enough nor the human brain think fast enough to protect the lives of passengers.

At the Federal Aviation Agency, from which I recently resigned, we have worked tirelessly to develop and install modern methods and instruments. Why then, you ask, do we continue to have tragic accidents such as the mid-air collision of two giant airliners over New York City last December? What forces and what derelictions hold back safety?

Our problems involve men, machines, and money; but before we discuss them in detail, let's take a quick look at the job to be done and how it has grown.

Some years ago, as a junior member of a military board, I helped choose the site of the Air Force's Bolling Field across the Potomac River from the Washington, D.C., National Airport. Today, Bolling is inadequate. Before I resigned, I recommended that it be closed. This change has occurred in my own lifetime.

In 1938, we had about 29,000 planes aloft. Today, there are more than 109,000, including 170 civilian jets, 70,000 other private and business planes, and 30,000 military aircraft.

During 1959, control towers operated by the FAA handled more than 27 million landings and take-offs.

The Federal government inspects and certifies every new aircraft to make sure it is as safe as preliminary examination can make it. On the turbo-prop Electra plane alone, government personnel expended 19,000 man-hours of engineering effort, exhausting every expected contingency. Still it was not enough.

The FAA works with aircraft, pilots, flight engineers, navigators, mechanics, dispatchers, instructors, airports, repair stations, airline operators, crop dusters, manufacturers, and almost everyone else connected with aviation. On any given day, the air is crowded with planes, sometimes as many as 8,000 at once, mostly clustered around cities and along the Federal airways. Each has a right to his share of the air space.

The Problems of the Air-Safety Program

The FAA provides service day and night, seven days a week, 365 days a year. FAA personnel must endure the hour-by-hour tensions of daily operations plus the awesome concern of what could happen.

Tomorrow always brings more speed. Not many years ago, passenger planes flew 180 miles per hour. Today, jets travel 600 mph. By the end of this decade, I am convinced that passenger planes will fly at three times the speed of sound, or nearly 2,000 mph.

With a fast-increasing population of planes, plus a multiplication of speeds as a daily diet, how can the FAA best discharge its duties?

First, there is the need for money, which until five years ago had been virtually ignored.

Most experts will agree with me that no mid-air collision is caused by a single factor or fault. It happens through a combination of rea-

sons, including the fact that for a decade appropriations were not available for the development and purchase of equipment that would have prevented disaster. For many years we slept. Now we are reaping the harvest of that neglect.

Despite increasingly generous appropriations over the last five years, we cannot solve our problems overnight. Scientific solutions must have time for conception and maturing through trial and error. Progress in science is evolution, not an explosion.

But there is another reason for a lagging air-safety program. It concerns men and human nature.

Very early in the life of FAA, we came to feel that our crowded skies made it imperative for a pilot to remain in his cockpit during flight. You may recall that newspapers reported several near misses two years ago. In one encounter, an Air Force pilot told of a DC7 which approached him and passed without once changing course or taking evasive action. We investigated and found out why. The pilot of the DC7 had been back in the passenger cabin socializing.

When we fined him for violation of regulations, we were called a "childish Gestapo."

Stronger words were on the way.

How Old Can a Good Pilot Be?

We became concerned about the physical efficiency of pilots assigned to 600 miles-per-hour jets. At what age should a pilot be grounded? Three leading European airlines had designated 55 and 60 years. We consulted medical authorities familiar with the problem because 40 U.S. airline pilots already were over 60. By 1967, this group would number 250. Moreover, they had seniority and first choice of the fast new jets. Half the pilots on one line's jet roster already were over 60.

Eventually, we adopted a rule that the age limit for U.S. airline pilots be 60 years. And again, a thunderous protest.

Opposition to another FAA policy erupted violently in an adjacent area. Between 1950 and 1959, 7,000 Americans were killed in the field of general aviation. Of these, 3,700 were private pilots, 3,212 were passengers, 164 were crewmen or students, 54 were crop dusters, 101 were persons killed on the ground.

Why so many deaths in the aviation field, we wondered. One soft spot in our safety standards was the horse-and-buggy concept of medical examination that had been tolerated since 1945.

After normal rule-making procedures and hearings, the FAA ordered a return to the earlier policy of designating qualified examiners. I do not believe the order was unreasonable, but again there was an outburst of protest.

Harassment by certain groups, in my opinion, has surely served to undermine the confidence of American citizens in the policies of their government's aviation agency.

Constructive criticism was always welcomed during my tenure of office. Open discussion is essential to free government. Private rights must be protected from official abuse; but at what point should a selfish interest give way to public interest?

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