

tive is to see that any system adopted for national use, and particularly one that may become a regulatory requirement for flying in certain airspace, is operationally and economically acceptable to general aviation. AOPA's stated objective is for the development of a simple proximity warning device that could become a building block for a sophisticated collision avoidance system (CAS). The PWI would merely give the pilot warning of the presence of another aircraft, whereas the CAS would also indicate to the pilot what evasive action should be taken. Obviously, the CAS must incorporate a highly accurate detection and ranging device, coupled with altitude information, and then process this through a computer to give the pilot evasive instructions. The airlines currently are pushing a cooperative CAS which would work only with other aircraft having the same equipment. Essentially, this is the system developed by McDonnell Aircraft with a current price tag of \$60,000 per installation. The production price has been estimated from that figure downward to \$30,000. We recognize that the airlines must have some system to protect them from themselves in order to avoid a monstrous catastrophe such as a collision between two 747's with four hundred passengers each. However, it is also obvious that there could be some misguided action to try to force general aviation into using any basic system adopted by the airlines. A \$30,000-plus device certainly is not suitable for general aviation.

We have recommended to the Administrators of the FAA and NASA that the two agencies initiate a joint or cooperative project for the development of a proximity warning device that is economically and operationally suitable for use by all civil aircraft. This would be done through cooperative use of the expertise, manpower and R. & D. authorizations of the two agencies. NASA in particular has a rather large budget for aeronautical research. Congressman Fascell has introduced a bill, H.R. 11677, directing the FAA Administrator to research the development of such a device.

GENERAL COMMENT

There has been a considerable amount of pressure from some quarters for "positive control" of all aircraft around major terminals and in the lower airspace along busy airways. This would require an instrument rating, a transponder and IFR type equipment in the aircraft. Positive control is not a guarantee against collision, since all the elements of positive control were present in the collision over Staten Island, N.Y. on December 16, 1960, between two airliners in which 134 people were killed.

The FAA currently has proposals outstanding for lowering positive control to 18,000 feet and instituting controlled VFR in such airspace. AOPA is on record as opposing the former and encouraging the latter, although we do not agree with the rules proposed by the FAA, particularly with respect to the requirement for a radar transponder on the aircraft.

We now understand that a number of in-house proposals are being evaluated by the FAA staff with regard to imposing positive control down to the lower altitudes on some of the more heavily traveled airways and possibly in some of the busier terminal areas. These proposals are a direct outgrowth of the public furor created by misleading reports on the Asheville collision. However, they still would not have prevented the Asheville collision where both aircraft were on IFR flight plans and were under the control of the Asheville ATC facility. Asheville has neither primary nor secondary radar, thus making the addition of a transponder requirement irrelevant. Likewise, these proposals would not have prevented the Dayton collision. In fact, they would not have prevented any of the most disastrous collisions over the last few years, such as TWA and United over New York City or Eastern and TWA over Long Island.

The current in-house proposals being considered by the FAA would, in effect, build a series of fences across the navigable airspace and impose extremely burdensome restrictions on general aviation aircraft for the use of this airspace, or to even be able to get through it from one side of the fence to the other. They also would add a great burden of additional traffic and workload on the controllers at a time when testimony before committees of the Congress indicates that the FAA does not have enough controllers and may have to curtail services if the FAA appropriation request suffers any significant cutbacks. How this great additional workload would be absorbed in the air traffic control centers, towers and flight service stations has not yet been developed by the proponents of these proposals.