

There is also work that we can do on the airman end, in helping to reduce cockpit workload and particularly to continue education on scanning and keeping a sharp lookout at all times.

In summary, I think that it is going to take a lot of actions, continuous work, all of which will contribute to solving the problem. But as far as we can see, there is no single, dramatic solution to the problem at all.

Thank you very much.

The CHAIRMAN. Does that complete your testimony for the entire group?

General McKEE. This completes the testimony.

The CHAIRMAN. I want to thank all of you for coming today.

I might repeat for the benefit of those who were not here when we commenced that this is not an investigation of the Asheville accident. This is an investigation into what the procedures are that are used so that Congress can be informed. This is not a witch hunt. We are not trying to pin the blame on anyone. We are not the investigators. These men are the experts. I wanted, as the other Members of Congress did, to have them here to tell the story.

We will observe the 5-minute rule this morning.

I have several questions combined into one. I thought maybe I could give them all at one time, combining them.

Can you tell us briefly about the current work on the collision avoidance system and when improvements in this area might be expected? Also, is it necessary at this time to equip all aircraft with devices which would contribute to a collision avoidance system? Third, what will be the cost? Can you have a collision avoidance system without having equipment on all aircraft?

This all pertains to one subject.

General McKEE. There has been intensive work going on, Mr. Chairman, by the FAA, by industry, and by the airlines on a collision avoidance system. This has been a subject of deep concern for a number of years.

The latest development by industry, still in the development stage, and which has not been proved out yet, is a rather complex collision avoidance system. There are a number of companies, three, including McDonnell, Collins, and Bendix, who have been working on this with the airlines and with us.

The way it looks now in our best estimate, if this proves out to be an effective collision avoidance system, it will be about 5 years before you could get it installed.

It would cost between \$30,000 and \$40,000 to equip each airplane. The airlines are willing to spend this amount of money if they can get an effective system, but I should point out that this is only effective as between one airline aircraft and another, and would not be effective as between an airline aircraft and a general aviation aircraft.

If you look at the number of general aviation aircraft in the country, about 100,000, it is obviously impractical to equip all of those airplanes with a device that expensive. We recognize this, and FAA has instituted a development program in an effort to get a system much less expensive that could be installed in all general aviation aircraft.

In all honesty, I must say that that is some time away and we have no breakthrough as of this time in this area.