

110-650

AC NO: AC 150/5380-3

DATE: 6/28/68



ADVISORY CIRCULAR

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

SUBJECT: CLEANING OF RUNWAY CONTAMINATION

Cancelled see 3A

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1. PURPOSE. This circular provides information to the aviation industry relative to cleaning rubber deposits, oil, grease, and jet aircraft exhaust deposits from runway surfaces.
 2. BACKGROUND. Recent tests have shown that wet runway areas contaminated by heavy rubber deposits and/or oil and jet aircraft exhaust deposits provide approximately one-half the braking effectiveness of the same contaminated areas when dry, and as low as one-third the braking effectiveness of adjacent wet, clean pavement. These contaminated areas very likely have contributed to poor stopping ability on wet runways.
 3. RECOMMENDATION.
 - a. Runways should be cleaned as often as possible of rubber and other contamination. Chemical solvents have been successfully used for removal of rubber deposits on both portland cement concrete and asphaltic concrete runways. Some of these chemicals have a base of cresylic acid (a derivative of creosote) and a blend of benzene with a synthetic detergent for a wetting agent for removal of rubber on concrete runways. For removal of rubber on asphalt runways, alkaline chemicals are used. Three manufacturers' products which have come to our attention for removal of rubber deposits are:
 - (1) Tyfosol SP-0129 by the National Research and Chemical Company, 12520 Cerise Avenue, Hawthorne, California 90250 - for concrete only.
 - (2) R-5107 by DuBois Chemicals, Division of W. R. Grace and Company, Broadway at Seventh, Cincinnati, Ohio 45202 - for asphalt or concrete (Specification MIL-C-25107).
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- (3) Mangus #147X by Mangus Chemical, Inc., 38 South Avenue, Garwood, New Jersey 07027 - for asphalt (Specification MIL-C-22542) or Mangus #727 for concrete (Specification MIL-C-20207c). Mangus #755 may be used for cases of heavy rubber deposits (Specification MIL-C-25107) - for concrete only.

Manufacturers' instructions should be followed precisely in using these chemicals due to their highly toxic properties.

- b. Detergents made of metasilicate and resin soap can be effectively used to remove oil and grease from portland cement concrete runway surfaces. For asphaltic concrete pavements, an absorbent or blotting material, such as sawdust or sand combined with a rubber alkaline degreaser, may be used.
- c. Jet aircraft exhaust deposits can be cleaned using DuBois Chemical Company R-5107.
- d. Mechanical surface grinding machines have also been successfully used to remove heavy rubber deposits from runways.
4. HOW TO OBTAIN THIS CIRCULAR. Obtain additional copies of this circular, AC 150/5380-3, Cleaning of Runway Contamination, from the Department of Transportation, Distribution Unit, TAD-484.3, Washington, D.C. 20590.



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