

## GUIDELINES FOR CREWMEMBER TRAINING ON AIRCRAFT TAILCONES AND APPROVAL OF TAILCONE TRAINING DEVICES

(NTSB SAFETY RECOMMENDATION A-91-6).

- a. This bulletin sets forth an acceptable means for approving tailcone training devices as well as guidelines for conducting alternate training through tours of aircraft having tailcones. The revision is necessary because of the development of new and innovative training devices and recent experience with aircraft incidents/accidents in which tailcones were involved.
- b. Tailcone training device. Any tailcone training device should meet the following criteria:
  - (1) The training device should replicate the dimensions of the physical space a person must occupy to operate the mechanism for opening the tailcone. Further, it should provide simulation of all obstacles which hinder free movement such as overhanging bulkheads, intruding cables, etc. The various locations of the tailcone release handle for different models of the same type of aircraft should be covered in differences training. (Either the use of pictorial or audiovisual training aids, or a visual inspection of the aircraft is an acceptable training method for these differences.)
  - (2) The ventral or plug door training device simulating the door at the pressure bulkhead leading to the tailcone should approximate the size and shape of the door on the actual aircraft. A door training device should approximate, within 10 percent, the weight of the actual door. If a shoulder harness is attached to the door in the aircraft that might interfere with the opening of the door, one should be similarly attached to the corresponding door in the training device.
  - (3) The operation of the ventral or plug door handle or other mechanism used to activate the door should look and operate in the tailcone training device exactly as it does in the aircraft. Other hardware such as door hinges should approximate the hardware in respect to size and shape. In addition, forces required to operate the manual release should be the same as those on the aircraft.
  - (4) The walkway or catwalk leading from the pressure bulkhead to the tailcone should approximate the actual width and length of the aircraft. If the trainer walkway differs by 10 percent or more from the dimensions of the actual aircraft, then training on the differences should provide information regarding this fact. This can be accomplished through pictorial or audiovisual training aids. A visual inspection of the actual aircraft which includes pointing out this difference is strongly recommended.

- (5) The emergency lighting available in the tailcone area of certain types of aircraft provides a low level of illumination. During crewmember training, the illumination of the tailcone training device should be maintained at a comparable low level.
  - (6) It is essential to maintain a training device in the same condition in which it was originally approved by the FAA. POI's should ensure that the air carrier's training program provides the name of the person responsible for training device integrity. A person specifically assigned to maintain training devices, or a training instruction supervisor, may have that responsibility. In addition, POI's should ensure that carriers test the accuracy of the operating forces of manual release handles on tailcone and ventral door training devices. Such testing should be performed and logged on a yearly basis.
- c. Aircraft familiarization tours. An air carrier may use a tailcone exit training device of such high fidelity and/or conduct differences training using pictorial or audiovisual aids of such quality that no further training benefit would result from a familiarization tour of the aircraft. In such cases, the POI may permit the air carrier to meet the entire training requirement of a particular aircraft without using the actual aircraft.
- (1) Air carriers which have a ventral (or plug) door training device, but not a tailcone training device, must conduct an aircraft familiarization tour of the tailcone area for initial and recurrent training. Each trainee will walk through the tailcone area. Instructors will ensure trainees are aware of the placement of the tailcone manual release handle on the aircraft and, as appropriate, other variant aircraft. When the air carrier has a method to operate the tailcone release handle without actually deploying the tailcone, then each trainee should operate the tailcone release handle. When the operation of the tailcone release handle releases the tailcone, then either the instructor or a trainee should operate the tailcone release handle while the other trainees observe. The instructor should ensure that each trainee understands the operation of the tailcone manual release handles.
  - (2) Air carriers which have neither a tailcone training device nor a door training device will conduct an aircraft familiarization tour as described in paragraph c(1). In addition, plug and/or ventral door training for air carriers not possessing a door training device must be conducted using the actual aircraft. Instructors will ensure that each trainee operates the plug and/or ventral door.
- d. Information about the use of training mockups may be found in ACOB No. 8-76-46, Crewmember Emergency Training; Use of Mockups (NTSB Safety Recommendation A-91-60).