

EMERGENCY LIGHTING AND EXIT AWARENESS MOCKUP TEST ITEMS

1. Interior lighting levels :
 - (a) Conduct test to verify 0.05 foot-candle average aisle illumination.
 - (b) Conduct test to determine acceptable variation from average illumination levels.
 - (c) Conduct test to establish exit area illumination levels with the 0.05 foot-candle average aisle illumination.
2. Exit awareness :
 - (a) Evaluate exit signs and other tactile/visual aids for brilliance level, general geometry, etc.
 - (b) Evaluate the above both with and without simulated smoke, if feasible.
3. Exterior lighting levels :
 - (a) Establish light levels and satisfactory patterns for evacuation.
 - (b) Determine adequacy of self-illuminated slides.
4. Warning studies :
 - (a) Human factors studies of alerting devices to determine the worth of devices which will alert passengers that an emergency situation exists.
5. Inside-outside lighting levels :
 - (a) Determine adequate levels of exterior lighting and contrast ratios with interior lighting, conduct tests with 0.05 foot-candle average aisle illumination.

EVACUATION SYSTEM DEVELOPMENT

Studies of evacuation demonstration and actual accident reports indicate that some improvement in escape means can be developed in the near term for existing transport models. The industry proposes development effort in the following specific areas :

EXIT SLIDES

- (a) Means to assist passenger transition from the exit door onto the slide.
- (b) Means to assist passenger transition from the slide to the ground.
- (c) Means to increase passenger confidence in the use of slides.
- (d) Improve resistance of slide puncture due to small fire sources near the ground base.

OVERWING EXIT EGRESS

- (e) Means to assist rapid egress from the overwing exits to the wing surface such as a step to reduce the distance, and a non-skid surface.

EXIT ACTUATION

- (f) Means to assist rapid and positive opening of very large exit doors.
- The original AIA proposal included development work toward possible improvement in the seat to Type III and IV exit opening arrangements due to recent FAA interpretation of the existing standards for the seat to exit relationship. No further work is proposed in this area.

AIA proposes to perform a system analysis of the results of airline and industry evacuation demonstrations already conducted to further improve the understanding of evacuation system restraints (time consuming factors). It is necessary that the FAA make these airline evacuation test results (without identification of specific airlines) available to the AIA to accomplish this analysis.

Results of the development work of items (a) through (f) above will be used to propose modifications to regulations or TSO's.

PROGRAM MANAGEMENT AND AIA/FAA COORDINATION

The proposed AIA Management Organization Chart is shown as figure 3. An overall manager will be appointed from the AIA Ad Hoc Committee membership. Assistant managers will be appointed from each of the AIA member companies participating in a major sense in the development program. In addition, a technical manager will be appointed from that AIA member company doing the largest share of the development work in each of the technical development areas.

It is proposed that scheduled coordination meetings with the FAA be held at three-month intervals. The first three meetings, that is, those held during the 3rd, 6th, and 9th months of the program will be held at three of the participating companies. During the development program informal coordination meetings will be held timed to development test milestones. The final coordination meeting would be held at the FAA offices in Washington, D.C.