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UNITED STATES OF AMERICA
NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C.

ISSUED: September 5, 1973

Adopted by the NATIONAL TRANSPORTATION SAFETY BOARD
at its office in Washington, D. C.
on the 22nd day of August 1973

FORWARDED TO:)
Honorable Alexander P. Butterfield)
Administrator)
Federal Aviation Administration)
Washington, D. C. 20591)

SAFETY RECOMMENDATIONS A-73-67 thru 70

A recent in-flight fire on a Boeing 707-300 (series) aircraft resulted in 124 fatalities and total destruction of the aircraft after a successful emergency landing. The in-flight cabin interior fire did not involve the aircraft's fuel but was fed by the interior's material.

Although the accident remains under investigation at the present time, and the cause of the fire has not been determined by the state conducting the investigation, the National Transportation Safety Board has been advised through its accredited representative who has participated in the investigation that the smoke origin was in the area of the aft lavatories.

The Board is also aware of and is seriously concerned over the number of in-flight fires that have occurred during the past several years as a result of ignition of flammable materials in lavatories of large jet transport aircraft.

A limited examination of such aircraft lavatories by our staff has disclosed the following: (1) no fireproof waste material containers are provided in the lavatories; (2) frequently, cigarette butts are found in waste paper containers during cleaning operations at the termination of flights; (3) waste paper fragments and other flammable materials, such as lint and dust particles, can enter inadvertently into terminals or electrical units; (4) full-face smoke masks with emergency oxygen bottles are

not provided for the cabin crew; and (5) lavatories are vented in such a manner as to exhaust any odors or smoke in the case of lavatory fires, thus precluding detection in the cabin area until a serious fire is in progress.

The National Transportation Safety Board, therefore, recommends that the Federal Aviation Administration:

1. Require a means for early detection of lavatory fires on all turbine-powered, transport-category aircraft operated under Part 121 of the Federal Aviation Regulations, such as smoke detectors or operating procedures for the frequent inspection of lavatories by cabin attendants.
2. Require emergency oxygen bottles with full-face smoke masks for each cabin attendant on turbine-powered transport aircraft in order to permit the attendants to combat lavatory and cabin fires.
3. Reevaluate certification compliance with section 4b.381(d) of the Civil Air Regulations on Boeing 707 series aircraft.
4. Organize a Government/industry task force on aircraft fire prevention to review design criteria and formulate specific modifications for improvements with respect to the fire potential of such enclosed areas as lavatories in turbine-powered aircraft operating under the provisions of Part 121 of the Federal Aviation Regulations.

The Bureau of Aviation Safety staff has briefed technical staff members from your Flight Standards Service, AFS-50 and AFS-300, as well as members of the Aircraft and Airport Operating Problems Branch of the National Aeronautics Space Administration.

If we can be of further assistance in this matter, please feel free to contact us.

McADAMS, THAYER, and HALEY, Members, concurred in the above recommendations. REED, Chairman, and BURGESS, Member, were absent, not voting.

Will - R. Haley, Acting

By: John H. Reed
Chairman