

I had questioned in my own mind something you brought up a few moments ago, and that is that in the Kennedy area, let us say, this screen would be so cluttered that you could not read any of it.

Mr. RUBY. This is exactly what I had reference to. The size of the scope face, which is the video tube, has to keep increasing in size in order to accommodate the total number of airplanes that can be providing the alphanumeric information on the scope.

Now if you get so many together, they will begin to overlay each other so that you cannot read any of them. There is only one solution to that. That is a huge scope. And those get a little hard to handle from a technical standpoint. But a small scope can clutter so badly that you cannot read anything.

Mr. FRIEDEL. Don't they have large scopes in the towers?

Mr. RUBY. They are installing larger scopes. What I am really saying is if you take New York, for example, three airports, brother, you are going to have some trouble keeping this stuff sorted out where you have radars picking up this stuff for the whole area short of encoding, so that the receiver, for example, that is picking up Kennedy information is not picking up Newark and also La Guardia. But then when you do that, you run the risk of getting conflicts that are unacceptable because the man who is dealing with the Kennedy scope is not aware of an overfly of a fellow from the La Guardia or Newark scope.

What I am saying is that in a multi-airport system, to keep them sorted out and separated, you have to have one scope that covers the whole area.

Mr. KUYKENDALL. We have gotten the illusion here of a slight panacea that maybe we are too optimistic on.

Mr. RUBY. All I am trying to do is put in a word of caution and let us not be overly optimistic on something that will not do the job with real high-density traffic.

Mr. KUYKENDALL. Do all of the major airports such as Washington National have backup power sources and backup facilities or equipment for their radar? We have had a couple of instances, I believe just this year, of radar failure in the Washington area.

Mr. RUBY. I can't answer that per se, airport by airport. I think most of the FAA facilities, and they are better prepared to answer this question than I, do have backup power sources. For example, if an antenna system becomes inoperative, there is not a standby antenna system, at least not to my knowledge.

Mr. KUYKENDALL. Lastly, the North Carolina accident, of course, from what we know about it we know they were outside the surveillance radar coverage, and I was told by a gentleman from FAA, either General McKee or one of his assistants, that the surveillance radar installations are now down to airports of approximately 65 transactions a day.

Would you feel that the lowering of this appreciably down to maybe 25 transactions a day for the installation of surveillance radar would be an appreciable addition to safety?

Mr. RUBY. I can't answer that off the top of my head except in a speculative way. This is really not total speculation. Anything that we do that will afford radar surveillance will help.

But bear in mind again some of the small airplanes do not present a good radar target. So without a transponder, it is possible to have certain airplanes in the air that the ground radar won't see.