



Each plane gets a preflight check. Here, jet exhaust is being inspected.

Safer Skies (Continued)

I have in mind the crash of a plane last fall, killing 22, mostly young football players and students from California. The plane's pilot, who died in the crash, had been the subject of recent FAA hearings which convinced examiners that he had violated regulations and demonstrated a lack of responsibility and judgment. We revoked his license, but he continued to fly, pending his appeal to the Civil Aeronautics Board as permitted by law.

But the fact remains that he and 21 others died—despite the evidence that he had previously demonstrated bad judgment. How long should the public's security have to wait for the surrender of lesser personal interests?

The Congressmen who wrote our aviation laws had in mind a noble objective and a procedure for achieving it. One of them said: "Regulations are irksome things . . . but the test must be the protection of the public."

"Any tendency to proceed with caution in promulgating and enforcing regulations to promote safety must be avoided at all costs, even at the risk of being charged with undue harshness . . ."

If private interests as well as public officials would accept those principles, we could hope for greater safety.

What a boon to air safety it would be if FAA personnel could spend their time in pursuit of urgent technical and scientific objectives instead of having to rebut wild charges and pressures!

Technical Development Needed

Besides money and men of good will, we need machines.

Safety in our skies demands greater harnessing of electronic instruments to flight objectives. A few are already here, and others are on the way; but some present problems continue to baffle modern science.

One innovation which is nearly here is a blind-landing system. Today, we have only a blind-approach system; it brings you to the airport's threshold. This is not a landing system. The final



When the choice is yours ...

choose ATLAS

Step up to better tire performance... to the better tire quality your car now needs.

Your car was easier on tires when it was new. Shock absorbers, steering, brakes, wheel alignment were at their best. But now you've added on the miles, your car is tougher on tires. Atlas Tires are built for this harder kind of service. They must pass 87 grueling laboratory and road tests to prove their extra stamina, extra safety. And best of all, you pay no more for Atlas quality.

Sold at more Service Stations than any other tire! Service station men, who know tires and tire performance, recommend Atlas Tires. 38,000 dealers in all 50 states and Canada sell them. Wherever you go, you're never far from Atlas service!



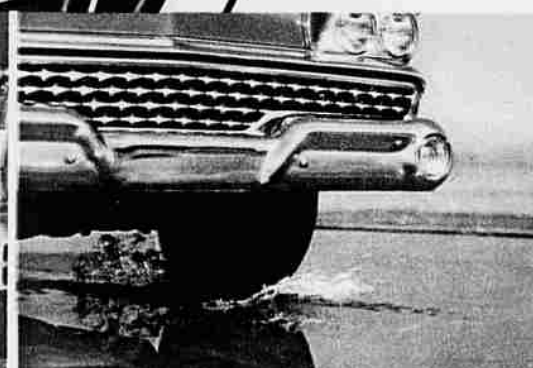
The ATLAS Plycron Cushionaire® Tire tested and proven for all-purpose driving.



1. **LONG-MILEAGE ATLAS TIRES** are built to give you greater safety at modern highway speeds. Yet Atlas Tires cost no more than ordinary tires.



2. **LABORATORY TESTED** at speeds faster than you can drive, Atlas Tires prove their extra stamina under conditions of unusual distortion.



3. **EXTRA SKID-RESISTANCE.** Atlas Tires prove their stopping power on wet, polished surfaces—far more slippery than you're likely to encounter.



4. **ATLAS CUSHIONAIRE TREAD.** Its famous traction and mileage result from testing hundreds of tread designs in laboratory and actual use.

*Trade-marks "Atlas", "Plycron", "Cushionaire" Reg. U.S. Pat. Off. © 1961 Atlas Supply Co., Newark 2, N. J.

process of landing is still done by the pilot. But I can assure you that we will soon have a blind system that will touch down and roll the plane to a stop. I flew one recently, or rather it flew me.

We are trying, but with seemingly

endless frustrations, to develop a device which will prevent mid-air collisions. It has been calculated that two pilots of jet aircraft approaching each other on a collision course at a speed of 600 miles per hour could not save

themselves even if one pilot sighted the other at a distance of 1½ miles. Human reactions are too slow. If we succeed, the new instrument will "sense" an impending collision from afar and will automatically alert the pilot or guide

the plane into a safe course.

A third new device is symbolized by a radio tower recently erected above the FAA research center near Atlantic City, N.J. It contains a special radar designed to determine the altitude of

aircraft within its range. FAA radars now show only a plane's direction and distance. When this new device is perfected, it will add the third dimension—altitude. Then a controller in his tower can "fix" each craft precisely in

relation to every other, and safely assign different levels to pilots who enter the area. With good luck, this instrument should be in use by 1963.

Perhaps the most significant safety development of all is the system I

mentioned in my letter of resignation to President Eisenhower. In brief, it is an electronic brain called a data-processing central. Nicknamed the DPC, it is really a memory system into which is fed the flight plan of every plane in its control area. Then the "brain" takes over, calculates arrival time over check points, probes the airways for potential conflicts, assigns alternative routes if trouble lies ahead, and keeps records on the positions of all aircraft. The first DPC will be installed at the FAA Boston control center this year, and is expected to be operating by 1962.

Identifying Planes

Finally, there is the transponder. Consider the problem of an air-traffic controller who sees from 20 to 50 identical blips representing planes on his radar screen. Until recently, no practical method existed for distinguishing one aircraft from another. Occasionally, a puzzled controller would ask a plane to perform some unique maneuver and then watch for it among his radar blips. The transponder reinforces the radar signal and adds additional marks to its appropriate blip. When the pilot presses a button, for example, an electrical device creates an effect which is visible on the radar screen and permits the controller to identify the blip.

Why not put a transponder in every plane? FAA rules now require airlines to install all-weather radar, costing up to \$25,000 each. The regulation flight recorder now required by every passenger plane costs from \$5,000 to \$7,000. Transponders are presently in use in passenger jets. Whether to add them to all craft in view of other forthcoming instruments is a question now under study by the FAA. Congress will undoubtedly examine it when they pass on future expenditures.

The Program Can Work

In the beginning I observed that the air-safety program stemmed from three things—men, machines, and money. As a private citizen, I now feel that Congress keenly realizes its responsibilities for supplying funds which will enable the FAA to meet the requirements of aviation today, next year, and 10 years hence. This gift to the American public lies in their powerful hands.

As for those men who represent special interests, I would remind them of the deeply felt admonition of Rep. Oren Harris, given the year before Congress passed the Federal Aviation Act in 1958. He said: "In achieving maximum safety standards possible in the public interest, all segments of aviation have a responsibility to give and take for the common good."

Only selflessness and love of humanity will dissipate the political and emotional pressures which some individuals continue to exert against certain aspects of the FAA safety program.

If we are to be truly safe in our skies, every leader of every segment of America's great aviation industry must act with a good conscience.