the elaborate oxygen system used in the present-day jet, although first aid oxygen—for medical purposes—would still be required. However, until such time that the fuselage structure fulfilling the above specifications has become a reality and as long as there can be decompression that would result in oxygen loss below a livable level, the following is submitted for consideration:

There be an oxygen system in all future aircraft similar to that carried on the present-day jets with the addition of a light located in each oxygen housing compartment that will be automatically actuated by the opening of the compartment. This light would serve to get the attention of the passenger and would also aid him in getting the mask into operation.

It is suggested that a design of overhead racks be such that they will contain items stowed therein during the unusual motion of the aircraft during an emergency landing. Present racks are so designed that blankets and coats fall from them, covering the passengers, thus causing unnecessary and perhaps fatal delays in evacuation.

The large exits are extremely heavy and it is suggested that a power type of gear be installed in the opening mechanism—one that is similar to the power steering of an automobile. Without a power unit to assist in the opening of these exits, it is quite conceivable that valuable time needed for evacuation will be used in the opening of the exit.

The aircraft manufacturers report that numerous exits or openings in the fuselage weaken the structure. A means of obtaining the necessary exits may be the explosively created passenger egress system. It can be armed by the cockpit, activated by the cabin crew, works with almost 100-percent reliability, deploys a slide as it is activated, can be replaced by a simple and foolproof method, and does not compromise structural or aerodynamic integrity. An explosive-powered implement cuts an exit in a prescribed area, following a prescribed outline, and as the newly cut out exit falls to the ground, the slide is activated. This system would seem to be worthy of investigation and study.

It is suggested that fabrics used for crews' uniforms, both pilot and flight attendant, be made of the clothing fabric that is the most fire resistant obtainable. This is important not only for the crew survival, but for passenger survival, as the passengers must look to the crewmembers for directions. Additionally, such items as fireproof gloves for the crewmembers should be considered, as well as other late developments in this area. It is felt that crew uniform fabric is so important that if need be perhaps uniform fabrics should be regulated to the same degree as cabin interior fabrics.

Based on the following, suggestions are made for more realistic evacuation plans and crew coordination:

Currently, plans are to have 10 exits 42 by 76 on a large aircraft that is soon to be in operation. Also, current plans are that the plane will carry a maximum of approximately 490 passengers plus a crew of 15 to 20. Based on present thinking and past experience, during an emergency approximately one-half of the exits will be unusable. Considering this craft and the probable availability of exits, this sets a probable number of evacuees from each exit at somewhere over 100 people in 90 seconds. The 90 seconds must include slide inflation time—maximum of 10 seconds, plus an allowable time of 5 to 8 seconds for the flight attendant to get out of her seat, open the door and activate the