

Mr. FRIEDEL. You may proceed.

Mr. TIPTON. I appreciate that very much because I know how hard-pressed the committee and its members are.

Before starting my testimony, I would like to introduce my associates here. On my right is Gen. Clifton Von Kann, vice president of operations and engineering of the Air Transport Association, long familiar with military flying operations.

On my left is Walter Jensen, assistant vice president of the association covering that same area. Mr. Jensen is an experienced airline pilot and has spent a good part of his professional life in the study of the air traffic control and air navigation system.

On my far right is Stanley Seltzer, the head of our air navigation, air traffic control group. Mr. Seltzer is an experienced air traffic controller. I think he was the third head of the Washington tower.

With that, I would just state for the record my name is Stuart G. Tipton. I am president of the Air Transport Association, which includes in its membership virtually all of the scheduled airlines of the United States.

Last April, we appeared before the full committee to discuss several general areas of safety which we believed to be most deserving of the committee's attention. Today our discussion will largely focus on ways to reduce the risk of midair collisions and especially to bring before the subcommittee recommendations concerning those elements of the national airspace system which are the Federal Government's responsibility.

PROBLEMS OF GROWTH

The unprecedented increase in demand for passenger and cargo capacity is spurring a massive airline investment in new aircraft. Outstanding orders as of June 30, 1967, plus aircraft already delivered since the beginning of 1966, total 1,180 new aircraft valued at \$7.7 billion. Sizable orders have been placed since June 30. The airline fleet, now some 2,000 aircraft, is forecast to grow to approximately 3,500 aircraft by 1977. The general aviation fleet, however, consists of some 104,000 aircraft today and is expected to increase almost twofold by 1977—to 180,000 aircraft. FAA expects at least 8,000 of these to be business jets. So business jets will outnumber airline jets by more than two to one.

To relate this more closely to the demand for air traffic control services and facilities rendered by the Federal Government, let us examine the number of controlled aircraft handled at FAA air route traffic control centers. Last year, traffic under center control reached about 14 million: by 1971, FAA forecasts a figure of 22 million, climbing to 31 million by 1977. (See fig. 1.) A sizable portion of this increase is forecast to be general aviation activity.

A better overall perspective of the relative traffic demand upon FAA traffic control facilities is shown by the number of aircraft operations at airports controlled by FAA control towers because all aircraft landing or taking off from these airports utilize some portion of the services provided by the control tower. There has been a doubling of traffic from 1961 through 1966, with FAA controllers handling nearly 45 million landings and takeoffs last year. This traffic volume will again triple by 1977 when FAA expects controllers will be called upon to handle almost 140 million landings and takeoffs. By that time, gen-