

Since radar is the foundation of our current-day traffic control system, and in the foreseeable future it still remains the foundation of what the controller will use. I think we must enhance the utility of that radar so that it can serve the controller's needs and so that he can perform the service the public is coming to expect of him.

I know that controllers will say that automation increases their workload because they have many buttons to push. It is for that reason in our testimony we say don't force the controller to make up for the lack of capability in the aircraft. Try to make the aircraft work with the controller so that the controller can in turn help the pilot. For this reason we recommended a 4096 transponder so that when a controller's automation gear, which works with that device, comes into play, it can automatically acquire the target without having him press a lot of buttons. It is for that reason we have recommended the automatic altitude readout so that the black box will do the work rather than forcing the controller to press buttons.

Mr. DEVINE. I did not get a direct answer to my question. The only answer I have is that it was recommended that there be more traffic controllers. I personally have a great deal of respect for these men as human beings here and they are under great stress, emotionally and psychologically, particularly under crowded conditions and under IFR conditions. Particularly when they are trying to communicate with incoming aircraft, either commercial or private.

Do you find that the air is cluttered with so much communication that it is confusing to both the pilot and the traffic controllers?

Mr. SELTZER. From my personal observation in riding jump seat in air carrier aircraft I would say the situation in the terminal area is more of a problem than it is in the en route area.

During recent years FAA has adopted procedures which permit the omission of position reports by the pilot when they are under radar surveillance. This has helped tremendously. But lacking altitude information the controller is forced to verify altitude on each new contact with a pilot. In the terminal area the problem is more serious.

Mr. DEVINE. Most of us on this subcommittee have, either independently or as part of a group, visited a number of towers, including JFK. It is pretty rough in there, as you well know, when you have six or eight men all talking at once. I think this is one area where something must be developed.

Mr. TIPTON. Just to interrupt at that point, you said you didn't get a direct answer to your question, and I don't think you did. I will now answer it directly. I think that the controller's stress and strain is a problem. It is for that reason that we are struggling here to get an air traffic control system which will accommodate the controller's requirements so that he will not have to do so much pick and shovel work of his own. I think it is urgent that we make progress along these lines. Every recommendation we have made here I think would make the life of the controller easier.

Mr. DEVINE. I recognize the sophisticated equipment continues to be developed, yet the air traffic controller is a human being. He recognizes every minute that a wrong decision on his part may be calamitous and this puts great stress on him.

Mr. JENSEN. May I just add, Mr. Devine, in a direct comment on your question, one of the things that is going on today is the use