

of the need for immediate implementation of the evacuation procedures.

On the larger aircraft of the future, picture if you will, a plane the length of a football field, though some will be longer, with a wing span equal to the approximate width of the football field, while the fuselage is 20 feet or more in diameter. Then compartmentize this 20-foot wide and 200-foot length and you can perhaps have some idea of crew communication problems once the main power supply has been cut, should they try to coordinate evacuation procedures from exit and off the wing tail assembly.

Emergencies have arisen on the comparatively small present-day jet equipment where only a part of the flightcrew knew of the need to evacuate the plane. On the larger aircraft, the possibility, and more specifically probability, that a similar condition of emergency might arise in one area without being known to all flightcrew members simultaneously increases in direct proportion to the increase in size of the aircraft. Because of the probability of a situation of this type, it is suggested that a crew emergency signal be installed on all future aircraft. It can be any type of sound the Government, airframe manufacturer, or air carrier should want.

A signal serving the above function can be and has been developed. It can be triggered from any crew station to sound an alarm at all crew points. It can be radio controlled, sonar controlled, or operate on an interconnection 28-volt closed line that when broken actuates the signal. Disruption of power due to plane breakup would also activate it. It can be operated independently on any of the systems described above on it can be tied into the passenger alarm system and be either battery operated or operated from a self-sustaining power unit, rechargeable from the main powerplant. A signal of this type would operate instantaneously under conditions of emergency when the main powerplant is inactivated, though it could be tripped by the pilot so that it would not activate except by manual tripping. One of the two main functions of this signal would be to alert the entire crew that an emergency had arisen and that everyone was to leave the aircraft.

As a second function, this signal could further be tied into the opening of the exits along with the strobe and constant light and with an amplification of tone would then serve as an important means of furthering passenger exit awareness. The signal would automatically stop at those exits that were not open.

A signal of this description should, in the opinion of this witness, be a standard part of all types of future aircraft and should be considered as a "no-go" item meaning that if, on the preflight check of the aircraft it did not work, the trip would be delayed until the malfunction was corrected. The signal should be armed or set in the ready position on a block-to-block basis on each flight segment.

Signals fitting the above description are available and unless the aircraft of the future are equipped with just such a warning signal to alert all crew members simultaneously of immediate danger, it is almost a foregone conclusion that the aircraft of the future will never be successfully evacuated. Because of the size of future aircraft and the complications of getting passengers from the fuselage on to the ground, this signal is considered an absolute must.